



Green Paper

on the future
of work
2021

Labour,
Solidarity,
and Social
Security

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on the future
of work
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Green Paper on the Future of Work

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“Decent work for all
must be placed at the
centre of policies for
sustainable and inclusive
growth and development.”

ILO, Decent Work and the 2030 Agenda

> List of Abbreviations

ACT - Authority for Working Conditions
AI - Artificial Intelligence
BTE - Labour and Employment Bulletin
CC - Civil Code
CIRS - Personal Income Tax Code
CITE - Commission for Equality in Labour and Employment
COM - European Commission
CPCS - Standing Committee for Social Dialogue
CPT - Code of Labour Procedure
CRL - Labour Relations Centre
CRP - Constitution of the Portuguese Republic
CT - Labour Code
DCRF - Dynamic Reference Framework for Digital Competence
DGERT - Directorate-General of Employment and Labour Relations
DGS - Directorate-General of Health
EC - European Commission
ESC - Economic and Social Council
EU - European Union
GEP - Strategy and Planning Office
IAS - Social Support Index
ICT - Information and Communication Technologies
IEFP - Employment and Vocational Training Institute
ILO - International Labour Organisation
IMF - International Monetary Fund
INE - Statistics Portugal
IRCT - Collective Labour Regulation Instrument
LVFT - Green Paper on the Future of Work
LVRL - Green Paper on Labour Relations
MTSSS - Ministry of Labour, Solidarity and Social Security
OECD - Organisation for Economic Co-operation and Development
OHS - Occupational Health and Safety
OSS - Portuguese Psychologists Association
QNQ - National Qualifications Framework
RMMG - Minimum Monthly Wage
RRP - Recovery and Resilience Plan
RSI - Income Support Allowance
STA - Supreme Administrative Court
STEM - Science, Technology, Engineering and Mathematics
(CTEM in the Portuguese version)
TCO - Employed workers
TVDE - Private transport of passengers for payment in unidentified vehicles originating from an electronic platform
WB - World Bank

> Preface

We live in times of profound change and transformation in our societies and economies, with decisive challenges and opportunities that we must collectively seize.

It was with this mission that, in times of emergency and urgent response to the largest pandemic crisis of our century, we decided to launch the discussion and reflection with the Social Partners and Civil Society on the Future of Work, whose conclusions we present here in this Green Paper.

Four major key priorities have been identified.

First, Qualifications.

Qualifications are critical in a context of profound acceleration of the twin transitions - environmental and digital - we are experiencing and of the demographic profile we face.

Qualifications in terms of initial skills, lifelong training and retraining in areas that add value.

It is unanimous that qualifications are the driving force behind innovation, competitiveness, personal fulfilment and the promotion of equal opportunities. They are the truly effective instrument in breaking cycles of poverty and exclusion.

Therefore, we have collectively made a commitment in the European Pillar of Social Rights Action Plan to increase the annual participation rate of adults in continuing education and training to at least 60% by 2030.

An ambitious goal that requires focus and acceleration in investment in training and in the transformation of existing models for a real connection to current and potential labour market needs, greater effectiveness in social dialogue, better agility in the response and adaptability, with disruption of routine training resulting from the installed capacity of the system, which often does not add value.

It is with this objective in mind that we have prioritized the structural investment of 5.5 billion euros in qualifications in the Recovery and Resilience Plan and in Portugal 2030, and that in 2021 we signed an agreement with the Social Partners dedicated to Vocational Training, encompassing the assumption of priorities and

deep measures to transform the model.

The pandemic has shown that we can do much better by focusing on skills' priorities in emerging areas such as the digital economy, energy and green economy, or the care economy.

And it became even more evident that it is essential to mobilize resources for the professional retraining and qualification of People whose activity no longer has market value and who may have a huge opportunity in new areas that need resources. It is crucial to ensure that training is closely linked to the needs of the labour market.

Secondly, the Decent Work Agenda and the assumption of Work as a key value in social cohesion.

The pandemic also highlighted more clearly the parallel worlds in the labour market: People who are part of the regulated system, covered by collective social protection and traditional rights associated with labour law and a whole set of People who are on the sidelines of the system or in atypical situations that the model in-place leaves out.

The pandemic has given everyone increased legitimacy and responsibility to change what has to be changed. The aim is to ensure a universal Decent Work Agenda, in its different dimensions, to combat precariousness, give value to young people in the labour market, reconcile personal, family and professional life, real and effective social dialogue, enhancement of earnings from work, active and healthy aging at work, a social protection system that is inclusive and provides proximity and the effective integration of people from the most disadvantaged segments, who are far from the labour market.

The need to regulate new forms of work is also evident, namely the work carried out on digital platforms or the activity carried out remotely or in telework, in order to ensure that Work is in fact a form of inclusion and it promotes equal opportunities and not social exclusion.

In this sense, the Green Paper also points out ways to use artificial intelligence to minimize new risks, ensuring privacy and data protection, and also to take advantage of new technologies as a way of eliminating bureaucracy and ensuring greater effectiveness in the relationship between the State and citizens and businesses.

With everyone's mobilization and commitment, Portugal has all the conditions to be

the best country in the world to work in, asserting itself as a country of reception and hosting new Workers, including digital nomads.

Third, effective and real Social Dialogue.

Social Peace depends on real, productive and consequent social dialogue. In these times of accelerated and disruptive transformations, it is essential to be able to give new impetus and dynamism to social dialogue at the organisation level and in terms of collective bargaining.

A demanding challenge that needs new instruments, namely public policy instruments that:

- Guarantee participation in social dialogue on new forms of work and different groups of workers;
- Discriminate access to public incentives or support or public procurement according to the existence of dynamic collective bargaining;
- Prevent the void of collective bargaining, by blocking one of the parties.

Fourth, Inclusive, Close and Effective Social Security, with an essential digital revolution.

During the pandemic crisis that we have been going through, the Social Security system has demonstrated its importance.

Extraordinary reaction mechanisms were created to protect employment and income, workers and households, in extreme atypical circumstances, in which health reasons dictated profound changes to the normal functioning of society and economic activity.

The times we live in have made the need to collectively guarantee the sustainability of the system and its responsiveness and comprehensiveness even more evident. The social protection system is a dynamic and living system, which translates and incorporates the set of options that society takes, whether in terms of public policy or in terms of individual or group choices.

The pandemic crisis also came to demonstrate the strength of a mature Social State, of a society united around the immediate response that we collectively knew how to provide in order to overcome unexpected and critical moments.

It became evident during these times of maximum demand that only a public Social Security system can be the “safety net” for companies, workers and households. One in three Portuguese people have received extraordinary support since March 2020, while the system has maintained all normal Social Security activity, with the payment of social benefits to the usual beneficiaries.

The pandemic has also shown that we can and must do better than before in order to guarantee more inclusive, close and effective social protection.

The changes we are experiencing and are anticipating require a better adaptability of the social protection system to new forms of work, the simple and easy inclusion of all workers, regardless of legal ties, the personalization of responses, the diversification of funding sources and a digital revolution in the Social Security system to guarantee a relationship of proximity, effectiveness, efficiency and simplicity between the State, citizens and companies.

These are times of transformation.

These are times of enormous opportunities and the mobilisation of all who demand a new social commitment in which decent work is the transversal value that unites us.

A new social commitment based on inclusive, fair, collaborative, innovative and solidary working relationships.

We are a Country that has its greatest wealth in the People. Let us collectively know how to not only affirm it, but to guarantee it.

We are a Country for All and not just for some. Let us collectively know how to recognise the indispensable value of each one.

We are a Country of the Future. With a past and a present that teaches us, with the ambition of innovation and the necessary transformations, based on the decisive focus on qualifications regarding what drives us: inclusive growth.

**Minister for Labour, Solidarity and Social Security,
Ana Mendes Godinho**

The depth and speed of change in work is a hallmark of contemporary societies and economies and, crossing different vectors of transformation, it has been growing steadily. It not only concerns technological change or its impacts, or just the way in which production and labour processes incorporate technology, but also changes in labour relations, work organisation or the markets themselves, within the framework of broader cultural, social and economic changes, including those of digital transition and climate and energy transition.

Therefore, the reflection on the future of work from the perspective of public policies and on how to jointly act in the face of transformations is not about technology nor does it have a pre-defined horizon. On the contrary, such a discussion necessarily starts from the vision of the work we aspire to have in the future to the identification of the priorities and instruments we can mobilise to collectively influence and shape the forms it will take. It is therefore a matter of reflecting on the different dimensions of change and on its most determinant variables in order to identify the strategies and public policies that ensure that the work of the future - and, with it, our societies and economies - responds to the imperatives of human development, dignity, well-being and cohesion that are the hallmark of developed societies.

This is the fundamental aim of the exercise we have called the Green Paper on the Future of Work.

The drafting of this Paper was a commitment made in the programme of the XXII Constitutional Government, seeking to continue, to a certain extent, the process started in 2016 with the Green Paper on Labour Relations. This new Green Paper, however, was primarily born from the growing need for reflection felt by political decision-makers, labour market agents and also those who follow or study these matters, both from an academic and professional point of view.

In fact, the sudden acceleration of change induced by the pandemic accentuated this need and made it more urgent. That fact justified, among the emergency responses that had to be designed and implemented within the framework of the pandemic, maintaining the time priority attributed to this more strategic and prospective project. Time has shown this was the right option, even though it implied the added difficulty of conducting exhaustive work with speed and a renewed sense of urgency, often in little known territory, while simultaneously relentlessly fighting the acute phases of public health difficulties that have indelibly marked the most recent years.

The final result, I believe, meets the objectives initially set.

The challenge that was set was to focus on a fundamental question as a guiding axis in the preparation of this Green Paper: “*what jobs will we have and want for the future?*” It is to be more than an exercise, always with some speculative component, on the volume of the net balance of jobs that will be created or destroyed globally or in national, regional and sectorial contexts, and on the consequences that will result from that. That fundamental question is made in the conviction that the future is not determined by technology nor by any other isolated or exogenous variable and that, on the contrary, the identification of the global transformations that are taking place and the anticipation of their impacts on the labour market allow us to define the best lines of political action for decent and quality work for all.

We have tried to promote an integrated and broad-ranging reflection that crosses perspectives and analytical dimensions, since it is true that no exercise of this type can cover all the themes in the same way and to the same depth. This was seen as the only possible way to systematise the main issues and the state of reflection on them, on both a global and national scale, in order to identify priority lines for public policies on each of the themes - which are themselves often interconnected.

The Green Paper on the Future of Work sought to build an integrative perspective, not only in its content but also in the drafting process. The entire Paper, from the beginning to the final stages, was based on a process of participatory consultation - of social partners, experts, research centres, international organisations, companies, other stakeholders, different areas of government - culminating in the public consultation it underwent.

It is only fair to express our gratitude to all those who contributed to this result. Especially those who were directly in charge of the process and the writing of the Paper: Ana Lima das Neves, as Executive Coordinator, and the professors Guilherme Dray and Teresa Coelho Moreira, who generously and unreservedly accepted the invitation and challenge to assume the Scientific Coordination, lending to this project much of their valuable time and in-depth knowledge of many of the subjects dealt with herein. No less important was the fact that they sought to base the different stages of the project on a permanent and open discussion of perspectives and contents, making the construction of the Paper a dynamic, shared and learning process. I personally owe them a word of thanks for their extensive availability to take part in this adventure of uncertain destination, for all their work and for the result.

The vision of this Paper on the Future of Work has also sought to be balanced at all levels. First of all, in relation to the themes to be addressed and the perspectives for each one. We tried to not just have a vision of labour relations, which implies in

itself a necessary balance; not just a corporate vision or one of workers' rights, both of which are significantly challenged by changes in the world and in work; and not just a legal vision or one of regulation by public policies; as well as not only a sociological or economic vision, intersecting the gaze and contributions from different disciplinary perspectives.

It is fair to say, based on the mobilisation of these different perspectives, that the result is a broad and ambitious vision of the challenges of the future of work, oriented towards taking advantage of the opportunities that the future of work may contain. This is achieved without losing sight of the significant risks present in different facets of the change, as flagged and discussed over the various chapters. It is also in this balanced perspective, consequently, that the clues for reflection are built around the public policy priorities likely to build an adequate agenda of regulation of the work of the future, thus contributing to a real Decent Work Agenda.

The Green Paper seeks to affirm a vision of the Future of Work that is neither jubilant nor catastrophic, and also its configurations and implications and the demanding agenda of public policies that we need to build to prepare ourselves as an economy and society. It is undeniable that we must maximise the opportunities and minimise the risks created not only by new technologies, but also by demographic changes, climate transition, social and cultural change or globalisation developments.

Moreover, it is important to bear in mind in this regard - and the Paper expresses this idea - that many of the ongoing transformation trends, not only in more general terms but also in the field of employment, work and industrial relations themselves, are not entirely new. On the contrary, although configurations, the pace and intensity may be new or at least qualitatively different from the past, previous trends have, in fact, been radicalised and expanded on.

Examples of this include: the increase of globalisation in highly competitive markets and its implications for the imperatives of economic growth and sustainable job creation, particularly in terms of decent work and an inclusive labour market; the impact and centrality of technology on production processes and, more generally, on economic and social organisation in an increasing number of fields; the individualisation of employment relations, within the framework of individualisation of societies, and the related challenges concerning industrial relations, social dialogue and collective bargaining and, more broadly, representation and participation; wage, territorial, gender and skills inequalities which, together with employment polarisation and labour market segmentation trends, challenge social cohesion and create barriers to an inclusive labour market; the blurring of boundaries between working hours and workspaces and

personal and family life and that make it critical to promote the conciliation between work and family and personal life, a key dimension for people's quality of life and in response to the demographic challenge; the demographic challenges and the growing need to adopt a life cycle perspective in labour market regulation and, in particular, in areas such as qualifications, the transition of young people to working life, active ageing or gender equality.

It is therefore within a very broad framework that public policy reflection on the transformations towards the "future of work" has to be situated - just one more reason to argue for a comprehensive and balanced perspective.

This aim is even more important in a country like Portugal, where progress and changes in recent decades coexist with significant challenges in the areas of competitiveness, but also with significant inequalities and asymmetries that jeopardise cohesion, limiting the scope and sustainability of economic and social development horizons.

We hope that the diagnosis and the lines of reflection for public policies presented here can contribute to tackling these challenges. The undeniable role of creating conditions so that public policies in the coming years are able to respond to the immense challenges indicated herein is our collective responsibility.

**Deputy Secretary of State for Labour and Vocational Training,
Miguel Cabrita**

> Introductory Note of the Scientific Coordinators

It is globally acknowledged today that the world of work is changing at an ever-increasing pace due to various technological, environmental and energy-related transformations.

The digital revolution, along with the massification of robotisation, automation, the use of algorithms and artificial intelligence have significantly changed the way work is carried out, often promoting the replacement of man by machine. In parallel, the development of work carried out through digital platforms, as well as the sudden increase in remote working - largely driven by the COVID-19 pandemic - brings new opportunities, but also new challenges and concerns.

These trends, along with the movements in the environmental and energy fields as a way to combat the phenomenon of climate change, have warranted the attention of various international bodies.

The International Labour Organisation, for example, on the occasion of the celebration of the centenary of its creation in 2019, set up the Global Commission on the Future of Work, which published the report, *Working for a Better Future*. In that report it sets out a range of reflections on the subject, under the decent work agenda.

The Organisation for Economic Cooperation and Development has also produced a broad reflection on the issue of the Future of Work in its aspects of labour market regulation, social protection, collective bargaining and social dialogue, skills and lifelong learning.

The European Union has also been adopting different regulations, directives and communications that address this issue. The European Commission in particular, on the theme of new working arrangements, has launched the consultation process for 'Work on digital platforms' and the European Parliament has launched initiatives on the right to disconnection and on how to improve working conditions for those working from digital platforms.

Furthermore, several countries have adopted public reflection initiatives, drawing

up “Green Papers” that seek to address the Future of Work.

Portugal could not stay on the sidelines in tackling this challenge.

In September 2020, the Government appointed a Working Group to draft the LVFT in order to monitor and assess the impacts of technological progress on the Portuguese labour market and to identify and characterise the new working schemes associated with the digitalisation of the economy and the expansion of digital platforms.

The signatories of this text had the honour of being appointed as scientific coordinators of the LVFT. It was with this mission and sense of responsibility that they developed their work, under the political guidance of the Deputy Secretary of State for Labour and Vocational Training and with the collaboration of representatives of the General Directorate of Employment and Labour Relations; the Strategy and Planning Office and the National Implementation Plan of Youth Assurance. The LVFT also counted on the invaluable support of Ana Lima das Neves, who assisted us unconditionally and who was decisive in the drafting of the LVFT.

The LVFT addresses various themes, from the dynamics of employment transformation in Portugal, through teleworking and telecommuting; work on digital platforms; digital nomadism; artificial intelligence and algorithms; the right to privacy and data protection; working time, work-life balance and the right to disconnection; inclusion, equality and non-discrimination; social protection in the new working arrangements; associativism, workers’ representation and social dialogue; skills, vocational training and lifelong learning; organisations, companies and social dialogue; inspection, occupational health and safety and new psychosocial risks; the public administration; climate change, energy transition, green recovery and territory.

In all cases, in addition to analysing these issues in their context and characterising them in quantitative terms, the LVFT presents lines of thought for the implementation of employment-focused public policies.

This is an important fact to bear in mind.

Two lines of action were, in fact, appraised, in view of the rapid transformations in the labour world. These lines of action, exclusive to a certain extent, are: we could limit ourselves as a society to watch these trends of transformation without doing anything, facing them in a deterministic way and letting the market act by itself, without any strategic framework; or, at the opposite pole, we could do what the

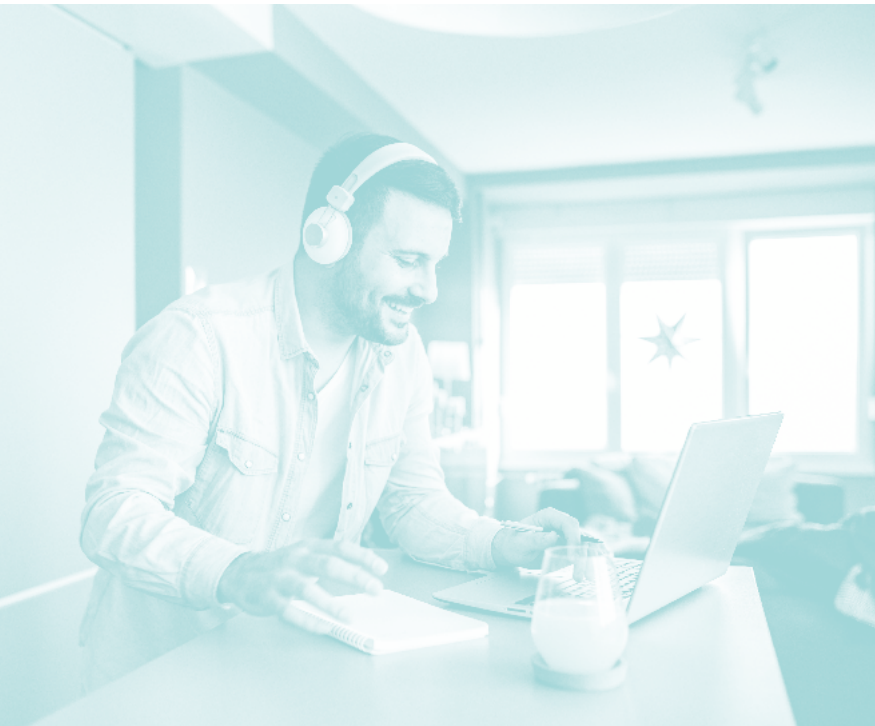
LVFT seeks to do - analyse these trends, understand their scope, identify their risks and opportunities and seek to respond to them, in the name of the values that mark the Social Rule of Law.

This is the small contribution that the LVFT seeks to make: to provide policy makers, social partners, companies and the community with the necessary tools so that everyone can envisage the future of work, maximising its opportunities and minimising its risks, to the benefit of workers, companies and the common good.

It was in this spirit that we took on the scientific coordination of the LVFT and it is with great pleasure that we now witness its publication, after a long participative public consultation process that involved Parliament, the social partners, academics, various private associations and citizens committed to the future of our community

Teresa Coelho Moreira and Guilherme Dray

Framework



> The Future of Work and Public Policy

The world of work is changing at an ever-increasing pace due to technological, geopolitical, social and economic transformations associated with different modes of production or access to raw materials.

It is still not possible to fully understand the result of these dynamic forces and transformations. However, despite the high level of uncertainty, it is possible to foresee some trends and to have the perception that the changes we are witnessing are of such a nature that many argue that we are undergoing a “Fourth Industrial Revolution”, in which there are processes of change in several dimensions, all of them with diverse and simultaneous impacts, particularly in the world of work. Examples of this are globalisation, the ageing population, energy transition, decarbonisation and circular economy, social relationships and ties, forms of communication and the increasing use of technologies in the different spheres of everyday life.

Changes related to technology itself and the way the market is organised create new challenges in some cases, but also accelerate structural trends - such as the expansion of digital platforms, developments in artificial intelligence, robotics and automation. Additional demands are placed on education, training and qualification or on the way work is organised, as well as on labour relations and working conditions and social protection.

Also unavoidable are reflections that refer to inequalities, social dialogue, social protection and occupational health and safety. This is especially the case in societies and economies with an increasing weight of technology and where, often associated with the ongoing processes of change, we witness the emergence of new working arrangements. The new working arrangements are increasingly plural and increasingly less typical, namely in the way they are processed over time and space, as well as in the type of relationship established between employers and workers.

A systemic, integrated, dynamic and strategic approach is required to respond to the challenges posed by this new reality, articulating different areas of public policy, mobilising different instruments and engaging social partners, companies and civil society.

The bottom line is to prepare society for the new challenges that result from the dynamic forces we have been witnessing, knowing that the transformations in the world of work generate new concerns and challenges, but also new opportunities that must be capitalised on.

The international agenda is currently marked by the idea that we are living two transitions, the so-called twin transitions: the digital transition, which refers to a technological dimension of digitalisation, automation and other transformations that are associated with the future of work; and the green transition, which refers to an ecological, environmental and climatic dimension. The aforementioned dimensions, given the specific conjunctural situation associated with the pandemic crisis that continues to shape the present day, are also strongly linked to the recovery and recuperation processes of the economies.

The international political, economic and social debate, while focused on the recovery from the pandemic crisis, does not fail to identify the structural issues and challenges of employment and work, which are also critical for the debate on the so-called “future of work” and the conditions under which it will take shape and mould the coming decades. One of the most prominent examples of this is the European Pillar of Social Rights Action Plan, presented by the European Commission in March 2021 during the Portuguese Presidency, and endorsed by the European Council, European Parliament, social partners and civil society at the Porto Social Summit in May 2021.

The European Pillar of Social Rights Action Plan identifies the future of work as a key area, but it also takes a look at the major economic and social challenges in which labour markets are embedded. The Action Plan, by doing so, enhances not only the quantitative dimension of the employment objectives, but also the qualitative dimension of the labour market: fighting inequalities and in-work poverty; ensuring adequate wages, starting with a balanced minimum wage policy; promoting skills enhancement; responding to the challenges of the classification of employment relationships, in particular on digital platforms; safeguarding the right to privacy of workers and promoting the responsible use of algorithms in the world of work; finding balances in the regulation of remote work, drawing lessons from the experience resulting from the pandemic.

The European Pillar of Social Rights Action Plan focuses on three major themes. Firstly, creating “more and better jobs”, secondly, promoting “skills and equality” and lastly, improving “social protection and inclusion”. It also identifies three major targets for 2030:

- Increase the employment rate of the population aged 20-64 years to 78% by 2030. This target includes three sub-targets: to reduce the gap between the employment rates of men and women by at least half, compared to the 2019 figure; to increase the availability of early childhood education and care services; to reduce the rate of young people (15-29 years) who are NEET (“not in employment, nor in education or training”) from 12.6% in 2019 to 9% in 2030;
- Raise the participation rate of adults in lifelong learning activities to at least 60% in each year by 2030. This target includes two sub-targets: 80% of adults must have basic digital skills; combat early school drop-out;
- Reduce the number of people at risk of poverty or social exclusion by at least 15 million people by 2030, including 5 million children.

The way in which different countries, regions, sectors and people are prepared to take advantage of the opportunities and minimise the short and long-term risks of the ongoing transformations associated with the “future of work” are decisive for the achievement of these objectives. This, once again, reinforces the importance of these matters and also the need to look at them in an integrated manner.

The priorities defined by the main international organisations of which Portugal is a member clearly indicate the extensive presence of the digital and climate action areas, but also of more cross-cutting social concerns. This priority is particularly visible in the EU, which, in addition to the European Pillar of Social Rights and the Action Plan, has been investing in the reflection and development of tools to support these transitions, particularly with regard to the next EU programming period, with a strong focus on a *Green and Digital Europe aligned with the European Pillar of Social Rights*.

Also at EU level, different regulations, directives and communications address this issue, in particular the Directive on *transparent and predictable working conditions in the European Union*¹, the Directive on *work-life balance for parents and carers*², the Communication on *A strong social Europe for just transitions*³, and the Communication under the title *A Union of Equality: Gender Equality Strategy 2020-2025*⁴, *the European Skills Agenda and its Skills Pact*⁵, and the European Foundation for

¹ Directive (UE) 2019/1152

² Directive (UE) 2019/1158

³ COM (2020) 14 final

⁴ COM (2020) 152 final

⁵ COM (2020) 274 final

the Improvement of Living and Working Conditions' 2020 Report on *Labour Market Changes: Trends and policy approaches towards flexibilisation*⁶.

Also worth mentioning are *the Digital Single Market Strategy*,⁷ the package of Initiatives for a *New Industrial Strategy for a globally competitive, green and digital Europe*⁸, the *White Paper on Artificial Intelligence*⁹ and, on the subject of new working arrangements, *the consultation process for work on digital platforms* and which is part of the European Commission's current programme. The Minister of Labour, Solidarity and Social Security, Ana Mendes Godinho, together with her counterpart ministers from Spain, Italy, Germany, Belgium, and several MEPs, signed a letter to the European Commission reinforcing the importance of regulating this new way of working and creating better conditions for digital platform workers.

It is also relevant to refer to the new *European Action Plan for the Circular Economy*¹⁰ and the *EU Biodiversity Strategy*¹¹ for 2030, which also highlight the key role of skills in the transition to a green economy.

The current Joint Programme of the Trio Presidency of the Council of the EU also makes clear the need to respond to these transformations, by setting the *building of a climate neutral, green, fair and social Europe*, as one of the main priorities.

The International Labour Organisation (ILO), for its part, based on the tripartite vision of states, employers and workers, has been issuing conventions and recommendations on the functioning of the labour market for over a hundred years. The Global Commission on the Future of Work published the report *Working for a Better Future*¹² on the date of its centenary, 22 January 2019. In that report the issues of technological change and environmental sustainability appear, once again, as key pillars of the decent work agenda.

The Organisation for Economic Cooperation and Development (OECD) has also produced a broad reflection on the Future of Work¹³ in the aspects of labour market regulation, social protection, collective bargaining and social dialogue, skills and lifelong learning.

⁶ Eurofound (2020), *Labour market change: Trends and policy approaches towards flexibilisation, Challenges and prospects in the EU series*, Publications Office of the European Union, Luxembourg.

⁷ COM(2015) 192 final

⁸ COM(2020) 102 final

⁹ COM(2020) 65 final

¹⁰ COM (2020) 98 final

¹¹ COM (2020) 380 final

¹² OIT (2019), *Work for a brighter future*, Global Commission on the Future of Work International Labour Office – Geneva: ILO.

¹³ See on this matter the Employment Outlook 2019 and 2020 reports.

In parallel, several countries have launched reflection initiatives at Member State level, drawing up Green or White Papers on the Future of Work. There has also been the production of specific regulations or the emergence of relevant judicial decisions on what should be the configuration of a set of subjects, such as work in digital platforms or in broader issues related to the use of robotics and automation technology and the way they are increasingly present in the world of work.

The reflection in Portugal on the so-called “future of work” and the associated upstream or downstream transformations is also underway. This reflection process is already explained in the programme of the XXII Constitutional Government, structured around four strategic challenges that stimulate the discussion about the future of work: *the digital transition, demography, the fight against inequalities and the climatic transition*. This Programme also includes a specific commitment to draw up this Green Paper on the Future of Work.

In any case, public policy initiatives of different types have been adopted to prepare and accompany the ongoing transformations, namely the digital transition. Over the last few years, different governmental areas have developed policy instruments that integrate automation and digitalisation issues, in a sectorial or cross-cutting way. Examples of this are the INCODE 2030 Programme, which includes the strategies *Advanced Computing Portugal 2030*, the National Strategy for Open Data and the *National Strategy for Artificial Intelligence - AI Portugal 2030*, as well as the *Dynamic Reference Framework for Digital Competence (QDRCD)*, the *Industry 4.0 Programme* and, more recently, *the Digital Portugal Programme*. *The National Smart Specialisation Strategy (ENEI)* and the *Strategy for Innovation and Modernisation of the State and Public Administration 2020-2023*, as well as the FCT R&I Thematic Agenda on *Work, Robotisation and Employment Qualifications in Portugal* could also be added to these initiatives.

The *Economic and Social Stabilisation Programme and the Recovery and Resilience Plan (PRRP)* in response to the crisis caused by the pandemic, also includes heavy investment in the digital component, the future of work and the adaptation of people and companies to this reality. They are, on the one hand, responses to the short-term needs of an unpredictable economic crisis caused by a pandemic. While, on the other hand, they prepare people and companies for the years ahead and for us to be collectively well positioned in an increasingly competitive and rapidly changing global economy.

Other initiatives in areas such as climate and environment, territory, active ageing, personal, family and professional life balance, migration and combating inequali-

ties, are also to be highlighted for their interaction with the labour market field. We can briefly highlight the following: *National Plan for Energy and Climate (PNEC2030)*; *National Strategy for Hydrogen*; *Terra Futura - Innovation Agenda for Agriculture*; *Long-term Strategy for Building Renewal*; *Regional Development Strategy*; *Plan for Enhancement of Inland Areas*; *National Strategy for Active and Healthy Ageing 2017-2025*; *3-Online Programme*; *National Implementation Plan of the Global Compact for Migration* and; *Programme for Resources Efficiency in the Public Administration 2030*.

In short, the future of work, together with the digital transition and the green transition, is one of the main concerns of modern societies and a central and cross-cutting aspect of the respective public policies. An essential element to adequately prepare the so-called twin transitions in all their dimensions is to map the main problem areas, the economic and social implications of the ongoing transformations, and identify lines of reflection for public policies.

> Structural dimensions of transformation

The future context will be the result of what are the combined effects of a set of structural trends of change:

(i) **demographic changes**; (ii) the **social and cultural changes** that have been developing further (iii) **globalisation, economic integration and new production chains**; as well as (iv) **digitalisation and new technologies**. These areas are also crossed, more or less across the board, by the (v) **energy transition and climate change** component.

The current very significant effects of the pandemic crisis and the acceleration of the impacts and the scope of several of these vectors of change are also to be added to those changes, namely the expansion of the use of new technologies and the use of new working arrangements, particularly remote work.

At the intersection of these dimensions, contemporaneity is marked by an accel-

eration in the pace of change and greater levels of uncertainty that cut across the economic and social dimensions of the ongoing transformation. These trends also have distinct geographical profiles, contributing to the deepening of inequalities at regional level, with unequal incidence and impacts on different sectors and segments of companies and workers. In other words, although several of these changes are global and systemic by definition, they nevertheless have varying deviations from the standard in different geographic, economic and social spaces, and are therefore asymmetrical in their effects and implications - starting with public policies.

Demographic changes are a reality that has been heightening over the last few decades and which is particularly relevant in the case of Portugal, with a marked trend towards population ageing. Population ageing leads to increased pressure on labour markets, imposes changes on the means of production and challenges social protection systems. However, it also drives demand for new goods and services, the creation of new jobs and providing an intergenerational culture in workplaces. It requires, for that purpose, the promotion of an active and inclusive society for all generations - and notably active ageing in the context of the labour market.

The Active and Healthy Ageing Plan of the Government Programme also contains specific measures in the economic and labour area so that the participation of older people in the labour market can be analysed from two perspectives: the supply side and the demand side. On the supply side, the factors leading to early withdrawal from the labour market should be taken into consideration, and on the demand side, factors conditioning the relationship of recruiters with older workers should be taken into account.

The promotion of active and healthy ageing in the workplace, focused on adapting professional careers and promoting intergenerational diversity in the workplace, involves promoting the employment of older workers, improving access to the labour market for workers aged over 55 years, and also in terms of recruitment; access to professional training opportunities; labour mobility; creating measures to reduce long-term unemployment among the older population, over 55 years of age, that encourage employers to hire and retain older workers; endeavouring to adapt workspaces, providing them with working conditions suited to changes in the characteristics and abilities of workers throughout their working lives; and lastly, making flexible retirement schemes operational and creating a mechanism for part-time retirement.

In parallel, globalisation has been a rapidly accelerating underlying trend, in several dimensions, for several decades now. The central nature of technology in all spheres of markets and social life, the new configurations associated with economic power

and international relations, along with economic integration with new production and value chains, are a more recent reality also in permanent reconfiguration.

Technology has already been a strong stimulus for the integration of global markets.

40%+

More than 40% of jobs in OECD countries are supported by consumers in foreign markets¹⁴.

The most relevant impacts on labour markets are related to the creation of global markets and companies, the growth of outsourcing, a less vertical and more flexible business organisation to leverage global value chains, and the search for and global competition for talent. It should be noted that, simultaneously, there is evidence of processes of greater nationalism and contraction of globalisation, and global economic movements are predicted to slow due to geopolitical tension, international trade uncertainty, climate change and the impacts of the COVID-19 disease pandemic¹⁵. The changes in social and family dynamics, the growing individualisation and development of complex forms of identity, new consumption patterns and increasingly personalised preferences are examples of social and cultural changes to be taken into account when reflecting on the future of work.

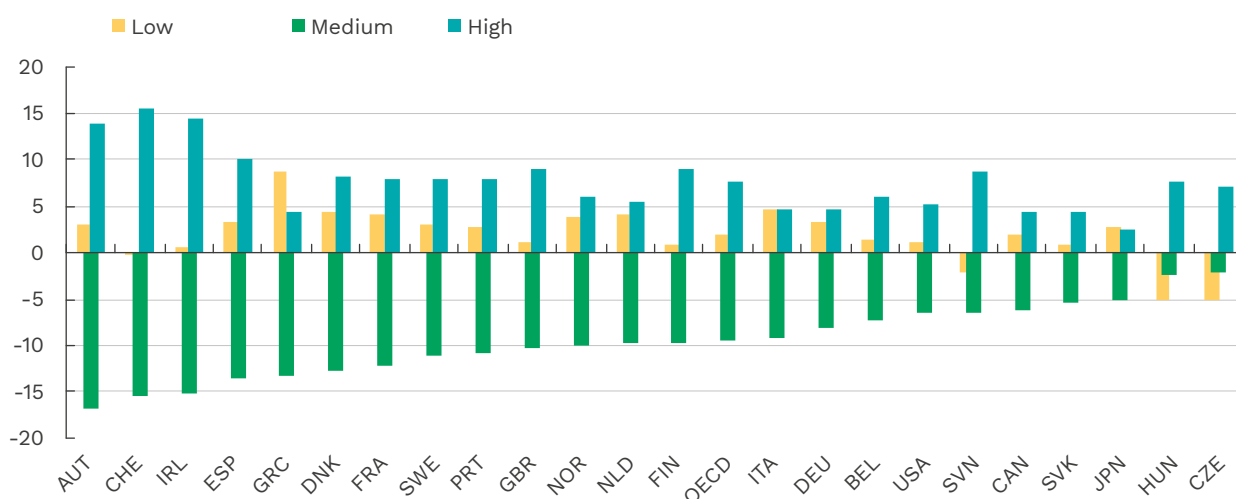
Lastly, the digitalisation of the economy and of various dimensions of daily life, along with the development of automation, robotisation, artificial intelligence and the internet of things (IoT), impacts not only on the quantity of jobs available in the future, but also on the quality and nature of work, the organisation of production processes, the content, tasks and functions performed and the skills that are required.

Digitalisation has been contributing to the intensification of labour market polarisation. It allows, on the one hand, the replacement by automation and robotisation of workers with intermediate qualifications performing routine tasks. On the other hand, it enables the simultaneous and parallel growth of profiles with high qualifications and high salaries and profiles with fewer qualifications and lower salaries.

¹⁴ OECD (2019), *OECD Employment Outlook 2019: The Future of Work*, OECD Publishing, Paris.

¹⁵ *Trend Alerts, Shaping Tomorrow.com*, consulted September 2020.

Figure 1 – Employment variation by qualification level between 1995 and 2015 (p.p.)



Source: OECD, Employment Outlook 2019

The OECD identifies the following trends of change in the labour market enabled by digitalisation, besides growing polarisation and its distinct impacts on different segments of the labour market: stagnation of wages; greater job instability; increase in platform work and work in the collaborative economy; increase in non-permanent and part-time work; increase in the number of false self-employed workers; changes in the production profile with a strong fall in the manufacturing sector; and increase in underemployment, especially among young people and workers with low qualifications and greater individualisation of the labour market, with a significant decrease in the levels of trade union representativeness. This polarisation on the other hand, as noted for example by the OECD, has potentially different consequences for different groups of workers¹⁶.

The existence of atypical labour relations, even when characterised as self-employment, may not mean a decrease or instability of income in the highly qualified segments. For the less qualified and low income segments, on the contrary, more exposed to the risks of precariousness associated with flexibility, the decrease and instability of income is more evident. Moreover, within this framework of unequal impacts of polarisation, the fall in the proportion of people employed with intermediate skills does not necessarily translate into a decline in jobs with intermediate wages: many higher-skilled jobs often pay intermediate wages, in the context of growing supply and demand dynamics of skilled professionals, encompassing young graduates, for example.

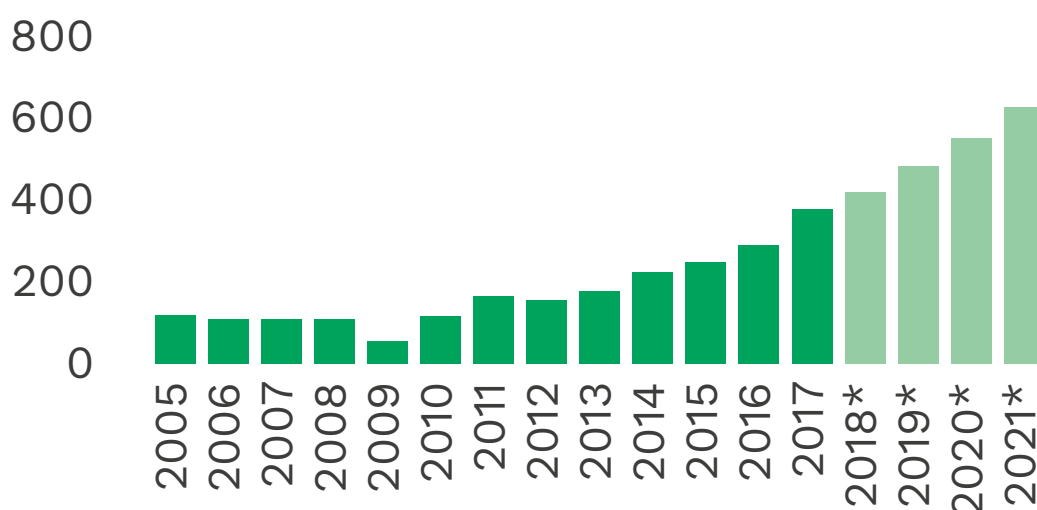
¹⁶ OECD (2019), *OECD Employment Outlook 2019: The Future of Work*, OECD Publishing, Paris.

> The so-called digital revolution and the future of work

The growing digitalisation of the economy has been boosted by the mass availability and processing of information (*big data*) and also by the development of new technologies such as cloud computing, artificial intelligence, automation and robotisation, 3D printers, blockchain, the internet of things or 5G. The fact that many of these new technologies are linked to each other and enhance their development in a chain means that their impacts are progressively broader, faster and more diffuse than before. On the other hand, the reduction in the price of information and communication technologies encourages their massification, making them more accessible to companies and production units, which can use them more easily.

We see that today **four out of ten new jobs in the OECD are in highly digitally intensive sectors**, highlighting digital penetration in economies and labour markets¹⁷. Robot orders have also tripled in the last decade and are expected to increase very significantly in the coming years:

Figure 2 – Global supply of robots (thousands)



Source: OCDE, Webinar Green Paper on the Future of Work, Portugal, 2020

¹⁷ OECD (2019), *OECD Employment Outlook 2019: The Future of Work*, OECD Publishing, Paris.

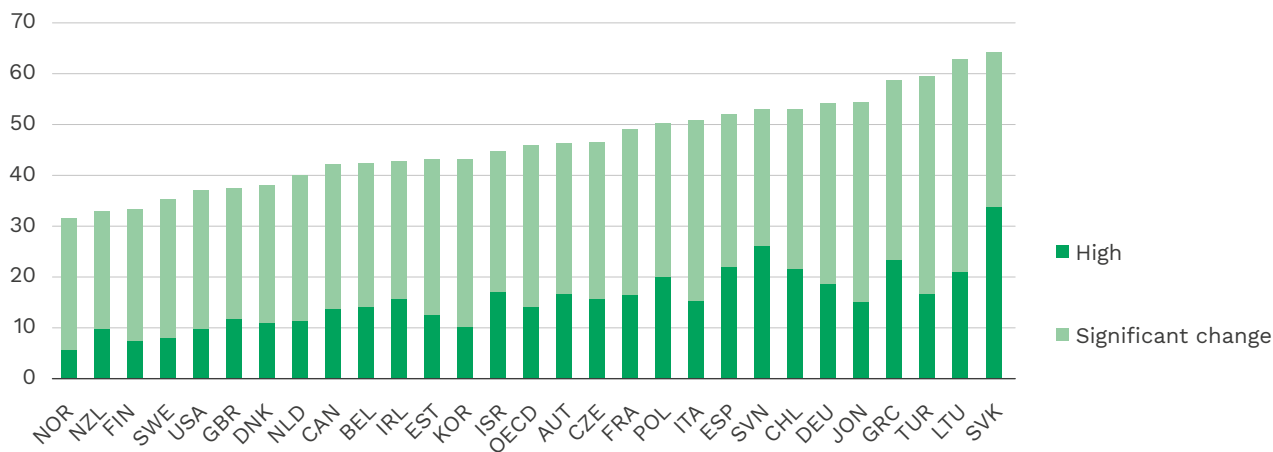
The figures mentioned are averages and there are different regional profiles, but there are countries, such as Portugal, which may be more subject to this type of transformation, due to the national productive structure, the nature of its activity sectors and the respective worker profile and qualifications.

Many of the main issues raised by the impact of new technologies on the labour market include the possibility of exacerbating technological unemployment pools due to the potential for automation of significant parts of the tasks currently performed by people.

In the case of the European Union countries, the OECD estimates that almost half of all jobs and occupations will be significantly altered by issues related to transformations in the world of work and production methods, in particular automation:

14% of jobs in OECD countries and 17% of European jobs are at high risk of becoming fully automated and a further 32% in both the OECD and the EU are subject not to obsolescence but to significant change¹⁸.

Figure 3 – Proportion of jobs with high risk of automation or significant change (%)



Source: OECD, Employment Outlook 2019

¹⁸ OECD (2019), *OECD Employment Outlook 2019: The Future of Work*, OECD Publishing, Paris.

Since the long-term impacts of these pressures are difficult to measure, MIT, for example, explains that the scenarios vary according to the result of two distinct forces: a substitution force, in which technology replaces human beings; and a complementing force, in which technology contributes to increasing worker productivity. The same source argues that the complementing force has been greater than the substitution force and that technological advances have led to increased productivity, although in some sectors, such as agriculture and industry, the substitution force is more visible. Digital automation also tends to replace middle-skilled workers, who perform more routine tasks in areas as varied as sales or administrative work¹⁹.

Estimates of the impacts of automation should take into account, according to the World Economic Forum, the fact that production technology can be divided into two broad types that affect different types of work: “modern mechanical technologies, which often augment or replace physical labour, such as that involved in most agricultural and so-called blue-collar work; and information and communication technologies (ICTs), which tend to augment or replace work associated with high skills and support the performance of interpersonal tasks, typically performed by so-called white-collar and office workers. ICT can also impact on blue-collar jobs through the automation of industry and retail work by means of online platforms²⁰.

It was found in a survey conducted in 2019 that **there are several areas where the percentage of tasks performed by machines is already over 30%**. The areas of physical activities, administrative management, communication and coordination were those for which the greatest increase was estimated over the subsequent two years²¹.

Looking to the future, the World Economic Forum predicts, for example, that the pace of digitalisation will increase, particularly with the adoption of cloud computing and the processing of mass information (*big data*). The same entity predicts, with regard to the balance between job creation and destruction, that 85 million jobs worldwide may disappear by 2025 due to a new division of labour between man and machine and 97 million jobs may emerge from this new division of labour. The forecasts on job creation and destruction are, however, quite variable and, besides differing in terms of quantity and net result, as well as in the content of the functions and qualifications required, there are also relevant questions on the location, quality and conditions of the jobs destroyed and created.

¹⁹ MIT (2019), *The Work of the Future: Shaping Technology and Institutions*, Fall 2019 Report.

²⁰ WEF (2018), *Framing the Future of Work*, Jobs Notes, Issue n. 6.

²¹ IDC, *Worldwide Future of Work*, 2019.

The World Economic Forum has identified as emerging professions **seven professional clusters that could mean 6.1 million new job opportunities in the next three years: Data and Artificial Intelligence; Care Economy; Green Economy; Engineering and Cloud Computing; People and Culture; Product Development; and Sales, Marketing and Content**²².

In any case, new segments and opportunities within the scope of digitalisation also tend to create specialisation profiles and potential job creation in niches driven by the evolution of specific technologies. A recent report from an industry company highlights, for example, that 73% of organisations are creating their first intellectual properties using next generation technologies such as machine learning, internet of things, blockchain and immersive (mixed reality) technologies²³.

²² WEF (2020), *The Future of Jobs*, World Economic Forum Platform for Shaping the Future of the New Economy and Society.

²³ Microsoft (2020), *A Year of Change: Digital Transformation Trends in 2020*.

> Technological diversity and the future of work

These elements contribute to reinforce the idea that the changes occurring in economies, societies, different dimensions of daily life and, inevitably, also in labour markets, driven by technology or with a technological dimension, and not limited to technology, comprise in-depth transformations and are based on technological inputs of different types. Technological innovation, both in terms of automation and digitalisation, or a combination of both, is advancing on several fronts that interact with each other. This reinforces their impact on markets, production and exchange systems, and on the world of work.

The current context of technological change is in fact characterised not only by a diverse set of new technologies and systems, but also by the relationships and combinations that can be established between them. There is also a set of technologies associated with productive processes, such as additive manufacturing, computer-aided production, and robotics systems, in addition to technologies related to the so-called “internet of things” and information technologies, which include algorithms, cloud platforms, management systems and sensor systems. These technologies are adopted in different ways and with different intensities by companies and sectors of activity, reflecting their respective technological maturity and capacity to incorporate innovation into the production processes.

This diversity of technologies and the existence of different adoption paces and intensities lead to differentiated impacts on the future of work and employment patterns by sector and companies. These impacts include different types of occupation and may generate different professional activities and make them grow.

The analysis and reflection on the future of work must contemplate and integrate this technological diversity and its differentiated impacts, based on a notion of technological non-determinism. It must make it part of a consistent strategy of anticipation of change and positioning in emerging sectors that often lack an adequate framework and regulation in terms of labour relations.

> The technological momentum of the pandemic

The COVID-19 pandemic accelerated and enhanced some of the changes that were already being noted in the digital transition processes. A survey carried out to gauge the intensity of the technological boost in Portugal caused by the pandemic concluded that the vast majority of organisations had increased the availability of digital channels and strengthened security; had adopted remote working measures, essentially based on teleworking and non-face-to-face work; and had strengthened the IT budget areas of laptops, network and security equipment and cloud computing services²⁴.

In addition to the impacts on digitalisation, the widespread use of flexible or adaptable working hours, continuous working hours, part-time work, concentrated working hours, reduced working hours, time bank, home working, mobile office or teleworking, suggests that, in many cases, there may be usefulness in adopting this form of working or working time organisation models in order to reconcile the interests of companies, workers and families. However, these new forms of working also carry the risk of accentuating existing pressures and difficulties in terms of conciliation between work and personal and family life, long hours, dilution of working and resting times, privacy issues, as well as the isolation of workers who telework. Companies, on the other hand, have identified difficulties in the motivation of their workers and losses in terms of creativity of their employees who have started to work off-site in a non-face-to-face manner.

Moreover, these working arrangements also depend on factors outside the employment relationship, such as gender, living conditions, housing, conciliation between professional, family and personal life, access to digital connectivity, among other factors, as well as the functional content of the tasks performed or qualification levels.

Moreover, the objective effects and short-term evaluation of these experiences over a few weeks or months may not coincide with the long-term impacts of the adoption

²⁴ IDC (2020), *COVID 19 – Digital & IT Implications, Impact and What's Next For Portugal*.

of these new working arrangements in different fields (productivity, business dynamics and cultures, sociability and associative networks, for example), nor with the evolution of the levels of satisfaction of the companies and the workers themselves.

What can be said at present, as it is impossible to envisage what most of these impacts will be in the future, is that if the extension of this experience (driven by the pandemic) may leverage and motivate adherence to new arrangements for providing and organising work for some people and in some circumstances, adhering to a philosophy of balance between professional, family and personal life, in other situations the balance of the current experience may not be so positive. A careful balance in the regulation and promotion of these working arrangements is thus required. According to a survey conducted in Portugal by COLABOR²⁵, although the proportion of workers who claim not to have minimum conditions for teleworking is residual both in terms of equipment (e.g. computer, internet) and time management, the existence of minimum conditions does not necessarily mean that everyone values teleworking: 43% of respondents said they were more or much more dissatisfied working from home than from their usual workplace, compared to 37% who feel more or much more satisfied, with 21% saying they are indifferent.

A global survey shows that a large proportion of workers are in favour of flexible working arrangements after the pandemic to improve the balance between work, family and personal life: around 75% of respondents say that a mix of remote and on-site working could be the best working option. In fact, 80% reported that it will be important to maintain a good work-life balance after the pandemic, reinforcing the importance of this dimension in discussions on new working arrangements in the framework of the digital transition. The surveyed employers also consider that business is improved with greater flexibility and partial remote working (77%), and that their employees personally benefit from such flexible working arrangements (79%)²⁶.

On the other hand, a study by *the MCKinsey Global Institute* states that the impacts of the pandemic on the labour market are not limited to the increased penetration of telework and combined forms of on-site and remote work. After the pandemic, when the economy recovers, the EU may have, for example, a shortage of skilled workers

²⁵ Silva, P. A., Carmo, R. M., Cantante, F., Cruz, C., Estêvão, P., Manso, L., Pereira, T. S. (2020), *Trabalho e Desigualdades no Grande Confinamento (II) [Work and Inequalities in the Great Confinement]: Desemprego, layoff e adaptação ao teletrabalho [Unemployment, layoff and adaptation to telework]* (CoLABOR Studies, N.º 3/2020), CoLABOR.

²⁶ Adecco Group (2020), *Resetting Normal – Defining the new era of work*, White paper.

despite an increase in the wave of automation. Accordingly, “post-COVID labour market mismatch will be a key challenge, with different solutions for each community, but four imperatives stand out: (i) addressing skills needs; (ii) improving access to jobs in dynamic centres and clusters, potentially through remote working; (iii) increasing labour market participation and (iv) revitalising labour markets as around 40% of Europeans live in regions where labour markets are in decline”²⁷.

The forecast, also according to the same study, that 22% of current activities (53 million jobs) may undergo automation by 2030 is relevant for the adjustment of the European labour market. The workers most at risk from the advance of automation are precisely those most at risk from the pandemic crisis, and the crisis may have accelerated some of this substitution, in sectors such as retail and wholesale for example. More than half of the European workforce could face significant transitions, according to these estimates, and around 94 million workers may need to re-skill and up-skill, with new jobs requiring more sophisticated skills on average, which are already at risk, in many cases, of registering shortages today. This estimate, on the other hand, would point to a change of occupation for about 21 million people, most of whom would not have completed higher education²⁸.

²⁷ MCKinsey Global Institute (2020), *The Future of Work in Europe*, Discussion paper June 2020.

²⁸ MCKinsey Global Institute (2020), *The Future of Work in Europe*, Discussion paper June 2020.

> The so-called digital revolution in Portugal - some national data

Portugal has undergone very significant evolution in the scale of its digital transition efforts.

Portugal joined the *Digital Nations* (DN)²⁹ in 2018 and it is also part of the *Coalition of the Willing* (COTW)³⁰. It was recently accepted into D9+, the informal group of Member States that brings together the best ranked European countries in the European Commission's annual Digital Economy and Society Index (DESI) and includes two other countries besides Portugal that share similar ambitions for the Digital Single Market³¹.

Portugal occupied 16th place among the 27 EU Member States in the Digital Economy and Society Index³² in 2021, moving up three places in the global ranking from the previous year. Over the past few years, and according to pre-pandemic data, the country's score has increased in line with the EU average, and it is certain that the current COVID-19 crisis is having a significant impact on the main indicators.

In summary, with regard to the indicators of the DESI 2021 edition, it followed a data analysis based on four criteria: human capital, integration of digital technologies by companies, connectivity of telecommunications networks and Public Administration.

Portugal was ranked 18th in terms of Human Capital, according to the DESI. Portugal exceeds the European average in the number of female specialists working in the technology sector, in the number of people who go beyond basic technology skills and in the number of specialists in different technology areas, but it lags behind the European average in the total number of professionals trained in technology courses.

²⁹ International group that brings together the world's most ambitious digital governments, with the common goal of using the digital potential to improve the lives of citizens and businesses. This network promotes the sharing of best practices, the identification of potential improvements in digital services and collaboration on common projects that promote the growth of the respective digital economies.

³⁰ Informal group, formalised on 5 October 2020, bringing together European countries considered leaders in digital transformation. It aims to combine efforts to stimulate and accelerate digital transformation in Europe, notably within the public sector, by sharing best practices and thematic action plans to leverage strategic themes. This group, an initiative of the Netherlands, now includes eight countries: The Netherlands, Belgium, Germany, Denmark, Estonia, Finland, France and Portugal.

³¹ The D9+ includes Denmark, Finland, Sweden, the Netherlands, Luxembourg, Belgium, the United Kingdom, Ireland and Estonia, as well as the Czech Republic, Poland and Portugal.

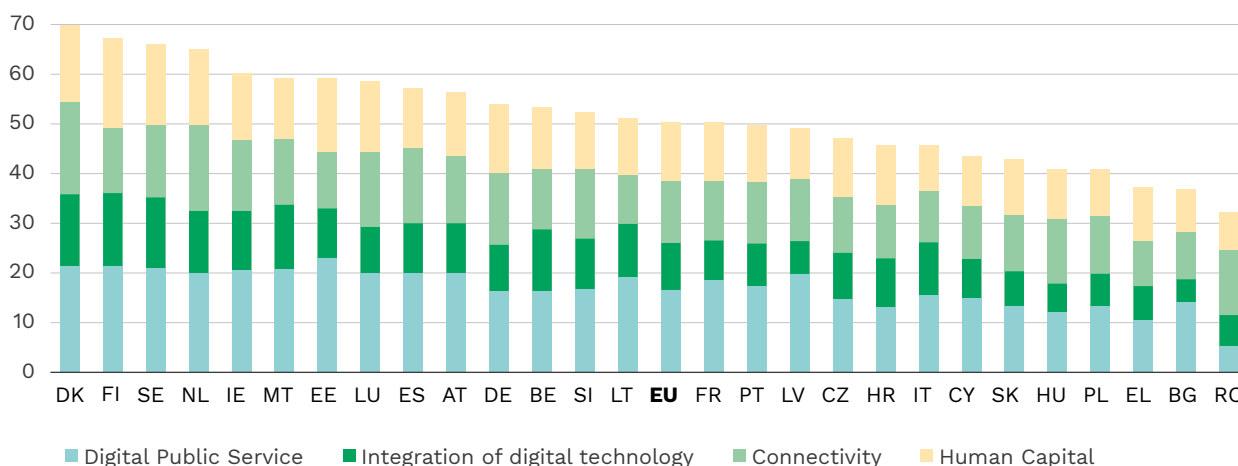
³² COM (2020), *Digital Economy and Society Index* (DESI) 2021.

Portugal is at an advanced stage of implementation of the capacity network, but still lags behind the European average in terms of the number of people using online public services, despite surpassing the European average in the provision of pre-filled forms and public services made available to people and businesses.

In connectivity, Portugal guarantees 15th position and remains in the second half of the table. It still registers a relative delay in the award of the radio spectrum for 5G and performs weakly in the indicators related to digital skills.

Performance in digital skills will be a further declination of the country’s structural challenge of needing to raise qualifications, despite improvements in different fields of this problem area over recent decades. It also highlights significant factors of inequality, generational and others, as is the case with other indicators regarding the digital society.

Figure 4 – Digital Economy and Society Index 2021 rankings



Source: DESI 2021

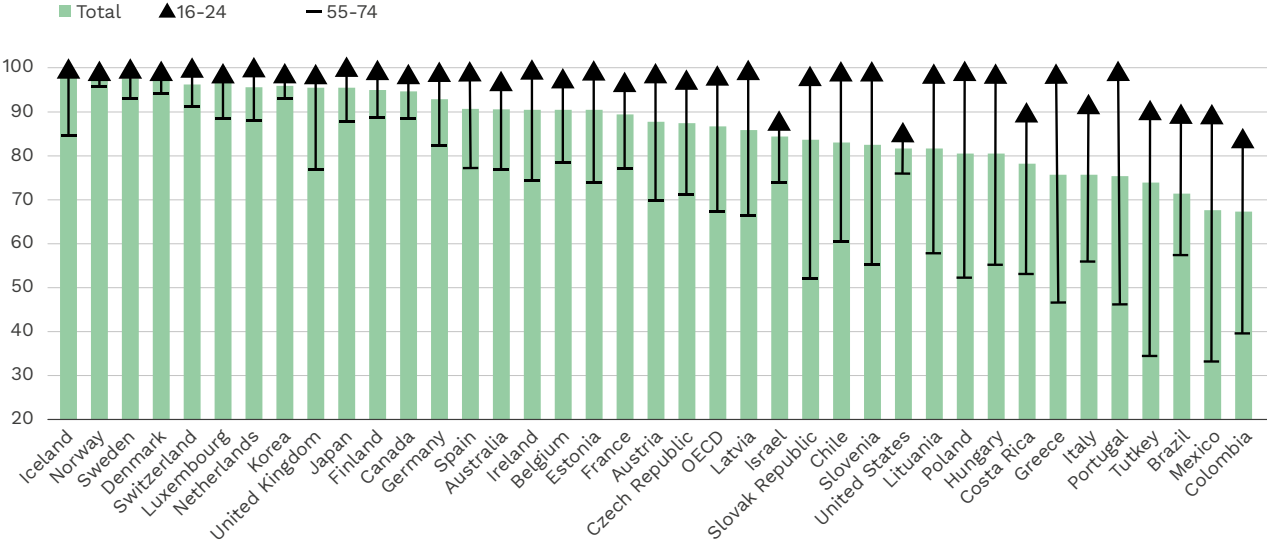
The OECD also published in October 2020 the results of its first OECD Digital Index (DGI), an instrument developed within the E-Leaders group to monitor the implementation of the OECD Recommendation on Digital Government Strategies (2014). This index covers 29 OECD countries and four observer countries (Argentina, Brazil, Panama and Paraguay).

Portugal was **ranked 10th in the overall DGI 2019 ranking**, with 0.580 points, ranking above countries such as France (11th position), New Zealand (12th position) and Norway (13th position) and **distancing itself from the OECD average** (0.501 points, which corresponds to a position between 17th and 18th in the ranking).

INE data showed that, in terms of internet access, **84.5% of households in Portugal in 2020 had internet connection at home and 81.7% used broadband connection**, with the percentage of internet users increasing by 3 p.p. compared to the previous year. However, it should be noted that there is a significant difference by income bracket, where households in the highest quintile have the highest levels of access to the internet (96.8%) and broadband (94.5%). There are also significant regional inequalities: the connection to the internet at home and the broadband connection are more expressive in the Lisbon metropolitan area, in the Autonomous Regions of the Azores and Madeira and in the Algarve³³.

Additionally, the generation gap is relevant as only 46% of the population aged between 55 and 74 years regularly use the internet. The variation according to qualification levels in this age group is particularly relevant as only 18.6% of individuals aged between 55 and 74 years with low qualification levels regularly use the internet, while this figure is 82.6% among individuals with high qualification levels. There is no significant difference by levels of qualification in the population aged 16 to 24 years. 96.1% in individuals with low qualification levels and 97.3% in those with high qualification levels³⁴.

Figure 5 – Regular internet users by age group (%)



Source: OECD Digital Economy Outlook 2020

³³ INE, Survey on Information and Communication Technology Use by Households, November 2020

³⁴ OECD (2020), *Digital Economy Outlook 2020*.

In Portugal around seven in every 10 people use equipment connected to the internet (internet of things - IoT³⁵), according to INE data. In addition, the higher the qualification level, greater is the use: 81.1% of internet users with higher education qualifications mentioned the use of such equipment against 56.6% of users who completed the 3rd stage of basic education. These internet-connected devices are mainly used in the field of entertainment (63.1% compared to 30.1% for personal use) and a television with internet connection is the equipment most used (56.0%), followed by a games console with internet connectivity (29.4%). Of personal use equipment with internet connectivity, smart watches, fitness wristband, headphones and glasses or clothing and accessories stand out (23.8%). Finally, the most used home equipment are virtual assistants (9.7%), security solutions for the home (6.6%) and home appliances with internet connection (5.6%).

In 2020, the percentage of e-commerce users recorded the largest increase of the trend that began in 2002. In 2020, 44.5% of people aged 16 to 74 years had ordered items online in the 12 months prior to the interview (+5.8 p.p. from 2019) and 35.2% in the previous 3 months (+7.0 p.p. from 2019).

The amount of orders through e-commerce and the amount spent per order also increased significantly³⁶.

The INE data also showed, in relation to the use of information and communication technologies by companies, that around 97% of companies with 10 or more employees and 42.8% of employees used computers with Internet connections for professional purposes, in 2020. Also in 2020, 61.1% of companies state that they have their own website or that of the economic group to which they belong and 29.0% of the companies purchase cloud computing services on the internet, with emphasis on the purchase of email and file storage (83.2% and 70.1% of these companies, respectively). With regard to the ICT skills of workers, 22.9% of compa-

³⁵ The “Internet of Things - IoT” refers to devices (appliances, objects, or others) that have the capability to be permanently connected to the Internet and to communicate at a distance, including among themselves, to collect and process information not only about their operations but also about their surroundings, and they can do so with or without the active participation of humans. The Internet Society broadly defines IoT as “the extension of network connectivity and computing capability to objects, devices, sensors and other artefacts that are not normally considered computers” (cited from <https://www.cncs.gov.pt/a-internet-das-coisas-iot-internet-of-things>).

³⁶ INE, Survey on Information and Communication Technology Use by Households, November 2020

nies employ staff who are ICT specialists and the training activities to develop ICT skills promoted by companies in 2019 were mainly aimed at workers in categories other than ICT. 6.5% of companies employing 10 or more people recruited or tried to recruit ICT specialists in 2019, and 44.5% of these had difficulty filling those vacancies. 13.0% of companies in 2020 employing 10 or more people use interconnected devices or systems that can be remotely monitored or controlled over the internet (IoT) and 9.1% use industrial and/or service robots. 4.5% of companies in 2019 employing 10 or more people used 3D printing, using company-owned 3D printers and/or through printing services provided by other companies. It is also to be noted that more than half of companies did not analyse big data in 2019 due to insufficient workers with knowledge or skills in this area. However, 10.2% of companies employing 10 or more people analysed big data, in particular by the machine learning analysis method (33.7% of these companies)³⁷.

Recent studies that have analysed the potential for automation in Portugal indicate the risk of vulnerabilities in some activity sectors, considering the productive structure and qualification levels. In fact, a study conducted by CIP and Nova SBE in 2019³⁸, concluded that 52% of working time in Portugal is spent on repetitive tasks with 70% automation potential and that only 13% of workers perform non-routine, high-skill tasks. The regions most affected by the potential for automation are Centre and Alentejo and the sectors identified in this study as having the greatest potential for automation are manufacturing, commerce, agriculture, fisheries, transport and storage and mining.

Also of relevance in this study is the fact that around 700 thousand workers in Portugal may need to acquire new skills by 2030 or even change activity, and the professional activities most affected by the requalification challenges associated with automation are jobs in predictable configurations such as machine operators and transport and installation workers; office support; customer interaction occupations; educators, teachers, librarians and rural workers. Occupations with the highest positive change in terms of jobs are caregivers; technology professionals; professional occupations such as lawyers, judges, business analysts and scientists; managers and executives; creative workers; construction workers.

³⁷ INE, Survey on Information and Communication Technology Use by Companies, November 2020.

³⁸ CIP e NOVA SBE (2019), *O Futuro do Trabalho em Portugal – O Imperativo da Requalificação* [The Future of Work in Portugal - The Requalification Imperative]



The future of work: new and old challenges





“The pandemic has suddenly changed telework and has meant that many companies and workers in different sectors have had the concrete experience of teleworking. Telework has massified and, with this massification, new risks and challenges have become evident.”

1. Employment, new working arrangements and labour relations

1.1. Introduction: Macroeconomic framework and labour market in Portugal

The labour market in Portugal has faced several structural challenges in recent decades. It is not the aim of this Paper to make an in-depth analysis of the labour market trajectory as a whole, nor of the economic, social and employment factors and determinants that shape it, as that objective was fulfilled by the previous Green Paper on Labour Relations³⁹. Nonetheless, it is important to place in the economic and labour market context the emergence of new ways of providing work and the transformations associated with the so-called “future of work”, in Portugal.

Over the last two decades, within the framework of Economic and Monetary Union, the Portuguese economy has experienced a period marked by moderate growth levels which, with some exceptions (for example, some years in the second half of the last decade), interrupted the trajectory of convergence with the European Union. These decades were marked by two high-impact crises, although with very different roots and characteristics - the so-called subprime crisis and then the sovereign debt crisis at the turn of the second decade of the 21st century, besides the current COVID-19 pandemic crisis. These two crises also influenced this period.

All in all, and very briefly, the following elements can be highlighted regarding the macroeconomic framework and the labour market in Portugal:

- Portugal has had a relatively moderate real Gross Domestic Product (GDP) growth rate over the last two decades: having been 3.9% in 1999, it was 2.9% in 2019. Portugal registered lower growth rates than those of the EU28, between 2001 and 2015, and there have even been negative rates in some years of that period (namely in 2003, 2009, 2011, 2012 and 2013, with the highest, of -4.06%, in 2012)⁴⁰.
- Labour productivity per hour worked increased between 1999 and 2010,

³⁹ MTSS (2016), Green Paper on Labour Relations

⁴⁰ INE, National Accounts

reaching 70.2% of the EU27. In 2019, after several years of very significant employment growth, this figure stood at 66.1% of the EU27⁴¹;

- There was a significant decrease in employment between 2009 and 2013 as a result of the economic crisis. Thereafter, this downward trajectory began to change and reversed steadily in the second half of the decade until the emergence of the COVID-19 pandemic. A growth rate of 3.3% was even reached in 2017 (a figure that represents the highest growth since 2013, taking into account the IE series break). The employment rate (aged 20-64) was 76.1% in 2019, compared to 73.1% in the EU27⁴²;
- The evolution of unemployment has also experienced great oscillations, particularly associated with periods of crisis, having been close to 4% at the beginning of the century, but reaching 17.5% in the 1st quarter of 2013. By 2019, it had retreated to 6.5%. It rose by a few tenths during the year, following the outbreak of the pandemic⁴³;
- The asymmetry in income distribution in Portugal has been decreasing in recent years, although it remains at comparatively high values and has fluctuated over time: it showed a sustained decline until 2009, peaked in 2013 and fell again in 2019. The Gini Index was 33.7% in 2009, compared to 38.1% in 2004, reaching 34.5% in 2013 and falling again to 31.2% by 2019. The S80/S20 Ratio was 5.6% in 2010 (compared to 4.9% in the EU28) reducing to 5% in 2019⁴⁴.
- The average annual salary of employed workers (PPS)⁴⁵, despite a significant increase from 18,316.2 in 1999 to 26,336.4 in 2019, is still significantly lower than in the EU28 (37,335.2 in 2019);
- Portugal has historically had a higher percentage of non-permanent contracts (fixed-term and others) than the European Union average. It was close to 20% in the last quarter of 2019 (20.3%), despite the downward trend of recent years. It dropped below 18% throughout 2020, but within the context of the pandemic, which affected non-permanent jobs more⁴⁶;

⁴¹ Eurostat, (EU27_2020=100)

⁴² Eurostat and INE, Employment Statistics

⁴³ INE, Employment Statistics

⁴⁴ INE, Indicators of poverty and economic inequality

⁴⁵ PPS - Purchasing Power Standard (PPS): fictitious currency that serves to compare welfare and expenditure levels between countries, cancelling out differences in price levels. Eurostat, INE, PORDATA

⁴⁶ INE, Employment Survey

- The worsening of the ageing population has been constant. Negative migration balances between 2011 and 2016 have contributed strongly to worsening the situation and, despite some fluctuations in fertility levels, the balance between births and deaths has been negative for the last 11 years. The Ageing Index in 2019 was 163.2 elderly per 100 young people, with a negative natural growth rate of 0.25%⁴⁷;
- In 2020 and despite the improvement in the qualifications of the population living in Portugal, where women and young people have comparatively higher qualification levels, almost half (44.6%) of the adult population aged between 25 and 64 years have not completed secondary education and around 1/5 (20.9%) of young people (15-24 years) enter the labour market before completing compulsory education⁴⁸.
- The dynamism of collective bargaining has fluctuated sharply over this period. Having reached an annual historical high above 1,800,000 workers in 2008, it retreated sharply to around 250,000 workers per year in 2013 and 2014, recovering by 2019 without, however, reaching one million workers, and receded again in 2020 under the impact of the pandemic⁴⁹;
- Collective bargaining coverage remains relatively high, although slowly receding: slightly below 80% in 2019⁵⁰ (CCT+ACT+AE, or around 85% considering also PCT).

These data and elements put into perspective some of the main characteristics and challenges of the labour market in Portugal, in line with the findings of the 2016 Green Paper on Labour Relations.

⁴⁷ INE, Resident Population Estimates.

⁴⁸ Eurostat, data updated in 2021.

⁴⁹ DGERT Data, IRCT.

⁵⁰ GEP-MTSSS, Single Report/Staffing Tables 2019, Mainland.

1.2. Recent dynamics of employment transformation in Portugal

Background

The labour market in Portugal in the last decade has been marked by significant contrasts: a crisis in the early years, significant recovery and finally the crisis caused by the pandemic. Furthermore, it is important not to lose sight of the fact that this decade, marked at its beginning and end by two major crises, developed within a broader framework of structural transformations and challenges with an impact on the labour market. To cite just two examples, the growing urgency to correct the structural qualifications deficit of Portuguese society or the far-reaching demographic transformations that make the problem of the ageing population critical, and in particular the need for active ageing within the framework of the labour market.

The evolution of the economy itself and of employment, both in terms of the dynamics and flows of job creation and destruction and in terms of job quality, experienced very distinct periods over the decade: after years of sharp deterioration following the international crisis of 2008/2009, and after an initial volatile recovery, the recovery was more robust and it was consolidated from 2016 onwards.

In parallel, political approaches were adopted in the second half of the decade, guided by an agenda of (i) rebalancing labour relations; (ii) boosting incomes and, in particular, the minimum wage; (iii) re-enhancing and stimulating collective bargaining and social dialogue; (iv) combating labour precariousness and strengthening active policies in the creation of permanent employment, with a priority focus on young people and the long-term unemployed. The link between professional training and employment was also re-enhanced, giving more importance to the need to raise the qualifications of the Portuguese and, in this way, increase their employability.

Although some structural problems and effects of the previous crisis still remained, as stated by the ILO, - namely the comparatively high levels of public, private and external debt, relatively low wages, high income inequalities and the degree of segmentation in the labour market - Portugal was gradually correcting many of its social and economic fragilities when the crisis provoked by the COVID-19 disease pandemic emerged⁵¹.

⁵¹ ILO (2020), Portugal: A rapid analysis of the impact of COVID-19 on the economy and the labour market, June 2020

The pandemic significantly altered the labour market situation, with a crisis of enormous magnitude and high uncertainty, significantly transforming labour market trends and raising unemployment levels, while at the same time exposing a number of structural weaknesses in the national economy and labour market.

The dimension of the shock induced by the pandemic was very asymmetric, with unequal impacts on the business fabric and on the different segments of the labour force. It illustrated, on the one hand, the vulnerability of the sectors most exposed to external demand, particularly tourism, and on the other hand, the fragility of precarious contracts, which tend to be more widespread in the most vulnerable sectors. More than half of the new unemployed registrations resulted from the termination of non-permanent employment contracts.

This crisis also reinforced the relative advantage of qualifications, with more qualified workers being not only the least affected by the worsening unemployment, but also those who were less likely to go on lay-off and who found it easier to switch to telework, thus being less exposed to income loss and the risk of contagion by COVID-19.

In global terms, the new context brought about by the pandemic has forced states to adopt extraordinary measures to protect jobs and businesses. Several countries have adopted employment protection measures, through the suspension of work contracts or the reduction of the normal working period, measures that are accompanied by financial support from the State. This happened, by way of example, in Spain (*Expediente de Regulación Temporal de Empleo*), France (*Chômage Partiel*), and Germany (*Kurzarbeit*).

Portugal decided, based on the lay-off legal scheme already provided for in the Labour Code, to simplify and de-bureaucratise this scheme, in order to ensure fast and efficient support to companies in difficulty. The aim was to allow agility in accessing measures to support the maintenance of employment contracts and safeguard the incomes of workers and households. In a second phase, after the first wave of the pandemic was “controlled”, the focus was on de-confinement and the recovery of economic activity, with the introduction of two new mechanisms, the Extraordinary Support for the Progressive Resumption of Activity, which favoured the reduction of the normal work period instead of the suspension of contracts, also associated with a complementary training programme aiming to reinforce workers’ skills, and the Extraordinary Incentive for the Normalisation of Business Activity⁵².

⁵² Decree-Law 10-G/2020, of 26 March, explained that this was a simplified lay-off model, with the possibility of suspending the employment contract or reducing the normal working period. Decree-Law 27-B/2020 of 19 June extended this simplified lay-off scheme until 31 July 2020 and created the extraordinary incentive for the normalisation of business activity. Decree-Law 46-A/2020 of 30 July created the above-mentioned support scheme for the progressive resumption of business activity.

These employment allowances have coexisted with a wide range of support and incentives of an economic and fiscal nature, including a set of treasury allowances, which include the APOIAR.PT programme, extraordinary financing regimes and credit moratoria, deferred payment of contributions and VAT and the suspension of the enforcement of seizures and measures to suspend and exempt rents, among others.

The worsening of the public health situation in the transition to 2021, the new confinement rules, as well as the closure of a significant number of establishments, led to the extension of the validity of the support at least until the end of the first half of 2021. The priority was given to the reactivation of the extraordinary instruments that were created in the first wave of the pandemic, so as not to leave impacted companies without support, nor the individuals and households unprotected. Thus, the simplified lay-off scheme was reactivated, the extraordinary support for the reduction of economic activity and the extraordinary measure to stimulate professional activity were recovered, the framework for workers in situations without social protection was strengthened and the exceptional family support was reactivated and recalibrated due to the suspension of school activities. In short, the complex framework created by the pandemic abruptly interrupted the progress of recent years and, despite the mitigation of effects that was achieved during 2020⁵³, it cannot fail to be incorporated into the reflection on the future of work in a perspective integrated with the short and medium-term recovery outlook.

Some data

Portugal travelled an important path between 2016 and 2020 from the point of view of labour market recovery, not only from a quantitative point of view, with unemployment receding to levels not seen since the beginning of the century thanks to sustained employment growth, but also from a qualitative point of view, with a visible pattern of strengthening permanent hiring and also widespread wage improvement.

The unemployment rate fell to 6.5% in 2019, the lowest in 16 years and almost half the unemployment rate that was recorded in 2015 (12.4%), moving away from the severe peak reached in 2013 (16.2%). The youth unemployment rate also fell to 18.3%, the lowest level since 2008, far from the 32.0% and 38.1% registered in 2015

⁵³ It should be noted, for example, that according to the results of the Quick and Exceptional Company Survey organised by INE, more than 57% of the companies that resorted to simplified lay-offs state that without this instrument they would have reduced employment, in many cases with reductions of more than 20% in the number of employees.

and 2013, respectively. The long-term unemployment rate fell to 3.2% in 2019, less than half the 7.9% recorded four years earlier, and far from the 10% mark reached in 2013.

Labour underutilisation has also fallen significantly in recent years, with the number of discouraged inactive people dropping from over 280,000 in 2015 to less than 200,000 in 2019 and the number of people in part-time underemployment falling from almost 240,000 to just over 160,000 over the same period.

These results were anchored on sustained employment growth: employment in 2019 exceeded 4.9 million people, reaching the highest level in 10 years. The country was thus able to recover most (70%) of the jobs destroyed between 2008 and 2013, with most of them recovered over the years from 2016 to 2019⁵⁴.

It has also been possible to strengthen the employment contract model and, within that model, the contracting for unlimited duration model has been strengthened: in 2019, for the first time since employment began to grow after the crisis, the number of jobs grew in net terms and non-permanent contracts fell. There was also wage appreciation, not only through the sustained increase in the national minimum wage but also through generalised wage growth.

All these factors have translated into a significant improvement in poverty and social exclusion indicators, as well as a decrease in inequality levels. Data recently released by INE has shown that the at-risk-of-money poverty rate stood at 16.2% in 2019, the lowest value of the statistical series, representing a reduction of 2.8 pp compared to 2015. The S90/S10 ratio - which measures the distance between the equivalent net monetary income of the 10% of the population with greater resources and the income of the 10% of the population with lower resources - fell to 8.1 in 2019, remaining 2 points below that observed in 2015. Also, the Gini index, which measures the asymmetry in the distribution of income (0 when all individuals have equal income and 100 when all income is concentrated in a single individual) stood at 31.2 in 2019, with a decrease of 2.7 points compared to 2015⁵⁵.

These results, according to the ILO, challenge “the conventional wisdom that economic recovery can be accelerated and competitiveness quickly regained simply by reducing labour costs and making the labour market more flexible”. On the other

⁵⁴ 687,200 jobs were lost between 2008 and 2013, and 483,700 jobs were created between 2013 and 2019, of which 364,400 were created between 2015 and 2019.

⁵⁵ INE, Household Living Conditions and Income Survey (EU-SILC), 2021 (provisional data).

hand, the critical role of the structural reforms that the country adopted before the 2008 financial crisis have been reinforced and which, according to the ILO, laid the foundations for the recovery path the country has followed in recent years, stating that “when external economic and financial conditions improved, the economy was ready for recovery”⁵⁶.

Key elements of this path were a set of initiatives to regulate labour relations and the labour market, including the Council of Ministers Resolution No. 82/2017, of 9 September, which dictated the change in criteria and setting reasonable deadlines for the publication of extension ordinances; the commitment to suspend/set a “moratorium” of 18 months on the expiry processes adopted in social consultation; the increase in the co-responsibility of employers in subcontracting chains, through Law No. 28/2016 of 23 August, to combat modern forms of forced labour; as well as the lines of action pursued under the action programme to combat precariousness and promote collective bargaining that was adopted by the Council of Ministers Resolution No. 72/2018, of 6 June, following the tripartite discussion on the Green Paper on Labour Relations, published in 2016, and the tripartite agreement reached in 2018.

In fact, the tripartite agreement reached in social dialogue, entitled “Combating precariousness and reducing labour segmentation and promoting greater dynamism of collective bargaining”, was of great relevance to this path. That path culminated in the 2019 labour reform, carried out by Law No. 93/2019 of 4 September, which created a very significant set of measures to combat labour precariousness and encourage collective bargaining.

In terms of active employment policies, the changes introduced in 2017 allowed a set of relevant changes to be made by 2020 to promote the qualification and quality of employment and, from the outset, the moralisation of public support for employment, such as: The support for hiring has been focused on contracts of unlimited duration, which has allowed a shift from around half of the allowances granted to fixed-term contracts to around 90% in contracts of unlimited duration⁵⁷. In addition to this, there were more than 10,000 conversions of internship contracts into employment contracts of unlimited duration supported through the Professional Internships Employment Premium, and close to 29,000 conversions of fixed-term employment contracts into employment contracts of unlimited duration, supported by the *Converte+* exceptional measure.

⁵⁶ ILO (2018), *Decent work in Portugal 2008-2018: from crisis to recovery*.

⁵⁷ This proportion is close to 95% in the case of young people, who in turn represent 25% of the recipients placed in jobs supported by the public employment service.

In a period of employment growth, the accumulation and sequencing of different allowances was strongly limited in order to reduce the deadweight effect and not to stimulate precariousness cycles that mostly affect the youth;

The granting of internships began, among other criteria, to reward the results of previous internships in the beneficiary company in terms of insertion of the trainees;

- At the same time, more than 60,000 people have completed the 3rd stage of basic education or secondary education through the *Qualifica Programme* since it was established.

The pandemic caused a profound deterioration in the economic climate and a generalised fall in all confidence indicators estimated by INE, in the first half of 2020. Exponential growth in the use of lay-offs was recorded, that is, the suspension of work contracts or the reduction of the respective normal working period, as a result of the business crisis. Thus, after having registered 2.2% growth in 2019, GDP contracted 7.6% in volume in 2020 as a whole. This was the most significant decrease in the current series of INE's National Accounts.

The shock inflicted by COVID-19 was immediately felt in unemployment indicators, with an almost 30% increase in the unemployment rate registered with the IEFP between February and May 2020. The period that followed saw relative stabilisation and even a slight decrease in registered unemployment. The number of unemployed people between May and December fell from over 408,900 people to 398,300 people, which translates into a decrease of 2.6%, approximately 10,600 less people in other words.

It should be noted, in addition to the above data, that more than half of the new registrations of unemployed at the IEFP employment services were due to the end of non-permanent employment contracts, reflecting the fragility of these forms of employment. Also, the worsening of unemployment disproportionately affected young people, who are particularly exposed to fluctuations in the economic cycle, due to their higher number of non-permanent contracts among that group. The decrease in employment in 2020, according to INE's statistics for that year, essentially resulted from the 16.1% drop in the number of workers with non-permanent contracts (-136.5 thousand people), with a 1.9% increase in the population employed on contracts of unlimited duration (+63.3 thousand people). As a result of the combination of the destruction of a significant volume of non-permanent jobs and a slight increase in the number of permanent jobs, the weight of non-permanent contracts among em-

ployed workers fell to 17.5%, the lowest value since 1999 and representing a 3.3 pp fall compared to 2019 (20.8%), reflecting a trend that is common in unfavourable economic cycles.

1.3. Distance working and teleworking

Background

The Portuguese legal system was one of the first in Europe to establish telework in 2003. Currently, the Labour Code⁵⁸ defines telework as the provision of work habitually carried out outside the company's premises and using information and communication technologies.

Thus, the concept of telework explained in the Labour Code is a broad concept, which may cover several realities, whose essential elements are the fact that the work activity is usually, i.e. essentially, provided outside the company, although this does not necessarily mean that it is done exclusively so. The main characteristics of telework are, consequently, the distance of the worker from the headquarters and main installations of the employing entity and the use of computer and/or telematic means for the performance of the employment contract. It is certain that these means are assumed, in telework, to be necessary instruments for the performance of the work in view of the physical distance in which the worker finds himself/herself in relation to the place of work.

Telework can present several advantages in this context, both from the point of view of the worker, the employer and society in general.

The following advantages are usually identified, as far as the worker is concerned: reduction or elimination of time spent commuting; reduction or elimination of expenses inherent to carrying out a professional activity far from home, namely transport and food; reduction of stress; flexibility of working hours and the possibility of a more flexible agenda; less recurrent interruptions; professional performance with greater autonomy; better conciliation between professional life and personal and family life, and greater employability, through the possibility of provi-

⁵⁸ Aprovado pela Lei n.º 7/2009, de 12 de fevereiro, na sua redação atual.

ding work to geographically distant employers, and also the potential inclusion of groups such as people with disabilities.

As for the employer, the advantages usually pointed out are: reduction of the operational costs of installations, energy and transport; optimization of available spaces; greater efficiency and productivity regarding the work performed by the teleworkers; increased motivation of the workers and less rotation⁵⁹; increase of the skills base; possibility of adopting management by objectives or results schemes; greater flexibility of the business management; greater resistance to external factors which may jeopardize the regular operation of the productive unit, such as transport strikes, acts of terrorism or natural calamities.

In more global terms, the advantages of telework may include: reduction of urban traffic and commuting - daily and massive displacement of workers between different areas of large urban agglomerations; reduction of atmospheric pollution levels; better management of urban spaces and city requalification; decongestion of city centres and more balanced dynamization of different urban territories in metropolitan areas; reduction of disparities and gaps of an economic and social nature between urban centres and rural areas due, namely, to the possibility of displacement of economic activity and workers outside of the cities; development of less favoured and more remote areas, namely rural areas; greater inclusion of different categories of workers with greater difficulties of integration in the labour market, namely people with disabilities.

However, telework can also have disadvantages and brings specific risks, namely regarding (non) limitation of working time, conciliation between personal, family and professional life, working conditions, safety and health conditions, as well as the privacy and isolation that typically characterise it. Telework, if not duly safeguarded, may effectively isolate the worker, make him/her not disconnect from work and work more hours than usual, with an increase in stress and other psychosocial risks, as well as jeopardise his/her privacy and that of his/her family, particularly in cases where telework is carried out from home. Telework can also particularly penalise women, who traditionally continue to be responsible for domestic and care work to a greater extent than men, aggravating the difficulties in terms of reconciling professional, family and personal life.

In addition, working remotely, particularly at home, requires skills to be acquired, particularly in information technology. It also presumes there is adequate access to

⁵⁹ See *Potential benefits and challenges of telework* ILO, 2020

equipment and services, as well as adequate housing, family and other conditions for the provision of work, raising the issue of permeability to relevant economic and social inequalities.

For this reason, the Labour Code in its current wording, drawn up in a pre-pandemic context, seeks to minimize the problems associated with work, determining that it should be voluntary and cannot be unilaterally imposed by the employer. It also establishes that the worker must be treated in equal conditions to other workers working at the company's premises; the company should encourage regular contact of the worker with the structure of which he/she is a part; the work instruments and the respective installation and maintenance expenses should, as a rule, be paid by the employer; the employer should respect the teleworkers' privacy; and the teleworker may apply to the company's collective representation structures, and the trade unions and workers' committees may contact the teleworker directly through the information and communication technologies made available by the employer.

Telework has potential, from the point of view of society in general. For example, in terms of the reduction of CO2 emissions by reducing commuting between home and work, in terms of rebalancing and reinforcing territorial cohesion, given that it can promote greater dynamism and local economies in areas outside the centres of large cities (whether in metropolitan, exurban or low-density contexts), as well as creating better conditions for flexibility and a more favourable conciliation of the different spheres of life. It however reinforces trends such as the greater individualisation of employment relationships, makes it more difficult to scrutinise and inspect these relationships and their conditions, has quite uneven impacts across different socio-economic groups and categories, and imposes significant pressures on the economy of cities.

Until the appearance of the COVID-19 pandemic, the legal scheme for teleworking seemed adjusted and the adherence to this form of working arrangement was residual in the Portuguese context, until the beginning of 2020.

The COVID-19 pandemic has, however, suddenly changed this reality and has meant that many companies and workers in different sectors have had the concrete experience of teleworking. Telework has massified and, with this massification, new risks and challenges have become evident.

The sudden evolution and massification of teleworking was dictated by the need to respond to the public health constraints imposed by the pandemic. In the more critical phases of the pandemic, namely at the beginning of 2021, the basic principle

of the agreement between worker and employer was, for this reason, temporarily replaced by the non-necessity of agreement between the parties or even by the compulsory adoption of telework, except when the job does not allow it.

In fact, the increase in teleworking also resulted from the legislation produced during the pandemic period. In a first phase, the legislation produced in the context of the pandemic established that the telework scheme could be unilaterally ordered by the employer or requested by the worker, without the need for agreement between the parties, provided that it was compatible with the functions performed. In an intermediate phase it was compulsory and later, with the evolution of the pandemic, telework continued to be possible, but in accordance with the rules of the Labour Code. This was the case, except for some exceptional situations in which it remained compulsory, namely in the case of immunosuppressed and chronically ill people, in the case of disability with a degree of incapacity equal to or greater than 60%, and finally, during the school year, in some situations of workers with children aged under 12 years or with dependent offspring. Special measures were defined as the situation evolved and given the growing incidence of new cases of COVID-19, which were only applicable to the most affected municipalities. These measures included making it compulsory to adopt a telework regime, regardless of the employment contract, whenever the functions in question allowed it and the worker had the conditions to carry them out, without the need for a written agreement between the employer and the worker.

The mass adoption of this form of working arrangement has highlighted the potential advantages of telework. But, it has also highlighted the limits and risks associated with it, especially regarding safety and health conditions; working hours and the conciliation between work and the workers' personal life; the need to guarantee the right to privacy; the importance of avoiding long periods of isolation of workers; and increasing fluidity between work and rest times.

On the other hand, another aspect to incorporate into the reflection on telework and its different forms (namely whether it should be full-time or in hybrid form) is the evaluation of the relative advantages and disadvantages of this scheme from the standpoint of the functioning of the organisations and productivity, as well as the performance of each worker, who requires specific care within the scope of work carried out under telework or distance working system. Looking at things from this perspective, the assessment circumstances will be different from those generally applicable and must take into account the potential set of difficulties, constraints and even the perception of discriminatory situations associated with

the performance assessment process applied to a set of people with different working arrangements.

The recommendations from ACT and DGS⁶⁰ currently existing on this matter highlight the following:

- The employer must guarantee that the teleworking conditions are met, ensuring the use of appropriate equipment, such as a computer and speakers, but also software and other specific equipment that may be necessary, namely for communication purposes;
- The employer must minimise physical and psychosocial risks for workers who are teleworking, ensuring information and support in order to set up the “workstation” from an ergonomic point of view; encouraging breaks e.g. for physical activity; and preventing situations of isolation or excessive pressure, which can cause the well-being and mental health of workers to deteriorate;
- It is important that there is some flexibility in time management and the allocation of tasks, but also that the effective organisation of work is fostered.

Some data

Teleworking employment contracts were of little significance in Portugal until the pandemic, as already mentioned, and they had, in fact, been in decline: according to staff numbers, slightly more than 1% of employees had telework contracts (about 2,400 people) in 2010, and this percentage had fallen to only 0.03% (less than 800 people) by 2018. European statistics also suggest that **ten years ago only around 5% of people worked from home with some regularity in Portugal (1% regularly and 3.9% sometimes), and by 2019 that figure had risen to just over 14%⁶¹ (6.5% regularly and 8.1% sometimes).**

The COVID-19 pandemic has suddenly changed this reality, and according to data released by Statistics Portugal (INE)⁶²

⁶⁰ MTSSS (2020), *19 Recommendations to adapt workplaces and protect workers*, Ministry of Labour, Solidarity and Social Security, in conjunction with the Authority for Working Conditions and the Directorate General of Health, V. point on adaptation to Telework.

⁶¹ Eurofound (2018), “Telework and ICT-based mobile work: Flexible working in the digital age”. Publications Office of the European Union.

⁶² INE (2020), *Monitoring the social and economic impact of the pandemic*, 18th weekly report - 2nd quarter data. INE (2021) *Working from home - Ad Hoc Employment Survey module*, 11 February 2021 - 4th quarter data.

23,1%

the proportion of workers who always or almost always worked at home had reached 23.1% in Portugal as a whole, in the 2nd quarter of 2020, equivalent to more than one million people.

This figure fell to 12.3% in the 4th quarter. The main reason for work being carried out from home was due to the COVID-19 pandemic in the overwhelming majority of cases (91.2% in Q2 and 79.4% in Q4).

The adoption of telework was not, however, uniform. It was more common in highly qualified professions and sectors, and in regions where those activities are more significant.

In fact, based on data from INE referring to the 2nd quarter of 2020⁶³, the Metropolitan Area of Lisbon was the region in which there was the highest proportion of workers who always or almost always worked from home, registering a value of 36.0%. The share was higher among women (25.2%) than men (21.1%) and higher among those with higher education (53.8%). The profession of specialists in intellectual and scientific activities, which accounted for 21.6% of employees in the 2nd quarter, had the largest share of workers who exercised their profession always or almost always at home (56.7%). These data point to inequalities - regional, gender, occupations and qualifications - that must be taken into account when reflecting on telework. This is because telework is not compatible with all activities and it is more likely to exist among qualified activities which require higher academic qualifications and which, in turn, are more common in metropolitan areas. Digital skills and access to broadband and personal computers could also be added to those factors.

In a survey conducted by GEP⁶⁴ on teleworking in the week of 16 to 20 November 2020, among companies with employees with remunerations declared to Social Security for the month of October, about 10,300 valid replies were obtained. It was found that one in three companies (34%) had employees in telework during the reference week, and 31% of workers at those companies and 20% of workers at all the companies that responded were in telework.

According to the same source, more than 80% of the workers at companies in the

⁶³ INE (2020), Monitoring the social and economic impact of the pandemic, 18th weekly report - 2nd quarter data.

⁶⁴ GEP/MTSSS, "Inquérito rápido ao mercado de trabalho no tecido empresarial português" [Rapid labour market survey of the Portuguese business fabric], November 2020.

sectors of telecommunications (CAE 61), computer programming, consultancy and related activities (CAE 62) and information service activities (CAE 63) were teleworking, and more than 70% in the sectors of insurance, reinsurance and pension funds, except compulsory social security (CAE 65), activities auxiliary to financial services and insurance (CAE 66), activities of head offices and management consultancy (CAE 70), other consulting, scientific, technical activities and similar (CAE 74) and administrative and support services to businesses (CAE 82).

The survey carried out by GEP also showed that telework increased as company size increased: it was 24% in micro-companies, 29% in small companies, 50% in medium-sized companies and 83% in large companies. In the same vein, the proportion of workers in telework at large companies (25%) exceeded the proportion at micro-companies (18%) and medium-sized companies (17%).

If we only consider the companies resorting to teleworking, the largest proportional share of workers who carried out their roles in telework was at micro-companies (73%, with 46% at small, 31% at medium-sized and 28% at large companies).

It was in the Metropolitan Areas of Lisbon and Porto that more companies (58% and 44%, respectively) and workers (33% and 22%, respectively) carried out teleworking⁶⁵.

It should also be noted that there are data pointing to a significant increase in willingness among companies to have employees teleworking. According to a survey by CIP/ISCTE⁶⁶, for example, 48% of the companies surveyed intend to use this work arrangement in the future, and among these, only 22% are considering telework situations where workers remain five days a week in this arrangement. The reduction in costs and the motivation of workers are the main advantages of teleworking mentioned by employers while workers being distracted with domestic and family tasks and the lack of communication between teams are indicated as the main disadvantages.

According to the same survey, employers also think that it is either too early to evaluate changes in performance or productivity under the teleworking arrangement (31%), or no changes were detected (43%), while 16% detected a deterioration and 10% found improvements.

From the workers' perspective, and according to data referred to in the section on

⁶⁵ The regional aspect refers to the headquarters of the company and not the location of the establishment..

⁶⁶ CIP/ Marketing FutureCast Lab do ISCTE (2020), "Sinais Vitais – teletrabalho" [Vital Signs – Teleworking].

“The technological leap forward due to the pandemic”, a significant part (43%) of the workers who had recently teleworked declared themselves to be more or much more dissatisfied compared to working at their usual place of work, with 37% saying they were more or much more satisfied, while 21% said they were indifferent⁶⁷. Moreover, as telework implies the use of digital tools, it is important to bear in mind that these tools and the capacity to use them is not generalised.

25%

25% of people aged over 25 in Portugal have poor digital skills⁶⁸, for example, and almost 20% of households still have no internet connection at home⁶⁹.

Different countries and different sectors, different companies and workers have been making different assessments of telework, and such assessments can hardly be made in a definitive way in the short term, because making telework a long-term and structural mechanism has different implications and impacts on productivity, corporate cultures, the work of teams and the daily contact of workers, just to mention a few examples.

In short, as it is a work arrangement that challenges the traditional model of separation between professional and personal/family spheres, the respective times and spaces, telework provides as many strengths as risks from the point of view of conciliation between work, family and personal life, as well as in terms of autonomy and flexibility in the performance of professional activity, namely with regard to organisational models and working hours.

Accordingly, in May 2021 the Portuguese Parliament started to discuss bills to amend and strengthen the telework rules provided for in the Labour Code. New rules for teleworking were approved in Parliament in November 2021. Law no. 83/2021 modifies telework arrangements, allowing the extension of telework to parents with children up to eight years old, without the need for an agreement with the employer, provided that it is exercised by both parents in successive periods of equal duration within a maximum reference period of 12 months.

This measure also covers single-parent families or situations in which only one of the

⁶⁷ Silva, P. A., Carmo, R. M., Cantante, F., Cruz, C., Estêvão, P., Manso, L., Pereira, T. S. (2020), *Trabalho e Desigualdades no Grande Confinamento (II)* [Work and Inequalities in the Great Confinement]: *Desemprego, layoff e adaptação ao tele-trabalho* [Unemployment, layoff and adaptation to telework] (CoLABOR Studies, No. 3/2020), CoLABOR...

⁶⁸ Eurostat, 2019, Proportion of individuals with low digital skills (25-64 years).

⁶⁹ INE, 2019, Proportion of private households with at least one individual aged 16-74 and with an internet connection at home.

parents, demonstrably, meets the conditions for working in a teleworking arrangement. Workers with the status of non-principal informal caregiver are also entitled to work through teleworking arrangements, for a maximum period of four consecutive or interpolated years.

These amendments also establish that companies are obliged to pay the workers the additional expenses related to teleworking, including the increased energy costs and costs of internet installed at their workplace at a speed compatible with work communication needs.

The Labour Code, pursuant to the changes now published, also provides that the employer has the duty to refrain from contacting the worker during the rest period, except in situations of force majeure. Infringement of this rule is considered to be a serious administrative offence.

Employers will also have to promote face-to-face contact between teleworkers and their supervisors at intervals not exceeding two months, in order to reduce the isolation of the worker.

The implementation of the teleworking arrangement always depends on a written agreement, which may be included in the initial employment contract or be autonomous in relation to it. This telework agreement defines the schedule of permanent telework or alternation of periods of distance work and in-person work.

If the proposal for a teleworking agreement was initiated by the employer, the employee does not have to justify its opposition to the same, and the employee's refusal cannot be grounds for dismissal or to apply any sanction.

If the employee proposes the agreement, and in the event that the activity contracted with the employee is compatible with teleworking arrangements, by the way it fits with the functioning of the company and taking into account the resources available, it can only be refused by the employer in writing and indicating the grounds for refusal. The teleworking agreement can be entered into for a fixed term or for unlimited duration. If it is for a fixed term it "cannot exceed six months, and may be automatically renewed for equal periods, if none of the parties declares in writing, at least 15 days before the end of the agreement, that they do not wish to renew it".

When the agreement has unlimited duration, either party may terminate it by written notice, which shall take effect on the 60th day after the notice is given. In that case, the worker shall resume in-person working, without prejudice to any rights.

The approved new legal framework enters into force on 1 January 2022.

1.4. Work on Digital Platforms

Background

Work on digital platforms, expanding rapidly since the beginning of the 21st century, is one of the most critical elements in discussions about the future of work. Digital platforms often combine characteristics such as extreme flexibility, individualisation, atypicality or fragmentation of labour relations, as well as the distance and spatial dispersion of activities. These trends directly challenge several of the assumptions of traditional systems of labour relations and the public policies governing these new realities.

Work on platforms, far from being a homogenous reality, is extremely complex and diverse. It includes web-based platforms, where work is outsourced through an open invitation to geographically-dispersed potential candidates, and location-based applications that assign work (or “tasks”) to people in a particular geographical area. Work on platforms can therefore be segmented into two major groups: one group in which work is carried out completely remotely, and another group, perhaps more visible, which involves the in-person performance of tasks.

Moreover, in the first group, remote work may be carried out from different countries, and enterprises, workers and beneficiaries of the work may be in different national spaces, raising labour regulation and inspection challenges, as well as challenges in terms of taxation and contributions - and access to rights.

Several forms of platform work are identified in the study conducted by the ILO⁷⁰: “a) web-based platforms, tasks are outsourced to a crowd (micro-tasks or creative tasks based on calls for tenders) or directly to individuals using a freelance marketplace; b) work based on local digital platforms where the majority of the tasks are given to individuals (e.g. transport, delivery and household services) and few are outsourced to the crowd (e.g. local micro-tasks)”.

Digital platforms can generate new opportunities in terms of job creation, the adoption of flexible working arrangements, the broadening of income sources for workers and households and the widening of access to employment, particularly for groups with greater difficulties in this respect. On the other hand, they also carry multiple risks, namely regarding the type of employment contract and the guarantee of an ad-

⁷⁰ International Labour Organization, *Digital platforms and the future of work: Towards decent work in the digital world*, International Labour Office - Geneva, ILO, 2020.

equate income, with implications on job instability and life perspectives. There may also be inequalities in access to social protection or other rights, such as vocational training or occupational safety and health.

One of the key issues in the discussion on this topic is the classification of the legal relationship that is established between the company that operates through the technological platform and those who provide paid services through that platform, with issues regarding the degree of autonomy and/or employment relationship in the performance of the work. Steps have already been taken in the national context in this regard, with the publication of Law no. 45/2018 of 10 August, which establishes the legal framework for the activity of individual transport of passengers for payment in unidentified vehicles hailed via an electronic platform (ride-sharing).

In terms of Comparative Law, several decisions have been issued on this matter all over the world and in different continents and legal systems, namely in South Africa, Australia, Brazil, Canada, France and Spain.

We refer to the decision of the Supreme Court in Spain (Ruling 805/2020, of 25 September 2020) as an example, since it is a judgment that makes case law more uniform and, therefore, with enormous relevance to the issue of the classification of the contracts of *Glovo* workers. The decision in question found that *Glovo riders* were workers. There are also numerous decisions in Italy, including a decision of the *Court of Cassazione* of 24 January 2020, as well as, more recently, one of 23 November 2020 by the Court of Palermo, which classified a *Glovo rider* as an employee. Several decisions have also been issued in the United Kingdom legal system on the issue of classification of the contract. Of note is a recent decision of the Supreme Court of the United Kingdom, on 19 February 2021 (case of *Uber BV and others (Appellants) v Aslam and others (Respondents)*) - where, once again, the British courts rejected the theory that Uber drivers should be considered micro-entrepreneurs or self-employed independent contractors, but rather Uber workers - thus placing them in a distinct and intermediate category between self-employed and employees, despite falling within the context of a specific legal case in which those were the terms of the petition. There are also numerous decisions in the North American legal system, in both directions, on the classification of the contract.

In short, courts from all over the world have ruled on the issue of the classification of the contract for work provided through digital platforms. There have been some fluctuations regarding that classification, ranging from employee, to independent worker or “para-subordinate” worker.

Very recently in Spain, Royal Decree-Law 9/2021 of 11 May established a legal presumption on digital platforms but only for delivery platforms including them in art. 8.1 of the Statute of Workers, which refers to the existence of a legal presumption of employment in the contract. Digital platforms, however, are far from being exhausted in this specific activity and may eventually justify a legislative intervention focused on the classification of the relationship established between the intervening parties, in the creation of possible employment presumptions or of specific legal tests that allow the nature of the existing contract to be ascertained - whether of employment or the provision of services.

It is also important, even when no questions arise regarding the classification of the type of contract, i.e. when there are real service provision contracts, to regulate the type of relationship established between the platform and the workers, in order to prevent the conclusion of unbalanced contracts, the use of abusive clauses and the waiver of rights by the service providers.

On the other hand, it is important to ensure that both workers, even those employed under very short-term contracts, and service providers, whether independent or economically dependent, have access to adequate social protection, thus providing not just decent working conditions but also access to protection in the event of illness, accident, parenthood, unemployment and old age.

In 2020, the European Commission launched a **public consultation on European legislation in the digital area**, in order to promote reflection on this reality. The aim was to collect the opinion of citizens and private and public organisations in the EU on what exists and what can be improved - including matters related to work, workers and companies, in particular companies and workers using digital platforms. In 2021, it launched a **consultation of European social partners** on how to improve working conditions for people working through digital platforms.

Some data

The difficulty in estimating the number of platform workers is one of the initial challenges in the reflection on this matter: conventional statistical concepts and classifications (permanent vs. temporary contract; full-time vs. part-time; employed vs. self-employed work) allow the numbers of the “traditional” forms of atypical employment to be assessed, but do not capture the specific nature of platform work. Therefore, much of the available information results from the application of surveys or studies specifically focused on this issue. Estimates are also made based on the available information concerning the number of people registered on the platforms.

The 2021 edition of the World Employment and Social Outlook, on the role of digital labour platforms in transforming the world of work, states that the difficulty in making accurate estimates of employment on platforms relates primarily to the distinction between workers directly employed by digital platforms and workers whose activity is only mediated by those platforms. The latter category is not only the most common but also the one with the least transparency, as most platforms do not report the number of workers registered on them⁷¹.

There were at least 777 active platforms at the beginning of 2021, according to this ILO report. 96% of those platforms provide information on the number of workers they *directly* employ. This information shows that a large proportion of platforms are micro and small enterprises, i.e. they *directly* employ fewer than 10 or between 11 and 50 workers. These data do not, of course, capture the extent of employment that is *mediated* by the platforms, and so the ILO uses the analysis of a set of estimates constructed from the application of surveys. It notes that estimates on the percentage of the working-age population in European countries that has ever worked for or received remuneration from digital platforms ranges from 9% to 22%, but when the reference time horizon is reduced to the month prior to the survey the estimates fall within a range from 5% to 15%.

A report published by the European Parliament⁷² finds that **around ¼ of platform workers are financially dependent on this form of work, and a high proportion (70%) do not have access to adequate parental or other social protection.** Access to social protection is more difficult for those who are exclusively or mostly dependent on platforms.

⁷¹ World Employment and Social Outlook 2021: The role of digital labour platforms in transforming the world of work, International Labour Office – Geneva: ILO, 2021.

⁷² European Parliament (2017), *The Social Protection of Workers in the Platform Economy*, Policy Department A: Economic and Scientific Policy.

The same report also notes that **68% of platform workers have another job outside this universe, 60% of these people have a full-time job and 50% have an employment contract of unlimited duration.**

What these data suggest, with relative clarity, is that work on platforms plays very different roles for those who work through them: in some cases they are the main source of workers' income, but in other situations they are rather a secondary source of income or a complement to a more regular activity.

The results of a study by the Foundation for European Progressive Studies⁷³ also reinforce the idea that, in this as in other issues of the future of work, where there are advantages there are also risks: platform workers identify flexibility as the main advantage, but are dissatisfied with the working conditions; the difficulties of communication with the platform; the existence of dismissals based on ratings that they do not control and which they describe as arbitrary; as well as the frequent changes to pay and its forms of payment. The same study concluded that, in addition to these elements, **only 7% to 13% of platform workers consider themselves self-employed.**

In Portugal, according to data collected by the European Commission's Joint Research Centre in 2017 and 2019⁷⁴, **more than 10% of the adult population has already provided some form of service through digital platforms and between 2% and 4% of these people have this form of working arrangement as their main source of income**⁷⁵. These data also suggest that the majority of workers using digital platforms are male, young and have higher education qualifications; and that the proportion of women decreases as the work activity increases in intensity. Men dominate services related to software development and the provision of transport services. Women mainly perform tasks related to translation and on-location services (which include domestic services).

Portugal, compared to the other 13 EU countries covered by the survey, has the high-

⁷³ Foundation for European Progressive Studies (2017), *Work in the European gig economy*.

⁷⁴ European Commission's Joint Research Centre on the collaborative economy and employment (COLLEEM) in 2017 and 2019.

⁷⁵ This is slightly above the European average, which stands at 2% according to the same source.

est percentage of employees providing on-location services (10%) and the third-highest percentage of employees providing digital services (10%). Portugal has higher percentages in administrative support services, creative services and professional services (legal, accounting and project management). Lastly, a mismatch between the level of qualifications and the type of services provided (overqualification) was also found and, in the group of workers who rely mostly on platforms, the work can be stressful and routine, involving very long hours.

As previously mentioned, in Portugal Law 45/2018, of 10 August⁷⁶ established the “Legal framework for the activity of individual transport of passengers for payment in unidentified vehicles hailed via an electronic platform”, abbreviated as Transport in unidentified vehicles hailed via an electronic platform (TVDE), as well as the Legal Framework for Electronic Platforms that organise and make the aforementioned mode of transport available to the interested parties.

The new law has regulated the rights and duties of those involved in the new TVDE Service: TVDE operators; electronic platforms; drivers and users; and came into force on 1 November 2018.

Nine of these platforms are currently operating in Portugal, connecting Unidentified Vehicle Drivers and Users through an online application downloaded to mobile phones:

Figure 6 - TVDE electronic platform operators

Marca	Data Licença
Bolt	27-12-2018
Cabify	04-01-2019
Uber	25-01-2019
It's My ride	14-03-2019
Vemja	05-04-2019
Bora	11-11-2019
Tazzi	14-02-2020
Free-now	02-06-2020
Chofer	15-10-2020

Source: IMT

Data from the Portuguese transport authority (IMT)⁷⁷ show that in December 2020 there were 28,676 valid TVDE Driver Certificates, 8,043 TVDE operators (private

⁷⁶ The subject of rectification declaration no. 25-A/2018.

⁷⁷ Data available at <https://imt-tvde.webnode.pt/operadores-de-tvde/>

limited companies and sole proprietorships, insofar as the activity of TVDE operator is subject to licensing and can only be engaged in by companies that meet the conditions for access and service) and 56 TVDE driver training entities with authorisation to provide training to obtain and renew the individual transport of passengers for payment in unidentified vehicles hailed via an electronic platform driver certificate (CMTVDE).

1.5. Digital nomads

Background

The increasing digitalisation of the economy, the development of technology and connectivity, together with the increase in geographical mobility have enabled the development of so-called “digital nomads”. Digital nomadism is a lifestyle that has begun to emerge in more recent decades and it has established itself as a new way of delivering work, with the advances in areas such as cloud computing and digital wireless technology.

The digital nomad can be defined as “a person who is independent (of time and place) and whose lifestyle is related to three main resources: smart mobile devices, broadband and fast internet access that enables distance communication and access to cloud computing data” (Makimoto and Manners, 1997)⁷⁸.

This new form of work differs from remote work in the traditional and stricter sense (for example, in the context of telework) since digital nomads seek to enjoy freedom of location, both in terms of work and residence. They may regularly switch their residence and the place (country or region) from which they remotely provide their work, often involving the provision of work between different countries.

The digital nomadism model can, in theory, have advantages for both workers and employers, as well as for the countries and regions hosting digital nomads. Workers have greater freedom of choice, work independently and experience different cultures and ways of life, depending on the country they are working in. Companies widen their field of recruitment, being able to count on geographically dispersed workers and benefit from a reduction in infrastructure costs. These factors may be

⁷⁸ T. Makimoto, D. Manners (1997), *Digital Nomads*, Wiley, 1st edition, December 1997

particularly relevant for small and medium-sized enterprises located outside urban centres that are less attractive to potential candidates and which have more difficulty in hiring qualified personnel. Countries and regions hosting digital nomads can, in theory, benefit from attracting qualified and financially independent people who can contribute to boosting local economies.

Digital nomadism can facilitate, from the perspective of public policies, the settlement of people in different territories, especially outside urban centres, and strengthen the attraction of new residents. Digital nomadism can boost local economies, promote increased consumption and bring more dynamism in the respective rental markets, as well as deepen cultural exchange and the creation of coworking centres.

Many countries have adopted measures to attract digital nomads to their territories, since they are mostly skilled professionals in emerging areas who are financially independent and bring some dynamism to domestic demand and the local economy. These measures include the creation of favourable tax schemes and visas for these professionals.

In any case, it is important to bear in mind that digital nomadism also poses significant challenges. These challenges include the regulation of labour relations, taxation and access to rights for the people involved so as not to lead to new phenomena of job insecurity, with particular emphasis on social protection. The risk of offshoring these activities is also not irrelevant.

Some data

There are some studies that allow us to describe the profile of the digital nomad, although digital nomadism is still a little-known reality and it is naturally difficult to collect reliable and comparable information on this phenomenon. Digital nomads, according to available information, occupy different positions and employment arrangements and they can be separated into three groups: (i) people who work for international companies, but do their work remotely from different locations, where the most important objective for the company is the completion of the task or project; (ii) people who are self-employed, often referred to as freelancers (e.g. programmers, copywriters, journalists or computer graphics designers) and who can do their work remotely from anywhere in the world; (iii) creators of start-ups who generally

conduct their business through the Internet (David, 2016)⁷⁹.

According to Elwes (2016)⁸⁰, **most digital nomads are programmers (around 22%) or online marketers and designers (17%)**. A study in 2014⁸¹ found that **67% of digital nomads were freelancers and that 33% set up a virtual business or team**.

Digital nomads are primarily relatively young men without children, according to this survey (33% of the respondents were between 31 and 36 years old, 29% were almost 30 years old (26-30) and 18% were in the 37-45 age group).

The attractiveness of territories for digital nomads is also variable and does not always reflect the potential of this form of work to rebalance territorial asymmetries, namely between urban and rural, since cities are themselves destinations for digital nomads. For example, according to a study carried out by InterNations, Lisbon ranked third out of 66 cities in the Expat City Ranking⁸², showing a good performance on all levels: in the “Getting Settled” index it also ranked third, with 82% of respondents feeling at home in the city and another 79% happy with the social life. The city’s fourth place in the quality of urban life index also demonstrates satisfaction with this dimension, along with a notable fifth place in the leisure and climate subcategory and eleventh in security. Lisbon also ranks sixth in the local cost of living index, with 64% of respondents satisfied.

Portugal is the European country with the best ranking on the Expat Insider report 2021⁸³, taking fifth place in a list of 59 countries. Portugal is placed in the top ten in three of the five indexes assessed: quality of life (third), ease of settling in (ninth) and cost of living (ninth).

Measures to attract digital nomads have been adopted in different countries and regions, and it is possible to highlight some recent experiences. Estonia created the new Digital Nomad Visa at the height of the pandemic. This visa grants residence permits for up to one year, and its requirement is that nomads have a minimum monthly salary of €3,000. Legislation was passed in 2020 in Greece so that a new tax

⁷⁹ David E. (2016), *Become nomad*, [online], www.becomenomad.com, acesso em 10/11/20

⁸⁰ Elwes E. (2016), *What The Digital Nomad Survey Told Us*, 01.06.2016, [online], <https://welance.de/journal/digital-nomad-survey-results/>, access date: 23.08.2017.

⁸¹ *New oDesk Survey*, 2014, disponível em <https://www.upwork.com/>

⁸² InterNations (2020), *Expat City Ranking 2020*

⁸³ InterNations (2020), *Expat City Ranking 2021*

scheme would be available for digital nomads from early 2021, which will allow them to pay only half the taxes due on their income over the next seven years. Norway has a specific visa for digital nomads who wish to move to the Svalbard archipelago, and this visa remains valid in the long term. Visas for freelancers, one for artists and one for independent professionals, have been created in Germany, which can be advantageous for digital nomads, and the Czech Republic has also created a special business visa that can be favourable to digital nomads.

The e-Residency Programme was created in Portugal, which was part of the Simplex 2019 Programme under the name “Digital Identity”, and a proposal was prepared for the regulation of that Programme, included in the Digital Transition Action Plan. The Digital Nomads Madeira project was launched specifically for digital nomads⁸⁵, which seeks to provide attractive conditions for digital nomads who choose the region.

Also amended was the Interior Mais measure, the support programme for mobility to inland areas, allowing the range of beneficiaries to be extended to include foreigners or teleworkers.

This extension is an important step towards the international positioning of Portugal as a destination from which someone can work anywhere in the world, encouraging people to settle in the country’s inland areas.

Outside the European Union, countries such as Georgia, Antigua and Barbuda, and the island of Aruba have created special programmes for digital nomads. In the case of Georgia, Remotely from Georgia is a special programme for attracting digital nomads from 95 countries for periods of 180 days or more who must have a minimum monthly income of EUR 2,000. The Nomad Digital Residence Program created by Antigua and Barbuda grants visas for up to two years to nomads with an income of USD 50,000 or more per year. The One Happy Workation programme creates a remote work visa on the island of Aruba. The visa has a duration of 90 days and during that period remote workers can benefit from government-promoted accommodation packages in furnished residences or hotels.



“We are witnessing the incessant development of information and digital technologies: cloud platforms, the large-scale storage and use of data, management systems at a wide range of levels, sensor systems, the so-called “internet of things” (IoT), technologies such as machine learning and the so-called immersive technologies (mixed reality).”

2. Technological diversity, Artificial Intelligence and Algorithms

Background

A very broad set of technological changes and their incorporation into production and market processes is underway. These transformations are of different types and correspond to diverse technological innovations, but they have increasing impacts in common that are reflected in the world of work.

This wave of technological change, linked both to digitalisation in its most narrow definition and to automation, includes innovation associated with production processes, such as additive manufacturing or computer-aided production, as well as broader changes linked to the expansion of robotics systems. We are also witnessing the incessant development of information and digital technologies and the way in which, on their own or in interaction with physical spaces, they interact with the different dimensions of the economy and society. A few examples are cloud platforms, the large-scale storage and use of data, management systems at a wide range of levels, sensor systems, the so-called “internet of things” (IoT), technologies such as machine learning and the so-called immersive technologies (mixed reality).

Two of the most structuring and active fronts of change within this broad and changing set of focuses of technological innovation are artificial intelligence and algorithms. They provide, in particular, change with potential for powerful impacts on the labour market, cutting across different sectorial realities. Artificial intelligence, algorithms and the large-scale use of data they imply are nowadays increasingly permeating - although at different paces - into production and market processes, into the decision-making of economic agents and, consequently, into labour relations themselves. They present profound impacts and also risks to labour relations.

Artificial Intelligence (AI), supported by the strong growth in computing power and data usage, has been evolving at an ever-increasing pace. This development in the AI field can bring numerous benefits in several fields, namely in knowledge production, improved decision-making and large-scale data processing, and it can contribute to economic growth and individual and social well-being. However, it also carries a set of serious risks in areas such as privacy and security, opacity and distancing in work relationships, as well as in non-transparent decision-making processes, and in potential discrimination and exclusion based on how algorithms work. It is therefore

important to understand its evolution and what the impacts of this type of technology are. Although the net balance of job creation and destruction is uncertain, it is certain that artificial intelligence, alongside automation, will be one of the drivers of changes in employment flows and labour relations.

The concept of AI, or at least the term, emerged in a series of conferences held at Dartmouth College in 1956, at which several scientists met to try to teach machines to solve problems that only humans could solve at that time.

Although there is no common definition of Artificial Intelligence, the European Commission's definition is as follows: "AI is a set of technologies that combine data, algorithms and computing power"⁸⁵. The definition of an AI system from the OECD AI expert group (AIGO) is taken as a reference: "machine-based system that can, for a given set of objectives, make predictions, recommendations or decisions that influence real or virtual environments. It uses machine and/or human inputs to perceive real or virtual environments; to extract such insights into models (in an automated way, e.g. with machine learning, or manually); and to use the inference model to formulate information or action options. AI systems are designed to operate with various levels of autonomy"⁸⁶.

Thus, AI is a system composed of data and algorithms, and there is AI that is considered weak and AI that is considered strong: strong AI means that these systems have the same intellectual capacity as humans, and may even exceed it. Weak AI is geared towards solving specific problems, using mathematics and computer science to evaluate and make systems capable of optimising themselves. There are three major groups of tasks where AI has been applied: matching supply and demand (of note being the example of work provided through digital platforms); classification tasks and process management tasks. These three AI application fields can be further categorised into "task substitution, task complementarity and task expansion"⁸⁷.

The European Commission, in the *White Paper on Artificial Intelligence*⁸⁸, highlights the potential of AI for new benefits, the development of new products and services as well as cost reduction in areas such as health, transport, public services, education, energy, waste management, agriculture, the green and circular economy. However, it also highlights the risks to security, the proper functioning of the liability

⁸⁵ COM (2020), *White Paper on artificial intelligence – a European approach to excellence and trust*, COM/2020/65 final.

⁸⁶ OECD (2019), *Scoping the OECD AI Principles: Deliberations of the Expert Group on Artificial Intelligence at the OECD (AIGO)*, OECD Publishing, Paris, <https://doi.org/10.1787/d62f618a-en>

⁸⁷ Ernst et al (2018), *The Economics of artificial intelligence: implications for the future of work*, ILO Research Paper, October 2018.

⁸⁸ COM (2020) 65 final

system, the protection of privacy and personal data and non-discrimination.

AI presents a high potential for disruptive transformation in work environments, changing task performance content, forms of interaction between employers and workers, between workers themselves and between workers and machines, as well as in methodologies for measuring and monitoring the effort, efficiency and productivity of workers and of work itself in everyday life.

It can also play an important and equally risky role in the selection processes of job applicants and in the context of the so-called background employment checks. By means of those checks, specialised companies select and exclude job applicants on the basis of different distinguishing factors, which are not directly related to the type of activity to be performed but rather to aspects of the private life of the applicant or to personal, social and cultural characteristics, such as domicile, ethnic origin, tastes, financial profile, religion, criminal record or sexual orientation.

In terms of impacts on the labour market, these have mainly concerned the reorganisation of tasks in which AI complements human labour because, as stated by the OECD⁸⁹, despite the significant evolution in the use of AI, obstacles remain that have prevented its large-scale adoption. The advance of AI will mean that many workers will likely have to upgrade and acquire new skills, not only in areas that allow interaction with AI, but also in areas that require inherently human skills where AI does not yet perform well, such as creativity, emotional and social intelligence, cognitive intelligence and perceiving and performing tasks in an unpredictable and unstructured context. However, it should also be borne in mind that recent technological advances suggest that tasks where such skills play a central role may also be at risk of automation.

Also of note is the potential of AI to increase inequalities by contributing to increased polarisation and segmentation of the labour market by widening the divide between highly-skilled and low-skilled workers, as the former are better placed to take advantage of AI's benefits as it may complement their work. Some companies are also better positioned to develop or use AI and, given the difficulties that a large proportion of SMEs have in adopting AI, we may be facing a situation that reinforces the small number of companies with excessive market power.

AI is also expected to impact more strongly on social groups such as young people and women, since the risk of automation is higher among jobs performed by these

⁸⁹ OCDE (2021), *The Impact of Artificial Intelligence on the labour market: what do we know so far?* Working Paper no. 256

groups⁹⁰. Moreover, women are under-represented in the STEM professional fields and AI can reinforce algorithmic gender bias and discrimination, especially if the machine learning teams that define how the algorithm works are not more diverse in terms of socio-economics, gender and ethnicity.

De Stefano (2019) pointed out that AI can be used to monitor worker productivity, identify innovation and deviant behaviour, and algorithm-based management can lead to forms of discrimination, which also includes discrimination in access to employment⁹¹. Thus, the lack of transparency and explanation about how the algorithms' decisions and predictions work can lead to the exclusion of jobseekers due to factors unrelated to the profile of the job to be filled. This can also lead to workers' insecurity. AI, by enabling the monitoring of workers' performance, can increase pressure on workers and increase stress regarding productivity and how bosses interpret information.

The use of algorithmic management has been on the rise and was strongly boosted with the COVID-19 pandemic through the use of remote working software that enables the collection and monitoring of work performance data. Although this type of algorithmic management has essentially emerged in the collaborative economy for work on digital platforms, as Adams-Prassl (2020) points out, it is now commonplace in various industries, and is used to support management in information gathering, information processing and worker control based on that gathered information, often in a non-transparent manner⁹².

These risks have led to the development of several initiatives and guidelines aimed at making AI ethical, fair and transparent.

The European Union, in a Document dated 8 April 2019 entitled Ethical Guidelines for Trustworthy Artificial Intelligence, established that respect for human autonomy, transparency, privacy and the protection of people's personal data should always be upheld, ensuring the defence of equality and the prohibition of discrimination, always defending the human person in its various aspects.

The ILO itself has defended the same idea by proposing that there should be "a 'human in charge'-based approach to artificial intelligence that ensures that final

⁹⁰ COM (2019), *AI, the future of work? Work of the future! on how artificial intelligence, robotics and automation are transforming jobs and the economy in Europe*, European Political Strategy Centre, 2019

⁹¹ De Stefano (2019), Introduction: *Automation, Artificial Intelligence, and Labour Protection* Comparative Labor Law & Policy Journal, Vol. 41, No. 1, 2019

⁹² Adams-Prassl (2020), *Algorithmic management and the EU social acquis: opening the black box*, Thematic Working paper for the Annual Conference of the ECE, October 2020.

decisions affecting work are made by human beings” and that “algorithm management, surveillance and control through sensors and other forms of monitoring needs to be regulated to protect the dignity of workers”, adding that “work is not a commodity; nor is it a robot”⁹³.

In May 2019, the OECD also set out five principles for an Artificial Intelligence that is “innovative, trustworthy and respects human rights and democratic values”⁹⁴.

Efforts have been made in the specific field of algorithms to raise awareness for the need to negotiate algorithms, involving social partners, and to regulate algorithmic management practices (De Stefano, 2019).

Some data

None of the world’s big companies currently leading the way in AI (such as Google, Amazon, Apple, Facebook, Microsoft, IBM, Baidu, Tencent and Alibaba) are European. **Only around 20% of companies globally have adopted AI-based technology** and small and medium-sized enterprises have numerous competitive disadvantages compared with large companies, particularly technology companies and multinationals, both in AI adoption and in attracting and retaining skilled workers. Several countries, such as France, Germany, United Kingdom, Sweden, Finland, Estonia, Austria, United States of America, China and Canada, have also been developing AI-based diagnostics and/or national strategies⁹⁵.

EU funding for AI research and innovation has been increasing significantly - around EUR 1.5 billion between 2017 and 2020 - but it is still small compared to AI investment in North America and Asia. Thus, the EU aims to attract, over the next decade, a total investment in AI of more than EUR 20 billion per year⁹⁶.

The EU, in response to the challenges posed by AI and with a view to positioning itself as a global leader in safe AI, has adopted initiatives such as the Artificial Intelligence for Europe Strategy, in April 2018⁹⁷, the Coordinated Plan for Artificial Intelligence, presented in December 2018⁹⁸, with 70 joint actions between Member States until 2027. It has also notably set up a High Level Expert Group that has been producing guidelines in this area.

⁹³ *Working for a Better Future*, Geneva, 2019, pp. 13 and 45.

⁹⁴ OCDE (2019) *Recommendation of the Council on Artificial Intelligence*, OECD/LEGAL/0449

⁹⁵ COM (2019), *AI, the future of work? Work of the future! on how artificial intelligence, robotics and automation are transforming jobs and the economy in Europe*, European Political Strategy Centre, 2019

The National Strategy for Artificial Intelligence in Portugal, “AI Portugal 2030”, was launched in 2019, and is based on seven pillars and seven axes of action⁹⁹:

Pillars:

1. Promoting a better society.
2. Promoting AI skills and digital minds for all.
3. Promotion of new jobs and development of an AI service economy.
4. Fostering Portugal’s status as a living laboratory for experimenting with new developments.
5. Protection to niche AI markets through the development of key specialised services in Portugal.
6. Contribution to the development of new knowledge through research and innovation in AI.
7. Provision of better public services for citizens and businesses and adoption of evidence-based approaches to decision-making processes and public policy-making

Axes of actions:

1. Inclusion and Education - widespread dissemination of knowledge in AI.
2. Qualification and Specialisation.
3. Thematic areas for Research and Innovation in European and international networks.
4. Public Administration and its modernisation.
5. Specific areas of specialisation in Portugal with international impact.
6. New developments and support areas in European and international networks.
7. New challenges for society brought about by AI: Ethics and Safety

The diagnosis made in the “AI Portugal 2030” Strategy found that the offer of AI-related training subjects has been steadily growing, but companies have difficulties in recruiting human resources in these areas. Research centres dedicated to AI (including robotics) have been around for decades and scientific societies have

⁹⁹ AI Portugal 2030, INCODE 2030.

been active in promoting AI as a scientific and technological field, and Portugal is ranked 21st in the world in per capita scientific publications related to AI¹⁰⁰.

However, a Microsoft study¹⁰¹, cited in the aforementioned “AI Portugal 2030” Strategy, states that **in 2018, only 4% of the 277 relevant companies surveyed consider themselves to be at a mature stage of AI use, while 61% are in a planning or pilot phase, and 57% of companies expect AI to have a high impact in new business areas.**

¹⁰⁰ AI Portugal 2030, INCODE 2030

¹⁰¹ Artificial Intelligence in Europe: Portugal, Outlook for 2019 and Beyond. Report by Microsoft



“Data processing and analytics software also becoming increasingly powerful, sophisticated, ubiquitous and cheap, making information easily searchable, connectable and traceable”, which “means that personal data are more valuable and more prone to unforeseen uses”

3. Right to privacy and data protection

Background

Concerns about data privacy and digital risks have been growing significantly within a context of use of technologies such as artificial intelligence, the so-called “internet of things” and big data analysis. The risks of intrusion in private life and violation of data privacy grow exponentially in this context, with consequences at different levels.

As highlighted by the OECD, “organisations and individuals increasingly rely on third-party cloud-based data storage services that may be located outside their country”, with “data processing and analytics software also becoming increasingly powerful, sophisticated, ubiquitous and cheap, making information easily searchable, connectable and traceable”, which “means that personal data are more valuable and more prone to unforeseen uses, increasing the incentive to collect and store it”¹⁰².

Data breaches such as unauthorised access or disclosure, malicious hacking, phishing attacks and denial of service have increased as more data is collected and stored, so many countries have been introducing and modifying their data policies, adapting them to the digital age and seeking to ensure data privacy and protection.

The digital revolution and its impact on the labour market and labour relations are likely to generate risks in terms of privacy and the protection of personal data, particularly in teleworking and remote working, through digital platforms or involving means of monitoring the employee’s activity by the employer.

The new information and communication technologies have placed new means of control of work activity at the employer’s disposal, allowing a more intrusive control than the traditional non-electronic means of control and permitting total and permanent surveillance of the worker, as well as an almost unlimited processing of personal data.

¹⁰² OECD (2020), *OECD Digital Economy Outlook 2020*, OECD Publishing, Paris, <https://doi.org/10.1787/bb167041-en>. (Chapter 6 – Privacy and data protection, p. 160)

Accordingly, the use of new technologies based on techniques that are increasingly intrusive in the personal sphere of the individual brings with it constant challenges in the areas of data protection and the privacy of personal life.

Therefore, depending on the type of use of the technology by the employer, there may be risks of violation of fundamental rights of workers, namely the right to privacy provided for in Article 26(1) of the Constitution of the Portuguese Republic (CPR) and the right to the protection of personal data, set out in Article 35 of the CPR. The protection of privacy is, moreover, amply guaranteed through various pieces of legislation, primarily at the level of the European Convention on Human Rights and the Charter of Fundamental Rights of the European Union (Articles 7 and 8, respectively). On the other hand, the Labour Code itself provides for special protection of the privacy of the worker's private life, in Article 16.

In terms of the protection of personal data, the protection of the rights of the data subject, as well as the obligations of the controller, is upheld. It is legally supported by the General Data Protection Regulation¹⁰³ as well as by Law no. 58/2019 of 8 August, which ensures the implementation of the GDPR in national law, as well as in the Labour Code itself, in the part relating to the rights of personality - articles 14 to 22.

The General Data Protection Regulation also brought about a paradigm shift, as the responsibility for ensuring the lawfulness of the processing of personal data now lies with the data controller. In this context, there has been a shift from a preventive assessment by data protection authorities to an *a posteriori* supervisory activity, with companies and organisations having to ensure compliance with all the established rules in advance.

With regard to data processing in the employment context, Article 88 of the GDPR allows Member States to establish more specific rules in their domestic legal systems or in instruments regulating collective bargaining to ensure the protection of the rights and freedoms of individuals when processing data in the employment context for a wide variety of purposes, including recruitment and performance of the employment contract¹⁰⁴.

¹⁰³ (Regulation 2016/679 of the European Parliament and of the Council of 27 April 2016)

¹⁰⁴ In view of this article, the Labour Code and Law No. 58/2019 of 8 August consequently guarantee adequate protection for the worker. Article 28 of this Law in particular establishes that "the employer may process the personal data of its employees for the purposes and with the limits defined in the Labour Code and its supplementary legislation or in other sectoral regimes, with the specificities established in this article".

As established in Article 4(1) of the GDPR, the employment relationship requires the processing of employees' personal data, since it is necessary to obtain information, and this information is archived, assigned and analysed. The concept of personal data in the abovementioned Article 4 means all "information relating to an identified or identifiable natural person", where a natural person may be identifiable directly or indirectly, in particular by reference to an identifier such as: a name, an identification number, location data, physical, physiological, genetic, mental, economic, social or cultural information concerning that natural person.

Articles 14 to 22 of the Labour Code, which contain the employment personality rights, including the right to privacy (Article 16) and the protection of personal data (Article 17), set out the fundamental principles on the processing of workers' personal data in the employment relationship. These articles have recently been clarified and strengthened by the GDPR. In the light of these principles and, as a rule, the basis that may legitimise the processing of personal data in an employment relationship is the pursuit of the legitimate interests of the employer assessed on a case-by-case basis and when the processing is necessary for the performance of the respective employment contract.

The processing of personal data in the context of an employment relationship is essentially intended for contractual performance and compliance with legal obligations, both from the point of view of the employer and the employee. The processing of personal data, which may also cover the process of contract formation, is regulated by the Implementing Law of the GDPR, which specifically authorises the processing of data by the employer within the purposes and limits defined in the Labour Code and other applicable legislation¹⁰⁵.

In terms of the collection of personal data by remote surveillance technology (such as video surveillance cameras), these data may only be used in the framework of criminal proceedings or for the purpose of ascertaining disciplinary responsibility, to the extent those data are used in the context of criminal proceedings.

As regards biometric data, their processing is only legitimate for the purposes of

¹⁰⁵ The aforementioned Article 28 also establishes some limitations. These relate to the consent of the worker (no. 3), recorded images and other personal data recorded through the use of video systems or other technological means of remote surveillance (no. 4 and no. 5) and the processing of workers' biometric data (no. 6). The consent of the employee does not specifically comprise a requirement for the legitimacy of the processing if it results in a legal or economic advantage for the employee or if such processing is covered by the provisions of Article 6(1)(b) of the GDPR, which authorises the processing of personal data by the employer when necessary for the performance of a contract to which the data subject is a party or for the purpose of pre-contractual measures at the request of the data subject.

controlling attendance and access to the employer's premises, and it must be ensured that only representations of biometric data are used

The employer, as the entity responsible for the data processed (controller), is also subject to a series of obligations, namely compliance with technical measures at the organisational, control and security levels, which prove to be appropriate and sufficient in order to maintain data confidentiality. The employer should therefore ensure that only duly legitimised persons are authorised to access and process the personal data stored.

In the event of improper access or any breach of data, the controller must notify the data subject of the occurrence in an appropriate and timely manner, seeking to mitigate all associated risks in a swift and diligent manner.

The data subject also has a series of rights, including access, alteration and rectification, portability, erasure and elimination (within the legal limits) of his/her data¹⁰⁶. In order to guarantee any of these rights the worker is entitled to exercise, the employer must make all the information it holds available, as well as provide the contact details of the Data Protection Officer, if there is one.

On the other hand, with the increase and massification of remote work, the use of software capable of remotely controlling the worker's professional performance has also tended to grow, with increased risks to the privacy of the worker and his/her household. There has also been a very significant increase in the practice of employment background checks in the process of creating employment contracts. These involve specialised companies analysing the profile of job applicants using not only information on their CV but also data concerning their habits and lifestyles, personal tastes, ideology and religion, financial and socio-economic profiles or even sexual orientation.

It is therefore essential, in view of this context, to ensure adequate protection for all workers in their employment relationship, in the face of emerging new working arrangements. The reason is simple: as digitalisation evolves and jobs become more "digitalised", the risk of workers' personal data becoming unprotected and their privacy being breached increases exponentially.

¹⁰⁶ Furthermore, the data subject may, at any time, lodge a complaint with the supervisory authority, Comissão Nacional de Proteção de Dados [National Data Protection Commission], regarding a violation of the protection of his/her data or the omission of any of his/her rights. Employees should always be guaranteed the provision of information about all types of processing of their personal data, as well as the purposes that justify such processing. They must also be informed of all communications and transfers to third parties, even for the purposes of legal obligations that the employer is obliged to comply with.

Some data

The main technologies posing privacy challenges that are identified in the 2019 OECD Privacy Guidelines Questionnaire are artificial intelligence, big data analytics, the internet of things and biometrics.

In 2019, one in three European citizens aged 16 to 74 years of age said they had limited their private activities on the internet in the previous 12 months due to security issues¹⁰⁷ and in a survey conducted by the European Commission, half of the respondents, with the exception of four Member States, expressed concern about the lack of control over the information made available online¹⁰⁸.

On the other hand, globally-produced data is expected to have an annual growth rate of 61% between 2018 and 2025, increasing from 33 to 175 zettabytes between 2018 and 2025¹⁰⁹. Between 2018 and 2019, more than 89,000 data breaches were recorded in the European Union¹¹⁰.

Many countries have been developing a range of measures to promote awareness among companies about compliance with data protection and privacy frameworks, mainly through awareness-raising campaigns and best practices guidelines. According to a survey conducted by the OECD on this issue, for example, the authorities with responsibility in these areas, in more than 82% of responding countries, have issued guidelines or official position papers on privacy or data protection impact assessments, consent forms, guidance to consumers on privacy breaches, artificial intelligence and targeted advertising, and 38% of countries are implementing incentives to promote the self-regulation of companies¹¹¹.

Companies and individuals in Portugal are less likely to acknowledge being victims of cyber security incidents than the European Union average (8% of Portuguese companies versus 13% in the EU and 27% of Portuguese individuals versus 37% in the EU). However, between 2018 and 2019 there was a 26% increase in Portugal in incidents recorded and a 139% increase of vulnerabilities identified by CERT, with

¹⁰⁷ Eurostat: <https://ec.europa.eu/eurostat/web/products-eurostat-news/-/EDN-20200211-1>

¹⁰⁸ European Commission (2019), *Study on Broadband Coverage in Europe 2018*, European Commission, Brussels, <https://ec.europa.eu/digital-single-market/en/news/study-broadband-coverage-europe-2018> (accessed on 21 October 2020).

¹⁰⁹ European Commission (2020), *A European Strategy for Data*, European Commission, Brussels, https://ec.europa.eu/info/sites/info/files/communication-european-strategy-data-19feb2020_en.pdf.

¹¹⁰ EDPB (2019), *1 Year GDPR - Taking Stock*, European Data Protection Board, Brussels, 22 May, https://edpb.europa.eu/news/news/2019/1-year-gdpr-taking-stock_en.

¹¹¹ OECD (2020), *OECD Digital Economy Outlook 2020*, OECD Publishing, Paris, <https://doi.org/10.1787/bb167041-en>.

phishing and malware infection the types of incidents most recorded in 2019. Digital infrastructures, internet service providers, education, science technology and higher education and banking are the sectors and government areas most affected by incidents¹¹².

Conversely, 28% of companies in Portugal had documented recommendations on ICT security measures, practices or procedures in 2019 (compared to the EU average of 34%) and 54% of national companies developed employee awareness actions on ICT security in companies in 2019 (compared to 62% in the EU). In the education field, in 2019 there were four technological specialisation courses in cybersecurity, six higher technical professional courses, one undergraduate degree, eight master's degrees and one doctorate¹¹³.

In Portugal, the Resolution of the Council of Ministers No. 36/2015 of 12 June approved the first National Strategy for Cyberspace Security (ENSC). This strategy aims to make networks and information systems more secure, enhancing the unhindered, safe and efficient use of cyberspace by all citizens and public and private entities. Also, Law no. 46/2018 of 13 August established the legal framework for cyberspace security, transposing Directive (EU) 2016/1148 of the European Parliament and of the Council, of 6 July 2016, on measures to ensure a high common level of security of network and information systems across the Union. This law established the High Commission for Cyberspace Security.

Given the development of cyberspace and the associated risks, the Resolution of the Council of Ministers No. 92/2019 , of 23 May, approved the National Strategy for Cyberspace Security 2019-2023, defining the framework, objectives and lines of action of the State in relation to cyberspace security.

It should be noted that an entity specifically for cybersecurity issues was created in Portugal in 2017, under the control of the Presidency of the Council of Ministers - the National Cybersecurity Centre. This entity acts as the operational coordinator and specialist authority on this matter, particularly with State entities, operators of national critical infrastructures, operators of essential services and digital services.

There have been debates in other countries on these matters and examples have emerged of entities specifically dedicated to reflecting on the implications of tech-

¹¹² Relatório Cibersegurança em Portugal –Risks and Conflicts 2020 Report, Cybersecurity Observatory

¹¹³ Relatório Cibersegurança em Portugal – Society 2020 Report, Cybersecurity Observatory

nological changes and, in particular, the advance in the use of data, including the creation of entities for this purpose.

In short, the defence of the right to privacy and the protection of personal data deserves greater attention from public entities, particularly in the context of the formation and performance of employment contracts.



“The theme of working hours, their organisation and duration, is a benchmark of Labour Law, and this is one of the most important and complex matters to deal with in the regulation of the labour market.”

4. Working hours, reconciling work and family life and the right to disconnect

Background

The theme of working hours, their organisation and duration, is a benchmark of Labour Law, and this is one of the most important and complex matters to deal with in the regulation of the labour market. The first labour laws, which arose to bring merely formal equality within labour relations to an end, are based on working hours and the necessary reductions and limitations.

Working days of 16 or 18 hours without any rest began to be limited over time, in accordance with the old Anglo-Saxon proverb - “*eight hours for work, eight hours for rest, eight hours for what we will*”. Portugal followed this tripartite division of 8 hours for work, 8 hours for sleep and 8 hours for the personal and social fulfilment of the worker. Nowadays, it is clear that limiting working hours also has other fundamental objectives, not only those of health and safety at work, since endless working days make occupational accidents more likely, but also the objectives of workers’ health and well-being, and reconciling professional life with family and personal life.

Besides the legislative dimension, sector and company-centred collective bargaining also plays a significant role in adapting the legal framework to specific labour contexts. There are many examples of collective labour regulation instruments that have specific provisions on matters related to the conciliation of work and family life.

Generally speaking, Labour Law is one of the sectors of the legal system that, by its very nature, is most affected by technological changes, as is the world of work in general, given that the new information and communication technologies pose new labour challenges, due to their facility and capacity to enable work to be done anywhere and at any time.

The growing pressure for flexibility, particularly in terms of working hours, and the introduction and omnipresence of new technologies that enable permanent connectivity, can lead on the one hand to better conciliation between family, personal and professional life, but at the same time to new problems related to the limitation and definition of working times.

It is in fact becoming increasingly difficult to define working time and rest and relaxation time in the new digital economy. This issue is of fundamental importance, given the risk of increasingly blurred boundaries between working time and rest and leisure time for workers, caused not only by the increasing ease of communication, but also by the erosion of the separation between the place where work is performed and places that were traditionally non-working places, namely the home, as a result of technologies enabling remote working.

This issue is particularly acute in working arrangements such as telework, but it is in fact transversal in a context of ubiquity of new information and communication technologies. This is the context in which a right to disconnect has been advocated, as well as the regulation thereof, as a new frontline of the right to privacy in the 21st century, namely to enable greater conciliation between professional life and family and personal life.

There is no legal definition of the right to disconnect, but this right is commonly understood to mean the right of workers to disconnect their electronic means of communication (whether smartphones, tablets or computers) outside of working hours or, when connected, not to answer or respond to professional phone calls, texts or e-mails. This aims to enable workers to reconcile their professional, family and personal life, to prevent and combat the risks of burnout and the blurring of boundaries between personal and professional life, and to stimulate productivity and combat loss of effectiveness by ensuring effective rest periods for workers and the resulting levels of motivation.

The COVID-19 pandemic has forced changes in the way people work, accelerating digitalisation and increasing the use by companies, self-employed workers and the public administration of teleworking arrangements, which makes the regulation of some of these issues more pressing.

It is essential, in more general terms, to bear in mind that the difficulties and complexities in reconciling work and family and personal life are not gender-neutral, making equality issues even more fundamental (see specific section for further details). In fact, reconciling work and other spheres penalises women more, both in their careers and in the burden on personal and family life in contexts of unequal distribution of unpaid work, especially in a country like Portugal that has one of the highest rates of work by women, who typically work full-time.

This statement takes on specific significance with the expansion of working arrangements that blur the separation between working and non-working times and spaces

and which, in any case, foster the separation of workers from the workplace. There is the risk that women will experience the risks inherent in these changes most.

Hence, the increase in teleworking may pose a higher risk for women, as pointed out above. It can also accentuate the difficulties of situations such as people with caring responsibilities, families with children, families with a lone carer (such as single-parent families), and families with relatives or other dependents in need of care.

It should be noted, in this regard, that Article 59(1)(b) and (d) of the Constitution of the Portuguese Republic state that all workers, without distinction of age, gender, race, citizenship, territory of origin, religion, political or ideological beliefs, have the right to work in socially dignifying conditions, so as to enable personal fulfilment. They also have the right to reconcile work and family life, as well as the right to rest and leisure, up to a maximum limit on the working day, and the right to weekly rest and to periodic paid holidays.

The Labour Code amply regulates these matters, in order to put into practice those constitutional principles. It enshrines the general duty of the employer to provide workers with conditions that favour the conciliation of professional activity with family and personal life¹¹⁴. In addition to the general framework, which establishes the general principles on the duration and respective limits on the organisation of working time, including the right to weekly rest and holidays, Portuguese labour legislation also provides for a specific list of rights in the field of parenthood¹¹⁵. Those rights include, for example: flexible hours and part-time work for workers with family responsibilities; exemption from some forms of organisation of working time; exemption from overtime work, among others.

There is also specific legislation on these issues at European level. Directive 2003/88/EC of the European Parliament and of the Council of 4 November 2003, for example, establishes certain aspects of the organisation of working time and is relevant to the conciliation of work and family life. Also, the Work-Family Life Balance Directive (EU / 2019/1158) was adopted in June 2019, and must be implemented by Member States within three years.

There have been specific legislative initiatives on the right to disconnect, in different countries.

¹¹⁴ Article 127 establishes, under the heading “Duties of the employer”, that “The employer must provide the worker with working conditions that favour the conciliation of professional activity with family and personal life.”

¹¹⁵ Articles 33 to 65 of the Labour Code.

In France, the right to disconnect was established in law in 2016, as article L-2242-8 of the *Code du Travail*, after being included in several collective agreements. This law defined that companies with more than 50 workers - and only these - had to negotiate this right as part of the mandatory annual negotiations, with effect from 1 January 2017, in the part on “professional equality and quality of life”. They would have to discuss issues such as the right to disconnect and the control of IT resources to ensure respect for the right to rest and family and personal life¹¹⁶. On 5 September 2018, however, this part was repealed and consequently any reference to the “*droit à la déconnexion*” in this legislation was eliminated through *Loi no 2018-771 du 5 septembre 2018 pour la liberté de choisir son avenir professionnel* which amended article L2242-8 of the *Code du Travail*. It did, in any case, introduce a penalty scheme for companies that have not promoted collective bargaining or the elaboration of an “action plan” on professional equality between men and women and on the quality of life at work¹¹⁷. This matter also falls within the scope of mandatory discussion in collective bargaining by virtue of article L2242-1 of the *Code du Travail*¹¹⁸. This right became part of the bargaining possibilities, but not mandatory bargaining. However, Art. L. 2242-17, on professional equality between men and women at work and quality of life at work, established the right to disconnect in its paragraph 7. However, if there is no agreement with the trade unions, which is no longer compulsory, it is the employer who must establish such rules. No penalty is foreseen for failure to comply with this obligation¹¹⁹.

In the Belgian legal system, the Law entitled *Loi relative au renforcement de la croissance économique et de la cohésion sociale*, of 26 March 2018, established a system somewhat different from that enshrined in the French legal system

¹¹⁶ These provisions on the right to disconnect applied only to private sector workers. However, in the Public Administration, some municipalities have put in place disconnect systems. An example of this is Paris which has established a disconnect model that defines, for example, when e-mailing is to be avoided or where workers are not obliged to respond.

¹¹⁷ *Companies with at least fifty employees are subject to a penalty payable by the employer in the absence of an agreement on professional equality between women and men at the end of the negotiation mentioned in no. 2 of Article L. 2242-1 or, in the absence of an agreement, by an action plan mentioned in Article L. 2242-3. The procedures for monitoring the implementation of the objectives and measures of the Agreement and of the Action Plan shall be laid down by Decree. In companies with at least 300 employees, this lack of agreement is certified by a statement of disagreement.”*

¹¹⁸ *“In undertakings where one or more trade union sections of representative organisations have been formed, the employer shall engage at least once every four years in:*
1° Negotiations on remuneration, in particular effective wages, working time and the sharing of added value in the company;
2° Negotiations on professional equality between women and men, including measures to eliminate pay gaps and quality of life at work.”

¹¹⁹ *“7° The terms and conditions for the full exercise by employees of their right to disconnect and the implementation by the company of measures to regulate the use of digital tools, with a view to ensuring respect for rest periods and holidays as well as for personal and family life. If there is no agreement, the employer draws up a charter, after consulting the social and economic committee. This charter defines the terms and conditions for exercising the right to disconnect and also provides for the implementation of training and awareness-raising actions for employees and management staff on the reasonable use of digital tools.”*

because, although it aims to enshrine a right to disconnect, it does so through a right to discuss this matter within the *Comité pour la Prévention et la Protection au Travail*, and this *Comité* may issue proposals and notices to the employer based on the consultation held therein.

In Italy, Law No. 81/2017 of 22 May 2017, *Measures for the protection of non-entrepreneurial self-employment and measures to encourage flexible working times and places*, has established in article 19 that the worker must agree with the employer on the definition of the rest time and, in particular, on the “technical and organisational measures necessary to ensure the disconnection of the worker from his or her technological instruments of work”. The legislator enshrined, however, a sectorial scope of application, limiting itself to the field of *lavoro agile*, which is defined as “the form of organisation of work by phases, cycles and objectives, without fixing working hours and place of work and based on the possibility of using technological instruments in the provision of work”¹²⁰.

However, contrary to the French precept, the Italian legislator does not specifically define digital disconnection as a right, although this issue was addressed in the parliamentary procedure. *Lavoro agile* is like a *tertium genus* between in-person work and distance work, and it is in the latter, which occurs when the activity is carried out at home, that these rules of digital disconnection should apply.

In Spain, Organic Law 3/2018 of 5 December on Personal Data Protection and the guarantee of digital rights was approved. Article 88 of that law establishes the right to disconnect¹²¹. Also in the *Estatuto de los Trabajadores* [Workers’ Statute] article 20bis, with the heading *Workers’ rights to privacy in relation to the digital environment and to disconnection* establishes, having regard to the provisions of Organic

¹²⁰ “1. The agreement on flexible working arrangements is stipulated in writing for the purposes of administrative rules and evidence, and regulates the performance of work carried out outside business premises, including with regard to the ways in which the directive power of the employee is exercised and the tools used by the employee. The agreement also identifies the worker’s rest periods as well as the technical and organisational measures necessary to ensure the worker’s disconnection from the technological equipment used at work”.

¹²¹ “Article 88. The right to digitally disconnect in the workplace.
1. Workers and public employees will have the right to digitally disconnect in order to guarantee respect for their rest time, leave and holidays, as well as their personal and family intimacy, outside legally or conventionally established working hours.
2. The forms of exercising this right shall take into account the nature and object of the employment relationship, shall enhance the right to reconcile work and personal and family life and shall be subject to what is established in collective bargaining or, in its absence, to what is agreed between the company and the workers’ representatives.
3. The employer, after hearing the opinion of the workers’ representatives, will draw up an internal policy aimed at workers, including those in management positions, which will define the methods for exercising the right to disconnect and the training and awareness-raising actions for staff on the reasonable use of technological tools that prevent the risk of computer fatigue. In particular, the right to digitally disconnect shall be preserved in cases of total or partial remote work and at the employee’s home in connection with the use of technological tools for work purposes.”

Law 3/2018, that “Workers have the right to privacy in the use of digital devices made available to them by the employer, to digital disconnection and to privacy from the use of video surveillance and geolocation devices under the terms established in the current legislation on the protection of personal data and guarantee of digital rights”. More recently, Article 18 of the Royal Decree-Law 28/2020, of 22 September on distance working, under the title *Right to digitally disconnect*, establishes that “1. Remote workers, particularly teleworkers, have the right to digital disconnection outside their working hours under the terms established in article 88 of Organic Law 3/2018 of 5 December. The corporate duty to guarantee disconnection leads to a limitation of the use of technological means of business and work communication during rest periods, as well as respect for the maximum length of the working day and any limits and precautions regarding the working day that may be laid down by applicable legal or conventional regulations.

The European Parliament also recently proposed to move forward with European regulation on the right to disconnect. It approved, on 21 January 2021, a resolution recommending the adoption of a Directive on this issue¹²². The European Parliament resolution specifically puts forward recommendations to ensure that employers cannot require workers to be available outside their working hours and that work colleagues should also avoid work-related contact during these periods; that Member States should ensure that workers who invoke their right to disconnect are protected against possible repercussions and that there are mechanisms to deal with complaints in this area; and that distance learning activities should be considered as work and should therefore not take place during non-working hours or days without the appropriate compensation.

The European Parliament’s proposal emerges in a context in which teleworking has become the norm for many workers, due to the pandemic crisis. It is based on the recognition that this reality has blurred the boundaries between working and non-working times and has extended working times in many cases, leading to a deterioration of the conditions of conciliation between work and personal and family life, as shown by the studies recently carried out.

¹²² P9_TA-PROV (2021)0021

Some data

The **activity rate for women in Portugal is around 73%**, above the European average of approximately 68% and close to the male activity rate, which is around 78%. **Women represent 50% of employment in Portugal**, while the European average rate of women in employment is still at 46%, and only 11% of women work part-time, a much lower proportion than the average registered in the European Union which is above 31%¹²³.

The mass adoption of telework as a means of preventing contagion by COVID-19, which was advantageous from that perspective, has made the risks of this working arrangement very evident, as discussed above. It has made the risks of prolonging working times, blurring the boundaries between working and non-working times and spaces and continuous digital connection particularly visible.

A Eurofound survey discovered that workers who switched to working from home were much more likely to work regularly outside working hours, with more than a fifth (24%) of respondents saying they worked during their rest periods, compared to only 6% of workers who were working in-person at their usual place of work or elsewhere outside the home¹²⁴.

It is expected, as discussed above, that telework will remain significantly relevant in the future, even if in more balanced ways than those adopted in the pandemic context, and therefore the adaptation of working hours regulation gains increasing relevance. There are, however, structural challenges in this area which long predate the present time and are inextricably linked to gender equality (discussed in more detail in the section on equality)

In fact, despite the fact that representations about the organisation of unpaid work are now more egalitarian, and despite the positive signs about male participation¹²⁵, there is a large gap between the declared ideals and the effective sharing of responsibilities and daily practices. It is still women who experience more difficulties in reconciling work and family and personal life, despite the fact women and men equally value paid work. In terms of both paid and unpaid work, **women work one hour and 13 minutes more each working day than men¹²⁶ and only 19% of men say they do at least one hour**

¹²³ Eurostat, Labour Force Survey (data for 2019 and for age group 15 to 64 years)

¹²⁴ Eurofound (2020), *Living, working and COVID-19, COVID-19 series*, Publications Office of the European Union, Luxembourg.

¹²⁵ See, for example, the proportion of men taking father's optional parental leave, which increased from 45% to almost 68% between 2009 and 2019, or the take-up of shared leave, which rose from 9% to almost 40% in the same period (ISS, IP).

¹²⁶ CESIS, National Survey on Time Uses of Men and Women (2016).

of domestic work per day, compared to 78% of women¹²⁷. On the other hand, **almost 40 per cent of women report having interrupted their careers to care for children, a proportion that compares with just over 8 per cent in the case of men¹²⁸**. In relation to informal caregivers, people who temporarily or permanently give up wholly or in part their full involvement in paid work to assist spouses, parents, children or other family members in fragile or dependent conditions, most are women¹²⁹.

Balanced time management is therefore a decisive variable in the conditions for reconciling work with family and personal life and is therefore a critical element in terms of improving the country's demographic prospects. While it is true that the issue of working hours is of particular preponderance for women, given the overload they still

According to the 2019 Fertility Survey (INE), **reasons related to reconciling family life and work life are indicated by 20.7% of childless women as very important for the decision not to have children, a proportion that decreases to only 13.5% among childless men.**

experience, it also assumes transversal importance as a critical element of measures to improve birth rates.

More flexible working hours for mothers and fathers with small children appears, on the other hand, as the most important measure in terms of working conditions for those with children for 52.9% of men and 45.7% of women. It should be noted that the increase in part-time work opportunities for mothers and fathers was the measure least indicated as the most important for both men (20.8%) and women (20.4%). This aspect should be contextualised taking into account the low incidence of this type of working arrangement in Portugal.

In the same vein, according to the *ad hoc* Module 2018 of the Employment Survey (INE), dedicated to the conciliation of work and family life, **22.4% of caregivers claim to face obstacles in their work that limit conciliation, the most significant being the unpredictability of the working schedule or an atypical schedule (6.8%)**. Also, 55.9% of those interviewed stated that it is generally possible to change their start and/or end times by at least one

¹²⁷ Calculations by the European Institute for Gender Equality based on data from the European Quality of Life Survey 2016.

¹²⁸ INE, Employment Survey ad hoc module 2018, Conciliation of work and family life.

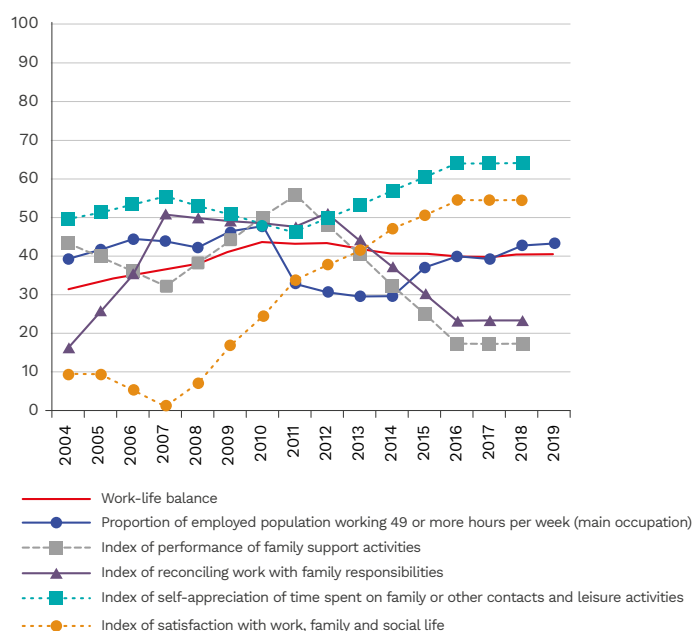
¹²⁹ According to the European Quality of Life Survey 2016, promoted by Eurofound, 17% of women in Portugal are informal carers, a proportion that compares with 9% for men (European Commission, 2018, Informal care in Europe - Exploring formalisation, provision and quality).

hour. This percentage is higher among women (56.5%) than men (55.2%) - an aspect which may explain why men value the flexibility component of working hours more than women.

In 2020, more than 80% of the beneficiaries who applied for the exceptional family support, intended for workers with children aged up to 12 years who have to stay at home with their children due to the closure of schools caused by the Covid-19 pandemic, were women. This shows the great imbalance that still exists when it comes to ensuring childcare in Portugal. It should also be noted in this regard, and despite the fact that there are a number of aspects to be taken into account from the point of view of improving conditions for the conciliation and balanced management of working and non-working time, especially in the context of digitalisation, that the overall perception of the balance between work and family and personal life in Portugal has favourably evolved in recent years.

In fact, according to the well-being index published by INE¹³⁰, the “life-work balance” indicator, which measures the subjective assessment of the time allocated to family and work, saw an important increase between 2004 and 2019. The evolution was not, however, linear: the indicator increased significantly up to 2010, but then decreased slightly and stabilised until 2019. The index for reconciling work and family responsibilities and the index for performing family support activities fell sharply between 2012 and 2016 in particular, and then stabilised until 2019. In the opposite direction, the self-assessment index of time spent with family or other contacts and leisure activities and the index for satisfaction with work, family and social life registered significant increases between 2007 and 2016 and between 2011 and 2016, respectively, then stabilising until 2019.

Figure 7 – Life-work balance and its indicators



Source: INE, Well-being Index 2004 -2019

¹³⁰ INE, Well-being Index 2004 -2019, November 2020.

Portugal, according to Eurofound¹³¹, belongs to the group of countries that take a focused approach to the promotion of work-life balance: countries with legislation on the use of telework or remote working that makes a direct link between the potential benefits of flexible forms of working for work-life balance, but without dealing specifically with negative consequences and the right to disconnect. On the other hand, countries such as Belgium, France, Italy and Spain have a balanced approach of promotion and protection: countries with specific legislation that promotes the use of ICT to support flexible working, but which also protects workers from the potentially negative consequences of an “always-on” working culture, including a provision for the right to disconnect.

It should be noted, finally, that Portugal has travelled an important path on this front. Of note in this regard, for example, is the adoption of the National Strategy for Equality and Non-Discrimination 2018-2030 - “Portugal +Igal”, as well as the launch of the 3 Aligned Programme, aimed at promoting a better balance between professional, personal and family life, as a condition for effective equality between men and women and for full citizenship, allowing free choices in all spheres of life.

¹³¹ Eurofound (2020), *The right to disconnect in the 27 EU Member States*, Working paper

5. Inclusion, equality and non-discrimination

Background

Article 13 of the Constitution of the Portuguese Republic states that all citizens have the same social dignity and are equal before the law and that no one may be privileged, favoured, prejudiced, deprived of any right or exempted from any duty on the basis of ancestry, sex, race, language, territory of origin, religion, political or ideological beliefs, education, economic situation, social condition or sexual orientation.

Articles 22 *et seq.* of the Labour Code also establish that the worker or job applicant is entitled to equal opportunities and equal treatment as regards access to employment, training and professional promotion or career and working conditions, and may not be privileged, favoured, prejudiced, deprived of any right or exempted from any duty by reason of ancestry, age, sex, sexual orientation, gender identity, marital status, family situation, economic situation, education, origin or social condition, genetic heritage, reduced capacity to work, disability, chronic illness, nationality, ethnic origin or race, territory of origin, language, religion, political or ideological beliefs and trade union membership. The State must also promote equal access to such rights.

The promotion of greater participation by women in the labour market, equal sharing by women and men of economic and political decision-making, equal sharing of domestic and care work between women and men, women's economic empowerment, wage transparency and the elimination of violence and harassment in the workplace are fundamental requirements for effective gender equality and also essential for sustainable development. It is therefore essential to integrate a gender perspective into all dimensions of reflection on the future of work.

Moreover, although the progress achieved in recent years in promoting equality between women and men at work and in vocational training is significant, not only do gender asymmetries continue to be evident in Portugal, but the pandemic crisis may worsen them. This makes it more urgent to pre-empt the challenges posed by the future of work.

The new forms of work, the new patterns and models of work organisation that are more flexible and diluted in time and space are not neutral from a gender perspec-



“The promotion of greater participation by women in the labour market, equal sharing by women and men of economic and political decision-making, equal sharing of domestic and care work between women and men, women’s economic empowerment, wage transparency and the elimination of violence and harassment in the workplace are fundamental requirements for effective gender equality”

tive and may, on the contrary, worsen the asymmetries between women and men in the labour market. This is due to the risks associated with them from the point of view of conciliation between work and personal and family life, particularly for women, who are still the ones responsible for the largest share of domestic work and care work.

Changing work schemes in relation to working hours, workplace and working time requires reflection on the organisation of care work provision, including how care facilities for children, disabled and dependent adults can be adapted to the needs of male and female workers with unconventional working schemes.

The potential of new forms of work to promote a better balance between personal and family life and work may be greater if workers can have some control over how work is organised, including greater autonomy over their working hours and working time. It is therefore necessary to reflect on the creation of real options for flexibility and control over working hours in order to promote a better conciliation between working hours and personal time.

It is no coincidence that the employment potential of care work has become increasingly relevant in debates about the future of work, often integrating a transversal concern with the gender equality component. Performing unpaid work and caring for children and other dependents is still a significant obstacle, not only from the point of view of women's access to the labour market, but especially from the point of view of their career advancement prospects. Encouraging men's participation in unpaid care work is a key element of a comprehensive strategy to promote greater gender balance, but it is equally important to value paid care work.

In Portugal there is significant potential for job creation in the area of care provision, in an approach involving the proximity and diversification of support units (residential units, home support, community intervention, among others). The demand for care services will tend to increase with the ageing population. This makes the need to safeguard the quality of employment of workers in the sector more critical, and to promote their development, as well as to foster the creation of new jobs through initial training or requalification.

Care activities tend to have low wage patterns, with a high incidence of workers receiving the national minimum wage, and there is also room for progression in terms of the nature of employment contracts. The promotion of decent work in caregiving, as this is a highly feminised sector, is therefore an important element of the gender equality agenda.

New forms of work can also have an impact on horizontal and vertical labour market segregation, the gender pay gap and, consequently, the pension gap. The lower, less predictable or more intermittent patterns of payment often associated with work on digital platforms, on-demand work or crowdwork hinder full access to social protection throughout working life and during retirement, which can worsen exposure to the risk of poverty, with different impacts for men and women.

In parallel, the under-representation of women in ICT and STEM raises concerns from the point of view of gender segregation in the labour market and the alienation of a part of the female workforce from the market. Many current jobs will cease to exist due to technological developments, and many of the tasks will be transformed by automation and robotisation, and more and more information and communication technologies skills will be required. New jobs will arise in science, technology, engineering and mathematics (STEM) or related areas, and women today are in a relatively disadvantaged position in terms of taking advantage of these opportunities. This reinforces the need to deconstruct the stereotypes that, at different stages of life, deter girls and young women from pursuing their studies in the areas of science, technology, engineering and mathematics and in ICT.

While it is true that Artificial Intelligence provides significant opportunities, it also entails various risks, especially when applied to management models and work organisation, as well as to instruments for assessing workers' performance. The risks of the application of AI are broad, ranging from the lack of transparency in decision making, to the adoption of models that use discriminatory standards on the grounds of gender or ethnicity. These risks reinforce the need to promote accountability regarding the algorithms used in the context of the world of work, to prevent them from mirroring and even reinforcing human prejudices (see section on Technological diversity, Artificial Intelligence and Algorithms).

The defence of the principles of equality and non-discrimination at work in the future does not end with the gender dimension, but rather involves combating the various forms of discrimination prohibited under the Labour Code, including in its intersectional and multiple forms, namely on the grounds of ancestry, age, sex, sexual orientation, gender identity, marital status, family situation, economic situation, education, social origin or condition, nationality, ethnic origin or race, territory of origin, language and religion. Added to these factors are the geographic, social and economic disparities that characterise Portuguese territory.

Migrants and foreign workers from the least qualified professional groups are at the crossroads of these factors, often in situations of high vulnerability and exposure to risks in the labour market. They are more precarious and more exposed to instability in the employment relationship, with lower pay and a higher rate of workplace accidents¹³².

Immigrants are therefore under-represented in the most qualified sectors in Portugal, as in other countries. Similarly, refugees encounter particular difficulties in accessing the labour market, taking longer to find a job in the host country than immigrants. The greatest difficulties refugees face, according to the entities helping them to settle in, are the following¹³³: (i) the transposition of equivalent skills for professional activities in the destination countries, such as Portugal, due to the lack of correspondence between the professional skills of origin and those necessary for practising certain activities; (ii) the recognition of (in)formally acquired skills; (iii) fluency in the Portuguese language; (iv) the prevalence of informal professional experiences; (v) the lack of knowledge among employers regarding the procedures for hiring refugees and consequent distrust.

These data directly challenge the principles of equality and non-discrimination, both because access to the labour market is an essential element for subsistence and financial sustainability and because it is essential for the migrants' integration process.

Some data

Portugal has advanced significantly in terms of equality between women and men in the labour market, but gender asymmetries are still evident. In fact, although the gender pay gap has been decreasing (in 2012, the gender pay gap was 18.4%), women still earned 14% less than men in 2019, and the differences are more evident as qualifications and responsibilities increase (*Quadros de Pessoal* survey, GEP-MTSSS). It should be noted that the persistence of low pay for women is not only a factor of inequality in itself, but also affects access to social protection and the construction of rights for social protection in the transition to retirement. It should also be not-

¹³² Peixoto, J. (coord.) et al. (2011), *Imigrantes e Segurança Social em Portugal* [Immigrants and Social Security in Portugal], Study 49, Immigration Observatory, Lisbon: ACIDI.

¹³³ Migrations Observatory (2020), *Entrada, Acolhimento e Integração de Requerentes e Beneficiários de Proteção Internacional em Portugal* [Entry, Reception and Integration of Applicants and Beneficiaries of International Protection in Portugal], Lisbon: High Commission for Migrations.

ed that the gender pay gap in pensions in Portugal is around 25%¹³⁴, well above the gender pay gap in work remuneration, which is around 16%¹³⁵, reflecting the legacy of a past of marked inequalities between women and men, both in terms of wages and also participation in the labour market.

Additionally, there is still significant under-representation of women in emerging areas of the future, such as ICT. In fact, women represent only 18.4% of new enrolments in higher education¹³⁶ and 17.4% of graduates¹³⁷ in these fields. According to available comparative data, in Portugal only 0.7% of female employment is in ICT, compared to 3.7% of male employment and the European average of 1.4% of female employment¹³⁹.

In the same vein, only 15.1% of women are graduates in STEM fields¹³⁹ compared to 23.3% of men.

In fact, most sources point to significant under-representation of women from different points of view. On average in the EU, only 20% of women aged above 30 with tertiary education in these fields continue working in the sector¹⁴⁰. Only 9% of women in Europe are responsible for software development, only 19% of workers in managerial positions in the ICT sector are female (compared to 45% in other service sectors) and women represent only 19% of entrepreneurs in the sector (compared to 54% in other service sectors)¹⁴¹.

The gender segregation of occupations and sectors of activity, which largely contributes to the relative wage gap between women and men, continues to direct women towards low-value-added activities with lower wage standards. This is exemplified by the fact that 30% of women are employed in education, health and social support (compared to only 7% of men) or that 98.4% of work in domestic service was provided by women in 2019 (INE, Employment Survey, 2019). The under-representation of women in leadership and decision-making positions is equally persistent, insofar as women represent only 23% of the boards of directors of listed

¹³⁴ Eurostat, 2018.

¹³⁵ Eurostat, 2018.

¹³⁶ DGEEC data for the 2017/2018 academic year.

¹³⁷ DGEEC, 2019.

¹³⁸ DESI, 2018.

¹³⁹ STEM: Science, Technology, Engineering and Mathematics.

¹⁴⁰ See the data from the World Economic Forum Report, *The Global Gender Gap Report*, 2017, pp. 31-32.

¹⁴¹ COM (2016), Report on gender equality and empowering women in the digital age, (2015/2007(INI)).

companies. This results in the definition of mandatory thresholds of balanced representation by legislation (CIG), as well as the work overload on women in the performance of domestic tasks, with data showing that only **19% of men state that they do at least one hour of domestic work per day, compared to 78% of women** (EIGE).

In a context of marked structural asymmetries, the shock induced by the COVID-19 pandemic was also marked by a “gender bias”, which was immediately evident in the “risk of workers being exposed to COVID-19”¹⁴². This was the result both of the high rate of feminisation in activities linked to social action and human health and the resulting increased exposure of women to sensitive contexts in terms of the risk of contagion, and also the overburdening of women with family care work, which was also aggravated by the temporary closure of schools . An emblematic example of this is the fact that more than 80% of beneficiaries of the exceptional family support were women (GEP/MTSSS).

Moreover, the consequences of the gender pay gap tend to be exacerbated in times of crisis such as the present. Four out of 10 respondents claim to be in a worse financial situation than before the pandemic, and almost one in three women (31%) and one in four men (23%) say they have no savings to maintain pre-pandemic living standards, according to Eurofound ‘s latest EIGE Gender Equality Index.

¹⁴² Mamede, R. Paes (Coord.), Pereira, M., Simões, A. (2020), Portugal: *Uma análise rápida do impacto da COVID-19 na economia e no mercado de trabalho* [A rapid analysis of the impact of COVID-19 on the economy and the labour market], ILO.

6. Social protection in new working arrangements

Background

The transformations in the world of work bring multiple opportunities for new job creation, but also challenges resulting from the intensity of the pace of change, where career paths are increasingly volatile and there is a growing diversity of forms of employment. Social protection systems must also adapt to the future of work in order to continue to play their stabilising role.

This is the case where access to social protection can be especially difficult for workers in atypical and less secure forms of employment and accessibility gaps can be especially large for the self-employed, exposing them to greater risks and poverty in old age¹⁴³. The World Economic Forum even argues that social protection resulting from the traditional employer-worker relationship will be called into question due to the growing number of self-employed workers and more frequent job transitions, “making it necessary to re-qualify social protection by expanding social security coverage and pensions, which are no longer linked to an individual’s formal status in the labour market”¹⁴⁴.

The atypical forms of work and employment characterised by a high degree of flexibility and which may result in reduced security for workers include part-time work, placement by temporary employment agencies, subcontracted work, remote work, including home work, fixed-term, intermittent, discontinued and very short-term contracts, as well as multi-party employment relationships, in addition to other situations with even higher risks, such as “disguised” and self-employed employment relationships that are economically dependent or which provide irregular wages. The cumulative effects of these employment relationship disparities are likely to give rise to new inter-generational and intra-generational rights inequalities.

The non-existence, on the other hand, of a dependent employment relationship places the onus on these workers or service providers to individually ensure the means of work - location and materials for work development, compulsory insurance and oc-

¹⁴³ OECD (2019), *OECD Employment Outlook 2019: The Future of Work*, OECD Publishing, Paris.

¹⁴⁴ WEF (2018), *Framing the Future of Work*, WEF, Jobs Notes, Issue no. 6



“Social protection resulting from the traditional employer–worker relationship will be called into question due to the growing number of self–employed workers and more frequent job transitions, “making it necessary to re–qualify social protection by expanding social security coverage and pensions, which are no longer linked to an individual’s formal status in the labour market”

cupational accident insurance - as well as the payment of social contributions. The non-establishment of contractual labour relations also results in the impossibility of these new workers seeing their rights guaranteed¹⁴⁵.

Likewise, workers in these types of working arrangements may face risks in the creation of robust contributory careers, whether in terms of period or volume of reference earnings, as a result of possible exposure to intermittency in activity or in earnings, with the necessary consequences of (in)adequate income in old age.

In terms of the contextualisation of workers in the social security schemes in Portugal, most people who perform a professional activity are compulsorily covered by the social security system¹⁴⁶.

The Social Security Welfare System integrates the social security schemes applicable to employees, or in a legally equivalent situation for social security purposes, to independent workers and the voluntary social insurance regime, in order to materially implement this guarantee. The Portuguese social security system is a unified system. This means the unified consideration of the contributory career of each worker, regardless of the sector of activity or the type of activity that is carried out.

The Code of Social Security Welfare System Contributory Schemes defines the binding and contributory social security relationship for the three identified schemes. The legal frameworks for the various protected risk situations are set out in their own separate legislation.

As health protection is one of the branches of protection in Portugal, workers covered by the social security scheme are guaranteed universal access to health care, through the National Health Service.

The emergence of new working arrangements and work relationships, established between employers, workers and “clients”, reduces the boundaries between salaried employment and self-employment as they were known until now. This leads to challenges concerning the guarantee of protection in legally foreseen risk situations, given the configuration of the Portuguese system.

From the perspective of decent work, inclusive societies and enhanced social cohe-

¹⁴⁵ Such as minimum monthly wage, holiday and Christmas bonuses, meal allowances or other support, paid holidays, compensation for overtime or night work or the right to collective bargaining and contracting.

¹⁴⁶ The Social Security Welfare System, according to Law no. 4/2007 of 16 January, which approved the general bases on which the social security system is founded, aims to guarantee cash benefits to replace work income lost as a result of legally-defined risk situations, based on the principle of solidarity on a professional basis.

sion, social protection systems may need to be better adapted to the faster pace of change and job reallocation as a consequence of the adoption of new technologies and the expansion of emerging production and operating models based on those technologies.

It is important, in short, to consider the new ways of working that are appearing, particularly in the context of digital platforms, in order to prevent workers in this sector from being left behind and penalised in terms of social protection.

Some data

Access to social protection is not homogeneous, despite the fact that most people who work in Portugal are compulsorily covered by the social security system, as mentioned above. That access can be especially complex for workers in atypical forms of employment such as the self-employed, part-time workers or workers with short-term contracts. The common denominator of these atypical working arrangements, from the point of view of social protection, is the greater intermittency and instability of employment placements and the respective social security contributions. This limits access, for example, to benefits that replace working wages, such as unemployment benefit or sickness benefit, which have associated guarantee periods.

The consequences of asymmetric access to social protection are not limited to the time horizon of working life, but also expose workers employed in atypical forms of employment to greater risks and poverty in old age¹⁴⁷. This type of work, according to some recent studies¹⁴⁸, may even contribute to the underfunding of social security schemes or to the shifting of social contributions from employers and workers to workers only.

It was precisely because it recognised that “some workers on atypical contracts and the self-employed have insufficient access to those branches of social protection that are most closely linked to labour market participation”, and that “in the long term, gaps in access to social protection can put individuals’ health and well-being at risk, and contribute to increasing economic uncertainty, the risk of poverty and inequality”, that the European Commission adopted in November 2019 a Recom-

¹⁴⁷ OECD (2019), *OECD Employment Outlook 2019: The Future of Work*, OECD Publishing, Paris.

¹⁴⁸ See, for example, European Parliament (2017), *The Social Protection of Workers in the Platform Economy*, Policy Department A: Economic and Scientific Policy and International Labour Organization, *Digital platforms and the future of work: Towards decent work in the digital world*, International Labour Office - Geneva, ILO, 2020.

mentation on access to social protection for employees and the self-employed. It established that social protection shall, as a general principle, ensure “effective coverage of all workers, regardless of the type of employment relationship, and of the self-employed”¹⁴⁹.

The ILO¹⁵⁰, in turn, identifies criteria it recommends for adapting social protection systems so that digital platform workers are covered by them. These include adapting social security mechanisms to cover workers in all forms of employment, regardless of the type of contract, as well as using technology to simplify the payment of contributions and benefits.

These recommendations are all the more important given the emergence of new forms of working, such as work on digital platforms.

In fact, as mentioned above, it is estimated that **around 70% of workers on digital platforms do not have access to adequate social protection for parenthood or other risk scenarios, with access to social protection being more difficult for those who depend exclusively or mostly on platforms**¹⁵¹.

Some of the answers to these issues have been to introduce new legislation or to amend existing legislation, increasing access to social protection for additional types of workers, or to adopt administrative decisions that influence access to social protection for digital platform workers.

Court intervention and the signing of collective agreements have increased access to social protection for some platform workers, who have created or joined cooperatives or collective entities, in part to facilitate access to social protection; some platforms (especially in the area of food delivery and personal transport) have voluntarily (or under pressure from workers, unions or government) established schemes to provide social protection to their workers. Nevertheless, the progress achieved has been mainly in the area of occupational accidents and civil liability insurance,

¹⁴⁹ Council Recommendation of 8 November 2019 on access to social protection for employees and self-employed persons (2019/C 387/01).

¹⁵⁰ International Labour Organization, *Digital platforms and the future of work: Towards decent work in the digital world*, International Labour Office - Geneva, ILO, 2020.

¹⁵¹ European Parliament (2017), *The Social Protection of Workers in the Platform Economy*, Policy Department A: Economic and Scientific Policy.

rather than in the area of social rights and protection in immediate and indirect risk scenarios covered by the general Social Security scheme.

Decree-Law no. 2/2018, of 9 January, reformulated the contribution regime for independent workers, with the aim of ensuring effective social protection to these workers, without gaps or interruptions. This prevented situations of no guarantee period in the award of immediate and indirect social benefits, resulting from major income fluctuations. This significant temporal approximation of income consideration has in turn eliminated the large discrepancies that used to exist between the moment income was perceived and the moment it was considered for the purposes of contributory effort, especially among independent workers with a great variation in income over the year and over the course of their working life. The consideration of the effective income has removed the minimum contribution levels that could prove disproportionately high in relation to the income actually earned. It is certain that considering a very low value income has allowed the stability of the worker's contributory career, making the right to social protection more effective.

The promotion of a better balance between contributory duties and the rights of the self-employed to effective social protection has improved access to the associated benefits. In terms of the scope of social protection, independent workers are entitled, under their own scheme, mostly to the same level of protection as employees, with the largest difference being the benefits provided in the event of unemployment.

In Portugal, the self-employed are guaranteed protection in the following risk scenarios: Unemployment (Termination of service allowance¹⁵²; Termination of service partial allowance⁹; Termination of professional service allowance¹⁵³; Termination of professional service partial allowance⁽¹⁰⁾; Illness Benefit; Clinical Risk during Pregnancy Benefit; Pregnancy Interruption Benefit; Specific Risk Allowance; Parental Benefit; Extended Parental Benefit; Adoption Benefit; Childcare Allowance; Care Allowance for Disabled Child, Chronically Ill Child or Child with Cancer; Grandchild Care Allowance; Occupational Diseases; Prenatal Family Allowance; Child Benefit; Disability Pension; Old Age Pension; Dependency Supplement; Survivor's Pension; Bereavement Grant or Funeral Expenses Reimbursement.

Recent changes in the scheme have strengthened protection and contributions. Un-

¹⁵² Self-employed workers who are economically dependent on a single contracting entity.

¹⁵³ Self-employed persons who are sole traders with income derived from the exercise of any commercial or industrial activity and the owners of a Limited Liability Individual Establishment, as well as their spouses who engage in effective professional activity with them on a regular and permanent basis.

employment coverage has increased, now allowing self-employed workers who earn more than 50% of their income from a single entity to have access to this protection (previously the limit was 80% of income from a single contracting entity). In addition, the guarantee period has been reduced from 720 days of contributions in the previous 48 months to 360 days of contributions in the previous 24 months. The new scheme also moves parental and sickness protection closer to the protection guaranteed to employed workers.

The change in the classification criteria of economically dependent self-employed workers has led to an increase in their relative weight among self-employed workers with declared contributions. Indeed, according to data from the Social Security Institute¹⁵⁴, the number of economically dependent self-employed workers increased by 72% between 2017 and 2019, settling at a total of approximately 68,970 persons, which compares with a 41% increase in the overall number of self-employed workers, which was around 434,940 persons in 2019. Thus, the share of economically dependent self-employed workers in the total number of self-employed workers increased from 13% to 16% between 2017 and 2019. However, the analysis of the distribution of workers by degree of economic dependence shows that only about 10% are economically dependent on a single contracting entity. On the contrary, more than 80% are 100% dependent on a single entity, and in this case we are talking about workers with an income declaration 7% lower than those who fall into the remaining economic dependence brackets.

In the framework of exceptional protection mechanisms resulting from the Covid-19 pandemic, a set of measures were introduced that, not directly targeting workers in atypical forms of work, cover self-employed workers and workers in informal situations.

These include the exceptional family support for the self-employed during the closure of educational establishments by government decision; the extraordinary support for the reduction of economic activity of the self-employed; the extraordinary scheme of deferred contribution obligations; the extraordinary social protection support for the self-employed, aimed at those who have not complied with the guarantee periods for access to protection in the case of interruption or sharp decline in professional activity; and, also, the support for the socially unprotected, which provides financial support to workers who are not included in any social security scheme or who do not have access to social protection, requiring their registration in the system.

¹⁵⁴ Status of the database on 19/03/2020.



“Collective bargaining is a fundamental instance of adapting labour legislation to the specificities of each sector and company, promoting social peace, improving working conditions and regulating competition, and it is therefore a national and international desideratum.”

7. Trade union and business associations, worker representation, collective bargaining and social dialogue

Background

Collective bargaining and social dialogue have a very important role to play in adapting to the transformations described above in the world of work, related from the outset to growing digitalisation and technological innovation, and against the backdrop of demographic and climate change.

Such relevance is evident right from the start in the Resolution adopted by the ILO Conference in 2018, in which the role that social dialogue plays in addressing the challenges of the future of work is highlighted. The ILO Centenary Declaration for the Future of Work also emphasised that social dialogue, including collective bargaining and tripartite cooperation, is a social element for the adequacy of public policies. More generally, the ILO's Decent Work Agenda underlines the key role of social dialogue and social partners at all levels.

More recently, the European Pillar of Social Rights has also emphasised the importance of the active participation of social partners in order to transform the principles into concrete actions that should be translated into Action Plans in each Member State.

The strength and capacity of systems of social dialogue and collective bargaining in different countries vary, however. The robustness of social dialogue and collective bargaining systems depends on many variables, including the legal regulation of different levels of social dialogue and different traditions and cultures of bargaining. It is, in any case, greater in contexts of high density, implantation and structuring of business and, above all, trade union associative movements.

In fact, the transformations in the world of work - not only the growing centrality of technologies and the working arrangements promoted by them, but also the different types of atypical contracts in a context of pressure for a growing flexibility and individualisation of labour relations - pose greater challenges to representation, par-

ticularly for workers, the trade union movement and collective bargaining.

It is not by chance that this matter has been present in the reflection in different contexts. A recent ILO and European Commission initiative on how to strengthen the roles of social partners and social dialogue in a changing world of work highlighted the importance of the following: the dimensions of the representativeness of social partners and their institutional capacity to address the challenges of the world of work through social dialogue and consultative processes; the autonomy of social partners, leaving more room for collective bargaining and collective agreements at national, sectoral and company level; the role of social dialogue and social partners in digitalisation¹⁵⁵.

Digitalisation has been on the political agenda and also on the agenda of social partners for many years, for these reasons, but also because of the centrality of these changes in labour markets. At the same time, the representation of new groups of workers and new ways of providing work related to the so-called digital revolution remains a current problem. This includes both telework within more traditional contractual relationships and new working arrangements, for example based on digital platforms. Micro, small and medium-sized enterprises, which may have less capacity to adopt technological innovations and participate actively in social dialogue, also present particular challenges. The adaptation of social dialogue institutions and their regulation to respond to current and emerging challenges in the world of work is also relevant¹⁵⁶.

As the role and autonomy of social partners are recognised in the European treaties, the relevance of these matters and the challenges they pose for the transformations underway have been recognised. For example, in the *Work Programme for European Social Dialogue 2019-2021*, defined by European social partners, it was argued that “social partners are particularly well-placed to accompany the economy’s transformation process and to design balanced measures and solutions that contribute to economic and social progress”. In this context, the European social partners’ sixth autonomous work programme identifies digitalisation as the first of six priorities in its work programme, and mentions others linked to changes in the world of work, such as psychosocial risks, skills or the circular economy¹⁵⁷.

¹⁵⁵ ILO-EC Conference (2020): *Enhancing social partners’ and social dialogue’s roles in a changing world of work*.

¹⁵⁶ ILO-EC Conference (2020): *Enhancing social partners’ and social dialogue’s roles in a changing world of work*.

¹⁵⁷ Ghellab, Y. and Vaughan-Whitehead, D. (2020), *Enhancing social partners’ and social dialogue’s roles in a changing world of work – a overview*, OIT-EC

¹⁵⁷ The 2019-2021 work programme addressed the following six priorities: (i) digitalisation; (ii) improving the performance of labour markets and social systems; (iii) skills; (iv) psychosocial and occupational risks; (v) capacity building for stronger social dialogue; (vi) circular economy.

The right of association is a fundamental right in Portugal, expressly provided for in the Constitution, and the right of association of workers and employers is a fundamental pillar not only of our system of labour relations, but also of decent work. In turn, social dialogue at all levels, including tripartite social consultation and sectoral or company collective bargaining are widely provided for and densely covered by legislative sources, namely the Labour Code.

Thus, tripartite social dialogue, in the form of social consultation, has played a vitally important role in the formulation of public policies in different areas, including the areas of employment, training and labour relations through discussion and the search for consensus between the Government and Social Partners, reached in the Standing Committee for Social Consultation (CPCS).

The following Social Dialogue Agreements have been signed in Portugal since 1986:

Figure 8 – Social Dialogue Agreements in Portugal, 1986 - 2021¹⁵⁸

Year	Area
1986	Wage moderation
1990	Wage moderation
1990	Comprehensive agreement on employment, social protection and labour market regulation
1991	Legal framework for safety, hygiene and health at work
1992	Wage moderation
1996	Wage moderation
1996	Creation of the guaranteed minimum wage
1996	Comprehensive agreement on employment, social protection and labour market regulation
2001	Individual right to training; Recognition, validation and certification of skills acquired in the exercise of the profession
2001	Legal framework for social protection
2001	Increasing the sustainability of Social Security
2005	Bilateral Agreement on Stimulating Collective Bargaining
2006	Bilateral Agreement on Vocational Training
2006	Unemployment Benefit Reform
2006	Sustained increase in the National Minimum Wage
2006	Increasing the sustainability of Social Security
2007	Individual right to training; Recognition, validation and certification of skills acquired in the exercise of the profession
2008	Comprehensive agreement on employment, social protection and
2011	Comprehensive agreement on employment, social protection and
2012	Comprehensive agreement on employment, social protection and
2014	Sustained increase in the National Minimum Wage
2016	Sustained increase in the National Minimum Wage
2017	Tripartite compromise for a medium-term conciliation agreement
2018	Combat precariousness and reduce labour segmentation and promote greater dynamism in collective bargaining
2020	Commitment Document Recovery measures from COVID-19

¹⁵⁸ Data available at <https://www.ces.pt/index.php/concertacao-social/acordos>.

As highlighted in the 2016 Green Paper on Labour Relations¹⁵⁹, there have been legislative changes following agreements reached in social consultation. Of particular note are the 2008 Agreement and the reform of the Labour Code in 2009; the 2011 and 2012 Agreements and the changes in labour legislation in the context of the Financial Assistance Programme; and the 2018 Agreement, which gave rise to Law no. 90/2019 of 4 September on strengthening protection in parenthood, and Law no. 93/2019 of 4 September, which made the fifteenth amendment to the Labour Code and introduced several changes in terms of combating precariousness and promoting collective bargaining.

In fact, collective bargaining is a fundamental instance of adapting labour legislation to the specificities of each sector and company, promoting social peace, improving working conditions and regulating competition, and it is therefore a national and international desideratum. Collective bargaining is, however, subject to tensions which, although not new, have become more acute and may deepen in the future.

Firstly, there is the slow erosion of collective bargaining coverage and union density, within a broader framework of weakening of the associative movement. Although this is not exclusive to the world of work, it finds added challenges in the more precarious segments of the labour market, and also the difficulty traditional associative structures have in ensuring representation of the new working arrangements.

This is a particularly pressing issue for workers on digital platforms. An article published by the *European Trade Union Institute* in 2018¹⁶⁰ notes that platform workers have to resort to other types of resources to build bargaining power, because they are often deprived of the bargaining capacity that comes with the right to union membership and participation in collective bargaining. This move away from traditional instances of collective representation, according to the same article, has led to the emergence of a number of new forms of representation, often in the form of online communities that can become “small guilds” and which end up playing the role usually assigned to trade unions by providing advice and support to platform workers. Discussions on the opening up of collective representation systems have multiplied for these reasons, and there are also debates on the possibility of considering other categories of workers (in addition to employed workers) in the administrative extension mechanisms of collective agreements.¹⁶¹

¹⁵⁹ MTSSS (2016), Green Paper on Labour Relations

¹⁶⁰ Vandaele, Kurt (2018), Will trade unions survive in the platform economy? Emerging patterns of platform workers' collective voice and representation in Europe, ETUI, Working Paper 2018.05.

¹⁶¹ Drahokoupil, Jan & Fabo, Brian (2016), The platform economy and the disruption of the employment relationship, ETUI, ETUI Policy Brief No. 5/2016.

Some data

There is a transversal movement involving the relative weakening of collective labour regulation systems: a movement that is visible not only in the decrease in membership rates (of workers and companies), but also in the loss of collective bargaining dynamism.

That said, Portugal is unusual in having a significant starting point: **at the end of the 1970s, even with the April 1974 revolution as a backdrop, close to 61% of Portuguese workers were unionised** (above the 34% OECD average).

10% Currently, just over 10% of workers are enrolled in a trade union in Portugal¹⁶² (a figure similar to the OECD average).

Other sources point in the same direction: **according to data from the International Labour Organisation, the trade union membership rate is around 16% in Portugal, and according to the information found in the Single Report, the percentage of unionised workers declared by companies dropped to 7.5% in 2018 (down from 10.6% declared in 2010)**, and this percentage is highly asymmetric, according to the incidence of permanent or non-permanent contracts in companies. Like the erosion of union density, **declared business association membership has also declined (from 18.4% in 2010 to 15.4% in 2018)**.

The loss of collective bargaining coverage is also a transversal trend, even in countries with strong traditions in this field, such as Sweden or Germany (from 94% to 90% in Sweden and from close to 76% to around 57% in Germany¹⁶³). In Portugal, despite the downward trend, there continues to be a high proportion of workers covered by collective agreements (close to 79% in 2018, according to the *Quadros de Pessoal* survey¹⁶⁴), and the administrative extension of negotiating instruments is relevant for this purpose.

Recently, after years of marked loss of dynamism, the result not only of the difficult economic situation the country went through but also of the instability and unpredictability that marked that period, namely in matters of labour legislation, collective

¹⁶² MTSSS (2016), Green Paper on Labour Relations.

¹⁶³ OECD, collective bargaining coverage rate, data for the years 1998 and 2016 (Sweden) and 1996 and 2016 (Germany).

¹⁶⁴ The *Quadros de Pessoal* survey is an administrative source and is part of the Single Report. Despite its limitations, it is the source for measuring union representativeness data.

bargaining underwent a progressive and sustained recovery in the period following the crisis of 2008-2011, and before the pandemic. This was demonstrated not only by the number of agreements published annually but also, and in particular, as regards their coverage.

In 2016, in a framework of specific enhancement of social dialogue at all levels, the number of agreements published increased by 6% and the number of workers potentially covered grew by 54%, approaching 750,000, moving further away from the minimum levels reached in the years 2013 and 2014. The number of published agreements grew again (+42%) in 2017, as well as their coverage (+10%), and in 2019 there was a further strengthening of collective bargaining, with published agreements growing by 10% and the number of workers potentially covered approaching one million (+10% compared to 2017). These figures are closer to the levels prior to the financial crisis and the reforms of the adjustment period. Collective bargaining maintained significant momentum in 2019, with a total of 240 collective bargaining agreements published (+9% compared to 2018) and 883,727 workers potentially covered (-11% compared to 2018).

The COVID-19 pandemic interrupted this trajectory, resulting in an immediate contraction in collective bargaining. In effect, following a significant year-on-year increase in the number of bargaining agreements published (+16%) and their coverage (+156%) in the 1st quarter of 2020, there was an abrupt decrease in the 2nd quarter both in the number of published agreements (-62%) and in the number of workers potentially covered by them (-72%). This trend continued in the 3rd quarter, with decreases of 35% in the number of published agreements and 67% in the number of workers covered, and also in the 4th quarter, with a slight increase in the number of agreements (+3%) but with a loss of 63% in potential coverage. Thus, overall, 169 collective agreements were published in 2020 (-29% year-on-year) with a potential coverage of 488,482 workers (-45% year-on-year).

These data unequivocally show that collective bargaining is highly sensitive to the oscillations of the economy, to the uncertainty and unpredictability of the evolution of the pandemic and its economic and social effects. This fact reinforces the notion that the retraction of confidence and perspectives of economic agents in periods of crisis tends to translate into a lower propensity for negotiation and its renewal. The pandemic crisis differs from previous crises in that it incorporates a determining factor of uncertainty regarding its duration, the evolution of public health conditions associated with the pandemic and the way in which these restrict both economic and social activity and the expectations of different agents. These elements cannot

be disconnected from the equally uncertain framework of reflections about the future of work and the role that collective bargaining will play in it.

The Labour Relations Centre specifically identified several areas of possible intervention by collective bargaining in the field of the so-called “future of work”, for example, with a view to accompanying technological process in the work environment: (i) vocational training; (ii) teleworking, with a view to encouraging it; (iii) working hours, with a view to reducing the time workers spend in the company and encouraging distance working in terms of facilitating conciliation with family responsibilities, or to guarantee the right to rest (one respondent even suggested, in this context, the implementation of the right to disconnect); (iv) safety and health, stressing the importance of new technologies in preventing accidents and illnesses; (v) recruitment¹⁶⁵.

To value employers who had collective bargaining in 2021, the Government created an exceptional mechanism to support companies for salary increases minimum in 2022. The objective is to differentiate the companies that have increased the salary of workers above the minimum amount legally established in 2021, within the scope of collective bargaining, starting to receive 112 euros for all workers who have salaries between 665 and 705 euros in 2021.

¹⁶⁵ CRL (2019), *A Economia Digital e Negociação Coletiva* [The Digital Economy and Collective Bargaining], MTSSS



“Skills are fundamental from a dual perspective: for people, in an approach based on capacity-building, employability, access to professional opportunities throughout life and their pathways in the labour market and also their personal and professional fulfilment, besides being elements to strengthen their position as citizens, users and informed consumers.”

8. Skills, vocational training and lifelong learning

Background

The centrality of skills and qualifications in contemporary economies is not unique to the so-called “future of work”. It is, on the contrary, a trend that has been growing in recent decades. The different transitions underway place emphasis on training in technological and digital areas, as well as in sectors related to the energy transition, and on specific skills areas in each sector, as part of a broader challenge to raise and renew skills across all generations (from school age, to young adults and throughout life) and at all levels (basic, intermediate and advanced skills).

Technological advances, in addition to the risks already signalled by the destruction of some jobs and the profound transformation of others, also have the potential to create jobs in emerging areas and, no less importantly, in traditional sectors capable of making a digital and technological transition. More traditional sectors have, in fact, managed to modernise, as at other times, but not without significant transformations in the structure and composition of employment, while managing to maintain significant employment levels and generate new jobs.

It is highly probable that in the coming decades the industrialised countries will probably need to increase their labour force and skills to achieve a dynamism that allows them to compete on a global scale, against a backdrop of demographic trends causing a slowdown in the growth potential of the working population and employment in these countries, as the population ages without migration balances fully compensating for this trend (even with increasingly qualified younger generations).

At the same time, also due to the high pace of social, economic and technological change, current skills will frequently need significant adaptation to the jobs of the future and newly acquired skills may tend to become outdated and obsolete more quickly.

Additionally, the need for lifelong training will become even more pivotal and imperative, both for workers and even for employers, considering that professional careers often have less linear paths, with a higher number of transitions and transfers in personal paths between careers within the same sectors and also between sectors.

While the digital transition reduces, in other areas, the dependence on geographical location and access to raw materials (as happened in previous industrial revolutions), in issues related to education, training and people's qualifications, Portugal has a significant deficit at all levels, despite the remarkable recovery we have achieved in recent decades. That fragility limits the potential to adapt in a context of rapid change and increasing needs for new skills. It therefore compromises not only our preparedness to face the challenges raised by the accelerated transformation of the economy and employment, but also, today and in the future, the levels of social cohesion of our country.

In fact, skills are fundamental from a dual perspective: for people, in an approach based on capacity-building, employability, access to professional opportunities throughout life and their pathways in the labour market and also their personal and professional fulfilment, besides being elements to strengthen their position as citizens, users and informed consumers, starting with digital-based services and products; and, on the other hand, for companies and sectors of activity, since productivity and adaptability in highly competitive markets largely depend on those skills.

We are currently facing two central challenges, according to the World Economic Forum: “future workers will have to learn how to learn throughout their lives and workers will have to continuously retrain”. In essence, the following focus is suggested: (i) skills from early school years; (ii) lifelong learning, communication and collaboration with others, as well as social-emotional skills on how to deal with emotions and manage conflict and change, (iii) school curricula with ICT and digital literacy skills; (iv) fluid skills, which prepare individuals for less stable career paths; (v) ICT and digital literacy skills¹⁶⁶.

In fact, as expanded access to lifelong learning is a need that reflects on the different individuals and workers, this expansion can only be effective when it is conceived within a broader perspective. It also implies a clear collective responsibility, for instance in the goals of the recent Action Plan of the European Pillar of Social Rights:

In the same vein, the European Reference Framework on Key Competences for Lifelong Learning¹⁶⁷ refers to the right to inclusive and quality education, training and lifelong learning in order to update and acquire skills that allow full social partici-

¹⁶⁶ WEF (2018). *Framing the Future of Work*, Jobs Notes, Issue n. 6

¹⁶⁷ Key Competences for Lifelong Learning - European Reference Framework is an annex to a Recommendation of the European Parliament and of the Council of 18 December 2006 on key competences for lifelong learning, published in the Official Journal of the European Union on 30 December 2006/L394 (http://eur-lex.europa.eu/LexUriServ/site/en/oj/2006/L_394/L_39420061230en00100018.pdf).

pation and successfully manage labour market transitions. From that perspective, everyone should be able to access individual, personalised and timely support to improve their own employability. This right includes receiving support not only for a job search, but also for training and qualification, and for follow-up of the long-term unemployed, and it already existed as part of the European Employment Strategy. These principles are, moreover, set out in the European Pillar of Social Rights.

In a rapidly-changing, highly-connected and competitive world, the demand for a wide range of qualifications and skills and their lifelong development is growing. The skills needed for the future include those considered essential in the above-mentioned reference framework (literacy; multilingual; mathematical and science, technology and engineering; digital; personal, social and learning to learn; citizenship; entrepreneurship; cultural awareness and expression), and are intended to lead to societies with higher levels of citizenship, which are more inclusive and more equitable.

The core challenge, in any case, will be to respond to the growing dynamics of the labour market in the digital age, where the speed of transformations, the pressures for adaptability and the probability of mobility and transitions between jobs, occupations and sectors, are high. This is because there are disparate projections of skills in the future and, moreover, diagnostic tools of those needs are required in specific territorial and sectorial contexts, concerning the training of the adult population and lifelong learning policies.

Digitalisation offers multiple opportunities to increase labour productivity, but it also entails significant risks of creating “technological unemployment” pockets, as has been noted more acutely among older and/or less skilled workers¹⁶⁸.

In this framework, the starting points of the different countries are far from homogeneous, as is the extent of a culture of co-accountability in promoting continuing training and lifelong learning. Most adult training in many contexts, as pointed out by the OECD, is employer-funded. However, in these cases it focuses mainly on company-, occupation- or industry-specific skills that increase workers’ productivity in their current jobs, but places little emphasis on general skills that increase workers’ mobility between jobs, occupations or industries. This perspective reinforces the need for robust, strategic and consistent public policies, with adequate levels of funding, solid governance models and the capacity to involve different partners.

¹⁶⁸ G20 (2019), *Adult Training in the Digital Age*, G20 Insights

Moreover, in access to lifelong learning, the starting inequalities are reproduced in the so-called “skills paradox”: training is mainly targeted at workers who are already the most qualified (see data below) and lifelong learning attendance is disproportionately lower among those who would most need to upgrade their qualifications¹⁶⁹. This paradox can be partly explained by the incorporation of “learning to learn” skills among the most qualified, due to the fact that in many cases they are either working in activities and professions that require specialised skills and updating those skills in rapidly changing contexts, or they expect to be included as a result of already-acquired capital.

Some data

In Portugal¹⁷⁰ almost half (44.6%) of the adult population (25-64 years old) has not completed secondary education and about 1/5 (20.9%) of young people (15-24 years old) still enter the labour market before completing compulsory education. Data also consistently show that it is precisely the less qualified who participate less in lifelong learning (LLL) activities: in Portugal, the participation rate of adults (18-64 years old) in LLL is higher among people with higher education (23.9%) than among those who have not completed secondary education (6.9%).

The at-risk-of-poverty rate of the employed population who have not completed secondary education is higher than that of the employed population with higher education (ISCED 5-8): the at-risk-of-poverty rate reaches 16% for workers without secondary education (ISCED 0-2) and falls to 3.2% for workers with higher education.

It should be noted that, according to the 2020 Digital Economy and Society Index (IDES-DESI), Portugal has a low ranking in the human capital dimension, having nevertheless risen two places to 21st position among the 28 EU countries. This is the vector where the country has the greatest weaknesses in terms of the use of technology in society, so it is necessary to strengthen the digital skills of the entire population, including both employed and unemployed persons.

The percentage of the Portuguese population lacking at least basic digital skills decreased from 50% (in 2018) to 48% in 2019, compared to the European average of 42%. However, around 26% had no digital skills at all and 22% had never used the Internet.

¹⁶⁹ OECD (2020), Education at a Glance 2020: OECD Indicators. Organisation for Economic Co-operation and Development, Paris

¹⁷⁰ Eurostat, data for 2020

The share of ICT specialists in Portugal represents a slightly lower share of the workforce compared to the EU average (3.6% compared to 3.9% in the EU)¹⁷¹, and the country continues to have one of the smallest shares of ICT specialists in total female employment, corresponding to only half of the EU average (0.9% compared to 1.6% in the EU)¹⁷². However, only 18.3% of ICT professionals in Portugal are women, compared to 17.9% in the EU-27¹⁷³. On the other hand, although the share of ICT graduates in the total number of graduates has improved, it remains low by EU standards (2.2% compared to 3.8% in the EU)¹⁷⁴.

Conversely, in Portugal, the number of people per 1,000 inhabitants aged 20-29 years holding university degrees in science, technology, engineering and mathematics (STEM) was 18.6 in 2017, close to the EU average of 19.1¹⁷⁵.

Between 2008/2009 and 2017/2018, around 1,000 more students enrolled annually in the first year of science, mathematics and statistics and ICT studies. In 2018, 2.6% of all students enrolled in higher education were studying ICT and 6% were studying science, mathematics and statistics - a slightly higher share in ICT than in 2017 (2.4%), but still far from the EU-27 averages (4.9% and 7.1%, respectively, in 2018)¹⁷⁶.

Entre 2008/2009 e 2017/2018, cerca de mais 1.000 alunos matricularam-se anualmente no primeiro ano de ciências, matemática e estatística e estudos de TIC. Em 2018, 2,6% do total de alunos matriculados no ensino superior estudavam TIC e 6% ciências, matemática e estatística - uma participação ligeiramente maior nas TIC do que em 2017 (2,4%), mas ainda longe das médias da UE-27 (4,9% e 7,1%, respetivamente, em 2018)¹⁷⁶.

In 2019, according to Eurostat, Portugal had a 3.2% employment rate in technology-intensive sectors (industry and services), compared to 4.2% in the European Union. Employment in knowledge-intensive activities in Portugal was 11.1% and 14.6% in the European Union.

The public health crisis triggered by the COVID-19 pandemic has, as in other areas concerning the future of work, affected this movement. The suspension of in-person teaching and training activities exacerbated the need to adopt alternative teaching and training mechanisms.

¹⁷¹ https://ec.europa.eu/eurostat/databrowser/view/isoc_sks_itspt/default/table?lang=en.

¹⁷² DESI 2020, data for 2019.

¹⁷³ <https://ec.europa.eu/eurostat/databrowser/bookmark/24c29e6f-9ee2-4a49-b1af-a3874af9eaa8?lang=en>

¹⁷⁴ https://ec.europa.eu/eurostat/databrowser/view/EDUC_UOE_GRAD03_custom_499653/bookmark/table?lang=en&bookmarkId=68e96d5c-fc0b-4a42-8a32-03d9fad665c6.

¹⁷⁵ COM (2019), Education and Training Monitor 2019, Portugal

¹⁷⁶ COM (2020), Education and Training Monitor 2020 - Country analysis.

40%

In the case of the IEFP, around 40% of the training courses started since the outbreak of the pandemic were partly or entirely based on distance learning.

In general, different programmes have been developed in the area of digital skills in the various education and training subsystems, in different age brackets and qualification levels.

Since its launch in 2017, InCoDe2030 has incorporated education, training and digital inclusion dimensions, as well as advanced and specialised training and research in digital areas, with the involvement and accountability of several governmental areas.

The **most recent data from the education system show the lowest dropout levels ever (8.9% in 2020 according to INE data)** in terms of compulsory schooling. The Programme of the 21st Constitutional Government contained in its list of proposals “the design and implementation of a strategy of educational digital resources, which promote the creation, dissemination and use of digital content in the learning process”.

The crisis caused by COVID-19 led to a rapid increase in distance learning and, for example, to the launch of the #EstudoEmCasa (#StudyAtHome) Project. This impetus was associated with the Digital School Programme¹⁷⁷ and the setting up of a working group with the mission of proposing a programme that includes the following: the provision of individual equipment adjusted to the needs of each level and the guarantee of free mobile connectivity for students, teachers and trainers; and access to quality digital educational resources, access to collaboration tools in digital environments that promote innovation, creativity and distance learning and online collaborative work, bringing new generations closer to the new paradigms of life in society and the world of work.

The Economic and Social Stabilisation Programme (PEES)¹⁷⁸ foresees in its measure 3.2 the Universalisation of the Digital School - i.e. the universalisation of access and use of digital didactic and educational resources, acting on equipment and infrastructures, the digital training of teachers and the dematerialisation of textbooks and teaching resources.

In order to promote greater adequacy and effectiveness of the vocational training

¹⁷⁷ Resolution of the Council of Ministers no. 30/2020, 21 April, which approved the Action Plan for Digital Transition.

¹⁷⁸ Approved by Resolution of the Council of Ministers no. 41/2020 of 1 June.

measures in vocational training policy, there has been a reinforcement and a revision of the training and requalification programmes, and a reinforcement of strategic areas such as the digital area, both for unemployed people (youths and adults) and for employed people.

IEFP is progressively implementing a Digital Guarantee, so that from 2023 onwards all registered unemployed people will have access to active policy opportunities, especially training, in the digital area suited to their profile and qualification level, within a reasonable period of time. It is also currently expanding investment in training in digital areas. Recent initiatives are to be noted in this context, such as the training programmes with medium-term paths, mainly for people with at least secondary or higher education, like the Employment+Digital programme (in partnership with business confederations and aimed at active employees in different sectors), the Youth+Digital programme (provided for in the PEES), aimed at helping unemployed young people acquire core skills identified through consultation with companies and experts in the digital area and included by ANQEP¹⁷⁹ in the National Qualifications Catalogue, or the UpSkill Programme, in partnership with the IEFP, I.P. and the Portuguese Association for Communications Development, digital sector companies and higher education institutions, more specialised in training programmers and which aims to integrate students into participating companies.

Sectorial interventions are being launched in parallel to contribute to the development of emerging areas - in addition to the digital economy, programmes are being developed for training in the areas of energy and climate action, for the area of internationalisation and for sectors such as the social sector.

These initiatives are part of an agenda to modernise vocational training, in particular continuing vocational training, which is built through dialogue with the social partners from the Standing Committee for Social Consultation. An example is the **Agreement on Vocational Training and Qualification** signed with social partners, which envisages a 5 billion investment exclusively dedicated to qualifications and skills. The funds come from the Recovery and Resilience Plan (RRP) and Portugal 2030.

It should also be noted that Portugal has proceeded with the Update of the Benchmark of Key Competences of Basic Level Adult Education and Training, based on five

¹⁷⁹ Consultation carried out through partnership with the Portugal Digital Mission Structure. The courses, with a maximum of 300 hours, are certified by the National Qualifications System and prepare the trainees for evaluation and certification by reference academies in the digital area. In the first phase, courses cover the following topics: Productivity and collaboration tools (Basic / Advanced); E-commerce (Strategy / Operationalisation); Cyber-security; Social network management; Web design; Programming (WEB / JAVA); Databases - programming and management; Content development.NET; Computer networks; Server administration (Windows / Linux).

areas of key competences. One of these is “Digital Competence” and Portugal has already adapted the European Framework of Digital Competence for Citizens (DigComp 2.1) to the national reality through the creation of the Dynamic Reference Framework of Digital Competence (QDRCD).

A component dedicated to qualifications and skills was also created within the framework of the RRP. It is a set of instruments dedicated to training, qualification and skills totalling 1.5 billion euros, of which 400 million euros are earmarked for vocational training and, in particular, for continuous training. One of the main vectors is the investment of 230 million euros in the modernisation of vocational training centres and technological centres for vocational education. It is considered the largest investment in vocational training infrastructure in the last 30 years.



“The tendency is that organisations in many sectors, in line with the global trend of contemporary economies, optimise their processes, incorporate more knowledge and the need to be increasingly “intelligent”, more internally agile and flexible in order to be able to adapt to markets and economies with a very fast pace of change and also promote a new culture of autonomy”

9. Organisations, companies and the future of work

Background

The transformations of work that have been addressed in this paper, within the framework of wider economic, social and cultural changes, also bring significant challenges for organisations and, in particular, business organisations. Firstly, due to the need for accelerated adaptation to a context marked by the combined effects and confluence of different structural trends, in which there is an acceleration of the pace of change, growing integration of markets on a global scale, with higher levels of uncertainty, innovation and intense and continuous technological progress, against the backdrop of the twin transitions of a green and digital economy. Furthermore, companies and organisations have very different profiles, sizes and resources, and the challenges mentioned here are particularly demanding for micro, small and medium-sized companies and for companies with less qualified profiles and resources.

The pressures for change in the organisations themselves, their production and working processes, their models of management and internal communication and their relationship with their surroundings are immense, considering this framework. Those pressures are especially acute in the contexts and sectors most exposed to competition, besides also impacting on the so-called third sector of the social and solidary economy, and on the different levels of the public administration itself.

While it is true that there is considerable diversity of perspectives and approaches regarding these changes, the tendency is that organisations in many sectors, in line with the global trend of contemporary economies, optimise their processes, incorporate more knowledge and the need to be increasingly “intelligent”, more internally agile and flexible in order to be able to adapt to markets and economies with a very fast pace of change. They also promote a new culture of autonomy but, at the same time, of worker connectivity with risks already referred to in other chapters. New management, human resources and leadership practices have emerged and gained prominence in this context, with priority and growing concern for factors such as skills, the promotion and retention of talents and a focus on increasing productivity, primarily to respond to the external pressures to which companies are subjected. An emerging trend has also been identified within this movement: the focus on models that are an alternative to the traditional hierarchical model and more focused on problem solving, more flexible network structures and teamwork.

Estas mudanças têm uma declinação particular, e com oportunidades e riscos específicos, nas diferentes formas de trabalho remoto ou à distância, em particular naquelas que são mediadas pela tecnologia, com a alteração da relação entre trabalhadores, dentro de equipas, entre trabalhadores e chefias e também entre trabalhadores e empregadores, exigindo novas formas de gestão e de comunicação (ver capítulo sobre trabalho à distância).

These changes have a particular declination, and with specific opportunities and risks, in the different forms of remote or distance work, in particular those that are mediated by technology. They lead to the alteration of the relationship between workers, within teams, between workers and managers and also between workers and employers, requiring new forms of management and communication (see chapter on distance working).

In any case, whether or not it incorporates the specific challenges of distance working, this “new” organisational model is particularly demanding in terms of what is often referred to in more business-like language as “humancapital” and, specifically, the accumulation of skills by the workers and by the organisation itself. This highlights the need to reconcile flexibility and adaptability in response to short-term fluctuations and competitiveness requirements, with teams’ stability, the capacity to accumulate skills and learning in organisational processes, contributing to solid and sustainable business cultures.

This double need suggests, in turn, that contrary to what some people have been saying, the stability of employment and labour relations in the business sector is an important rather than an incompatible factor in raising the performance and long-term sustainability of companies.

The participation of the different stakeholders is another effectiveness and sustainability factor which applies to complex processes and systems in general. This idea applies to organisations and companies, which reinforces the importance of social dialogue and collective bargaining (see separate chapter) in the construction of negotiated and concerted adaptation strategies to change. Likewise, reinforcing workers’ participation, either directly or through their union representatives or their organisation in workers’ committees, at different levels and dimensions of companies and decision-making, contributes to the effectiveness and appropriation of the collective process within an inclusive framework of participation, promoting more democratic and dialogue-based corporate cultures.

Business environments marked by social dialogue, collective bargaining and worker participation tend to strengthen cohesion and reduce inequalities. In this framework,

the response to internal flexibility needs has reinforced conditions for application and sustainability in social dialogue and collective bargaining.

There is, on the other hand, a tendency for organisations, including companies, to increasingly include compliance, accountability, transparency and sustainability in their concerns and operating models at various levels. The evolution of regulatory frameworks and legal frameworks at all levels, and the demands of citizens and consumers within a framework of rapid and large-scale dissemination, often global, of easily accessible information, which may immediately result in significant reputational gains or damage to the projects of organisations and their leaders and shareholders, among other factors, have contributed to raising demands in terms of environmental (see below), social and labour standards, social responsibility policies and the strengthening of a culture of scrupulous and auditable compliance with laws and obligations, within the scope of so-called “compliance”.

Accordingly, the relationship between organisations and their environment, both within the framework of sectors more exposed to global competition and in companies more focused on the domestic market and on local dynamics, and even in organisations that pursue social, civic or public purposes, increasingly incorporates dimensions of identity communication and corporate positioning on scales that transcend, by far, territorial limits and boundaries. This is particularly the case in the new digital media - which are also zones of competition and the affirmation of business projects or others.

In short, as with the reflection on the challenges of the future of work, the complexity of the challenges posed by these drivers of organisational change are far from petering out with technological developments or any other aspect of ongoing change. They extend, on the contrary, to internal and external dimensions of the life of companies and organisations in general. Externally, matters such as those referred to in the previous paragraphs have gained relevance and visibility. Internally, there seems to be a change of paradigm in which the traditional working models of organisations, based on hierarchical leadership, a rigid organisational structure and rigid and non-integrated work environments, coexist or even switch to new organisational models based on empathy, commitment, empowerment and autonomy, as well as on agility and smart work spaces, the focus on skills and qualifications as a competitive advantage and on a new paradigm of security, authentication and compliance. In this paradigm, many organisations encourage organisational cultures with increasing collaboration between (human) workers and the different and diverse faces of technology, with an increase in the number of “digital co-workers”, for example in terms of automation, robotisation and algorithms and artificial intelligence, and also increased possibilities of the extension

and broadening of human capabilities¹⁸⁰. The focus on new digital skills, transversal and social-emotional skills, both for workers and employers, managers and supervisors, is of particular importance in the implementation of this new organisational culture.

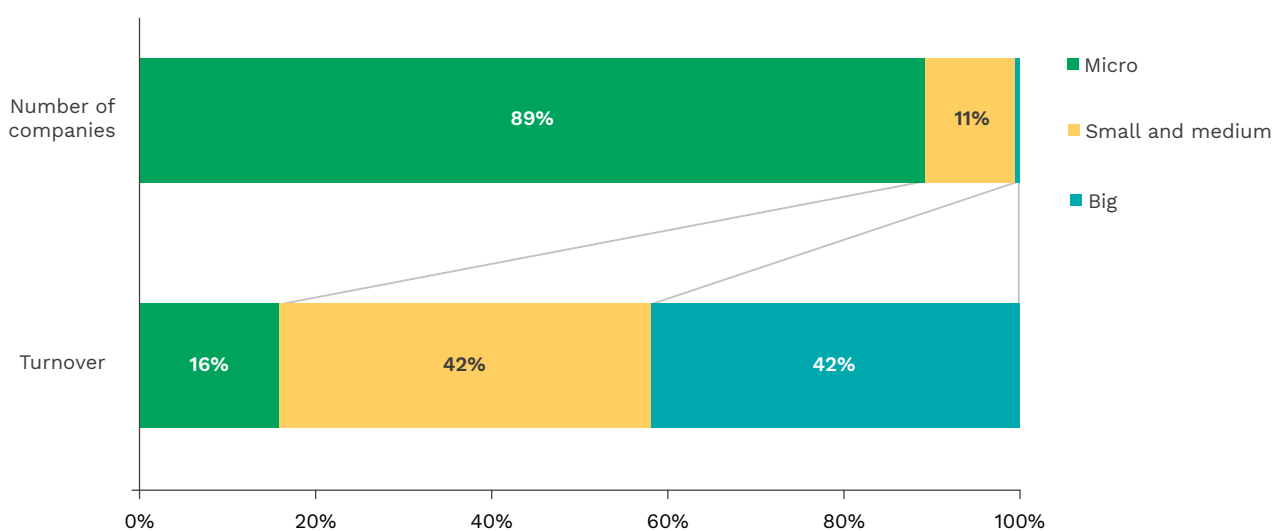
The challenge related to the increasingly frequent existence of different generations of workers within the same organisation should also be mentioned. This can be considered a difficulty insofar as they are workers with different profiles, with different needs and to whom the organisation has to provide differentiated responses. In the Portuguese case, the heightened generational inequalities in qualifications make this challenge particularly pronounced. This reality, despite being a challenge, can also be seen as an opportunity and a source of potential for organisational innovation.

Lastly, it is also important to point out that the green transition, just like the digital transition, entails new challenges for organisations in terms of creating sustainable business models, modernising and innovating processes, products and services on a large scale and along value chains (see chapter on Climate change, energy transition, green recovery and territory). The strengthening of corporate social responsibility, the adoption of labour and environmental compliance policies and the defence of all stakeholders are decisive factors for the organisations of the future.

Some data

The national business fabric, based on data from the Bank of Portugal¹⁸¹, is mainly made up of micro-enterprises. In 2019, of the approximately 470,000 operating non-financial companies based in Portugal, micro-enterprises accounted for 89% of total companies and only 16% of turnover. Large enterprises represent 0.3% of all companies and 42% of turnover, with turnover similar to that of small and medium-sized enterprises (which represent 11% of companies):

Figure 9 – Number of companies and turnover by size class (2019)



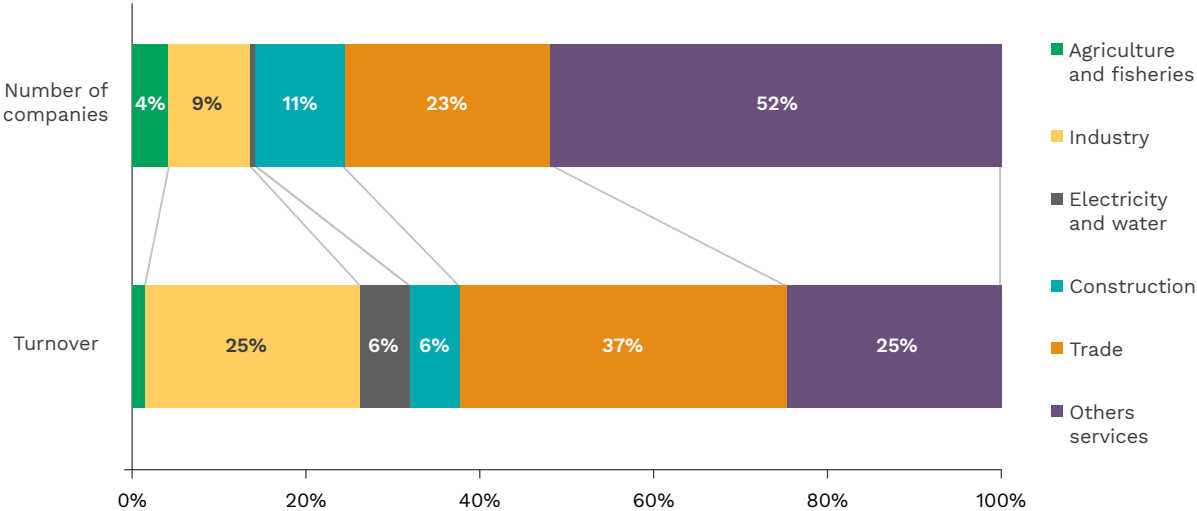
Source: Bank of Portugal, 2021

¹⁸⁰ IDC (2021), Future of Work: Strategies for the new work experience - update, IDC US47270619.

¹⁸¹ Bank of Portugal (2021), Sectorial analysis of non-financial companies in Portugal, Central Balance Sheet Database studies.

Services account for around 52% of companies in Portugal, followed by commerce with around 23%. Commerce accounts for the highest turnover (37%), followed by other services and industry (25%, in both sectors). Between 2010 and 2019, there was an increase of the share by number of companies in other services (7 pp) and a reduction in the shares of commerce (4 pp), construction (3 pp) and industry (2 pp). In terms of turnover, the services sector and industry sector increased their weight (3 pp and 2 pp, respectively) while construction recorded a reduction (5 pp).

Figure 10 – Number of companies and turnover by activity sector (2019)



Source: Bank of Portugal, 2021

INE¹⁸² recorded that, of the 1,318,330 non-financial companies operating in Portugal in 2019 (+3.1% than in 2018), 6,953 corresponded to high-growth companies¹⁸³, representing an increase of 46 companies compared to the previous year. In 2019 there was also a corporate start-up rate of 10.5%, with 45,977 companies starting operations in the financial sector (+0.6 pp compared to 2018). It is important to note that these new companies employed 86,623 people and generated 2.54 billion euros in turnover (representing an increase of 14.2% and 7.8%, respectively, over the previous year).

In 2019, the apparent labour productivity of non-financial companies reached 29,700 euros per person employed (+1.4% compared to the previous year), and it should be noted that SMEs performed better compared to large companies to the extent that the latter recorded a 1.6% decrease in the value of productivity between 2018 and 2019.

¹⁸² INE (2021), Companies in Portugal, 2019.
¹⁸³ Companies with 10 or more employees, which register an average annual growth higher than 10%, measured in terms of employees, over the last three years (INE).

In summary, the main economic indicators of non-financial companies and their change between 2018 and 2019 are presented below:

Figure 11 - Main economic indicators of non-financial companies, by maturity, size and sector of activity (2018 and 2019):

	Companies		Number of employees		Turnover		GVA		Staff costs		GOS	
	2019	V.R. 18-19	2019	V.R. 18-19	2019	V.R. 18-19	2019	V.R. 18-19	2019	V.R. 18-19	2019	V.R. 18-19
	Nº	%	Nº	%	10 ⁶ Euros	%	10 ⁶ Euro	%	10 ⁶ Euro	%	10 ⁶ Euro	%
Total non-financial companies	438 959	6,1	3 259 007	4,9	396 822	4,2	96 829	6,2	60 677	8,9	36 120	2,1
Idade												
Young (up to 5 years)	172 773	8,2	563 304	4,5	39 803	9,1	10 716	13,6	7 410	8,9	3 182	21,9
Adults (6 to 19 years)	165 805	4,0	1 132 241	4,3	121 521	1,5	33 780	3,4	20 642	8,7	13 202	-4,4
Seniors (20 years or more)	100 381	6,0	1 563 462	5,4	235 498	4,9	52 333	6,7	32 626	9,0	19 736	4,1
Size												
SME	437 668	6,1	2 340 537	4,4	229 128	4,5	60 058	7,6	39 546	8,0	20 632	6,6
Big	1 291	7,7	918 470	5,9	167 694	3,8	36 771	3,9	21 131	10,6	15 488	-3,2
Activity sector												
Agriculture and fisheries	17 970	4,0	83 828	10,0	5 886	7,6	1 456	14,0	1 028	10,0	730	13,4
Industry	41 625	1,8	719 001	1,6	97 620	2,2	22 679	0,2	14 088	5,9	8 596	-7,6
Energy and water	2 079	10,6	44 091	2,1	24 981	-5,6	5 574	3,1	1 161	4,9	4 339	3,1
Construction and real estate activities	85 491	9,2	366 880	9,0	31 105	9,5	10 201	16,4	5 853	12,8	3 972	23,8
Trade	100 905	2,4	667 609	3,5	146 598	3,9	19 349	6,6	12 355	6,8	6 770	6,8
Transport and storage	21 887	16,3	178 489	5,9	23 018	5,6	7 747	3,3	4 810	7,5	3 005	-2,1
Accommodation and food	43 511	6,3	306 508	7,6	14 114	10,3	5 635	10,0	3 876	11,7	1 711	6,6
Information and communication	13 228	10,5	114 854	10,6	14 072	9,5	6 610	11,1	4 055	23,0	2 515	-2,5
Information and communication	112 263	6,7	777 747	4,8	39 428	8,2	17 577	7,3	13 451	8,8	4 482	1,5

Source: INE

These figures will have understandably fluctuated significantly in 2020 in the context of the pandemic crisis.

Lastly, the INE data also showed, in relation to the use of information and communication technologies by companies, that around 97% of companies with 10 or more employees and 42.8% of employees used computers with Internet connections for professional purposes in 2020. Also in 2020, 61.1% of companies state that they have their own website or the corporate group to which they belong has a website, and 29.0% of companies purchase cloud computing services on the internet, with emphasis on the purchase of email and file storage (83.2% and 70.1% of these companies, respectively). With regard to the ICT skills of workers, 22.9% of companies employ staff who are ICT specialists and the training activities to develop ICT skills promoted by companies in 2019 were mainly aimed at workers in categories other than ICT. 6.5% of companies employing 10 or more people recruited or tried to recruit ICT specialists in 2019, and 44.5% of these had difficulty filling those vacancies. 13.0% of companies in 2020 employing 10 or more people use interconnected devices or systems that can be remotely monitored or controlled over the internet (IoT) and 9.1% use industrial and/or service robots. 4.5% of companies in 2019 employing 10

or more people used 3D printing, using company-owned 3D printers and/or through printing services provided by other companies. It is also to be noted that more than half of companies did not analyse big data in 2019 due to insufficient workers with knowledge or skills in this area. However, 10.2% of companies employing 10 or more people analysed big data, in particular by the machine learning analysis method (33.7% of these companies)¹⁸⁴.

¹⁸⁴ INE, Survey on Information and Communication Technology Use by Companies, November 2020



“The effectiveness of the rules and compliance therewith by the different agents is a crucial condition for ensuring the proper functioning of the labour market, as is the case in any market, creating conditions for fair and transparent competition, while preventing situations of abuse that further weaken the fragile side of labour relations. ”

10. Inspection, occupational health and safety and new psychosocial risks

Background

The rapidly-changing world of work, with the emergence of new working arrangements and numerous technological transformations, poses numerous challenges to labour inspection, including in the areas of health and safety, but also in the more general area of industrial relations.

Labour inspectorates, as part of national labour administration systems, play a key role in ensuring equilibrium in labour markets. In addition to verifying compliance with national legislation, they use their technical expertise to provide advice to employers and workers on their rights and duties, and are a key element in implementing labour policies and programmes and ensuring the enforcement of legal provisions regulating labour. The effectiveness of the rules and compliance therewith by the different agents is a crucial condition for ensuring the proper functioning of the labour market, as is the case in any market, creating conditions for fair and transparent competition, while preventing situations of abuse that further weaken the fragile side of labour relations.

In addition to the already mentioned complexity of the legal regulation of the new types of working arrangements, the future of work and the emerging forms of employment are equally complex from the point of view of the enforcement of labour legislation and they create large-scale challenges for labour inspection, safety and health. Work on digital platforms, for example, is a particularly complex issue in this regard because of its diffusion in time and space, which creates obstacles to monitoring working conditions.

Digitalisation and new technologies are transforming workplaces and work relationships, in a society characterised by constant connectivity, increased online and mobile working, human-machine interfaces, and new forms of monitoring and control, including through artificial intelligence and algorithms, to name but a few aspects, already mentioned in other sections of this document.

Psychosocial risk factors are associated, for example, with not limiting working hours, causing adverse effects on health that range from occasional stressful situa-

tions to serious situations such as burnout¹⁸⁵.

According to the Portuguese Psychologists' Association (OPP)¹⁸⁶ the following categories of psychosocial risks can be identified as having the greatest impact on the physical and mental health of workers, and they are also an obstacle to the proper functioning and productivity of organisations:

- **Work task related:** *the content of the work is meaningless and does not allow the employee to apply his/her knowledge and skills; the workload is higher than the employee's capacity or, on the contrary, much lower; lack of autonomy and control over tasks and work organisation; high degree of automation and repetition of tasks; performance of dangerous tasks;*
- **Work organisation related:** *continuous and excessive working hours (more than 8 hours a day); shift work schedules; existence of few rest breaks and of short duration (more than five hours of consecutive work); contradictory demands by superiors;*
- **Organisation structure related:** *blurring of employee functions and role; lack of internal communication; conflicts and poor relations between employees and different departments within the organisation; lack of opportunities for promotion and professional development; low level or non-existence of rewards or compensation;*
- **Other:** *negative social image of the organisation; great distance between the employee's address and the workplace; uncertainty about the future of the job; conflicting work environment; lack of support from leadership and colleagues; harassment and violence; difficulty in reconciling work and family commitments; occupational stress.*

Several psychosocial risks have already been identified for telework. When it is provided from home, the management power of the employer interferes with the private sphere of the family environment, considerably increasing the level of invasion of privacy (see specific point on privacy). It is no longer just the worker who is directly subject to the psychosocial risks present in the employment relationship; the risk

¹⁸⁵ Portugal. Ministry of Health. Directorate-General of Health. TECHNICAL GUIDE No. 3: HEALTH SURVEILLANCE OF WORKERS EXPOSED TO PSYCHOSOCIAL RISK FACTORS IN THE WORKPLACE / National Occupational Health Programme / Division of Environmental and Occupational Health / Directorate of Disease Prevention and Health Promotion Services. Lisbon: Directorate-General of Health, 2021.

¹⁸⁶ Portuguese Psychologists Association - OPP (2021). Scientific Contribution of the OPP to the Green Paper on the Future of Work. Lisbon.

may also extend to the whole family. We can add other psychosocial risk factors that may be associated with all those normally present in work relationships, such as: the pressure to comply with tasks, the pressure resulting from the need to create and delimit a physical space suitable for work, the imposition of working conditions at home; as well as permanent connectivity with the employer.

Other factors also impact on these traditional factors, such as isolation, loneliness, the scarcity of human contact for discussion and social interaction, less susceptibility to exchange of experiences, loss of power to make demands and, as a result of this disconnection, the worker is subject to working conditions that he/she cannot compare and control. It is worth noting in this context that the expression “technological stress” is becoming more relevant and can be described as a phenomenon associated with being permanently online during work. It “occurs when the benefits potentially provided by new digital devices transform into pressure on the worker in the form of implicit or explicit expectations from an employer or colleagues, expectations or demands from customers, connectivity problems that disrupt the normal work routine or when workers become dependent on digital devices, in particular mobile devices such as smartphones or tablets”¹⁸⁷.

Likewise, as highlighted in a CRL study, the global system of safety and health protection in the workplace may prove inadequate in the face of some of the new working models enabled by digital technologies insofar as “that system was originally designed for the reality of companies in the industrial sector, which have a fixed workplace, under the total control of the employer and easily accessible to labour inspection services, to verify compliance with the rules of that area. It is the case that, “although the legal rules in this field are nowadays, in theory, intended to cover all forms of dependent work, the truth is that, in practice, they do not easily adapt to the forms of employment contract enhanced by digital technologies, such as telework and other forms of distance work, nor to employment contracts with a diluted place of work. They are also even less adapted to situations of para-subordination associated with work at the employee’s home”. It is, in these situations, “difficult to ensure the application of such rules in a work environment that does not coincide with the company’s premises, where the access of the inspection services to the workplace may not be so evident and it may be more difficult to hold the employer accountable for non-compliance with these rules”¹⁸⁸.

Labour inspectorates in many countries have found their normal functioning ham-

¹⁸⁷ Valenduc, Gérard (2018), *Toeing the line. Working conditions in digital environments*, ETUI.

¹⁸⁸ CRL (2019), *A Economia Digital e Negociação Coletiva [The Digital Economy and Collective Bargaining]*, MTSSS

pered since the outbreak of the COVID-19 pandemic, in a context where organisations have been reprioritising and changing operating methods with regard to protecting the safety and health of workers. The labour inspectorates have been monitoring and assisting in the implementation of employment maintenance measures, such as dismissals or changes in workplaces related to working time organisation and others.

Some data

The Authority for Working Conditions (ACT) was reinforced in 2020 by 80 new trainee inspectors from external recruitment procedures, in addition to 41 who joined through internal recruitment procedures in 2019, to tackle the challenges raised by the pandemic crisis. The extraordinary and temporary transfer of 68 inspectors from other inspection services meant the ACT reached a maximum number of 495 inspectors. This reinforcement represented an increase of more than 40% in the number of active inspectors and that meant that not only was this the largest inspection staff since its creation in 2006 (which would have been the case, moreover, even without the extraordinary reinforcement during the acute phase of the pandemic) but it meant effective compliance with the ILO's recommended ratio for developed economies.

This reinforcement has made it possible to strengthen the inspection activities in a highly demanding environment as regards the effectiveness of the norms that regulate the functioning of the labour market. The ACT opened more than 26,500 inspection reports throughout 2020 and carried out about 31,950 inspection visits that covered more than 20,500 companies and 620,000 workers. **More than half of the inspection reports opened during the year were initiated by complaints, and the ACT carried out more than 10,900 inspection visits in this context.** The remaining inspection reports are integrated into national or local actions, focusing on specific labour issues, e.g. lay-offs, occupational health and safety and combating job insecurity.

Also in order to reinforce the capacity of the ACT, Law no. 14/2020, of May 9, reinforced the powers of the labour inspectorate regarding dismissal. It confers on the labour inspector the power, when there are indications of unlawful dismissal, to notify the employer to remedy the situation. After such notification to the employer and until the employee's situation has been regularised or the court decision has become final and unappealable, depending on the case, the employment contract in question will not be terminated and all the rights of the parties will be maintained, namely the right to remuneration.

The activities of the National Occupational Health Programme of the Directorate-General of Health, initiated in 2009, are to be highlighted in the occupational health field. These activities include the technical-normative heritage and published benchmarks aimed at systematising, guiding and harmonising the good practice procedures of professionals in occupational health. Basis 14 “Occupational Health” of the Basic Law on Health highlights and reinforces the importance of this area in the health and well-being of the population by stating that “all workers have the right to benefit from measures that enable them to protect their health within the scope of their working life”.¹⁸⁹

The Portuguese legal system is acknowledged as being demanding in matters of workers’ safety and health, in line with European Union parameters. It is demanding in terms of the protection of personal data relating to workers’ health and also as regards the rights and duties of the employer and workers concerning health and safety in the workplace. On the other hand, the legal system for the protection of occupational health and safety is also robust, largely as a result of the transposition of EU directives in this area.¹⁹⁰

In 2020, the OPP estimated that “the **loss of productivity** due to absenteeism and presenteeism caused by stress and psychological health problems **may have cost Portuguese companies up to €3.2 billion per year** since it is estimated that in Portugal **workers are absent due to stress and psychological health problems** for up to **6.2 days per year and presenteeism** can extend up to **12.4 days**”.¹⁹¹

At European level, the European Commission has launched the new Strategic Fra-

¹⁸⁹ Directorate-General of Health. Normative Circular No. 03/DSPPS/DCVAE, February 2010: National Occupational Health Programme 2009-2012 - Promotion and Protection of Health in the Workplace. Lisbon: DGS, 2010. Directorate-General of Health. Standard 26/2013, 30/12/2013: National Occupational Health Programme: 2nd Cycle - 2013/2017. Lisbon: DGS, 2013.

Portugal. Ministry of Health. Directorate-General of Health. NATIONAL OCCUPATIONAL HEALTH PROGRAMME (PNSOC) - Extension 2018/2020. Lisbon: Directorate-General of Health, 2018.

¹⁹⁰ The employer has the general duty to ensure good working conditions, to prevent risks and accidents at work, to adopt the prescriptions and measures provided for by law or by collective labour regulation instrument in matters of occupational health and safety, and to inform and train workers in this field (article 127 no. 1 c), g) h) and i) of the Labour Code). This general duty is then specified in various pieces of legislation (especially those imposed by the Legal Framework for the Promotion of Health and Safety at Work, approved by Law no. 102/2009 of 10 September). The worker has the duty to respect the health and safety rules in the workplace and to cooperate in the maintenance of occupational health and safety (article 128 no. 1 e) and i) of the Labour Code) and he/she has the right to be informed and to receive training in this area (article 18 et seq. of Law no. 102/2009, of 10 September); some categories of workers who are more vulnerable from a health point of view (such as underage workers, and pregnant workers and workers who have recently given birth or are breastfeeding) benefit from reinforced protection in this regard (articles 60, 62 and 72 of the Labour Code, and articles 50 et seq. of Law no. 102/2009 of 10 September). The law also provides for the establishment of workers’ representatives in matters of health and safety, who have an active role in defining the measures adopted by the company in this area and receive specific professional training in this field (articles 21 et seq. of Law no. 102/2009 of 10 September)”

¹⁹¹ Portuguese Psychologists Association - OPP (2021). Scientific Contribution of the OPP to the Green Paper on the Future of Work. Lisbon.

mework for Occupational Health and Safety (2021-2027), aiming to keep workers safe and healthy in a rapidly-changing world of work.

The strategic framework focuses on three key transversal objectives for the coming years:

anticipating and managing change in the new world of work, improving the prevention of work-related accidents and illnesses, and increasing preparedness for possible future health threats

The strategic framework initiatives will be implemented through: i) strong social dialogue, ii) strengthened evidence-based policy making, iii) better implementation and monitoring of existing EU legislation, iv) awareness-raising actions and v) mobilising funding to invest in health and safety at work, including through EU funds such as the Recovery and Resilience Mechanism and cohesion policy funds.



“The main challenge is to use digital technology to provide citizens and businesses with secure, accessible, and effortless services, notably by facilitating and reducing interactions and providing and reusing data.”

11. Public Administration

Background

The debates on the functions and organisation of the State in contemporary societies and its relationship with society and the market have had multiple dimensions and declinations over the decades. The relevance and central nature of the organisational dimension of the State, embodied by the Public Administration, is undeniable in its capacity to fulfil its mission and improve the levels of efficiency it manages to provide to citizens and companies, regardless of the specific positions and discussions. It contributes to citizenship, to competitiveness and generally to quality and well-being.

In the reflection on Public Administration in the context of the future of work, at least two fundamental dimensions must be taken into account, in a framework of centrality of the Administration in the relationship with citizens and businesses: the role of the State in managing the challenges of digital transition and in particular the new forms of work, and the modernisation and digitalisation of the Public Administration itself in the digital era.

More generally, for example, the OECD highlights the existence of multiple opportunities to promote the development of the use of technology and also its use by the State, in dimensions as diverse as the creation of a data-driven culture, and the coherent use of digital technologies across policy areas and levels of government to enable digital opportunities to be seized. There are also specific challenges regarding the Administration, such as reinforcing instruments to strengthen the relations between public administration and broader public governance agendas; developing approaches to address issues of privacy and digital security from a risk perspective; securing the funding and success of digital technology projects and making them sustainable; taking advantage of available technology to strengthen institutional capacities to manage and monitor public services and the implementation of projects.¹⁹²

The use of digital technology in the relationship with citizens, companies and society in general is one of the most relevant activities, within the framework of broad agendas for the simplification of the relationship and cutting red tape between the State and citizens, and the reduction of administrative and context costs.

¹⁹² OCDE (2014) *Recommendation on Digital Government Strategies*

The main challenge is to use digital technology to provide citizens and businesses with secure, accessible and effortless services, notably by facilitating and reducing interactions and providing and reusing data.

Also of note, besides the interface philosophy (the so-called “front office”), is the digitalisation and incorporation of technology into the administration machine and processes themselves, in order to obtain gains in efficiency and productivity and to improve the quality and control of processes, and the performance of public services and of the public administration as a whole and in its different dimensions.

Aspects such as the development of adequate information and management systems, including performance evaluation that increasingly incorporates a culture of working by objectives that creates value in the pursuit of quality public service, are of great importance for that purpose, both to improve results and to improve the satisfaction of workers and users of public services.

The training and capacity-building of Public Administration workers is likewise a determining factor in dealing with the challenges of work digitalisation, but also for functioning in a network and in an increasingly collaborative way. This training and capacity-building follows a philosophy of aggregate performance of the administration and of each service as well as of individual rights and performance, and a broad-band philosophy of raising and renewing skills and qualifications.

Public Administration leadership development is particularly important to enable the challenges of digital transformation and the public sector itself to be adequately addressed. It is therefore essential to adopt systems for developing leadership skills based on evidence of data to support the creation of public value. These systems must be capable of including all relevant perspectives in the decision-making process, committed to developing confidence in teams and working environments that, taking advantage of digital advances, may provide better performance and systematic collaboration with other actors, across organisational and sectoral boundaries.

It is important in this field, taking advantage not only of the technological potential but also of new working arrangements and organisation, to continue investing in collaborative work and innovation in the models and results achieved, namely in the Collaborative Work Plans already developed.¹⁹³

¹⁹³ The three Collaborative Work Plans developed since March 2020 in the Public Administration have already made it possible to develop 45 projects to support the activity of services and workers, many of them oriented towards new work contexts, but also in response to particular needs for improvement, namely the provision of services to citizens and economic agents.

Thus, the main challenges facing the Public Administration lie in mobilising and enhancing workers, including renewed, dynamic and mobilising leadership, developing the skills and motivation of all in order to create value for society. This requires the acquisition of new knowledge throughout life, in various functions and work environments where the values of public service prevail. There must also be a commitment to social dialogue and the creation of mechanisms for managing people that involve public workers as an integral part of the ongoing process of transforming the State and the Public Administration.

Lastly, the Public Administration also has the challenge of providing working conditions and conciliation with the workers' personal and family life. It must be a reference employer in these matters as well as in others. Taking advantage of the opportunities of remote working, and specifically teleworking, while minimising the risks that this may entail, is a challenge for the Public Administration.

Accordingly, the challenges of the future of work in the public sector can be grouped into at least three dimensions: (i) the incorporation of technology and automation in the public sector, with repercussions on the creation of value and satisfaction of the different agents, including workers; (ii) the empowerment of the workers themselves, who like others will need to be equipped with new skills; and (iii) the redefinition of workplaces, employment models and their organisational support, with implications for the well-being and productivity of employees and services .¹⁹⁴

¹⁹⁴ Deloitte (2019), *The future of work in government*, Deloitte Insights

Some data

In Portugal, the Strategy for Innovation and Modernisation of the State and Public Administration 2020-2023 considers precisely that “Public Administration (PA) has a key role in addressing the global and complex challenges of our time. These are challenges that require responses from governments and societies that must be framed by a common vision and made operational through coherent policies, strategies and measures” and that “it is necessary to change some of the ways in which the State and PA act to respond to a new context, create space for new ideas to emerge and give greater decision-making power to those entities that are best placed to transform ideas into value, achieving the desired results and transforming collaboration into the main asset of people and organisations”, and therefore “innovation and modernisation [...] must be transversal to the PA, for a continuous transformation of its processes and of the goods and services it provides, increasing its efficiency and quality”¹⁹⁵. Four lines of action have been developed for this purpose: “Investing in people”, “Developing management”, “Exploiting technology” and “Strengthening proximity”.

Finally, it should be noted that with regard to the Modernisation of Public Administration, according to the 2020 Digital Economy and Society Index, Portugal continues to adopt important measures to digitise public services, occupying 13th place among the 28 EU Member States, thus continuing above the EU average and ranking among the best performers in this area.

Examples of relevant initiatives recently adopted in Portugal to modernise public services using digital technologies are:

- The renewal of the mandate of the Council for Information and Communication Technologies in Public Administration, which has already approved the Cloud Strategy for Public Administration and the evaluation of the ICT 2020 Strategy - Strategy for Digital Transformation in Public Administration, and is preparing a new Strategy and 2021-2023 Action Plan, in alignment with the projects set out in the Recovery and Resilience Plan;
- A new edition of the SIMPLEX 2020-2021 programme, the flagship programme of administrative modernisation in Portugal and a source of inspiration for other countries. It contains administrative simplification measures, many of them leveraged by the digital field, in the provision of services to citizens and busi-

¹⁹⁵ Resolution of the Council of Ministers No. 55/2020 of 31 July 2020

nesses and in improving internal efficiency, based on principles such as “digital by default”.

- The ePortugal portal is the public services portal which replaced the Citizen’s Portal. It is a central directory for all public services dedicated to citizens and companies, offering several customisation options, an area reserved for citizens and innovative support mechanisms such as the SIGMA automatic conversation system (“chat bot”) or the possibility to geolocalise all Portuguese public services on a Citizen’s Map, which allows waiting times to be viewed and virtual queuing tickets to be obtained;
- Encouraging the use of the Mobile Digital Key, which currently has more than 1.7 million active keys that allow access to more than 200 websites, apps and platforms belonging to public and private entities;
- The availability of the idd.gov mobile application, which enables citizens’ identification documents to be made available and which will continue to increase the number of documents available;
- The evolution of the public administration interoperability platform, on which data circulates and digital services are supported;
- The Mobile Electronic Doctor’s Prescription (Mobile EMP), which allows prescriptions to be issued digitally, namely through a smartphone;
- The new Social Security+ mobile app, which provides an easier and simpler way for citizens and businesses to access social security services;
- The Usability and Accessibility Seal initiative, which identifies and promotes the application of good practices on websites and mobile applications. It is developed by the Agency for Administrative Modernisation and the National Institute for Rehabilitation, with the aim of simplifying and increasing efficiency in the use of online public services by citizens, continuing a path that began in 1999;
- The Data Science and Artificial Intelligence in Public Administration programme, with two funding instruments for science and administrative modernisation, one defined under the INCoDe.2030 research axis and the other under the Support System for the Digital Transformation of Public Administration (SAMA2020).
- The creation of TicAPP, in 2018, currently an AMA unit to support the entire PA in digital transformation challenges, in particular the analysis, design and implementation of solutions requiring a high degree of specialisation, with both local and transversal solutions (requiring the collaboration of two or more entities).

- Conducting knowledge tests in centralised recruitment procedures entirely by remote means, through telematic resources, for the first time;
- Make the Online Registration of Births available, a measure created in direct response to the pandemic crisis;
- Adaptation of in-person training to the fully remote scheme, through the use of digital tools;
- Portugal joined various international groups and instruments that integrate countries that stand out for their ability to conduct digital transformation processes, including in their public administrations, such as Digital Nations (2018), the Coalition of the Willing (2020) and the Digital Nations Charter (2021)

It should also be noted, upstream, that the sudden arrival of the pandemic and the adoption of telework as a mechanism to contain the spread of the virus meant teleworking also became widely adopted in the Public Administration. **This means of working covered about 68,000 civil servants in 2020 and it is expected that this change will remain in place for about 25% of State workers¹⁹⁶.** There was also an acceleration in the digitalisation of Public Administration services due to the exceptional circumstances imposed by the pandemic crisis. This was achieved not only through the ePortugal portal and the introduction of new services, but also by leveraging a set of remote communication platforms that had just recently been introduced and which proved to be crucial to ensure the smooth functioning of services during this period.

To encourage the settlement of State workers in the Inland Regions, as established in Decree-Law no. 40/2020 of 17 July, the National Network of Telework or Coworking Spaces in the Inland Regions now also covers workers with a public employment contract, without any added costs for the bodies or services employing them.

Investments were also drawn up that, within the scope of the RRP, should allow:

- The Public Administration Interoperability Infrastructure (iAP) to be thoroughly renewed and modernised;
- Redesign of the transversal digital services that currently use this infrastructure and also develop new integrated services (which should result in greater effi-

¹⁹⁶ According to data from the Ministry of State Modernisation and Public Administration at the Parliamentary Hearing on 5 May 2020.

ciency of the PA and less obstacles for citizens and businesses);

- Renewal of open data services, extending the offer and increasing quality, thus reinforcing both transparency and the possibility of economic enhancement of data, with the PA's contribution to the future National Open Data Strategy being evident;
- Renewed customer service, investing in an omnichannel strategy, maximising in a coordinated manner the potential of citizen shops and spaces, telephone service and digital services, renewing the current ePortugal portal.



“Green jobs are key to fighting climate change and sustainable development and make a decisive contribution to meeting the global challenges of environmental protection, economic development, social inclusion and territorial cohesion”

12. Climate change, energy transition, green recovery and territory

Background

The ILO considers green jobs to be jobs that contribute to reducing the environmental impact of enterprises and economic sectors to levels that are sustainable, i.e. jobs that protect and restore ecosystems and biodiversity; reduce the consumption of energy, materials and water and improve efficiency in their use; limit greenhouse gas emissions; support adaptation to the effects of climate change; and minimise or avoid all forms of pollution or waste generation¹⁹⁷.

Green jobs are key to fighting climate change and sustainable development and make a decisive contribution to meeting the global challenges of environmental protection, economic development, social inclusion and territorial cohesion.

In fact, the transition to a more circular economy implies an adaptation of the labour market to a new reality and it is important to anticipate these changes. The core strategies of the circular economy are based on smart production and use (refuse, rethink, reduce), extending the useful life of products and their components (reuse, repair, recondition, remanufacture, reallocate) and the useful application of materials (recycle and reclaim)¹⁹⁸.

The new working arrangements, such as telework, may contribute to enhancing the value of the inland territories and reduce the population concentration in big cities, reducing the need to travel and the consequent carbon footprint. This potential, however, needs to be leveraged in a framework of mitigation of the risks associated with telework (see specific point), and it also depends on the creation of conditions for telework to be carried out adequately, starting with the implementation of broadband coverage throughout the territory, which is already in preparation.

On the other hand, it is fundamental not to lose sight of the fact that these dynamics have implications on the mobility patterns of people, commuting and the very organisation and dynamics of cities, with relevant consequences for various sectors of activity and for the world of work.

¹⁹⁷ ILO (2015), Green Jobs Programme

¹⁹⁸ Action Plan for the Circular Economy in Portugal 2017-2020

Overall, there is a need to promote the transformation of businesses and other employers, workplace practices and the labour market as a whole, with a view to increasing resource efficiency and sustainability and the circular economy, promoting greater resilience in the face of ongoing change.

In fact, the transition to a more circular economy implies an adaptation of the labour market to a new reality and it is important to anticipate these changes. The core strategies of the circular economy - smart production and use; extending the useful life of products and their components and useful applications of materials - also have a high potential for job creation supported by innovative technologies and new business models.

Some data

The ILO estimates that the implementation of the Paris Agenda will result in the creation of 24 million jobs worldwide, with a loss of around 6 million - a clearly positive balance of 18 million jobs created, albeit with geographical configurations that we cannot clearly anticipate, and dependent on the efforts we deploy today in promoting investments with sustainable results. The sustainability of this employment cannot be dissociated from the principles of decent work and environmental sustainability and, to this end, it is necessary to “ensure that workers have access to social protection, acquire the appropriate set of skills and that economies have the capacity to make the transition between traditional industries and greener industries”¹⁹⁹.

The impact on employment is not limited to the energy, sanitation and recycling sectors, but also extends to promoting design, repair, remanufacturing and fine disassembly, and associated reverse logistics networks. According to Eurostat’s 2017 approach and methodology, **1.8% of people employed in Portugal are assigned to sectors or areas central to the circular economy, slightly above the European average of 1.7%**²⁰⁰.

The number of jobs in the EU associated with the circular economy grew by 5% to around 4 million, between 2012 and 2018²⁰¹. Circularity is expected to have a positive net effect on job creation, provided workers acquire the skills required for the

¹⁹⁹ ILO (2018), *World Employment and Social Outlook 2018: Greening with jobs*.

²⁰⁰ <https://ec.europa.eu/eurostat/web/circular-economy/indicators/monitoring-framework>

²⁰¹ European Circular Economy Plan https://eur-lex.europa.eu/resource.html?uri=cellar:9903b325-6388-11ea-b735-01aa75ed71a1.0022.02/DOC_1&format=PDF

green transition - which is why the European Commission has updated the Skills Agenda and launched a Skills Pact in 2020.

It is predicted that the adoption of the legislative proposals contained in the circular economy package will create more than 170,000 direct jobs in the EU by 2035. Increasing resource productivity by 30% could lead to the creation of between 1 and 3 million additional jobs by 2030.

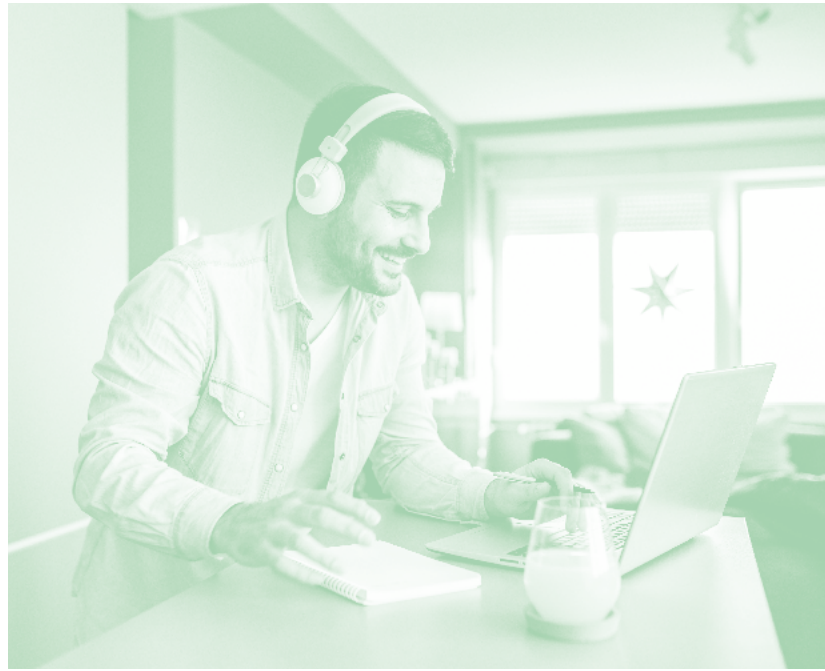
Estimates point to the existence of 88,565 direct jobs in Portugal related to circular economy activities in 2017, and potentially 36,000 direct jobs by 2030²⁰².

It should be noted, in terms of territorial balance and mobility in the EU, that the pandemic not only interrupted a process of employment growth based on mobility but there is also a geographical concentration of European labour markets with employment growth: 48 dynamic cities with around 20% of the European population generated 43% of GDP growth, and saw their populations and employment growth rates increase. In contrast, 438 regions with 30% of the population, located mainly in Eastern and Southern Europe, have seen a decrease in their working population, ageing populations and a decline in qualifications. Thus, if the push for telework is not strong enough to change urbanisation patterns, Europe's 48 most dynamic cities may capture more than 50% of potential job growth, increasing the trend of geographical concentration²⁰³.

These data allow us to forecast the importance of reinforcing the policies to boost Portugal's Inland Regions and to stimulate the respective labour markets, such as through the Interior Mais programme.

²⁰² Action Plan for the Circular Economy in Portugal 2017-2020

²⁰³ MCKinsey Global Institute (2020), *The Future of Work in Europe*, Discussion paper June 2020



Guidelines for reflection on public policies for the future of work in portugal



The main lines of reflection that should be taken into consideration, in view of the context and the data stated in each of the analysed dimensions of the future of work, are as follows:

1. Employment, new working arrangements and labour relations

Dynamics of employment transformation in Portugal

01

- **Promote the Decent Work Agenda and Inclusive Social Protection**, in its different dimensions: combatting precariousness, promoting collective bargaining, expanding active employment, training and qualification policies, defending incomes, inclusive social protection and specific responses for the most disadvantaged and isolated segments of the labour market;;

02

- Within this scope, **expand the fight against precariousness and segmentation**, namely by promoting the penalisation of excessive recourse to non-permanent forms of work, recourse to false self-employment and other forms of work outsourcing, and preventing abuses in contractual figures and forms that are especially prevalent among young people, for whom these can have serious consequences and impede their autonomy, their access to welfare and individual and family life projects in the medium and long term

03

- Include in this Decent Work Agenda the **expansion of the regulation of temporary work and the fight against the abusive use of this arrangement**, reinforcing the licensing and operating requirements of temporary work companies, promoting the stability of labour relations in the sector, increasing the levels of transparency and information provision for administrative and inspection purposes, and the greater accountability of users, both towards workers, in the hiring chains, and in the case of recourse to unqualified companies;

04

- **Promote reflection on the link between the Decent Work Agenda and the implementation of the European Pillar of Social Rights Action Plan;**

05

- **Regulate the new working arrangements** associated with the transformations in work and the digital economy, namely work carried out on **digital platforms, telework and digital nomadism** (see separate chapters), also as an integral part of the Decent Work Agenda mentioned above, so as to mitigate the potentially adverse effects of the emergence of new forms of precarious employment associated with the so-called digital revolution and to ensure that the expansion of jobs in digital areas or using these means does not increase the levels of segmentation and precariousness, with repercussions on workers at lower levels of pay and qualifications;

06

- **Prevent, also, phenomena of exclusion and the emergence of pockets of precariousness in their most serious forms**, starting with the most vulnerable groups such as **migrant workers, in particular in sectors particularly exposed to these risks, promoting greater control and accountability of all those intervening in the contracting chains and the legality of migratory processes through simplification and transparency in the arrival of these workers in Portugal and the signing of bilateral and multilateral agreements on the movement of workers;**

07

- **Invest in strategic areas with employment growth potential**, particularly in sectors and the competences strongly linked to **digitalisation and technology, climate and energy transition** or to the **internationalisation of the Portuguese economy**, among others, decisive for the country's positioning in the ongoing transformations;;

08

- **Explore areas with job creation potential linked to the satisfaction of social needs**, since the emerging areas are not limited to technological sectors, but also to sectors less exposed to global competition, such as care, social services and health, for all generations and throughout the territory;

09

- **Reinforce the role of active labour market policies**, deepening their role as promoters of quality job creation and support for transitions between jobs, reinforcing both their potential to stimulate strategic sectors and to combat technological unemployment and the emergence of pockets of exclusion in the labour market;

10

- **Launch a national social employment market programme**, targeted at the most disadvantaged territories and groups, as part of a strategy to bring people closer to employment and to promote qualifications and to empower them to prevent pockets of poverty and exclusion and also prolonged detachment from the labour market;

11

- **Promote active ageing within the framework of the labour market**, in order to respond to the profound demographic changes of recent decades, by strengthening the instruments for the inclusion of older workers, for example in **life-long training and professional requalification**, and by means of instruments for adapting working hours to life cycle phases, namely by investing in **partial retirement** mechanisms in the final years of the contributory career. This is based on a philosophy of prolonging active life and phasing out the exit from the labour market, as well as promoting mechanisms that allow these citizens, after retirement, to define life projects for their retirement and place their available time at the service of the community, in a dimension that may encompass multiple forms of work;

12

- **Develop lifelong training and (re)qualification programmes, taking into account employment needs and trends and in close articulation with labour market agents**, both with a view to taking advantage of opportunities for employment growth and promoting inclusive labour markets, and preventing pockets of unemployment and exclusion associated with ongoing changes (see specific point on training);

13

- **Mitigate the effects of employment polarisation**, particularly associated with qualifications (idem);

14

- **Strengthen instruments to support job retention** in periods of crisis and acute shocks, from a dual perspective of corporate viability and worker protection, so as to preserve the basis for potential employment growth and reduce the short- and medium-term impacts of situations of strong deterioration on the labour market;

15

- **Permit options such as redeployment or relocation of workers** within the scope of the promotion of networking, between organisations and companies and of the so-called shared economy, through which the workers of companies that are in a situation of economic crisis and possibly in a lay-off situation may, if they so wish, be temporarily placed in companies that have a labour shortage. This will be done through collaboration and loan agreements, in order to allow the workers in question to maintain their professional activity and acquire new work experience.

Distance working and teleworking

01

- **Enhance and improve the regulation of telework** in its different dimensions, expanding on this field in legislation;

03

- **Expand, in particular, the possibilities and forms of adoption of hybrid models** that combine in-person work and distance work in the framework of the employment relationship, from a perspective of balance in promoting the opportunities and mitigating the risks of telework, **also promoting the articulation of public policies in different governmental areas;**

04

- **Safeguard the basic principle of agreement between employer and worker** in the strengthening of telework legislation, to ensure the freedom of the parties in adopting this type of working arrangement and the possibility of its reversal, without prejudice to extending the list of cases in which the worker is

entitled to telework, namely to cover workers with disabilities, incapacity, chronic illness, with children under a certain age or informal caregivers (see specific point on conciliation between work and personal and family life);;

05

- **Remove the extra costs of teleworking for workers**, namely installation, maintenance and payment of expenses related to the working tools used;

06

- **Mitigate the risks of isolation**, as well as the difficulty of actively participating in associative situations, through hybrid models of distance and in-person work and the promotion of policies to minimise the risks inherent to teleworking, namely through mechanisms of contact and regular meetings;

07

- **Promote a set of training areas that could be a priority for teleworkers**, such as: time and stress management, information and communication technologies, safety and health in a telework context;

08

- **Ensure protection for the privacy of workers and their families**, particularly in cases where telework is carried out at home, legally reinforcing the **right to privacy in regards to the use of potentially intrusive software**;

09

- **Promote the prior coordination between worker and employer of meetings to be held by telematic means** (teleconferences), to the extent necessary to safeguard the privacy of the worker and his/her family;

10

- **Ensure equal treatment at work (pay, working conditions, training and career progression)** for teleworkers;

11

- **Enforce compliance with occupational health and safety rules, as well as the right to compensation in case of occupational accidents or diseases**, even when the work is carried out at the worker's home;

12

- **Foster the incorporation and specific regulation of telework in collective bargaining** and collective bargaining instruments, in order to encourage negotiated provisions suitable for each company and sector;

13

- **Harness the potential of telework for integrated territorial development** and for the inclusion of some groups that traditionally have greater difficulty in accessing the labour market, through the **creation of remote jobs, particularly in regions with lower population density, for example through the installation of cowork** centres shared between public and private entities;

14

- **Encourage the progressive generalisation of access to digital means and tools, as well as the necessary skills** to use them;

15

- **Promote the design and availability of specific monitoring instruments and systems to manage the psychosocial risks** that increasingly arise from this type of work;

16

- **Reinforce the duty of information regarding telework**, providing **all** interested **parties** with updated information and tools to support the decision to adopt telework, also including hybrid models, namely: (1) clarifying the applicability of existing rights and obligations, (2) issuing advice or guidance on the minimum equipment needed for teleworking, (3) providing concise information and awareness on health and safety in teleworking, including correct ergonomics, (4) issuing recommendations on how to avoid cybersecurity threats while working from home, (5) transmitting guidance on how employers can comply with the General Data Protection Regulation²⁰⁴;

17

- **Ensure the right to trade union work and the activity of workers' committees, namely as regards the right to information and communication of trade unions and workers' committees with workers in the virtual instruments and spaces of companies as an extension of the traditional workplaces, in particular for**

²⁰⁴ Adapted from ILO public policy recommendation "Teleworking during the COVID-19 pandemic and beyond, A Practical Guide", 2020

workers who are working remotely, through the use for communication purposes, with due safeguards, of instruments such as organisations' e-mails and intranets, and access to the same for trade unions and workers' committees as representatives of the workers.

Work on Digital Platforms

01

- **Regulate work on digital platforms and ensure the existence of a contributory and fiscal framework adapted to** this new reality, also in line with the conclusions and guidelines that may be issued by the European Commission within the scope of the public consultation and negotiation processes involving European social partners on this matter;

02

- **Create a presumption of employment** adapted to work on digital platforms, in order to make a clearer and more effective distinction between employees and self-employed workers, underlining the fact that the service provider uses his/her own work tools, as well as the fact that he/she is exempt from the duties of attendance, punctuality and non-competition, are not incompatible with the existence of a dependent employment relationship between the service provider and the digital platform;

03

- **Ensure workers' access to adequate social protection**, even in cases where the employment relationship does not qualify as dependent work;

04

- **Improve the contributory and fiscal framework for these activities**, both in terms of clarification and effectiveness of employers' obligations, and in terms of access to contributory mechanisms and rights for all platform workers;

05

- **Regulate the use of algorithms, namely in the distribution of tasks, organisation of work, performance evaluation and promotion**, particularly in the context of work provided through platforms, which represents a greater distance between employer and worker, both physically and through technological intermediation of the relationship, thus avoiding potential biases and discrimination (see also separate item on artificial intelligence and algorithms);

06

- **Remedy the lack of information (statistical and administrative)** about work on platforms, also considering the creation of a Platforms Observatory;

07

- In this context, **promote transparency and access to information by public institutions and, in particular, by inspection bodies** (see point on labour inspection), in order to correct some of the opacity resulting from the current lack of regulation and also from characteristics such as diffusion of the provision of work over time and space, with the consequent obstacles to the possibilities of inspecting working conditions;

08

- **Promote these workers' access to rights of association and collective bargaining** and stimulate the adaptation of traditional systems to the new working arrangements and new categories of workers, namely by promoting collective bargaining in this sector and the signing of collective labour regulation instruments, in particular bargaining instruments;

09

- **Evaluate and revisit, in a more global way, the legal framework applicable to platforms**, in particular those operating in passenger transport;

10

- **Create a minimum corpus of rights applicable to all those working on digital platforms**, even if they do so on a service delivery basis and as self-employed workers.

Digital nomads

01

- **Position Portugal as a country of excellence to attract Digital Nomads**, reinforcing the country's communication and promotion strategies²⁰⁵.

02

- **Create a tax framework and a system of access to social protection specific to digital nomads**, promoting solutions for their better integration in Portugal, namely in terms of hiring by companies, the tax framework for these workers, access to employment insurance, as well as access to occupational health and safety and social protection;

03

- **Create a national network of coworking spaces**, with the involvement of public and private agents, to create better conditions for attracting this community;

04

- **Identify and study national, regional and local initiatives**, with the involvement of different actors, to increase the potential for hosting remote workers in the country and to enhance, in coordination with coworking spaces, the recovery of deactivated public spaces and infrastructures, the mobilisation of infrastructures with available capacity (for example, in business incubators within the national network, or in other facilities currently intended for other purposes), discount networks, as well as other projects that may contribute to the attraction potential of the country and of different regions;

05

- **Promote, within the area of tourism and in coordination with sector partners, packages with special conditions for digital nomads** in order to promote the settlement of digital nomads in different regions of the country, to benefit low density regions and the so-called low tourism seasons, in particular;

²⁰⁵ Portugal is often well positioned, with Lisbon and Ericeira, for example, occupying top positions in the benchmark rankings for these areas on websites for digital nomads, such as <https://digitalnomads.pt/>; <https://nomadadigital.pt/>; <https://nomadismodigital.pt/>; <https://nomadific.com/portugal-guide-for-digital-nomads/>; <https://thenomades-cape.com/digital-nomad-portugal/>

04

- **Improve the network infrastructure**, particularly outside the major urban centres and in the inland regions of the country, in order to enhance areas of lower population density and make them more attractive to remote workers.

2. Technological diversity, Artificial Intelligence and Algorithms

01

- **Extend digital and data literacy skills related to artificial intelligence on a large scale**, across different sectors and at all qualification levels;

02

- **Make training in the different technologies adequate and up-to-date in an agile fashion**, associated with both Artificial Intelligence and with productive processes, promoting the creation of broad competences capable of responding to the technological diversity involved in the ongoing digital transition processes (see specific chapter);

03

- **Regulate the use of algorithms** in their different dimensions, so as to promote transparency and responsibility in their use, particularly in the context of employment relations;

04

- **Encourage, in particular, regulation of the use of algorithms in collective bargaining, involving social partners** and ensuring that the issue is dealt with at the level of collective bargaining agreements, so as to ensure the appropriate adequacy of AI and to reflect the specific needs of each sector;

05

- **Introduce provisions in legislation that minimise the new risks associated with autonomous AI behaviour** by setting requirements to ensure the protection of privacy and personal data, equality and

non-discrimination (see specific points for further details), ethics, transparency and the explainability of algorithm-based systems, both in the selection of job applicants and in the performance of the work contract and the monitoring of the worker's professional activity;

06

- **Promote SMEs' access to AI and to human resources qualified in these areas**, promoting the expansion of these technologies and mitigating inequalities based on company size that may limit the potential for access to technological innovation and introduce distortions due to market imbalances;

07

- **Deepen knowledge on the degree of development of the different relevant technologies and their socio-economic impacts on employment, labour relations and qualification needs**, considering the different levels of sectorial adoption and adoption in companies in Portugal;

08

- **Promote the monitoring and evaluation of the AI Portugal 2030 Strategy** and continue to pursue its densification in areas with impacts on employment, labour relations and training;

09

- **Promote trusted AI by investing in infrastructure development, the integrated and regulated progress of the algorithmic bases of AI, improved use of public and industry data and the creation of data repositories**;

10

- **Promote the use of artificial intelligence tools in different domains of public policies, supporting, namely, the adjustment of the labour market through the transition of workers to emerging areas** and/or areas with a labour shortage within a framework of improvement of diagnostic tools and anticipation of the skills needs and dynamics of the labour market;

11

- **Adapt school curricula and training contents, in coordination with artificial intelligence tools**, to meet the needs of skills with high labour transferability and for cognitive skills and reasoning capacity in a context of uncertainty, social and emotional intelligence;

12

- **Deepen adaptation of initial training forms and curricula, namely at university and post-graduate level, as well as training paths, namely at post-secondary level, to the challenges posed by AI** (see also specific point on training and qualification);

13

- **Promote a culture among market agents, and particularly social partners, based on the matching of job supply and demand on the basis of skills** rather than on professional areas or academic degrees, including in public employment services;

14

- **Invest, in coordination with universities, research centres and other agents, in building the skills of the State and Public Administration in the use of AI** and its potential, so as to ensure the existence of public competence centres and the capacity for adequate regulation and supervision of the use of AI in different domains, including the labour market; encourage the use of AI in the public sector, with full respect for the ethical principles that should underlie it (see point on Public Administration).

3. Right to privacy and data protection

01

- **Prevent and regulate the practice of employment background checks in a restrictive manner**, preventing the evaluation of a job applicant's profile and professional CV from being made using personal data of the applicant that has no direct connection with the type of activity for which he/she is applying and that interferes with his/her personal or private sphere;

02

- **Consider the creation of a figure similar to the data protection officer**, in this case specifically dedicated to ensuring the safeguarding of workers' personal data and privacy, in particular in larger companies;

03

- **Produce guidelines on specific technologies and additional standards on managing the availability, accessibility, usability, quality, interoperability and ownership of the data** collected, processed and stored within the scope of employment relations, in coordination with the National Cyberspace Security Strategy;

04

- **Guarantee mechanisms and powers for enforcement authorities to ensure that privacy and data protection legislation is effectively enforced**, so as to strengthen the balance between worker rights and employer interests and to ensure that, as technology evolves, authorities are required to check that employers are not “abusing” technological means to “control” their workers remotely and excessively;

05

- **Prevent the use of tools that allow the monitoring of e-mails, sites visited or applications that report on the users’ activity**, including the amount of messages sent and calls/meetings held, giving rise to a significant risk of remote surveillance of workers in real time, as well as enabling the creation of behavioural profiles;

06

- **Safeguard and reinforce respect for professional secrecy, namely as regards areas of business and work that involve access to the personal data of third parties, and industrial and commercial secrecy**, when in-person work shifts to teleworking. The employer must guarantee, for this purpose, that the worker has the necessary conditions to ensure respect for professional secrecy and commercial secrecy, as well as guaranteeing that he/she is aware of his/her obligation to assure such secrecy is respected;

07

- **Improve the contents and strategies for cybersecurity education, training and awareness-raising**, both in formal and informal education and in terms of making the training component of the National Cybersecurity Reference Framework (NSRF) and the Minimum Cybersecurity Capabilities Roadmap (MSCRC) operational;

08

- **Strengthen the available training and also skills in the area of cybersecurity for workers and for the business sector**, either through basic training or through the expansion of specific pathways (such as, for example, the one referring to cybersecurity in the Young + Digital programme).

4. Working hours, reconciling work and family life and the right to disconnect

01

- **Implement and regulate the right to disconnect or switch off from work**, creating mechanisms to prevent the extension of effective working hours and protect workers from the negative consequences of permanent connectivity and an “always on” work culture. A right to switch off and disconnect during rest times is thus ensured, in articulation with the employer’s duty to, as a rule, ensure that the worker is not contacted after the end of the working day;

02

- **Extend the situations in which the worker is entitled to telework, irrespective of an agreement with the employer**, in total or partial teleworking, namely to promote conciliation between work and personal and family life, as well as in the case of workers with disabilities, incapacity, chronic illness, minor children up to a certain age or informal caregivers;

03

- **Create more flexible working hours mechanisms to facilitate the conciliation between professional, family and personal life**;

04

- **Allow, in collective bargaining, working models that also include measurable and specific objectives and deadlines**, appropriate to the functions and working times, instead of just the standard number of working hours, with the full involvement of workers and their representatives;

05

- **Promote a culture, forms and times of work organisation that favour the balance between professional activity and family and personal life**, namely through the development of codes of conduct, articulating the reflection on the change of concepts of workplace, working time and rest time (reducing the fluidity between both), among others, within the framework of the emergence of

new working arrangements, with the need to ensure favourable conciliation conditions that do not accentuate inequalities, particularly those of gender;

06

- **Consider, together with social partners, horizons that may, in the future, allow for greater concentration of working time during the week or, without loss of income for workers, the reduction of working periods, namely within the context of increases in productivity, in coordination with collective bargaining and in specific sectoral circumstances;**

07

- **Reinforce social protection measures, labour inspection and collective bargaining dynamics in areas that impact on the conciliation** between work and personal and family life, allowing women and men to benefit from fair parental protection and all the benefits for society that result from conciliating professional life with personal and family life, namely the education of children and support to dependent family members;

08

- **Strengthen incentives for men and women to share the use of parental leave and create mechanisms for part-time leave**, in addition to the aforementioned promotion of gender equality in access to working arrangements such as telework or flexible working hours (see item on equality);

09

- **Improve, in particular, the regulation concerning informal carers**, starting with the transposition of the Work-Family Life Balance Directive, which advocates the existing right to request “flexible working arrangements” for all workers who are parents of children up to at least eight years of age and for all carers, stressing that workers exercising this right should be protected against discrimination or any less favourable treatment and establishing that specific leave should be created for informal carers.

5. Inclusion, equality and non-discrimination

01

- **Promote the reinforcement of women's participation in training areas associated with emerging sectors and skills and particularly in technological areas**, namely the areas related to science, engineering, computing, electronics, robotics, among others, in order to prevent professional segregation and under-representation in these areas upstream, and from the outset among young people in initial training;

02

- **Implement positive discrimination mechanisms within the framework of changes in the labour market** and, in particular, in the so-called future of work, to promote the reduction of inequalities in a comprehensive formulation, both on the basis of gender and of belonging to specific groups, preventing new forms of work from aggravating inequalities or allowing discriminatory practices;

03

- **Expanding mechanisms in this field to correct inequalities within the framework of active employment policy** so as to promote the inclusion of categories that tend to be disadvantaged and have greater difficulty in accessing stable and lasting labour relations, and in areas and sectors with greater potential for employment growth, namely technological areas;

04

- **Mitigate, in particular, the phenomena of segregation in professions**, particularly from a gender perspective, in technological areas, namely by studying public policy instruments to promote that mitigation and by investing in campaigns and awareness-raising to promote the participation of women in the most dynamic areas in which they are under-represented, as well as by reinforcing the instruments currently existing in active employment policies to combat the under-representation of one of the sexes in certain professions;

05

- **Implement instruments that limit the risk of telework penalising women in particular** and thus aggravating asymmetries in the division of unpaid work, compromising gender equality in the labour market;

06

- **Prevent discriminatory mechanisms and practices in the use of artificial intelligence and algorithms** in employment relations, by considering the creation of a system to hold users or creators accountable in the event of unlawful behaviour (see specific point);

07

- **Combat the risks of discrimination and the most damaging effects of segmentation and polarisation in the labour market, notably among the more vulnerable and exposed groups** such as among migrant workers and in the sectors with higher risks of precariousness.

6. Social protection in new working arrangements

01

-- **Adapt the social security system to the new working arrangements**, deepening the reflection on the changes of a substantive and operational nature that allow for better effectiveness and adequacy to these new forms of atypical work, so that its social function of guaranteeing social benefits to substitute the loss of income does not lose efficiency;

02

- **Promote the widening of the coverage of the social protection systems, stimulating the enrolment of all workers in the social security systems**, regardless of their legal contract, and guaranteeing coverage in the various risk situations (immediate and indirect) of the welfare system, with effective instruments that allow different categories of workers to access protection of adequate levels, respecting the guarantee periods of the welfare system;

03

- **Simplify access to social protection systems for all categories of workers**, promoting less bureaucracy in access to social protection, welfare and other systems, taking advantage of new technologies in particular;

04

- **Implement a digital reform of social security and its relationship with companies, citizens and beneficiaries, including the commitment to personalise responses to users using artificial intelligence;**

05

- **Encourage the entry of undeclared or under-declared workers into the formal economy**, within the framework of deepening the fight against undeclared work and abuse in the misclassification of workers, including the strengthening of penalty mechanisms where appropriate and greater capacity to eliminate the phenomena of under-declaration of income and tax and contributory evasion;

06

- **Diversify the sources of social security financing as a way to strengthen long-term financial, economic and social sustainability**, including by increasing the role of tax-financed social protection elements to strengthen the system and help address gaps in existing provisions, i.e. use universal and means-tested benefits to complement benefits linked to employment status and/or level of contributions;

07

- **Reinforce the social protection of workers in atypical forms of work, especially those in forms of work where the atypicality and risk of precariousness is greater, such as platform workers or self-employed workers, in particular with occasional or very intermittent activity**, among others, in order to ensure proper coverage of social risks, social cohesion, fair competition, and the financial sustainability of the systems;

08

- **In the case of digital platforms, expand protection even in cases where there is no employment contract**, clarifying the situations and conditions under which companies should make social contributions, in order to avoid “unfair contribution competition”, given that currently, for self-employed workers, platforms only

contribute when these workers are economically dependent; as well as improve the framework for workers who are normally less protected and improve the level of protection provided for risk situations such as illness or occupational risks (see also specific point);

09

- **Promote greater accountability of all stakeholders in so-called atypical labour relations**, namely by equating the issue of accountability in the payment of social contributions with the effective access to rights, an issue that may cover not only self-employed workers, but also other atypical workers such as temporary workers, including the issues of promoters' and users' accountability;

10

- **Expand the enhanced inclusion of self-employed workers in the social security system**, reflecting on new adjustments that allow for greater effectiveness and adequacy of protection in the scheme for self-employed workers, through adequate contribution compensation, namely regarding the framework of entrepreneurs whose company has its registered office in their own residence, freelancers or other types of autonomous workers;

11

- **Promote the inclusion in the social security system of so-called digital nomads**, whose choice of an itinerant lifestyle and work while travelling the world and working remotely is, in the current model, a challenge for the coordination of social security schemes (see also specific point);

12

- **Ensure the identification of the right employment status** as a means to access rights and protections, collective bargaining and lifelong learning, exploring ways to improve legal and procedural mechanisms for this purpose;

13

- **Strengthen the rights and protection afforded to workers who are in the “grey zone” between dependent work and self-employment**, taking as a starting point the already-established status of economically dependent self-employed workers and reflecting on mechanisms to ensure correct classification; it is important to guarantee rights and protection for workers who share some char-

acteristics of self-employment (e.g. autonomy in the performance of work) and some characteristics of employed workers (e.g. economic dependence on a single client);

14

- **Increase the portability of rights** to broader categories of workers and consolidate existing schemes to cover new forms of work.

7. Trade union associations, worker representation, collective bargaining and social dialogue

01

- **Extend the coverage of collective bargaining to new categories of workers, including outsourced workers and economically dependent self-employed workers**, reducing injustice, strengthening coverage and making the labour market more inclusive, while also discouraging less transparent competition strategies;

02

- **Stimulate the coverage and dynamism of collective bargaining**, through the introduction of incentives and conditions for access to public support and incentives, community funding and public procurement, related to the existence of recent collective bargaining;

03

- **Foster, in coordination with social partners, mechanisms to combat the isolation and fragmentation that characterise many of the new working arrangements**, to facilitate the right to association in very flexible working arrangements and with entirely technological intermediation (e.g. platforms) or recourse to remote communication technologies (e.g. telework);

04

- **Study, in coordination with social partners, ways to promote the participation and representation of workers in so-called atypical forms of work**, ensuring the effectiveness and relevance of their right to association;

05

- **Stimulate content on new forms and methods of organising work via collective bargaining**, in a collectively negotiated manner and adapted to the situation of each sector or company.

8. Skills, vocational training and lifelong learning

01

- **Launch a Strategic Agenda for the modernisation and reinforcement of professional training, and in particular continuous training**, with special attention to sectorial areas and specific skills, in close coordination with social partners (under negotiation in the CPCS);

02

- **Reinforce the priority of raising the qualification base as a structural priority of public policy, in particular among less qualified adults, as well as generalising access to digital skills for all generations**, including the generations with the greatest deficits in this respect, but also in education and training pathways for young people within a broader framework of promoting new skills;

03

- **Promote, besides the elevation of the base, the widening of the top of the pyramid of competences and qualifications, investing in the expansion of advanced and specialised training at post-secondary, higher and post-graduate education level** and in the quantitative and qualitative reinforcement of the dynamics of research, innovation and production of knowledge in areas of technology, data, digital and, in general, those related to the so-called future of work;

04

- **Develop a licensing system associated with the training and qualification of workers;**

05

- **Empower education and training structures and facilities for the digital transition**, both for young people and adults, and in particular as part of the modernisation of schools, vocational schools and vocational training centres;

06

- **Focus on the funding instruments available for the coming years, such as the Recovery and Resilience Plan and the next Multiannual Financial Framework, to reinforce these priorities**, in an articulated manner, including the modernisation of the vocational training centres, digital training, or improvements in the governance model, namely of the Multiannual Financial Framework, within the framework of the above-stated Strategic Agenda;

07

- **Invest in the massive expansion of training for the digital transition**, particularly in continuing vocational training, in order to broaden the skills base in these areas and to prevent pockets of worker shortages in emerging areas, but also pockets of exclusion, particularly among the older generations, **promoting greater engagement of employers in continuing vocational training;**

08

- **Implement a Digital Guarantee for all unemployed people**, progressively and until 2023, ensuring that all unemployed people registered in the public employment service are provided, within a reasonable timeframe, with an active policy offer in the digital area, namely training, suited to their skills and qualifications profile;

09

- **Develop, in conjunction with social partners and stakeholders from different sectors, training programmes targeted at emerging skills**, in order to ensure more digital employment patterns and skills profiles in line with the needs and trends of technological change and labour markets, also promoting the **enhancement of employers' and managers' skills;**

10

- **Improve the capacity to diagnose digital competences** based on the QDRCD, so as to massively and uniformly measure the level of competences at entry and exit of the trainees;

11

- **Improve the agility of updating the training offer and the National Catalogue of Qualifications in the digital domains**, taking into account the rapid technological evolution and the challenges and opportunities that workers, companies and other organisations are permanently facing;

12

- **Broaden the attendance of courses in STEM and ICT areas in higher education**, including a gender balance perspective, and invest in post-graduate training and higher levels of qualification, with a view to better integrating these professionals in companies;

13

- **Expand the training offer aimed at other strategic sectors and with potential for creating sustainable jobs in the economy, especially in the areas of energy and climate action, the sea, internationalisation or care provision**, namely by developing sectorial training plans targeted at these areas, in coordination with sector stakeholders;

14

- **Take full advantage of the potential of distance learning within the scope of public policy on vocational training, ensuring the pedagogical quality standards that must be guaranteed**, mitigating territorial asymmetries that condition access to training and limiting the risks of inequalities in access;

15

- **Explore opportunities for learning and digital inclusion in non-formal education**, aimed primarily at all young people, with a special focus on those at risk of social exclusion.

9. Organisations, companies and the future of work

01

– Strengthen skills, namely the **digital skills of workers in the business sector**, in line with the “Digital Portugal Academy” and “Jobs+Digital 2025” programmes and in articulation with the priority of vocational training and qualification of people, as well as also focusing on leadership and management skills, and on transversal skills;

02

– Also develop **programmes to build the capacity of entrepreneurs, managers and middle management in companies**;

03

– Stimulate the **modernisation of companies’ operating models, as well as their production processes**, including the dematerialisation of workflows, through support and incentives within the framework of the next cycle of community funding and of programmes such as the “National Network of Test Beds”, “Digital Commerce”, “Support to Business Models for Digital Transition” (Coaching 4.0) Entrepreneurship - “Voucher for Startups - New Green and Digital Products”, “Strengthening of the National Structure for Entrepreneurship” and “Voucher for Incubators/Accelerators”;

04

– Develop **initiatives to improve the so-called “business environment”, particularly in the digital area, in order to make it more attractive, secure and reliable**, furthering programmes such as “Digital Innovation Hubs”, “Invoice Dematerialisation”, “Cybersecurity, Privacy, Usability and Sustainability Certification Seals”, among others

05

– **Support companies, particularly in the development of new digital channels** for the commercialisation of products and services, to strengthen the positioning of Portuguese companies in areas with strong growth potential;

06

- Develop **programmes to support the incorporation of innovative technologies** into the value-generating mechanisms of companies;

07

- Expand on business project development programmes and stimulate, in particular, **digital-based entrepreneurship**;

08

- **Increase the competitiveness and resilience of organisations based on R&D, innovation, diversification and specialisation of the productive structure**, stimulating (i) the development of new products and services with greater added value, with a view to increasing export potential; (ii) the hiring of qualified human resources, in association with increased investment by companies in R&D activities; (iii) attracting FDI, with transformative potential on the Portuguese manufacturing sector; and iv) an effective green transition towards environmental sustainability.

09

- Promote a **culture of compliance**, namely labour compliance, as well as social and environmental compliance, and regarding the protection and ethical use of data;

10

- Promote the dissemination of a **culture of social dialogue, collective bargaining, participation of workers and their representatives** and, in general, internal democracy within organisations, including business organisations, in coordination with the public policy guidelines referred to in the chapter on these matters;

11

- Stimulate the **adoption and sharing in a network of good practices at business and organisational level in different dimensions of business activity**, such as the one that exists for equality - the iGen network;

12

- Stimulate, namely through capacity-building programmes for organisations and individuals, a **culture of autonomy as well as participation at decision-making level**;

13

- Promote the **social and environmental responsibility** of business organisations in a context of digital and green transition.

10. Inspection, occupational health and safety and new psychosocial risks

01

- **Develop skills and the inspection capacity of the ACT in the fields of the digital and artificial intelligence areas**, taking full advantage of the use of data and artificial intelligence also for the identification of risk situations and better calibration of the inspection activity;

02

- **Ensure data interconnection between the ACT and other relevant public services**, so as to guarantee intelligent cross-referencing of data for the detection of irregular phenomena and greater supervision effectiveness;

03

- **Improve the access of social security systems and the ACT to information on employment relationships with more than two parties**, such as temporary work, or new working arrangements such as platform work;

04

- **Strengthen the OHS resources and instruments available to the ACT and DGS**, both human and technical, including the full modernisation of information systems;

05

- **Review the labour administrative offences scheme to ensure celerity and effectiveness**, within the framework of improving the powers of the ACT and labour inspectors;

06

- **Improve the legal framework regarding the instruments that Labour Inspection can use, in different aspects, particularly in relation to the “new” working arrangements**, such as telework or platform work, among others, to improve the possibilities of inspection of remote work and better ensure workers’ rights and, in this way, a regulated and inclusive labour market;

10

- **Strengthen the employer's obligations in the working arrangements associated with the digital economy**, namely regarding remote surveillance through ICTs and expressly prohibiting monitoring through digital camera or GPS devices, as well as the obligation to inform, in real time, on remote entry and exit of the working environment or by indirect means through the back office (see section on data and privacy);

11

- **Reinforce the coordination, partnerships and joint work of the ACT with social partners** in order to promote greater dissemination of a renewed culture of compliance with legislation, awareness of new contractual relations and ways of providing work and risks arising from them, including other entities such as the DGS, whenever relevant;

12

- **Strengthen partnerships with peer labour inspectorates** with a view to sharing technical information, planning and intervention methodologies, coordination and evaluation of inspection activities, technical tools to support inspection activity, technical documentation of common interest and sharing of good practices;

13

- **Establish OHS as an indicator of quality and sustainability of national employment.**

11. Public Administration

01

- **Ensure the scheme provided for in the Labour Code regarding teleworking is applied to workers who have a public employment contract**, without prejudice to the specificities of public administration and that any guidelines may be issued to the various bodies or services, with a view to harmonising procedures;

02

- **Regulate the right to disconnect in the public administration**, emphasising the need, in a world where contact is permanent, to limit the use of communication resources outside working hours;

03

- **Promote the adoption of telework, totally or partially, on a voluntary basis and with a view to improving working relations and conditions and conciliation with professional and family life**, ensuring equality of rights with other workers and avoiding both the isolation of employees working remotely and damage to the performance and productivity of services;

04

- **Use the potential of telework to create jobs outside large urban centres, namely in regions with lower population density;**

05

- **Promote telework, bearing in mind the need to limit the risks of worsening gender asymmetries** at work and in conciliation with personal and family life;

06

- **Strengthen the capacity of the administration to provide better working conditions for workers**, including the necessary means for workers with special needs;

07

- **Expand on the investment agenda in the digitalisation of public services and administration, from a perspective of administrative simplification**, centred on people and companies, in an inclusive manner;

08

- **Define principles, standards, guidelines, reference architectures and common technologies with a view to strengthening the global governance of technologies**, namely by supporting their adoption across the Public Administration;

09

- **Improve interoperability and service integration by promoting and supporting the use of the Public Administration Interoperability Platform for service integration and data re-use, including artificial intelligence, data quality and analytics services;**

10

– **Manage the data ecosystem with security and transparency**, strengthening the Dados.Gov service as a transparency portal in the Public Administration and stimulate its use with more services, linked data, real-time data and the publication of persistent identifiers for data referred to in official documents.

11

– **Create the capacity to make available data management mechanisms, including the management of personal data by the data subject, which guarantee authorisation for its use and re-use by the Public Administration**, promoting the once only principle and trust;

12

– **Improve the means and capabilities of the State, public administration and public services in the field of cybersecurity** in order to protect the public service from intrusion, malicious uses and security breaches regarding administrative data and personal information, thus better preparing the public sector for the challenges of the digital economy;

13

– **Boost the training and qualification of Public Administration workers**, as well as managers, in order to enhance the development of their professional paths, promoting the access of workers to all the necessary skills to work in an environment transformed by digital technology, whether they are technical, personal or relational;

14

– **Promote, in particular, the access of workers in public functions to skills in digital areas**, with an approach geared towards upgrading and updating, and in a manner appropriate to their profiles and proficiency levels;

15

– **Invest in the development of an Emerging Skills Centre**, within the framework of the Strategy for Innovation and Modernisation of the State and Public Administration as well as the Simplex 20-21 programme, as an offer of capacity-building solutions that reinforce the learning and continuous development of workers and their leaders.

16

- Pursue a training policy specifically for managers and future managers that integrates the digital dimensions, investing in particular in the strengthening of the **INA Leadership Development Centre**, an aggregating hub of learning, creation and dissemination of knowledge about leadership in the public context, similar to that which occurs in many similar institutions in other countries;

17

- Intensify the promotion of collaborative work as a standard operating model between PA entities to develop projects of common interest or projects that benefit from the sharing of material resources and knowledge, thus leveraging transversal processes based on existing structures;

18

- Prepare the PA career structure for the impact of digital on the professions and the sectoral areas that may see the greatest impact;

19

- Reflect the increased efficiency arising from more digital operating processes in the PA organisations themselves, rethinking structural models and mission areas or organisational functions that become obsolete.

12. Climate change, energy transition, green recovery and territory

01

- Address the promotion of energy and green transitions and climate action from the perspective of job creation, promoting greater balance between all territories, and mitigating the social and employment costs of the transition, in particular on jobs existing today and the people and territories affected, ensuring a fair transition;

02

- **Foster territorial cohesion by making the interior territories more dynamic, also through distance working**, including in co-working spaces equipped with adequate working conditions, investing in technological infrastructures that are sustainable and tend to be energy-neutral, and increasing the connectivity network coverage, especially the broadband network;

03

- **Pursue a policy of stimulating the reinforcement of mobility for low density territories**, through instruments in different areas of public policy;

04

- **Promote territorial (re)balance through the freedom to telework and distance working in zones of metropolitan areas, or nearby, outside the most congested centres**, thus contributing to a decrease in the intensity of urban and interurban daily mobility flows and promoting, in this way, more sustainable local economies;

05

- **Assess the extent and direction of the impacts of climate change mitigation and adaptation policies and actions on the workforce and mitigate their effects**, especially with regard to workers and particularly affected regions, with a view to ensuring a fair green recovery;

06

- **Develop studies to identify in Portugal the reality and evolution perspectives of employment related to circular economy and the so called “green jobs”**, namely: (i) what are circular and green jobs, what do they consist of, what are their functions and necessary skills, and how they differ from “traditional” jobs; (ii) how many jobs already exist associated with the circular economy and other areas of sustainability; (iii) what are the potentially more promising circular activities with opportunities for national employment; (iv) what are the educational and training responses that already exist in the field to address the qualification and requalification needs, (v) what are the skills that educators, employers and workers need to develop in order to perform the functions and roles that drive a national circular economy;

07

- **Identify the main sectors for Portugal with potential for the creation and requalification of “green jobs”**, namely, energy effi-

ciency and renewable energies, water efficiency and alternative water sources, sustainable mobility and transport, construction and rehabilitation of buildings, industry;

08

- **Develop specific educational and training responses to the energy and green transitions, climate change**, the transition to a circular economy and resource efficiency and the response to environmental degradation, responding to the transition to a low-carbon and circular economy that is triggering the need for new skills;

09

- **Develop a comprehensive training and professional capacity-building plan specifically targeted at energy transition and climate action, with sectoral deviations** and including dimensions such as energy efficiency, water efficiency, efficient use of other resources and the circular economy, hydrogen, renewable energy and alternative water sources, sustainable and electric mobility, energy efficiency, sustainability, the economy of the sea, among others;

10

- Develop, in articulation with universities and training entities, a plan to **reformulate the content** of courses taught at universities and polytechnics with a view to strengthening green skills;

11

- Continue to develop, in articulation with training entities, energy agencies and ANQEP, a plan to **reformulate the training references of vocational education within the National Qualifications Catalogue** (Levels 2 to 4), with a view to strengthening green skills;

12

- **Develop and disseminate statistics to monitor and evaluate more accurately the evolution of jobs related to climate, energy, environment and territory**, in order to better characterise the functions performed by workers in these activities, promote their enhancement and progression, identify the needs of new skills areas and green jobs and evaluate the economic, social and environmental impact of the creation of these jobs.



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E SEGURANÇA SOCIAL

Green Paper

on the future
of work
2021

Labour,
Solidarity,
and Social
Security