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*Results on fieldwork about digital labour in
Portugal: outcomes of the project Deep View*

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Results on fieldwork about digital labour in Portugal: outcomes of the project Deep View

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Abstract: This report contains a summary of the fieldwork from Portugal. The work consisted in 6 preliminary interviews to experts and virtual workers and 19 semi-structured interviews of up to 60 minutes with social partners. These interviews were conducted in the period of June 2018 to June 2019. The report is structured around three main headings that reflect the different fieldwork activities: peak-level social partners interviews, sectoral social partners interviews and mini-case studies. The latter two were subdivided into the three sectors under analysis: ICT, financial and healthcare.

Keywords: virtual; work; telework; trade unions; industrial relations; labour

JEL codes: J5; J2; J3; J8; O33

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0. Introduction

In this report for the European DeepView project (DG Emp) we collect the information based on the field work done in Portugal by the research team at OAT/CICS.NOVA of the Nova University of Lisbon. The empirical work took place from November 2018 until June 2019.

1. Peak-level social partners

1.1 Social partners' research

The *Centro de Relações Laborais* (CRL)¹ of *MTSSS*² released a study in January 2019 about “The digital Economy and collective bargaining” (Ramalho, 2019) with information about the incidence of virtual work. It is important to notice that the CRL is a tripartite collegiate body whose members are represented by the Social Partners with a seat in the Standing Committee on Social Dialogue). However, the social partners did not mention that a report was about to be published about this topic.

The interviewee of the political party of Christian-democrats CDS-PP³ mentioned that the European statistics indicate that the incidence of telework is low in Portugal but did not mentioned any research about virtual work. Furthermore, the availability of information about the topic was different among social partners: the major employers confederation *Confederação Industrial Portuguesa* (CIP)⁴ had some research broadly related the topic. In March 2019, CIP released a university led study about “Automation and the future of work”.

The national tourism confederation (CTP)⁵ did not mentioned research about the topic in the tourist sector, but it will probably contract a study about digitalization in the near future.

The major workers confederation CGTP-IN⁶ mentioned that the incidence of virtual work was residual and did not mentioned research about the topic. The UGT⁷ considered that virtual work was “not significant” in the Portuguese labour market and did not mention any research about it.

¹ Centre on Labour Relations

² Ministry of Labour, Solidarity and Social Security

³ Centro Democrático Social-Partido Popular (Democratic Social Centre-Popular Party)

⁴ Portuguese Industrial Confederation

⁵ Confederação Portuguesa de Turismo

⁶ General Confederation of Portuguese Workers

⁷ General Workers Union

1.2 Cross-sectoral agreements and statutory regulation

We have included interviews to political parties represented at the parliament because they have public positions on the issue and influence the regulatory instruments and the social partners positions.

The political party CDS views existing agreements regulating virtual work as not effective. If elected, CDS will regulate directly the topic, because Portuguese families need working conditions to stay at home and have flexible working arrangements to, for example, collect their kids from school. However, the political party PS⁸ (presently in government and supported in the parliament by the parties BE⁹ and CDU¹⁰) stated that virtual work is a topic for collective bargaining, not government regulation.

The social partner CIP considers that telework, and more generally virtual work, should continue to exist in the labour code and collective agreements made at the sectoral-level, in order to supply companies with adequate labour force as required in their specific sectors of economic activity, and allow the conciliation between family life and professional life as agreed by manager and employee.

The other sector employer's confederation CTP considers that virtual work is very important to the tourist sector, but future agreements should be left to its associations to discuss these topics in their sectors. On the other hand, the union confederation CGTP was not aware of any agreements about virtual work among their trade unions. There is no inspection of what is going on by the state authorities. Further state regulation is not welcomed, because governments tend to take employers' side. Anyhow, according to CGTP the number of telework contracts seems to be residual ¹¹. In terms of working conditions, this confederation defends that these digital forms of work (telework, distant work or digital on-line work platforms) should have the "obligation of workers protection against occupational risks" (Dionísio, 2018).

Last, central union UGT would like to develop further cross-sectoral agreements and statutory regulation about virtual work. The interviewees pointed that in some sectors (electrical and electronic, energy and telecommunications) and subsectors (e.g. insurance) there are agreements about virtual work.

Importantly, UGT has a template for collective bargaining of their trade unions, which includes an article about teleworking. The book, aimed to be used by negotiators, named "Contrato Tipo para a Negociação Colectiva"¹² [Agreement-type for Collective Bargaining] is a guide that provides an example of a collective agreement regardless of the sector. The

⁸ Socialist Party

⁹ Left Block

¹⁰ Democratic Unitarian Coalition

¹¹ <http://www.cgtp.pt/precariedade/10530-indicadores-sobre-o-peso-dos-contratos-a-termo>

¹² The book was published in 2004 and its 2nd edition was revised and updated

book is available in print. The online version is only distributed to their trade unions. In more details, the book states that:

- 1) Under the terms of the legislation in force, the worker may move to telework by written agreement concluded with the employer, for periods that may be extended for a period of six months up to a maximum of three years.
- 2) The worker shall ensure the maintenance and proper use of the equipment and shall not receive or send illegal material through the Internet.
- 3) It is the responsibility of the employer to adopt and implement the measures it deems necessary for the security of the software, data security and the use of the equipment for exclusively professional purposes.
- 4) The agreement may be terminated by decision of either party during the first 30 days of its execution.
- 5) Once the agreement has been concluded for the period stipulated, the worker has the right to resume the work, in the terms in which he had been doing it before the change of situation, and therefore cannot be prejudiced in its benefits and rights.
- 6) When a worker is admitted to work in the teleworking scheme, the activity which he exercises when the scheme is terminated must be agreed immediately.
- 7) Workers with disabilities or with family responsibilities should have preference for the purpose of teleworking.
- 8) Where teleworking is carried out at the worker's home, visits to the workplace may only concern the control of the work activity and the equipment concerned; and may only be made between nine and nineteen hours, with prior notice of not less than twenty-four hours, in the presence of the worker or person designated by him.
- 9) Under current legislation, the employee may apply to the employer for the application of the telework scheme, for periods that may be extended for a period of six months up to three years, in the following situations:
 - a) Worker with children, adopted children or stepchildren less than 10 years;
 - b) Worker who is responsible for disabled family members; and
 - c) Worker with student status;
- 10) Once the agreement has been terminated for the period stipulated, the employee is entitled to resume the work, as he had done before the change of situation, and therefore cannot be prejudiced in its benefits and rights.

In sum, this template for collective bargaining goes beyond the labour code in several aspects, such as

- it establishes time-limits for telework as the minimum of six months for telework;
- clarifies the digital code of conduct of the employees;
- attributes responsibility to the employer about the hardware and digital security;
- improves worker rights by stating that the activity which he/she will exercises when the teleworking scheme is terminated must be agreed immediately, and
- it establishes that workers with disabilities or with family responsibilities should have preference for the purpose of teleworking.

The Christian-conservative political party CDS considers in general that the existing labour code is blocking economic development and, therefore, the state (government) should regulate directly. For them the law should be further developed to stimulate the adoption of

more flexible patterns of work, such as virtual work, to allow a more family-friendly work arrangements and the right to be disconnect.

The issues of virtual work were never discussed between peak-level partners. The main employers' confederation CIP considers that existing statutory regulations exist, are enough and do not require further developments. The few collective agreements that exist related to virtual work aim to deal with a specific need in those sectors. CIP's associations should be free and not forced to sign the agreements they consider necessary. In general, the confederation considers that virtual work agreements should be reach by direct consensus between the manager and the employee. The CTP holds the view that the existent statutory regulations work and are enough. They see no need to modify existing regulation at national level. As many of CTP's associates use frequently virtual work in their companies, and they never complained about regulations, there is no need to change existing regulations. Any further issues related to virtual work (or connected) should be addressed directly also between the manager and the employee. They considered that sectoral negotiations with their association will not address virtual work in the near future.

The main trade union confederation CGTP is ready to discuss at national level and will avoid further regulation about telework (and virtual work), if possible, in the labour code. To the confederation, telework is a negative form of workers' rights, badly paid, cut costs to employers and increases the exploitation. CGTP also disapproves government interference in the labour code about this topic, as they tend to favour the employer's side. The social democrat UGT welcomes collective agreements to protect workers particularly at sectoral level. They are open to discuss and negotiate at national level, as long as worker's rights are assured, and negotiations will not lead again to losses of employee protections.

1.3 Challenges brought by ICT and virtual work

We will summarise the frame of how each peak level organisation has approached this issue and understand the challenges brought by new ICTs and virtual work in work organisation and working conditions. In doing so, we present a clear and interlinked description of the main problems and challenges identified in terms of work organisations and working conditions (working time, health and safety, etc.), the main groups or sectors concerned, and the main causes explaining those problems (cultural factors, employer policies, failure of regulation, lack of enforcement capacities, etc.).

Based on the information gathered, we also describe the extent to which both actors, trade unions and employer organisations, are aware of the need to prevent negative working conditions brought by virtual work and ICT.

The right-wing political party CDS pointed that citizens need a more flexible labour rules to manage their lives and working time. It considers that as social partners proved unable to address these challenges brought by technology development, the government should do it by introducing regulations directly. To CDS, virtual work is not for all types of occupations and is mainly oriented to workers in offices and administration. The party considered that

the main causes of these problems are related to labour law blockages and the present fragility of the government.

The employer's confederation CIP considered that the labour code and the old collective conventions led to failure of telework in Portugal. In the past, lawmakers of labour code did not choose a productivity (economy-based) perspective about telework and endorsed concerns about working conditions and work-life balance. The collective conventions are frozen in time and need modernization. Virtual work exists but with practices that might be or not be declared in the normal working contract. The interviewees considered that there is tendency to have virtual work among highly skilled workers. To CIP, globalization, ICT development and lawmakers promoted and enabled virtual work. But telework is a type of work not very relevant in the national labour market due to cultural reasons and also to the way the work is organized. It was introduced in Portugal mainly by multinationals (e.g. consulting companies).

The CTP considered that many of their associates use virtual work intensively in the tourism sector, as it is an essential tool for their business models. However, associates do not have the capacity to do effective collective bargaining about virtual work and companies prefer to deal with the topic by themselves. The sector is composed mainly by SMEs and a few major companies. CTP considered that the main problem to the development of virtual work relates to workers' cultural and social attitudes, as they prefer to be present and avoid isolation.

The main trade union CGTP considered that telework and, more intensively, virtual work leads to savings and increases in profits of employers. The growth of virtual work will lead to further losses of workers' rights, in terms of increasing working time and pressure from employers. Telework, and more generally virtual work, is an atypical and negative form of work that leads to loss of rights and is mainly used to "get rid of the workers". The working conditions of telework tend to be "isolated" and "difficult to contact and organized to defend their interests and rights". It is another tool to employers exploit workers. CGTP considered that telework is not very significant in Portugal, but it is worried with isolation of workers, separation from class organization and increases the difficulty to defend their interests and rights. The main groups affected by telework are parents, dislocated workers and a few workers, who by one reason or another, are interested in staying at home. The main causes of virtual work are technology developments and employers conquer that led to loss of rights. According to the interviewees, employers were favoured by lawmakers by giving them "telework" to exploit workers. In fact, one CGTP interviewee considered that telework is often a tool to send workers home and later to dismissal. Other forms of virtual work also increased exploitation, as workers tend to work more hours, to be always available to the employer, to avoid paying transport and food subsidies and to save money in office space, energy, sometimes laptops and other facilities. The lack of state inspection allows further exploitation by employers, as they use this tool (and others) to make their own arrangements and activities as they pleased.

The social-democrat central union UGT considered that most virtual work is done outside collective bargaining and with informal arrangements, not always as a voluntary option of the worker. Telework is a type of work without major significant in Portugal, more common among termed-contracts. Its small size is due to fears from both sides: employers

think that the employee is not working; and the employee is afraid to be away from the company. Employers are also not interested in practices of family-work conciliation. Virtual work is done mainly by service providers, isolated and difficult to defend. The main causes of virtual work are related to technology development.

1.4 Proposals and views to address problems and challenges associated to virtual work

We summarise here the main proposals formulated by each organisation with a view to prevent negative effects associated to virtual work. We have tried to provide information on the extent to which both, trade unions and employer organisations are interested in regulating virtual work and/or other challenges brought by ICT in working conditions through social dialogue or multi-employer collective bargaining or through alternative governance approaches (statutory regulation, HRM practices, etc.).

We present also the main proposals formulated for relevant topics associated to work organisation and working conditions (regardless they have been implemented or not). We have tried to obtain answers on the following questions: what changes are social partners thinking to improve existing regulations (collective bargaining or statutory regulation)? What proposals have social partners put forward for the future? How they justify them? Try to explain what distinguishes proposals coming from each industry side

The political party CDS pointed that if it will be government, the party will legislate about telework and virtual work, as present government and social partners cannot deal with the negative effects associated to virtual work, such as the right to disconnect and increase of pressure to work during family time. CDS presented three proposals in this legislature to stimulate virtual work in the parliament aimed to make virtual work a friendly tool to improve work and life balance. All of them were rejected by the coalition that supports the Socialist party in the parliament.

The major employers' confederation CIP argued that there is no need to improve existing regulations, as virtual work should be mainly agreed between the manager and employee. They also consider that if any changes in regulations are to happen they should be just left to collective bargaining of each sector if they require it. The CTP considered that, in general, existing legislation is sufficient to prevent negative effects associated with virtual work, as tourism employers deal directly with the topic.

The major workers confederation CGTP can discuss virtual work in organizations where they are present, such as the Permanent Commission of Social Dialogue. Furthermore, it can accept to discuss virtual work in collective bargaining, but without the impositions and blackmail the employers have been using to curb workers' rights. In fact, in the former legislature, an expiration date for collective agreements was introduced, as a measure to allow employers to use time to pressure the negotiations. Thus, this legislation created an unbalanced situation that imposed more cuts in workers previous achievements and led to abuses permanently. This legislation needs to be revoked so that freedom and equality are re-established to allow the constitutional right to engage in collective bargaining. CGTP also rejects alternative government intervention, particularly because they are often associated with the employers' side. In the future, CGTP can discuss that employers' savings with virtual work (real estate, electricity, food subsidies, transport subsidies, etc)

are converted into salary increases and reduction in working time, as the employer cannot use virtual work to have more profits. The interviewee stated that “we know that your positions are opposed to employers”.

UGT is open to discuss virtual work and to negotiate these topics with employers. It has a template to help with the negotiations. As mentioned before, the template book named “Agreement-type for Collective Bargaining”, proposes to negotiate in collective bargaining beyond the labour code in several aspects, such as:

- a) it establishes time-limits for telework as the minimum of six months for telework;
- b) it clarifies the digital code of conduct of the employees;
- c) it attributes responsibility to the employer about the hardware and digital security;
- d) it improves worker’s rights by stating that the activity which he will exercises when the teleworking scheme is terminated must be agreed immediately; and
- e) it establishes that workers with disabilities or with family responsibilities should have preference for the purpose of teleworking.

1.5 Assessment EU regulation

When summarising the main assessments of the analysed organisations about the EU Framework Agreement on telework, a question must be raised: it is still a relevant framework to deal with most recent arrangements entailing working time and special flexibility?

In order to summarise the main assessment of each interviewed organisation about the EU Framework Agreement on telework, we included the same set of social partners. The major employers’ confederation CIP considered that the European framework should reflect about the digitalization of work in the labour market and the right to disconnect to balance work and life.

The CTP pointed that it was not easy to negotiation this agreement, although the political framework was different. The tourism confederation could revisit the European agreement, because sectoral collective bargaining is inexistent in this area, and the Portuguese contract in “teletrabalho” is obsolete.

The major central union CGTP considered that the European framework had little impact. In fact, with very few exceptions, "telework contracts" are a negative form of hiring the worker. As mentioned before, and although teleworkers are also covered by working conditions agreed in conventions that apply to regular workers, CGTP considered that telework is often a specific tool to send workers home and later to dismissal. Other forms of virtual work also increased exploitation, as workers tend to work more hours, to be always available to the employer, to avoid paying transport and food subsidies and to save money in office space, energy, sometimes laptops and other facilities. Furthermore, the lack of state inspection allows further exploitation by employers, as employers use this tool (and others) to make their own arrangements and activities as they pleased. Therefore, CGTP considers that employers make individual contracts of employment with clauses and forget about conventions and can stipulate what they want in the contract of employment for their own benefit.

The confederation UGT considered that the framework agreement was a very important step to develop national legislation and collective bargaining. Although UGT's position was taken under consideration, the agreement was merely translated to form the current Portuguese legislation. There are difficulties to make this legislation effective in Portugal, as there is an inspection deficit and the risks of non-compliance by employers are great. UGT agrees to revisit the agreement but only through the European process of social dialogue and the European Commission is biased.

2. Sector-related social partners

A. ICT sector

2.2 Social partners' research

The main social partners' research or available information on the topic (incidence virtual work and working conditions of virtual workers), is summarised as follows. Besides the national political parties and the major confederations, we have contacted also the social partners with closer links and expertise in the field of information and communication technology (ICT), namely the employers association ANIMEE and the union SIEAP.

The national electric and electronic machinery association ANIMEE (which is part of the federation FENAME) pointed that there are no studies developed. They consult their associates to gather information about the topic. The *Sindicato da Indústria, Eletricidade e Águas de Portugal* (SIEAP)¹³ had no research on sectoral information about the topic.

2.3 Sectoral agreements and statutory regulation

On the regulation aspects, we want to know if the sector-related agreements addressed have the issue of virtual work or similar categories used in the national context. When it happens, we want to briefly describe what is the position of the employers' associations and trade unions on existing agreements.

For ANIMEE, a major ICT sector-related employers' association, there is a need to establish agreements that addressed the issue of virtual work or similar categories used in the national context. In fact, this sector was the first to address virtual work in a sector-related collective agreement in 2017, again in 2018 stating exactly what was in the labour code of 2009; and, now, in March 2019 with a significantly more developed statutory regulation. Compared to the existing labour law, the agreement adds content, such as to:

a) working time:

- 1- In the case of telework only develops in some days of the normal period of weekly work, the parties will agree on the days that affect him.

¹³ Portuguese Union of Industry, Electricity, and Waterworks

2- In the absence of agreement, it is up to the company to fix the days in question.

3 - When working in telework, the daily schedule cannot be higher than that practiced in the company.

4 - The provision of additional work is not allowed unless the respective conditions of execution are previously and expressly agreed with the employer.

5- During working hours, the worker should be available for contacts of clients, colleagues and / or hierarchical superiors who wish to contact him.

- b) extending the experimental period of teleworking from 30 to 90 days and gives 15 days to cancel the contract.
- c) defining that in case of malfunction or malfunction of the equipment in question, the employer must be warned immediately.
- d) clarifying employee duties in relation to the need of the employee not to disclose, any information, data, access, passwords or other means - including hardware and software that can interests of the employer.
- e) stating the employee liability, including civil and disciplinary, for the consequences that result from breach of the abovementioned duties.
- f) stating that the teleworker integrates the number of employees of the company for all purposes related to collective representation structures and can apply for these structures.

With another position on the same issue, the SIEAP, an independent union of the energy sector, where some of these practices took place, explained that there are no specific regulations about virtual work in the sector collective agreement. However, the trade union welcomes agreements to control the informality in the sector and improve workers' autonomy.

The position of the sector-related employers' associations and trade unions on existing statutory regulation can be adequate to address sector specificities. For example, ANIMEE interviewee mentioned that "the moderate trade unions signed all three collective bargaining agreements since 2016". The new 2019 agreement has a more detailed regulation than the former ones, as ANIMEE was able to settle with most trade unions adequate regulations to the sector as mentioned before, in relation to rights and duties, upgrade of skills, isolation of workers, hardware and property, working periods, working days, working time, experimental period, privacy, code of conduct and responsibility. Relevantly, the convention also stipulated that virtual workers count to the structures of collective representation and they can apply to these structures. Although this already exists in the Labour Code, the statement in itself in the agreement is seen as a concession. The other trade union (of CGTP) does not have a collective agreement anymore, as it expired.

The SIEAP representative pointed that they have been active to promote better regulations within EDP's programme on ICT's use ¹⁴, for example, and to prevent abuses in other companies with talks with managers. The SIEAP's experience with telework shows that there is no real control of working time, which can lead to worker working more hours and the company to avoid paying for extra time. It might lead to the isolation of the worker and discretionary attitudes by managers.

2.4 Challenges brought by ICT and virtual work

Each sector-related level organisation has a specific approach frame and understanding on the challenges brought by new ICTs and virtual work in their respective sectors in terms of work organisation and working conditions. In doing so, they should have an interlinked description of the main problems and advantaged identified in terms of work organisation and working conditions (working time, health and safety, etc.). but they should also address the main groups of workers concerned (in terms of occupational categories and individual characteristics), and have clear the main causes explaining those problems (employer policies, failure of regulation, lack of enforcement capacities, etc.)

It is not clear, however, that both actors, trade unions and employer organisations, are aware of the need to prevent negative working conditions brought by virtual work and ICT in their respective sectors.

For ANIMEE, as the ICT industrial sector employer partner, the sector had extensive informality. Many companies ask for telework to their workers without including it in their labour contracts. In the first day they told the worker that work would be done in telework. It is difficult to mark working hours because it is compulsory under the labour law to identify them. But present way of life of workers is not always compatible with the 11 hours of compulsive stops and rest periods. The main type of workers includes senior managers, mostly engineers than tend to develop many of their activities at home, and administrative workers that, being mothers, prefer to work from home. Most causes are related to cultural factors. Companies have difficulties with control of work without the presence of the worker. The association representative also mentioned that “many companies are not ready to define work by objectives”.

In relation to the position of SIEAP interviewee, “there are difficulties in controlling working time and avoiding managerial abuses” of ICT workers at EDP and AdP ¹⁵ groups. For them, the isolation of workers can also be a problem related to health and safety and difficulties in contact these workers. In some big companies there are regulations about

¹⁴ EDP (Elettricidade de Portugal) is the major supplier and producer of energy in Portugal, and where telework is one of their forms of work. SIEAP that have a strong support in this national company, is a union concerned with digital work.

¹⁵ “Águas de Portugal, SGPS” (AdP) [Waters of Portugal]. The core Grupo AdP - Águas de Portugal activity involves the integrated management of the urban water cycle and spanning all of its respective phases, ranging from the capture, treatment and distribution of water for public consumption to the collection, transport, treatment and disposal of urban and industrial wastewaters and including their recycling and reutilisation (<https://www.adp.pt/en/business/what-we-do/?id=26>).

rules of ICT usage that clarify duties and rights of the workers and the companies. The main groups involved are connected to the financial and administrative areas in companies, where workers have simple cognitive routine tasks, are pre-trained, don't have much autonomy, and the control by the manager is very automatized. The SIEAP considers that the confederations of trade unions should reach an agreement through social dialogue.

2.5 Proposals and views to address problems and challenges associated to virtual work

The main proposals formulated by each sector-related organisation with a view to prevent negative effects associated to virtual work are explained in this sub-chapter. We provide information on the extent to which both, trade unions and employer organisations, are interested in regulating virtual work and/or other challenges brought by ICT in working conditions through social dialogue or multi-employer sector related collective bargaining or through alternative governance approaches (statutory regulation, HRM practices, state regulation, etc.).

ANIMEE was ready to regulate virtual work through a multi-employer sectoral collective bargaining, and it did extensively in March 2019. Human resource management (HRM) practices are rare, as most companies are small and medium-sized enterprises (SMEs) that prefer a collective contract.

SIEAP are very interested in regulating virtual work and discuss ICT impacts in working conditions, mainly through collective bargaining of single-employers. It also admits regulating and discuss these changes through HRM practices, as it is more usual in some companies. In particular, SIEAP considers that the structures of information and consultation of workers that exist in the sector should be respected. For example, in the largest company in the country, Electricidade de Portugal (EDP), the management only informed the Workers Council of its important program Conciliar (that allows 5 days per month of virtual work)¹⁶, without any further discussion and respect for consultation procedures. In another example, SIEAP considered that the EDP management was more respectful of the Workers Council when informed and consulted to settle the "Rules of ICT use". Unfortunately, in both cases trade union was not even informed.

The main proposals formulated for relevant topics associated to work organisation and working conditions are explained in the following paragraphs. We wanted to know what changes social partners are thinking to improve for the existing regulations (collective bargaining or statutory regulation), and what proposals have social partners put forward for the future. We will explain what distinguishes proposals coming from each industry side

The association ANIMEE would like to flexible the rules and labour relations to modernize the activity in the sector, in particular to face digitalization. Major concerns relate to privacy of users and their data, protection of clients and suppliers. As mentioned before, in March 2019 ANIMEE reached a collective bargaining agreement that include rights and duties, upgrade of skills, isolation of workers, hardware and property, working periods,

¹⁶ EDP 2018 Relatório de Sustentabilidade

working days, working time, experimental period, privacy, code of conduct and responsibility. Relevantly, the convention also stipulated that virtual workers count to the structures of collective representation and they can apply to these structures.

As an independent trade union, SIEAP wants to be informed and consulted about changes in sectoral regulations.

2.6 Assessment EU regulation

On the assessment that each organisation has on the EU Framework Agreement on telework and on sector related initiatives (only relevant for financial and ICT/computer sector), we have found the following outcomes.

According to the opinion of the ANIMEE representative, Portugal copies all that was agreed in the European Union. “In our sector, it is very important because we became even more squeezed. We need more flexibility, not more ties to be more competitive. We want less legislation and less national regulation”. Following these principles, the employer’s association considers that the management of working hours should be done within each sector. And that should be done with a focus in the sector and in the working time arrangement for the sector. The representative was not aware of the European social partners’ joint declaration on telework in the telecom sector.

The SIEAP representative expects that the major confederations to reach this type of agreements on telework.

B. Financial sector

2.2 Social partners’ research

The social partners of this sector that were interviewed did not have any research about the topic of incidence virtual work and working conditions of virtual workers. The only available information available on Portugal are EWCS statistics about the incidence of virtual work, as reported in the first report of Deep View.

According to the European Working Conditions Survey of 2015 (EWCS) (Eurofound, 2015), the workers in the financial sector engaged in virtual work frequently are 0% daily and 4% several times a week, respectively. Data is referred to the work in locations where virtual work can occur. In the EU27 average the same situation was 2% and 3%, respectively. The EWCS also reported that 0% and 10% in the sector of financial activities engaged frequently (daily and several times a week, respectively) in work from their own home (while the EU27 average was 2% and 5%, respectively).

This means that the figures are low in all EU, and especially in Portugal that are residual for the daily use of this specific form of work. However, the Portuguese data are reportedly higher for the frequent use of virtual work either in location where it can occur, or for work

at their own work (1% more at the company and 5% more at home). In spite of that, the social partners had no position about it.

2.3 Sectoral agreements and statutory regulation

The sector agreements do not mention the concept of virtual work or telework. The position of the sector-related employers' associations and trade unions on existing statutory regulation is as follows.

The employers' Association of Portuguese Banks does not get involve in collective agreements. These agreements are left to groups or individual companies. The collective work agreement (a form of regulation of working conditions in the banking sector that applies to the banks that signed it) covers most banks, with the exception of CGD and MillenniumBCP. They seem to be satisfied.

According to major trade union of the sector, *Sindicato dos Bancários de Sul e Ilhas* (SBSI)¹⁷, the existing Collective Agreement is the base for many topics. There are also Company Agreements. However, none of these agreements mention virtual work. They are aware that the insurance sector has introduced this topic, but they assume that the financial sector is late. The SBSI has no experience with virtual work and is not aware of its existence in the sector. Perhaps the outsourcing companies have it. According to a union lawyer, companies should consider telework "as an alternative to jobs extinction or lay-offs" (Mirra, 2016)

2.4 Challenges brought by ICT and virtual work

The challenges brought by new ICTs and virtual work in each sector, in terms of work organisation and working conditions underlined several problems: a) work organisation and working conditions (working time, health and safety, etc.); b) the concern on groups of workers (in terms of occupational categories and individual characteristics); and c) the main causes explaining those problems (employer policies, failure of regulation, lack of enforcement capacities, etc.). we wanted to know if both actors, trade unions and employer organisations, are aware of the need to prevent negative working conditions brought by virtual work and ICT in their respective sectors

The ABP bankers association does not get involved in any of these challenges brought by new ICTs and virtual work in the finance sector in terms of work organisation and working conditions. Their associates engage freely in the topics they consider convenient for them.

The SBSI union acknowledges that there is a significant number of workers in outsourcing in the financial sector. The ICT work have been increasingly subcontracted to outsource companies, running away from their contractual obligations. For example, the major bank MillenniumBCP outsourced ICT tasks by hiring IBM and other companies. The Company Agreement of MillenniumBCP was very difficult to negotiate. On the other hand, another large bank BPI created their own company named BSource, which is under the legal

¹⁷ Bank Workers Union of Portuguese South and Islands

provisions of the sectoral collective agreement of the financial sector. In general, the SBSI has little presence in outsourced companies. These companies increasingly work for more than one bank. Workers that left from banks tend to maintain their benefits (health system), but new employees have individual work contracts and in general are not covered by collective contracts.

According to interviews to managers at BPI, virtual work challenges are solved at the company level, with the involvement of HR departments and others. In an important digitalization of work scheme related to the distribution of hybrid laptops to workers, all departments were involved in solving issues. Little training was given to workers involved in the pilot-phase. But later, increased efforts were put into the final phase, as a result of initial failures in training. Today, when hybrid personal computers (PC) are provided to workers, a team spends half-a-day receiving training in the bank branch to ensure proper skills to operate hardware and software involved in virtual work. As far as it was possible to understand, virtual work issues are not topics discussed with the unions and works councils.

To sum up, both actors, the trade union SBSI and the employer organisation ABP, are not aware of the need to prevent negative working conditions brought by virtual work and ICT in their respective sector

2.5 Proposals and views to address problems and challenges associated to virtual work

The main proposals formulated by each sector-related organisation with a view to prevent negative effects associated to virtual work will be presented next. We should have information on the extent to which both, trade unions and employer organisations, are interested in regulating virtual work and/or other challenges brought by ICT in working conditions through social dialogue or multi-employer sector related collective bargaining or through alternative governance approaches (statutory regulation, HRM practices, state regulation, etc.). we should, as well, have the reasons behind the preferences of both employer and trade unions.

In this sub-chapter, we should also identify the main proposals formulated for relevant topics associated to work organisation and working conditions. For example, what changes are social partners thinking to improve existing regulations (collective bargaining or statutory regulation)? Or, what proposals have social partners put forward for the future? We should, finally, explain what distinguishes proposals coming from each industry side.

Thus, the ABP does not get involved in any collective negotiations to regulate virtual work and/or other challenges brought by ICT in working conditions. Their associates engage freely in the agreements as they see convenient for them.

The trade union SBSI approved the intention to broaden its rank-and-file activities to ICT workers next year. Although not easy, current SBSI approved its transformation into a National Trade Union, and this rank-and-file work can will start. They have confirmed that virtual work is not regulated in the sector. One reason for this difficulty is that workers, nowadays, are afraid to talk to trade union, as they fear job cuts resulting from the national and sectoral crises. The SBSI has no experience with virtual work and is not aware of its

existence in the sector. Perhaps the outsourcing companies have it and they been opened to reflect about this topic.

2.6 Assessment EU regulation

As far as the interviewee could recall, the ABP did not involve in any EU framework agreement on telework. The interviewee at SBSI was also not aware of this Agreement. Neither was in relation to the European social partners' Joint Declaration on Telework in the financial sector¹⁸. He mentioned, nevertheless, that as BNP Paribas has a European agreement signed, they would like to see it implemented in Portugal.

These were the main assessments that each organisation of EU Framework Agreement on telework and on sector related initiatives could make. We have obtained information only relevant for financial and ICT/computer sectors.

C. Healthcare sector

2.1 Impact of so-called eHealth in the sector.

In this part of the paper, we will describe the main ICT tools used by mobile healthcare professionals (nurses, healthcare assistants and auxiliary care workers) and briefly explain their functioning. We want to assess also, based on information gathered, the main implications of *eHealth* in terms work organisation implications: do they affect previous mobility patterns (more or less visits to patients, etc.), working time patterns, availability in relation to patients or colleagues, etc.?

In fact, the employers' association *União das Misericórdias Portuguesas* (UMP) is one of the main employer's associations in the field of healthcare sector. According to UMP, the main ICT tools in the healthcare sector are teleassistance (call-centre to deal with phone calls from patients), panic button, phone. There are also in use smoke detectors, gas detectors, intrusion sensors, indicators of WC usage and fall sensors, but they are more expensive to the user. Some companies offer counselling and loneliness call centres, among others. There are cases where other sensors (diabetes) are connected to the central healthcare provider. In some cases, mobile healthcare professionals visit the patient/user with iPads and smartphones to access and collect information about the patient. An UMP study indicated that teleassistance reduces two main fears of its users: fear of fall and fear of dying alone.

¹⁸ Published by the European Banking Federation: <https://www.ebf.eu/wp-content/uploads/2017/11/Joint-Declaration-Telework-in-the-European-Banking-Sector-Final-version-signed.pdf>

The trade union *Sindicato dos Técnicos Superiores de Diagnóstico e Terapêutica* (SINDITE) represents 16 professions¹⁹ of healthcare sector with intensive use of ICTs. In some of these professions, there is a constant use of ICT tools, such as tablets and patient monitoring devices. SINDITE pointed that increasingly radiology technicians perform ICT tasks without the presence of a medical doctor, despite protocols specifying their need. Despite the ICT workload, the technicians have to be available to the patient remains. SINDITE's main demand is that, like with the nurses, the transfer of occurrences should exist as a defined period among diagnostic technicians. ICT work has and will continue to increase in many of SINDITE's professions. ICTs require an increase of technical knowledge (to operate the machines) as well as scientific (e.g. including the skin colour in ultrasound results) and an increase in the intensity of work (more patients, procedures and administrative work). For example, ultrasounds have increased from 2D to 3D, 4D (time) and now 5D (light or angle of incidence of light).

It seems that, in all, e-Health affects mobility patterns (more or less visits to patients, etc.), working time patterns, availability in relation to patients or colleagues, but further studies on these developments are still needed, once there is no systematization of information about it.

2.2 Social partners' research

The main social partners' research or available information on the topic (incidence virtual work and working conditions of virtual workers), reveals that the social partners' research or the available information on the topic of incidence virtual work and working conditions of virtual workers is very limited. UMP had research about the effects of teleassistance among its users/beneficiaries. However, SINDITE had no specific studies.

2.3 Sectoral agreements and statutory regulation

The sector-related agreements did not have addressed the issue of virtual work or similar categories used in the national context. The position of the sector-related employers' associations and trade unions on existing statutory regulation is as follows.

The UMP interviewee pointed that there are no sectoral agreements refereeing to virtual work. They see no need to change the current pattern of the content included in the collective agreement. The current labour law enables virtual work but, in this sector, virtual work does not exist in this employers association units.

The SINDITE union also mentioned that there are no sectoral agreements refereeing to virtual work. In their opinion, the ICTs intensify the relation with the work, as they require more skills. The skill upgrade is rarely contemplated by the employers and it does not count

¹⁹ Such as professionals in Audiology, Clinical Analyses and Public Health, Pathological Anatomy, Cytology and Thanatology, Cardio pneumology, Dietetics, Pharmacy, Physiotherapy, Oral Hygiene, Nuclear Medicine, Neurophysiology, Orthopaedics, Orthoptics, Dental Prosthesis, Radiology, Radiotherapy, Health Environmental Therapy, Speech Therapy, Occupational Therapy

the employee “stock of hours” (which, by the way, only exists in the labour code and remains to be activated). The engineers forget that there is a human being operating the machine they create. But they do not have researched on this issue.

2.4 Challenges brought by ICT and virtual work

According to the employer association UMP, new ICTs can be a part of the future to improve the conditions of its beneficiaries. The main challenge is money as their associates lack funds to invest in ICTs. They will submit an application to develop ICT resources and skills across their “Misericórdias” institutions. According to the interviewee, only private companies are able to provide and run ICT gadgets in an effective way. In some of their associates, new ICTs reduced the need for mobile work, and reduced user dislocation to hospitals and health centres. In general, the use of the ICT has increased the number of calls to seek advice and fight loneliness of the users. In turn, the need for specific skills to deal with these calls has increased the supervised-time to be able to work in a call centre up to 4 months. Some of these private call centres begun, and still use, disadvantage people with special training.

The union SINDITE stated that there is a lack of human resources in hospitals. All of their professionals start their contact with new ICTs in academic environment and in expert conferences. There are always some groups who reject ITCs (normally older or in hierarchical positions), but groups of younger, more qualified or skilled tend to accept them. Furthermore, SINDITE considered that unionization is difficult (despite the fact that most adhere because of the low price of the professional insurance offered by SINDITE). Workers tend to pay to unions independently, as there is the risk of unemployment. Many young professionals are precariat, earning 400€ in part-times, which are complemented by, for example, a Zara workplace and, in other some cases, with cleaning tasks. In the future, collective agreements might include provisions for payments, in cases where non-unionized workers adhere to the agreements SINDITE negotiates. Collective bargaining should be promoted. SINDITE represents 17% of unionized. Along with CGTP’s trade union and one independent union, they collective represent 40% of the workers in the sector.

2.5 Proposals and views to address problems and challenges associated to virtual work

About the proposals and views to address problems and challenges associated to virtual work, the UMP association pointed that the main problem is financial. The “Misericórdias” are stretch to their limits and virtual work requires investment, according to the interviewee. The main negative effects detected was in private call centres with workers of private companies (not their associates), as they work by shifts 24/7 and much of the work needs to be supervised or done by employers with many different skills. UMP sees no need to address the topic in the collective agreement.

With a different position, the union SINDITE proposed that collective agreements mention that ICT acquisitions should always include the necessary skill upgrade to workers who operate these systems. The trade union also suggest introducing items to these agreements that should include topics related to confidentiality and security of data, despite employers consideration of these topics to be included in the deontological code of these professions. To SINDITE, the collective agreements in the public and private sector do not mention a word about ICT.

The collective negotiations have been emptied of contents. The collective agreements are negotiated bellow the standards of the existing labour law, as mentioned by SINDITE. Public sector negotiators are increasingly paying attention to the indirect effects of wage changes in the private sector, and all they seem to be interested in keeping these wages low, since private companies of human analysis are already within public hospitals (Portalegre, for example), the cheaper they are, the lower the cost for the public. According to the interviewee, ICT attracts so many private companies because it provides the best economic returns in the healthcare sector. Furthermore, another topic to negotiate relates to the time where workers disconnect from their work. For example, the book of occurrences is often written from home through electronic communication to the services. To prevent this, SINDITE suggests overlap of time during shifts to allow the proper transfer of occurrences to the worker of next shift.

2.6 Assessment EU regulation

In the interview, the UMP representative mentioned that they were not aware of the EU Framework Agreement on telework. In the same way, the SINDITE interviewee was also not aware of the agreement.

3. Mini-case studies

A. EDP case

3.1. Contextual and company information

EDP²⁰ is the biggest energy utility in Portugal, with 11631 workers and 10 million clients around the world.²¹ EDP is also the biggest conglomerate in Portugal, usually taken into consideration in the Portuguese ICT sector as it has optical fiber in their high and medium tension aerial cables. In 2014, the company had 6700 workers in Portugal.²² In 2018, this company had around 6 thousand workers in the country, and the employment growth trend was negative and the total volume was 11% lower than in 2014 volume.²³ The main workforce (~1200) for this case study is employed in activities related to the distribution of energy in Portugal and are organized in EDP Distribuição. Most workers working in distribution are specialized electric workers, able to deal with medium and domestic energy supply levels.

For example, the inspections of overhead transmission and distribution lines, are using helicopters and drones to collect data through laser sensors, thermography and imaging. EDP Inovação has been working with [Labelec](#) to make the process more efficient and effective by applying AI-based algorithms²⁴. In another project, EDP collects data from a dense network of sensors distributed throughout the entire energy value chain, from production to the commercialization of energy. Currently, the EDP Open Data platform features data from a photovoltaic technology research project - [Sunlab](#) - and one of the EDP Renováveis' wind farms²⁵. Other projects at EDP group²⁶ are requiring digital forms of work.

There is no reference to virtual work in the collective arrangements, such as the collective agreement and the company agreement. According to members of works councils and trade union delegates of EDP, informal virtual work in the company is significant. There is no information available about the incidence of virtual work. Furthermore, there is an organized effort to deal with virtual work in EDP, both in terms of:

- 1) elaboration of guidelines and regulations to deal with ICTs and
- 2) the need to reconcile life and work through the programme *Conciliar*.

²⁰ Eletricidade de Portugal (Electricity of Portugal)

²¹ The management of the company EDP Distribuição was not available to answer questions. Most answers were obtained through either desk research or semi-structured interviews to trade unionists.

²² EDP - Relatório e Contas 2014.

²³ EDP – Relatório e Contas 2018.

²⁴ <https://www.edp.com/en/artificial-intelligence-inspection-overhead-power-lines>

²⁵ <https://www.edp.com/en/edp-open-data>

²⁶ <https://www.edp.com/en/innovation/projects#all>

For 1) the virtual work arrangements consist of guidelines distributed to all workers and regulations made about rights and duties of ICTs technologies (i.e. computer, tablets telephones and printers) when using fixed and mobile phones of the company, emails and internet. These rules are an internal document not included in the contract and it does not regulate premises neither time spent working. In the case of 2), the programme *Conciliar* consists of 18 measures that the management considered important to improve work-life balance.

EDP has a set of initiatives aimed at fostering balance and reconciliation in the various life plans of employees - professional, family and social - who are based on the Conciliar Program. In the year 2017 and in Portugal, the Conciliar Program, through its 18 initiatives, directly impacted over 1,600 people.²⁷ The measure “Trabalho à distância” aims EDP’s active collaborators. According to the Human Resources Department, in 2018 about 150 workers took advantage of this measure, and it is one of the measures of the Conciliar Program that has the highest intention of use by employees. The worker needs to assure that he/she has its own internet connections, laptop and work and safety conditions (laptop are provided by the company). The employee needs to send da email to his/her hierarchy with the dates of teleworking two days prior to the date. The use of telework measure may not exceed the following 5 consecutive business days and 15 business days in the year. These limits may only be exceeded in duly justified and with confirmation from the hierarchy of the absence of inconvenience to the service, as well as validation of the respective Human Resources Division. The use of the measure has no impact in the meal subsidy. It is incompatible with the enjoy any license (or waiver) under the statutory parenting regime, or other situations of absence due to illness, occupational accident or assistance to household member.

There are other measures involved in the program Conciliar. For example, in articulation EDP Volunteer Program, and as a conciliation measure, employees are entitled to 4 hours per month to participate in volunteer actions proposed by you and in addition to the projects promoted by the company. Of note is the Work Smarter project at EDP Renováveis. An initiative that aims to help employees to better prepare your day-to-day, increasing your productivity and promoting greater work reconciliation with the other plans of their lives. At EDP Brasil, the app “Collaborators” was launched, a platform that allows employees enjoy discounts at more than 11,000 establishments. EDP Spain launches the project “EDP es Conciliación”, a set of advantages and free services available not only to employees, but also to to facilitate their daily lives and solve problems such as home care in sickness, specialized treatment, administrative management, IT and technology support, among others.

In 2016²⁸, the program Conciliar led to: an expansion of the Labor Gymnastics measure to the 15 largest buildings in Lisbon, Porto and Coimbra (Portugal), impacting over 3,000 employees; support to more than 170 new parents at birth and adoption in Portugal; the

²⁷ EDP 2017 Relatório de Sustentabilidade.

https://www.edp.com/sites/default/files/portal.com/relatorio_de_sustentabilidade_2017_pt.pdf

²⁸ EDP 2016 Relatório e Contas. <https://web3.cmv.m.pt/sdi/emitentes/docs/CONV63417.pdf>

implementation of a new discount / protocol platform for Portugal and Spain; the launch at EDP Spain of the EDP es Saludable Program to promote healthy habits in the areas of nutrition, sport and health; the structuring of the assistance services program for employees in Spain and Brazil; and the introduction of Sport Aid measure in EDP Renewables that promotes healthy lifestyle through support financial expenses of employees in the use of gyms.

3.2 Drivers and motivations for engaging in virtual work

According to the internal rules of EDP, the main drivers to establish ICT rules were the need to protect the data of the company (in particular its commercial secrets), the integrity, inviolability and protection of its ICT systems, and the control and optimization of technology costs (such as equipment, storage and processing capacities). They were primarily developed to deal with work outside employers' premises enabled by ICTs. The main motivation for producing these internal rules for virtual work were the systematic introduction of new technology and the treats virtual work can present to the company. The use of ICT requires responsibility, security in the access and prevention of attacks. There needs to be clear rules to prevent damage to the country and to the clients.

Furthermore, telework is not significant in EDP and is centered in the administration and financial areas, as well as at the management level. These work arrangements are in accordance to the law and exist where it is possible to implement to conciliate life and work of employees. Telework requires company equipment to avoid attacks to its systems.

3.3 Social dialogue and virtual work

According to members of works councils and trade union delegates of EDP, there is a long process of social dialogue in the company about the rules to use ICTs (it lasted almost one year). The dialogue included both the works councils and trade union delegates in the company. They were invited to comment and make suggestions to the internal documents being prepared by the management and the human resources of the company in 2018. The workers' representatives were particularly keen to discuss topics related to organization of data, use of information to account for individual productivity and working conditions (ICT use and professional qualifications for ICT). But it was not an easy process. In fact, information requests took more than a month and a half to be answered.

There was also technology impact assessment made within the company, which is full of expressions regarding social dialogue but experience shows them to be mostly words, according to a union delegate and also member of the works council. The topic of telework was never discussed, however. Furthermore, the rules agreed were distributed to all workers, who received professional qualification about them.

It was mentioned in the interview that the energy companies are often victims of online attacks. Hence, workers can be victims of bad ICT use from other operators. In addition, the national energy company EDP launched a programme named Conciliar, which includes the possibility to have up telework to 15 days per year and no more that 5 days in sequence.

The programme was only presented to the Works Councils, without consultation, but it was accepted by them. It was not the product of collective negotiation, according to three union delegates. It was imposed by the EDP management and it was not negotiated with the works councils nor the union delegates. There is no data available about this programme but in some newspapers managers pointed to a “success”²⁹³⁰³¹³².

3.4 The process of negotiation

The works councils and trade union delegates were able to lead the company to change the initial text of the rules for ICT used quite a bit. In fact, they analysed the document and rejected some parts because it contained a) many anglicisms; b) used dangerous expressions such as "high zeal and diligence"; and c) the concept of (no authorization to) monitor what the worker sees on the internet was illegal. In turn, the last version included

- a) the Anglo-Saxon terms were superseded by the introduction of a footnote where they were defined in the Portuguese language;
- b) the ICT rule that established the duty to carry out the work with "high zeal and diligence" were challenged on the grounds that the expression was a violation of the law with the introduction of a subjective condition that fostered internal conflicts;
- c) the "generic control and verification of internet access" were contested, in terms of the implausible costs associated with internet use and the irrationality of linking productivity to internet usage.

Thus, the control of internet access was avoided and the analysis of the individual productivity of each worker should not be based on the quality of internet time.

3.5 The process of implementation

The rules for the use of ICT in EDP were the result of some concessions by the administration. As mentioned, the blocking the system that monitors what the worker sees on the internet was stopped and some managers allowed privacy and understanding for what some workers were passing through due to outsourcing of activities. Thus, the control of internet access was avoided and the analysis of the individual productivity of each worker is not based on the quality of internet time anymore.

The internal program *Conciliar* was presented to the works' councils without previous consultation and they were forced to accept it. According to two members of the

²⁹ “EDP apresenta programa Conciliar na conferência Work and Life Design”, *EDP.PT*, 21/02/2018. In <https://portugal.edp.com/pt-pt/noticias/edp-apresenta-programa-conciliar-na-conferencia-work-and-life-design>

³⁰ “EDP”, *Human Resources*, 13/4/2016. <https://hrportugal.pt/edp/>

³¹ “Contamos-lhe a história EDP-Workwell | Soluções de Saúde e Bem Estar”, *workwell.pt*, 4/4/2019. <https://www.workwell.pt/contamos-lhe-a-historia-edp-workwell/>

³² “EDP distinguida como empresa familiarmente responsável”, *IRH.PT*, 3/6/2019. <https://inforh.pt/edp-distinguida-como-empresa-familiarmente-responsavel/>

councils, the program was not the result of collective bargaining. It is a program that the company promoted without negotiation and left the establishment of its rules to the discretion of the middle managers department of human resources. Telework, for example, is limited to 15 days a year and not more than 5 consecutive days. But there are exceptions to this rule, as it is the hierarchy that decides and then goes to the human resources. The works councils are not consulted in these processes, which allows for abuses to occur. They would like to intervene in this area and be listened about it because this type of workers is isolated and the problems can be badly solved.

3.6 Impact of the measure on decent working conditions

The agreement on the rules of ICT use is important for an energy company, as it works in a critical sector for the wellbeing of the country. The agreement led to the training of employees of the company on ICT. However, workers' representatives have never been called upon to intervene in this area until today.

The program *Conciliar* should have little impact because, according to the members of works council and delegates, there are few workers to benefit from the program or in telework within the company. The program led to concerns about the isolation of workers. There is no impact assessment of the programme, there is no proper regulation and decisions are made only between middle management and human resources.

3.7 Conclusions

Despite EDP's relevance in Portugal and the intensive use of ICTs in the company, there are no collective agreements regarding virtual work. This case study analysed the decision-making process of two decisions related to virtual work within the company: the establishment of internal ICT rules and the work-life balance program named *Conciliar*.

The first decision was made in consultation of the representatives of the workers and it included training schemes to prepare workers for the use ICTs. The second one was launched only with information to the workers' representatives.

Given its significant use, the representatives interviewed considered that the works' council and the unions should intervene more in ICT areas and in particular in virtual work. In addition, their experience showed that there is no real control over working time in telework. Telework can lead the worker to work longer hours and the company to escape paid overtime. It can also lead to worker isolation.

The decisions are at the discretion of the middle managers and the department of human resources. Thus, the works' council and the unions must be more active on the subject of teleworking to regulate and prevent abuses. They also considered that trade union confederations should reach a national agreement in the social dialogue about virtual work.

B. CGD case

3.1 Contextual and company information

The CGD³³ bank is a Portuguese state-owned banking corporation and the second largest bank in Portugal. Established in Lisbon in 1876, the group had in 2018 around 14000 employees around the world. In 2014, the group had 8858 employees in Portugal.³⁴ In 2018 CGD had 7240, down 22% since 2014.³⁵ Of the 7240 workers, 4000 are unionized, of which 1800 are retired. The trade union *Sindicato dos Trabalhadores das Empresas do Grupo Caixa Geral de Depósitos* (STEC)³⁶ represents half of the workers and retirees. The other major union, SBSI, is in charge of managing the health service and represents about 15 to 20% of the workers in CGD.

According to the management, the majority of the workplaces have routine cognitive tasks associated with CGD's banking operations. There is virtual work in the technical and management careers, using a portable/mobile phone service and a VPN with the CGD App that does not allow copying or other fraud. It was necessary to create these infrastructures in order to be safe with operations. The emphasis of the work developed by these employees is on ICT, product (marketing and commercial) careers and operations. The work processes depend very little on the autonomy of the employees, as there is no culture of autonomy for CGD workers. The dominant form of work is face-to-face and through meetings, almost all face-to-face. In general, there is a virtual control of the fulfilment of the tasks, be they financial, commercial operations or banking information.

The present case in analysis is related to the reconversion of regional credit workers. The decision consisted about the reconversion of technology-obsolete workplaces into remote virtual work. The CGD case study is focused on the workers removed from their former positions that were allocated to other functions and workplaces. They work remotely within company's facilities. This profile fit with the definition of virtual work. The motivation for this reconversion decision is related with the technological obsolescence provoked by the digitization of the processes of concession operations and control of bank credit. Presently, the new workplaces have simple routine cognitive tasks associated with correction of information related to CGD's credit operations, majorly rectification of data and updates on credit holders. Those tasks are done using mobile applications.

According to the CGD management, these employees were not suited to be engaged with clients previously and preferred to move to a back-office workplace. The process of restructuring to correct digitalized forms to attribute credit started in the late 1990s. CGD decided to create a special programme to allow these workers to continue employed.

³³ Caixa Geral de Depósitos (General Savings Bank)

³⁴ CGD Relatório e Contas 2014.

³⁵ CGD Relatório e Contas 2018.

³⁶ Union of Workers of the Companies of the Group Caixa Geral de Depósitos.

The managers reorganized them in other facilities available in major district capitals and distributed and monitored the work they were doing. The program of reconversion is old but continues today in five cities across the country. The central manager in Lisbon talks to the supervisors on a daily basis. Once a month, this manager goes to the district facilities and discuss major issues. Once a year, the director of credit goes to these facilities.

3.2 Drivers and motivations for engaging in virtual work

In general, the work in the bank is being increasingly substituted by machine work, or algorithms that the manager called “robots” during the interview. These robots are substituting the daily work in an increasing way during the last decade or so, and employees are assigned to less boring and more creative tasks. According to the top manager “the employees give names to their robots. Sometimes, former chief names are used to name the robots. Last year, the Christmas tree was embellished by robots, instead of stars and planets, designed by those workers”. According to a trade union delegate, these digitization processes come, unfortunately, through hierarchical processes and not by partnership with the works council.

The company trade union STEC has no interest in the issue of digitization, because those who control the union are the 50% of retirees, mention the delegate of this union. These retirees have interests in salary increases, because their pensions are indexed to the salaries of the workers in the active. They also have interests in the company agreement and the collective agreement, because CGD's health services is in danger of being integrated into the nation social security and, as the retired and the active workers defend, these services should continue to be autonomous. This is critical because the fund has a significant amount of money, around 70 million euros. In this context, the STEC is more of an obstacle to discuss other issues such as the digitization of work.

In this context, the union delegate considered that the works' council is more proactive and dynamic and concerned about the qualification of workers than the union. Qualification is a central issue because training is always done on-the-job training. In one investment company of the group, ICT manuals are not at hand and there are often information problems. Managers lack skills too, as they finish their courses in the 1980s in a very different context and need reskilling. According to the delegate, the middle managers want untrained staff, unlike the management, with less specialization and flexible workers to enable them in various functions. Qualification is almost always informal and on the basis of peer help and word of mouth. In general, the introduction of more technology is not accompanied with the care to supply manuals or prepare training courses. The delegate considered also that workers are always needed to program and maintain systems of CGD.

The present case of reconversion of regional credit workers was motivated by both the need to maintain social peace and avoid unnecessary dismissal of workers still fit to produce valuable work to CGD. The tasks of correcting and entering credit data are supervised remotely at headquarters by a line manager. In addition, once a month supervision is done by the manager of these operations through videoconference in a meeting with the various groups. Once a year, supervision is done by the credit director personally visiting each group so that they do not feel lost or isolated. The focus of supervision is on the final

correction and data entry service by the workers, who mostly work in teams. The participation in this program was made on an individual basis. There are few workers, no more than 30.

According to the interviewees, CGD did not have many cases of teleworking. About 5 years ago the group had a case of a worker who broke one foot and went to work in telework and who came to the headquarters once a week. The culture of the company is presential, with leadership and little autonomy of the workers. The working methods focus on teams and team meetings, which are almost always face-to-face. There is an exceptional in Porto, where colleagues have asked for meetings to be videoconferenced and these have gone well.

In the case, there is remote work developed in some CGD district facilities. The work of credit operations is carried by less than 30 workers, who were gathered as their jobs became obsolete. With the introduction of the digitization of processes within the CGD, most of these jobs were either centralized at headquarters or disappeared. To avoid relocation or dismissal of these workers, the company grouped them in their original districts and distribute the work of correction and introduction of credit data according to their skills and the team profile. Some of these district centres have been closing providing pre-retirement schemes, but there are still 5 group in Viseu, Vouzela, Porto, Braga and Santarém.

3.3 Social dialogue and virtual work

According to the management, the participation in this program was made on an individual basis. They were offered this possibility and they accepted. They are employees of department of credit operations, essentially dedicate to administrative work of introduction of data, that dealt with the processes of allocation and control of credit in the back office. They worked in the back office of old agencies that existed in almost all the districts and, with these reconversions, have all been closing. As it would be difficult to reconvert them to customer service, CGD chose to look for an alternative solution, almost like a pilot, remotely controlled by the headquarters.

The program of the reconversion of regional credit workers began in 2010-11. The union delegate pointed that at the time CGD was a different company, with another philosophy and with other social responsibility. According to the representative's point of view, the present CGD does not sack employees only because it's a public bank and Bloco de Esquerda is the current guardianship of the political pact that supports the government.

Under this tutelage, the restructuring of CGD could not lead to redundancies. The delegate considered that the environment that reigns pushes workers to leave, with stressful conditions, goals impossible to achieve, unrealistic and established without the worker. The present administration intends to lay-off 2200 workers in a universe of only 7000 employees. The unionist reasoned that the pre-retirement program has given results since, for example, in his department of 21 workers, the program led to have only 11 with the same workload. The retraining of workers is not a priority, because as middle managers want the workers to adapt quickly and have no specialization. In the 1990s there was social responsibility but today they prefer to dismiss workers, considered the delegate.

3.4 The process of negotiation

The reconversion of regional credit workers started due to technological obsolescence associated with the digitalization of credit operations. With the digitization and consequent centralization of these services in 2010, CGD did not need these workers because they could hardly be fit to work directly with clients and did not wish to move to Lisbon. According to the manager, in 2010-2011 CGD found a way to organize this work of introducing and correcting data remotely to allow them to continue working and living in their cities. In this context, remote work was a lifeline for these workers for more than two decades. Workers immediately accepted it individually and were pleased with the proposed solution.

The trade union delegate was not aware of any information or consultation procedures regarding the reconversion of regional credit workers. The unionist pointed that, in general, virtual work and telework were never discussed with the workers' representatives. The collective agreements of CGD do not mention these topics. Nevertheless, the works' council has raised some of the problems associated with the digitization of work, during the monthly meetings they maintain with the management. The company's trade union STEC is only occasionally called to discuss with the director of human resources. The delegate mentioned that STEC has no interest in discussing these new topics, as they are focused in pay raises and health services for workers and pensioners.

3.5 The process of implementation

The process of reconversion of credit back office jobs in remote work of correction and introduction of credit data continues to exist in 2019. It will continue for another 2 or 3 years, because with the pre-retirement calculation conditions many will accept the package and go home. In Viseu and Vouzela, the program will last another 1 or 2 years. The Porto group should close after, but Braga and Santarém will be extended for more time.

According to the management, the workplace solution was accepted individually by the employees. There were no proposals from the workers' representatives because employees were faced with the technological obsolescence of their jobs. There was no contest. Presently, middle managers accompany these teams regularly to avoid feeling lost or isolated with monthly videoconference meetings and face-to-face visits by the director at least once a year. There were no concessions, as the difficulties laid in finding a way to keep workers at the service of the bank with work that was useful. There was the need to reconvert these jobs positions and training to use a software application developed internally for this purpose. The idea was to make evolution by maintaining social peace within the company and to ensure that workers were not dismissed by using a new method of distance work which also benefits the bank. The manager considered that CGD could have outsourced or even automated these jobs sooner, but it preferred to keep the workers. Currently, the line manager virtually monitors the daily operations from the CGD's headquarters and meets monthly by videoconference with the teams. The department director visits these teams annually to accompany the workers.

In terms of traditional teleworking, management considered that CGD's culture is based on teams and face-to-face meetings, where it is difficult to introduce a logic of distance meetings. There is one exception, as mentioned previously, that has gone well with the commercial part of Porto that asked us for meetings by videoconference to avoid the trip to Lisbon. However, CGD does not have a culture of autonomy to stay at home. The current working models in CGD do not give autonomy to operate and do not allow to control the telework.

According to the union delegate, the director of human resources receives the trade union STEC. But the union wants to talk mainly about salaries, as they are index to the pensions (via company agreement and collective agreement) and to assure the maintenance of CGD's health services. The works' council has monthly meetings with management, where implementation could have been discussed. However, according to the delegate the relationship is not good.

3.6 Impact of the measure on decent working conditions

The working conditions of jobs reconverted in the credit back office have remained the same, according to the management. The functions performed by these workers are simple and routine, but still important to the bank because some of the old credits are still on paper. The program exists since 2010 and will last another 2 or 3 years, until 2020 or 2021. Then CGD will outsource these tasks or, maybe, automate them.

According to the union delegate, there is no specific information about these jobs. The delegate considered that, in general, there is more stress and more work intensity in CGD, as well as unrealistic goals established without the worker.

The manager stated that, in general, CGD prefers to internalize robots of financial operations, bank information and even commercial functions than to outsource them. By using outsourcing companies, the bank loses the ability to perform these tasks and solve problems. The workforce of an outsourcing changes to the new employer. Nowadays, workers reconverted with robotization (algorithms and automation) are themselves designing these robots. The manager mentioned that they create an interesting relation with these robots. When the robots are created, workers improve their relative position because they do not perform those fewer boring tasks and execute new and more creative activities related to monitoring and control of the system at hand. In the Christmas time, they impersonate these robots with cardstock, dress them with colours and hang them in the Christmas tree. In most cases, robots are named by people. Silvestre was the name assigned to a robot when the previous chief Silvestre reformed. There is no fear of losing work and those who get involved see a direct benefit in robotizing because it means they will do a more interesting job of supervision, creation or coordination. Workers have to evolve to adapt to robotization. According to the interviewee, workers who know how to do the functions and who understand technically how robots work are kept by the bank. Younger ones are trained because they tend to have more skills to understand the robots technically, while the old ones do not have much motivation.

3.7 Conclusions

Despite CGD's relevance in Portugal and the intensive use of ICTs within the company, there are no collective agreements regarding virtual work. This case study analysed the decision-making process of one decision related to virtual work within the company: the establishment of remote workplaces at district level by reconverting credit workers to identify and correct data.

This remote work program avoided relocation to Lisbon or the dismissal of these workers, as well as the outsourcing or even automation of these tasks. According to the interviews, there are reasons to believe that the obsolescence of these workplaces and the reconversion of workers was not subjected to information or consultation procedures with representatives of workers and decisions were made on an individual basis. Furthermore, there are no cases of traditional telework and there is mention of it in the collective agreements related to the company.

C. HelpPhone case

3.1 Contextual and company information

The HelpPhone is a small company working in assistance of healthcare users in Portugal. It provides services to users/patients home-based teleassistance, such as emergency 24h, loneliness support, medical phone, pill alerts, assistance to home 24h, mobility 24h, T-Care 24 (remote bio sensors), TeleAcesso (mobile and fixed phones and panic buttons). The direct work of homecare is done by other organizations (emergency services, Misericórdia workers, etc). In this case, employees provide assistance and support through ICT, and manage the connection with other operators when necessary. And they can do so outside the permises of the company.

In 2009, the company started including a project to integrate people with physical disabilities, about 4-5 workers. In 2019, the company has 15 to 17 employees, maintaining most of these workers but also hiring more operators with more qualifications, because they are dealing with human lives and sometimes there are complex situations that required more qualified workers. The company is certified with the ISO 9001 standard ³⁷ from the outset. The new workers have been needed in particular in the loneliness support service, dedicated to solitude.

New employees receive 3 to 4 months of individualized training, with a supervisor and/or with colleagues, to be confident and able to perform all service tasks, emergency procedures, police procedures, etc. The employee rotation is small or even null since 2009. According to the manager, the company has to be very careful with the human resources, because they take a long time to train. The main tasks are non-routine cognitive, with some complexity, but not exaggeratedly since complex cases are forwarded to the competent authority. The focus is on call handling by an operator.

3.2 Drivers and motivations for engaging in virtual work

The company business is based on virtual work, mostly in the company facilities. All work is virtualized. Operators are informed about the new technology gadgets, but they are very basic to operate. There is no agreement on telecommuting.

3.3 Social dialogue and virtual work

There is no social dialogue at the company level. According to the company manager, it can be said that workers are well integrated and accepted new services based in virtual work as they appeared in the company. This assessment could not be verified by complementary interviews with workers.

³⁷ see also <https://www.iso.org/standard/62085.html>

3.4 The process of negotiation

According to the interviewee conducted at HelpPhone, there was no process of negotiation. As the company was created, workers were hired for a job and, when possible and with time, they have taken other responsibilities.

3.5 The process of implementation

Operators receive information about new technology gadgets, but they are very basic to operate as they are intended to users with low ICT skills. These ICT gadgets were already heavily tested in other countries. The technology is very simple and does not require explanations. In cases of psychological deficiency, as in the case of Alzheimer, the explanation may have to be more extensive.

When the company provides extensive explanations/training to the users about the ICT gadgets, the number of calls without urgency increase significantly. “The users felt comfortable and phone to talk about football, the visit of the son the next day, to speak a little, etc.”, was mentioned in the interview. On the other hand, this training given to the users also allowed for a reduction in the trips to health centers, because the operators (workers) do some sorting and, if appropriate, forward the calls to the emergency services.

As mentioned, there is a testing period to provide skills and information, and to verify compliance with procedures.

3.6 Impact of the measure on decent working conditions

There was not an agreement on decent employment/working conditions at HelpPhone. Several handicapped workers found a job, as part of a protocol with a local NGO that seeks to integrate people with disabilities in the labour market. In 2009, the newly founded company seek to provide them with training and suitable physical facilities to be able work. Later, there were difficulties to find more qualified labour to perform other tasks and the company hired professionals with higher education. The company is certified as a service provider according to the norm ISO 9001 regarding quality of teleassistance (ISO, 2005).

3.7 Conclusions

The HelpPhone is a small company working in assistance of healthcare users in Portugal. It provides services to users/patients home-based teleassistance. In 2019, the company has less than 20 employees. The main tasks are non-routine cognitive, with some complexity, and need adequate training.

The company business is based on virtual work, mostly in the company facilities. However, there is no agreement on telecommuting or on decent employment/working conditions. There is a testing period to provide skills and information, and to verify compliance with procedures

References

- Aranda, Beatriz Simões. 2012. “Análise Da Condições de Trabalho Dos Teletrabalhadores - Antecedentes, Processos e Consequentes Na Visão Do Trabalhador e Da Chefia.” ISCTE-IUL.
- Assembleia da República. 2018. Código Do Trabalho. Portugal. <http://cite.gov.pt/asstscite/downloads/legislacao/CT20032018.pdf#page=66>.
- Boletim do Trabalho e Emprego. 2001. AE Entre o ICP—Instituto Das Comunicações de Portugal e o SINTTAV—Sindicato Nacional Dos Trabalhadores Das Telecomunicações e Do Audiovisual e Outro. Lisboa, Portugal: Boletim do Trabalho e Emprego.
- Boletim do Trabalho e Emprego. 2003. AE Entre o ICP-ANACOM—Autoridade Nacional Das Comunicações e o SNTCT—Sindicato Nacional Dos Trabalhadores Dos Correios e Telecomunicações. Lisboa, Portugal: Boletim do Trabalho e Emprego.
- Boletim do Trabalho e Emprego. 2004. CCT Para o Teletrabalho Entre a Assoc. Comercial e Industrial Do Concelho Do Fundão e Outras e a Confederação Geral Dos Sind. Independentes e Outro. Lisboa, Portugal: Boletim do Trabalho e Emprego.
- Boletim do Trabalho e Emprego. 2005. AE Entre o ICP-ANACOM—Autoridade Nacional Das Comunicações e o SINTTAV—Sindicato Nacional Dos Trabalhadores Das Telecomunicações e Audiovisual e Outro—Revisão Global. Lisboa, Portugal: Boletim do Trabalho e Emprego.
- Boletim do Trabalho e Emprego. 2009a. AE Entre a Santa Casa Da Misericórdia de Lisboa e o SPGL — Sindicato Dos Professores Da Grande Lisboa e Outros. Lisboa, Portugal: Boletim do Trabalho e Emprego.
- Boletim do Trabalho e Emprego. 2009b. AE Entre o ICP -ANACOM — Autoridade Nacional de Comunicações e o SINDETELCO — Sindicato Democrático Dos Trabalhadores Das Comunicações e Dos Media e Outros — Revisão Global. Lisboa, Portugal: Boletim do Trabalho e Emprego.
- Boletim do Trabalho e Emprego. 2011. Contrato Colectivo Entre a Associação Portuguesa Das Empresas Do Sector Eléctrico e Electrónico e a FETESE — Federação Dos Sindicatos Dos Trabalhadores de Serviços e Outros — Alteração Salarial e Outras. Lisboa, Portugal: Boletim do Trabalho e Emprego.
- Boletim do Trabalho e Emprego. 2016a. Contrato Coletivo Entre a Associação Portuguesa Das Empresas Do Sector Eléctrico e Electrónico e a Federação Dos Sindicatos Da Indústria e Serviços - FETESE e Outros - Alteração Salarial e Outras e Texto Consolidado. Lisboa, Portugal: Boletim do Trabalho e Emprego.
- Boletim do Trabalho e Emprego. 2016b. Contrato Coletivo Entre a FENAME - Federação Nacional Do Metal e o Sindicato Dos Trabalhadores e Técnicos de Serviços - SITESE e Outros. Lisboa, Portugal: Boletim do Trabalho e Emprego.
- Boletim do Trabalho e Emprego. 2017a. Acordo de Empresa Entre a Santa Casa Da Misericórdia de Lisboa - SCML e o Sindicato Dos Fisioterapeutas Portugueses - SFP e Outros - Revisão Global. Lisboa, Portugal: Boletim do Trabalho e Emprego.
- Boletim do Trabalho e Emprego. 2017b. Contrato Coletivo Entre a AGEFE - Associação Empresarial Dos Sectores Eléctrico, Electrodoméstico, Fotográfico e Electrónico e a FEPCES - Federação Portuguesa Dos Sindicatos Do Comércio, Escritórios e Serviços e Outros - Revisão Global. Lisboa, Portugal: Boletim do Trabalho e Emprego.
- Boletim do Trabalho e Emprego. 2019. Contrato coletivo entre a Associação Portuguesa das Empresas do Sector Eléctrico e Electrónico e a Federação dos Sindicatos da Indústria e

- Serviços - FETESE e outros - Alteração salarial e texto consolidado. Lisboa, Portugal: Boletim do Trabalho e Emprego.
- CDS. 2017. Projeto de Resolução n.º 904/XIII/2.a. Lisboa: Assembleia da República. <https://www.parlamento.pt/ActividadeParlamentar/Paginas/DetalleIniciativa.aspx?BID=41439>.
 - Centro de Relações Laborais. 2016. “Relatório Anual Sobre a Evolução Da Negociação Coletiva Em 2016.” 21 de Setembro. Lisboa. <http://blogcapricheveiculos.com.br/variedades/a-evolucao-da-direcao-automotiva/#.WxBvp0gvzIU>.
 - Centro de Relações Laborais. 2018. “Relatório Anual Sobre a Evolução Da Negociação Coletiva Em 2017.” Lisboa.
 - Centro de Relações Laborais. 2019. “Relatório Anual Sobre a Evolução Da Negociação Coletiva Em 2018.” Lisboa.
 - Crueira, Mariana Palma de Figueiredo. 2015. “Trabalhar a Partir de Casa: Stressores e Estratégias de Coping Na Conciliação Do Trabalho e Da Família.” ISCTE-IUL. <https://doi.org/10.1017/CBO9781107415324.004>.
 - DGERT. 2016. “Regulamentação Coletiva de Trabalho Publicada Em 2016 Em Números.” Lisboa. https://www.dgert.gov.pt/wp-content/uploads/2017/01/2016_vmpi_anual.pdf.
 - Diário da República. 2016. Regulamento Do Horário de Trabalho Do Instituto de Informática, I.P.
 - Dionísio, Hugo. 2018. Segurança e Saúde no Trabalho na era digital, CGTP webpage – topic “Segurança e Saúde no Trabalho” [Work Safety and Health] (<http://www.cgtp.pt/seguranca-e-saude/noticias/11543-seguranca-e-saude-no-trabalho-na-era-digital>)
 - Directorate-General for Internal Policies. 2016. “The Evolution of Collective Bargaining in Troika Programme and Post-Programme Member States.” In Workshop “The Evolution of Collective Bargaining in Troika Programme and Post-Programme Member States”, edited by Rodríguez Contreras, R.; Lima, M.P.C.; Trif, A.; Rigney, P. and Koukiadaki, A., Brussels: European Parliament. [http://www.europarl.europa.eu/RegData/etudes/STUD/2016/569980/IPOL_STU\(2016\)569980_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/STUD/2016/569980/IPOL_STU(2016)569980_EN.pdf).
 - Dornelas, António, Antonieta Ministro, Fernando Ribeiro Lopes, José Luís Albuquerque, Maria Manuela Paixão, and Nuno Costa Santos. 2011. Emprego, Contratação Colectiva de Trabalho e Protecção Da Mobilidade Profissional Em Portugal. Lisboa: Gabinete de Estratégia e Planeamento (GEP), Ministério do Trabalho e da Solidariedade Social (MTSS).
 - Eurofound (2015), *European Working Conditions Survey EWCS 2015*, Dublin, Eurofound
 - Eurofound. 2010. “Telework in the European Union.” Dublin. <http://www.eurofound.europa.eu/eiro/studies/tn0910050s/tn0910050s.htm>.
 - Eurofound. 2017a. Mapping Varieties of Industrial Relations: Eurofound’s Analytical Framework Applied.
 - Eurofound. 2017b. *Sixth European Working Conditions Survey - Overview Report (2017*
 - Eurofound. 2018. “Portugal: Government Continues Blockade of Collective Agreements in Local Administration.” Lisbon. <https://www.eurofound.europa.eu/it/printpdf/publications/article/2015/portugal-government-continues-blockade-of-collective-agreements-in-local-administration>.
 - European Commission. 2016. “Country Report Portugal 2016.” 90. Commission Staff Working Document. Vol. 90. SWD (2016). Brussels. <https://doi.org/10.1017/CBO9781107415324.004>.

- Gil, Susana dos Santos. 2015. “As Perspetivas Civas Do Contrato de Trabalho - o Teletrabalho Subordinado: Seu Estudo Nos Ordenamentos Jurídicos Português e Espanhol.” Universidade da Coruna.
- ILO (2018), *Decent work in Portugal 2008–18: From crisis to recovery*, Geneva, International Labour Office, ILO, ISBN: 978-92-2-132119-4 (Print) https://www.ilo.org/global/publications/books/WCMS_647524/lang--en/index.htm
- Instituto Português da Qualidade. 2013. Projeto de Norma Portuguesa Para Organizações Familiarmente Responsáveis. Portugal.
- International Labour Organization. 2017. Social Dialogue and Industrial Relations Trends in Selected EU Countries Social Dialogue and Industrial Relations Trends. Edited by Igor Guardiancich and Oscar Molina. Geneve: International Labour Organization. http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_548950.pdf.
- ISO. 2005. Quality management principles, Geneva, ISO, 20 pp., ISBN 978-92-67-10650-2, [https://www.iso.org/publication/PUB100080.html]
- Mirra, Carla. 2016. Teletrabalho – uma breve abordagem, SBSI webpage – topic “Questões Jurídicas” [Legal issues] (https://www.sbsi.pt/atividadesindical/informacao/OnlineFibase/Paginas/Fibase_67/questoesjuridicas.aspx)
- Naumann, Reinhard. 2017. “El Papel de Los Actores Sociales En Las Cambiantes Relaciones de Poder Entre Trabajo y Capital En Portugal.” *Arxius de Ciències Scocials* 36–37 (Juny-Desembre): 191–206.
- Nunes, Flávio Paulo Jorge. 2007. “TIC’s, Espaço e Novos Modos de Trabalho Em Portugal: Usos Do Espaço e Do Tempo Em Contextos de Teletrabalho.” *ICT’s, Space and New Working Methods in Portugal: Uses of Space and Time in Telework Contexts*. Universidade do Minho. <http://widgets.ebscohost.com/prod/customerspecific/ns000558/fakeproxy/index.php?url=http://search.ebscohost.com/login.aspx?direct=true&db=edsrca&AN=rcaap.doctoralthesis.1822.6904&lang=pt-br&site=eds-live>.
- Ramalho, Rosário P. (2019), *A Economia Digital e a Negociação Coletiva*, Lisbon, MTSSS, 177 pp.
- Rebelo, Glória. 1994. *Reflexões Sobre o Teletrabalho: Entre a Vida Privada e a Vida Profissional*. Coimbra: Coimbra Editora. <http://widgets.ebscohost.com/prod/customerspecific/ns000558/fakeproxy/index.php?url=http://search.ebscohost.com/login.aspx?direct=true&db=cat02554a&AN=biblion.UNLFD2015030120195610558&lang=pt-br&site=eds-live>.
- Rebelo, Glória. 2002. “Da Gestão Do Local de Trabalho.” In *Trabalho e Igualdade: Mulheres, Teletrabalho e Trabalho a Tempo Parcial*, Oeiras: Celta.
- Rebelo, Glória. 2004a. “A Emergência de Uma Nova Figura Organizacional e Jurídica: O Teletrabalho.” *Sociedade e Trabalho* 23/24: 37–46. <http://widgets.ebscohost.com/prod/customerspecific/ns000558/fakeproxy/index.php?url=http://search.ebscohost.com/login.aspx?direct=true&db=cat02554a&AN=biblion.UNLFD2015030120195811737&lang=pt-br&site=eds-live>.
- Rebelo, Glória. 2004b. *Teletrabalho e Privacidade: Contributos e Desafios Para o Direito Do Trabalho*. Lisboa: Editora RH. 2004. <http://widgets.ebscohost.com/prod/customerspecific/ns000558/fakeproxy/index.php?url=http://search.ebscohost.com/login.aspx?direct=true&db=cat02554a&AN=biblion.UNLFD2015030120201116866&lang=pt-br&site=eds-live>.

- Rebelo, Glória. 2004c. “Trabalho e Igualdade. Mulheres, Teletrabalho e Trabalho a Tempo Parcial Glória Rebelo.” *Análise Social VO - 39*. Instituto de Ciências Sociais da Universidade de Lisboa. <http://widgets.ebscohost.com/prod/customerspecific/ns000558/fakeproxy/index.php?url=http://search.ebscohost.com/login.aspx?direct=true&db=edsjsr&AN=edsjsr.41011925&lang=pt-br&site=eds-live>.
- Rebelo, Glória. 2017. “Trabalho e Economia Digital - Que Desafios?” In *Trabalho, Emprego e Segurança Social - Transformações e Desafios*, edited by Glória Rebelo, 211–19. Lisboa: Edições Sílabo, Lda.
- Rebelo, Glória. 2019. “O Trabalho Digital e o Teletrabalho.” In *Estudos de Direito Do Trabalho*, edited by Glória Rebelo, 209–41. Lisboa: Edições Sílabo, Lda.
- Sousa, Duarte Abrunhosa e. 2016. “O Enquadramento Legal Do Teletrabalho Em Portugal.” *Revista Derecho Social y Empresa*, no. 6: 87.
- Tavares, A. I. 2015. Telework and health effects review, and a research framework proposal, *Munich Personal RePEc Archive Paper No. 71648*
- Urze, Paula, António Brandão Moniz, and Sónia Godinho Barroso. 2003. “Practices and Trends of Telework in the Portuguese Industry: The Results of Surveys in the Textile, Metal and Software Sectors.” *Enterprise and Work Innovation Studies*, no. 1.