

INDUSTRIAL RELATIONS AND SMART PRODUCTION PROJECT

CHANGES IN EMPLOYMENT, WORK ORGANISATION AND WORKING CONDITIONS IN SMART PRODUCTION: CHALLENGES FOR EMPLOYEES' REPRESENTATION

**Rositza Antova,
Researcher ISTUR, Bulgaria**

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DESK RESEARCH SETS THE CONTEXT

Main findings from the desk research show:

- The policy framework related to research and development, digital development, smart production specialization is in place, but the implementation is slow
- While there is research and analyses of the economic situation and to some extent of the technological development of the project sectors and of industrial relations at national and sectoral level, there is a lack of research on industrial relations and work organisation, especially there is a serious lack of relevant data and surveys on development of industrial relations in smart production
- Low trade union presence in smart production companies
- Issues related to restructuring, digitalisation and changes in work organisation still are not in the focus of social dialogue and collective bargaining.

The dark side of digitalisation

Rapid and all-encompassing technological changes always disrupt traditional ways of doing things and bring new challenges.

- Job losses, but also deterioration of job quality in the digital economy.
- Using online technologies to create global marketplaces for work seems to encourage a race to the bottom for wages and working conditions, transferring the risk and responsibility from employers to workers.
- **According to World Bank World Development Report 2016 ‘Digital dividends’** - despite some benefits, at the aggregate level, the impact of digital technologies has been smaller than expected. Productivity growth has slowed, labour markets have become more polarised and within many countries, inequality has risen.

Digitalisation - Impact on employment and jobs

The use of new technologies (ICT) and related job destruction and job creation shaped new sets of winners and losers in the labor market and a risk of growing polarisation and inequality

The main dividing line in society is expected to be employment.

- largest polarization between workers and those who do not work, between standard and atypical workers.
- the second great divide comes from the demand of highly skilled workforce and one with low qualifications, between high and low-paid employees. Employment of high-skill workers - strongly increased, middle-skill occupations (routine jobs replaceable by computers and robots) - substantial job losses, low-skill workers (non-routine manual tasks) – not affected.

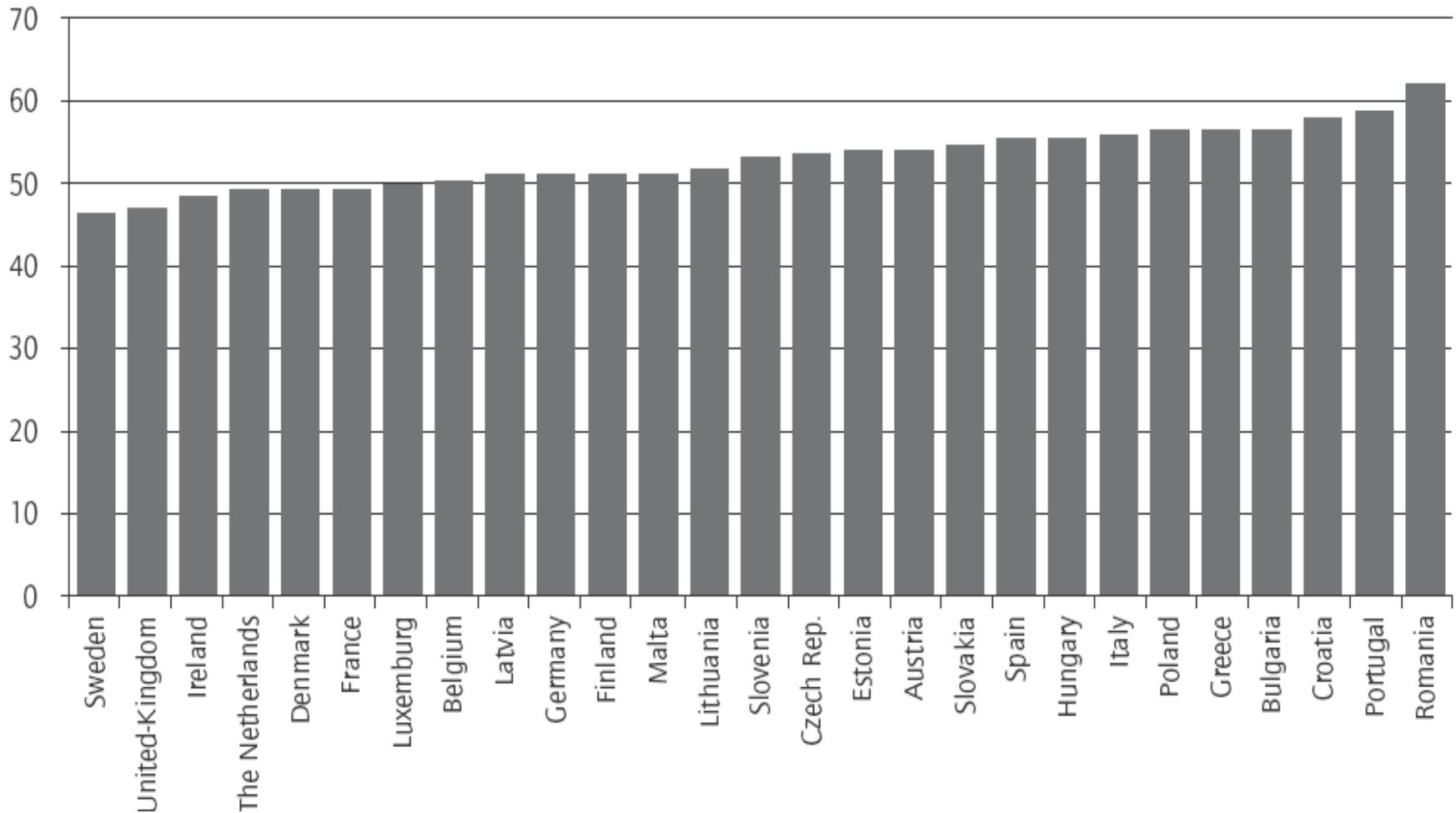
Impact on employment and jobs 2

Jobs in the peripheral countries will be most affected

According to the Brueghel think-tank study - 'the proportion of the EU work force predicted to be impacted significantly by advances in technology ranges from the 40% up to over 60%' (Bowles 2014).

- The next chart shows an interesting – or rather alarming trend that **behind a European average of 54% jobs 'at risk', it is the peripheral countries in EU that would be the most affected by job destruction due to computerisation of employment**
- Romania (61.93%), Portugal (58.94%), **Bulgaria** (56.56%), Greece (56.47%) – whereas the 'centre' and north of the European Union would be less affected – Germany (51.12%), Belgium (50.38%), France (49.54%), the Netherlands (49.50%), the United Kingdom (47.17%), Sweden (46.69%).

Percentage of EU jobs at risk of computerisation by country



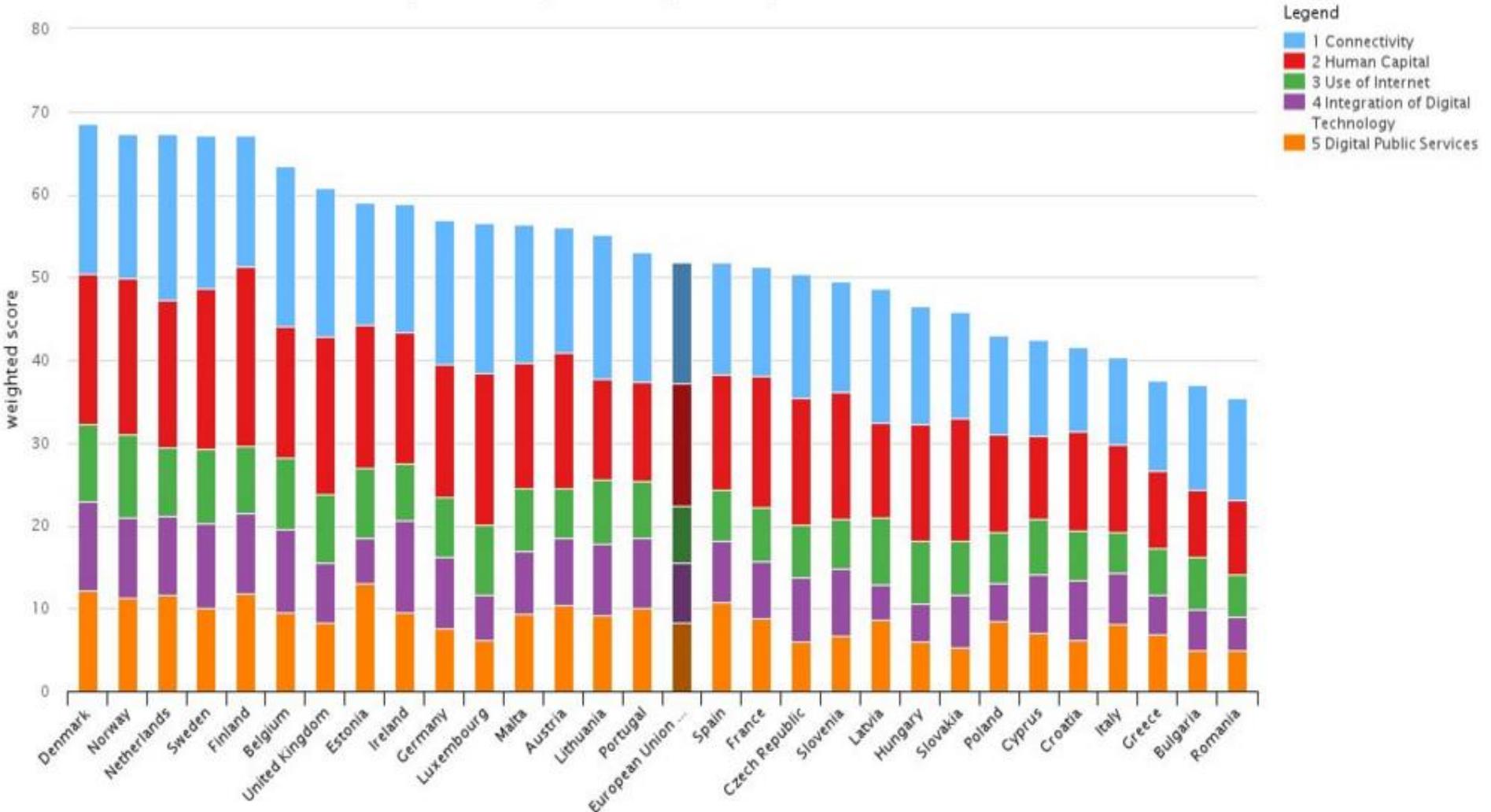
Digital Economy and Society Index

The presented tendency corresponds quite closely to that of the European commission index as shown on the next Chart.

- countries with developed broadband infrastructures and workers' e-skills, as well as widespread use of the internet and digital public services, are likely to be less threatened by digitalisation than countries with a less developed digital infrastructure.
- the higher up a country's position in the DESI the less its jobs will be threatened by digitalisation. This applies to the Nordic Countries, the Netherlands, and the United Kingdom.
- **the lower a country's position in the DESI, the more at risk its jobs will be** (Romania, Bulgaria, Greece, Croatia).

Digital Economy and Society Index 2

Digital Economy and Society Index, by Main Dimensions of the DESI



Participation and representation in smart production challenged

Main findings from the interviews conducted with sector/branch social partners help to outline sectoral dimensions of work organisation development and challenges to industrial relations

- Participation and representation are two sides or two levels at which workers and employees can make their voice heard – in day-to-day operations and in the processes of change. In Bulgaria, participation and representation are realised through the system for social dialogue and procedures for employee information and consultation
- In dealing with restructuring, unions and employee representatives have to identify the threats and opportunities of the change for their members, both related to conditions of work (such as better career development possibilities or less job strain), and conditions of employment (such as higher wages or flexible working hours).

Impact of smart production on work organization and qualitative aspects of employment

- A large part of work-force is laid off, but there are shortage of new qualified workers, as well as shortages of workers for "traditional operations". This could force some companies to work with less than required personnel. This could have impact on the working hours, work intensity, regimes of working time - more shift work, more night work; increased stress.
- Differentiation of operations in one and the same company – more simple operations (manual and automatised), but also many too complex operations. Differentiations in the requirements of qualification level, employment status, team-working, H&S at work, intensity, payment and benefits, career development
- Possible implementation of atypical work for some of the employees – for low qualified and manual operation (temporary contracts, seasonal work , shared work etc.) but also tele-work, self employment for high qualified specialists: IT services, technique maintenance, data processing, Research and Development (R&D). etc.

Changes in employment, work organization and working conditions

- Flexible working hours for some groups –mainly in maintenance, IT –services etc.
- Various working teams – still big or medium sized groups manual workers and for some other fordist type operations, medium sized teams for design, construction, maintenance, R&D , information service and other business administration operations, small teams or /and individual work for workers working with new machines and systems.
- H&S - for manual workers and business administration the risks are usually the same, for new workers - less risks concerning the physical health and safety, but higher stress because of new responsibilities. Increased autonomy at work, but alienation and monotony.

Changes in employment, work organization and working conditions 2

- Differentiation in wages became even higher, but for the new highly qualified workers it is not adequate to the level of the increasing productivity, intensity at work and responsibility related to introduction of new technologies (interviews of social partners in the chemical and pharmaceutical industry and machine-building).
- Increasing usage of digital communication at company level requires additional basic/key ICT skills from most of the employees. The exchange of information among the employees is easier, but the requirements to provide clear and exact information increased and also the individual /team responsibility concerning quality of information increased.

CHANGES IN EMPLOYEES' INTERESTS AND VALUES

- In many companies, especially in old companies, where new techniques and technologies are implemented, strong differentiations of interests and values could appear. Some contradictions and even conflicts are possible. There are also changes in the dominating groups of interests.
- New workforce has new interests: the traditional interests in job security, wages, H&S at work are present, but they are changing in the new conditions. For the high qualified employees the security is not as much important as they do not face a serious competition at the labour market; payment is expected to be according to the productivity and pay differences are accepted easier; concerning the H&S the interests are more focused on the prevention of stress, provision of rest and recreation.
- The importance of some interests, such as improvement of qualification and skills, career development, work-life balance, better socialization at work-place, better relationship with co-workers and receiving adequate information, increased.

CHANGES IN EMPLOYEES' INTERESTS AND VALUES 2

- There is evidence that values changed from rather collectivistic to more individualistic and more focused at the future and sustainability, rather to the fordist “bread and butter” values.
- At the same time the other groups of workers don't change much their main interests, which concern higher payment, job security, H&S at work. The atypical workers are mainly interested in job security and regular payment of wages. Their values are still short-term focused.
- There are also groups of workers who have “transition“ status – they are interested in training for new jobs, possible outplacement in cases of company restructuring.

Industrial relations

- In Bulgaria and in the project sectors, trade unions are represented mainly in big and in some medium-sized companies. In many new manufacturing companies with new technologies trade unions are not presented. In most of them there are not other forms of representation, except H&S committees.
- It is difficult to organise work-force from new companies, especially in cases of high qualified work-force, because of individualistic values and differing values of new generations.
- In the existing companies with trade unions, in cases of innovations, the IR have not been changed too much, despite the decreasing trade union density.

Industrial relations 2

- In some of MNC-subsubsidiaries and big national companies, including new and existing companies, where innovations are implemented, there are well developed structures of representation of interests, including trade unions, H&S committees, information and consultation employees' representatives. In some of MNC-subsubsidiaries from machine-building and chemical industry there are also Bulgarian representatives in EWC. Also in some new companies (mainly MNC subsidiaries), where there are no trade unions there are elected EWC representatives and I&C representatives. In the unionised companies information concerning the role of I&C structures in the cases of technological and technical innovations could be obtained, but it is difficult to obtain such information for the companies, where there are no trade unions.

Industrial relations 3

- There are trends of "closing" the IR at the company level, especially in the MNCs and establishing models of corporatist trade unions. The company trade unions continue to be members of sectoral federations and national confederations, but the solidarity became more weak. Such trend is visible also in the restructured companies
- The collective bargaining (CB) is decentralized, although sectoral agreements exist in some of the project sectors. The sectoral bargaining is formal and there are not substantial provisions which could be implemented in the companies with weak trade unions or in non-unionised companies in case of extension of collective agreements.

Thinking out of the box – future union strategies

- Facing the challenges of digitalisation and smart production practices, unions and workers representatives need to rethink their strategies, structures and methods and to increase their knowledge on the impact of smart production on work organisation and working conditions;
- This does not mean that present structures and tools should be abolished or ignored, they must find balance between traditional and innovative forms of collective representation
- collective agreements could be more innovative and cover larger areas and need to adjust to a changing world of work, information and consultation systems should be enlarged; there should be more influence over legislation on both national and European level.
- traditional and innovative forms of collective representation

Thinking out of the box – future union strategies

- Trade unions need first to change their values from focused on fordist type of production to such focused on digital production and services. They should identify the dominating interests at company level but also pay attention to other interests. The coordination and balance among the interests between different groups of workers is big challenge for the trade unions
- 2. Trade unions should pay more attention on individuals, groups (including employed with atypical contracts) and on the coordination among various interests on work-place and in the sectors/branches. This requires also new and more flexible structures (for example, more chances for individual membership, as provided by CITUB) and methods of work, implementing digital communications tools, etc.
- 3. Trade unions should pay more attention on qualification and life-long learning, work-life balance, working time regimes, prevention of work related stress, rehabilitation from monotony and boring work and socialization of new workers.
- 4. Trade unions could not win if they oppose to the changes, they should try to establish new relations with employers – at work-place and at sectoral and national level for preparation of new policies and legal framework in regards to the digital industry and new platform economy.

Thank you for your attention!

