

# The digital transition and the labor market: A view on Lithuania from outside

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# Content of the Presentation

1. Contemporary labor markets: Main trends and challenges
2. The Lithuanian labour market: specific issues
3. Insights from German labour market and digitalisation
4. Conclusion

**The relation between man and machine has always been difficult ...**



# The main topic for the last years: The digital transition and its impact on the labor market

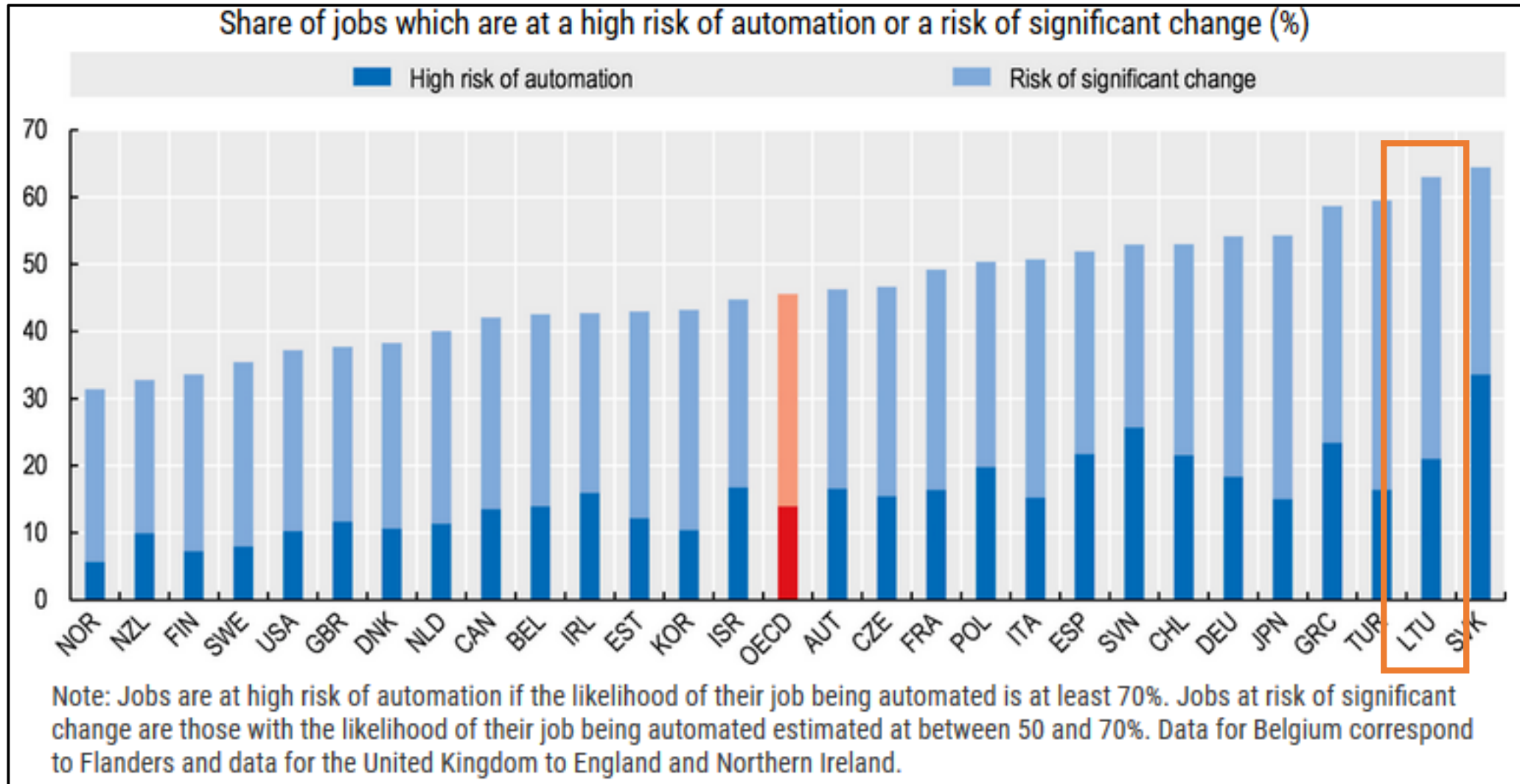
- Technological progress in a globalized economy
  - Particular threat on routine tasks and medium-skilled labor category - as a response: Changing task and jobs structure towards more non-routine high skill or low skill tasks and jobs, labor market polarization
  - Pressure on established industries, providers and contract types accompanied by potential shifts, in favor of platform economy/self-employment
- Call for institutional reforms

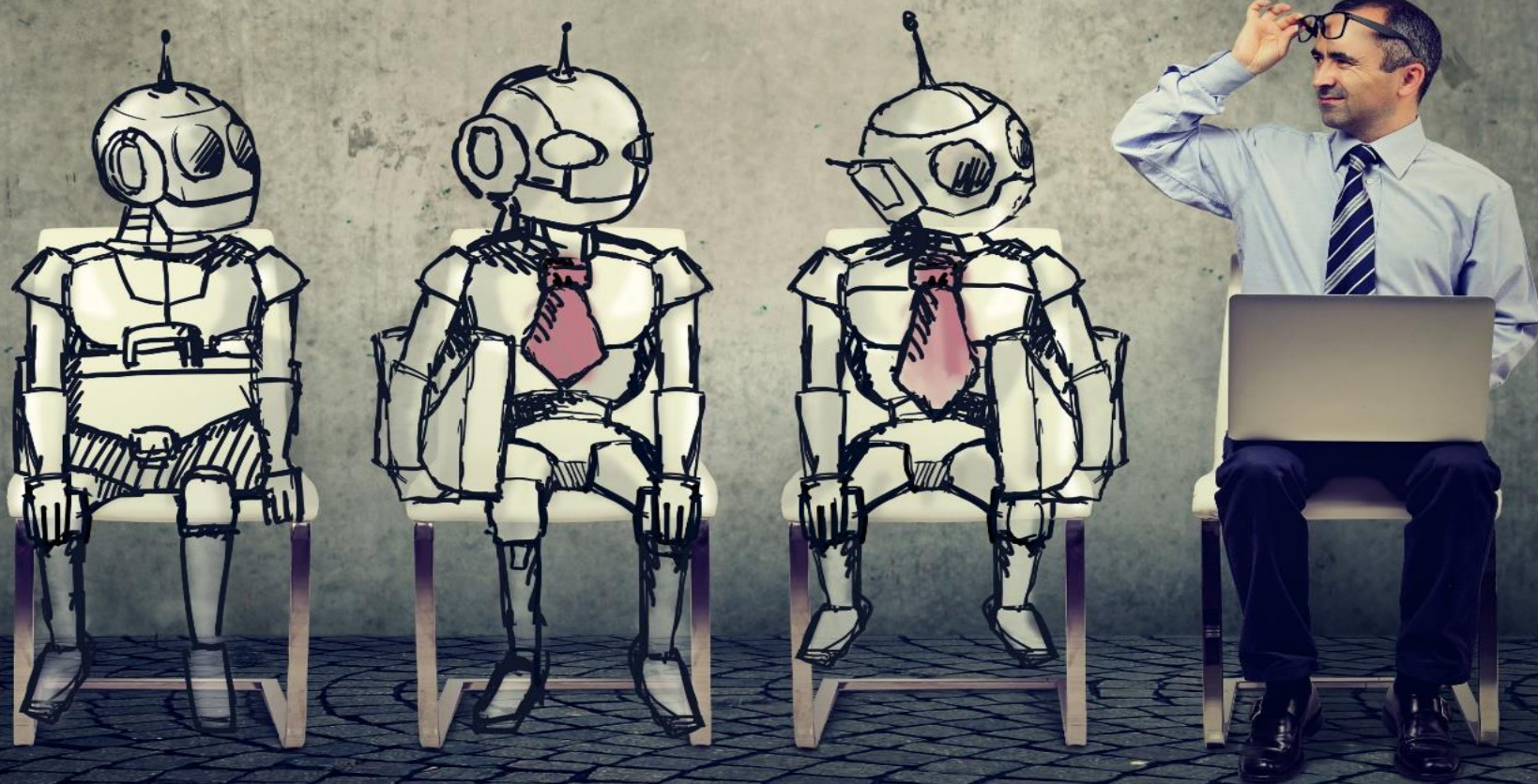
# Risks of automation

- Tasks, but not jobs, are replaceable. Task approach accounts for intra-occupational heterogeneity of jobs and tasks that are actually performed
- Extent might be much smaller than predicted in Frey and Osborne (2013)
- Possible automation risk: little validity of actual automation and its speed, uncertainty of point estimates
- Extent of actual technical change depends on several parameters: Institutional regulation patterns, relative prices of capital and labor, consumer and societal preferences
- *The more precise forecasts look, the more we can be sure about them being wrong*



# Risk of substitution in OECD countries







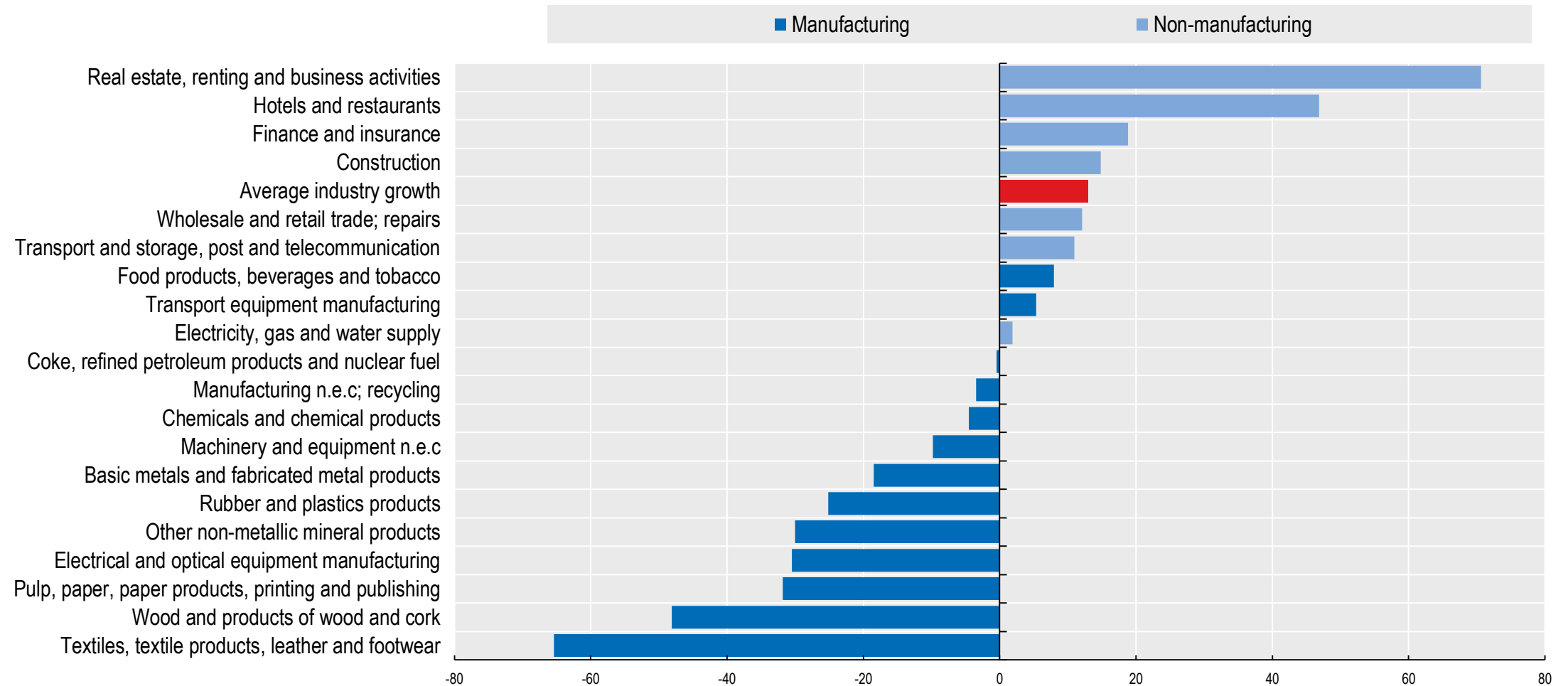
# Where do new jobs emerge? And why?

- Mechanisms: Increasing productivity & lowering costs -> Reducing prices-> New income usable for additional demand-> Growth of output & employment (outweighing substitution/displacement)
  1. New jobs within a given industry due to expansion
  2. Spillover effects of technologies in other industries: Additional demand in other industries
  3. Growth in demand in downstream industries due to lower input prices
- New occupations and growing sectors: IT specialists, service industries, research and education, health and care, etc. -> more labor-intensive industries relying on less automatable tasks (interactive, non-routine manual, cognitive, analytical)
- Hence, concerns of radical increase of unemployment are not particularly realistic: Certain job destruction might occur, but conversion of existing jobs and job creation due to innovation in entirely new fields are expected parallelly.



# Labor market change

Percentage change in total employment within industry for selected OECD countries, 1995 to 2015



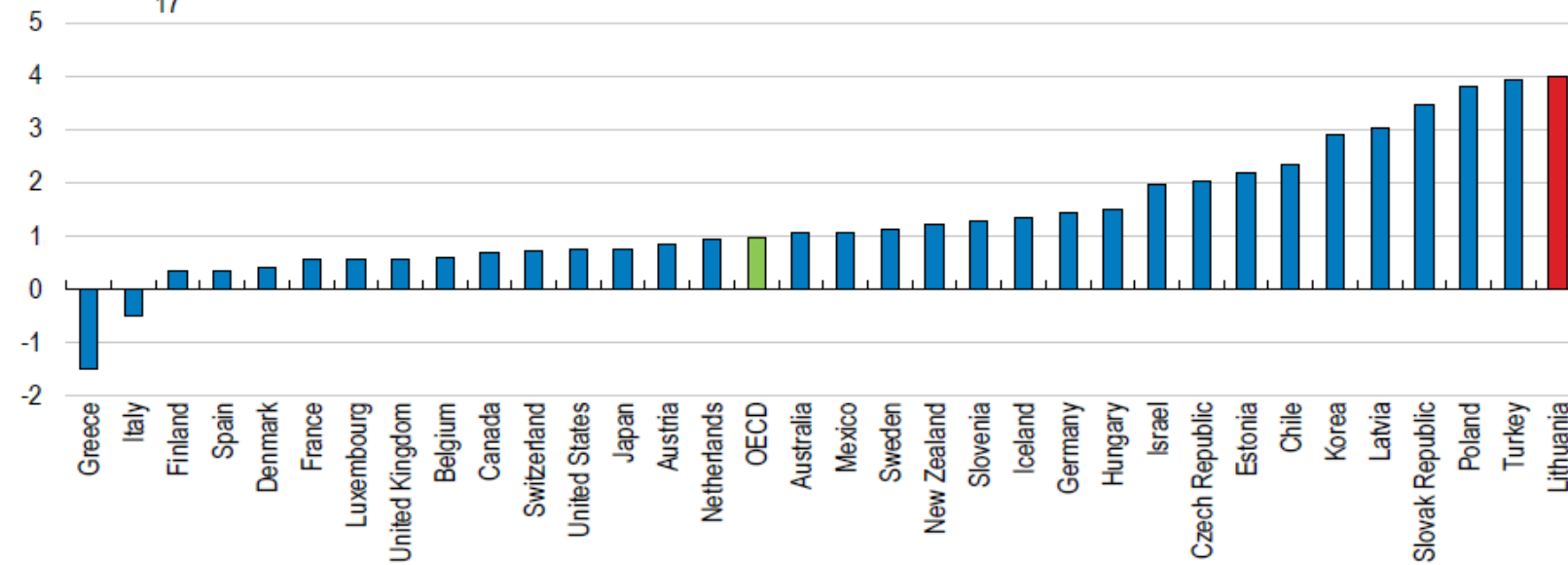
Source: OECD (2017), "How technology and globalisation are transforming the labour market", in OECD Employment Outlook 2017, [https://doi.org/10.1787/empl\\_outlook-2017-7-en](https://doi.org/10.1787/empl_outlook-2017-7-en).

# Implications for European labor markets

- European labor markets will rely increasingly on jobs with non-routine content where human capacities and skills are essential
- Competitiveness relies on firms that achieve innovations that are not easily imitated in global markets
- Job losses in some areas are inevitable, but possibility of labor market adjustment and job creation is substantial
- Critical importance of policy innovations to complement and fully realise the potential of technological innovations
- What about Lithuania?

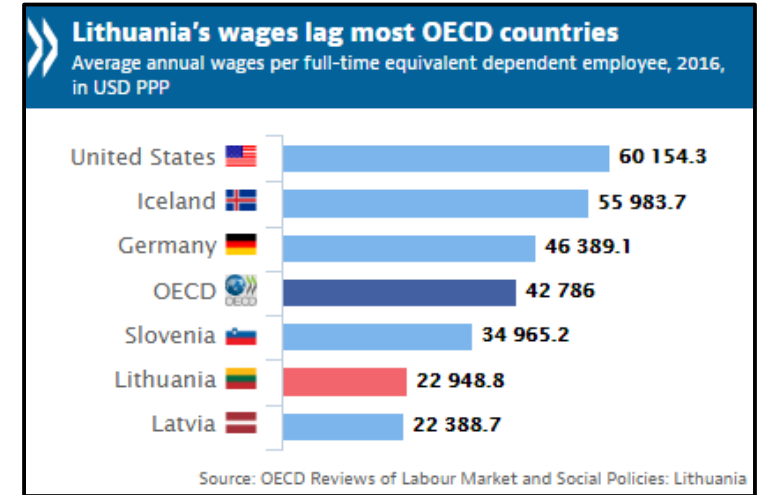
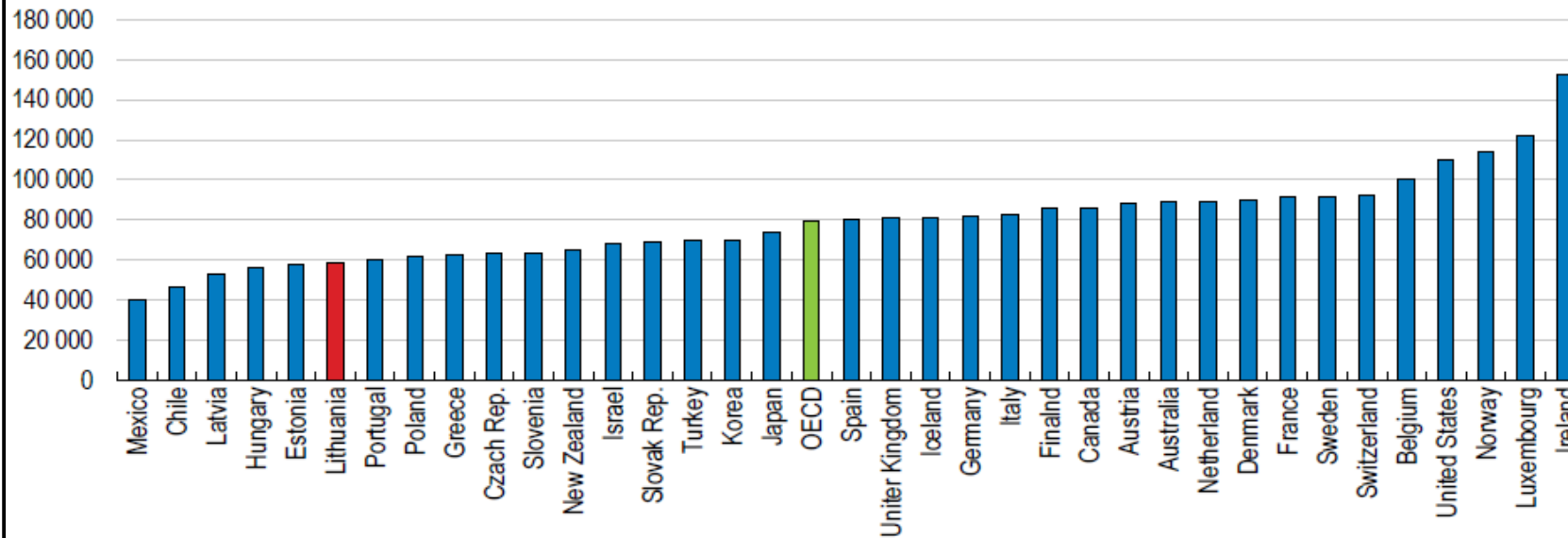
### A. Real GDP per capita

Average annual growth 2006-17

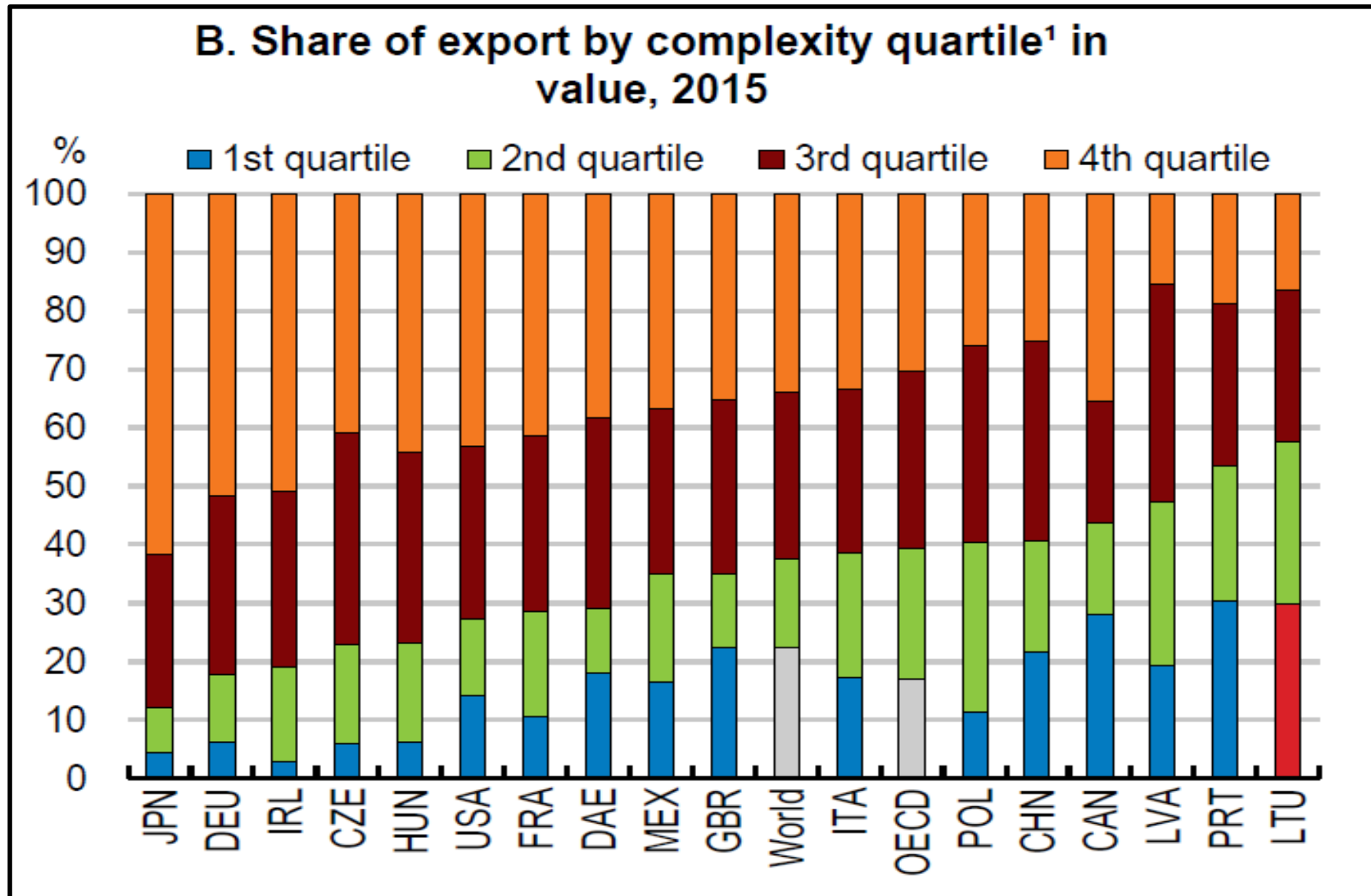


### B. Labour productivity is low, 2017

USD PPP per worker

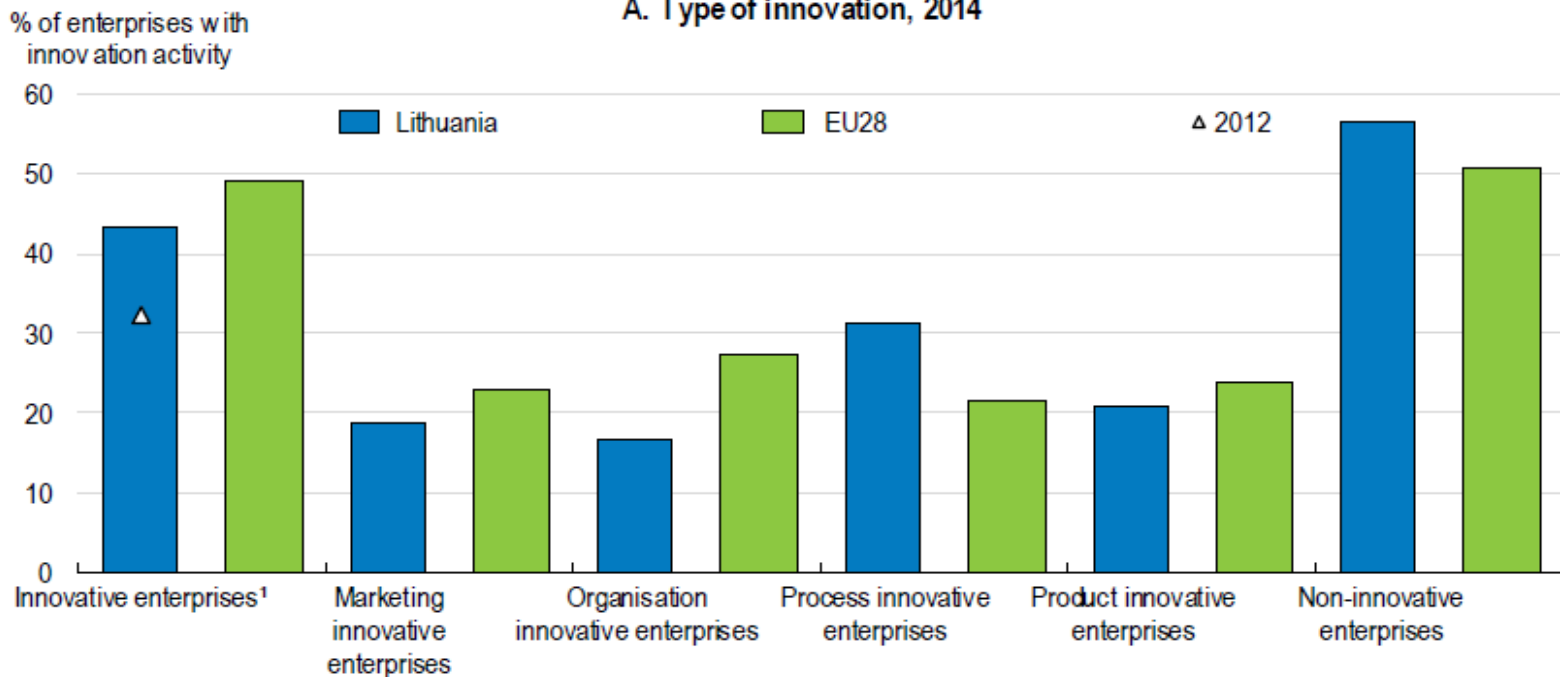


# Technology and innovation in Lithuania



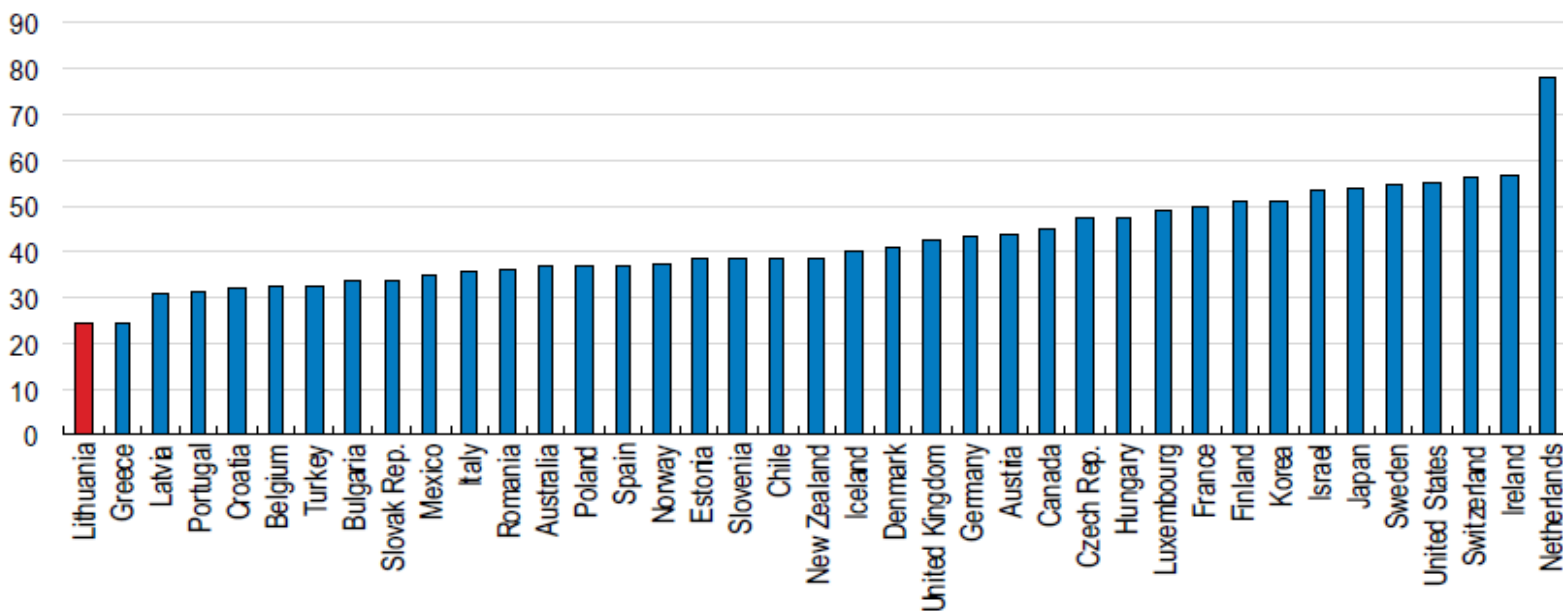


A. Type of innovation, 2014



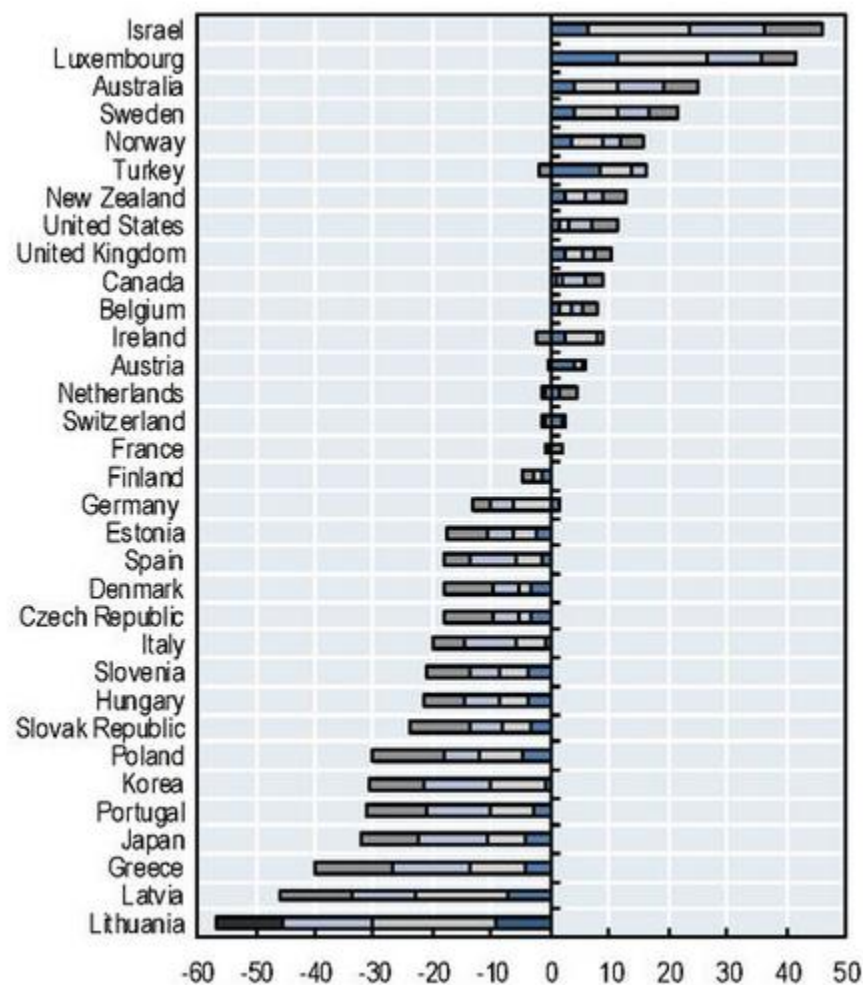
Firm level innovation and absorptive capacity - Lithuania

B. Global Innovation Index, 2017 - Knowledge absorption<sup>2</sup>



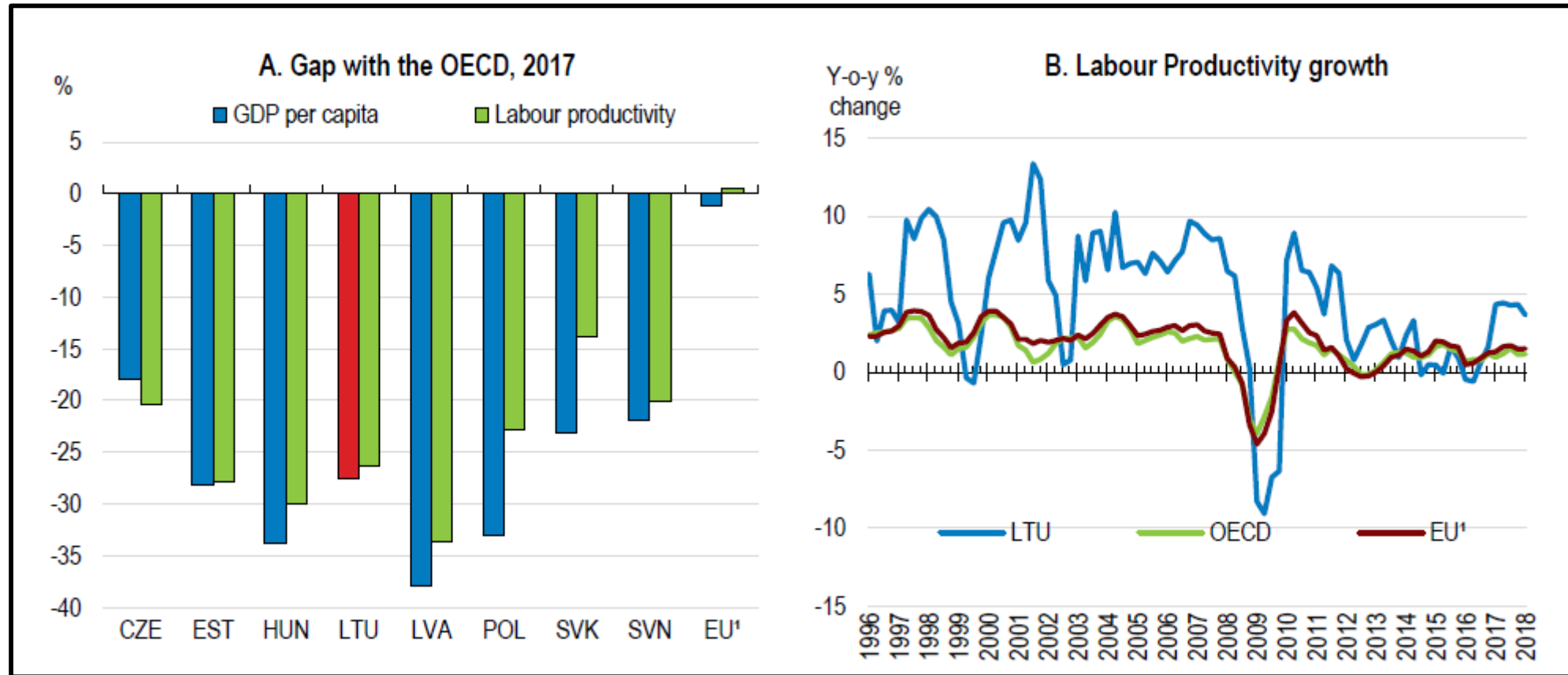
Source: OECD (2018), OECD Reviews of Labour Market and Social Policies: Lithuania

# Demographics: Population Projection in comparison to other countries



- Lithuania's demography is adversely affected by ageing and an overall population decline.
- Two major reasons: negative natural population growth rate and long-term net emigration.

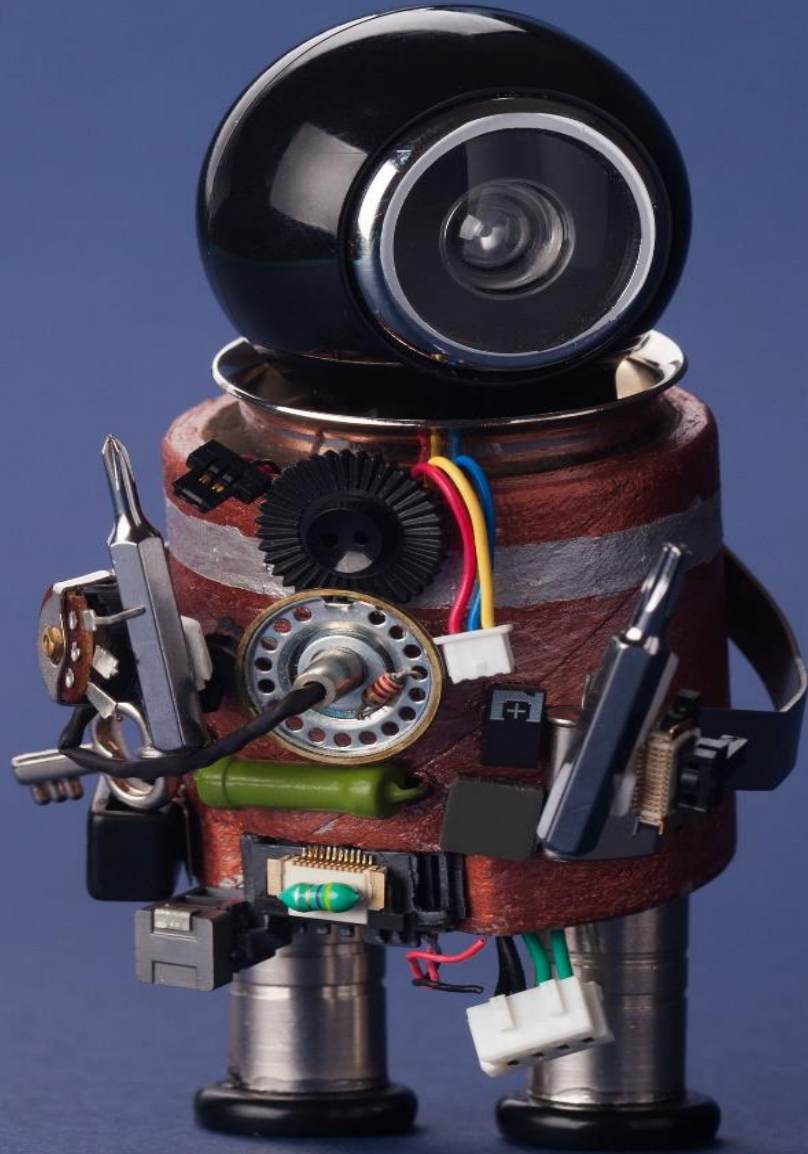
# Working Conditions in Lithuania



# Overall assessment and main policy issues

- Overall assessment:
  1. Economic structure and productivity issues
  2. Substantial emigration (until recently) and brain drain
- So how to improve the attractiveness of working in Lithuania?
  - Lowering emigration, stimulating return migration and labor market participation by improving labor market attractiveness and job quality in Lithuania
  - In the age of open borders and automation: competitive, innovative, not easily imitable types of production





work smarter  
not harder

# How to stimulate the emergence of good jobs?

- Three main policy ‚layers‘:
  1. General labor market reforms: open, flexible, adaptive labor markets, combined with clear standards and security provisions
  2. Human capital formation with links to the labor market
  3. Creating „good jobs“ in productive firms – identifying nuclei for innovation and higher productivity in the Lithuanian context

# Labour market reforms as a start

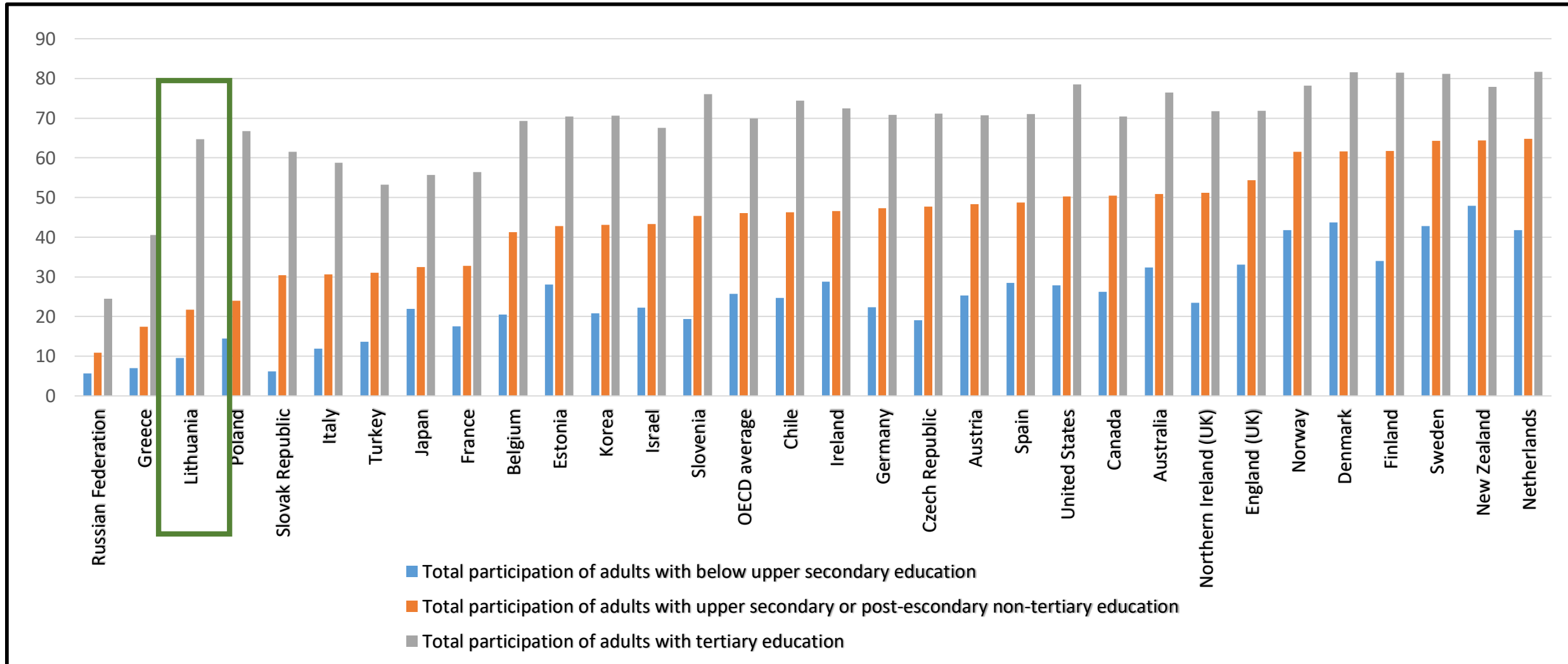
- New Social Model in Lithuania, combining eased employment protection reforms with expansion of unemployment benefit coverage and activation policies, stronger incentives to work longer and improve work/family reconciliation
  - Follows the still relevant idea of a ‚flexicure‘ labour market
  - Steps on a path towards a ‚modernisation‘ of labor market institutions, potentially enhancing the adaptive capacities of the formal labor market in Lithuania
  - Potential challenges: full implementation of targeted activation and effective active labor market policy programs and other social investment policies (governance and funding issues, also related to general social policy funding mechanisms)

# Labor market reforms and skill formation

- **Labor market reforms:** Recent reforms point in the right direction, improving the balance between flexibility and security in the labor market. But successful participation in the future labor market critically depends on appropriate skill formation.
- **Skills:** Intensification and upgrading of skill formation, including life long learning for the wider working-age population is a core issue (in Lithuania as in many other European countries):
  - combining general skills relevant for the future of world of work (analytical skills, dealing with complexity and critical judgment, interactive and social skills)
  - digital skills
  - professional/occupational skills, related to current and expected needs of employers



# Participation in formal/or non-formal education among adults



# Productivity and innovation

- Job quality is critically related to productivity, hence having more innovative and productive firms and sectors with ‚good jobs‘ is essential
- This requires better innovative and adaptive capacities of firms and creative use of human capacities and technology
  - strengthening (experimental) business creation and scope for in job trainings.
  - developing more productive and skill-intensive activities where Lithuanian economy has its competitive advantages
  - Upgrading the position of Lithuania in global value chains

# The consultation process on 'Work 4.0' and future of social protection in Germany (2015-2019)

Main challenges with the digital transition of German economy:

1. Forecasted number of jobs likely to remain roughly similar over the next decade, but **profound changes** within and between sectors, occupations and jobs
  2. Existing **organization of work (and maybe sectoral structure)** seems to contribute to high exposure to automation
  3. **Lifelong learning** is institutionally fragmented and biased in favor of better skilled and younger people
  4. **Collective bargaining and firm-level participation** might help organize change, but scope of both is declining
  5. Potential erosion of **social insurance funding**, especially if self-employment/platform work grows (although very limited so far)
- Dialogue initiated by government, with social partners and experts, but also the public
  - Key element: exploring needs and possibilities of renewed labour market, HR and social policies, based on broad stakeholder participation, stimulating an iterative policy making process.

# Selected axes of debate

- **Life-long learning:** Essential in order to continuously keep up with rapidly evolving technological developments. Additional digital qualifications will be compulsory in almost all sectors and occupations.
- **Flexibility at work, working time:** Greater self-determination, balance necessary between conflicting interests and aims. Protection from overtime + breakdown of the boundaries in work is essential. Negotiated working time models and flexibility are becoming increasingly important.
- **Social protection, self employment:** distinctions between employment and self-employed work are blurring, it seems appropriate and reasonable to include self-employed individuals in the statutory pension insurance system alongside employees.
- **Industry 4.0:** Offers new opportunities to shape work and production processes, relieves workers of routine activities. Focusses on the need to develop new production models, business models and workers' skills.

# Supporting innovation and life-long learning

- Governmental support and funding of an ***industrial policy regarding manufacturing processes (“Industry 4.0”)*** to increase investment and application of digital technologies, with particular focus on core sectors, but also SMEs
- ***Internal/functional flexibility***: more flexible organisation of working time, internal collaboration and new forms of work, partly embedded in sectoral or firm-level agreements, otherwise driven by firms directly
- ***Firm-sponsored training*** for skilled workers and increasing role of collective agreements with training component
- ***More public ALMP intervention***: supported training of low-skilled workers; employer subsidy for training of employed people (new law in 2019), especially in SMEs, but no individual entitlement to training
- Formulation of a first-time ***national adult learning strategy*** involving different ministries, trade unions and employer associations (adopted in mid-2019) was a complex process, can potentially lead to better articulation between actors and subsectors, higher transparency and more universal access to adult learning and advice, but concrete impact is to be seen.

# Insights with hindsight (from Germany)

- Main issues debated in the 'Work 4.0' context are **long-standing topics** of labor market and social policy, but new framing, motivated by technological change / automation, and linking to social innovation
- There is now a **general openness** to collect and assess evidence on current developments, allow for experiments and design potentially 'innovative' policy solutions
- **'Flexible' tripartite approach** at different level seems feasible due to shared interest in productivity, innovation and jobs (and joint interest in public support, in particular for R&D, industrial policies)
- But this does not preclude **conflicts and stalemate** in critical areas such as responsibilities for training, changes in working time legislation, regulation and pension coverage of freelance work
- Important issues: avoid dominance of powerful 'old interests', e.g. Manufacturing sectors while finding formats for the articulation of **representatives in new, less organized sectors**
- Remarkable **gap and temporary delay** between rise in public attention, intense discourse and concrete policies – maybe corresponding to incremental changes in the labour market and in policy making



# What to do? A job quality strategy for Lithuania

- New technologies in a more integrated, globalized world (particularly within the EU) → creation of new jobs in innovative, productive firms, and improving the quality of existing jobs, moving away from traditional sectors and organizational models.
- 1. Further reform of institutional provisions as to **increase job attractiveness**, e.g. ensuring fair pay, flexible working hours and family benefits, training / life-long learning, and protection from labor market risks, including measures to promote job mobility in case of job restructuring -> create options for professional development within Lithuania
- 2. Systematic **human capital formation** regarding both transferable and specific skills at different stages over the life course, articulated with current and future needs of the labor markets
- 3. Supportive conditions to raise **R&D capacities and productivity** of firms in Lithuania
- **Involvement of stakeholders / social partners** can be supportive in identification of challenges, opportunities and proper long-term commitment / implementation