Regions in Industrial Transition

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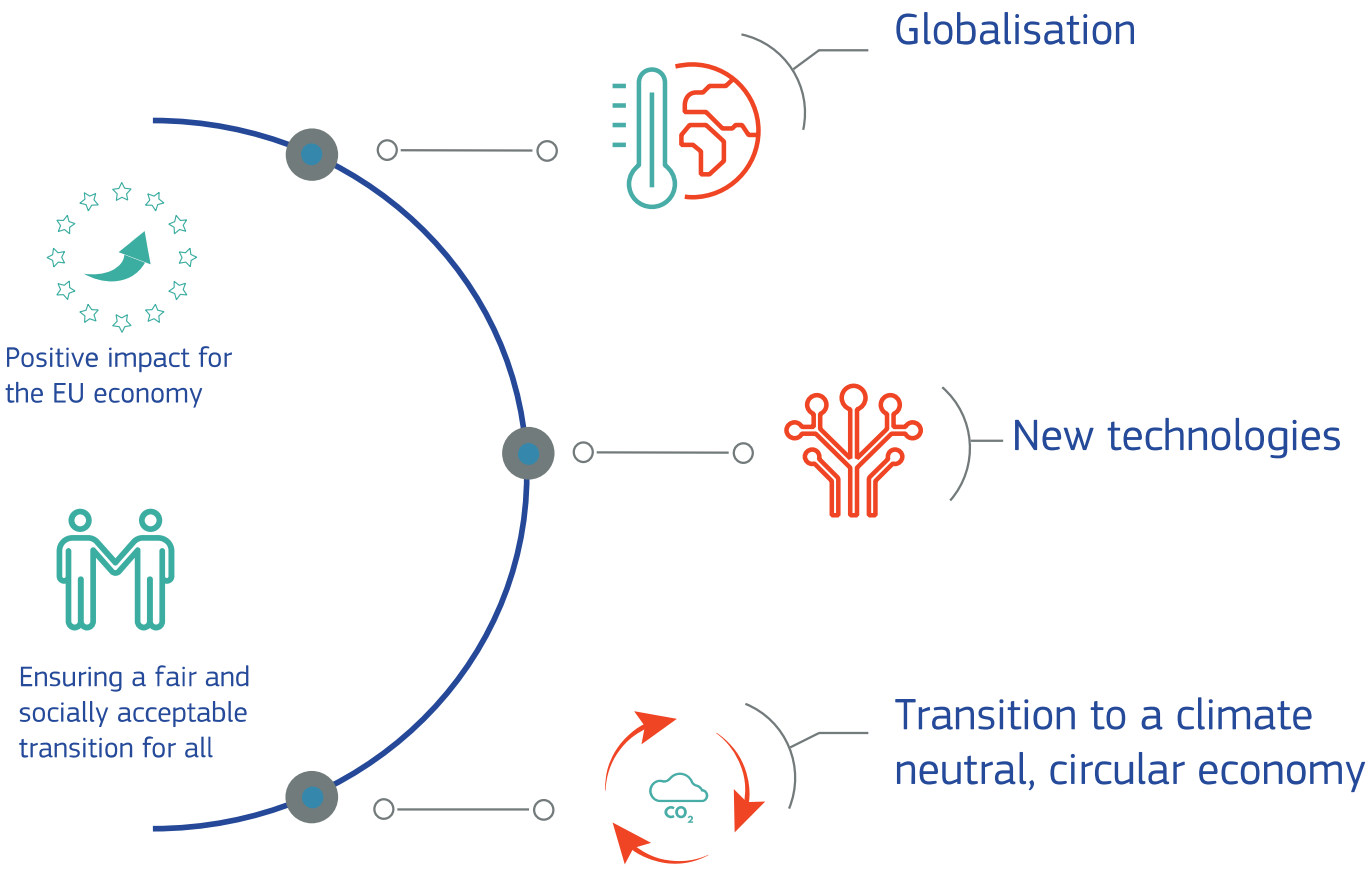
1. Why does transition matter?



Where does the discussion about transition come from?

Building resilience through better sharing of benefits and promoting of long term competitiveness

- Robust social and education policies are key to ensuring resilience and fair distribution of wealth
- Major efforts are needed to make Europe a more competitive and innovative economy
  - Innovation, Investment, Sectoral Policies, Regulation and Taxation
- In close partnership with empowered regions

We need a vision for the future **to modernise our economy** by embracing digitalisation, technological and social innovation, decarbonisation and the circular economy.

Fundamental economic, social and environmental transformation happens at the local level, where business, civil society, administrations and people interact

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What are the different types of transition?

Regions in transition

	INDUSTRIAL TRANSITION	JUST TRANSITION	SUSTAINABILITY TRANSITIONS
EU OBJECTIVE	Share the benefits of globalisation and technological change	Support people and regions most affected in the transition to climate-neutrality	Climate-neutral, circular economy by 2050
ROLE OF COHESION POLCY	Innovate and transform regional economies to benefit from economic and technological changes	Mitigate social and economic impacts by supporting alternative economic development and assist people changing jobs (notably in coal and carbon-intensive regions)	Improve the capacity of regions to achieve long-term EU goals for climate/energy and environment
INVESTMENT AREAS	PO 1 ERDF (incl. R&I, skills, advanced manufacturing) through smart specialisation	Just Transition Fund (incl. economic diversification, reskilling, modernisation of declining/transforming sectors)	PO 2 ERDF/CF (incl. capacity-building for authorities)

COMMON

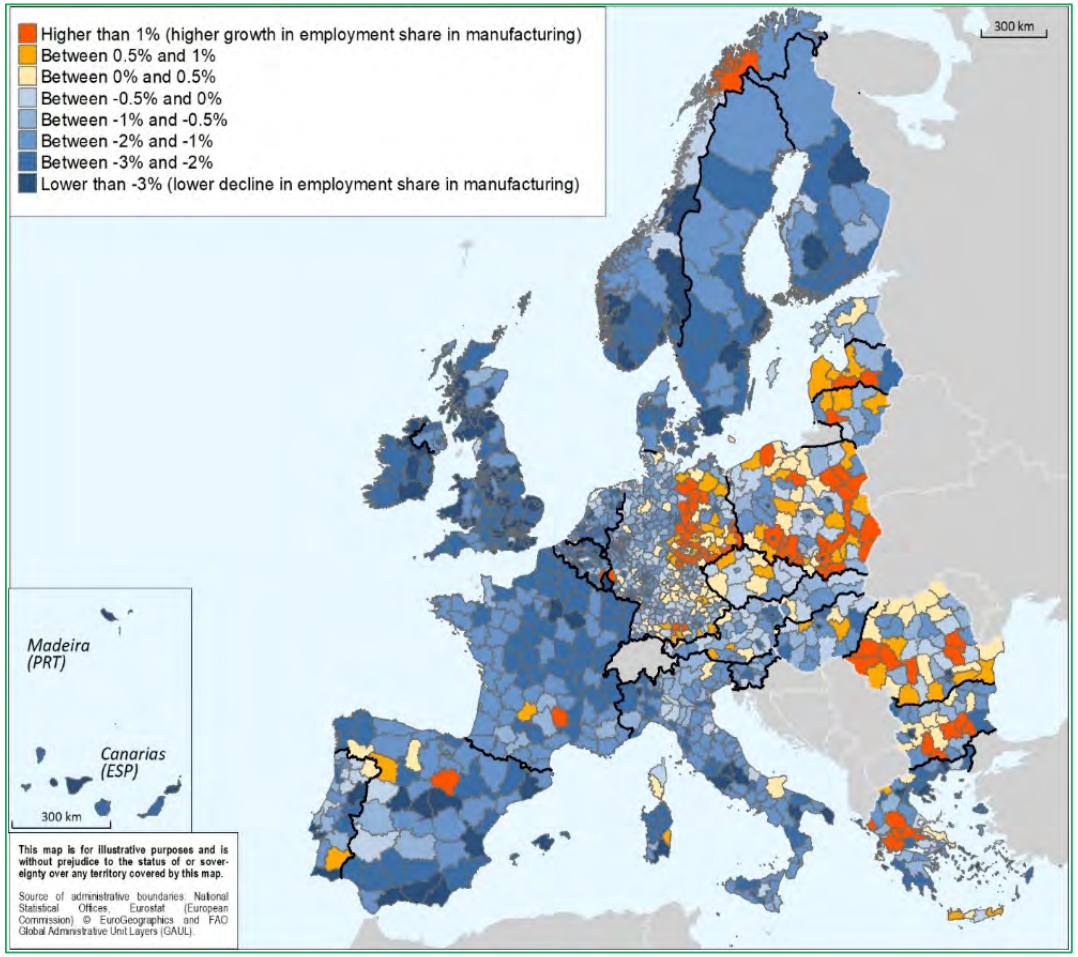
- About adjustment and change
- Strong focus on innovation and deployment across businesses, society and the environment
- Strong place-based dimension, where problems are concentrated
- A fair and socially acceptable transition for all

All types of region are facing industrial transition challenges and have distinct needs

- **Key features of industrial transition**
  - a heritage of traditional (often carbon-intensive) activity in industry and services (from extraction, to production, to distribution and logistics)
  - a skills base in traditional occupations (but a lack of future-oriented skills)
  - developed knowledge-generation and diffusion systems in established industries
  - productivity and investment opportunities largely derived from traditional industry fields
  - geographical concentration of problems
  - lack of diversification opportunities

Industrial transition is not spread evenly across space

Percentage change in employment shares in manufacturing, 2000-2016



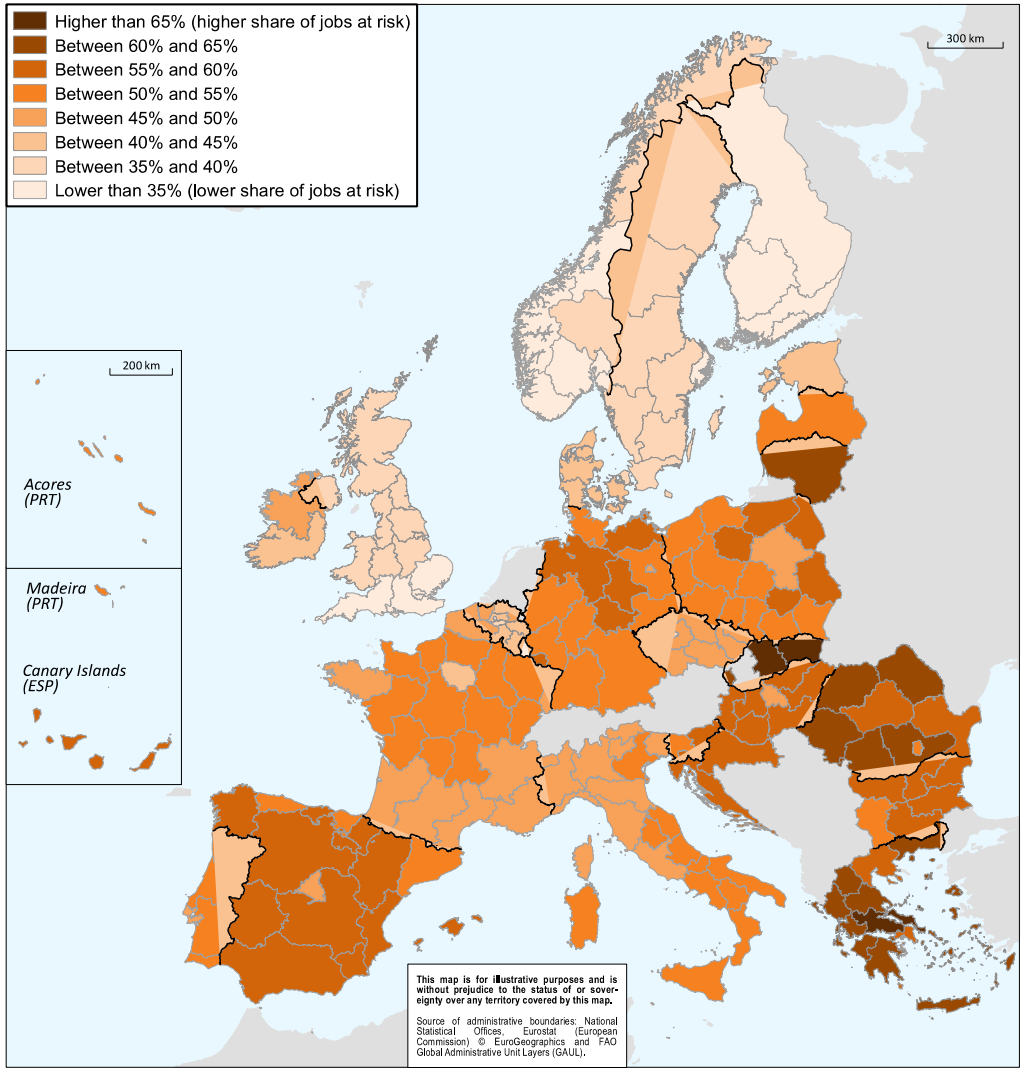
Source: OECD Regional Statistics Database

- The employment share in manufacturing grew mostly in Eastern European regions and declined for the majority of Western European regions, but variations in changes in employment shares in manufacturing exist also within Western European countries.
- In some regions, there is a shift from traditional manufacturing to high-quality, service-oriented industrial production.

But the future holds challenges as well..

Figure 2.1. Risk of automation across European TL2 regions, 2016

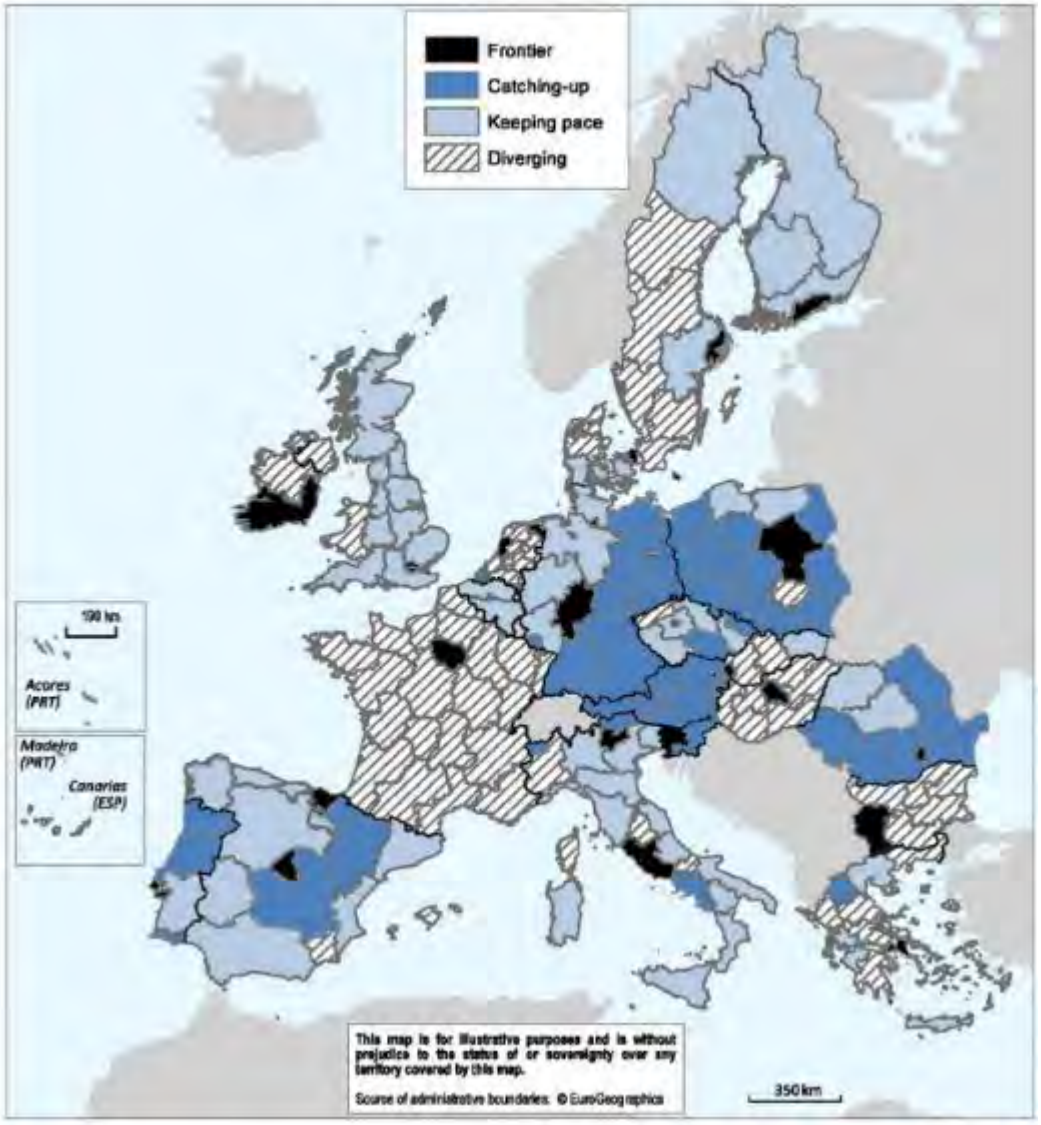
Share of regional workers at risk of job automation higher than 50%



Persisting within-country differences in productivity

Figure 1.15. Productivity dynamics at the regional level in the EU

Classification of TL2 regions, 2000-14



Finland

Non-capital regions just keeping pace.

EIS/RIS:

Finland classified in EIS as Innovation leader, but South-North gap in performance.

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Challenges for Finland

- Reverse downward trend in business investment in R&D
- Increase economic outcomes from investment in R&I, notably as regards the creation and growth of enterprises in high-tech sectors

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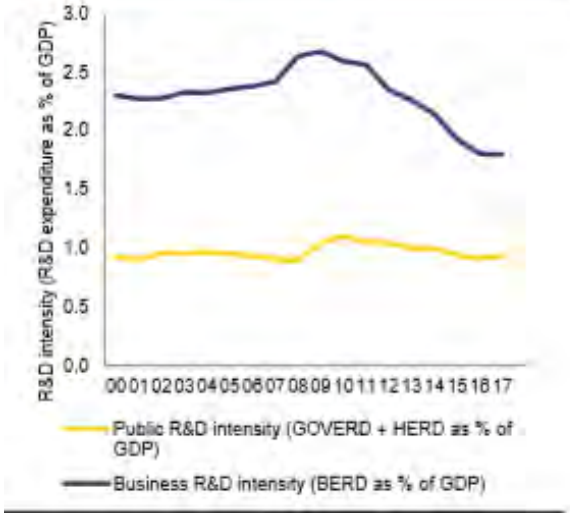
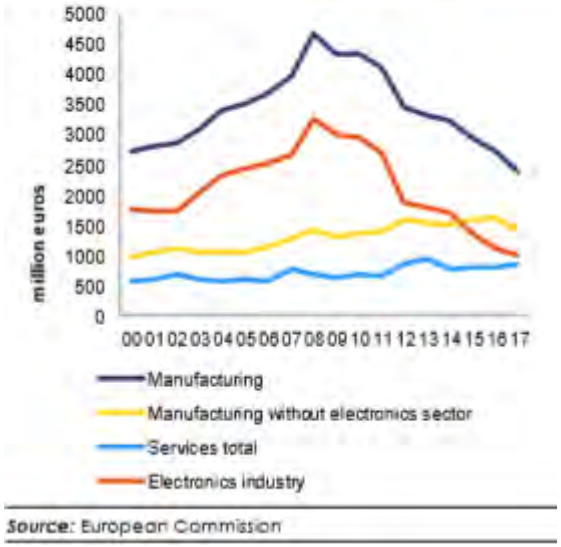
Decline of business R&D expenditure in the past

Graph 3.4.6: Evolution of public and business research and development intensity



Graph 3.4.5: Research and development gross capital formation by industry and year - flows



Source: European Commission

Business R&D

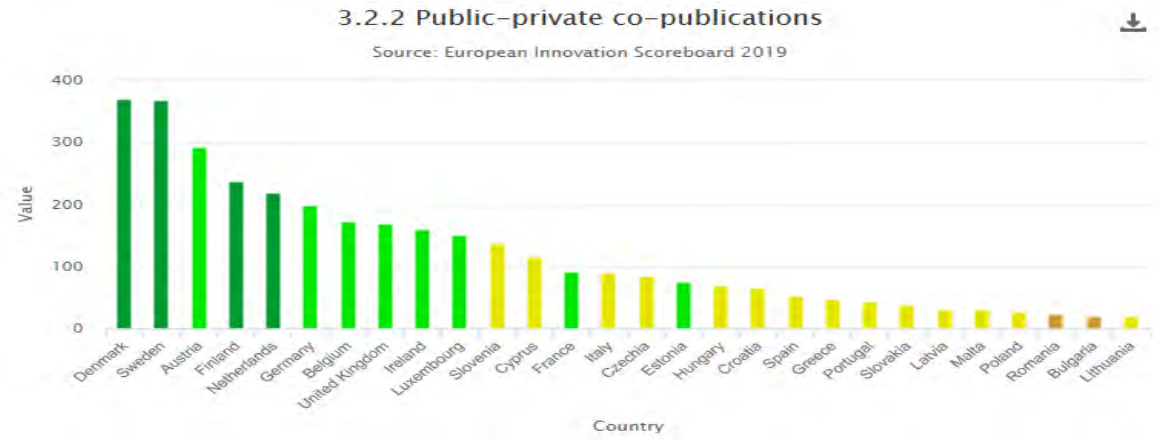
Key impact of decline in R&D in electronics industry (Nokia once the largest R&D investor worldwide, representing over 50% of business R&D in Finland)

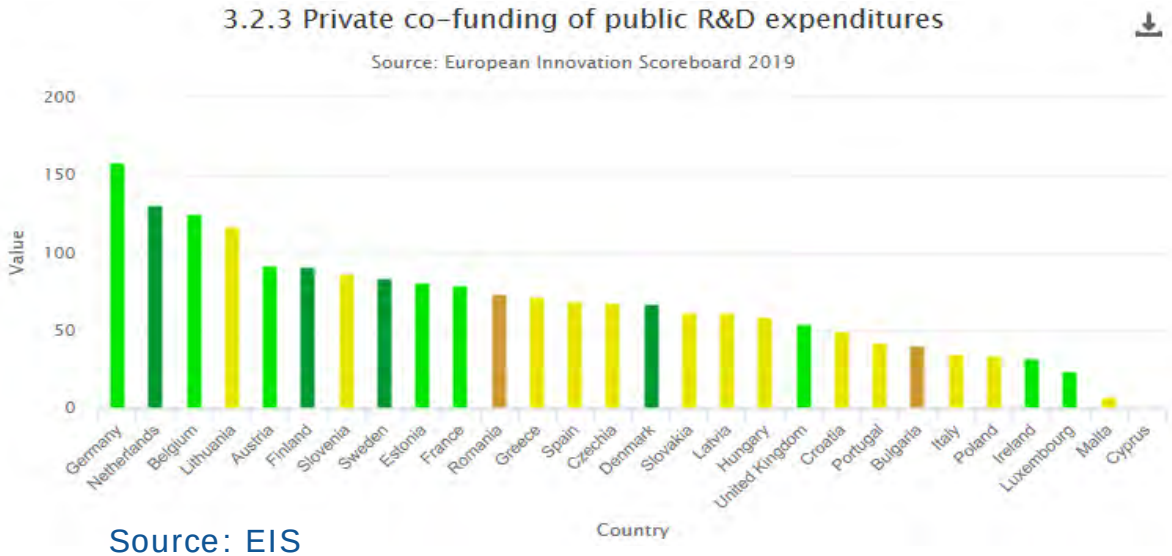
Public R&D: more stable, but decline 2010-2016 as a % of GDP

Total R&D expenditure: 4% target, but performance declining, from highest in Europe in 2006 to fifth place (2.76%)

Source: Commission Country Report Finland

Academia-business co-operation





Source: EIS

Finland

- Good performance in co-publications
- Private co-financing of public research is above Nordic peers, but below EU average and on a downward trend since 2007
- Room for further improvement of business-science cooperation (key for creating new growth)

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Scale up of SMEs

	SE	DK	FI	EU
Employment in fast-growing innovative enterprises,%	6.2	4.9	2.8	5.2
Total entrepreneurial activity (TEA)	7.2	n.a.	6.7	6.7
Enterprise births (10+empl.), %	0.4	0.5	0.4	1.5
Ease of starting a business (0-100)	81.1	84.0	80.4	76.8
Unicorn companies (start-ups with > 1 bn market valuation)	2	0	0	43
Average age of top 10 tech companies	103	76	55	92

Source: EIS, RD Scoreboard, CB Insights:

Former unicorns: Rovio, Supercell

Finland

- Low on employment in fast-growing innovative enterprises
- Low on enterprise births
- However, large enterprises relatively young
- Importance of single, large tech company (impact of decline of Nokia since 2010 on R&D expenditure and economic growth)

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Testing new approaches

Middle-income regions:

- lack of appropriate skill-base
- high unit labour costs
- de-industrialisation
- unable to attract extra-regional investment
- weakness in the capacity of exploiting funding opportunities

Development of a comprehensive strategy for economic transformation

- 10 regions & 2 countries selected via call for expression of interest
- Broad innovation and inclusive growth building on smart specialisation strategy
- Multi-sectoral focusing on jobs, industrial sectors, business models, economy and society as a whole
- Addressing globalisation, automation, decarbonisation, emerging and digital technologies, skills and investment

See brochure: http://europa.eu/rapid/press-release_IP-19-2419_en.htm

Enabling condition for smart specialisation

Policy objective	Specific objective	Name of enabling condition
1. A smarter Europe by promoting innovative and smart economic transformation	ERDF: All specific objectives under this policy objectives	Good governance of national or regional smart specialisation strategy

Fulfilment criteria for the enabling condition
Smart specialisation strategy(ies) shall be supported by: 1. Up-to-date analysis of bottlenecks for innovation diffusion, including digitalisation 2. Existence of competent regional / national institution or body, responsible for the management of the smart specialisation strategy 3. Monitoring and evaluation tools to measure performance towards the objectives of the strategy 4. Effective functioning of entrepreneurial discovery process 5. Actions necessary to improve national or regional research and innovation systems **6. Actions to manage industrial transition** 7. Measures for international collaboration

1. Up to date analysis of bottlenecks to innovation diffusion, including digitalisation

Analysis has been undertaken to identify key bottlenecks such as:

- Weaknesses in adoption at firm level of new technologies.
- Failure by universities and RTOs to serve the needs of firms in their ecosystem.
- Inefficiencies of innovation agencies in facilitating knowledge flows and coordination problems with other public agencies.
- Lack of knowledge transfer from multinational companies to domestic firms.

2. Existence of competent regional / national institution or body responsible for the management of S3

There is a body which has a formal mandate and decisional powers to develop, coordinate the implementation and monitor the smart specialisation strategy.

3. Monitoring and evaluation tools to measure performance towards objectives of the strategy

A monitoring and evaluation system is in place – under the coordination of the competent institution - to collect information on the implementation of smart specialisation priorities which captures information per specialisation domain. This includes timely and regular collection of data, its analysis and use as feedback on implementation.

4. Effective functioning of the entrepreneurial discovery process

There is an interactive and inclusive process in which actors from business, research, civil society and public administration (quadruple helix) identify specialisation priorities (or remove them if evidence shows no progress). This is an ongoing process, where all stakeholders are adequately represented.

5. Actions necessary to improve national or regional research and innovation systems

Country Specific Recommendations and the country reports within the European Semester or dedicated evaluation shared and endorsed by Member States are to be taken into account to identify shortcomings and needs for improvement and define remediation actions.

In case there is no such evidence, this criterion should not be applicable.

Criterium 6: Actions to manage industrial transition

- The member state or region has undertaken analysis to identify sectors and occupations in the region or member state which are challenged by globalisation, technological change (notably linked to industry 4.0) and the shift to a low carbon economy and identified appropriate actions to facilitate transition.

- Where regions have experienced significant structural change, appropriate actions have been identified to address reskilling of the workforce, diversification of the economy, strengthening entrepreneurship and technological upgrading of SMEs.

7. Measures for international collaboration

Opportunities for international collaboration with research and innovation actors and private companies in similar priority areas have been identified/mapped.

Measures to engage regional stakeholders (universities, RTOs, SMEs, clusters) in participating in and developing EU or international value chains are being developed / promoted.

3. How can the OECD report help?

Key policy challenges for industrial transition

1. Preparing for the jobs of the future
2. Broadening and diffusing innovation
3. Promoting entrepreneurship and private sector engagement
4. Transition to a climate-neutral economy
5. Promoting inclusive growth

Preparing for the jobs of the future: key messages

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Preparing for the jobs of the future (1)

Policy Issue	Policy Response	Potential suite of implementation mechanism	Rationale/additional benefits
Lack of skilled workers to move into new and emerging activities	Better anticipate skills needs for industrial transition	• Foresight, skills mapping • Workforce Intelligence Networks • Expert Groups on Future Skills Needs	Informs policy-making Avoids skills shortages and skills mismatches
	Strengthen capacity of firms to address their human resource needs internally	• Strengthen HR management capacity of SMEs • Link with SME support policies with education and training policies • Strengthen links between firms, universities and research bodies	Improves responsiveness of training provision to market needs Strengthens coordination between different policy areas
	Involve local stakeholders in the planning and design of regional skills initiatives	• Participation in employers councils • Collaborations and partnerships with vocational schools, universities and small and large firms	Targeted training in new technologies and sectors of strategic importance Anchors local employers in regional economic development
Spatially concentrated lack of job opportunities for low- and middle-skilled workers	Support vulnerable workers during the period of industrial transition	• Re-design local employment services • Use the internet as a channel of delivery	Provides the unemployed with new job opportunities Ensures job opportunities across territories
	Provide workforce and management development for start-ups and scale-ups through training and upskilling programs	• Training subsidies and vouchers, training leave allowances, tax incentives • Personal Training Accounts	Workers gain highly specialised competencies needed by firms Managers gain additional knowledge
	Foster the integration of youth, women, and older people in the labour market	• Dedicated training initiatives and courses, provision of role models	Retains human capital Reduces gaps in labour market participation

Preparing for the jobs of the future (2)

Policy Issue	Policy Response	Potential suite of implementation mechanism	Rationale/additional benefits
Limited investment in new sources of employment and productivity growth	Provide support for firms to become more innovative and adjust from 'traditional sectors to new technologies	• ICT training and technology extension programmes • Human Resource Development Consortia at sectoral level	Facilitates access to and benefit from global value chains Support for transversal skills to manage innovation and technological change
	Assist firms in better using skills at the workplace	• Workplace Leadership Centres, Local Employer Networks • Workplace Challenge programmes	Enhances cross-industry innovation
	Encourage knowledge exchange and cooperation between larger and/or newer firms with smaller and/or older firms	• SME participation in employer networks, Foster industry clusters, create regional brands, enhance product market strategies, company learning networks	Creates an attractive innovation eco-system
Lack of co-ordination and financing mechanisms	Implement effective multi-level partnerships	• Increasing stakeholder participation in local skills ecosystems, better co-ordination arrangements, capacity-building initiatives	Coherent development of transition policies across levels of government Improved policy effectiveness and efficiency
	Ensure sufficient and well-targeted financing and investment	• Tax incentives and subsidies, paid training leave, loans, personal training accounts	Stimulation of private sector engagement in the provision of training