Manufuture

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Digital Manufacturing:
Advancing Digitalisation of European Industry

Industry 4.0 – Where to go

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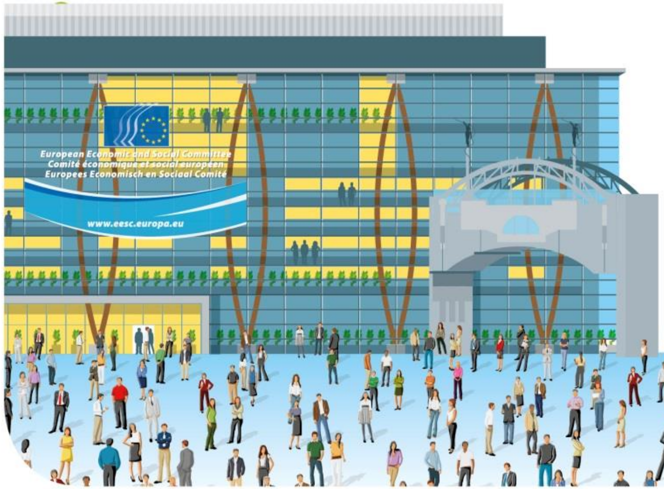
European Economic and Social Committee, EESC:

- ***Organised civil society*** from all Member States, three groups: Employers, Trade Unions, Various interests
- ***Consensual*** decision-making
- ***Policy papers*** to the European Institutions
- ***Active participation*** of all kinds: conferences and debates, at EU-level and in Member States



Industry 4.0**, a recent initiative in **Germany, 2012**:* Government, business, academics, meanwhile ***broadened to Digitalisation, i.e. the whole society is concerned in transversal development.

Stakeholders: business is key, fragmentation in value chains, SMEs, both on supply and on demand side – public, private -, EU, governments, regions, research institutes, universities, workers, consumers.

New mind set needed due to very dynamic disruptions value chains leading to new business models, individualised processes, new interactions and alliances, new earning capacities.

High priority in programme Juncker, at the level of the European Council, in the Competitiveness Council, together responsible for

The Digital Single Market

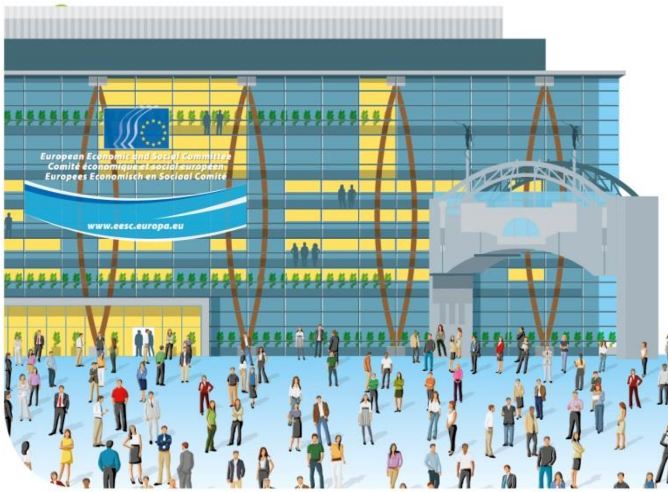
Commission in the lead in ensuring free movement, for legislative programme - new aspects and adjustment of existing rules -, in R&D programmes and projects, in bundling knowledge and practice in European Platforms, in promoting convergence in Europe.

Far from easy as proven by examples like ***geo-blocking, the European Data Economy, Health industry.***

In all cases corresponding phenomena:

- ***business in the lead***
- huge ***differences*** between countries in mentality and in achievements, frontrunners and laggards, both in business as in public sector
- ***mentality:*** degree of openness and levels of education
- ***national industrial policies hampering*** EU wide orientation significance of regions, bundling initiatives, stakeholder, platforms, PPP
- huge significance of ***start-ups,*** fragmentation of value chains
- ***public procurement*** as important incentive
- consumer rights, ***European model***
- ***intensified competition,*** flexible business models, new markets

- ***Geo-blocking*** divides retail business in national markets, and keeps existing commercial patterns intact. Companies internationalise, but on-line makes it ***easier***, more ***profitable***, ***consumer-friendly.*** Profitable also for intermediaries and specialised start-ups.
- ***Often costly affair***, new network building, in-fighting in markets, (newly established) national requirements, ***different legal environments***, language and back office requirements. Regulation will foster transparency and predictability and undo all kinds of discrimination.
- New breakthroughs push boundaries, companies become ***more robust and resilient,*** comparable to US.

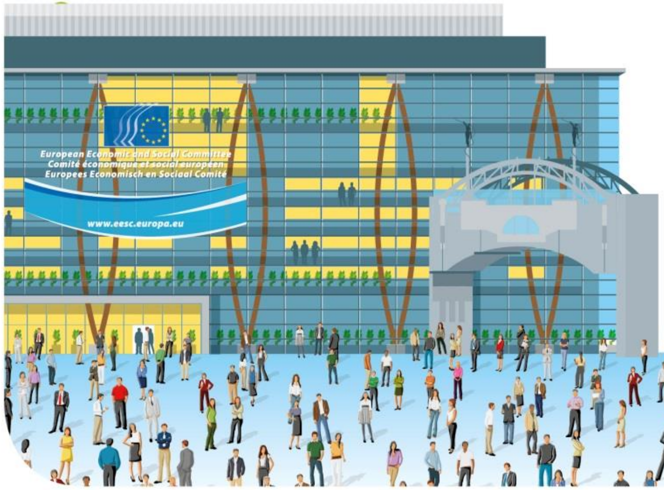


A revolution is to create a ***European Data Economy****:* free flow of data. ***Stagnation in companies and countries***: lack of awareness, lack of trust, defensive attitude. Right mind-set will lead to flexible and adaptable business models.

SMEs and innovation suffer from data localisation. ***Any data storage*** must be guided by ***principle of free movement****.* Failing the full potential EUR 600 billion at risk in 2025, studies project by contrast EUR 1,25 billon.

Europe's data in ***manufacturing***, big data industry in US driven by service and data-based companies, GAFA and NATU. Huge investments in China.

- ***Wide discrepancies*** in Europe. ***Convergence*** between MS needed as also ***coaching***.
- ***Goals: competence building***, better ***infrastructure*** (broadband), promotion of ***innovation, platforms*** participation, ***testing grounds*** and ***open markets for data trading.***
- Large-scale ***demonstrators, 'Innovation Spaces',*** networking and ***Community-building.***
- Need for understanding by society and workers. Up-to-date communication. ***Education*** and ***on-the-job training***. Considerable job-losses, but new jobs in the making



Digitalisation in the ***health sector:*** a ***new paradigm.*** Transformation to the benefit of patients and of value-based care. Better value for money.

Very complex world*:* many stakeholders which are far from the market: doctors, hospitals, patients. On top, very ***decentralised and fragmented,*** national health systems and financing. Health is still highly fragmented in ***regionally-based ecosystem***, damaging for SMEs and optimal solutions.

EU major asset for promoting innovation and digitalisation, economic performance, illustrative examples, public procurement, cross-border trade and cooperation, free flow of data.

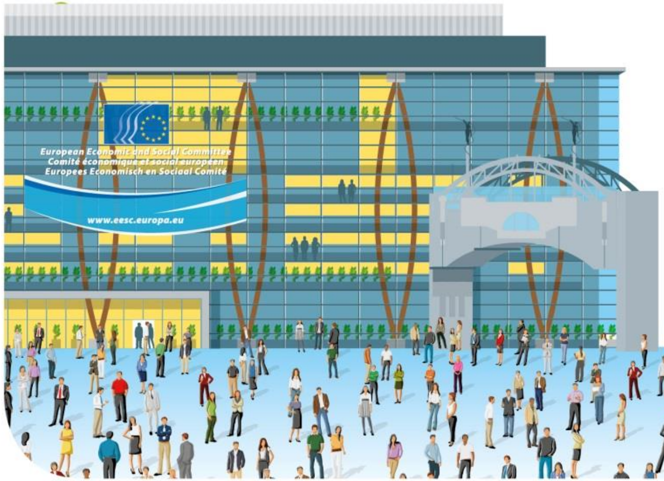
Industrial solutions closer to the patients, in terms of both cure and prevention. Objective: optimal health ***at a reasonable cost***. Very important in times of financial constraints. Health must be seen as a growth factor.

Better and personalised treatment: shifts from health care to home care (mobility), and from generic to personalised treatment and less restrictions in case of illness or disability.

Here again, the need for change of ***mind-set*** among all stakeholders, ***overcoming resistance and traditional cultures***, opening up to new forms of ***professionalization at all levels*** as well as a ***redesign*** of health and care related work.

In conclusion:

- Three very different sectors, but ***common denominator in hurdles as well as opportunities***.
- ***Stumbling blocks:*** vested interests, different cultures, lack of open mind-set, depending on sectors involved.
- ***Opportunities:*** Digital Single Market, cost/quality, ever increasing combinations, ***consumer*** in the seat and ***personalisation,*** flexible business models and start-ups, new economic and social interaction and alliances, ***resilience and competitiveness.***

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