A geographically fair EU industrial strategy

The ongoing ‘fourth industrial revolution’ is driven by the megatrends of globalisation and technological change, which lie at the basis of other dynamics (i.e. global value chains, automation, digitalisation, servicification, innovation). Industry, and with it traditional production and growth models, is being structurally reshaped. Commitments to enhance sustainability and security compound to these changes. The gains of the transformation, however, will likely be concentrated and thus increase regional inequalities.

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The current debate on EU industrial policy overlooks the inequality risk and focuses on international competition, sectors and technologies at the frontier of innovation instead. In order to be truly EU-wide, however, the future EU industrial strategy must include measures that actively target all EU regions and ensure that they are brought along the transformation.

BACKGROUND: GROWING INEQUALITIES AND REINFORCING DYNAMICS

The pending industrial transformation has the potential to create prosperity sustainably and efficiently, allowing the EU improve its welfare and competitiveness. However, it may also increase socioeconomic and territorial disparities in the EU. First, various characteristics determine whether and how much a region can benefit from the changes. Second, the abovementioned megatrends can further exacerbate unequal dynamics.

Some more fit than others

EU regions differ greatly in terms of their industrial and governance structure, skill base, innovation capacity and performance, workforce structure and productivity, openness to trade, infrastructure, institutional capacity, energy mix and income. These factors interact with each other unevenly. For example, low-income regions export mostly low tech-intensive goods. They will thus be at a growing disadvantage as they rely on imports of critical, high-tech products and will increasingly suffer from competition from lower-cost countries.

Similarly, it is estimated that low-income workers are more exposed to the risks of automation, with a geographic concentration that harms relatively poorer countries (e.g. Slovenia, Slovakia). Demand for skills increases across the board in knowledge economies and regions with a relatively low skill base will face difficulties in attracting and retaining talent. This will
inherently have consequences on productivity and innovation capacity. Reversely, some areas are better placed than others to keep up with the industrial transition, and will likely reap most of the advantages.

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**Concentrated activity in well-off areas**

Economic activity tends to concentrate in economically advanced areas to benefit from their larger markets, networks of workers, and technology and knowledge transfers (i.e. agglomeration economies). In the EU, this tends to be located in dynamic 'core' urban areas. **Innovation, knowledge and economic agglomeration are self-perpetuating:** the more these are concentrated, the more they benefit from spatial spillovers and generate growth, which in turn increases economic agglomeration and thus innovation.¹

Agglomeration leads to higher productivity, growth and returns on investment. Importantly, however, these effects tend to be spatially bound and do not disseminate beyond advanced, relatively well-off areas.² Additionally, winner-takes-all dynamics lead to the formation of 'superstar firms', especially in the digital economy. These top players can keep up with innovative and technological change and attract the best human capital and are often located in agglomerated areas, thus reinforcing inequalities.

In theory, the costs of agglomeration (i.e. pollution, high prices, congestion) should counterbalance the advantages and push some activities towards other, relatively cheaper, areas. However, the EU's metropoles are defying this logic by remaining the centres of growth. One reason is that economic activities are highly reliant on skills, networks and technologies, which tend to be scarce outside of agglomerations.³ There are thus few incentives for relocating and cities, even expensive ones, continue to capture the benefits. Secondly, compared to the past, activities that rely on cheap land and labour can now outsource to developing countries, leapfrogging the comparatively more expensive, less-developed EU regions. The dispersion of activities away from 'core' cities, as predicted by theory and sometimes confirmed in the past, is not happening as expected today.⁴

The transition to 'industry 4.0' will likely accelerate territorial inequalities by increasing the relevance of activities that benefit already advanced regions disproportionally. The following section explores the policy debate on the future EU-wide industrial strategy concerning these issues.

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**STATE OF PLAY: A SKEWED POLICY DEBATE**

The need for an EU-wide industrial strategy is increasingly being recognised as a necessary tool to ensure that EU industry can maintain its competitiveness vis-à-vis global competitors in a time of deep technological and environmental change.¹ Inequality however, does not appear to be taken into consideration.

**Missing the point**

Recently, **momentum for a fully-fledged EU industrial strategy** has materialised. In February 2019 France and Germany moved together to call for "a genuine European industrial policy", focusing on innovation, new technologies, competitiveness, and trade and competition policy.¹ The European Council of March 2019 invited the European Commission to present "a long-term vision for the EU’s industrial future", mentioning policy areas such as the digital economy, innovation, global competition, trade and key technologies.⁵ The Council conclusions on an EU industrial policy strategy identify digitalisation, sustainability, technological change and security as the trends affecting industry.⁶ However, these contributions do not ask for more scrutiny of the needs of all EU regions and fail to acknowledge that industrial transformation and its related policies can result in higher territorial inequality. The European Council’s Strategic Agenda for 2019-2024 marginally admits the existence of territorial divides, but does not mention the risk of their perpetuation nor the need to address them with the industrial strategy.⁷ More recently, Commission President-elect Ursula von der Leyen’s priorities include ensuring a just transition for all, through tailored support and a ‘Just Transition Fund’.⁸ While this objective is welcomed, it must be noticed that it is referred to in the context of an ‘ecological transition’ only, and is not considered an overarching objective of her growth and industrial strategy.

**Unintended, unpleasant consequences**

Clearly, the EU’s industrial competitiveness and role as a global leader and standard-setter are imperative for ensuring future prosperity and should be supported. However, inequality is hardly taken into account. Without an explicit goal for even development and inclusive industrial transition, the focus on the technological frontier, international trade and knowledge-intensive production could create unintended negative consequences. The risk is that the main beneficiaries of policy provisions will be the already advanced and relatively better off, thus reinforcing agglomeration dynamics.

**The consequences of territorial inequality are social and political tensions.** Recent discontent with disparities and (relative) decline has revealed a geographic pattern. Emerging research shows that higher shares of votes for anti-establishment parties are localised in areas where the benefits of recent trends – globalisation and technological change – are less present.¹⁴
Without careful policy design, the measures of the EU industrial strategy could worsen this vicious cycle. Importantly, member states are responsible for their own development and industrial policies that may reinforce these trends, and the EU does not have the jurisdiction nor the power to compensate for these. Nonetheless, there is scope to mainstream territorial inequalities into EU policies, and the upcoming EU industrial strategy is an occasion to bring this forward.

**PROSPECTS: AN INDUSTRIAL STRATEGY CENTRED ON EQUALITY**

**A change of mind-set**

The EU must acknowledge that the industrial transition can result in further inequality, and realise that measures supporting excellent, cutting-edge sectors are insufficient in achieving a smooth transition to industry 4.0 for the EU economy as a whole.

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The first step is to challenge assumptions. The understanding accompanying EU policies has been that growth reduces regional inequalities: economic growth would boost the diffusion of technology and investment from leading to less advanced, cheaper regions, thus serving as the main channel of regional convergence. This view has been relatively unchallenged, and ‘growth’ has been a paramount concept in the Lisbon and Europe 2020 Strategies. However, it is now emerging that the assumption is flawed. As mentioned earlier, technologies and innovation hardly disseminate, and today’s activities require skills rather than cheap land and labour. It is of utmost importance that the policy assumptions of growth and diffusion are questioned and replaced by a clearer assessment of reality.

**Critical evaluation**

The EU should assess whether its past policies have been successful in ensuring an evenly spread development across EU regions, or whether they have had (unintended) effects on the perpetuation and/or exacerbation of agglomeration and polarisation. Importantly, positive effects about convergence at the national level may hide disparities found in more granular data.

Economic integration and the Single Market may have reinforced regional inequality in the EU: while it was beneficial for all regions, wealthier and advanced areas gained more. Such areas tend to lie close to the European geographic centre and thus benefit from larger market access than peripheral territories. Also, they tend to be more productive and innovative and thus benefit more from trade.

**Transport policy** should also be critically examined. Increasing connectivity and accessibility among regions can foster networks and diffuse activities. Unintended negative effects, however, can also materialise. Facilitating transport between unequal places (e.g. a thriving metropolis and a nearby town) can reinforce agglomeration dynamics and draw (already scarce) resources towards the ‘centre’. The relatively less advanced area would thus lose services, activities and human capital rather than attract them.

Similarly, EU research and innovation funding tends to be allocated to top research institutions, which are often located in advanced Western European cities. While financing research excellence is of utmost importance, if the gains resulting from it are not distributed to less advanced regions, inequalities will be exacerbated.

Human capital is also subject to concentration. While freedom of movement has benefitted labour mobility, some less advanced areas are experiencing significant outflows of skilled individuals. In an increasingly knowledge-intensive economy, demand for skills will rise, thus perpetuating brain drain towards more advanced areas.

The Cohesion Policy is conceived to facilitate regional convergence while at the same time serve as the main EU investment tool. Reforms of Cohesion Policy intended to align it further to EU growth strategies (i.e. Lisbon and Europe 2020) to help maximise the EU’s overall welfare (i.e. GDP). Member states had to earmark large amounts of cohesion funding to actions aimed at competitiveness. While this may have been beneficial for growth at the aggregate level, as already argued, it does not necessarily reduce regional inequalities.

In addition to evaluating past policies, the design process of the future EU industrial strategy should include an *ex-ante assessment of policy provisions* to estimate potentially negative distributional effects among regions.

**A strategy for all**

The EU industrial strategy must ensure that policy provisions in support of industrial excellence and frontier regions and sectors are matched by measures that actively target the average and underperforming ones. In practice, this means:

- Supporting local industrial strategies that are tailor-made to specific challenges and capacities. It is crucial to avoid one-size-fits-all policies that cannot be supported by local endowments (e.g. leapfrogging to high-tech, highly-innovative sectors in a region with a low skill-base and insufficient infrastructure). Rather, a more effective approach is one that fosters the absorption of obtainable innovation to revitalise existing) industrial activities and targets the productivity and capacity of SMEs.
Providing guidance to promote cooperation between regions to break the existing agglomeration ‘bubbles’. Existing clusters and networks should welcome newcomers by bringing together businesses and actors from different EU regions. The ultimate aim is to **support and strengthen intra-EU values chains**. Tools in relation to smart specialisation and European Territorial Cooperation should be further exploited for these purposes.

### The ultimate aim is to support and strengthen intra-EU values chains.

- **Facilitating the diffusion of the gains of agglomeration** (e.g. knowledge, innovation, networks), since their dispersion is not happening as expected. This process can be supported through a specific instrument that **accelerates technology and knowledge transfers** within the EU to those regions and actors that are late adopters.

- **Expanding the pool of participants** in EU programmes by targeting and increasing capacity and awareness among less-advanced actors.

- **Working in tandem with education and training policies**. Regions with a low skill base have lower returns on research and development and innovation absorption. Coordination among education, innovation and development policies is crucial to avoid, on the one hand, a lack of skilled workforce for prospective innovative firms and, on the other, the emigration of educated workers who cannot find adequate employment.

Misconceived policies are suboptimal and potentially harmful. To design future policies effectively, it is important to gain a deeper understanding of economic agglomeration dynamics and the effects of technological changes. More research into these issues and the characteristics of regions that risk being left behind is needed.

The transition to industry 4.0 could lead to increased geographic inequality, with gains only reaped in the most advanced regions. The new EU industrial strategy must avoid playing into the perpetuation of unequal dynamics by overly-focusing on frontier sectors and advanced players. To be a truly comprehensive strategy, it must equally account for those sectors and areas that struggle to keep up with the changes and bring them along.

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2 Alessandri, Michele; Pietro Celotti; Andrea Gramiliano and Marco Lilla (2017), *The Future of industry in Europe*, Brussels: European Committee of the Regions, p.3.


2 Farole, Thomas; Andrés Rodríguez-Pose and Michael Storper (2011), “**Growth and geography of innovating institutions**”, *Journal of Common Market Studies*, Volume 49, Number 5, pp.1089-1111.


5 Largescale and capital cities tend to be more productive and innovative and have a higher skill base. See European Commission and United Nations Human Settlements Programme (2016), *The State of European Cities 2016: Cities leading the way to a better future*, Luxembourg.


15 Some of these recommendations were formulated in the context of Bjerkem and Pilati (2019), op.cit.


18 See Huguenot-Noël, Robin; Alison Hunter; Marta Pilati and Fabian Zuleeg (2018), “**How do industrial transitions succeed? Transatlantic considerations on drivers for economic development**”, Brussels: European Policy Centre.

19 This should be done while ensuring the right balance with intellectual property protection. See Bjerkem and Pilati (2019), op.cit.