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Innovative policies for industrial transition in the EU: Mitigating the social impacts?

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ABSTRACT

The resurgence of industrial policies in the European Union has led to the introduction of policies to support regions in industrial transition within the framework of territorial cohesion policies. There is an initial interest in introducing a social component in these policies. This brief investigation reviews the actions carried out to date and reflects on their implementation. The European Commission has launched several regional policy pilots, which could help in the definition of new industrial transition policies, but these policies require to progress in their practical implementation, in order to obtain the expected results, thus mitigating the social impacts that the transition may cause in the regions of Europe. From the analysis of the pilots and the state of the art, we propose

some recommendations to operationalize these policies, based mainly in an appropriate policy mix, consideration of the spatial components, involvement of the stakeholders, and the use of bottom-up and neo-endogenous approaches.

Key Words: industrial policy, industrial transition, territorial cohesion, cohesion policy, EU, regional policy.

Industrial policies have once again become key elements in the European Commission's strategy. After a few years where neoliberal approaches predominated (Wigger, 2018; Bulfone, 2020; Pochet, 2016) and a gradual implementation of rather economic *laissez-faire* (Renda, 2021), these policies progressively began to take relevance with the Treaty of Lisbon. At present, President von der Leyen has placed emphasis on promoting this type of policies to reverse delocalization and to become greener, more circular and more digital while remaining competitive on the global scenario¹. Researchers on the subject have noticed this renaissance, and this resurgence is already visible in recent academic literature (Landesmann, & Stöllinger, 2020; Pianta, Lucchese & Nascia, 2020; Aiginger, & Rodrik, 2020), provoking a lively theoretical debate.

In this sense, a certain interest in the inclusion of social aspects can be timidly perceived to address the impacts that industrial policies can have, but in general the initial approaches are related to climate targets, sustainability, or focused on ethical commitments, such as the defence of the citizen that preside over and conceptually illuminate the master lines of the current Commission (European Commission, 2020a, 2020b; Renda 2021). The academy, likewise, and very recently, has begun to demand the inclusion of the social component in the new policies, especially in view of the evident need that the COVID-19 pandemic has caused (Ferrannini et al. 2021; Alcidi, Baiocco & Corti, 2021; Renda, 2021; Meunier & Mickus, 2020).

The European Commission (EC) has also proposed various initiatives related to the industrial transition in many European regions (European Commission, 2019), which started late in modernizing their industry. In these regions, the incorporation of that sensitivity towards social issues that the required transition can bring is exacerbated by the need for structural changes. The Organisation for Economic Co-operation and Development makes this feeling of special urgency evident in regions undergoing industrial transition, pointing to unemployment, future-oriented skills shortages and potentially widening inequalities as issues to consider so that no one is left-behind (OECD, 2019). This OECD report, that takes stock of discussions from a series of peer-learning workshops jointly organised in 2018 by the EC and the OECD as part of the EC Pilot Action on Regions in Industrial Transition, concludes that: 1) Regions undergoing industrial transition need to help workers to transition to future-oriented jobs and firms to embrace the digital economy 2) Regional policymakers should also aim to strengthen networks between industry, research, public services, and civil society, 3) Industrial transition should aim to be just and inclusive (OECD, 2019).

However, there is still no clear definition and operationalisation of these policies, still just drafted, which may simply result in policymakers' wilful wishes, but which must land in initiatives with impact and results.

¹ <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1593086905382&uri=CELEX:52020DC0102>

The objective of this short research is to briefly review the state of the situation, by answering these questions: in this context of the industrial transition in Europe, are the social problems that can generate the impacts of the industrial policies being addressed and mitigated? Are they general approaches, or are steps being taken to put them into practice? Ultimately, the underlying question is whether the industrial transition processes currently being planned will lead to a decrease in inequalities in the EU.

It is a brief analysis of the state of the art, a qualitative research with a hermeneutic approach, which aims to systematize and describe existing knowledge, currently under-researched, making a diagnosis and recommendations for public policy. In this sense, our brief investigation contributes to show the situation of these policies in terms of their social implications, favouring their implementation and operationalisation. At the same time, it can serve as a wake-up call to decisively consider these needs, prompting to address them in a clearer, more concrete and feasible way.

Testing new approaches to address the EU industrial transition

Since 1988, the EC has adopted policies for territorial cohesion, which imply the definition of a long-term development strategy to address the inefficiency and inequality in certain territories through the production of place-tailored public goods and services (Nosek, 2017). The Principle of Cohesion (of reducing disparities in economic performance and opportunities, among European regions) provides a central narrative to EU policies, particularly since the inclusion of the territorial cohesion goal into the Lisbon Treaty. European cohesion policy eschews the idea of trade-offs between efficiency and equity, minimizing disparities and avoiding marginalization (Fonseca, Lukosch & Brazier, 2019) and maximizing overall growth, while also achieving convergence in outcomes and productivity across Europe's regions (Farole, Rodríguez-Pose, & Storper, 2011). Cohesion policy has historically been assigned three objectives: equity, growth and legitimacy. It has played a very notable role in recent years in promoting the sustainable industrial transition in the EU.

The formal and legal recognition to prioritize the “visions of the Territorial Cohesion Policy” came in order to promote a general harmonious development, while reducing the disparities between the levels of development of the different regions of the EU, and the common assumption of a new “era for territoriality” of the European Cohesion Policies (Faludi, 2016; Medeiros, & Rauhut, 2020), despite the fact that some authors consider that it has recently lost momentum as a research topic (Zaucha & Böhme, 2020).

In any case, cohesion policy is the main policy instrument of the EU to tackle structural changes in the industrial and energy sectors. Smart specialization strategies and support from the European Regional Development Fund (ERDF) are at the heart of this approach (Murzyn, 2020). These regional strategies play a fundamental role in supporting the job creation and the promotion and diversification of value chains. The commitment with territorial cohesion has been further reinforced in the European Territorial Agendas betting on inclusive, sustainable, smart Europe (Navío-Marco, Rodrigo-Moya & Gerli, 2020). On the other hand, after three decades of neoliberal reforms, the 2008 crisis promoted a revitalisation of the industrial policy (Pichler et al, 2021; Wigger, 2019), becoming relevant in the “Europe 2020” strategy, as can be observed from the abundant initiatives and communications (European Commission, 2010, 2012, 2014, 2017a, 2017b,

2017c), and reinforced during the Von der Leyen era (European Commission, 2020a; 2020b).

The advent of Industry 4.0 has also altered the scenario. Industry 4.0 implies the adoption in the industrial sector of technologies that have emerged and diffused in recent years, from a variety of digital technologies such as 3D printing, the Internet of Things (IoT), and advanced robotics, to new materials such as bio- or nano-based, to new processes such as data-driven production, cybersecurity, artificial intelligence (AI) and synthetic biology (OECD, 2017). Industry 4.0 involves the adoption of new technologies but also the adoption of the appropriate skills, know-how, and organisational forms to fully exploit these new technologies. This implies relevant social, cultural and economic changes (de Falco, 2019). These impactful changes, and their corresponding policy responses, have led the European Commission to introduce the concept of Industry 5.0 (European Commission, 2021) that complements the existing Industry 4.0 paradigm by highlighting research and innovation as drivers for a transition towards a sustainable, human-centred and resilient European industry. Industry 5.0 attempts to capture the value of new technologies and place the well-being of the industry worker at the centre of the production process.

In this context, new approaches for industrial transition are emerging that promote the creation of new jobs, the diffusion of innovation, entrepreneurship, the most inclusive environmental and energy transitions possible (OECD, 2019). To progress in the transition, the EC has initiated several pilots to test new policies, dealing with these transitions (European Commission, 2019). The Pilot action on Regions in industrial transition began in 2018 to encourage the development of new approaches when working on the issue and to collaborate with these types of regions in their transition towards greater growth and productivity. Ten regions and two small Member States were chosen to work with the EC's Directorate-General for Regional and Urban Policy and a team of experts to promote their transition in 5 areas: 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, and 5) Promoting inclusive growth.

At the same time, there was a desire to test different approaches and instruments that would help these regions and allow the Commission to define more innovative policies with a broader impact for the whole of Europe. The spirit was to promote joint learning and sharing of best practices in the implementation, governance and monitoring of innovation policies. These pilots will help to test new approaches for industrial transition and can provide the EC with evidence to underpin 2021-2027 initiatives.

In addition to establishing connections and collaboration with other regions and partners, the objective is to define an initiative in the context of its regional smart specialisation strategy, clusters and industry digitisation plans to drive the required regional industrial transformation.

After a double call, the EC selected the pilots included in Table 1. This table includes also the main objectives of each pilot.

Region	Pilot objectives
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Norra Mellansverige (North-Middle Sweden)	The pilot includes the launch of a transition lab to design and support the transition process. Workshops will be organized, and an innovation seed fund will be created to initiate collaborative R&D and innovation projects, related to the circular and low-carbon economy.
Piemonte (Italy)	Promotion of open innovation and financing mechanisms for innovation. New ideas for the management and financing of local industrial clusters will be tested. Promotion of the diffusion of innovation.
Saxony (Germany)	Investigation of new business models to support the decarbonisation of the regional automotive industry.
Wallonia (Belgium)	New solutions testing for the circular economy of plastics. Promotion of entrepreneurship and PPP for circular economy.
Cantabria (Spain)	Social inclusion through technological upgrading in the primary sector (agrifood). Test models of inclusive innovation and capacity development to mitigate the social impacts of the industrial transition. Special attention on reskilling and support for groups at potential risk of social exclusion.
Hauts-de-France (France)	Taking account technological (digitalisation, industry 4.0) and market (positioning in global value chains) perspectives by testing a mix of advisory services and vouchers.
Centre Val de Loire (France)	Support to SMEs to identify their recruitment needs, provide coaching, and help defining human resources strategies.
East-North Finland	Test a cross-regional voucher system. Via these vouchers SMEs and medium-sized firms can increase their innovation capacities in the agro-forestry sector.
Grand-Est (France)	Establish a testing hub for solutions for the energy transition in local companies towards a low-carbon economy.
Greater Manchester (United Kingdom)	Test a “Good Employment Charter” to improve productivity, payment and job quality, in retail and social care, among other sectors.
Lithuania	Develop a circular economy roadmap throughout the national industry
Slovenia	Establish a collaborative online and physical platform for industry 4.0., including cybersecurity, cloud computing, big data or robotics

SOURCE; own elaboration based on:

https://ec.europa.eu/regional_policy/sources/docgener/brochure/Industrial_transition_no_region_left_behind_en.pdf
<https://www.pubaffairsbruxelles.eu/commission-presents-results-of-initiative-supporting-regions-in-industrial-transition-eu-commission-press/>

These pilots are aligned with the objectives set for industrial transition. Specifically, two of them, Cantabria and Manchester, focus more clearly on projects of a social and inclusive nature. Also Center-Val de Loire proposes a project related to relevant skills, training and education. The specific results of these projects are still under evaluation.

Other related initiatives proposed by the EC are 1) the pilot action “Coal Regions in Transition”: As coal production and consumption is declining, the cohesion policies could support the development of appropriate regional solutions for a fair and efficient clean

energy transition. The pilot tries to support these regions to plan the structural changes in their energy transition and face their impact; 2) the pilot action “Creating new value chains through interregional investment in innovation”: By promoting the interaction and joint work of companies, researchers, public authorities and teams that work in regional smart specialization, it is possible to generate new value chains that allow them to compete and innovate in the EU single market. The Commission has selected nine interregional associations to move in this direction with the help of experts.

Discussion: the need to operationalize the social approach

The EC's approach to testing new initiatives to tackle new problems using multiple pilots seems positive, although it is difficult to find and define new policies and instruments with the necessary impact, which have not been applied so far. In fact, the use of policy pilots² is in common use in US, China and very popular in other Asian countries (Ko, & Shin, 2017) and responds to a certain interest in evidence-based policymaking, an approach used in the UK since the late 1990s.

In the pilots, it is important to consider that their duration is different from that of the use of an instrument or policy and may not reflect their true results within the established deadlines. Furthermore, it is difficult to isolate their impacts, for evaluation, from other external effects. Equally, the scope is different. It is required to adopt a fully-fledged strategy, including mission, timeline, adequate governance, and key performance indicators to measure and track progress.

Sanderson points out (2002, p.13) “the endemic problems that exist in seeking to obtain sound and convincing evidence of the impact of piloted policy initiatives, together with the uncertain role of research and evaluation in informing key policy commitments, raise doubts about the role of pilot programme evaluation”. This author advocates developing a solid evidence base for policy through long-term theory-based impact evaluations of policies and programmes.

On the contrary, we agree with Ko and Shin (2017) that this type of pilots can be useful for pragmatic policymakers that could limit the rigor of the experimental design of the pilot, in order to increase its implementability and usability, for political and practical consideration. Policy pilots are just part of policy process, not a determinant of policymaking. Considering the EC policy style (Tosun, & Debus, 2021; Howlett & Tosun 2019) more prone to anticipation and consensus, and based in multilevel governance, this can be a good approach to align all parties while working on a definition based on some evidence.

In any case, since the results of the pilots will lead to a broad definition of policies for the European regions, a fundamental aspect is how to operationalize these outcomes, or how their results can serve to put a policy into practice. We consider that is required:

- 1) Work on the policy implementation and policy diffusion in a holistic, theory-based, systematic way

² A policy pilot is “a small-scale project to measure or observe the specific impacts or mechanism of policy implemented under the well-designed plan. It is designed in advance to a full-scale policy implementation facing the high level of uncertainty” (Lee, Jung, & Lee, 2009).

Long research has demonstrated that there are many models for policy implementation as well as several different models that theorize policy failures (see Signé, 2017, for a review). The seminal framework of analysis of Sabatier & Mazmanian remarks that it is not only about the ability of the institution to implement it, but there are also non-statutory variables involved in the implementation (attitudes, socio-economic situation, media attention, among others) and also the need of the compliance of target groups. Policymakers need to consider a) the policy outputs (decisions) of the implementing agencies; b) the compliance of target groups with those decisions; c) the actual impacts of agency decisions; d) the perceived impacts of those decisions; and finally, e) the political system's evaluation (Sabatier & Mazmanian, 1980).

The mechanisms for policy diffusion should be also considered to establish the best mode of operation to promote policy adoption (see Shipan and Volden 2008, Gilardi & Wasserfallen, 2019, for comprehensive views of the policy diffusion theories). The new industry policies require a shift in thinking from “spending” to “supporting” this type of transition. There is an urgent need to bring together all relevant stakeholders and their knowledge, engaging them through information sharing, consultation and participation, as well as active and clear communication. But there is a danger of working in silos, both within the European institutions and between the different administrations, coordinated under the principles of multilevel governance. These create a complex EU policy field with a certain number of objectives that are not necessarily mutually consistent. Following Aiginger and Rodrik (2020), we consider that the industrial policy should not be an isolated policy that stands in conflict with other policy strands like competition policy, trade policy, regional, or tax policy. Successful industrial policies maximize synergies with other policies. Policy makers must be especially vigilant in keeping coherence and mutual enrichment of the different policies.

2) Considering the spatial dimension is key

Lee & Ma (2020) after studying different Policy Labs in policy experiments and knowledge transfer, comparing cases from United Kingdom, Denmark, and Singapore, conclude that evidence-based policy must be customized into local circumstances, particularly political regimes and social culture. Even if a policy pilot succeeds, it is not always possible to transfer its positive outcomes into other areas as Ko & Shin (2017) already indicated.

On the other hand, previous investigations have pointed out that the operationalization of territorial cohesion might be easier and more efficient on a smaller scale (Zaucha & Böhme, 2020). We agree with Rauhut and Humer (2020): Social and sustainability issues are anchored on a local level. Smart specialization strategies, applied in all European regions, are inherently more suitable for urban, industrialized, and institutionally thick regions, and institutionally and economically more complicated for peripheral regions (Rauhut, & Humer, 2020; Capello & Kroll, 2016). In particular, for industrial transition OECD (2019) also considers that a strong regional and place-based dimension is key. In any case, the sectoral implications have to be also considered. A potential problem could be the relative lack of focus on specific problems of sectoral readjustment, when applying horizontal geography-based measurements (Ferner, Keep & Waddington, 1997).

We perceive, therefore, the need to "get down to the ground" when proposing these new policies. Not only because of the diversity of the cases and the peculiarities of each region in transition, but also because of the need to implicate the specific actors and target groups that should be involved with the change.

3) The involvement of all the parties is key:

Policy interventions should encompass maintaining low-skilled people in the labour market and supporting a transition from low-wage jobs to middle- or high-wage jobs, in particular through training and education (Breemersch, Damijan & Konings, 2017; OECD, 2019). As Silva, Pires and Teles (2021) suggest, lagging regions should target technological employment through policies that increase the availability of human capital, private investment and public-private partnerships. Now, in this change, the workers, but also the employers, must be involved and convinced. We agree with Fitjar and Rodriguez-Pose (2011): incumbent local players may have fewer incentives to change current production outcomes and processes, so their involvement has therefore to be reinforced. In addition, the specific support of associations, local work groups and collaboration networks can be useful, together with initiatives to involve employers in requalification practices to promote quality employment.

Conclusions

The revival of industrial policies in Europe brings with it the specific treatment for those regions that lag behind, that need more attention and momentum in their industrial transition. In these regions, the need to consider the social component seems especially evident, especially considering their starting conditions. The EC has initiated various policy pilots to define several lines of action, but there is still a long way to go until they can be put into practice throughout the EU, and even more until results are achieved.

In this brief investigation, we have reviewed the state of the art of this relevant matter and how it has been reflected in the scarce academic literature. We have also proposed some agenda indications to facilitate its launch. We have highlighted the need for an increasingly local and specific approach in the definition and implementation of policies, involving local and regional actors. The most effective and efficient policy program for an area is highly place- and context-specific. Ensuring that the potential offered by spatial linkages is fully utilized can enhance productivity and reduce spatial disparities. When it comes to a transition that concerns people, it is necessary to involve them and motivate them towards that necessary change. The definition of external policies without considering their reality, their wishes and expectations, is of little use. Moreover, it is necessary for the employers to embrace the need for change, as for the rest of the actors who are an interested party in the change scenario.

We agree with Aiginger and Rodrik (2020): the contemporary conception and practice of industrial policy is much less about top-down incentives and much more about establishing a sustained collaboration between all the parties, both the public and private sectors around issues of productivity and social goals. Industrial policies can be a form of social development, not just economic. But the trade-offs between economic growth and inclusion will inevitably arise and need mitigation. An appropriate policy mix is required. Policies for comprehensive collective wellbeing are necessary to complement policies for economic development. The adequate policy mix depends on the constitutive and institutional features of regional societies and can be reflected in their transformative public-civil collaboration dynamics (Ahedo & Belzunegui-Eraso, 2020). As indicated by Lipps and Schraff (2020), the way in which these inequalities are addressed in the regions will condition the institutional trust in the European authorities.

Some of the essential ingredients identified here: a territorial and integrated focus, the use of local resources, the involvement of affected employees and stakeholders, and local contextualisation through active public participation, are elements already present

in the policies of (neo) endogenous rural development, such as LEADER program (Gkartzios and Lowe, 2019) that can be of inspiration for the definition of policies also in the industrial field.

The initial exploratory nature of this brief research is *per se* its main limitation, but this preliminary status opens up new avenues of investigation, as it is one of the first dedicated to social aspects in European regions in industrial transition. Future research will have to look more closely at the impact of these initial actions, and investigate how to bring industrial transition policies closer to the specific needs of each territory, involving all stakeholders. Ultimately, it will be necessary to verify whether these policies lead to a reduction in regional disparities and an increase in territorial cohesion. A better understanding of the main areas, regions or sectors where the activation of policies that mitigate the social impact is of the utmost urgency and can be an immediate way of working. Likewise, its link with the sustainable development goals (SDGs) is another new line of research, and particularly SDG8 (Promote sustained, inclusive and sustainable economic growth) and SDG9 (sustainable industrialization).

Ultimately, our work is an invitation to accelerate the implementation of these policies. There is a long way to go, but we are positive about the steps taken. In the background, the spirit that illuminates the work of the EC is a commitment with the European citizens, both to involve them and to respect their rights, and to train them at a time when new digital skills are key. This deep ethical and social commitment is enlightened by the founding principles and fundamental values that govern the European Union, making Europe a more sustainable, civic and liveable space for coexistence, also for the future.

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