

Introduction

This document provides an overview of the aims, structure and activities of an expert working group on *Understanding and Managing Industrial Transitions in Lagging Regions* (Managing Industrial Transitions). This is one of the horizontal support activities carried out by JRC, with the support of selected external experts, as part of the European Parliament Preparatory Action (PA) on RIS3 support to lagging regions.

This PA is implemented via an administrative agreement (AA) between JRC and REGIO. The activities of this AA are aligned with the proposed enabling condition for good governance of smart specialisation.¹ Seven fulfilment criteria have been proposed for this enabling condition, and this activity relates particularly to criterion no. 6 "actions to manage industrial transition."

Context

The Territorial Development Unit of the European Commission Joint Research Centre provides evidence-based strategic intelligence to support research, innovation, and education policy making at EU, national and regional levels. The project "RIS3 Targeted Support to Lagging Regions", now in its second phase ("Lagging Regions 2"), aims to support selected slow growth and low income regions in nine EU Member States in the implementation of their smart specialisation strategies (S3).

More specifically, Lagging Regions 2 includes a horizontal activity on "Managing Industrial Transitions". This aims to support regional (and where appropriate national) authorities facing major industrial transitions, away from declining sectors and activities and charting actionable paths towards employment-intensive economic growth. For many European regions deindustrialisation has been and remains a significant challenge, as acknowledged by the DG REGIO Pilot Action: Regions in Industrial Transition². Globalisation and integration into international markets did not lead to even and sustainable increases in productivity and income levels. In the absence of clear paths for structural change, the withdrawal of internationally uncompetitive industry led to increasing dependence on low productivity agriculture and low-value-added services. Industrial transitions in these regions have often been accompanied by outward migration or mass exits from the labour market, particularly among more experienced workers. Many other industrialised European regions currently face sharp changes in external conditions that are testing their capacity to respond. These include economic challenges stemming from a resurgent globalisation, technological challenges such as digitisation and labour-substituting automation and environmental challenges, such as the phasing out of coal mining in response to climate change.

Smart specialisation strategies can play a central role in responding to deindustrialisation. Work under the Lagging Regions project explores how best to support regions in better tailoring S3 to the specific challenges of industrial transitions. Research, innovation, but also education and (re-)training are essential elements of successful industrial modernisation. However, industrial transitions additionally require provisions for large public infrastructures (e.g. in transport, energy distribution, waste management), legislation and (de-)regulation (including land use, and for industries at the forefront of technological developments), fiscal policy and social security reform, among others. Therefore, this activity also examines suitable extensions and adaptations of the scope of policy-making in support of the transition, to potentially include areas other than research and innovation. As this will entail a broad

¹ Annex IV of COM(2018) 375 final, p. 19

² https://ec.europa.eu/regional_policy/en/information/publications/factsheets/2018/pilot-action-regions-in-industrial-transition

range of industrial policy actors and instruments, closer alignment and coordination between different government departments and levels of governance will be essential.

Objectives and scope

The core activity of "Managing Industrial Transitions" is the establishment and operation of a dedicated Working Group (WG) on understanding and managing industrial transitions in lagging regions. Its key objective is to work towards the development of an integrated policy framework in support of industrial transitions and provide appropriate lessons for the revision and extension of S3. Important elements of this work may include the following:

- Support of regional responses to global impulses for change such as (but not confined to) the *electrification of transport, renewable energy, climate change, circular economy, artificial intelligence and digitisation*, focused on responses that maximise opportunities for business development and participation in global value chains and for sustainable consumption³.
- Drawing from established policy practice in the foresight community, at the centre of the approach to transitions adopted in the Working Group is the development of *credible positive visions* for the future that can be the source of pride and inspiration for the region (or country) and a rallying point for the mobilisation of actors and resources from all levels.
- Support of the transition away from unsustainable sectors, including consideration of the role of research and innovation, large technical infrastructures (e.g. in energy and transport), training, education and education system interventions, social security systems, support for employment and worker relocation, environmental remediation and urban planning (among others).
- In terms of approach, the Working Group places particular emphasis in the development of evidence and, in particular, the quantitative measurement of specific aspects of the transition (e.g. investment costs, key performance indicators) and the relational and qualitative understanding of particular issues in its governance. The approach acknowledges the importance of evidence in providing appropriate support to decision makers at all levels.
- A thorough understanding of the relationships and interdependencies within and between *existing* production and consumption systems, contrasting them to *desirable* configurations in support of the transition. It is proposed to do so by reviewing existing systems and understanding their capacity for change. This can be the basis for further analytical work, such as modelling transition paths, costing interventions, exploring possible ways of financing them and elaborating proposals for pilot actions. Evidence of this kind will inform the revision of S3 and of the modalities of its implementation in participating regions (e.g. the Entrepreneurial Discovery Process, S3 governance and monitoring systems, policy mix).
- Governance solutions that extend S3 to allow for whole-of-government mobilisation, including between ministries and agencies outside the traditional science, research and innovation governance domains (notably support for industry and employment of all kinds, large scale infrastructures), at all levels of governance (national, regional, provincial/municipal and coordination with activities connected to relevant UN Sustainable Development Goals); explicit consideration given to complementarities in non-R&I public investments and to the sequencing of interventions. The approach of the WG further acknowledges the role of wider stakeholders in its governance and of the need to build support coalitions for the transition by consumers in particular.
- Consideration of and co-definition, in collaboration with the relevant authorities, of possible support instruments that reinforce the legitimacy of the transition and foster virtuous cycles between emerging and declining sectors. Among others these may include instruments in the areas of stakeholder engagement (e.g. strengthening support coalitions among consumers and users, involving law makers/parliamentary committees), human resource development and training (e.g.

³ Possibilities for more specific transition themes (besides those mentioned above) may include technologies and economic activities of close relevance to the EU's strategic value chains, or those described in Important Projects of Common European Interest (IPCEI).

placements, subsidised employment/mobility of workers), finance (government-backed loans, leveraging financial markets), investment (e.g. public-private partnerships), and fiscal policy (transition-specific tax and spend instruments).

Membership of the JRC Working Group on Managing Industrial Transitions will comprise experts in thematic innovation policy, industrial policy, the governance of innovation, systems modelling and in system innovation (or the management of transitions), working jointly with and under the overall direction of the JRC, to enhance collective understanding of transition challenges and develop appropriate regional responses in the context of S3. In addition, experts will be engaged to support JRC in the coordination and operation of the WG, including the organisation of a series of meetings, mobilising experts and other relevant stakeholders, combined with both desk-based research and fieldwork. A series of expert contracts will include the following core support activities:

1. **Coordination of the activities of the Working Group**, including support for the preparation and smooth delivery of events and activities aiming to enhance understanding of transition challenges and disseminate appropriate policy-making perspectives and lessons.
2. **Preparation of transition reviews in up to 3 regions** (or combinations of specific regional/national contexts) including an overall assessment and policy recommendations for adapting S3 in the region, wider system reform and coordination and a recommendation for further activities (e.g. a pilot action).
3. **Preparation of up to 2 studies of horizontal transition challenges**, forming the basis for guidelines for regions on how to adapt S3 to the transition needs (ensuring compliance with "good governance" criterion 6).

Approach

In working towards its stated aims, Lagging Regions 2 seeks to foster close and sustained commitment of RIS3 stakeholders at national and regional levels. A key role of the JRC is to act as a facilitator, enabling stakeholders to interact and work together. For this particular working group, extending the group of stakeholders beyond the traditional governance domain of science, technology and innovation is a particular novelty and challenge.

Experts are expected to support the JRC in a range of activities. This will involve contacts with various stakeholders, preparation of and participation in JRC-led meetings and events, collection and analysis of relevant evidence related to the industrial transition and RIS3 implementation at national and regional levels, and the preparation of project documentation. The experts will also engage with each other, as well as with experts and stakeholders involved in other relevant JRC activities. Expert activities are grouped under the following three work packages.

Work Package 1: Coordination of the activities of the Working Group

This Work Package concerns the coordination, documentation and dissemination of the activities of the Working Group. This entails working closely with the JRC in steering the activities, in identifying appropriate sources of expertise for specific tasks, and in supporting the smooth implementation of evidence collection and analysis.

This Work Package also includes coordination of the **Advisory Board of Experts**. The Advisory Board of Experts will help steer, validate and disseminate the work of the Working Group and will comprise up to six regular members, combining a broad range of experience and skills relevant to the place-based management of transitions. The Advisory Board of Experts will convene in each of the three plenary meetings of the Working Group foreseen for the duration of this contract to actively discuss and provide suggestions for the improvement and dissemination of the analytical work of the Working Group. Members of the Advisory Board of Experts may also review and/or contribute to analytical work done under other Work Packages.

Work Package 2: Preparation of up to 4 regional transition review reports

This Work Package will review up to 4 regional (or as appropriate combination of regional and national-level) transitions in detail and document each of them in publishable reports following a common structure and methodology. The choice of the specific transition themes (e.g. climate change, electric mobility, circular economy or others) will be agreed with regional (or, where appropriate, national) authorities.

Each report will be the product of thorough review (including, where appropriate, by way of a fact-finding mission in the region), dedicated contributions by appropriately qualified international experts in the specific challenges of the transition and thorough system analysis by the contractors in collaboration with the JRC. The relevant contractor(s) will work closely with the JRC and relevant stakeholders to organise and participate in fact-finding missions to map existing production and consumption systems (stakeholders, markets and technologies) and understand the rationales, drivers and bottlenecks of the transition.

Each report will provide an overall assessment and policy recommendations for S3 adaptation and for wider system reform, coordination and funds mobilisation. To ensure relevance and timely impact the policy recommendations will be drafted and revised in close collaboration with the relevant authorities.

Each report will also develop, in close collaboration with the regional (or national) authorities, a recommendation for a pilot action that advances the causes of the transition or tackles a key bottleneck. The pilot actions are envisaged to be small scale and allow for experimentation in terms of approaches, technologies or market niches. The pilot action should be in area with high spillovers (e.g. infrastructure or public procurement), so that, if successful, it could be potentially scalable throughout the region/country and/or replicable in other countries. The pilots may also include international or cross-regional collaborations in activities of high-relevance to the transition.

Work Package 3: Preparation of targeted studies of horizontal transition challenges and guidelines for regions.

This Work Package concerns the preparation of targeted studies (up to 2) of horizontal transition challenges and a policy brief with key messages and guidelines for regions.

The targeted horizontal studies will be based on an original analysis of a major policy challenge for regional (and where appropriate and relevant for S3 national) policy makers. In addition to possible original data collection (e.g. surveys), the studies will be largely based on desk research (including, where appropriate analysis of statistical and administrative data and, where possible and appropriate, system dynamics modelling) and may partly draw and synthesise evidence produced in the course of the transition reviews (foreseen in Work Package 2). As horizontal work partly depends on the results and experience gathered from other activities of the Working Group, this work is scheduled to start after the second meeting of the Working Group. The precise topics and focus of the horizontal studies will be decided by the JRC working in close collaboration with the Chair (Ken Guy) and the Rapporteur (Prof. Erik Arnold) and taking due account of input by the Advisory Board of Experts and other members of the Working Group. A non-exhaustive list of possible topics for the horizontal studies may include (though are not constrained to) the following:

- Guiding principles on system reform in support of industrial transition
- Modelling and costing socio-technical transitions
- Administrative reform and other actions necessary to reconfigure the system
- Understanding and Managing Resistance to Change
- Guidelines for whole-of-government coordination
- Building stakeholder support coalitions
- Developing desirable, feasible and credible positive visions to guide a transition
- Mobilising financial sources and instruments in support of the transition
- Developing cost-effective, high-impact and scalable policy experiments

- Overview of global market, scientific and technological opportunities and regional challenges in one (or combinations thereof) of the following socio-technical transitions: electric transport, low-carbon energy transition, the circular economy, digitalisation/artificial intelligence, climate change adaptation and risk management.
- Understanding and developing rationales for the transition