European Commission

European Observatory for Clusters and Industrial Change

Policy Briefing – Saxony

This policy briefing report was carried out for the European Commission by

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Selection as one of 10 regions in industrial transition

The customised advice on modern cluster policy in support of industrial modernisation provided to the 10 regions in industrial transition is funded by the Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs (DG GROW), as part of the European Observatory for Clusters and Industrial Change (EOCIC). The regions were selected as a result of an open call for expression of interest, published and assessed by the Commission services. The Commission launched a first call for expression of interest on 29 September 2017 and, as a result of demand from regions, a second call was launched on 14 December 2017.[1]

The following regions were selected[2]:

- Cantabria (Spain)
- Centre Val de Loire (France)
- East & North Finland
- Hauts-de-France (France)
- Lithuania
- North-Middle Sweden
- Piemonte (Italy)
- **Saxony (Germany)**
- Slovenia
- Wallonia (Belgium)

The aim of the work being provided by the EOCIC to 10 regions in industrial transition is to define a set of actions in the form of a comprehensive strategy to foster regional economic transformation, identify collaboration and funding opportunities and connect with other regions in regional and cluster partnerships.

This pilot will help test new approaches to industrial transition and provide the European Commission with evidence to strengthen post-2020 policies and programmes.

The output of the first phase of the EOCIC advisory services was an assessment report, which summarises the key challenges of industrial modernisation for the region and the potential policy directions. The second phase of the EOCIC advisory services will build on this report to develop concrete policy proposals for each industrial transition region. DG GROW and the EOCIC are working closely with the Directorate-General for Regional and Urban Policy (DG REGIO) and the OECD to provide advice services for the pilot regions.

More information on the activities carried out by the EOCIC is available at the end of this report.

[1] Details on the selection procedure are available at: https://ec.europa.eu/regional_policy/en/policy/themes/industrial-transition/

[2] 12 regions were initially selected for the overall process of the project on pilot regions in industrial transition, of which 10 then engaged with the project through to the final stages of the work carried out by the EOCIC.

1. Introduction

1.1. Aims and objectives of the exercise

The aim of the work in Saxony is to **support the regional authorities and stakeholders in defining a strategy that facilitates the industrial transformation of the region**. In the case of Saxony, the EOCIC work was carried out in co-operation with the Saxon State Ministry for Economic Affairs, Labour and Transport (SMWA), the AMI[3] expert – also funded by the European Commission – and the work of the OECD on Regions in Industrial Transition.

This document builds on the assessment report to summarise the challenges, barriers to and drivers for industrial modernisation in Saxony, before outlining a regional strategy for industrial transformation and a specific policy action together with a roadmap and an action plan.

The report is based on extensive desk research, a large number of interviews, a study visit in Dresden and Leipzig (18 and 19 June 2018) and a policy review meeting in Leipzig (6 February 2019). Throughout the process, there has been close co-ordination of regional meetings, research and outputs between the EOCIC team and the SMWA. It is estimated that more than 50 regional stakeholders were reached directly via the study visit, policy review meeting and interviews.

The briefing provides input for a regional strategy focused on a "managed industrial transition"[4], based on the insight that different regions across Europe are characterised by different assets, strengths and weaknesses, and that they face different obstacles and threats that need to be overcome. A tailored approach is adopted that builds on existing resources. It places considerable emphasis on generating and maintaining political commitment for the proposed activities.

[3] External experts contracted by DG REGIO to provide support to the pilot regions in industrial transition.

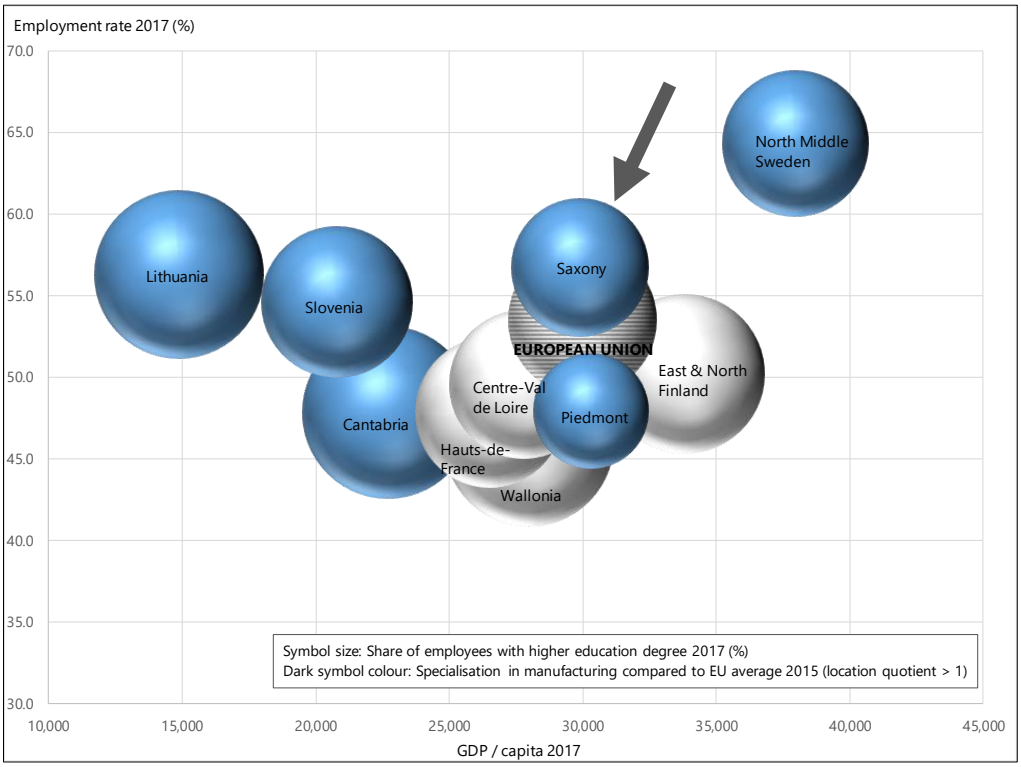
[4] Huguenot-Noël, R. et. al., *How do industrial transitions succeed? Transatlantic considerations on drivers for economic development*, 2018. Available at: https://www.epc.eu/documents/uploads/pub_8924_industrial_transitions_succeed.pdf?doc_id=2090.

1.2. Key economic and innovation indicators for the pilot region

In 2017, Saxony had a gross domestic product (GDP) of EUR 29,900 per capita, which is slightly below the EU level of EUR 30,000 and below the national figure (EUR 39,600). Compared to the other nine pilot regions, the German pilot region ranks fourth after North Middle Sweden, East & North Finland, and Piemonte.

Figure 1 combines selected economic indicators for the 10pilot regions. It clearly shows Saxony's relatively good position in terms of its employment rate (56.7%); Saxony ranks second after North Middle Sweden. In terms of economic strength – measured as GDP per capita – Figure 1 shows that Saxony is above the median of the pilot regions. With 29.4% of employees with a higher education degree, Saxony ranks ninth among the pilot regions and has a below-average level of highly educated employees compared to the EU average (34.4%), but a slightly above-average share compared to the national rate (28.9%). Both Germany and Saxony specialise more in manufacturing compared to the EU: Germany's location quotient is 1.4220, and Saxony has a specialisation quotient of 1.2888.

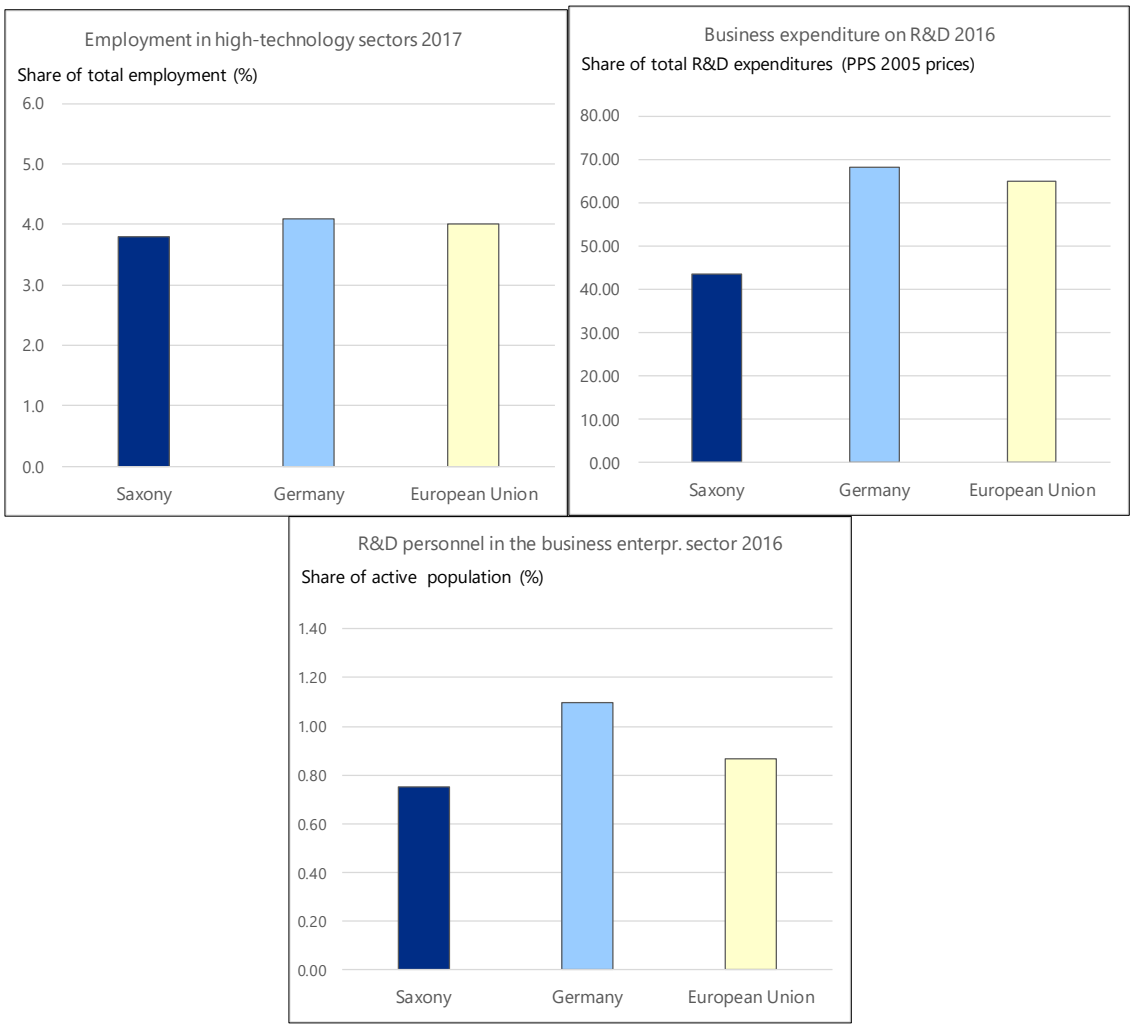
Figure 1 - Selected economic data for the 10 pilot regions: GDP/capita, Employment rate, Share of employees with higher education degree and Specialisation in manufacturing



Source: EOCIC, based on Eurostat data and own calculations

Saxony's share of employment in high-technology sectors (high-technology manufacturing and knowledge-intensive high-technology services) is slightly below the national and European levels. The business enterprise sector in Saxony spends a lower percentage of total business expenditure on research and development activities than enterprises in Germany and the European Union. The proportion of Saxony's R&D personnel in the business sector is also below the national and the EU levels (figure 2).

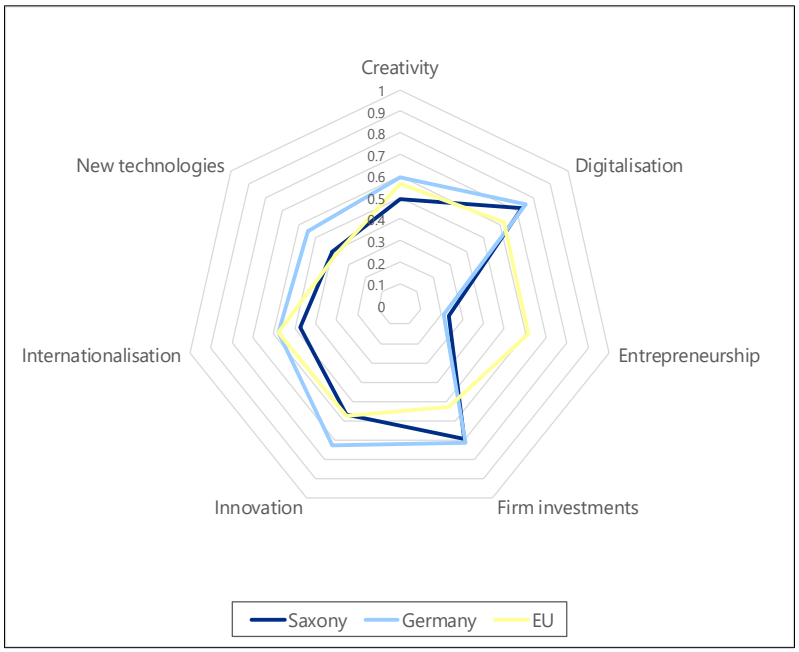
Figure 2 - Selected technological indicators for Saxony



Source: EOCIC, based on Eurostat data and own calculations

In order to provide insights into industrial modernisation, the European Observatory for Clusters and Industrial Change (EOCIC) provides composite indicators on seven dimensions: Evolution towards a more innovative regional economy; New and emerging technologies; Digitalisation; Firm investments; Internationalisation; Creativity; and Entrepreneurship. Each dimension is represented by a set of specific indicators, which are condensed to a composite indicator. Figure 3 presents the results for those seven dimensions in Saxony. For digitalisation and firm investments, Saxony's score is slightly below the national level, but exceeds Germany's score on the entrepreneurship dimension. The German pilot region exceeds the EU level in digitalisation, firm investments and new technologies, but remains below the European scores on entrepreneurship, internationalisation, creativity and innovation. Saxony achieves its highest scores for digitalisation and its lowest score for entrepreneurship, where it has the lowest value of all the ten pilot regions.

Figure 3 - Composite indicators for Industrial Change: Saxony

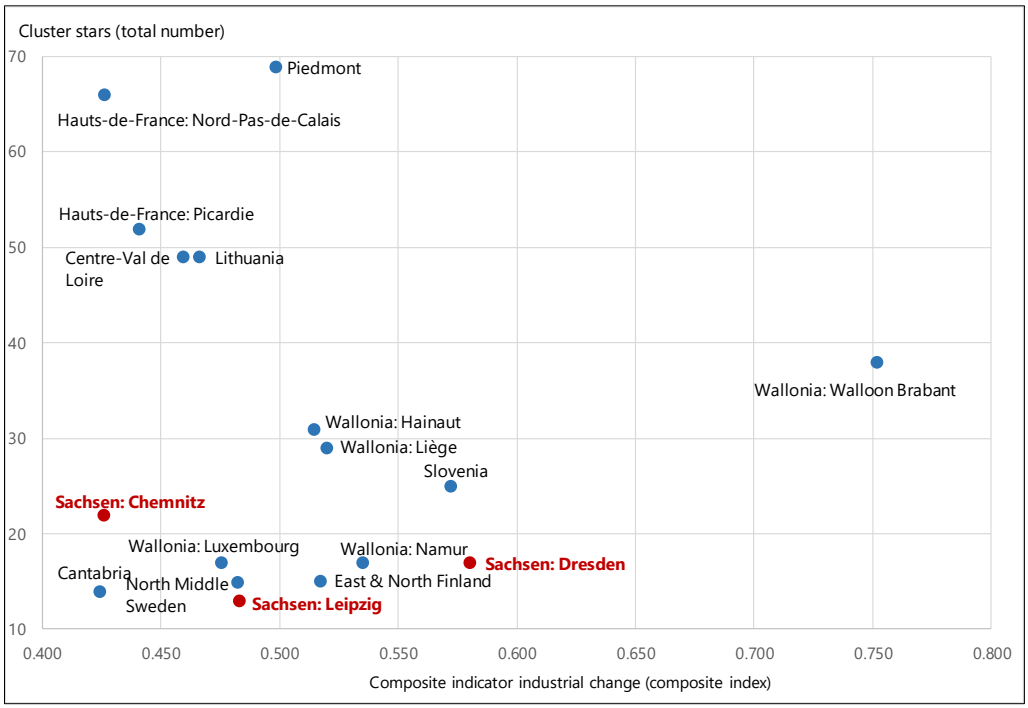


Source: EOCIC, based on various data sources and own calculations

Figure 4 shows the most recent total composite indices for industrial change and the total number of clusters stars in the pilot regions (NUTS2 level). The composite indices show industrial change in a range between 0.4 and 0.8, and the total number of cluster stars in a range between 10 and 70 in the 10 pilot regions. Five NUTS 2 regions have 45 or more cluster stars. Piemonte is the clear leader (69 stars). With 49 cluster stars, Lithuania also belongs to this group. By contrast, various regions have 20 or fewer cluster stars – among them North-Middle Sweden (15 stars). Figure 4 also shows that the industrial change ranking is led by Walloon Brabant: on a scale of 0 to 1, this NUTS 2 region has a score of 0.751.

Mapping the pilot regions' industrial change and cluster stars reveals three different types of region: (1) high number of cluster stars, but moderate composite index of industrial change (below 0.5) (Piemonte, Nord-Pas-de-Calais, Picardie, Centre-Val de Loire, Lithuania), (2) regions with moderate figures for both indicators (below 35 cluster stars and composite indexes of industrial change below 0.6) (Hainaut, Liège, Slovenia, Dresden, Namur, East & North Finland, Leipzig, Luxembourg, North Middle Sweden, Cantabria, Chemnitz), and (3) Walloon Brabant (composite index of 0.75 and xxx cluster stars. In the second group, Hainaut, Liège and Slovenia stand out from the other regions due to the higher numbers of cluster stars. In part, this is also the case for Chemnitz, but it has a lower index for industrial change. Various regions have 20 or fewer cluster stars - among them Dresden (17 stars) and Leipzig (13 stars).

Figure 4 - Composite indicator industrial change (total index) and cluster stars (total) for pilot regions



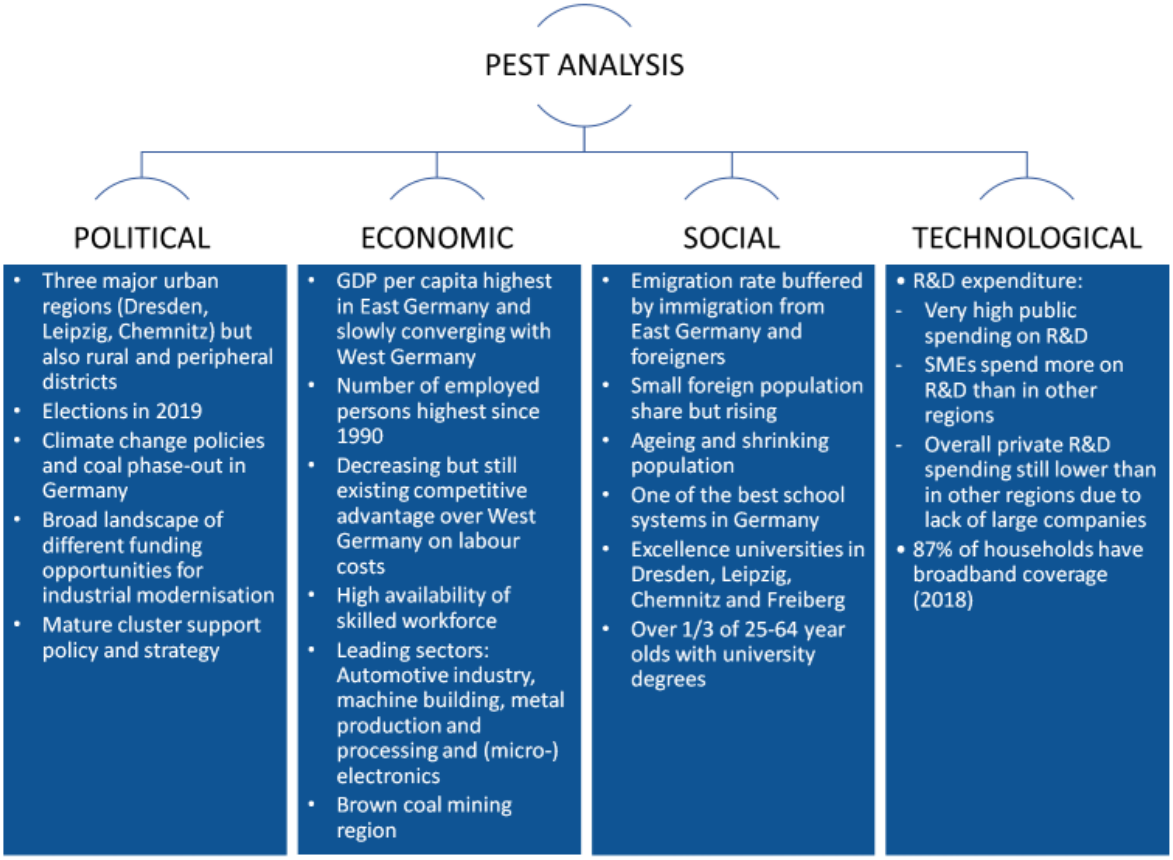
Source: EOCIC, based on various data sources and own calculations

2. Key challenges, barriers, and drivers of industrial modernisation in Saxony

This chapter summarises Saxony's political, economic, social and technological (PEST) framework conditions that were set out previously in the assessment report. This is followed by a description of the region's main strengths, weaknesses, opportunities and threats (SWOT).

The PEST analysis (Figure 5) provides an overview of Saxony's framework conditions. In summary, the region leads the East German *Länder* and performs above the EU average on a variety of macroeconomic indicators. A particular characteristic of Saxony is its industrial sector, but its public research landscape of universities and research institutes also stands out. One political aspect of interest is Germany's approach to the coal phase-out.

Figure 5: The regional ecosystem and framework conditions of Saxony (PEST analysis)



These underlying framework conditions also shape the strengths and weaknesses of Saxony as displayed in the SWOT analysis table below (Table 1). One of the region's most distinctive strengths is the industrial sector, which is highly developed and has a higher share of employed persons than the German average. The leading sectors include machine building, automotive and (micro-)electronics. While the high share of R&D investment by the region's SMEs can be considered a strength, it is also a function of the fragmented business structure and the low number of large companies with dedicated R&D departments – a potential weakness as the overall share of private R&D expenditure remains below the German average. On the other hand, the strong presence of excellence universities and public research centres and institutes in Saxony contributes to the high share of the population holding tertiary - education degrees and to the highly skilled regional workforce. While this workforce is one of Saxony's major strengths, it faces challenges from demographic change and emigration of highly skilled workers from the region. Similarly, the coal phase-out in Germany and other climate change policies create

uncertainties for Saxony's lignite sector and the automotive industry, but they also generate the opportunity to advance new technologies, especially in renewable energy or alternative power trains. Lastly, Saxony's mature and developed clusters, as well as the cluster support strategy and policies, are a major strength, with opportunities to strengthen (cross-sectoral) collaboration further among companies, cluster organisations and public stakeholders.

Table 1: Strengths, Weaknesses, Opportunities and Threats (SWOT) of industrial transition in Saxony

Strengths	Opportunities
• Strong industry sectors, among which machine building, (micro-)electronics, automotive • Highly educated population and highly skilled workforce • Mature and developed cluster support strategy and policies • Good research collaboration between businesses and universities/research institutes • Good infrastructure	• High potential for innovation from Saxon clusters • New technologies, particularly in the areas of renewable energy, electromobility, alternative power trains and companies, biotechnology, life sciences, intelligent and light materials • Potential for strengthening the collaboration among companies, cluster organisations and public stakeholders • Further support for digital transition of SMEs • Increasing investment in measures that raise Saxony's attractiveness as a location to work and live
Weaknesses	**Threats**
• Fragmented business and funding landscape • Low share of large companies with significant R&D activities • Sluggish deployment and expansion of broadband networks and access to fast internet • Large disparities between the three big cities (Dresden, Leipzig, Chemnitz) and the surrounding areas	• Decreasing availability of skilled labour • Effect of climate change policies on Saxony's lignite sector and its overall economy • Decrease in EU Structural Funds availability in the near future due to economic success in the past

Having mastered a major industrial rebuilding process in the last 25 years, Saxony will need to adapt its industrial base to the challenges of the future in the years ahead. The EOCIC assessment report for Saxony shows that the region maintains a well-developed framework of high-level strategies and support measures for clusters and value networks. However, it also found that the strategic goals sometimes remain broad and that concrete measures are sometimes not implemented fast enough. In addition, the availability of public funds from EU sources is expected to decrease significantly in the near future. These factors call for a more precise strategic focus and more targeted implementation of Saxony's regional strategies. The challenges on which the following suggested measures focus can be summarised as:

- improve the co-ordination of public and private investment decisions;
- translate broad strategies into concrete policy and support measures more quickly.

3. Proposed regional strategy to address the challenges

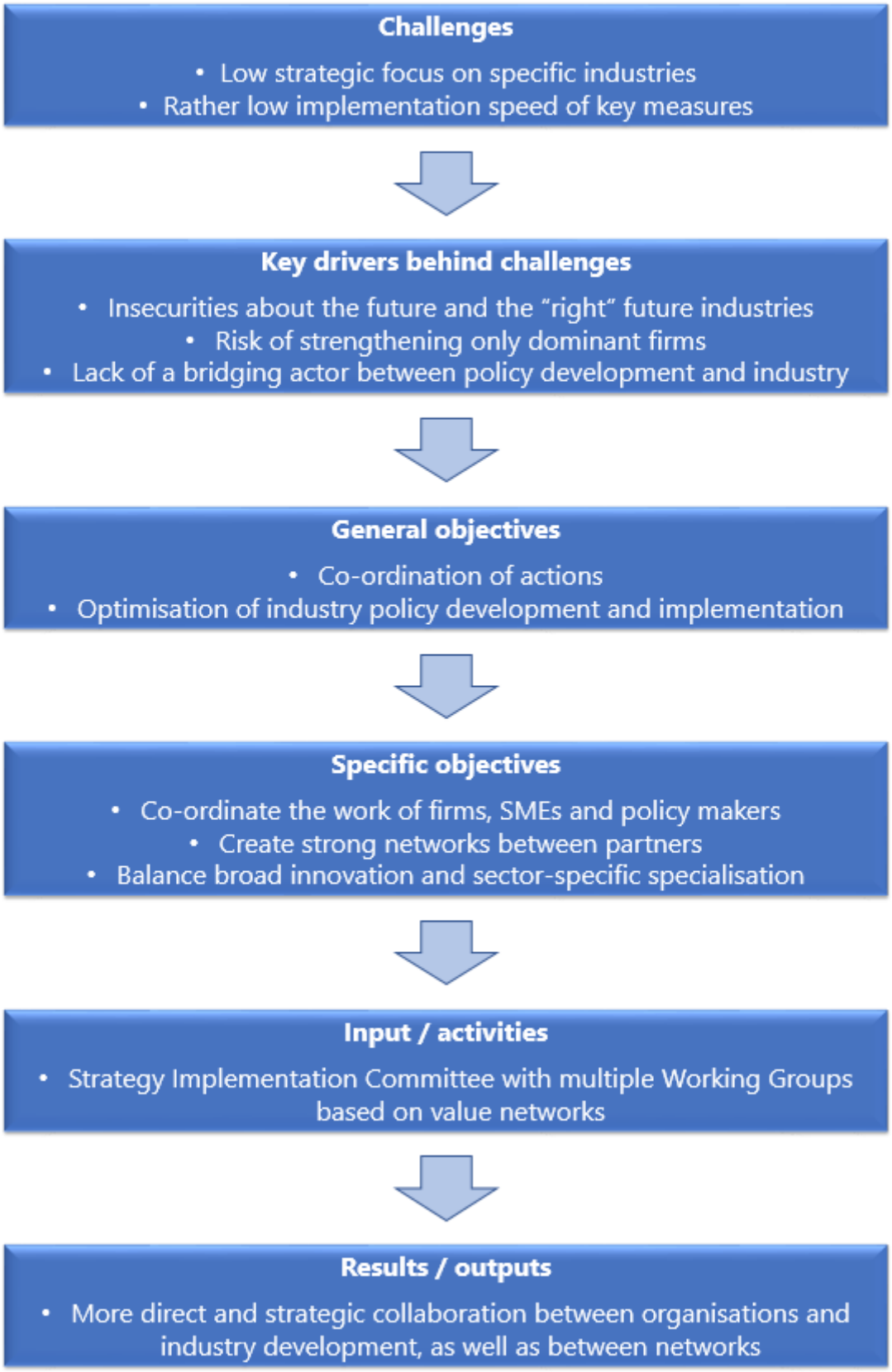
The Saxon Ministry for Economic Affairs (SMWA) is currently revising its innovation strategy and developing a new industry strategy. Both are due to be published in 2019. Measures that target the strengthening and developing of synergies by supporting and linking regional stakeholders will be an important focus of these strategies. Cluster networks can play a key role in leading and shaping the transition of existing value networks and the development of new ones.

At the beginning of a network building process, broad support measures are crucial to address individual needs and remain open to different technologies and solutions. However, after the initial phase, a more focused approach to supporting or establishing specific structures or measures (e.g. a support hub or co-ordination office; technology-specific infrastructure) are of increasing importance. Based on its existing industry and innovation policies, Saxony's revised innovation strategy will establish the balance between broad innovation on the one hand and specialisation in specific fields on the other hand.

The measures suggested by the EOCIC need to be integrated into this strategic framework. Therefore, the principal objective of the recommendation proposed in this document is to co-ordinate and optimise strategy implementation activities by creating a support mechanism that would help develop targeted implementation measures faster by bringing the required knowledge and expertise together in thematic working groups. To avoid large and predominant firms or cluster initiatives dominating this process, the measure is designed to be open and transparent so as to work as a bridge between general strategic objectives and concrete implementation measures.

Figure 6 sets out the strategic background for the suggested policy measure:

Figure 6: Overview of the strategic background for industrial modernisation in Saxony



Source: The European Observatory for Clusters and Industrial Change

Targeted implementation of the strategies developed by Saxony's ministry, the SMWA, will need stronger co-ordination between companies' research activities, innovation and investment decisions, and public policy decisions on infrastructure and support measures. The measure suggested in the following chapter aims to support Saxony's government with this challenge by setting up a Strategy Implementation Committee with application-specific Working Groups.

4. Specific recommendations for policy intervention

4.1. Description

Cluster policy can make a significant contribution to the implementation of Saxony's upcoming industry strategy and its innovation strategy, both of which are currently being revised. As industrial modernisation requires the adaptation of some value networks or the development of new value networks, stakeholder co-ordination needs to be an ongoing process where decisions and co-ordination principles are regularly reviewed to search for the best solutions at hand. Effective implementation of the regional strategies thus requires that both the decisions of the companies in a value network and the policy decisions relevant for that value network be properly co-ordinated.

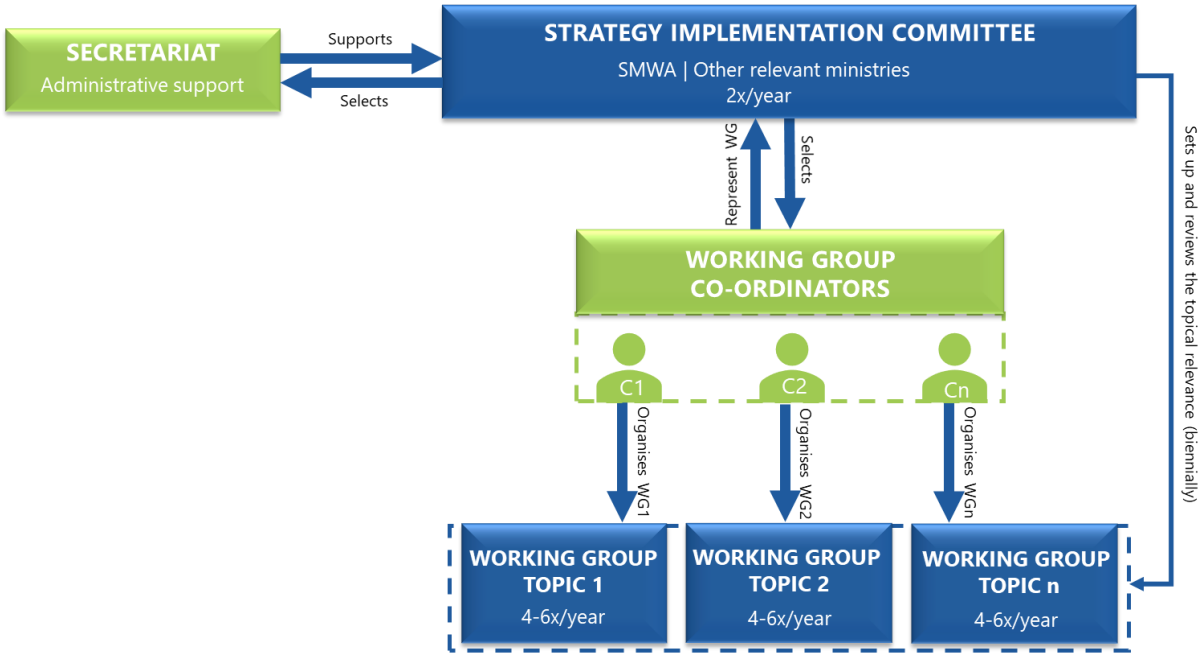
The development of a Strategy Implementation Committee with separate thematic Working Groups for each relevant value network could therefore be the central tool to align the modernisation activities of the different stakeholders and enable effective achievement of the general strategic objectives. The Strategy Implementation Committee would identify the value networks where co-ordination is needed, establish the respective Working Groups, and monitor their results. Each Working Group would be composed of representatives of the relevant stakeholders needed for the development or transition of the value network in question and would convene regularly to develop and co-ordinate the concrete steps to be taken. The main benefit resulting from this approach is a bottom-up participation process between market stakeholders and the ministries developing support measures. The focus on specific applications or markets in the support measures and strategies would not chosen top down (or altogether avoided) but would be developed collectively using the market knowledge and the research knowledge on the table.

2.1.1 Objective

The main objective of the Strategy Implementation Committee would be to optimise the concrete implementation of Saxony's regional industry and innovation strategies and the achievement of the strategic goals. To achieve this, the Committee will need to improve co-ordination of activities between public authorities and clusters by forming Working Groups in which the participants discuss and decide on concrete steps that need to be taken to attain the strategic goals. The topics on which the individual Working Groups focus must fall under Saxony's industry and innovation strategies, notably the innovation strategy's future fields (*Zukunftsfelder*) and the upcoming industrial strategy's strategic principles (*strategische Leitlinien*),

Figure 7 presents the functioning of the Strategy Implementation Committee and its Working Groups:

Figure 7: Functioning of the Strategy Implementation Committee



2.1.2 Institutional and operational setup of the Strategy Implementation Committee

The Strategy Implementation Committee fulfils a crucial role in establishing and maintaining the thematic Working Groups. In order to be able to take justifiable decisions, it must therefore be independent of the different stakeholder groups that are to be present in the Working Groups, while at the same time being in contact with them to understand the issues they face. In addition, the Committee must have the capacities and capabilities to identify relevant value networks and stakeholders within those networks, and to manage the relations with these networks. Potential members of the Committee are for instance representatives (at directorate level) of Saxony's state ministries involved in the development of the industry and innovation strategies (such as the SMWA, the Ministry of Science and Arts (SMWK), or the Environment and Agriculture Ministry ((SMUL). The composition of the committee can be changed over time if other competences are needed. As the committee will cover many political discussions (e.g. on founding or dissolving a Working Group), the representatives from the ministry departments need to be high-level enough to be able to discuss such political topics. Other potential members are the co-ordinators of the Committee's Working Groups. The Committee is supported by a secretariat for administrative and logistic tasks.

The Committee is permanent and should convene about twice a year. It will carry out mainly co-ordination and monitoring tasks. Co-ordination includes the identification of applications/value networks for which there will be Working Groups, the selection of the participants in each Working Group, and the collection and, where applicable, publication of the Working Group results.

Working Groups would be formed based on value networks or concrete applications. They should concentrate on system innovation within the future fields of Saxony's innovation strategy. The EOCIC assessment report gives an overview of strong traditional and emerging industry sectors in Saxony. The Saxon innovation strategy and the upcoming industry strategy have also already identified potential value networks. They would be developed further by the Committee. By way of illustration, Figure 8 and

Figure 9 present two examples of potential thematic Working Groups under the umbrella of the Strategy Implementation Committee:

Figure 8: Example of a potential Working Group for sensors

ILLUSTRATIVE WORKING GROUP I: SENSORS

Challenges and measures

Saxony's research landscape for sensors is strong, but the transfer of research results into products could be improved, especially in relation to market readiness and profitability. Part of the problem lies in the fact that sensors are a basic technology in many products, but not a final product in themselves. The sensors sector is characterised by many strong middle-sized companies, and a key vision for the future is that at least 99% of the companies in Saxony's sensors sector still be active in 10-15 years and have grown by developing new products and business models.

The public policy challenge is that the companies will need very different support measures, because sensors are used in many different technical applications and markets. A Working Group for sensors should help ensure that technological developments are aligned with the support measures needed, such as research funding, training and education measures or other innovation support. The Group should include the most important cluster initiatives and companies, but also the different ministries or organisations that can support the companies and cluster initiatives. A transparent process and efficient co-ordination should ensure regular supervision of the Working Group and an evaluation of whether additional members or topics need to be included. The Working Group could also organise cross-regional cluster collaboration if needed.

Who?

SenSa Innovation Cluster, SMWA, Cluster IT Mitteldeutschland, relevant Fraunhofer institutes, the regional development agency, the regional Chamber of Commerce, among others.

Figure 9: Example of a potential Working Group for alternative power trains

ILLUSTRATIVE WORKING GROUP II: ALTERNATIVE POWER TRAINS

Challenges and measures

Due to the size of the automotive sector in Saxony, and especially the power train component,, the development of new types of power train is both a threat and an opportunity for the sector. A transformation of the value networks will require very efficient co-ordination of market stakeholders and public policies (e.g. research policy, training policies, SME support). The key challenge that such a Working Group could focus on would be to make sure that public policies and private investment decisions are all aligned on the same objective of rebuilding (and in so doing keeping) the value networks in Saxony.

Who?

HZwo Innovation Cluster, SET4FUTURE Innovation Cluster, SMWA, ACOD Cluster, relevant Fraunhofer institutes, regional development agency, regional Chamber of Commerce, among others.

The Committee should monitor the regular work and outputs of the individual Working Groups. In addition, it needs to verify on a regular basis for each Working Group whether the Group is still needed, whether the Group's composition might have to be adapted to reflect changes in the value network, or whether a Group might be dissolved because its goals have been reached. The Committee's tasks should comply with the following principles:

- **Establishing a Working Group:** Each Working Group would concentrate on a specific value network or a concrete application that needs to be further explored and developed in line with the objectives of the industry and innovation strategies. A Working Group should not simply aim to strengthen traditional industry sectors. Instead, it should focus on cross-sectoral activities or applications of emerging technologies. The value network or application must be backed up by sufficient potential within the regional business and research landscape. After the decision to establish a Working Group has been made, the Committee should select the Group's co-ordinator and its participants. The Committee then needs to develop an overview of the value network/application in question and identify the relevant stakeholders in that value network. This process should go beyond existing structures and organisations to enlarge existing networks. This should extend to including stakeholders from other sectors or from other regions. Stakeholders should be given the opportunity to provide their input on who might be included in the Working Group. The number of Working Groups is not fixed. It may vary depending on need.
- **Monitoring the Working Groups:** The Committee should monitor continuously whether the Working Groups are achieving their goals. Not for every value network or application will a Working Group be a suitable tool for achieving progress. If it turns out that a Working Group is not effective, its composition and work programme should be re-assessed and adjusted, but an ineffective Working Group can also be dissolved. This evaluation should take place at least once a year, and regular input and reflection from the group's participants should be taken into account for this process.

In the initial setting-up phase, the Committee needs to adopt rules of procedure which define clear processes for its tasks. In addition, the Committee needs to develop a general framework for the regular work of the Working Groups, covering for instance the minimum frequency and structure of meetings and the required outputs. The framework should leave the necessary room for flexibility so that the Working Groups can adopt an individual work programme tailored to the specific value network or application.

2.1.3 Institutional and operational setup of the Working Groups

Once the Committee has identified the need for a working group, an assessment of potential participants should be made on the basis of the work that the Working Group will need to carry out. The Working Groups should include all important cluster organisations, companies, research institutions and political institutions necessary for a successful modernisation (introduction) process of the value network in question. Departments of the regional government should also be part of those working groups if needed, ideally at unit leader level (*Referatsleiter/in*) to develop and execute detailed work plans.

Each Working Group should have a co-ordinator responsible for the Group's regular meetings. The co-ordinator is required to have a good knowledge of the value network or application in question in order to be able to organise the Working Group's regular meetings, and to have the capabilities to manage the network. On the other hand, it is important that the co-ordinator be sufficiently independent of the value network, as an important task should be to monitor the development of the value network and to decide whether the right partners are sitting on the working group. Organisationally, there are three broad options for the co-ordinators that can be considered on a case-by-case basis:

- Executive agencies of the Saxony government if they have experts with the required value network knowledge and contacts;
- Co-ordinators of existing innovation clusters if they have the required independence to lead the project impartially;

- Consideration could also be given to whether an independent outside organisation could be an efficient co-ordinator by helping to build cross-regional collaborations.

The co-ordinators of existing Working Groups would also sit on the Strategy Implementation Committee (as non-voting members to avoid conflicts of interest), where they can provide valuable input for the establishment of new Working Groups and respond directly to the evaluation of their own Working Group. The co-ordinators receive administrative and logistic support from the Committee secretariat.

The participants in the Working Groups would represent the most relevant stakeholders for the specific value network or application, including (but not limited to) public authorities (at local and regional level), cluster organisations, research institutions, regional development agencies, chambers of commerce, and companies. For the Group to remain efficient, the number of participants per Group should not exceed 8-10 (while keeping in mind that the Group should remain open to new participants). The representatives participating in the Working Groups should have sufficient standing within their organisation to promote the Group's results as effectively as possible.

Since some value networks extend beyond regional borders, the possibility of involving stakeholders from other regions should also be envisaged. For example, there could be representatives of important client industry sectors in a Sensors Working Group, or there could be research institutions or representatives of large car manufacturers from outside Saxony in an Alternative Power Train Working Group to ensure a complete understanding of the market.

Once a new Working Group is established, the co-ordinator should first develop a work programme within the framework set by the Committee and in co-ordination with the Group's participants. This should include specific goals and set out how the work will be structured during and between the Group's meetings. The Working Group should convene regularly (4-6 times a year) to discuss stakeholders' current needs, to develop the necessary concrete steps to be taken to address those needs, and to identify the stakeholders that need to take these steps. The result of each meeting should thus be concrete tasks and activities for the group participants to carry out. Between the meetings, the participants are responsible for promoting the results of the Working Group within their organisation and for working towards the actual implementation of the tasks.

The Working Groups are not permanent, meaning that they can be dissolved if there is no more need for them, but they are not an ad-hoc body either. As long as a Working Group is in place, there needs to be certainty sure that the Group has a continuous work programme and that the participants contribute regularly both to the Group meetings and in between. As the key objective of the Groups is to ensure a co-ordinated approach to public and private investments, the co-ordinators need to make sure that the relevant information is available to the Group's participants so that they can constantly review their own investment decisions. The composition of a Working Group can be adjusted to reflect changes in the value network, but at the same time a certain degree of stability in the Group's make-up should be maintained to ensure efficient collaboration based on mutual trust.

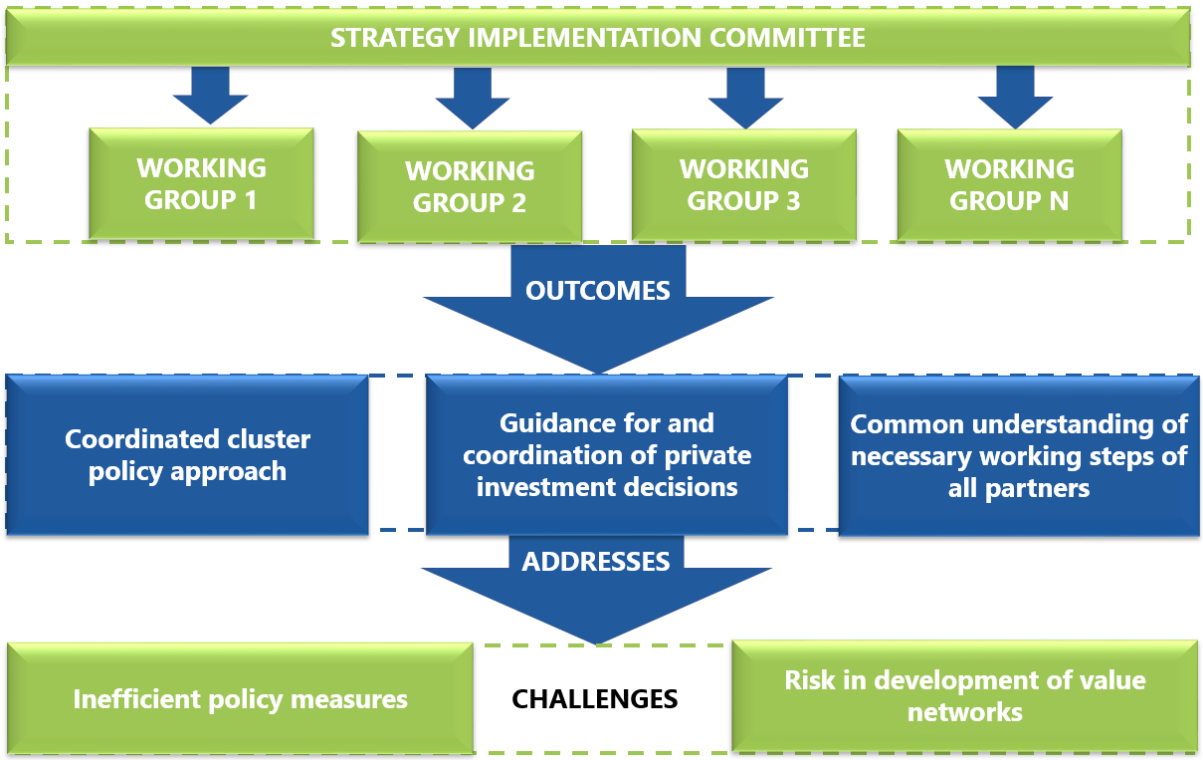
4.2. Benefits and Costs

As discussed above, the key objective of the Strategy Implementation Committee and its Working Groups is faster development and implementation of concrete policy measures on the basis of Saxony's industrial strategy and innovation strategy.

Speeding up the implementation of policy measures in this way should improve co-ordination of both the public and the private investment needed for industrial modernisation in the sectors concerned and thus make it more effective. Companies and cluster initiatives would develop a clearer understanding of the next steps in public policy (infrastructure, support offers, research programmes) and of the

investments and activities needed to use those public investments effectively. Regional public authorities would benefit from the discussion by better understanding the concrete development needs of the clusters and companies. This in turn would help the public authorities to **co-ordinate public investments from different authorities and private investments** to maximise effectiveness. The measure's intervention logic is summarised in Figure 10 below:

Figure 10: Intervention logic



The Committee and its Working Groups would contribute to this better co-ordination of investment decisions with:

- **Targeted and quick information exchange:** Having all relevant public and private partners participate in a continuous and regular exchange would lead to a faster exchange of information, meaning that all partners are aware of what the others are doing and planning (including their timelines, obstacles and challenges). This regular information exchange would reduce the risks and uncertainties in long-term strategic planning for all partners involved and would enable better decision-making both at the level of the Committee and within the private and public organisations.
- **Robust and timely implementation of actions by the partners in the committee:** With the knowledge of the other partners' decisions, the members of the Working Groups should find it easier to influence the decision-making in their respective organisations in a way that is consistent with the results of the Working Groups. The Working Group participants would have better arguments at hand, as the discussion in the Working Groups would enable them to describe exactly how their organisation's decisions influence the decisions of other organisations and the overall success of the common strategy.

This better co-ordination would be especially useful if, as is expected, less public funding from EU sources will be available in the future. If the Working Groups work out specific measures and develop

the underlying reasoning, it will be easier for the regional government to prioritise the funding in order to use it efficiently.

Overall, the costs of the Committee and its Working Groups would be limited. The co-ordination would require 1-2 full time employees per Working Group (i.e. EUR 100,000 per year) and most likely the same amount for the Committee secretariat.

Consideration should also be given to whether the expenses of the participants should be met. In that case, meetings of 8-10 people meeting 4-6 times a year could add between EUR 50,000-100,000 per year and Working Group. On the one hand, such payments could ensure that participants keep engaging with the group; on the other hand, such payments could lead to some loss of independence. This should probably be decided on a case-by-case basis as the capacities of the participants' organisations might differ.

4.3. Risks, obstacles and challenges

The measure can be expected to comprise the following risks and challenges:

- **Work programme:** Without a coherent and concrete work programme for the Working Group, participants would quickly see the Working Group as an additional talking shop and the participants' commitment would suffer. Feedback from stakeholders showed that there are already many meetings and events on industrial modernisation, so a coherent work programme is needed to keep stakeholders engaged.
- **Monitoring:** It would also be difficult to keep the participants committed if the progress of the work programme were not monitored. Regularly analysing the progress and the reasons for a potential lack of progress will enable work to be efficient and the work programme to be modified regularly, as and when needed.
- **Implementation:** Another major risk is that members of the Working Groups would face difficulties in ensuring that the measures discussed in the Working Group receive a fair hearing in their organisation and that the results of the Working Group are actually implemented. It is therefore crucial that the Committee and its Working Groups be supported by all relevant organisations, and that the participants in the Working Groups have the standing to promote the decisions of the Working Group within their organisations.
- **Working Groups:** There is always a chance of the Working Group's topic not having been well chosen, as research may bring surprising results or markets develop in unforeseen ways. This means that both the work programme and composition of the Working Groups would need to be reviewed and adapted regularly. The Committee's leadership would therefore have the task of reviewing whether the Working Group composition is still appropriate.
- **Openness of the committee:** If the selection of participants is not as open and transparent as possible, there is a risk that the Working Groups would turn into closed shops dominated by only a small group of organisations that do not represent the whole stakeholder landscape adequately. Again, there is a need for the coordinators to mitigate this risk by regular monitoring of the composition of the Working Group, and regular adjustment of the composition where necessary.

5. Roadmap and action plan with activities, timeframe and actors

To deliver the specific recommendations set out in Chapter 4, the table below summarises the required actions, their timing and the relevant action owner.

Table 2: Action plan

Action	Timing of the action	Owner of the action
Publication of Innovation Strategy and Industry Strategy	Spring 2019	SMWA
Establishment of Strategy Implementation Committee	Early Summer 2020	SMWA and other ministries of Saxony
Decision on the first two value networks for working groups	Autumn 2020	SMWA and other ministries of Saxony
Appointment of co-ordinators	Autumn 2020	SMWA and other ministries of Saxony
Choice and approach of participants for working group – First meeting	Winter 2020/21	Working Group co-ordinators
Setting of objectives and monitoring framework for Working Groups	Winter 2020/21	Strategy Implementation Committee
Development of work plan for Working Groups	Until summer 2021	Co-ordinators and Working Groups
Implementation of agreed measures	From summer 2021	Co-ordinators and members of Working Groups
Regular Monitoring	From summer 2021	Strategy Implementation Committee
Regular Review of measures and public policy focus	From summer 2021	Strategy Implementation Committee

European Observatory for Clusters and Industrial Change

The European Observatory for Clusters and Industrial Change (#EOCIC) is an initiative of the European Commission's Internal Market, Industry, Entrepreneurship and SMEs Directorate-General. The Observatory provides a single access point for statistical information, analysis and mapping of clusters and cluster policy in Europe, aimed at European, national, regional and local policy-makers, as well as cluster managers and representatives of SME intermediaries.

The aim of the Observatory is to help Europe's regions and countries design better and more evidence-based cluster policies and initiatives that help countries participating in the COSME programme to:

- develop world-class clusters with competitive industrial value chains that cut across sectors;
- support Industrial modernisation;
- foster Entrepreneurship in emerging industries with growth potential;
- improve SMEs' access to clusters and internationalisation activities; and
- enable more strategic inter-regional collaboration and investments in the implementation of smart specialisation strategies.

In order to address these goals, the Observatory provides an Europe-wide comparative cluster mapping with sectoral and cross-sectoral statistical analysis of the geographical concentration of economic activities and performance, made available on the website of the European Cluster Collaboration Platform (ECCP) [5]. The Observatory provides the following services:

- **Bi-annual "European Panorama of Clusters and Industrial Change"** that analyses cluster strengths and development trends across 51 cluster sectors and 10 emerging industries, and investigates the linkages between clusters and industrial change, entrepreneurship, growth, innovation, internationalisation and economic development;
- "**Cluster and Industrial Transformation Trends Report"** which investigates the transformation of clusters, new specialisation patterns and emerging industries;
- **Cluster policy mapping** in European countries and regions as well as in selected non-European countries;
- "**Regional Eco-system Scoreboard for Clusters and Industrial Change"** that identifies and captures favourable framework conditions for industrial change, innovation, entrepreneurship and cluster development;

[5] European Cluster Collaboration Platform, *Official Website*. Available at: https://www.clustercollaboration.eu/.

- **Updated European Service Innovation Scoreboard**[6], that provides scorecards on service innovation for European regions;
- **"European Stress Test for Cluster Policy",** including a self-assessment tool targeted at cross-sectoral collaboration, innovation and entrepreneurships with a view to boosting industrial change;
- **Customised advisory support services** to twelve selected pilot regions, including expert analysis, regional survey and benchmarking report, peer-review meeting, and policy briefings in support of industrial modernisation;
- **Advisory support service to European Strategic Cluster Partnerships**, in order to support networking between the partnerships and to support exchanges of successful practices for cross-regional collaborations and joint innovation investments;
- **Smart Guides** for cluster policy monitoring and evaluation, and for entrepreneurship support through clusters that provide guidance for policy-makers; and
- **Brings together Europe's cluster policy-makers and stakeholders** at four European Cluster Policy Forum events, European Cluster Days, and at the European Cluster Conference in 2019 in order to facilitate high-level cluster policy dialogues, exchanges with experts and mutual cluster policy learning. Two European Cluster Policy Forums took place in February and April 2018, and the European Cluster Conference is scheduled for 14 to 16 May 2019 in Bucharest (Romania).
- Online presentations and publications, discussion papers, newsletters, videos and further promotional material accompany and support information exchanges and policy learning on cluster development, cluster policies and industrial change.

More information about the European Observatory for Clusters and Industrial Change is available at: https://www.clustercollaboration.eu/eu-initiatives/european-cluster-observatory.

[6] Previous versions for 2014 and 2015 were developed by the European Service Innovation Centre (ESIC), see http://ec.europa.eu/growth/tools-databases/esic/index_en.htm.

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