

Inspire policy making by territorial evidence



Territorial Reference Framework for Europe

Discussion Paper No. 2
Trends

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Strategic Advisory Forum on 12 June 2018**

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For additional background documents supporting this discussion paper are available at:
<http://www.eu2050.eu/2nd-strategic-advisory-forum/>

Abbreviations

CEF	Connecting Europe Facility
CLLD	Community-Led Local Development
EC	European Commission
EGTC	European Grouping of Territorial Cooperation
EMU	European Monetary Union
ESDP	European Spatial Development Perspective
ESPN	European Territorial Observatory Network
EU	European Union
GDP	Gross Domestic Product
ITI	Integrated Territorial Investment
MFF	Multiannual Financial Framework
S3	Smart Specialisation Strategies
TA 2020	Territorial Agenda 2020
TAEU	Territorial Agenda of the European Union
TEN-T	Trans-European Transport Networks

1 Connecting the pieces of the Territorial Reference Framework

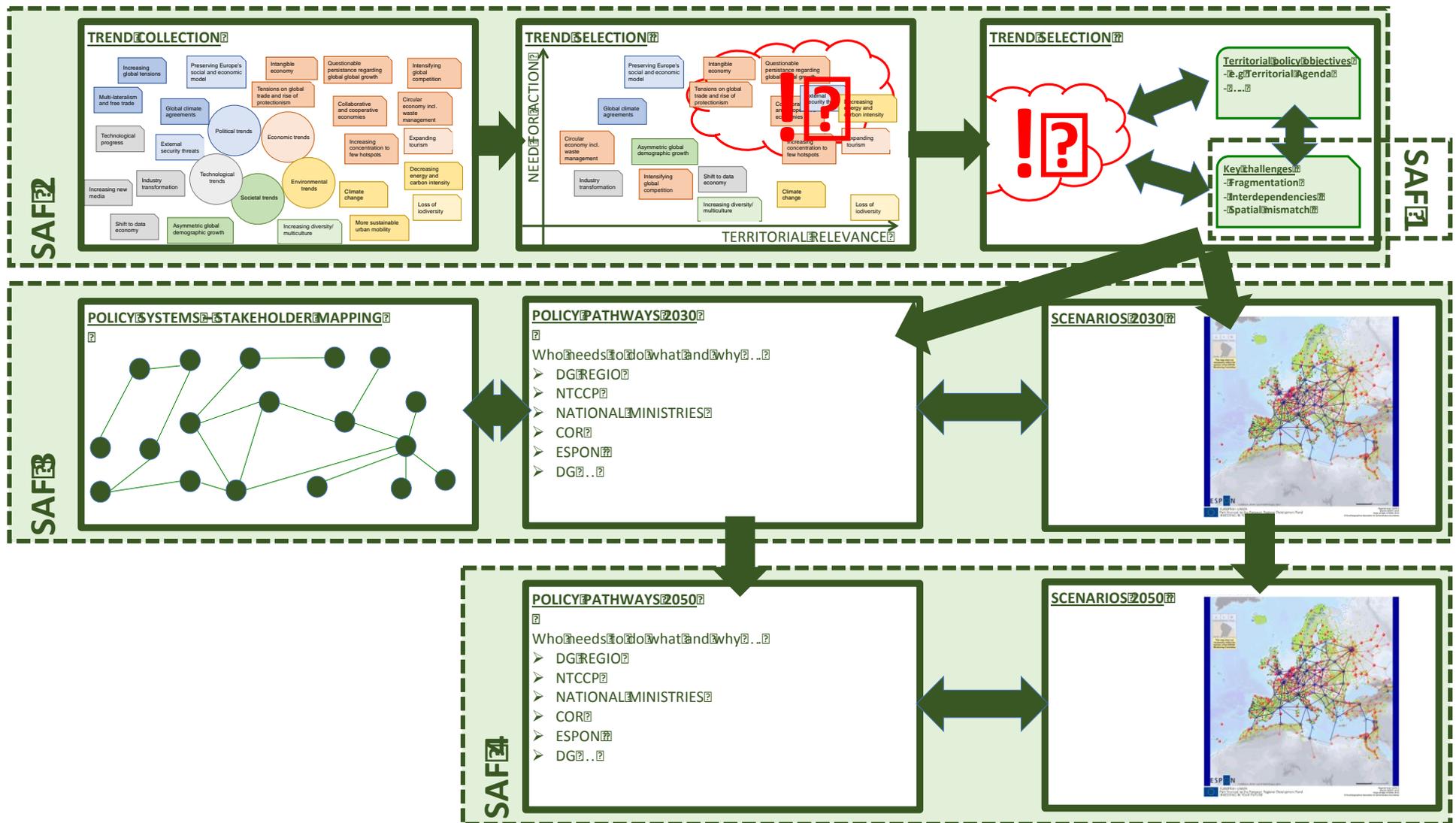
The European Territorial Reference Framework (ETRF) is composed of different working steps which correspond to the different work packages of the project. Together, these aim to inspire the development of the Territorial Agenda post-2020. The following questions are posed in the process of the European Territorial Reference Framework:

- What are the key long-term challenges and opportunities that will shape Europe's territories and regions to 2050 and beyond?
- What should Europe's territory ideally look like in 2050 in order to achieve EU cohesion and convergence goals?
- Which key thematic policy areas should future territorially relevant strategic EU policies focus on in order to address key long-term (2050) development challenges and opportunities facing Europe's territories, regions and cities, and in order to promote the advancement of cohesion and convergence goals?
- What is the most appropriate and efficient EU investment strategy to address differentiated territorial development challenges in Europe and to maximise the potentials of cities and regions in the framework of post-2020 EU strategic policies?
- How can the governance of a Territorial Agenda post-2020 be strengthened and implemented in practice, in order to bring about greater strategic coherence and integration with other EU strategic policies and investment programmes?

Figure 1 shows the pathway of the project, i.e. the stepwise process to the development of the project and its link with the meetings of the Strategic Advisory Forum and corresponding discussion papers. In the first meeting of the Strategic Advisory Forum, three key challenges that the EU faces were discussed and agreed. However, these challenges do not stand alone, but are influenced by current and future trends. The identification of the most relevant trends for the development of the Territorial Agenda post-2020 was the task of the second meeting. During the meeting, the selection of the most relevant trends was done by looking at the combination of trends for which there is a need for action, and those trends which are most territorially relevant (chapter 3). This selection will be linked to the key challenges identified in the first discussion paper (meeting of the Strategic Advisory Forum) and to the territorial policy objectives (chapter 4).

Based on these findings, the project team will develop scenarios and policy pathways. Two timeframes have been identified for the scenarios: 2030 and 2050. In the 3rd meeting of the Strategic Advisory Forum, future scenarios and a stakeholder (policy systems) mapping will be discussed. For this, all relevant stakeholders who can play a role in the development and implementation of the Territorial Agenda post-2020 will be mapped and possible links between them will be identified. Together with the input from the scenarios, the policy pathways will be designed. Those pathways will give a clearer picture of 'who needs to do what and why' to respond to policy objectives. Accordingly, the policy pathways and scenario for 2050 will be discussed at the 4th meeting. The combination of all these activities (see Figure 1.1) form a solid starting point for the development of the Territorial Agenda post-2020.

Figure 1.1 – Connecting the pieces of the puzzle



Source: Project team

2 Introducing the 2nd discussion paper

The EU's economic prospects are more positive than they have been for quite some time, with most core indicators (including GDP growth, investment and employment) offering grounds for renewed confidence. However, the recovery remains fragile and its sustainability is far from assured. In addition, concerns over economic and social disparities across the EU's territories have become more pronounced (Rosés and Wolf, 2018), based on an increasing recognition that geographically concentrated discontent (which might be caused or perpetuated by a concentration of social and/ or economic challenges) can spill over into political instability (Rodríguez-Pose, 2017). In this context, concerns about an uneven geographical spread of the benefits associated with economic integration – in the form of the EU single market, monetary integration or the EU trade agenda – have become more visible.

Against this background, we identified three overarching key challenges and key policy messages for the 1st discussion paper of the Strategic Advisory Forum (see Figure 2.1). These challenges and messages should be taken into consideration for the European Territorial Reference Framework and the Territorial Agenda post-2020.

As the intergovernmental policy community involved in the Territorial Agenda post-2020 process needs time to adapt and apply the key messages and feed them into the post-2020 policy debate in due time, the time to act is now.

Figure 2.1 Recap of key challenges and key messages for the ETRF identified in the 1st discussion paper

Key challenges identified in the 1 st discussion paper	Key messages to be advocated by the European Territorial Reference Framework
The economic geography of Europe is changing, accompanied by an increasing fragmentation of society and territories.	The social and territorial fragmentation linked to the changing economic geography demands spatially sensitive (and tailor made) policy responses.
Social and economic developments in one place have major impacts (positive and negative) on development perspectives in other places and vice versa.	The positive and negative externalities of developments in one place on developments in other areas demand a wider geographical perspective of policy decisions.
There is a misalignment between geographical jurisdictions <i>for</i> decision making and the corresponding geography / geographies <i>affected</i> by policy making.	The mismatch between the geographical delineation of impacts of economic and societal developments and the geographical jurisdictions of decision making demand more territorial cooperation at all levels.

Source: Discussion Paper No. 1 supporting the Strategic Advisory Forum of 14 March 2018

For this, territorial evidence is needed on the current status of fragmentation and linkages and their potential future developments. This includes a deeper appreciation of the value of using place-based frameworks to strengthen the spatial dimension in policy-making.

The abovementioned challenges and messages are not independent of current and future trends and policies. They are linked to the development of different political, economic, environmental, societal

and technological trends. These encourage a reflection or re-think of future EU policies beyond the current debates.

In this second paper we broaden the discussion to see which other development trends and long-term policy developments should be taken into consideration. The following questions are at the forefront of the discussion:

- Political trends: What major development trends are currently in the political debate?
- Economic, environmental, societal and technological development trends: What major development (exogenous and endogenous) trends do we see based on recent analysis and research?
- Implications: What policy and territorial implications may the trends have over the next decades?
- Key challenges: How do the trends accelerate or mitigate the key challenges identified in the first paper and further specified at the 1st meeting of the Strategic Advisory Forum?

The paper builds upon intensive desk research on trends literature and on the input from the Strategic Advisory Forum members during the 2nd Strategic Advisory Forum meeting.

3 Important trends to be considered

To facilitate a discussion on which trends should be taken into consideration for the elaboration of the European Territorial Reference Framework, the project team collected information on a wide range of different trends. These are not definitive and are intended to offer an illustration of trends in identified areas. The trends have been grouped in order to highlight particular issues which, after the 2nd meeting of the Strategic Advisory Forum, the team understands to be significant for this paper and for the overall study. There are many different ways to categorise and organise trends and certainly many trends escape a clear categorisation as they are multifaceted. For this paper we follow the PEEST approach (political, economic, environmental, societal and technological). Figure 3.1 groups this approach by attributing a different colour to each theme, although a number of trends certainly belong to more than one group. This colour coding is followed along the whole paper, making the navigation of the trends easier.

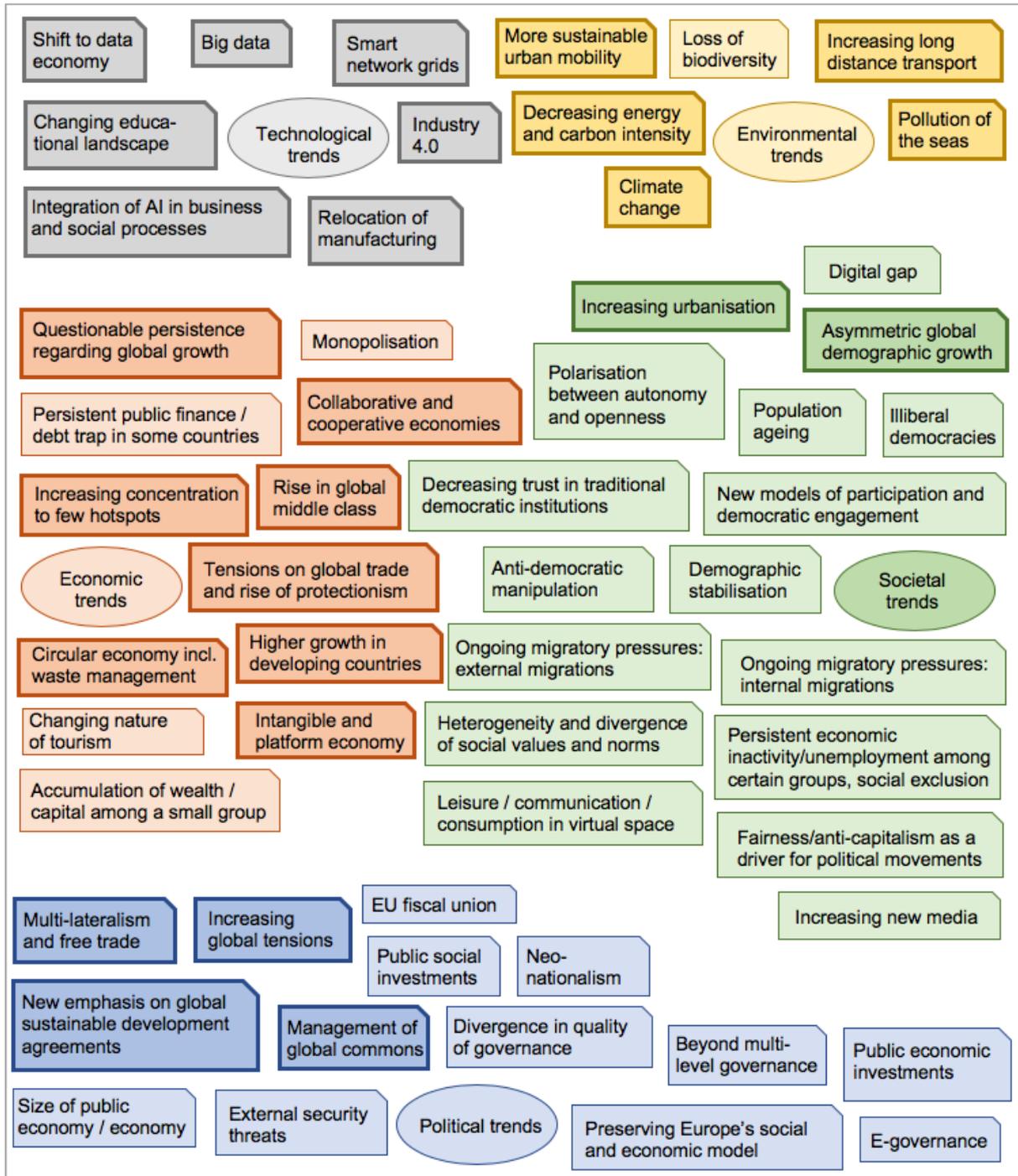
As regards the grouping of trends, first, we sought to distinguish between trends at global and European level. Global trends are trends concerning developments outside Europe with global implications, including Europe. European trends are those that may affect Europe, without necessarily affecting the rest of the world to the same extent.

As a second step for the following overview we sort trends roughly by those mainly exogenous to policy making (e.g. technological and environmental trends), those that are partly exogenous and partly endogenous, i.e. they have a certain degree of autonomy but still can be influenced by policy-making (e.g. social and economic trends), and trends that are endogenous to policy-making, i.e. political trends.

All these trends are presented in the figure below (Figure 3.1), which distinguishes between trends at global (in darker colour) and European level (in lighter colour). This first collection of trends was to stimulate discussion and, where possible, form the basis for feedback concerning a selection of trends deemed to be important and relevant from a territorial perspective. This was a key task of the second Strategic Advisory Forum meeting.

Based on the discussions of the 2nd Strategic Advisory Forum meeting, trends with territorial relevance per category have been selected and are further described in sections 3.1, 3.2 and 3.3 of this chapter.

Figure 3.1 Overview on selected trends



Source: Project team

3.1 Technological and environmental trends – exogenous factors as overall framework

Technological and environmental trends are rather exogenous factors that have to be taken as general framework conditions and are most difficult for policy makers to influence directly.

Technological trends. Technological progress is a main driver closely related to many of the abovementioned trends. Thus, technological trends come at global level and can impact developments in Europe. Developments that will shape future perspectives, range from social and new media, mining and processing big data to automation, digitisation and artificial intelligence. The 4th industrial revolution is expected to have rather disruptive effects across a number of dimensions including work organisation, social engagement, the transformation of industry, health and education systems.

The question of how the trends will accelerate or mitigate the three key challenges identified in the 1st meeting of the Strategic Advisory Forum (cf. chapter 1), is addressed in chapter 4 of this paper, based on the discussions taken place at the 2nd meeting of the Strategic Advisory Forum. Here, the relationship between current trends and the key challenges for Europe's future development will be explored to better understand the presence and extent of any spatial impact where possible.

Examples of territorially relevant technological trends

Industry 4.0. The so-called 4th industrial revolution will lead to fusions of technologies and blur the lines between physical, digital and biological systems. By 2030, firms and industry will be predominantly digitised. The so-called Internet of Things (IoT), supported by big data analytics, artificial intelligence and machine learning tools will enable smart machines to be increasingly adjustable through sensor technology, cheap computing power and the real-time use of algorithms. This will disclose opportunities for new business models and entrants, together with new challenges concerning the substitution of labour and the role of the European economy in new patterns of production at world level. (ESPON, 2018; Schwab, 2017)

Changing educational landscape: 'clicks not bricks'. New modes, content, needs and methods change the educational system at all stages. Especially technologies and digitisation will have a major influence, e.g. more online learning opportunities, interactive tools, digital programmes tailored to individual needs and learning analytics to provide immediate feedback and adjust individual programmes. It is unclear, however, whether this will lead to more democratic and equal access to, and availability of, education or increasing polarisation between mass programmes on the one hand, and highly specialised and individual offerings only available for those who can afford it on the other hand. (European Strategy and Policy Analysis System, 2015)

Environmental trends. At global level climate change is the main development in the field of environment with a number of implications, e.g. on decarbonisation and carbon intensity of energy production and consumption – from transport and industry to electricity and heating. This includes also trends in the field of more sustainable urban mobility. Pollution of the seas is another global trend becoming more and more relevant.

At European level, environmental policies will address the challenges resulting from these overall developments, from biodiversity to economic transition towards circular and eco-system based approaches. The loss of biodiversity is an important trend that will impact Europe.

Examples of territorially relevant environmental trends

Climate change. Different regions in Europe have different vulnerabilities to climate change. Whereas some parts of Europe will have to deal with more water and sea level rise, other parts will be challenged by more and longer periods of drought. Climate change not only impacts nature, seasons, the climate and natural hazards but entails many political, economic and societal consequences. e.g. water supply related issues. The more challenges a region faces, the more vulnerable it is to climate change. While the issue of sea level rise affects the North Sea in particular, due to a lack in capacity it is Southern Europe, however, that will be most vulnerable to the impacts of climate change. (ESPON, 2018; Lüer et al., 2015)

Loss of biodiversity. Biodiversity loss is a major environmental challenge. Despite some local success, biodiversity is in decline globally. This decrease is projected to continue in the future (OECD, 2016).

Pollution of the seas. Spreading of harmful substances such as oil, plastic, industrial and agricultural waste and chemical particles into the sea causes detrimental effects to the marine organisms and life, and directly affects maritime industries like fishing and tourism (which also can belong to the pollutants). Pollution further affects the quality of life of the sea coast inhabitants. (Böhme et al., 2016; HELCOM, 2010)

Decreasing energy and carbon intensity. Energy intensity will gradually decrease because of more service-oriented European economies, increased energy efficiency and savings, as well as due to improved technology, especially wind and solar sources. (ESPON, 2018; International Energy Agency, 2016)

3.2 Societal and economic trends – semi-exogenous / semi-endogenous factors

Societal and economic trends are an in-between category of elements, partially exogenous and partially endogenous, that have a certain degree of autonomy and cannot be influenced but are still subject to policy choices and can be influenced.

Economic trends. Economic trends represent the overall direction in which a territory's economy is moving. They can also be differentiated in global and European trends.

At global level, trends include global competition and tensions on global trade, the rise of protectionism, the collaborative and cooperative economies, the circular economy, high levels of economic growth in developing countries and the rise of the global middle class, increasing economic concentration on a few hotspots and the intangible economy.

At European level, in addition to the global trends, the 'debt trap' in some countries and expanding tourism are trends that could influence Europe in future.

Examples of territorially relevant economic trends

Circular economy. The circular economy is an economic model which aims to close material and energy loops through long-lasting design, maintenance, repair, reuse, remanufacturing, refurbishing and recycling. The potential and impacts vary across Europe. In general urban areas in Northwest Europe are best positioned to pick up this trend, while sparsely populated areas and inner peripheries lack critical mass. (Ellen MacArthur Foundation et al., 2015; ESPON, 2018)

Changing nature of tourism. New forms of sustainable tourism in areas not directly related to leisure, such as training, education and health will emerge, while vacationing and business will still grow in the coming decades. Tourism will keep growing as middle classes grow worldwide. Many European cities and regions will become new global destinations for tourism and many cities and regions will have to address the challenge to manage these massive flows properly to avoid devaluing their cultural and ecological assets. In addition, residential tourism and temporary migration to European sun belt regions will increase.

Increasing concentration to few hotspots. Economic concentration tendencies and the emphasis on new technical solutions which are rolled out globally at once, increasingly create economies where the 'winner takes it all' both in terms of companies leading the way to change as well as in terms of locations where these companies and key players are located. (ESPON, 2017, 2018)

Accumulation of wealth and capital among a small group. The accumulation of wealth and capital among a small group is the social dimension of increasing concentration to few hotspots. While some own more and more, the majority of the people will not benefit (equally) from economic growth and will increasingly be excluded from global value chains. The elites, on the other hand, separate from society, e.g. by making use of business models in offshore tax havens that are not accessible for middle and lower classes, which further intensifies the accumulation of wealth and perception of social inequality. (European Strategy and Policy Analysis System, 2015)

Societal trends. Asymmetries will shape future global demographic development. While some countries and societies will become increasingly older, others show low median age values. Another trend refers to worldwide urbanisation, leading to ever higher shares of the total population that live in urban and urbanised areas. The most attractive and fastest growing centres are expected not to be in Europe, and may increasingly attract talent from Europe.

At European level, ageing will remain the key aspect related to demographic development with high impact on different trends, from pension systems to social values and lifestyles. Other relevant trends at European level refer to increasing migratory pressures, regarding both external and internal migration. Further to this, trends are overall characterised by contradictions, as are more diverse societies and new forms of democratic participation, but at the same time coming with decreasing trust in traditional democratic institutions. Counter-movements reacting to these trends are also likely to become more of a prevailing feature. Neo-nationalism and illiberal democracies, together with anti-democratic manipulation and the desire to close borders and minds contrast with the cosmopolitanism mainly in urban areas and the heterogeneity and divergence of social values and norms. Other trends

concern among others the social exclusion of some groups as well as the wealth accumulation to small groups, increasing diversity and the digital gap.

Examples of territorially relevant societal trends

New models of participation and democratic engagement. People increasingly want to have a say in decision-making. This goes beyond providing information and consulting the public occasionally. New forms of participation aim for actively involving and empowering the citizens so that they cannot only make final decisions but are also allowed to gather the technical expertise necessary to prepare and implement decision (or at least monitor the implementation process). Based on such co-decision making principle, citizens, civil servants, and other representatives of public authorities as well as civil society will become equal members of self-organised communities. (European Strategy and Policy Analysis System, 2015)

Persistent economic inactivity. In an ever more specialised and diversified economic system, employees need to hold the pace of progress. Certain groups of workers will have problems in doing so. One example is unemployed young people who will be at the verge of falling behind in society. Many of them are at risk of being the long-term unemployed of the future and socially excluded in the long run. They become a 'lost generation' – a term frequently used since the financial and economic crisis with a particular focus on Greece, southern Italy, Spain and Portugal. (European Commission, 2015)

Ongoing migratory pressures: external and internal migration. Internal migrations will increase, towards large cities as well as more temporary migrations towards attractive residential zones. The other side of the balance is how to deal with migration-drained areas in Europe, given the fact that those leaving are labour active cohorts, increasing the processes of ageing and social dependency and exclusion in many migration origin regions. At global level external migrations may increase, in absolute number as well as in diversity. Some forecasts for Europe, point at increases from the 0.75 million extra-EU migrants in 2010, towards 2030 the annual volume could be 1.2 million, from more diverse origins, backgrounds and purposes than nowadays. (ESPON, 2014; World Bank, 2015)

Polarisation between autonomy and openness. As it touches upon many aspects (from identity to economy) and occurs on different scales (from sub-local to global), the question how open or closed people and places will be in the future is key to future developments. People still feel attached to their communities and the municipalities they live in. At the same time they share cosmopolitan identities and belong to virtual communities. Current polarisation is intensified by national governments and nationalistic movements in many (not only but also European) countries that proclaim the revival of a strong and inward-looking nation state. (ESPON, 2014)

Asymmetric global demographic growth. Global demographic growth will increase the overall demand for resources. World population will increase to about 8.3 billion by 2030. At the same time, life expectancy will also increase and lead to an ageing of the world population. In political terms migration at global level might become an even more prominent feature as the number of migrants is expected to further increase. While the median age in Europe is increasing, in some countries outside

Europe it is below 20 years. Low medium age countries show traditionally high levels of conflicts, which may further accelerate migration to other countries (e.g. to Europe). Furthermore too high median age might in the long turn make countries unattractive and might cause migration trends to more dynamic countries. (ESPON, 2014; Eurostat, 2016)

3.3 Political trends – endogenous factors of policy making

Political trends are endogenous factors that can be influenced (more) directly by policy makers. It is mainly a matter of political majorities which political and policy priorities guide decision making and policy choices.

Political trends. At global level, a combination of antipodal developments can be seen. On the one hand, global tensions increase with a tendency towards block building and protectionism. On the other hand, multilateral agreements are negotiated and adopted in different fields, from climate change to free trade, although we now observe heightened difficulties to keep all governments committed to their implementation (e.g. Paris Climate Agreements, Iran Nuclear Deal). Important overarching political discussions that relate to both external and internal developments and also link back to the other trends and their implications, refer to sustainable development. In addition, going beyond the usual sets of socio-economic indicators regularly used for cohesion debates, policy discussions increasingly address issues of quality of life and the shift from ‘quantitative’ to ‘qualitative’ growth.

At European level, there are on the one hand, developments regarding the **external dimension**, i.e. focusing on Europe’s position in the world such as external security threats which lead to an increasing focus on the protection of the EU’s external borders. On the other hand there are trends oriented towards **internal developments** within Europe such as efforts to preserve the European economic and social model in times of crisis, increasing divergence in the quality of government, e-governance, going beyond multi-level governance and public economic and social investments.

Examples of territorially relevant political trends

Preserving Europe’s social and economic model. The social pillar of the European integration process consists of various aspects, from civil and political rights and decent housing to health services, quality education and protection from poverty and social exclusion. These basic principles have increasingly been challenged over the past years, mainly due to demographic change and austerity measures, and are linked to the effects of the global, economic and financial crisis. Public authorities may retreat from certain regions, especially from rural and peripheral regions. Consequently, the pressure to preserve the model may increase in more and more regions.

In how far are these selected trends linked to the three main challenges identified in the project? What is the spatial impact they have in relation to the challenges? Chapter 4 tries to bring those two aspects together to identify to what extent they influence the effects and consequences of the three challenges.

4 Spatial impact of selected trends

Summing up the two previous chapters, three key challenges for the future of Europe have been so far identified in the framework of the European Territorial Reference Framework. These challenges drawing attention to the spatial dimension of policy making that could offer effective responses and spatially sensitive policies. Besides these three challenges, the future of Europe is influenced by different political, environmental, social, economic, technological and societal trends, as identified in the previous chapter.

The trends collected and described in the previous chapter do not come without any effects on the identified challenges, resulting in spatial implications and impacts on territorial development. These together, have a spatial impact which is influenced both by the trends and their influence on the challenges.

Bringing both the challenges and the different trends together, this chapter aims to identify in how far and in what way the collected and selected trends influence the effects and consequences of the three challenges. For instance, some of the trends may increase the negative consequences of the challenges and hence may have a negative impact on Europe's territories. Others, may decrease the effects of the challenges, and hence have a positive spatial dimension, while others may be rather neutral.

How to read the table

The table (Figure 4.2) lists the different trends, as identified and analysed in chapter 3. The different arrows show the influence that these trends can have on the three identified challenges, as follows:

→ does not influence the identified challenge

↗ increases the effects of the challenge

↘ decreases the effects of the challenge

Based on the extent to which those challenges are influenced, the spatial dimension may differ. The colour coding of the table mirrors the colour coding used in presenting the different trends according to the PEEST approach in figure 3.1. The trends are only sorted by categories of trends, following the PEEST approach. They are not sorted by relevance, neither does the order imply any implicit or explicit prioritisation.

Following this circle of interactions, this paper tries to identify which trends need careful consideration, as they may cause challenges, or which trends may ease the effects of the challenges. This sorting will support the work and discussions on the scenarios, in view of the 3rd meeting of the Strategic Advisory Forum, and eventually support the rationale for the development of more spatially sensitive policies. The reflection concerning possible territorial implications focuses only on those trends which featured more prominently at the 2nd meeting of the Strategic Advisory Forum as being of territorial relevance and in need of action (see Figure 4.1). The below figures are a snapshot of some of the discussions. Based on them, a selection of trends has been made for further consideration of their implications. This input to the next steps of the project work is presented in the overview table (Figure 4.2).

Figure 4.1

Interim results of the group discussions at the 2nd meeting of the Strategic Advisory Forum



Source: Project team

Figure 4.2 Links between trends and challenges

Trend	Contributes to increasing fragmentation of society and territories	Contributes to further increasing interdependencies of places	Puts further stress on the misalignment of geographical jurisdictions for decision making and the corresponding geography of developments
Industrial transformation / increasing concentration to hotspots	↗ Following expectation that an industrial transformation will lead to stronger concentration of single economic players (read winner takes it all) and thus single territories (read hotspots), an increasing fragmentation can be expected	↗ Potentially the links between the concentration hotspots as well as the dependence of other places on these hotspots may increase	↗ Potentially the links between the concentration hotspots as well as the dependence of other places on these hotspots may increase
Changing educational landscape	↗ An education landscape with MOOC (massive open online courses) for the masses and highly tailor made face-to-face courses for those able and willing to pay for it, is likely to further societal fragmentation	→ possibly neutral	→ possibly neutral
Climate change	↗ The geographically diverse and asymmetric impacts of climate change are likely to contribute to further territorial fragmentation	↗ Climate change mitigation and adaptation will require strong territorial cooperation as large scale measures will stretch beyond single territories	↗ Climate change impacts are not aligned to administrative borders
Loss of biodiversity	→ Should be neutral, respectively can go either way	↗ Loss of biodiversity and increasingly poorer ecosystems might imply increased necessity to rely an ecosystem services produced in other places	→ Should be neutral, although biodiversity and eco systems do not correspond to administrative units
Pollution of the seas	→ Principally population of the seas should be neutral, although it has a potential to push differences between polluting places and places suffering under pollution	↗ Pollution of the seas is caused by many different pollutants and as such a result of interdependencies of places	↗ Seas and sea basins are not aligned to administrative borders
Decreasing energy and carbon intensity	→ possibly neutral	↘ Decreasing energy and carbon intensity and a shift to more local / regional supplies may reduce the interdependencies between places	→ possibly neutral
Changing nature of tourism	→ Should be neutral, respectively can go either way	↗ Expanding tourism (incl. higher dependence of EU cities and regions from non-EU tourists) and also lifestyles where people stay for longer periods in different places can potentially increase the links, integration and	→ possibly neutral

Trend	Contributes to increasing fragmentation of society and territories	Contributes to further increasing interdependencies of places	Puts further stress on the misalignment of geographical jurisdictions for decision making and the corresponding geography of developments
		interdependencies between places	
Circular economy incl. waste management	↘ Recent ESPON studies suggest that a stronger circular economy has the potential to contribute to more territorial cohesion (ESPON Futures)	↗ Industrial symbiosis process will increasingly require the integration of material flows from different territories	↗ Circular economy approaches economic and environmental systems require cooperation across administrative borders to establish meaningful industrial symbiosis processes
Increasing concentration to few hotspots	↗ Increasing economic concentration to a few hotspots goes together with increasing fragmentation between places thriving and others	↗ Potentially the links between the concentration hotspots as well as the dependence of other places on these hotspots may increase	↗ Potentially the links between the concentration hotspots as well as the dependence of other places on these hotspots may increase the misalignment
Accumulation of wealth / capital among a small group	↗ Accumulation of wealth to a small group is a direct expression of increasing societal fragmentation	↗ The agglomeration of global wealth to a small group most likely goes hand in hand with a concentration of economic decision making power of global level which will compare places and their profitability across the global	→ possibly neutral
New models of participation and democratic engagement	↘ New models of democratic engagement might help to overcome some fragmentations	→ Should be neutral (maybe some potential to increase integration of functional areas)	↗ Potentially some new models of participation and democratic engagement can cut across existing political and administrative delineations
Persistent economic inactivity/unemployment among certain groups, social exclusion	↗ Increasing social exclusion is as such already an expression of societal fragmentation	↗ A possible geographical concentration of social exclusion leads indirectly to increasing interdependencies of places, e.g. via the social welfare system	→ possibly neutral
On-going migratory pressures: internal migrations	↗ Internal migration within regions, countries and Europe will lead to increasing territorial concentration	↗ Increasing territorial interdependencies with demographically growing and declining places	→ possibly neutral
On-going migratory pressures: external migrations	↗ External migration pressures and the political tensions related to it, risk to increase the societal and territorial fragmentation in Europe	↗ External migration flows contribute also to increasing interdependencies between places incl. places of origin, transit and destination	↗ Migration flows challenge administrative divisions as places of origin, transit places and places of (desired) destinations are not part of the same administrative area
Polarisation between autonomy and	↗ Increasing polarisation is an expression of	→ Polarisation should be neutral, the development of	→ possibly neutral

Trend	Contributes to increasing fragmentation of society and territories	Contributes to further increasing interdependencies of places	Puts further stress on the misalignment of geographical jurisdictions for decision making and the corresponding geography of developments
openness	increasing fragmentation	interdependencies depends on which pole prevails	
Asymmetric global demographic growth	↗ Asymmetric global demographic growth is most likely to further accelerated fragmentation at a global level as exciting power balances / pattern will be challenged	↗ Asymmetric global demographic growth may increase interdependencies of places, as regards e.g. services or migration	→ possibly neutral
Preserving Europe's social and economic model	↘ The European model of society attempts to combat societal fragmentation	↗ Europe's social and economic model is built on increasingly stronger ties between places and the freedom of movement	→ possibly neutral

The trends identified in the previous chapter influence either in a positive, negative or neutral way the identified challenges for the future of Europe. This may have some consequences on the spatial dimension of these trends, by identifying that some trends need careful consideration, as they may cause challenges, or which trends may ease the effects of the challenges.

Technological trends. Technological trends are exogenous trends to which policies need to adjust. Their impacts may vary being either positive or neutral. When it comes, for instance, to industrial transformation, it may increase fragmentation with some territories becoming hotspots and others lagging behind. This fragmentation would also increase places' interdependences and cause a rather negative impact on the territorial development. Changing the educational landscape seems to be rather neutral on spaces in Europe, without largely influencing places interdependencies or places fragmentation.

Environmental trends. Environmental policy is one of the policies that requires special attention when it comes to territorial development objectives, as environmental issues go beyond administrative borders and require a strong cooperation and linkages between places. When linking the environmental trends with the identified challenges, the impacts on objectives on territorial development seem rather negative. Taking for instance, climate change, and given its geographically diverse and asymmetric impacts and the requirement for stronger cooperation, or pollution of the seas and loss of biodiversity which both may have a neutral influence on increasing fragmentation, combined with the required strong linkages and cooperation between places, they seem not to have a positive impact on territories. Decreasing energy and carbon diversity is the only from the environmental trends which would positively influence territories in the EU.

Economic trends. As regards economic trends, the picture differs per identified trend. Circular economy is not linked to administrative geographies and has the potential to contribute to territorial cohesion, increasing the integration of material flows between administrative borders. This may have a positive impact on territorial development policies and objectives in future. This is, however, not the case for the trend on increasing concentration to few hotspots, which may increase both the fragmentation between places and the dependence of hotspots between places. This might also increase the misalignment of geographical jurisdictions for decision making. As a result, it may have a negative impact on territorial development objectives. Expanding tourism, seems to overall have a neutral effect on spatial development, without negatively influencing the three core challenges identified so far.

Societal trends. The societal trends identified seem to potentially have a negative impact on territorial development objectives. Persistent economic inactivity and unemployment among certain groups causing social exclusion, on-going internal and external migration, the desire to close borders and minds, the asymmetric global demographic growth and the accumulation of wealth in a few groups can result in further fragmentation across spaces. Similarly, these trends exacerbate the interdependences across territories or even ignore them (when it comes to closing borders), stressing at the same time the misalignment of geographical jurisdictions for decision making. The new models of participation and democratic engagement, would on the contrary overcome some fragmentations and go beyond administrative borders, eventually having a positive impact on spaces.

Political trends. The political trend that shows high territorial relevance and need for action is the preservation of Europe's social and economic model. This trend seems to have a positive impact on objectives related to territorial development. For instance, the trend does not increase the fragmentation of society and territories, while it builds on stronger links between places.

Instead of looking at the table from the perspectives of different groups of trends, it can also be summarised from the perspective of the three key challenges, i.e. by columns. Most trends indeed accelerate the challenges and increase their effects. Only few trends have the potential to mitigate them. This confirms the need for action and the territorial relevance of the trends which were discussed at the 2nd meeting of the Strategic Advisory Forum.

Increasing fragmentation of societies and territories. This challenge is further accelerated by most of the most relevant trends. Especially trends related to concentration such as the focus on few hotspots or the accumulation of capital and growth among a small group clearly contribute to this challenge. Others like social exclusion or polarisation between autonomy and openness are direct expressions of fragmentation. Only new models of democratic engagement, attempts to preserve the European social model and approaches of the circular economy have the potential to mitigate the increasing fragmentation. This implies a strong need for political action in order to tackle the challenge appropriately.

Increasing interdependence of places. Only a decrease of energy and carbon intensity has the potential to reduce the mutual influences and impacts between places in quantity and quality. Most trends however rather contribute to further integration of, and stronger linkages between places, be it

circular economy where different material flows need to be integrated, or the loss of biodiversity in the field of environmental trends, which leads to a need for more eco-system services from other territories. This suggests that interlinkages between places will most probably increase and deepen in the future. This increasing interdependence needs to be better reflected in policy-making by applying a wider geographical perspective.

None of the selected trends will mitigate the **misalignment between geographical jurisdictions of policy making and relevant developments**. While most trends are rather neutral, some will contribute to further misalignment, e.g. migration flows that do not follow administrative boundaries or new models for participation which often reach beyond traditional administrative structures and apply a rather functional and needs-based approach. These trends show that the traditional container perspective, which presumes that territories are containers with clear boundaries, will not hold in the future. This hints at a clear need for more cooperation and more open and fuzzier administrative boundaries.

To sum it up, we can see that the most relevant trends confirm the challenges and draft key messages developed for the Territorial Reference Framework so far. These trends offer a clear basis for the scenario building, discussed in the next paper for the Strategic Advisory Forum. For the development of scenarios, different approaches can be used. The next chapter gives first some definitions to keep in mind before working on the scenarios, as well as presents different paths to take for the scenario development.

5 Towards scenarios in times of pervasive uncertainty

Constructing long-term scenarios in an age of pervasive global uncertainty is extremely challenging. In many ways the current situation constitutes a structural break, i.e. a rupture in the underlying trends. This makes forecasting extremely challenging as past trend data do not have the required predictive power for the future.

Overall, not all trends should be seen as negative but they together result in an unpredictable and uncertain world, where continuous change has a profound effect on citizens.

Under this scenario of pervasive uncertainty, there are policy implications that can be drawn. These include a far greater focus on risk and crisis management, as well as a strong focus on flexibility and speed of policy response as a pre-condition to effective reactions to change / emerging developments (both positive and negative).

Nonetheless, within this context globalisation dynamics are likely to influence the nature of economic interactions, which will become increasingly decentralised and personalised, while easily crossing borders.

The precautionary principle remains central but there is an increasing need to apply the innovation principle, to shape change in a positive way. There will be a continuous challenge to existing structures and processes, implying a need for stronger efforts of more traditional political actors to remain relevant. These political actors – most likely having to accept the inevitability of this environment of continuous change – will have to compete with a strengthened, more populist-oriented narrative based on identity, closed borders and protection.

Possible ways towards a Territorial Reference Framework

Based on the discussion of various trends shaping the future of Europe and its territorial diversity, the project moves forwards to developing scenarios and visions for Europe. The purpose is to inform and support the development of a renewed Territorial Agenda 2020, taking into account the conclusions of the Luxembourg EU Presidency (2015): This process should be informed by a long-term scenario and visioning process, involving relevant stakeholders from all sectors and levels of government leading to the development of long-term European territorial development perspective and mid-term policy recommendations (European Territorial Reference Framework for Europe).

Understanding of 'Scenarios' and 'Visions'

Following definitions for territorial scenarios and visions for Europe 2050 developed during the Luxembourg EU Presidency (Zillmer et al., 2015), we propose the following understandings:

Scenarios are a plausible description of how the future might develop, based on a coherent and internally consistent set of assumptions ('scenario logic') about the key relationships and driving forces.

- Scenarios are used in different phases of the policy process. Often they provide the starting point for policy development.
- Discussing scenarios can be a vehicle for exchanging ideas, possible agreements and changing the mind sets of policy-makers.
- Scenarios are based on empirical evidence, quantitative and/or qualitative information. Thus, they can provide a sound basis for developing recommendations or illustrate the likely effects of different policy options.
- In order to take all relevant perspectives into account, including processes driven by experts, participatory processes are a key element in the development of scenarios.
- Addressees are decision-makers in the fields of territorial policies and various other relevant sector policies. Moving beyond this group of territorial specialists and 'associates' is however a challenge that requires that sector policies are addressed in appropriate and convincing ways.

Visions define a desirable picture of the future. This picture is based on a core set of ideas, values and principles. Other terms also used to describe similar long-term pictures of desirable futures are 'perspectives' or 'strategies'. However, perspectives and strategies have a stronger focus on steps towards a desirable future, whereas 'visions' often only describe the picture without much explanation of how to actually achieve it.

- There is a willingness among policy-makers to work on visions. The rather different time horizons used by vision processes and policy-makers are however difficult to align.
- When identifying the relevant themes for visions it is important to search for common interests and objectives and to focus on aspects that need to be tackled (also) beyond national policy-making.
- Vision processes can be useful in raising awareness among policy-makers and in work to identify common goals and achieve a common understanding.
- Addressees are decision-makers from both the territorial policy community and from various other sector policy areas. The long time spans required for vision processes however undoubtedly hamper the development process and the continuity of ownership among the players involved.
- The relation between the territory and visioning process needs to be clarified. A territorial vision is not an end in itself. It should serve larger objectives, such as well-being and/or living conditions. Accordingly, a territorial vision should be understood to represent only the territorial translation of a spatially blind objective or vision.

In the discussion of the 2nd meeting of the Strategic Advisory Forum, several possible paths for developing scenarios have been highlighted:

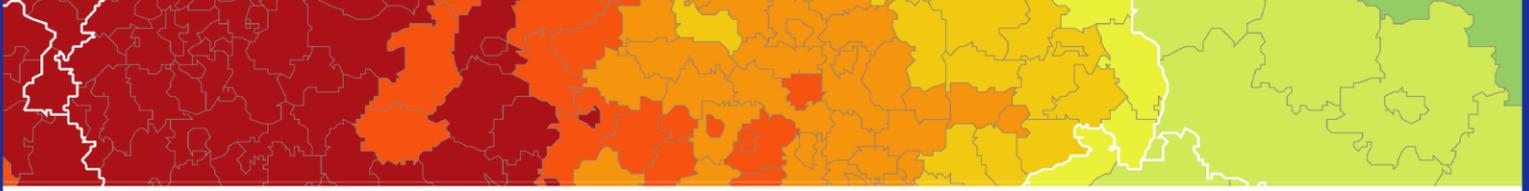
- **From trends to scenarios.** Taking further the trend discussion, in particular exogenous trends could be used to develop scenarios for Europe. Some trends will shape our future with policy making mainly reacting to them, rather than shaping them. This is in particular true for environmental and technological trends. A selection of exogenous trends and different bifurcation points, can serve as a robust basis for scenario development – in particular when considering territorially differentiated implications of the trends.
- **From key policy decisions to scenarios.** Serving policy development, different outlooks on key policies can function as starting point for scenario building. In a European context technology policies, migration policies and monetary policies could be of particular interest. For these policy areas a set of scenarios could be developed assuming different possible policy decisions (or pathways) for each of them.¹ Scenarios based on different key policy decisions and their knock-on effects and territorial implications would serve as highly policy oriented input to the next steps of the project work.
- **From EU integration levels to scenarios.** Taking a wider and more comprehensive approach, different outlooks of EU integration can also serve as starting point for scenario building. In this case, scenario building would focus on back-casting rather than fore-casting, starting from assumptions or ‘what if questions’ about EU integration, e.g. ‘more of the same’, ‘more integration’ and ‘increasing disintegration’. For each of these questions the territorial implications could be revealed in a scenario work.

Considering these three possible ways forward as well as the above understandings of scenarios and visions, the project team will prepare the next steps towards scenarios and visions to be discussed in autumn 2018. The meeting of the Strategic Advisory Forum on 2nd of October 2018 will focus on mid-term scenarios (2030), and the meeting on 20th of November 2018 on a long-term territorial vision for 2050.

¹ In the same way scenarios could also be build around different assumptions about the future Multiannual Financial Framework of the EU or about EU Cohesion Policy. However, this was not followed up as these policies have a shorter time horizon than the scenarios.

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