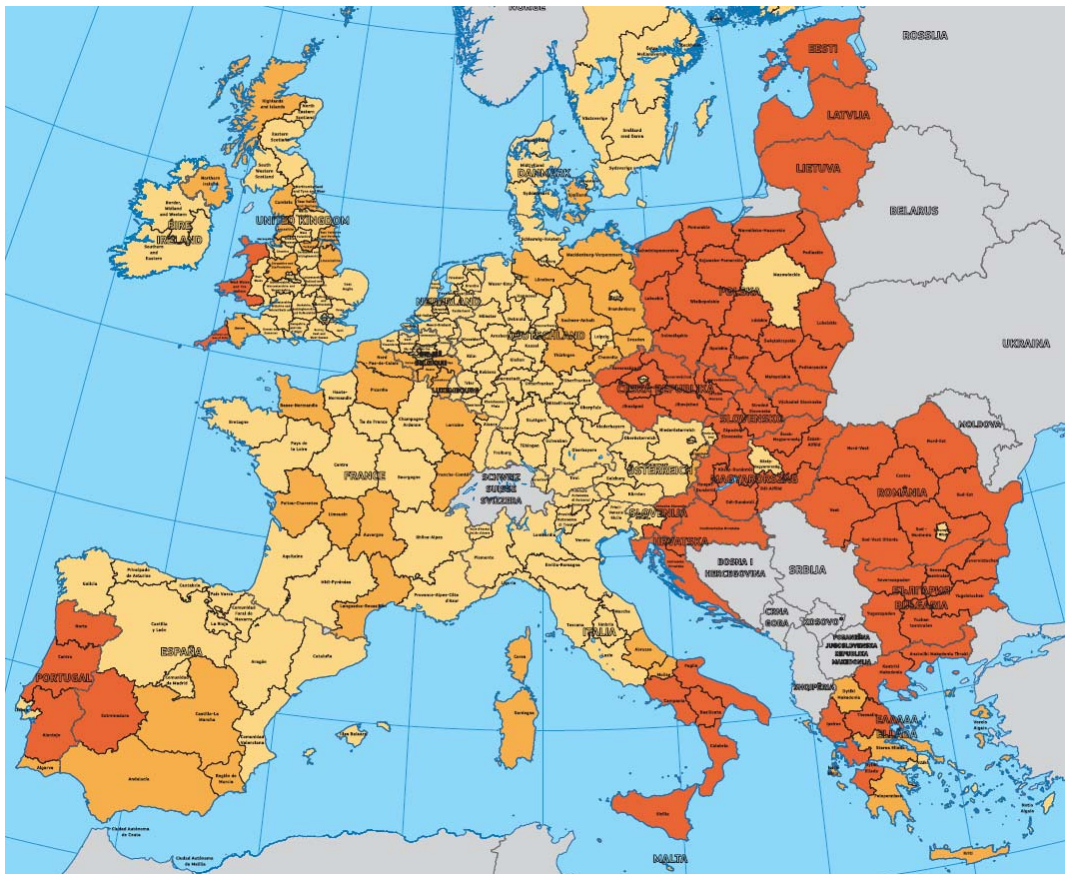


Policy Brief on Smart Specialisation

Fraunhofer Institute for Systems and Innovation Research ISI



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Karlsruhe
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Henning Kroll

Background

Since 2013, Fraunhofer ISI has conducted annual surveys of policy maker's perception of the European Commission's RIS3 agenda, starting from general assessments (2013) and views on options for implementation (2014) on to concrete questions on obstacles, monitoring and the need for interregional collaboration (2015).

About one year after the formal approval of most RIS3 documents and of the launch of the implementation of most ESIF programmes, the European Commission's Directorate-General for Regional and Urban policy has triggered a continuation of this effort by the procurement of a fourth round of the by now established empirical exercise.

Close to a year after the formal completion of most ex-ante relevant strategies and at a time when more and more action plans are moving towards completion, this is the time to take a first look backward in an appraisal of which lasting changes the RIS3 agenda may have brought in regional or national innovation policies.

Following the formal strategies' approval, it remains to be seen if the momentum created by the ex-ante conditionality has in fact translated into relevant processes in the real economy (as envisaged by the smart specialisation concept) or whether, after ex-ante compliance, many exercises have come to a halt or faded away in silence.

On a practical level, therefore, this year's survey focused on the compilation of views on the substance of processes of "entrepreneurial discovery" which were envisaged as the new approaches key moment in the smart specialisation literature and, in a slightly modified version, put as a stipulation for RIS3 strategy approval. While in some regions have adopted the concept eagerly, in other it remains in need of explanation up to today.

Consequently, this year's survey focused on concrete questions to an even stronger extent than its predecessors: "Are there still working groups?", "Whom are they led by?", "Do local stakeholders live up to their envisaged roles?", "Are their findings taken up by policy?" "What promise do policy makers see in the RIS3 processes continuation?", "What prospective role do they see in interregional collaboration?", "What sort of monitoring could capture their activities?"

In summary, the study seeks to reflect on the current status quo of RIS3 policy in regional policy as is, identify obstacles on the way to what was originally intended and derive informed policy conclusions with respect to further steps on the way to developing policies in support of smart specialisation in the coming years. In doing so, it will reflect on a differentiation of approaches that may be needed across different Member States.

Empirical Basis

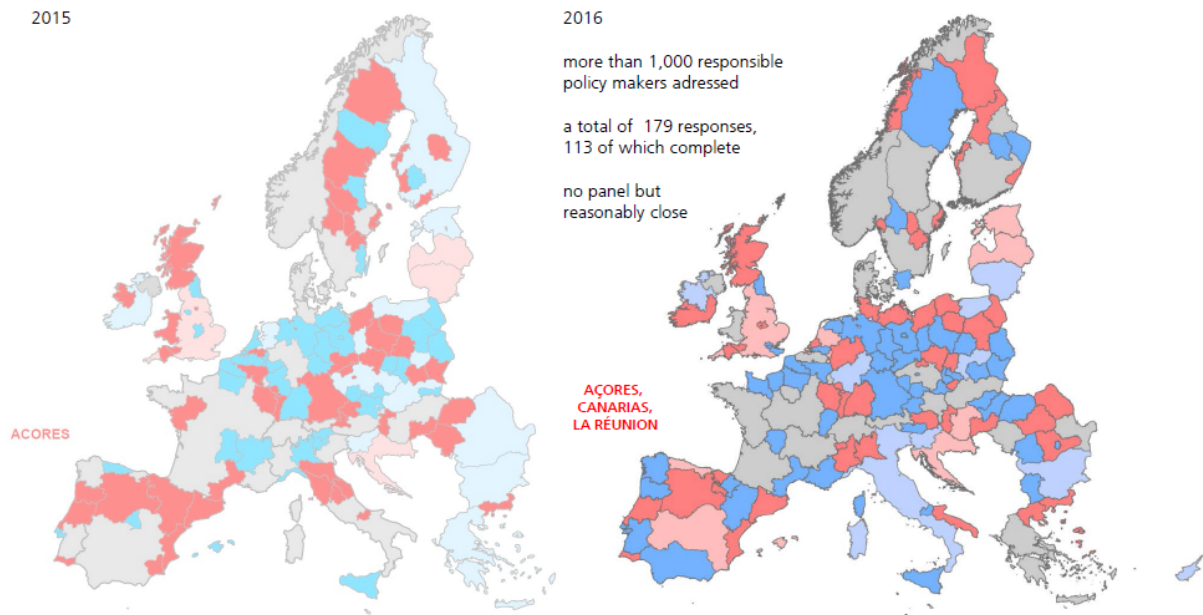
The most recent round, launched in May 2016 and completed in early August the same year focused on the continuation and substance of entrepreneurial discovery after the formal completion of the formal strategies. Overall, the questionnaire comprised some 35 questions, slightly more than in its second and third round.

As described in detail in Kroll (2015), the survey seeks to address responsible policy makers rather than external observers. For that purpose, a database of addressees was built from information available on the JRC's RIS3 Platform, Inforegio and individual regions' websites. Every year, this list is updated and cleaned before the survey is conducted again and tests during the survey reflect that the aim of reaching policy makers rather than external parties. While it will often initially be the case that several people within one region are contacted based on their past and present involvement in the process, the approach relies on the experience that answers to such survey tend to be coordinated within administrations, usually resulting in no more than one answer per region. During the first three rounds the pattern of response from single regions corroborated this assumption.

Technically, the survey is conducted as an anonymised online survey, using QuestBack's EFS survey tool which allows researcher to track detailed response patterns while ensuring full anonymity for the individual respondent. In 2016, the survey link was sent out to more than 1,200 potential contacts of which 179 decided to open the questionnaire. 113 of these questionnaires were answered completely, 66 partially – a slight increase compared to earlier rounds. As illustrated by Figure 1, the survey achieves a good coverage of regions and Member States in a geographical sense, receiving input from more than 50% of all managing authorities across Europe. Somewhat more than 50% of the respondents had filled out one of Fraunhofer ISI's earlier questionnaires, while due to changes in responsibility, shifting remits, etc. more than 40% answered the survey for the first time. The survey is thus not in a strict sense a panel, but has a substantial core that is – even more so if that characteristic with a view to administrations rather than individual persons answering.

While a certain bias towards interested and engaged regions is possible, the survey can by no means be considered as representing a distorted opinion of 'a happy few'. In general, Figure 2 illustrates a good and balanced coverage of all EU Member States as well as a balanced representation of large and small administrative territories. More than 85% of responses come from regional rather than national administrations and more than 75% are directly or indirectly involved in the process of RIS3 development *within* administrations. Furthermore, more than 60% work in an administration with a direct remit in regional policy, complemented by 20% from the fields of research and industry. Further analysis shows that many share a certain experience with strategic innovation policy. As Figure 3 illustrates, ESIF funding plays a major role in the financing of most of the surveyed regions' regional innovation policy and the smart specialisation is assessed rather positively. In line with this, additional analyses show that there is continued or growing interest in RIS3 in more than 85% of the surveyed administrations.

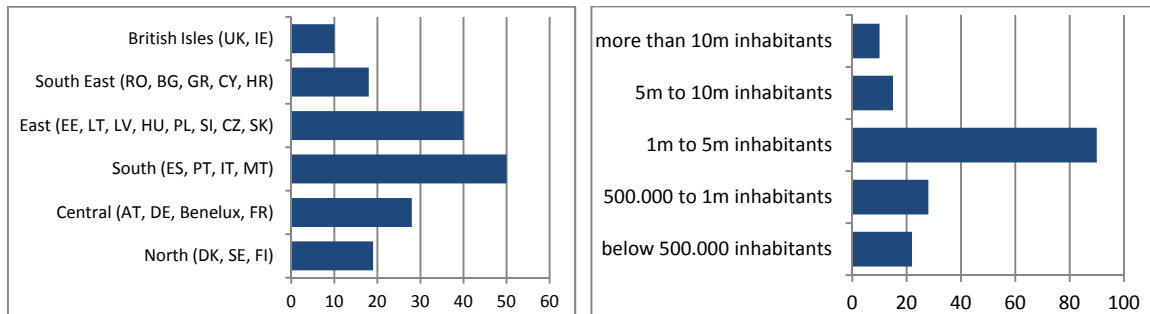
Figure 1: Coverage of 2016 Fraunhofer ISI survey (as reference: 2015 survey)



Note: dark blue: partially completed questionnaire (region); dark red: fully completed questionnaire (region); light blue: partially completed questionnaire (nation); light red: fully completed questionnaire (nation)

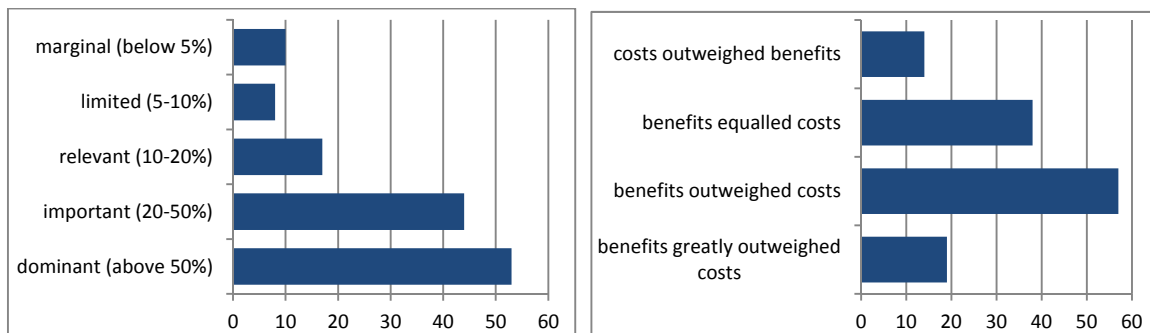
Source: Own Analysis, Maps: ESRI ArcMap

Figure 2: Coverage by country and size of relevant territory



Source: Own Analysis

Figure 3: Role of ESIF funding for regional innovation and general assessment of RIS3



Source: Own Analysis

Empirical Basis

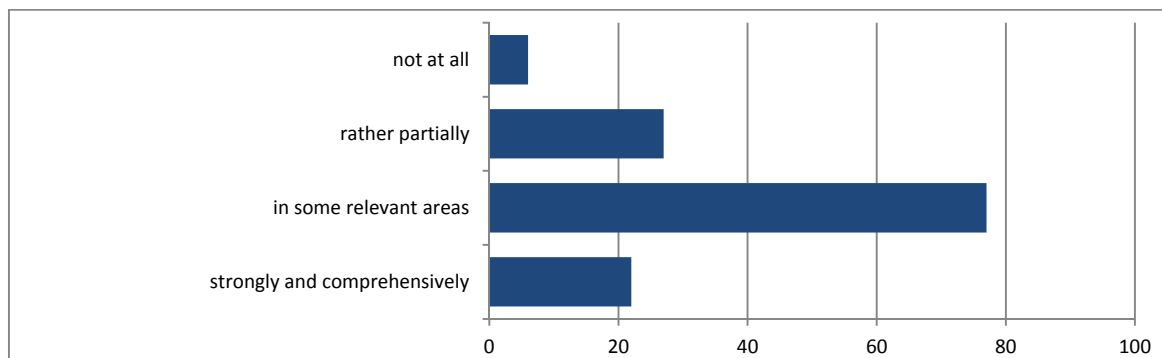
Overall, the main findings of the survey can be structured along five main headlines

- A. General state of play of entrepreneurial discovery
- B. Participation in entrepreneurial discovery
- C. Interest in and practice of interregional collaboration
- D. Interest in and practice of the coordination of funding
- E. Views on monitoring

A. General state of play of entrepreneurial discovery

Quite clearly, the survey documents that the initially quite broad based processes of entrepreneurial discovery have entered a new stage in which those areas that merit further activities have already been identified and are further pursued while activities in others have declined or ceased. Overall, about 60% describe such a continuation in “relevant areas” while less than 20% see a “comprehensive” continuation. Importantly, a “rather partial” continuation was mentioned by hardly more than 20% as well. Arguably, therefore, the increasing focus found in processes of consultation and project definition can be interpreted as a positive sign of evolution and further development – rather than a sign of fading activities which are only partially continued.

Figure 4: Continuation of entrepreneurial discovery processes

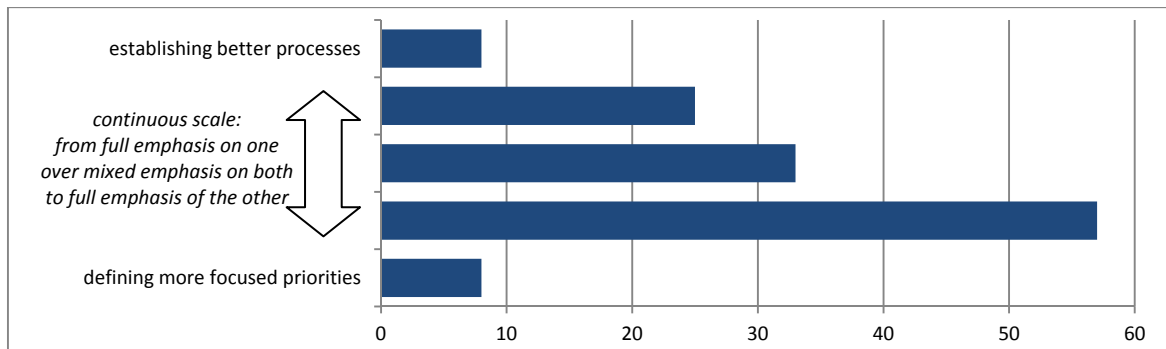


Source: Own Analysis

In general, most see the entrepreneurial discovery process as an end towards the definition of priorities, less as a means to establish processes and governance mechanisms necessary to ensure future sustainability and momentum (Figure 5). Nonetheless, many to most seem to recognise that a one-dimensional approach is not realistic and that at least a certain emphasis on capacity building will be required.

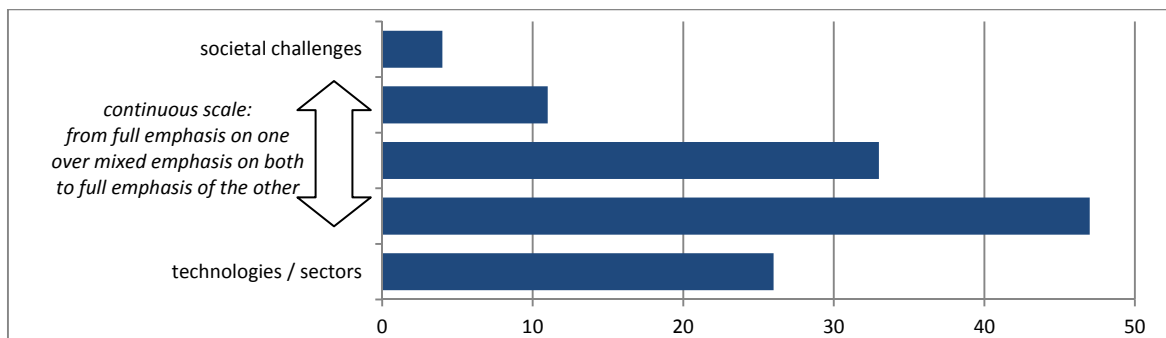
Furthermore, most entrepreneurial discovery processes are still to a stronger extent focused on technologies than on societal challenges (Figure 6). Nonetheless, many seem to acknowledge that a certain mix is needed. What seems encouraging in this regard is that a stronger focus on societal challenges appears to be realised in those countries that, other than Central Europe, face a pronounced need to orient their RIS3 in that direction.

Figure 5: Main ambition of entrepreneurial discovery processes



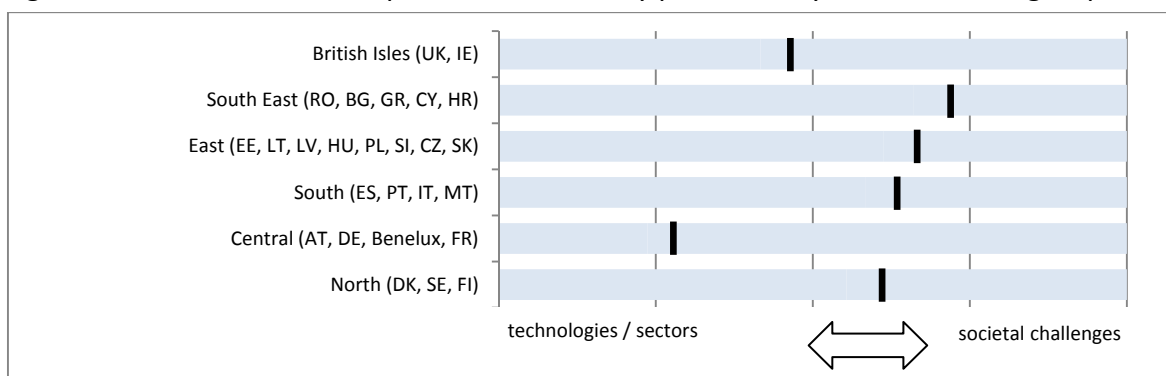
Source: Own Analysis

Figure 6: Main orientation of entrepreneurial discovery processes



Source: Own Analysis

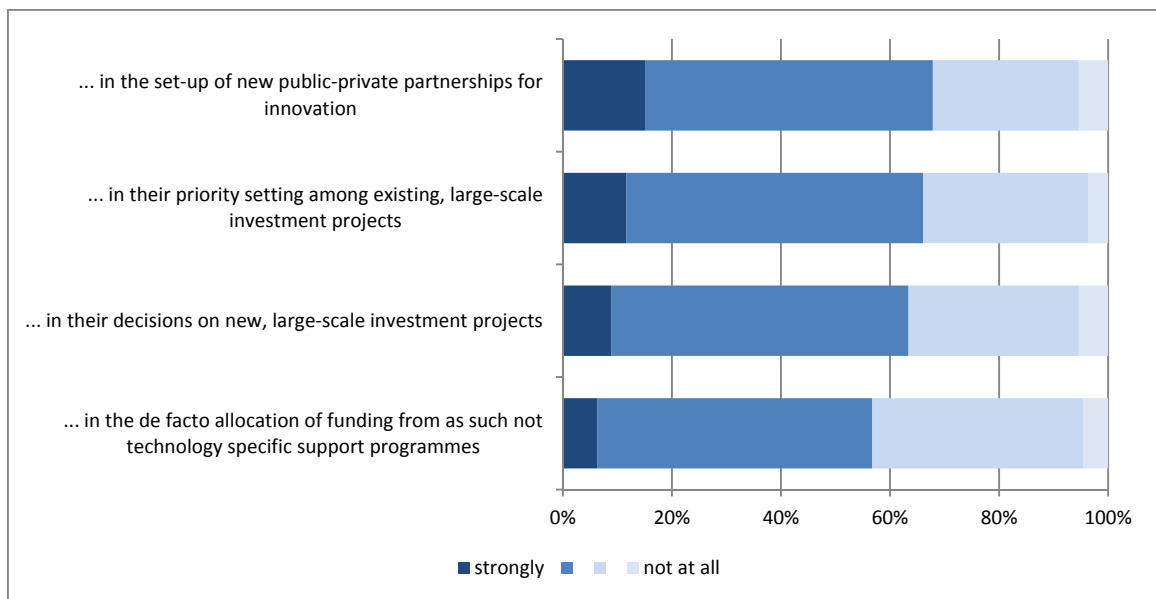
Figure 7: Orientation of entrepreneurial discovery processes by Member State group



Source: Own Analysis

On average, EDP outcomes are considered to some extent by between 50% and 70% of the policy makers in the surveyed administrations (Figure 8). While a strong and direct connect between EDP and policy making is achieved in hardly more and 10-15% of all cases, it is even less common that they remain completely detached from the policy process. Currently, only about 5% of respondents find that EDP have little to no relevance for policy makers at all. Most prominently, EDP outcomes are considered when it comes to decisions on the set-up of public-private partnership or larger-scale projects but less so in the distribution of existing funding programmes. In principle, this seems well in line with the RIS3 agenda’s ambition of forging new partnerships for innovation and economic transformation as well as to determine the strategic direction of innovation policy. Overall, similar results are found with a view to the RIS3 process’ effect on budgetary allocations that is found notable in about 60% of all surveyed administration while about 40% consider such effects to be limited.

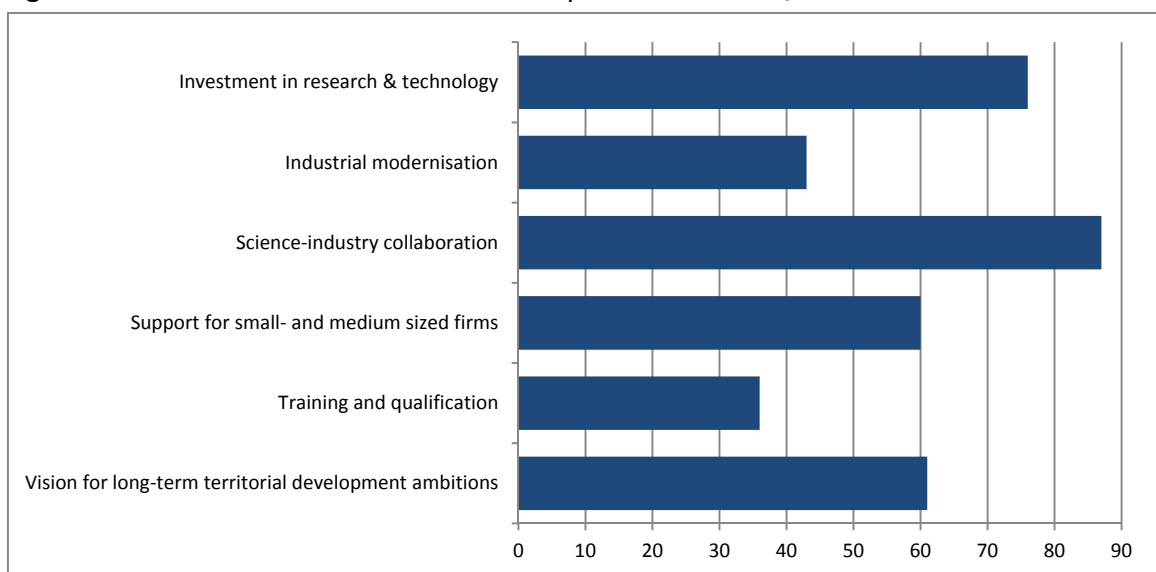
Figure 8: Consideration of RIS3 / EDP Outcome by Policy Makers



Source: Own Analysis

Quite clearly, the most commonly expected benefit or impact of EDP is one in the areas of investment in research and technology and/or science-industry collaboration, followed in a certain distance by impacts on SME support and long-term vision building (cf. Figure 9). Somewhat worryingly for an agenda that set out to promote economic transformation, accompanying effects in the areas of industrial modernisation as well as training and qualification are considered likely by less than a third of respondent. To a certain extent, this is a natural outcome of the RIS3 process' formal anchoring in the Common Provision Regulations. Nonetheless, it does not necessarily bode well for their potential future economic impact in a more comprehensive sense. In line with this, further analysis reveals that slightly less than half of all respondents indicated that EDP have increased policy makers

Figure 9: Areas in which future benefit is expected from EDP/RIS3 activities

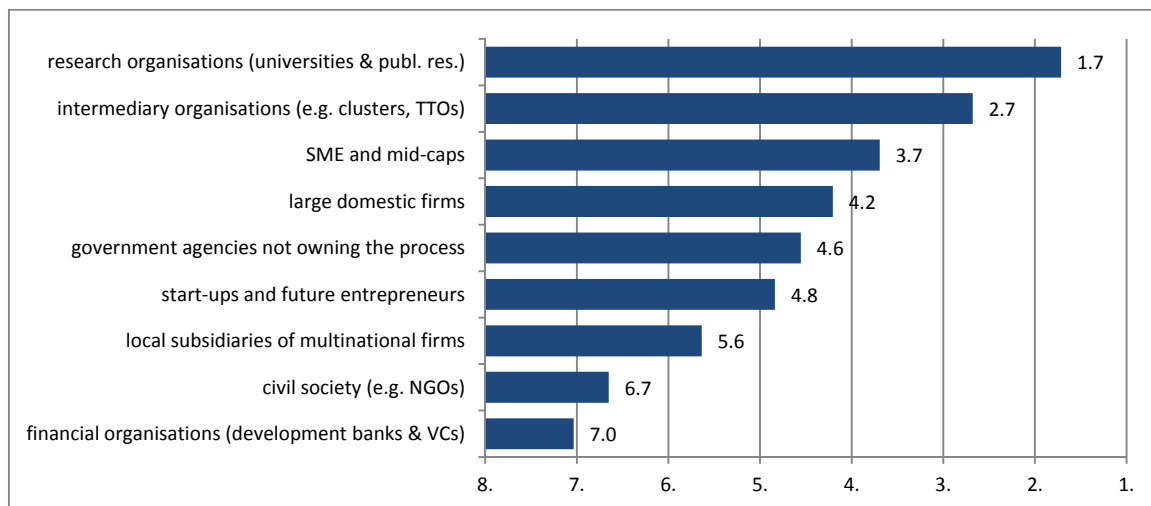


Source: Own Analysis

B. Participation in Entrepreneurial Discovery

As Figure 10 clearly shows, the most important actor driving nominally entrepreneurial processes of discovery are in fact research organisations. On a positive note for business involvement, the second most relevant stakeholder are intermediary organisations, whose role, however, differs notably between Member State groups. Across the board, start-ups, local subsidiaries of multinational firms, civil society actors and financial organisations, i.e. many of those whose input would make a key difference in identifying truly novel domains of smart specialisation remain underrepresented.

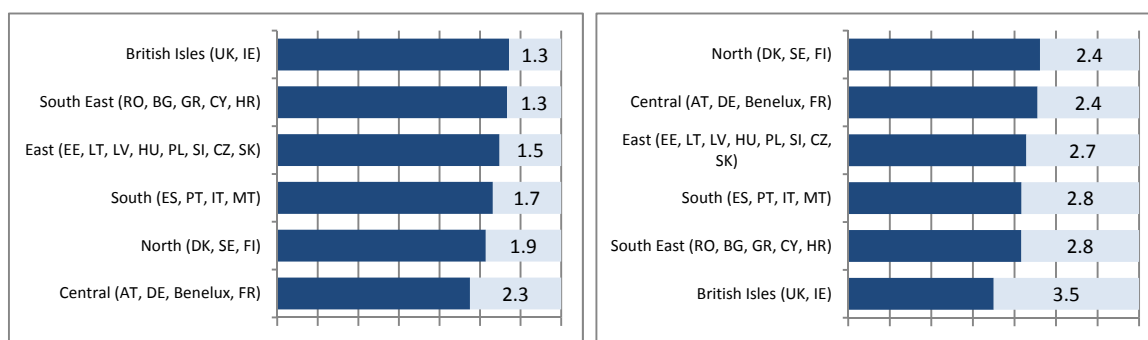
Figure 10: Stakeholders engaging in EDP by average rank of importance



Source: Own Analysis

As illustrated by means of example in Figure 11, the composition of stakeholders involved in EDP differs notable across country groups. As can be seen, the role of universities and RTOs becomes even more prominent in countries not known for their good intermediary system whereas clusters and other development organisations appear more prominently in those which have an established governance infrastructure in this regard. Further analysis illustrates that in South-Eastern and Eastern Europe, selected domestic firms are engaged in the processes more commonly than elsewhere. Multinational firms, to the contrary, cannot be engaged. From this situation, a danger of bias may result. On a positive note, the engagement of civil society actors is at least more commonplace in South-Eastern and Eastern Europe than elsewhere (around rank 5), in line with these countries priority needs.

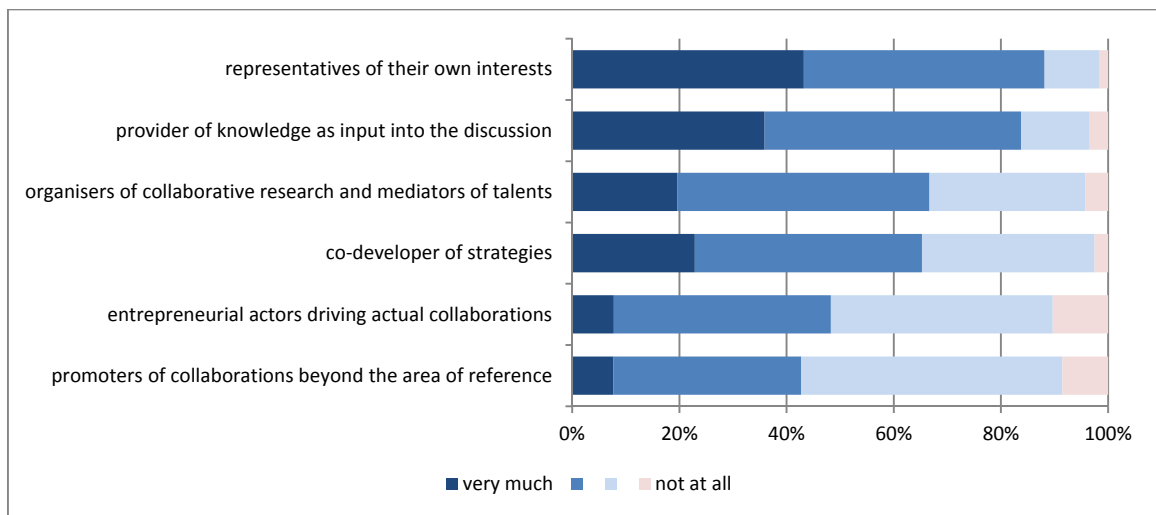
Figure 11: Role of stakeholders by country group (left: universities/RTOs, right: clusters)



Source: Own Analysis

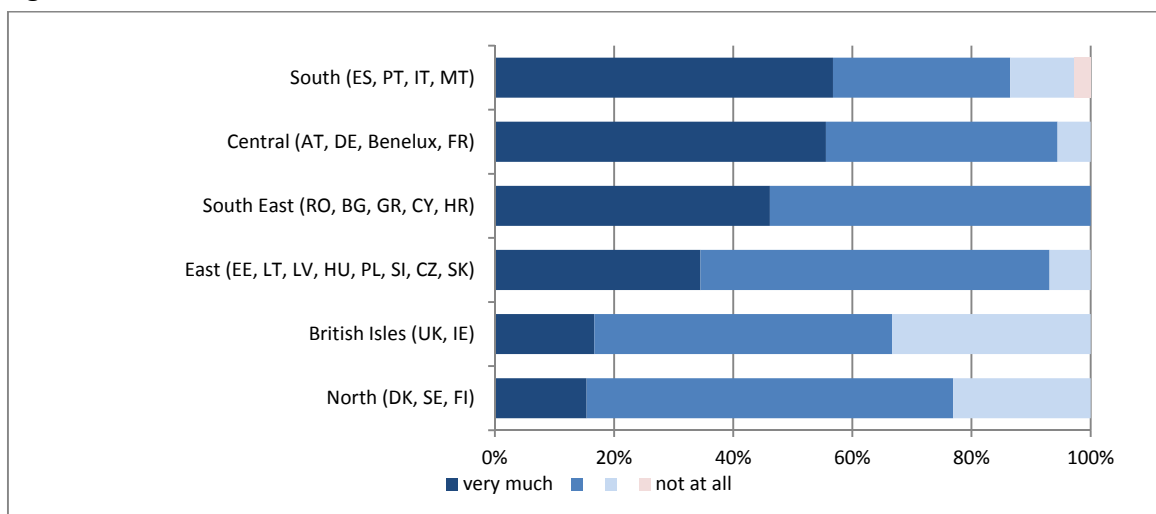
With a view to the role of universities, Figure 12 clearly underlines that the initial hope invested in their acting as entrepreneurial actors in less entrepreneurial environment may be somewhat overstated. By and large, they are perceived as acting along the traditional roles as knowledge providers, organisers of research and providers of talent while their role as entrepreneurial drivers of collaborations or ‘antennas’ connecting the region to external knowledge sources is rather limited or, at least, rare. Further analyses reveal notable exceptions from this rule in the Nordic Countries and, to a lesser extent, parts of the UK and Eastern Europe. Figure 13, in contrast, indicates a further relevant finding with a view to universities’ generally most important role as (mere) representatives of their own interests in negotiations, rather than as contributors to open and collaborative discussions. As it seems, this role becomes more dominant the higher the respective processes of consultation are anchored in the political hierarchy and the larger the average size of the territory they cover. Despite their otherwise quite pronounced differences in institutional and socioeconomic background, that is a clear common feature of Southern, Central and South-Eastern Member States where this less than constructive role is most prevalent.

Figure 12: Perceived Role of universities in EDP



Source: Own Analysis

Figure 13: Perceived role of universities in EDP



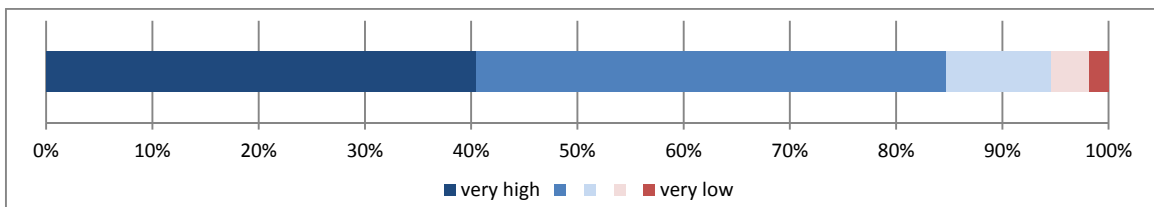
Source: Own Analysis

C. Interest in and practice of interregional collaboration

As Figure 14 clearly illustrates, a substantive majority of regions sees either high or very high potential in increased interregional collaboration. Only a small minority doubts this approach in principle. As illustrated in Figure 15, trans- or interregional cooperation is naturally considered most beneficial in the Nordic countries where smart specialisation processes are commonly anchored at the county level, making cross-border considerations a necessary prerequisite for all economically relevant considerations. Moreover, administrations in the economically weaker environments of Southern and Eastern Europe rightly acknowledge a strong need to connect externally. A somewhat counterintuitive finding, in contrast, is that administrations in South-Eastern Europe see the lowest potential among all respondents, despite the fact that the economic situation of the economies that they are representing would strongly suggest a need for such collaboration. That said, even their assessment remains an, in general, positive one.

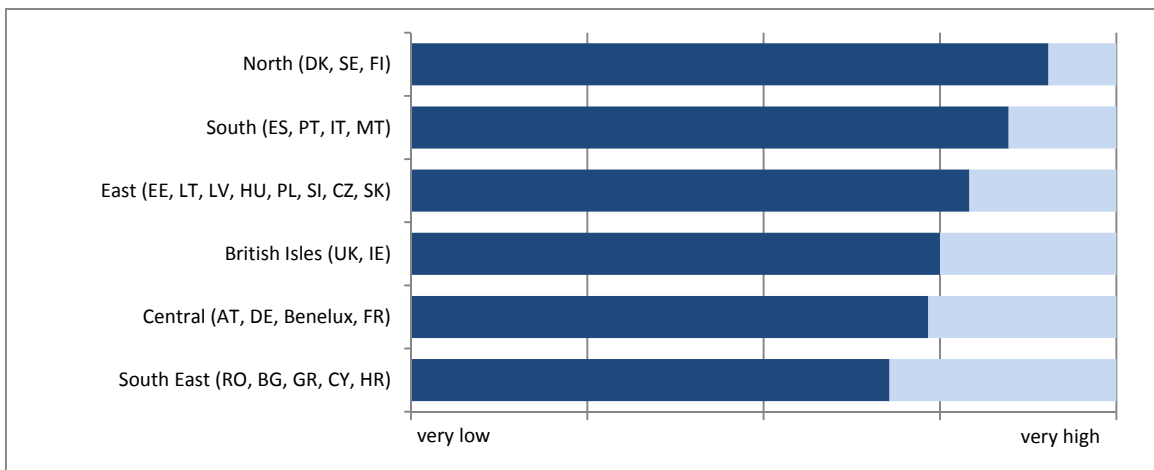
Further analysis, however, reveals that so far, most interregional collaboration takes place within the context of separate cross-border initiatives (e.g. INTERREG) or strategic collaborations that do per se do not require concrete funding outside of the territory (e.g. Vanguard Initiative). In line with their abovementioned view on potential benefits, few state openly that they have no interest to engage between their regional borders. In practice, however, there seem to be substantial political obstacles to opening funding opportunities from proprietary budgets to beneficiaries outside the constituency. So far, less than 10% of all respondents suggest that they are willing to consider extra-regional funding under Art. 70(2) CPR, leave alone already deploy such funding.

Figure 14: Perceived potential benefits of trans- and interregional cooperation



Source: Own Analysis

Figure 15: Perceived benefits of trans- and interregional cooperation by country group



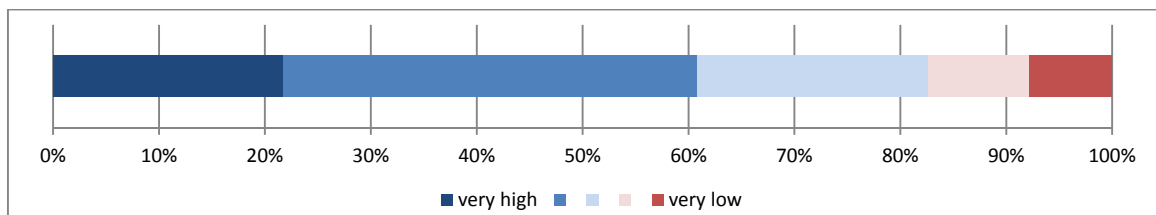
Source: Own Analysis

D. Perceived benefits of coordinating ESIF funding with other European sources

Even if somewhat less obviously than in the case of trans- and interregional cooperation, a staunch majority of more than 60% of all respondents sees either high or very high potential in an improved coordination and combination of European funding (cf. Figure 16). Slightly different from the above case, the largest hopes are placed on such initiatives in Southern and Eastern Europe, underlining their particular relevance for less developed innovation systems and economic environments. In Central Europe, the assessment is more ambivalent, likely resulting from the on average lower level of ESIF allocation and the generally lower need for capacity building. Once more, respondents from South Eastern Europe maintain that they see a more limited potential. In this case, moreover, they are pessimistic in an absolute, not only a relative sense (cf. Figure 17).

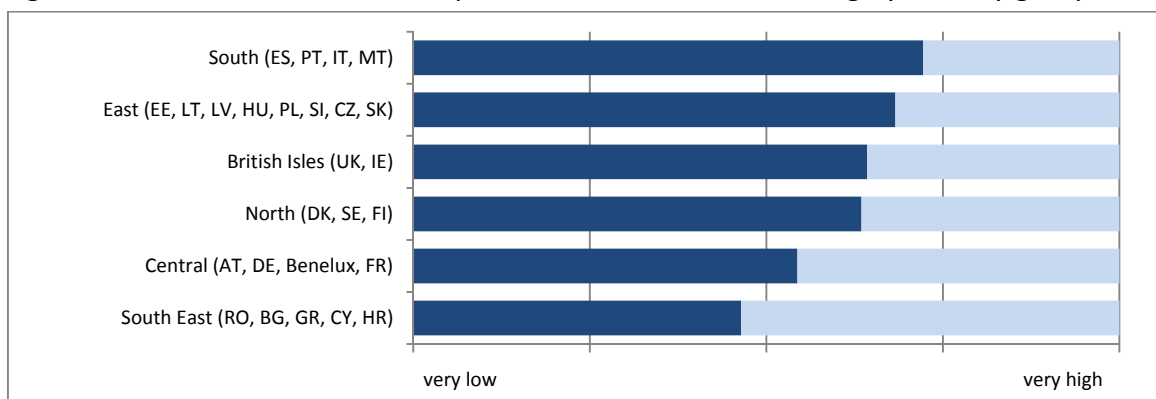
Further analysis, however, reveals that currently realised efforts are in a general sense line with the ambitions of the European Commission’s Stairway to Excellence agenda in that the most commonly mentioned ambitions to use ESIF funding are “to create human capital and skills needed to participate in Horizon2020 projects” and “to help innovation actors join international R&I networks”. Remarkably, the use of ESIF funding “to create infrastructure capacities needed to participate in Horizon2020” is only mentioned in sixth rank, with ‘compliance activities’ like “demonstrating a link of Horizon2020 project proposals with the relevant RIS3 priorities *as required*” mentioned more prominently. More importantly, true substitution on average not considered relevant with less than 40% seeing a point in “using ESIF funding to replace Horizon2020 or other funding” and less than 60% seeing a point in “using ESIF funding to expand financial instruments under Horizon2020 or COSME”. That said, all other ambitions are considered relevant by between 70% and 90% of respondent.

Figure 16: Perceived potential benefits of improved coordination of funding



Source: Own Analysis

Figure 17: Perceived benefits of improved coordination of funding by country group



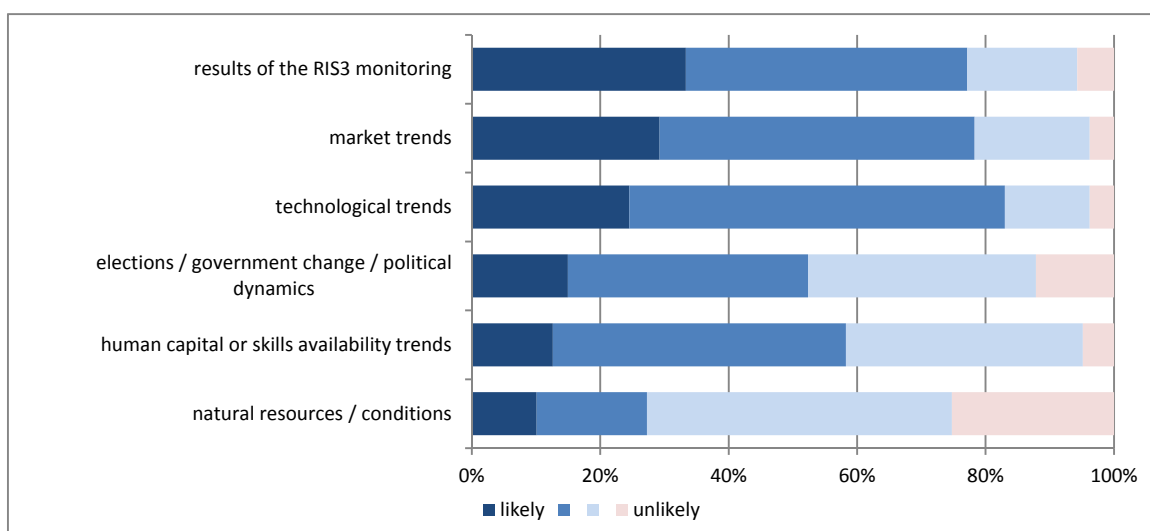
Source: Own Analysis

E. Views on monitoring

Overall, respondents see promise in the use of monitoring as a means to adapt their strategies in the course of the running support period. In line with earlier surveys' findings that most would choose similar or identical priorities if they were to repeat their RIS3 effort, only about 40% foresee that their initial RIS3 strategy will at some point be in need of substantive or at least notable amendments. Nonetheless, close to 80% agree that not only market or technological trends, but also information from a well designed monitoring system might motivate them to consider the option (cf. Figure 18).

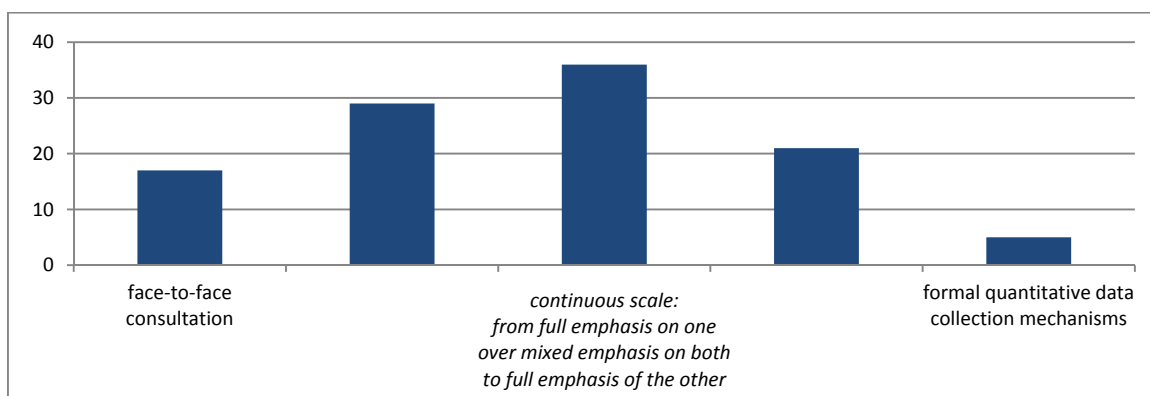
With a view to the nature of the monitoring, most suggest a balanced mix of face-to-face consultations and formal data collection mechanisms (Figure 19). Quite clearly, they are therefore not envisaging a monitoring in the sense of an external controlling of quantitative targets, but rather a more comprehensive, diagnostic approach which they can practically apply to gain additional information on the progress of their open-ended and evolving strategies. AS such, the findings do not put into question the necessity for a parallel external controlling but underlines a second, important function of monitoring.

Figure 18: Potential motivating factors for RIS3 strategy adaptation



Source: Own Analysis

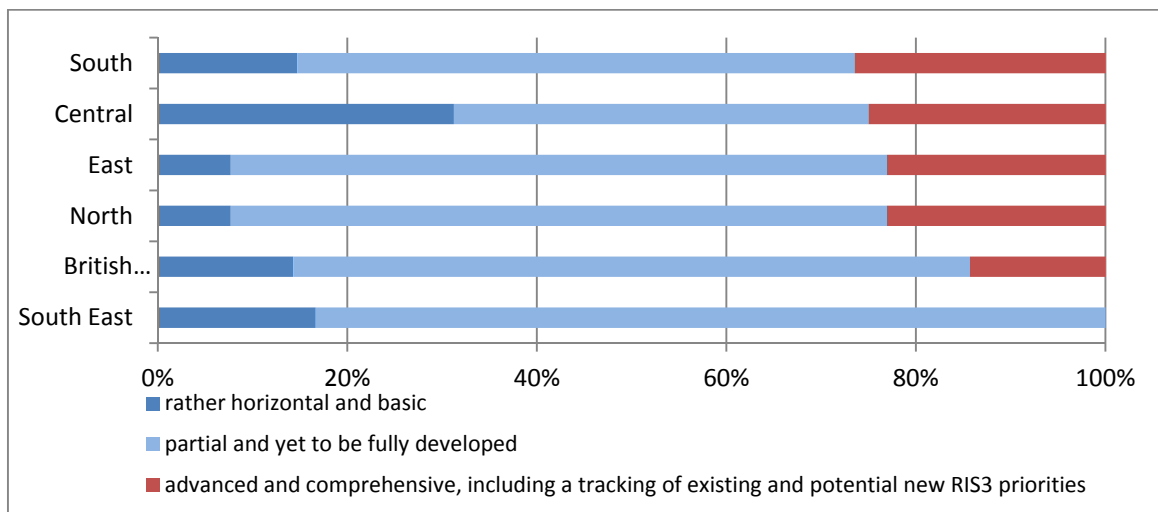
Figure 19: Envisaged nature of ideal monitoring system



Source: Own Analysis

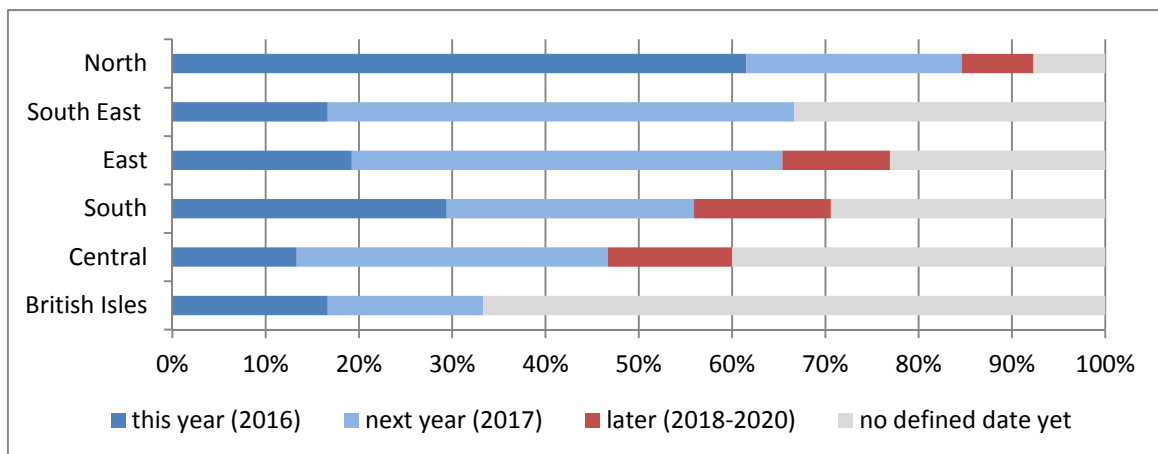
With a view to process, more than 60% of all respondents suggest that their monitoring systems remain “partial and to be improved” with a further 15% suggestion that theirs are “rather horizontal and basic”. Given that close to 70% admit that their monitoring systems are due to be submitted either this or next year, the finding that a mere quarter consider theirs suitable appears worrying. Further analysis reveals that the discrepancies between due date and state of development are – in different ways – largest in South-Eastern Europe (no suitable systems yet but more than 65% due by 2017) and Northern Europe (somewhat above 20% suitable systems, but more than 60% due this year) (cf. Figure 20, Figure 21). Despite their acknowledged utility, there is some way to go with respect to developing suitable systems of RIS3 monitoring.

Figure 20: Current state of development of monitoring systems



Source: Own Analysis

Figure 21: Stated due dates of monitoring systems (agreed submission to EC)



Source: Own Analysis

Summary

First, the analysis suggests that in many regions, **initially generic processes of entrepreneurial discovery are entering a second stage in which discussions around important topics gain dynamism** while others fade and eventually cease. In principle, it is heartening to see in how many regions there is continuous ownership of the process and political attention for related activities.

Overall, the orientation of EDP discussions seems **balanced between target orientation and attention to process**, yet one many accounts **still too focused on purely research and technology** oriented debates. Despite noteworthy exceptions, it is worrying that they are attributed **limited potential with respect to broader economic transformation**. Currently, their most prominently highlighted functions remain consultation and exchange, rather than of concrete decision making.

In line with this, their **current impact can best be described as a glass-half-full, glass-half-empty**. Most are to a relevant extent considered in local policy and governance, but few have prompted sufficiently substantial changes that would appear capable of prompting transformative changes in the short run. Unfortunately, this picture has not improved much during the past year.

Second, the analysis finds that the **participants of entrepreneurial processes are in fact less entrepreneurial than initially envisaged**. With limited exceptions, most discourses are led by **universities and research organisations** rather than local business firms, leave alone subsidiaries of larger multinational corporations. Furthermore, **civil society organisations are underrepresented**.

Depending on Member State groups and specific national cases, **universities and PROs leading role is in part strongly complemented by intermediaries**, such as clusters – which can be assumed to contribute a business sector perspective to the discussions. Where those remain absent, discussions are established more directly between public research actors and firms.

Contrary to what has been suggested, **universities do not in general appear capable of substituting for genuine entrepreneurs in the identification of market-oriented domains**. Instead, they engage in discussions mostly to promote own interests and to contribute within their mission of research and teaching. Still, some examples of strategically engaged universities exist in specific countries.

Finally, it seems that **the political level at which the process of discussion is anchored influences the composition and role of the involved actors**. The higher they process is anchored in the political hierarchy and the larger the territory it covers, the stronger it leans towards political negotiation rather than towards open-ended processes of joint discovery.

Third, **the majority of administrations declare an interest and would see benefit in both interregional collaboration and the coordination of funding.** However, the **actual engagement of regions in either effort remains remarkably limited** and there seems to be a strong impetus to safeguard own funding at the expense of interregional integration.

In line with earlier findings, a positive message is that **there is growing consciousness in Southern and Eastern Europe that more needs to be done in both fields.** In South-Eastern Europe, in contrast, administrations appear to miss the point still. However, some of these countries' strategies still tend to be sufficiently oriented towards societal challenges to provide leverage in principle.

Fourth, most regions **acknowledge that monitoring is useful and could play a role in the adaptation and evolution of strategies.** While few expect immediate changes (and would choose close to the exact same priorities at the current point in time), most remain open to the idea of eventual adaptations in response to market and other trends.

In general, most argue that a **future monitoring should both qualitative and quantitative, with a strong emphasis on the qualitative element.** Moreover, they concede that they need to further improve their suggestions and bring them to conclusions in the coming year latest.

Policy Conclusions

1 Support continuation and transition of processes

Provide logistical and, where needed, financial (TA) support for the continuation of existing processes of entrepreneurial discovery, in particular where those still display difficulties to move into a more focused and applied phase.

2 Re-emphasise engagement of actual entrepreneurs

Provide incentives for the engagement of actual entrepreneurial actors in EDP consultations. Identify and provide platforms of learning from cases where intermediaries and civil society play a more prominent role than on average. Avoid illusions about public sector roles.

3 Qualify existing mediators and/or create new ones

Use and further deploy available means from ESIF and, insofar applicable, ESF or EFSI sources to **qualify existing intermediary organisations and establish new ones where there are none**. Their capacities will be crucial for broadening EDP impact from RTDI to the real economy.

4 Re-emphasise EDP's bottom-up nature

Promote and (re-)invigorate processes of discovery at the regional level, close to the relevant economic actors. Where responsibilities are formally anchored at the national level, endorse parallel regional level efforts that are more industry and society driven. Remain alert of counterproductive high-level politicisation.

5 Build architectures of transnational collaboration

Expand funding for thematic, theme-based transnational collaboration during the next ESIF support period. It is imperative that more opportunities are provided for collaboration in the original task-sharing spirit of smart specialisation, including value-chain and challenge oriented formats. The **thematic RIS3 Platforms can provide a crucial basis to match partners** and funding parties for such undertakings. Additionally, an **increase in dedicated funding for transnational collaboration at the level of projects** and actions should be considered. As our evidence suggests, too few regions will finance such activities from their own budgets.

6 Focus on challenge-oriented projects

Encourage the conceptual development and funding of (place-based) societal challenge-oriented projects and actions in lagging regions. There are signs of latent interest and readiness to engage in such – but the prevalent political processes do not yet endorse them broadly.

7 Use monitoring as guidance, not control

Persist in the effort to establish a system of diagnostic monitoring that can help regions to adapt their strategies in the light of external trends and developments. This type of monitoring should be based on **local ownership** and best be delineated clearly from external controlling.

Contact

Dr. Henning Kroll
Fraunhofer Institute for Systems and Innovation Research ISI
Breslauer Straße 48
76139 Karlsruhe
henning.kroll@isi.fraunhofer.de