Costly added value support services for enterprises

If you invest in them, design them correctly from the beginning!

Unlike the tools described in the document entitled: "Low cost though efficient enterprises support schemes", this set of tools requires, to be efficiently implemented, a minimum budget and qualified staff.

In too many regions, there is a wide availability of some services and a complete lack of others. It is worth to develop a "regional intelligence" system and put in place a segmentation of the regional enterprise population to offer support services tailored to the needs of a given typology of enterprises. It is also clever to put in place a "no wrong door" policy in order to avoid a duplication of support services and to identify gaps in the value chain of the regional support service to enterprises.

Be aware that support schemes will only generate the expected results (awareness, collaboration, new skills, capacity building, exploring, innovative paths to create growth and jobs, purchase of production equipment, …) if they have been carefully thought through and well designed. Best practices in a given regional/ national administrative environment or eco-system will not necessarily perform as they could in another region. Penholders and policy makers don't take enough time to assess the needed prerequisite which make that a tool or a scheme is or not successful. This is often the case for tools such as: vouchers, incubators, science parks or clusters.

I. Open innovation platform/open source platform

What is it?
An approach through witch enterprises or research centres invite peers to develop services/products or applications based on their standard/knowledge platform

How does it work?
An enterprise or a research centre invites stakeholders to use their standards/knowledge to develop new applications. Historically, enterprises in the following sectors: ICT (both software and hardware), smart energy grids, ... have promoted this concept.

What are the milestones?
- To identify and convince a regional enterprise/research centre to create an open platform based on a promising standard/knowledge.
- To promote the platform to potential users.

What does it need?
- A standard or a technology fit to be used by multiple enterprises.

- A critical number of regional enterprises interested to develop innovation on an open platform. **What does it cost?**

No cost for the public authority as it is primarily a private decision to initiate this open source platform. Nevertheless, a budget for coordination and awareness raising activities and readiness checks is useful.

What additional can be put in place?
Provide support services to enterprises wishing to take the opportunities made available by a platform.

What is the regional development impact?
- A full exploitation by regional stakeholders of potential market which can be generated by an open standard or a knowledge.
- Building an ecosystem or a niche around a standard or on research results.

II. Sectorial technology platform

What is it?

A structured network of training and technology centres acting in a given industrial sector (often low to medium technology), aiming to bring to SMEs the benefits of innovation, knowledge and expertise available in a region.

How does it work?

The interested enterprises contact the platform, which - after analysis of the problem to be solved - will organise and coordinate the work to be done by the various members. The platform offers services in the field of testing, applied/tailored research, certification and technology watch.

What are the milestones?

Create a platform after having mobilised and engaged critical stakeholders around the project. Typically the platform should involve: representatives of technical schools/centres, universities, training centres, research centres, sectorial enterprises associations/clusters, public authorities and their intermediary organisations.

What does it need?

- A vision regarding the future of the sector for the region.
- The commitment of a critical mass of stakeholders.
- A highly qualified manager.

What does it cost?

Staff costs of the platform team. Some running costs.

What additional can be put in place?

- Financial support to help enterprises to pay for the services provide by the members of the platform.

- A proactive approach of SMEs to formulate their needs which could be solved by the platform. **What is the regional**

development impact?

- Improved collaboration between enterprises and regional knowledge service providers.
- A true support system to SMEs based on their real needs.
- A "no wrong door" approach to support the enterprises active in a given sector.

III. Living labs

What is it?

A centre enabling enterprises and/or researchers to co-create or design a product/service in partnership with end users. It is a form of open innovation putting citizen at the centre of the innovation process.

How does it work?

The centre provides to enterprises opportunities to meet with panels of potential end-users to how the design and test a new product/ service or new functionalities for existing products/services. The centre offers space for co-creation, user engagement, test and experimentation. The centre can target innovation for one or many domains. Living labs are suitable for supporting innovation in sectors such as ICT, health, agro-food, energy, furniture, ...

What are the milestones?
- Drafting of a feasibility study.
- Recruitment of staff, including innovation coaches.
- Finding an end-users community of citizens interested in providing feedback on their needs and experiences.

What does it need?
- Awareness raising campaign to identify interested enterprises.
- Physical infrastructure.
- Staff and experts.
- Panels of citizens.

What does it cost?

From almost no other cost than staff costs when a living lab is only offering meeting facilities (looking at functionalities of IT services, tasting new agro-food products) to thousands of € if the living lab invests in testing equipment and other physical demonstration facilities.

What additional can be put in place?
- Support services helping enterprises to bring their ideas/prototypes to the market.
- Use the living lab concept to develop new/better public services.

What is the regional development impact?

Support to enterprises willing to innovate. Enterprises can speed the time to market as the design of their product/service has been developed with end-users. There is also a better understanding and involvement of the innovation ecosystem by the citizens ("the quadruple helix at work").

IV. Fab labs

<u>What is it</u>?

A prototyping centre offering to enterprises and sometimes individuals or students an access a variety of specialised digital machinery to develop a prototype.

<u>How does it work</u>?

For free or for a small fee, users can access equipment that they cannot afford or do not need to purchase. The equipment available in a fab lab often consists of: 3D printing machine, laser cutters, 3D scanner, CNC milling machine, Vinyl cutter, 3D design software ...

<u>What are the milestones</u>?

- Investment in the relevant equipment.
- Recruitment of a team of people able to guide the "clients" on how to use the equipment.

<u>What does it need</u>?

- A feasibility study and a business plan regarding the type of equipment to be offered.
- A budget forecast to ensure the sustainability of the fab lab.
- The definition of a cost model for the use of the equipment.
- A team of qualified staff.

<u>What does it cost</u>?

Investment in equipment (around 150 000 €), staff and running costs.

<u>What additional can be put in place</u>?

Talk with users to detect if they need support to develop their ideas into a business. There for, it is a good idea to twin the Fab lab with an intermediary organisation providing advice to "would be entrepreneurs" and to existing enterprises.

<u>What is the regional development impact</u>?

- An easy and cheap access to prototyping facilities.
- An opportunity to transform talented citizens into entrepreneurs.

V. Coaching in the field of innovation management in SMEs

What is it?

A way to help enterprises to assess and enhance their capacity to manage innovation. The main elements of the review are: existence of an innovation strategy, identifying "in house" sources and barriers to innovate, assessment of the innovation process (value chain) and the business model, enabling factors, measurement of the innovation efforts and results, ...

How does it work?

Trained experts are undertaking audits of the innovation management system of regional enterprises and are producing reports with recommendations on how to improve the enterprise management system.

What are the milestones?

- Selection and accreditation of a pool of regional experts.
- Training of the expert team in order to adopt a common methodology and a standardised recommendation report.

What does it need?

A critical mass of enterprises willing to improve their management capacity and of experts able to assess and advise enterprises in this field.

What does it cost?

Wages of staff and fees for the experts as well of running costs.

What additional can be put in place?

- Join a European network such as the IMP3rove Innovation Management Academy in order to benchmark the capacity and performance of local enterprises with their regional, national and foreign peers.
- Provide support to help the enterprises to implement the recommendations suggested by the experts.

What is the regional development impact?

- Improved management capacity in SMEs in the field of innovation.
- Better knowledge of innovation management capacity and shortage in regional enterprises.

VI. Intellectual Property (IP) portfolio management

What is it?
Managing in a coordinated way the IP owned by an organisation or a network of regional organisations. The IP can take the form of a patent, a trademark, a design, a trade secret or a copyright.

How does it work?
Cluster the IP portfolio into business sectors/units in order to find out the best way to make business out of the IP. The most frequent returns made from a IP portfolio can take the form of licensing/royalties fees and cash generated by the sale of the shares of spin offs created to exploit a patent.

What are the milestones?
- Ensure a stock and a flow of IP to build and sustain the portfolio.
- Adoption of the valuation methodology of the IP.

What does it need?
- A critical mass of valuable IP.
- A team of experts.
- A network of potential intermediaries (brokers) and potential users (enterprises).
- A strategy to make the best use of the portfolio.

What does it cost?
Wage cost of an expert team and running costs.

What additional can be put in place?
- Support to help regional enterprises to acquire IP from the regional portfolio.
- Support to IP owners willing to create a spin off.

What is the regional development impact?
- Better use by regional enterprises of the IP in hands of regional research centres.
- Return on budget supporting R&D activities.

VII. Commercialisation of research results

What is it?
Finding market applications for the results of research projects funded by public budgets in public or semi-public research centres.

How does it work?
A team of experts are advising the researchers on how to find a market for their research results and providing advice and support in the field of IPR valuation, market intelligence, technology validation or adaptation, potential partners for licensing the results or to create a start-up .

The chart below provides a graphical illustration of the path from knowledge to market.

A path from knowledge to market

Source: EURADA
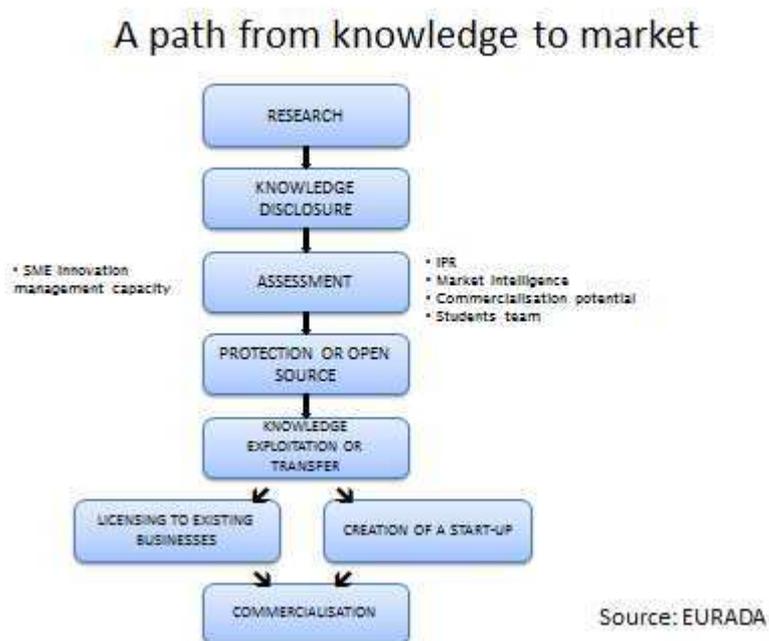
What are the milestones?
- The knowledge disclosure option of the research results.
- Clarification regarding the IP rights and valuation path.
- Identification of market opportunities for the research results.

What does it need?
- Identification of enterprises interested in absorbing the research results.
- A well-designed strategy to be put in place in each public research centre in order to systematically scan the market potential of every research result and to find out the best way to exploit its IP.
- Developing an entrepreneurial culture in the research centres.

What does it cost?

Staff cost of a highly qualified expert team able to value the IPR as well the research results either through the creation of a start-up or by enterprise. as the market potential for licensing them to existing

What additional can be put in place?

Ad-hoc financial and non-financial support services to the researchers and/or enterprises wishing to commercialise the research results.

What is the regional development impact?

- Enhanced culture of entrepreneurship in research centres
- Better return of public investment in research

VIII. Technology watch/Regional sectorial intelligence/Competitive intelligence

What is it?

A systematic process of observing, analysing and exploiting information regarding trends as well as developments in the field of R&D+I and commercial activities in an industrial sector/technology.

How does it work?

A team is gathering information through:

- Analysis of activities launch by research centres and by enterprises.
- Identify and track the potential impact of those trends for the regional ecosystem as well as the threats if the regional stakeholders are missing to adapt themselves to the observed trends.
- Filter and disseminate the results of the technology watch to the regional stakeholders.

What are the milestones?

- Define the topic of the intelligence exercise.
- Map the information sources and providers.
- Define the forms of the outputs (reports, alerts, newsletters, seminars, face to face information sessions, ...) and the beneficiaries
- Recruit the team or negotiate a contract with consultants if the technology watch exercise is outsourced

What does it need?

A team of experts able to identify any relevant scientific, technical and commercial innovation trends.

What does it cost?

- Staff cost of specialised experts.
- Working cost for the production and dissemination of the results of the watch.

What additional can be put in place?

Any support services aiming at technology transfer/ anticipation and knowledge/technology absorption by regional stakeholders.

What is the regional development impact?

- Early and fast awareness about trends in a given industry/activity sector/technology.
- Better understanding of risks and opportunities by regional stakeholders of scientific and technology development.

IX. Vouchers

What is it?

A flexible support services tool by which, for a given amount of money, an enterprise can acquire advice and counsel from an accredited consultant on how to identify needs or manage changes in a given field of competence (ICT, innovation, internationalisation, e-commerce, skills, ...) or to implement the first steps of a strategy in response to identified needs. The value of the voucher has to be related to the knowledge intensity of the service provided. For instance it can range from 1 to 3000€ for a need assessment, from 5 to 15 000€ for the first implementation and from 50 to 75 000€ for innovation deployment or the take up of sophisticated recommendations suggested by the consultants.

How does it work?

After the assessment of the enterprises needs by an expert of an intermediary organisation (regional development agency, cluster, innovation agency, sectorial business association, ...) the enterprise receives a voucher to acquire services/advice from an accredited consultant.

Public authorities should not launch open calls allowing enterprises or consultants to ask for the benefits of the voucher scheme before having been in touch with an intermediary organisation. The voucher is not a "free lunch", it has to be an answer to a well-defined need of an enterprise. Vouchers are not a mean to support the regional consultancy sector!

The enterprise gives the voucher to the consultants. The latter send it with a copy of its report, for payment, to the public entity managing the scheme.

What are the milestones?

- Identification of the managing organisation and the intermediary organisations allowed offering the voucher to enterprises.
- Design of the eligibility criteria and the value of the voucher as well as the administrative process of handling the voucher scheme.
- Selection/accreditation of consultants (individuals even if they are working for a company).

What does it need?

- An accreditation process of the consultants.
- A flexible administration. The decision to give or not to give a voucher should be taken in maximum 10 to 15 working days. Consultants should be paid in maximum 30 days.
- A decision regarding the enterprise contribution. It is advisable to ask the beneficiary to contribute to the cost of the voucher (10 to 15 *% for* instance or the VAT). This will avoid that enterprises don't maximise the full benefit of the scheme and that consultants market the scheme only to generate, free of charge for their clients', revenues!
- A training system for staff of intermediary organisations in contact with enterprises. The training aims to provide guidance on how to check the relevance of vouchers for a given enterprise need.

What does it cost?

- Some managing costs.
- A budget based on the number and the value of vouchers to be issued.

<u>What additional can be put in place</u>?

- Accredit foreign consultants.
- Offer any additional support services for helping the beneficiaries to implement the recommendations made by the consultants.
- Analyse the recommendations made by the consultants in order to adapt the support services.

<u>What is the regional development impact</u>?

- Enhancing the capacity of enterprises to implement the components of any regional strategy.
- Access to sophisticated support services by SMEs at a reasonable cost.
- Strengthening the relationships between intermediary organisations and enterprises.
- Improving the knowledge and understanding of the real needs of regional enterprises by public stakeholders, which can lead to design a new generation of support services.
- Identification and recognition of the offer of consultancy in the region.

X. Research Intensive Clusters (RICs)[1]

What is it?

A cluster which focuses its membership and activities on research, development and innovation. Due to their research and innovation intensity, RICs are evolving in the proximity from public and semipublic research and knowledge organisations (universities, R&D centres, ...) enabling strong network relations that foster the exchange of knowledge and human resources.

How does it work?

Representatives of enterprises, universities and research centres design a business plan and a work programme aiming at enhancing networking and joint activities between members.

What are the milestones?

- Recruitment of critical mass of members.
- Design of the business plan and work programme.
- Appointment of a specialised cluster management team.
- Adoption of a membership fee structure (enterprises pay consultancy services, so why should a cluster provide services for free?).
- Identification of extra private and public funding sources to cover the running cost and/or joint activities.

What does it need?

- A strong committed membership
- A qualified management team
- A minimum membership fee budget
- An interesting work programme for enterprises

Hereafter is a list of activities research intensive clusters might provide to their members.

(i) Awareness and investment readiness. Researchers and university senior managers have indeed to be convinced of their ability to contribute to the creation of business and the commercialisation of research leading to the growth of regional RICs. Their contribution can for instance take several or all of the following forms :
   - providing specialised training and workforce development opportunities,
   - attracting and retaining talent,
   - investing in entrepreneurship and innovation culture,
   - addressing entrepreneurial RDT needs,
   - providing assistance to start-ups (student placements, teachers, researchers) in order to technologically and commercially validate their business ideas and provide solutions to real needs,
   - providing support to existing SMEs to enhance their RDTI absorption capacity
   - building appropriate infrastructures from pre-incubators to science parks
   - managing IPR and technology transfer and knowledge transfer interfaces or centres,
   - taking stake in spin out or seed capital funds,
   - facilitating transnational partnerships.

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[1] cfr. Regional Research Intensive Clusters and Science Parks, Report ERA-Regions of Knowledge, DG Research, September 2007

RICs have to fulfil an important task in helping research and university representatives to understand and speak the same language as the one used by businesses and to solve the asymmetric information gap between the long- term fundamental research expectations of researchers and universities and the short to medium term commercial imperatives of enterprises and the application of research. They also play an important role in creating an identity or a brand.

(ii) Organisational infrastructure availability. Public, private and higher education institutions need to invest in RDT infrastructures and facilities. Due to the fact that investments in such assets are becoming increasingly expensive, RIC stakeholders have to consider new forms of Public- Private Partnerships and joint ventures.

(iii) Market driven and applied research activities - RICs aim at providing solutions to the RTD needs of enterprises. Those needs might be either outsourced TD/innovation activities, in house RTD/innovation activities supported by external researchers or student or risk shared RTD/innovation.

This issue can be tackled through support schemes aiming either at helping universities and research centres provide assistance to SMEs (direct support or student outplacements) or at helping enterprises procuring services or consultancy advice from research or academic institutions.

The RIC should deploy the following instruments:

(i) The networking or clustering process through which the demand and offer for research/ innovation services are matched and through which pre-competitive and collaborative research projects and programmes are defined and implemented.

This process also helps promote regional innovativeness and dissemination of new technologies. It also secures better technology and market intelligence and commercial cooperation or partnering. Those networking activities will help enterprises to access technology and commercialisation intelligence and audit, prototyping and test or technological centres. They will support partnership and supply chain development, and interface opportunities with research centres and high education institutions.

(ii) Protection of IPR and promotion of incentives for scientists to protect their research results. Encouragement of technology transfer and quality management.

(iii) Promotion of skills, education, training and student placements in enterprises but also encouragement of companies engaging in developing their own work force. Those investments are essential in successful RICs as they provide the right type of human capital allowing enterprises and universities or research centres to strengthen their labour force without contributing to their overheads significantly.

(iv) Entrepreneurial training and culture. Those are RIC activities which allow RICs to bring research ideas and results to markets by boosting start-up creation and helping them develop their business and marketing skills and testing whether or not there are routes to market for their products and services and whether or not they are commercially viable. Special attention should be given to the use of external consultants and knowledge experts by SMEs as well and innovation management and leadership capabilities in SMEs.

(v) Access to funding sources (Business angels finance, Pre and seed capital, Venture capital, Repayable grants, Proof of concept funding, University / Research centre spin out / spin off fund, Mezzanine funding). The non availability of equity and other types of funding is often the major reason of a lower rate of high-growth SMEs (gazelle creation) in European RICs compared with the most dynamic RICs in the USA.

What does it cost?
- Staff cost
- Running cost

What additional can be put in place?
A dedicated programme to support cluster activities (not necessary fixed running costs, public support should help the cluster to offer added value support services, not staff costs, which should be a least covered by membership fees).

What is the regional development impact?
- Strong network of key stakeholders
- Development of collaboration between enterprises and universities and research centres
- Provision of high added value support services in a collective way
- Identification of collective needs in the fields of R&D+I and competitiveness

XI. No wrong door policy

What is it?

A commitment of all public stakeholders to direct the enterprise requiring a support service to the most relevant service providers. This policy is put in place to avoid that the enterprise receives a standard reply formulated in terms of: "Sorry, the issue is not covered by our agency's core business" or that several intermediary organisations start to develop services which are already delivered by other regional stakeholders. Such policy also avoids overlapping investments as well as unproductive competition between regional stakeholders.

How does it work?

All public and semi-public organisations providing support services to enterprises map their core business. All service providers become able to orientate enterprises to the right/best provider of support services for any problem.

What are the milestones?
- Mapping the competences of all regional intermediary organisations.
- Commitment of all regional intermediary organisations to implement the policy.

What does it need?
Trust between amongst regional stakeholders and loyalty to the system.

What does it cost?

Nothing. Can even result in public savings **What**

additional can be put in place?
- Design of an intranet allowing the follow up given to enterprises requests by each intermediary organisation..
- Investment in the offer of support services not yet delivered by any regional provider.
- Linking support services in a value chain or delivering support services in sequence.

What is the regional development impact?
- No overlapping in the offer of support services in favour of SMEs.
- Avoiding sterile competition between regional stakeholders.
- Easier identification of missing links in the delivery of support services to enterprises.

XII. Regional intelligence

What is it?

A system to collect and analyse valuable data in order to understand the regional dynamics and to anticipate changes in the R&D+I and competitive advantages of regional stakeholders as well as in the lifecycle of regional enterprises. Regional intelligence needs data regarding the regional and international economic and technological environment. It is a combination between technology watch, foresight exercises, economic observations and big data mining.

How does it work?

A system is put in place to collect and analyse a large set of data regarding the assets of the region, the quality of support infrastructure, the main niche activities of enterprises and the composition of a portfolio of strategic enterprises for the region.

The regional intelligence system provides the public administration, businesses and innovation actors with real or virtual places of exchange of information on:

· Data regarding the main economic activities, knowledge, skills, technologies available in the area and added value information for public intervention;
· Ideas for supporting technological, organisational, process and economic changes;
· Skills present in the area and future needs;
· Data on priority sectors (niches of activities, companies, projects, skills, finance, ...);
· Data on strategic investments to be made;
· List of strategic enterprises for the region (champions in local markets, hidden champions, global players).

For a portfolio of strategic enterprises, the following data should be collected:

· Market dynamics and niches;
· Position in the market, importance of the "in-house" capacity in the field of innovation, marketing and investment;
· Importance of the amount invested in innovation;
· Involvement in regional networks;
· Openness to international cooperation;
· Attitude towards public support and previous track record of public support used;
· Competitive advantage compared to the local and international competitors.

What are the milestones?

- Set up a team in charge of the system;
- Definition of the data to be collected and analyse;
- Analyse the data in order to publish a SWOT report;
- Discuss and circulate the conclusion and recommendations;
- Review the policy mix to assess if it is still in line with the conclusions and recommendations.

What does it need?

Answers to questions like those mentioned hereafter:

· What are the main scientific, technological and commercial changes to occur in the most important regional industry?
· Which enterprises have received public funding over the last 3-5 years? What type of support was offered? How many have used those supports as a stairway to competitiveness (starting from awareness to high level services...)?

· Which enterprises have succeeded to receive money from the regional, national and European level? Did they start from the regional level? Do international competitors access similar funding?
· Which are the enterprises being part of at least two clusters? Do enterprises of other regions do so?
· Which enterprises are using revolving funding tools? Are there major differences with enterprises of other regions?
· Why are enterprises who attend events related to innovation organised by the public sector not applying or being successful in receiving public funding?
· Are there intra-regional differences concerning the number of enterprises receiving public supports? If so, why?
· Which are the new greenfield investments attracted in a given year? Have they any R&D+I components in their investment? How do other regions do?
· Which enterprises belonging to the portfolio of strategic enterprises are not using public support? Why?
· What is the ratio public funding/turnover per enterprise having received public money?
· What is the ratio private funding/public funding per research centre? How do centres in other regions perform?
· When applicable, which enterprises are part of consortia receiving public funding? What type of organisations (other enterprises, universities, research centres...) are they partners with and where are those partners located (in the region, in another region of the country, in EU15, in EU13 Member States, outside the EU)?
· How many enterprises did receive their first public supports in a given year? How old are they? How many employees have they? In which sectors are they operating?
· What is the ratio revolving funding instruments / grants for each enterprise and per cluster having been supported by public instruments?
· Which are the enterprises having been funded by private and public equity providers (business angels, crowdfunding, seed capital, venture capital, corporate capital, IPO) and how much did they receive?
· If relevant, how much public money has been captured from regional, national and EU funding sources by members of the different clusters?
· Which are the spin-offs created in a given year? How many are backed up by VC?
· Which enterprises were involved in merging/acquisition activities in the last 3 to 5 years? In which sectors are operating the enterprises growing through the acquisition of other companies or in which sectors are operating the local enterprises which were subject to an acquisition?
· What are the main trends observed in other regions and enterprises in fields such as technology and knowledge creation, absorption and internationalization.
· How to mobilize expats to provide business opportunities for regional stakeholders?

What does it cost?
Budget for a team of experts, for collecting or purchasing of data from specialised consultants.

What additional can be put in place?
A budget to implement the needed changes to align the public support with the findings.

What is the regional development impact?
Better information regarding trends which might affect the assets and the competitiveness of the region. Ultimately, it will help to make better decisions regarding the next generation of public support services to enterprises and of niche innovation activities to be supported.