

SMART SPECIALIZATION STRATEGIES AND EMPOWERING CITIZENS

Abstract

A possible solution of the nowadays challenges of local communities could be the development of the 'smart specialization strategies'. These can be viewed as a mix of modern industrial policy with innovation policies that emphasise a bottom-up approach (the entrepreneurial discovery), transparency (e.g. monitoring and evaluation) and flexibility (e.g. abandon failure programmes). Key encounters remain empowering citizens and identify those activities where new Research & Development and innovation projects will create future domestic capability and interregional comparative advantage. Citizens can participate through organisations representing vulnerable social categories, identifying row models, inspirational personalities and possible new path for social innovation.

Keywords: smart specialization strategies, EU's growth strategy, quadruple helix approach, knowledge triangle, seals of excellence, local communities.

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STRATEGII DE SPECIALIZARE INTELIGENTĂ ȘI ACREDITAREA CETĂȚENILOR

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Rezumat

O posibilă soluție a provocărilor recente ale comunităților locale poate fi dezvoltarea "strategiilor de specializare inteligentă". Acestea pot fi percepute ca o îmbinare a politicii industriale moderne cu politici de inovare care subliniază o abordare verticală de jos în sus (descoperire antreprenorială), transparentă (monitorizare și evaluare) și flexibilitate (abandonarea programelor lipsite de succes). Încercări cheie rămân abilitarea cetățenilor și identificarea acelor activități pentru care noi proiecte de cercetare, dezvoltare și inovare vor crea viitoare capacități locale și avantaje inter-regionale. Cetățenii pot participa prin intermediul organizațiilor care reprezintă categorii sociale, identificând modele și personalități ce pot inspira și posibile căi pentru inovare socială.

Cuvinte cheie: strategii de specializare inteligentă, strategia europeană de creștere economică, abordarea de cuadru helix, triunghiul cunoașterii, trepte către excelență, comunități locale.



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1. STATE OF THE ART

Europe faces a dilemma in respect to its capacity to encourage the private initiative, to transfer the knowledge into marketable products, services or processes and loses far too many talented people. In terms of how the public funds are spent on the main area that are recognized as stimulus for innovation, education, research, favorable fiscal environment, IPRs, the question remain which priorities should be privileged and which are the mechanisms to incentivize the private investment to leverage the effect of the public support. A possible solution would be the development of the 'smart specialization strategies'. Smart specialisation "strategies" can be viewed as a mix of modern industrial policy with innovation policies that emphasise a bottom-up approach (the entrepreneurial discovery), transparency (e.g. monitoring and evaluation) and flexibility (e.g. abandon failure programmes). Key challenges remain empowering citizens and how to identify those activities or domains where new R&D and innovation projects will create future domestic capability and interregional comparative advantage (Foray et al., 2011). Empirical evidence suggests that "related variety" i.e. economic diversification offered by combining localised know-how and assets into new innovations that are related to existing areas of strength - leads to the best economic returns (Frenken et al. 2007; Boshma et al. 2012). Civil society represents bottom-up actions and views of the some vulnerable social categories, but also has the role of identifying row models, inspirational personalities and possible new path for social innovation. However, policymakers should ensure mechanisms such as crowd-sourcing and crowd-funding capabilities (public support) in instruments and initiatives included in their regional RIS3 strategies.

The article presents an overview of the European and international policies (OECD) and a model of engaging local communities in defining the strategies leading to growth, economic prosperity and identifying solutions to the most stringent societal challenges. It tries to offer an answer to what extent the Smart specialization strategy or other relevant, related or similar approaches enable local actors to be part of the policy-making process in order to overcome the effect of the economic crisis and welfare disparity in Europe.

2. EUROPE 2020, A STRATEGY FOR GROWTH, JOBS AND PROSPERITY

Europe 2020 (COM(2010) 2020 final) is the EU's growth strategy for the period 2014-2020 and represents the response of Europe to the challenges of the economic crisis faced in 2008. In a continuously changing world, the European Union (EU) aims to become a smart, sustainable and inclusive economy which offers a tailor-made support to its citizens. The three priorities should help the EU and the Member States deliver high levels of employment, productivity and social cohesion. The governance accompanying the

implementation of the Europe 2020 Strategy is two-folded, thematic approach, 'combining priorities and headline targets; and country reporting, helping Member States to develop their strategies to underpin sustainable growth and public finances.' The Union has set five ambitious objectives - on employment, innovation, education, social inclusion and climate/energy - to be reached by 2020. The Commission put forward seven flagship initiatives to catalyse progress under each priority theme:

- "Innovation Union" targeting research and innovation to ensure that innovative ideas can be turned into products and services that create growth and jobs.
- "Youth on the move" to enhance the performance of European education systems.
- "A digital agenda for Europe" to speed up the roll-out of high-speed internet.
- "Resource efficient Europe" to help decouple economic growth from the use of resources, support the shift towards a low carbon economy, increase the use of renewable energy sources, modernise our transport sector and promote energy efficiency.
- "An industrial policy for the globalisation era" to improve the business environment, notably for SMEs.
- "An agenda for new skills and jobs" to modernise labour markets and support labour mobility.
- "European platform against poverty" to ensure social and territorial cohesion and people experiencing poverty and social exclusion are enabled to live in dignity and take an active part in society (European Commission, 2010).

It should be noted that in the center of the policy-makers interest are the European citizens, their combat with poverty and the preoccupation to re-establish the European economic stability, making use of the huge potential of the human capital and promoting the shift towards a new era, characterized by use of renewable energies in a new digital era.

The Strategy is accompanied by thematic targets which are regularly revised. The 2015 edition of 'Smarter, greener, more inclusive? — Indicators to support the Europe 2020 strategy' represents a series of Eurostat flagship publications providing statistical analyses related to important European Commission policy frameworks or important economic, social or environmental phenomena.

Since 2008 substantial progress has been made in the area of climate change and energy through the reduction in greenhouse gas emissions and the increase in the use of renewable energy sources. Positive developments are also visible in the area of education, where the EU is within reaching distance of both

headline targets. Larger efforts will be required to get back on track with R&D investment, while meeting the employment and poverty targets will remain challenging.

3. SMART SPECIALIZATION STRATEGY (S3) AND QUADRUPLÉ HELIX (KNOWLEDGE TRIANGLE INTEGRATION)

'Europe 2020' requires policy makers to consider how the different aspects of smart, sustainable and inclusive growth are interrelated. Integrated smart specialization strategies respond to complex development challenges by adapting the policy to the regional context.

Regional Innovation Scheme (RIS3) supports the creation of knowledge-based jobs and growth not only in leading research and innovation (R&I) hubs but also in less developed and rural regions. RIS3 is a key part of the proposed EU Cohesion Policy reform supporting thematic concentration and reinforcing strategic programming and performance orientation. The concept of 'smart specialization' is not new or not applied only within EU Member States. As well OECD (Organization for Economic Cooperation and Development) introduced the 'Smart specialisation' approach which combines industrial, educational and innovation policies to suggest that countries or regions identify and select a limited number of priority areas for knowledge-based investments, focusing on their strengths and comparative advantages. This entails:

- More effective spending of public resources, concentrating on certain domains of knowledge or expertise.
- The creation of synergies between public support mechanisms for R&D and innovation, industrial promotion and training institutions.
- The elimination of fragmentation and duplication of policy interventions that may result in a waste of public resources.
- The identification of the strongest or promising domains for entrepreneurship and growth through a careful analysis of the existing capabilities, assets, competences, competitive advantages in a city, region or country.
- Mechanisms to enable strategic development based on multi-faceted and multi-governance interactions.
- Mapping and benchmarking of cluster including analyses of the role and influence of key players.

- Evidence-based monitoring and evaluation systems to select the knowledge domains and innovation projects.

Focus is put to improve the innovation process as the RIS3 requires smart, strategic choices and evidence-based policy making. Priorities are set on the basis of a bottom-up entrepreneurial discovery process supported by strategic intelligence about a region's assets (1), its challenges (2), competitive advantages and potential for excellence (3).

RIS3 involves making sure that the policy mix, i.e. the combination of policy instruments available in a given regional environment – grants, loans and other support – is effective in reaching the overall policy goals, helps businesses, and leverages private investment.

What seemed to be quite a simple concept, focused on regional capabilities plus creating jobs, has appeared to be more complex and different from previous industrial growth policies. The smart specialization strategies embraces the idea of 'entrepreneurial discovery' - an interactive process in which market forces and the private sector are discovering and producing information about new activities and the government assesses the outcomes and empowers those actors most capable of realising the potential (Forey, 2012; Hausmann and Rodrick, 2003; OECD, 2013).

The EU's initiative to create Knowledge and Innovation Communities (KICs) which are long-standing strategic partnerships aimed to enable people to create new services, products, to discover solutions to societal challenges represents a step forward in offering the right platform for the co-creation and ideation. The so-called 'knowledge triangle' is materialized through a number of iterations (cooperation) between education, research and business, sometimes with the involvement of the public authorities. Within the RIS 3 these interactions are called 'triple/quadruple helix' and includes the demand-side perspective.

In general the delineation of roles and responsibilities are clearly established: universities provide the technical, scientific basis without any hook on entrepreneurial activities and links with industry; especially business schools or consultancy companies may take the lead in such interactions, as they provide a more practical, hands-on, shorter-term oriented education, which is better suited to meet the knowledge needs of the small, non-Research & Development (R&D) firms than the programmes of the universities. Similarly, in the absence of R&D- and technology-intensive companies that are usually involved in Triple Helix partnerships, professional associations or chambers of commerce representing the interests of the local business community take the lead in fostering partnerships with academia and government. The concept of triple helix evolved early 90s by encompassing the voices of the citizens who become thus legitimate stakeholders in the decision-making process. Arnkil et al. (2010) maintain that the degree of user involvement could be defined as inclusive of the 'design by users'. In line with this perspective, new

innovative products, services and solutions are developed with the involvement of users in their role as lead users, co-developers and cocreators (Carayannis, 2012).

What is unique in the business model offered through the new entrepreneurial hubs for spur innovation in Europe (Co-location Centres)? The possibility of receiving tailor-made services, not just 'picking winner' model, copying the success story without understanding the specificity of the row model.

Another important characteristic of the smart specialization is that activities, not sectors per se are the level for setting priority setting for knowledge investments. While sectors still matter, the issue is not to target sectors but rather activities. Activities can be tied to specific technologies or the technology mix, to specific capabilities, natural assets etc.

Smart specialisation policies need to have measurable goals, whether it involves an increase in business R&D, R&D commercialisation or research excellence.

The difficulties occur while applying a SWOT (Strengths, Weaknesses, Opportunities, and Threats) - type analysis for judging the opportunity whether or not to support specific entrepreneurial processes. Most of the criteria are not fit for purpose in terms of assessing the impact, the efficiency and effectiveness of the activities.

In this evaluation process, all entrepreneurial actors including firms, but also universities and research centres should be engaged. Engaging them will not only allow policy makers to develop a deeper insight into the matches and mismatches of their specialisations, but it will also initiate and nurture the necessary collaboration efforts among these different actors.

If the evaluation exercise shows that some specific capabilities are missing, one should look across the borders of the region or country and see whether interregional and international collaborations with stronger partners can be set up. The global value chain perspective offers a valuable framework to support the attendant discovery and learning processes.

4. SEAL OF EXCELLENCE, SYNERGIES BETWEEN EU FUNDED PROJECTS

Seal of Excellence represents the latest initiative of the EC President, Jean-Claude Juncker for promoting synergies between the two important EU funded programs: Horizon 2020, the biggest European Communities program for research and Innovation and the European Structural and Investment Funds. The undeniable attractiveness of the first mentioned program among researchers, representatives of industry and SMEs and the success rate which remains very reduced (between 12-15%) should be reconciled and praised through national, regional or other type of investments. This measure will support

mostly the SMEs which have limited resources (human resources and financial) and the 'Seal of Excellence' certificate will be awarded to the applicants of above threshold not funded proposals and present the certificate as a label of a high-quality project proposal. Thanks to the 'Seal', high quality proposals from innovative Small and Medium Enterprises will have additional chances to be funded.

Further information on funding opportunities can be obtained at the local/national level either directly with the Managing Authorities or through Europe Enterprise Network and National Contact Point network.

It is up to each Member State or region to establish supporting funding schemes that are specifically dedicated to these types of proposals and enable the provision of alternative funding, in compliance with national and EU rules. A growing number of Member States and regions are already studying the best options for implementation since fall 2015 when the measure was announced.

Regions/Member States interested in funding these types of proposals could use ESIF resources (in line with ESIF priorities and in compliance with national and relevant EU rules) or their own national/regional resources to grant funding without additional qualitative evaluation.

It should be noticed that the two fundamental rules of the EU financial regulation remain valid for the above described synergies:

- No substitution of national/regional or private co-funding to EU projects/programmes under direct Commission management by ESIF money (and vice versa).
- No double financing: in no circumstances shall the same costs be financed twice by any budget.

Thus, the effort put by the consortia participants in preparing the project proposals can expect in case that their proposal reached the threshold of the seal of excellence to be rewarded by national authorities or by a private investor.

Other type of synergies are already happening in Poland, where KIC InnoEnergy (European Institute of Innovation and Technology through its EIT Strategic Innovation Agenda (SIA) 2014) – signed Memoranda of Understanding with the Managing Authorities of two regions, one being Malowpolska. In concrete terms the cooperation foresees the exchange of knowledge and use of experts, know-how for scouting innovative ideas etc.

5. INVOLVING CITIZENS IN DECISION-MAKING PROCESS

It is obvious that nowadays we experiment the culture of do-ocracy, a direct consequence of the fact that active citizens don't want the government to provide standard solutions for everything. They prefer a tailor-

made approach and authorities that think along with them. So citizens and government are devising new ways of relating to each other and working together – in what is often called a 'do-ocracy'. Central governments as well as local ones should become keen to promote and support this form of democratic collaboration.

If this is the case in Western European countries, the interest on listening to the general public in the Eastern European didn't find much openness from the Governments in terms of public consultations, campaigns, referenda etc. Over the past few years, in Romania a positive trend was registered, for example public the debate on environmental impact of re-opening gold mines (Rosia Montana, 2013).

Nowadays, in the era of social media, crowd-funding and huge virtual campaigns, public mobilization can be easily kicked-off provided that the right strategy is put in place. The example above was partly successful due to its virtual communication strategy through various tools: blogs, social media (Facebook, Tweeter) and vast coverage press release.

However, the role played by physical meetings cannot be denied. Hackathons are collaborative innovation events, which offer a great opportunity for highly motivated individuals with any professional background to come together to exchange ideas. These open spaces are a great contradiction to traditional setups. One key driver here is open source thinking – people sharing methods, data and ideas without obstacles, which works fine as long as it involves open source licensed material, but if intellectual property rights come to play, it can get critical.

6. STUDY CASE: ONE STOP-SHOP FOR YOUNG PEOPLE (STUDENTS, ENTREPRENEURS, PUBLIC AUTHORITIES, NGOS ETC.) TO BE SETUP IN MAIN CAPITALS OF THE REGIONS

There are several ways that public authorities can support and assist representatives of the quadruple helix in meeting the challenges intrinsic in implementing the innovation models and the design of the smart specialization.

Examples of these roles are as follows:

- Enabler, e.g. sponsor and provider of infrastructure
- Decision maker, e.g. maker of regional/local innovation policies (e.g. guidelines, financial incentives, R&D&I programmes supporting user-oriented innovation)

- Supporter, e.g. to support the development of partners (e.g. firms, universities, users), the systematic collection and utilisation of user information and the knowledge and capability development related to the smart specialization, to promote the empowerment of citizens and to assist citizens in their innovation activities
- Developer, e.g. to utilise user-oriented development methods in the internal development work public sector
- Marketer, e.g. to raise awareness of user-oriented innovation models and practices among citizens, businesses and public sector
- Quality controller, e.g. to support the development of 'quality checks' or standards for smart specialization type of activities and for other co-creation environments and to assess the quality of activities by means of these standards.

If we extrapolate the example of the Co-location centres of the KICs, this one will become the enabler, offering the physical place for meetings, facilitating debates, organizing events, etc. The local authorities (ministries, managing authorities) should lead the dialogue between the representatives of the higher education organizations and industry/business sectors in order to facilitate the identification of the offer and demand for the human capital. The latest represent the supporters and the end-users.

The focus on impact and more precisely the measurement of expected impact, re-adjustment of the policy measures must increase the level of acceptance of the public policy (ies). In terms of economic impact, beyond the growth the performance indicators should take into account the improved skills and the entrepreneurial appetite for assuming risks.

Relative indices can be computed for scientific and economic specialisations. The former are often based on publication numbers per science domain, while the latter can use a variety of data types, including number of employees, number of newly established enterprises, Gross Domestic Product, and export data per economic sector. Significant progress has been achieved through different tools available at regional level, allowing internationally comparable economic data.

By comparing specialisation indicators over time, changes in scientific, technological or economic specialisations can be analysed. Interesting insights can also result from studying relations between scientific, technological and economic specialisations, which can be mapped using conversion tables (see for example Callaert et al., 2014).

CONCLUSIONS

As a consequence of the absence of a clear view on public allocations to prioritized areas prevents policy-makers to assess the relevance and effectiveness of their policies. A good step to take would be to develop "Smart Specialisation-oriented" public budget calculations that would provide a picture of budgets allocated to each prioritized areas by aggregating:

- Budgets allocated to dedicated bodies and programmes (institutes, centres, R&D programmes, clusters...);
- Budgets allocated through preferential treatment in generic programmes;
- Ex post money received by prioritized areas in generic programmes.

At regional level, the debates for allocating the budgets should include not only budgets from regional origin, but also national money flowing to the priority areas, and money of EU origin in the case of EU regions (often the Structural Funds are the main funding sources for innovation and economic policies in the regions).

To conclude, the results of the study strongly underline the need to include a governance "process assessment" method into the toolbox that may underpin the design, deployment, follow-up and monitoring of smart specialisation strategies. Therefore questionnaires and survey methods should be deployed and the insights obtained with the governance template, will constitute a strong support to the further development of a Smart Specialisation policy "design and process" framework.

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