Smart Specialisation and cluster policy for promoting emerging industries and the European re-industrialisation agenda

Claus Schultze
Competence Centre
Smart and Sustainable Growth
DG Regional and Urban Policy
The policy challenge: innovation gap

- Europe continues to underperform on innovation.
- Out of 190 EU regions, 34 are innovation leaders, 57 followers, 68 moderate, 31 modest performers.
- Europe's diversity a challenge but also an opportunity

Source: European Innovation Scoreboard, 2014
No one size fits all but balanced innovation system needed!

Source: European Innovation Scoreboard, 2014
The game plan: smart specialisation

"Smart specialisation strategy means the national or regional innovation strategies which set priorities in order to build competitive advantage by developing and matching research and innovation own strengths to business needs in order to address emerging opportunities and market developments in a coherent manner."

"Smart specialisation strategies shall be developed through involving national or regional managing authorities and stakeholders such as universities and other higher education institutions, industry and social partners in an entrepreneurial discovery process."

Source: SF Common Provisions Regulation (1303/2013)
The main objectives of smart specialisation strategies (RIS3)

- Bridging innovation divide, investing in strategic innovation agenda
- Selecting a few strategic priorities for SF R&I investments
- Supporting new activities not sectors or clusters per se
- Addressing information and coordination failure/externalities
- Promoting policy mixes targeted at innovation bottlenecks, opportunities and business needs
- Overcoming fragmentation of public policies
- Driving a European agenda for structural change
Practical/political challenges of RIS3

- Limits of conditionality: legal vs. policy perspective
- Shared management, institutional inertia, 'perverse incentives'
- Sometimes too much money is chasing too few ideas
- Policy should not be so much about ribbon cutting but about bringing people together to grow business together
- **But**: We can clearly see that the RIS3 conditionality has already had an impact of mobilising stakeholders, inspiring transformational policies, and leading to much clearer focus in SF OPs.
State of play as regards RIS³: Issues

Underlying/hidden problems:
- No real entrepreneurial discovery process, but number crunching & statistics and ‘passive’ consultation
- Silo-thinking between research & science ministries vs. enterprise / innovation ministries
- Short-termism and preserving public R&D subsidies instead of long term vision and transformation of scientific institutions and industrial landscapes
- No concept for synergies with Horizon2020

...the elephant in the room
Clusters as building blocks of RIS3

- Identifying areas of strength/potential, engaging in 'entrepreneurial discovery' of new activities
- Driving cooperation with academia and growth accelerators; science parks; incubations centres, living labs, fab labs, design centres etc. to promote entrepreneurship in emerging industries
- Facilitating (cross-sectoral) linkages to support the emergence of common roadmaps and new value chains
- Facilitating trans-national strategic partnerships to scale up existing opportunities/potentials
- Playing a role in project development and implementation
- Developing sub-networks and new clusters
- Helping deliver better and more targeted SME support
Why clusters? SMEs are more innovative!

Cluster firms ...
- are more innovative than non-cluster firms
- register more trademarks and apply for more patents
- cooperate more

Innovation is higher in clusters than elsewhere (a comparison with IB 2004)

Source: European Commission 2006 Innobarometer on clusters' role in facilitating innovation in Europe and 2008 Staff Working Document on the concept of clusters and cluster policies and their role for competitiveness and innovation: Main statistical results and lessons learned. See http://ec.europa.eu/enterprise/policies/innovation/policy/clusters
Clusters and smart specialisation

Old approach:
• Identifying growth or lead markets (Bio, nano, eco, etc.)
• Concentrating public support/aid on these sectors

New approach:
• Identifying existing strengths, incl. cluster positions
• Concentrating public support/aid on higher value added/more innovation within existing clusters and at the interfaces of clusters of related industries

High error rate in competitive markets

Better success rate
Development of long-term competitive advantage
RIS3 and European Industry Policy

- RIS3 brings industrial policy dimension into regional policy: e.g. strong emphasis on KETs
- But enhances that through a strong bottom-up approach
- Goal is not to back winners but help new winners emerge

"Smart specialisation should be promoted at all levels, including through the efficient use of public investment in research. This will facilitate contacts between firms and clusters and improve access to innovative technologies"

(Conclusions of the European Council, 20-21 March 2014)
RIS3 and cross-border dimension

- Eco-systems or clusters need to upgrade to world-class
- Need for transnational/interregional alignment of roadmaps
- Need for strategic and professional cluster cooperation
- Lack of such a transnational focus is (yet) a weaknesses in many ERDF OPs.

"Internationally competitive S3 domains are unlikely to correspond to regional boundaries: S3 requires transborder strategies, building on complementarities"

(Christian Ketels et al., DG RTD, The role of clusters in smart specialisation, 2013)
Emerging fields of Smart Specialisation
Mapping of regions' and MS intentions in terms of smart specialisation fields:

Priority areas are emerging that are mainly related to:
- Energy
- Life science/Health
- ICT
- Environment
- Agro-food
- Tourism
- New materials

Scope for cooperation and fine-tuning!

See: http://s3platform.jrc.ec.europa.eu/map
The Vanguard Initiative: an agenda for aligning roadmaps + co-investing

- Political initiative by 18 industrial regions: [http://www.s3vanguardinitiative.eu/](http://www.s3vanguardinitiative.eu/)

- Mobilising regional resources to address EU priority areas in innovation and industrial policy on basis of smart specialisation

- Exploiting network effects of regional investments (development and demonstration of new business solutions, joint pilots and demonstrators, co-creation of growth markets)

- Through entrepreneurial discovery process of mapping and matching in niche-areas on basis of RIS3 strategies, developing cluster cooperation for new value chains, working towards common roadmaps
The Vanguard Initiative Pilot Action on Advanced Manufacturing

Cluster-led events on 3-4 specific ADMA areas, to further explore opportunities to develop EU value chains by co-investment

Events aim to **generate proposals which can be translated into jointly funded projects** (e.g. large scale demonstrators of EU value or EU networks of complementary smaller demonstrators)

So far 3 pilots:

- Advanced Manufacturing to meet the challenges for off-shore oil/gas and renewable energy applications (lead: Scotland)
- Pilot plant for zero-defect manufacturing (lead: Catalonia)
- High Performance Production with 3D Printing (lead: Flanders)
RIS3 + new directions for cluster policy?

- Strategic, systemic and inclusive approach
- Strengthening existing strengths, focus on linkages and emerging new regional competences
- Cross-clustering, exploiting and enhancing spill-overs between sectors, technologies, applications
- Use clusters to orchestrate and co-create new activities and value-chains and focus on eco-systems
- Strengthening cooperation with growth accelerators and provide better SME support through clusters
  ➢ Strategic approach requires also European agenda (exploiting synergies at higher level)
What support for collaboration?

✓ Financial support to implement cooperation:

- **Use your own budgets & ESIF programmes:**
  Art.70(2) CPR: if for the benefit of the programme area, 15% of ERDF, CF and EMFF priority axis may be spent outside OP territory in EU (5% EAFRD; 3% ESF)

- **Horizon 2020:** Cluster-facilitated projects for new industrial value chains, multi-country R&I projects, ERA-Nets, Joint Technology Initiatives, PPPs, KICs, PPI-PCP ...

- **Erasmus+:** Knowledge / Sector Skills Alliances

- **COSME:** Strategic Cluster cooperation

- **European Territorial Cooperation**
Transnational instruments

- E.g. Danube strategy: can play important role in supporting the implementation of RIS3 strategies and related cooperation
- Building stronger clusters and supporting critical mass of emerging clusters
- However, Smart specialisation needs to be better integrated in Danube Strategy analysis and activities
- Mapping process and drilling-down to identify concrete cooperation areas and explore opportunities of joint action related to MS RIS3 fields needed
- RIS3 strategies in the area are so far rather weak in cross-sectorial orientation and outward analysis as well as in cross-border coordination of challenges!
Transnational instruments

Central Europe Programme

Clusters are foreseen to be supported mainly under the priority axis for research and innovation with a focus on:

- Establishing and further strengthening transnational innovation networks and clusters, also supporting their internationalisation
- Enhancing the transfer of R&D-results from research institutions to the business sector (in particular SMEs) leading to new services and products
- Building transnational links for improving existing and developing new services which support innovation in businesses
- Increasing cooperation between research, the public and private sectors to stimulate innovation and entrepreneurship (e.g. reduction of administrative barriers of innovation, public procurement of innovative products and services, social innovation, etc.)
Transnational instruments

- E.g. New INTERREG C ("INTERREG EUROPE")
- Can play important catalyst for smart specialisation roll-out through supporting strategic cluster partnerships
- Should promote synergies with other experiences, networks and platforms rather than being a self-contained programme
- EU Mandate to integrate Regions of Knowledge-type actions (= cluster cooperation)
- New architecture foreseen: 1) Broad-based policy learning platforms and 2) interregional cooperation/cluster projects
- To be seen how this is reflected in OP (to be submitted) and how this will be implemented (what kind of calls?, what methodology for projects?, will private cluster organisations be eligible?, etc.)
Literature

- Recent research on competitiveness and clusters: what are the implications for regional policy?, Christian Ketels, Cambridge Journal on Regional Economy and Society, 2013 [http://cjres.oxfordjournals.org/content/6/2/269.abstract](http://cjres.oxfordjournals.org/content/6/2/269.abstract)
Links

DG REGIO 'INFOREGIO'  
http://ec.europa.eu/regional_policy/index_en.cfm

DG Regio/JRC-IPTS, Smart Specialisation Platform  
http://s3platform.jrc.ec.europa.eu/home

DG Enterprise and Industry, EU Cluster Portal  
http://ec.europa.eu/enterprise/initiatives/cluster/
Forthcoming events


Other

- DG ENTR: New EU cluster growth strategy/communication planned for 2015

- DG ENTR/DG REGIO: Smart Guide to Cluster Policy, planned for spring 2015 to be presented at joint conference on implementation of RIS3 through cluster
RIS3 supports different pathways to innovation

Excited goblins (e.g. ICT start-ups)

Sleeping giants (e.g. agri-food)

Hungry dwarves (SMEs)

Video: The Kingdom of Smart
How does smart specialisation work in practice?

While innovation tends to suggest an emphasis on new versus old, high-tech versus low- and medium-tech, or start-up versus established family business, smart specialisation is more nuanced and tries to build on the inherent strengths and/or comparative advantages that every region possesses.

Cooperation across industries, as well as the interplay between private and public actors, including universities and research organisations, is essential to any economic transformation process.

But it falls to public authorities to be responsible for implementing the conditions for cooperation. They should be keenly aware of the importance of innovation and the new collaborative role they play – mixing established strengths with new strategies and technologies, tapping into entrepreneurial insights and experience, and creating unique environments for new growth opportunities.

Public authorities should put this into practice by:
- modernising, streamlining and improving their own processes and structures;
- becoming catalysts for action, hubs for collaborative projects involving many diverse actors, and facilitators of the journey of entrepreneurial discovery;
- providing the groundwork and strategic investments for public-private partnerships to succeed; and
- having an international perspective to:
  - coordinate investment strategies and roadmaps across borders;
  - cooperate with partner regions to facilitate co-investment and pool resources and efforts;
  - create synergies with relevant European-level initiatives, such as European innovation partnerships or technology platforms.

Key insight for smart specialisation: Innovation is more likely to occur at the intersection of different disciplines and sectors.