Industrial Modernisation and Smart Specialisation:

*Value Chain Strategic Development Model for Inter-Regional Cooperation*

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The Current Challenges for Regional Development and Inter-Regional Cooperation

• Developing demand-driven policies and strategies – i.e. *from resource allocation to maximizing business opportunities*

• Governing input-output economics in a sustainable circular economy
  • Understanding input-output relationships between firms and knowledge and resource providers
  • Mapping core value chain capabilities and identifying ‘regional gaps’
  • Developing auxiliary services to facilitate inter-organisational relationships
  • Making use of entrepreneurial initiatives and bi-products - i.e. *innovation in the periphery – while striving for excellence*

• Identifying *niche areas of competitive strength and lead stakeholders*

• Co-alignment of resources and strategies between private and public actors of different governance levels

• *Support for innovation partnerships emphasizing greater co-ordination between different societal stakeholders*

• Pro-active facilitation, *intermediation*, bridging and information sharing

• Adoption of key enabling technologies fostering economic growth, especially in low-tech EU regions

• Solving major societal challenges that exhibit themselves in a local context
Regional growth requires building a localised innovation system and co-alignment of the Triple Helix actors and interactions: a Multistakeholder approach to RIS implementation.

Triumph Helix of University-Industry-Government Relations, Fig. 1 A triple helix configuration with negative and positive overlap among the three subsystems.
Biopharma is the fastest growing sector in Europe, attracting the largest proportion of investment, with 77 multinational firms and 6505 operating establishments.

The average R&D investment by the parents is over €53 mln (2013) with average profits of €49 mln (2013) and revenue from sales over €512 mln (2013).

Biopharma GVC is entangled in finance, business and management services, and wholesale, retail, trade services that secure financing of the R&D and the manufacturing operations.

There is simultaneously increasing specialization within firms, and new emergent diversification portfolios.

The GVC is pulled by the output markets, including pharma wholesale and retail (31, 32), cosmetics (23), medical instruments, dental, hospital and electro-therapeutic manufacturing (26) and agro-food, drinks and bio-products (51).

Innovation from all other sectors is integrated in the biopharma GVC, including chemicals, plastics, eco-bio products, miscellaneous products, miscellaneous services, medical and hospital services.
Global Biopharma (20508 firms)
European Parents and Subsidiaries
(6505 firms)
Subsidiaries by Source of Ownership (EU vs. Other, 29,237 firms)
Bespoke Bulgarian Biopharma Database
Bespoke GSE (UK) biomedical and biopharma dataset (2008)
Bespoke GSE (UK) biomedical and biopharma dataset (2008)
Biopharma capabilities in the Vanguard cities

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<th>Subsidiaries in City</th>
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<td>TAMPERE</td>
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<td>Total</td>
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Strategy development models are converting policy decisions into everyday practice

How to Build a Startup - Osterwalder and Pigneur (2010) Business Model Generation
https://www.udacity.com/course/viewer#!/c-ep245/l-48632907/m-48739211
Strategic Models for Inter-Regional Cooperation

- Local business & societal needs
- Mapping local resources & capabilities
  - Identifying boundaries
  - Building a comprehensive dataset of firms, public sector organisations and institutions / NGOs
  - Technology & interface
  - Knowledge & information
- Triple helix & stakeholder engagement
- Triple helix regional profile, highlighting demand and supply

- Commerce & return on investment
- Wealth creation, economic growth & prosperity, developing a knowledge-based society
- Sustainability - community

- Scope – networked activities and coordination
- Implementation - content & delivery
- Facilitation, Intermediation, assistance, value co-creation, evaluation, communication & feedback
- Cost structure
The Role of Regional Authorities

- Mapping regional capabilities and stakeholders
- Analysis of activities, resources, capabilities and supply relationships
- Stakeholder engagement for value co-creation and development of ideas
- Building stakeholder awareness and orchestration of collaborative behavior
- Evaluation of innovation capabilities and promotion
- Facilitation of new value chain connectivity
- Assistance and support to stakeholder initiatives

Innovation Dynamics

Stakeholder Engagement and Orchestration
- Evaluate
  - Facilitate
  - Communicate
- Innovate or Develop
  - Facilitate
  - Communicate
- Implement
  - Facilitate
  - Communicate
- Evaluate
- Communicate
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