

Role of Science and Technology Parks (STP) in regional innovation strategies – EU experience

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The EU's Cohesion Policy has been supporting research industry and government collaboration to deliver innovation in their regions for many years

- Nearly 25% of the European Regional Development Funds, approximately €86 billion has been invested in research and Innovation related activities during the 2007-2013 period.
- Strengthening research, technological development and innovation are singled out in the EU2020 strategy, proposed by the European Commission, as one of the leading ways of creating high technology economic development together with high value-added jobs.
- In 2014-20, approximately €160 billion will be invested in R&D&I, ICT, SMEs and low carbon economy.



EU support has been crucial to build and develop STPs in EU

- In the period from 2000 2012 total capital investment into EU's STPs has been circa €12 billion.
- The total capital investment on buildings for those EU STPs that secured European Regional Development Fund (ERDF) was €5.6 billion, of which approximately €1.6 billion was ERDF giving a 3.6 leverage ratio.
- Investment of ~€0.5 billion pa in professional business support and innovation services
- Approximately 70% of all STP investment made in areas where STPs can be financed by ERDF was assisted by ERDF finance.



STPs play a significant role in the EU regional ecoinnovation systems

- Science and technology park (STP) activity across the EU has approximately doubled over the last 11-12 years.
- 366 such parks across the EU today
- 28 million square metres of completed buildings
- ~40,000 companies
- ~750,000 employees
- Most STPs stakeholders are SMEs (>90% in 92% of STPs).
 84% of occupiers have come from the locality or region of an EU STP



Business

manufacturing and services, primary sectors, financial sector, creative industries, social sector, large firms, SMEs, young entrepreneurs, students with business ideas, cluster and busines organisations

Research

public and private
research bodies,
universities,
science and technology
parks, NCPs,
Technology transfer
offices, Horizon2020
committee members,
egional ESFRI roadmaps

Entrepreneurial Discovery Process

Different departments, if relevant at different government levels, agenci e.g. for regional development, business advice, public procurement offices, incubators, etc.

Public administration

NGOs and citizens' initiatives related to societal challenges for which innovative solutions would be helpful, consumers associations, Talents! etc.

Civil society / Users

The role of science parks in regional innovation strategies for smart specialisation:

- are one of the relevant stakeholders forming the quadruple helix of innovation actors
- provide an adequate innovation ecosystem for the development of pilot innovation initiatives
- add an external and outward looking dimension



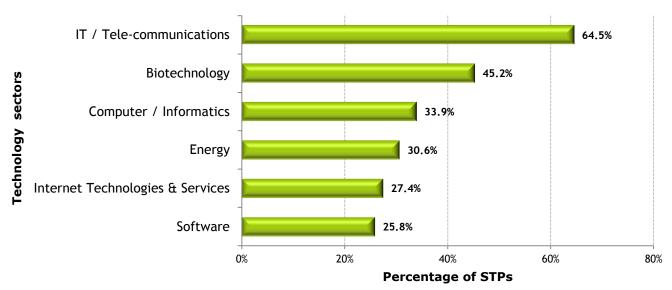
Relevant policy stimulates a development of STPs

Policy area	1 st Choice (%)	2 nd Choice (%)
Employment Creation	12	5
High Quality employment creation	26	17
Tech transfer to business	13	17
Creation of new tech businesses	16	25
High visibility centre for innovation	16	10
Specialised property / facilities	5	5
Excellent working Environment	7	5



Potential client base is profiling the STP...

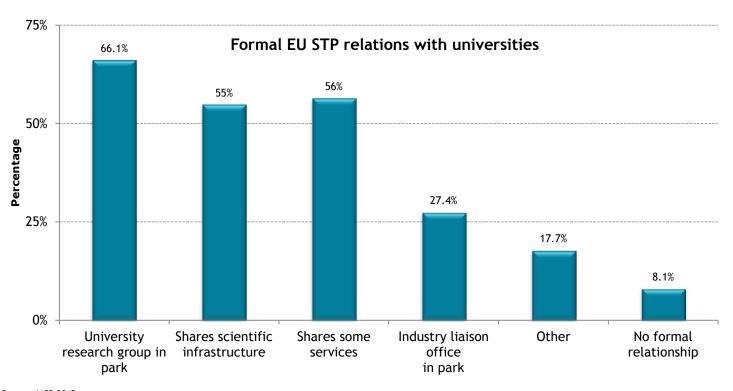
Figure 1.13 Main technology sectors in STPs



Source: IASP 2012



... and shapes the type of relations with knowledge base



Source: IASP 2012

Type of relationship





... and suggest what type of services should be offered

Property Related Services

(Accounting, legal, and related services; Own venture or seed capital funds; Assistance with other venture/seed capital funds; Business development / Support services; IP consultancy and patent attorneys., Development of resident organisations, Management support services (consultancy. etc.), Networking (external/internal), Training courses)

Professional Business Support & Innovation Services

(Lab facilities / Lab equipment for rent; Auditorium / Conference room; Meeting rooms; Security surveillance; Electronic security systems in common areas; Electronic security systems for single buildings; Videoconference room; General common services; Secretarial services; Event planning; Marketing & Promotions; Public / Investor relations; Bank office / Banking services; Travel agency; Assistance with corporate relocation)

Social and Recreational Services

(Kindergarten; Medical services; Cafeteria; Hotel; Restaurant; Catering; Shops / mall; Sport facilities; Golfing facilities; Public transportation; Residential area (houses, apartments, etc.) etc.)



STPs success factors

- STPs need to be and to see themselves as part of the regional innovation system. They need to interact with other players. STPs are most successful where a good innovation structure is already available.
- STP need to be in the centre of the Quadraple Helix. Good relations to universities, companies and the public sector are crucial.
- STPs need to develop business and innovation strategies for a given sector in a given geographical area.
- STPs are successful in not fully matured sectors. A business sector needs an STP in its maturing period. Once a new technology established, STPs are no longer or less needed.
- **Public funding is crucial**, especially in starting an STP. Private funders would join in only in later stages.



STPs risk factors

- Too small STPs are at risk of failure. 40% of STPs are investing less than a million € over a ten years period. This is not enough to get leverage effects.
- STPs with too many goals and activities are at risk of failure.

 Development of a less developed region cannot be accomplished by STPs only. Other elements in the business environment are needed.
- **Public funding can be a risk factor**. Public funding can lead STPs to set up too many goals and activities. Therefore, public funding has to be assigned carefully.
- Absence of good management. Individuals can be crucial players in setting up an STP. When it comes to long term viability, a good management and legal basis are indispensable. STPs lead by public servants often lack of real business experience.



Conclusion

EU STPs are increasingly being portrayed as:

- Part of the economic development programmes of cities and regions
- An increasingly important part of local innovation ecosystems
- Working extensively with knowledge-based SMEs and start-ups
- Making valuable contributions to foreign direct investment by high tech companies





Thank you for your attention!

For more information:

- on Cohesion Policy:
 http://ec.europa.eu/regional policy/index en.cfm
- on Smart Specialisation Strategies
 http://s3platform.jrc.ec.europa.eu/s3pguide
- Guide on Setting up, managing and evaluating EU science and technlogy parks

http://s3platform.jrc.ec.europa.eu/documents/10157/47822/s tp_report_en.pdf

