

MONDRAGON
IKERKETA KUDEAKETAN
INVESTIGACIÓN EN GESTIÓN
INNOVATION & KNOWLEDGE

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INVESTIGACION E INNOVACION EN LA UNION EUROPEA



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MIK . Marzo 2006

- VI y VII Programa marco

<http://cordis.europa.eu/es/home.html>

The main objectives of FP7: Specific programmes
Knowledge is at the heart of the European Union's Lisbon Strategy to become the "most dynamic competitive knowledge-based economy in the world". The 'knowledge triangle' - research, education and innovation - is a core factor in European efforts to meet the ambitious Lisbon goals. Numerous programmes, initiatives and support measures are carried out at EU level in support of knowledge.



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<http://cordis.europa.eu/es/home.html>

- **FP6 themes**
- The current **FP6** has seven thematic priorities:
 - Life sciences, genomics and biotechnology for health
 - Information society technologies
 - Nanotechnology and nanosciences, knowledge-based functional materials, new production processes and devices
 - Aeronautics and space
 - Food quality and safety
 - Sustainable development, global change and ecosystems
 - Citizens and governance in a knowledge-based society

- **FP7 themes**
- The Commission's proposal for FP7 organises collaborative research into nine themed sub-programmes:
 - **Health**
 - **Food, agriculture and biotechnology**
 - **Information and communication technologies**
 - **Nanosciences, nanotechnologies, materials and new production technologies**
 - **Energy**
 - **Environment (including climate change)**
 - **Transport (including aeronautics)**
 - **Socio-economic sciences and the humanities**
 - **Security and Space**

Themes (Using all funding schemes. Including international cooperation.)		April 2005(*)	May 2006(**)
COOPERATION	Health	8317	
	Food, Agriculture and Biotechnology	2455	
	Information and Communication Technologies	12670	
	Nanosciences, Nanotechnologies, Materials and new Production Technologies	4832	
	Energy	2931	
	Environment (including Climate Change)	2535	
	Transport (including Aeronautics)	5940	
	Socio-economic Sciences and the Humanities	792	
	Security and Space	3960	
Total COOPERATION		44432	32000
IDEAS	European Research Council	11862	7500
PEOPLE	Marie Curie Actions	7129	5000
	Research Infrastructures	3961	
	Research for the benefit of SMEs	1901	
CAPACITIES	Regions of Knowledge	158	
	Research Potential	554	
	Science in Society	554	
	Activities of International Co-operation	358	
TOTAL CAPACITIES		7486	4200
Non-nuclear actions of the Joint Research Centre		1817	
TOTAL EC		72726	

Cooperation

With a budget of over EUR 44 billion, the Cooperation programme will support research cooperation in [nine research themes](#), each of which will be operationally autonomous. However, the coherence and consistence of all measures across the thematic areas will be maintained. Joint approaches to research areas of common interest, with participation from two or more of the thematic areas, will also be possible.

[Collaborative research](#)

[Joint Technology Initiatives](#)

[Coordination of national research programmes](#)

Cooperation

The Commission's proposal for FP7 organises collaborative research into nine themed sub-programmes:

Health

Food, agriculture and biotechnology

Information and communication technologies

Nanosciences, nanotechnologies, materials and new production technologies

Energy

Environment (including climate change)

Transport (including aeronautics)

Socio-economic sciences and the humanities

Security and Space

Cooperation

Collaborative research: European Excellence

Collaborative research will constitute the bulk and the core of EU research funding in FP7. The objective is to establish, in the major fields of advancement of knowledge, excellent research projects and networks able to attract researchers and investments from Europe and the entire world. This is to be achieved by supporting collaborative research through a range of funding schemes:

Collaborative projects, Networks of Excellence, Co-ordination/support actions etc.

Cooperation

Technology Platforms

European Technology Platforms (ETP) have been set up in a number of areas where Europe's competitiveness, economic growth and welfare depend on important research and technological progress in the medium to long term. They bring together stakeholders, under industrial leadership, to define and implement a Strategic Research Agenda (SRA). The ETP have contributed to the definition of the themes of the Cooperation programme, in particular in research areas of special industrial relevance. The implementation of the SRA is therefore directly supported by the Cooperation programme in areas where they constitute true European added value.

<http://cordis.europa.eu/es/home.html>

Cooperation

Joint Technology Initiatives

In a limited number of cases, the scope of a RTD objective and the scale of the resources involved justify setting up long term public private partnerships in the form of Joint Technology Initiatives. These initiatives, mainly resulting from the work of European Technology Platforms and covering one or a small number of selected aspects of research in their field, will combine private sector investment and national and European public funding, including grant funding from the Research Framework Programme and loan finance from the European Investment Bank. Joint Technology Initiatives may be decided on the basis of Article 171 of the Treaty or on the basis of the Specific Programme Decisions in accordance with Article 166 of the Treaty.

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Cooperation

Coordination between national research programmes

The action undertaken in this field will make use of two main tools: the ERA-NET scheme and the participation of the Community in jointly implemented national research programmes (Treaty Article 169). The action may cover subjects not directly linked to the nine themes in as far as they have a sufficient EU added value. The action will also be used to enhance the complementary and synergy between the Framework Programme and activities carried out in the framework of intergovernmental structures.

Ideas

- The specific programme for '**Ideas**' aims to support frontier research at the existing borders of knowledge, carried out by individual teams in all scientific and technological fields, including engineering, socioeconomic sciences and the humanities. The investigator-driven programme will be carried out by an independent **European Research Council (ERC)** to stimulate creativity, excellence and the discovery of radical, new knowledge.

People

- The Specific Programme on '**People**' provides support to researchers, supporting their career development and mobility by means of an expansion of the existing 'Marie Curie' exchange programme. These actions will be reinforced and refocused on key aspects of skills and career development, while also strengthening the links with national research systems. The overall aim is to strengthen, qualitatively and quantitatively, human resources in the European research sector.

Capacities

- The specific programme on '**Capacities**' will focus on improving research capacities throughout Europe. The main actions include support to research infrastructures, research for the benefit of SMEs, regional research-driven clusters, help for convergence regions to unlock their full research potential, 'Science in Society' (activities aimed at strengthening the link between science and society in general) and horizontal activities of international cooperation.

- Programa Marco para la competitividad y la innovación



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Programa marco para la competitividad y la innovación

El 6 de abril de 2005, la Comisión Europea ha aprobado la propuesta para someterla a la decisión del Parlamento Europeo y el Consejo para establecer un Programa marco para la competitividad y la innovación (CIP) para el periodo 2007-2013.

El Programa marco proporcionará una infraestructura coherente para todas las actuaciones comunitarias que sean implementadas en el campo de la empresa, las PYMEs, la competitividad industrial, la innovación, desarrollo y utilización de CTI, las tecnologías medioambientales y la energía inteligente.

El Programa de infraestructura propuesto se organiza alrededor de tres bloques principales de actividades:

- **El Programa de Asociaciones Empresariales e Innovación, especialmente dirigido a las PYMEs**
- **El Programa de Apoyo a las Políticas en TCI, para ayudar a la adopción de TCIs en empresas, administraciones y en el sector público.**
- **El Programa Europeo de Energía Inteligente**

El presupuesto total previsto para el Programa es de 4.21 billones de EUROS.



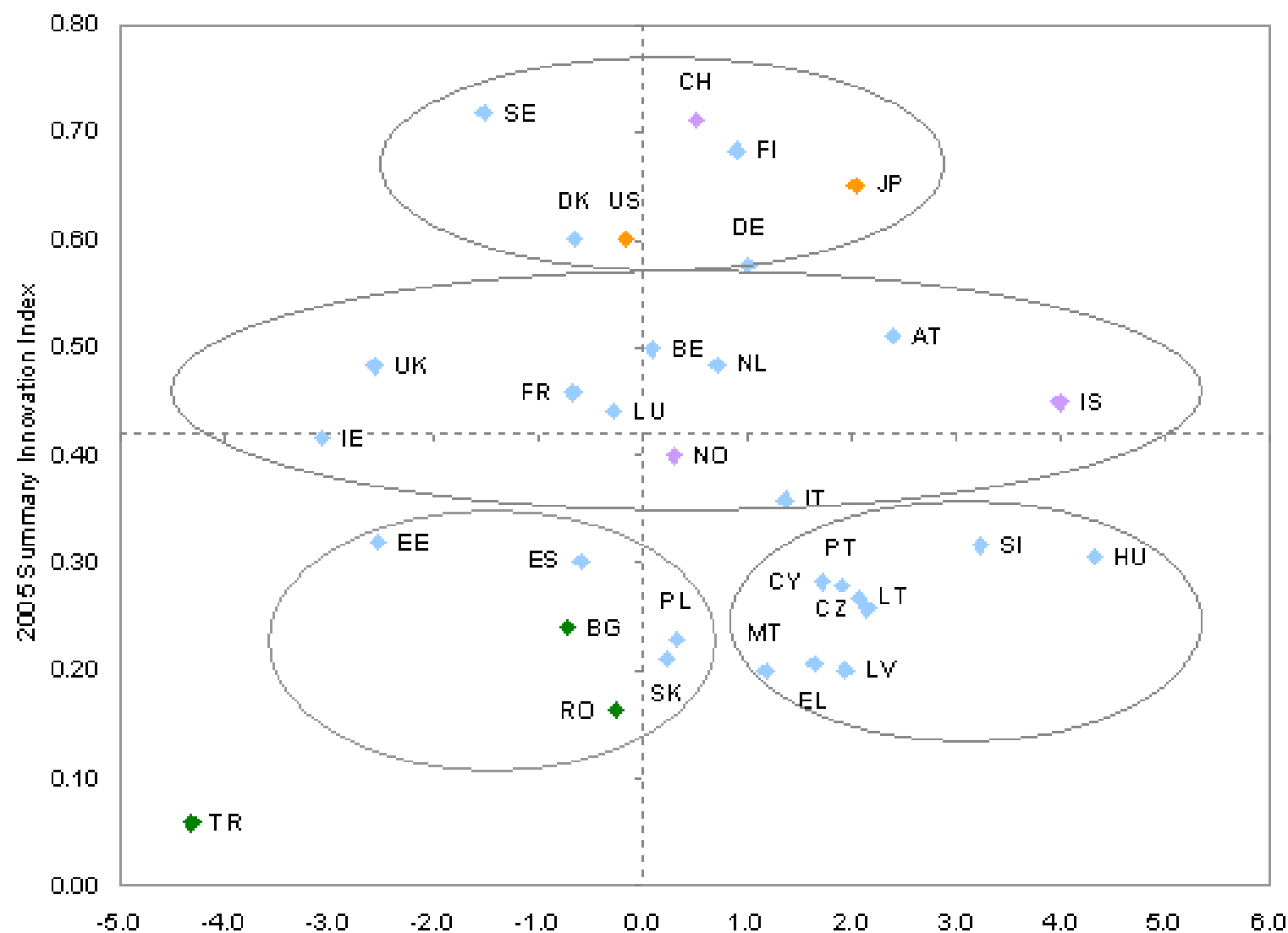
http://trendchart.cordis.lu/tc_

<http://trendchart.cordis.lu/scoreboards/scoreboard2005/index.cfm>



- This is the fifth edition of the *European Innovation Scoreboard* (EIS).

The EIS is the instrument developed by the European Commission, under the Lisbon Strategy, to evaluate and compare the innovation performance of the Member States. The EIS 2005 includes innovation indicators and trend analyses for all 25 EU Member States, as well as for Bulgaria, Romania, Turkey, Iceland, Norway, Switzerland, the US and Japan. The list of indicators and the methodology for calculating the Summary Innovation Index (SII) have been revised in close co-operation with the Joint Research Centre (JRC). The revised methodology now captures more dimensions of a country's innovation performance, although ensuring continuity with results of the former EIS editions. The Annex includes tables with definitions as well as comprehensive data sheets for every country.



Dotted lines show EU25 mean performance.

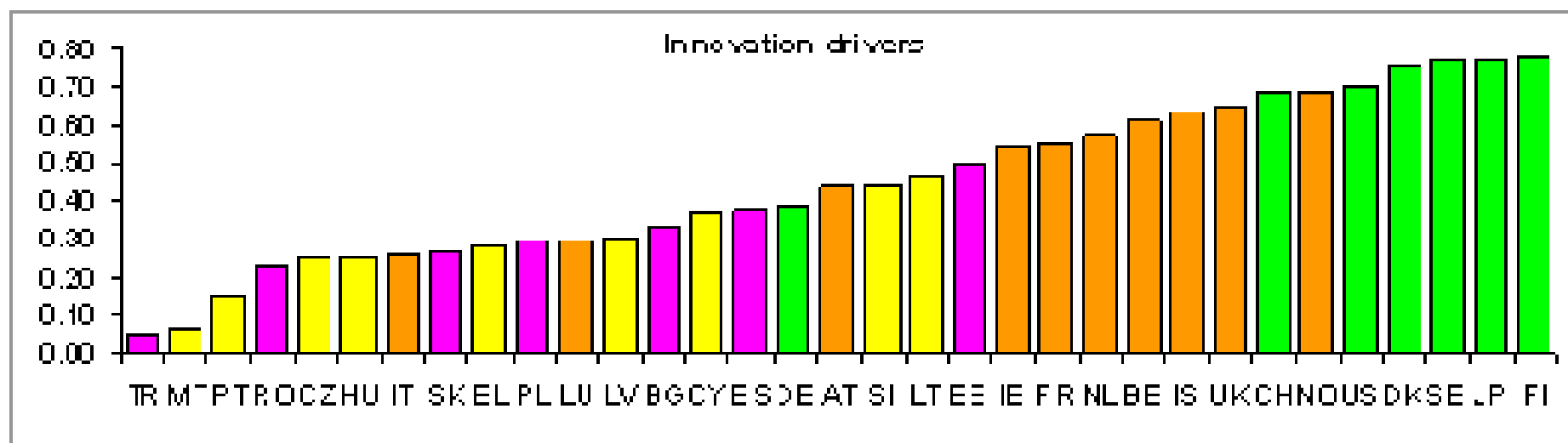
Average growth rate of SII

- **Development of national innovation performances**
- With respect to the situation in Europe , significant national differences are still observed. Figure I shows the Summary Innovation Index (SII) on the vertical axis and the average growth rate of the SII on the horizontal axis. Countries above the horizontal dotted line currently have an innovation performance above the EU25. Countries to the right of the vertical dotted line had a faster than EU25 average increase in the SII.
- Based on their SII score and the growth rate of the SII, the European countries can be divided in four groups:
 - Switzerland, Finland, Sweden, Denmark and Germany make up the group of “ *Leading countries*” .
 - France, Luxembourg, Ireland, United Kingdom, Netherlands, Belgium, Austria, Norway, Italy and Iceland all belong to the group of countries showing “ *Average performance*” .
 - Countries “ *Catching up*” are Slovenia, Hungary, Portugal, Czech Republic, Lithuania, Latvia, Greece, Cyprus and Malta.
 - Countries “ *Losing ground*” are Estonia, Spain, Bulgaria, Poland, Slovakia, Romania

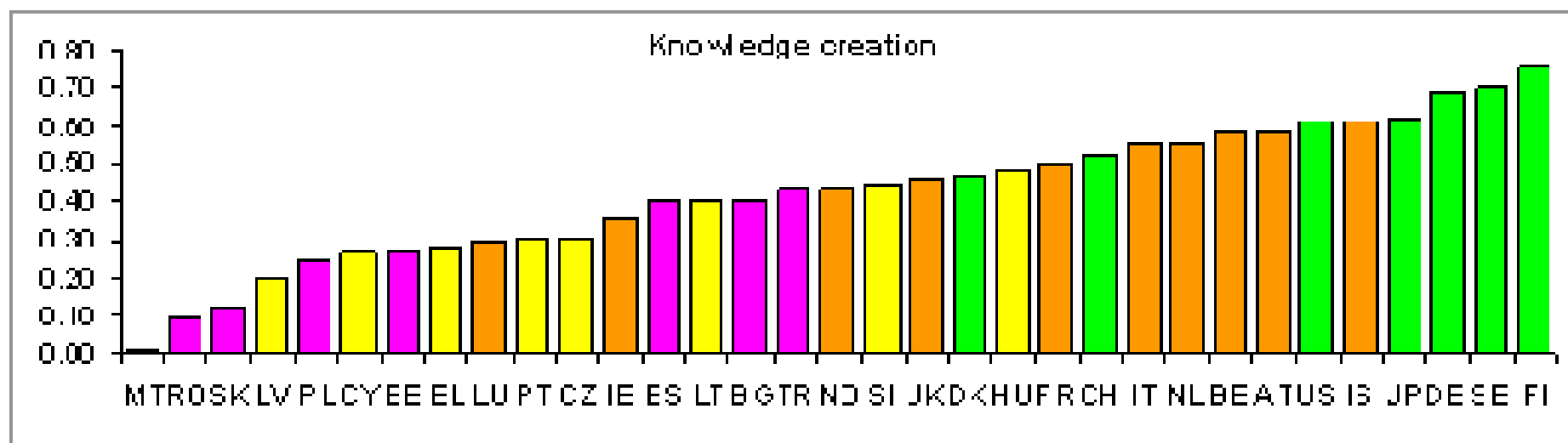
Innovation is a non-linear process.

- The 26 EIS innovation indicators have been classified into five categories to better capture the various aspects of the innovation process.
- These five categories cover different dimensions of innovation performance with a limited set of indicators.
 - *Innovation drivers* measure the structural conditions required for innovation potential,
 - *Knowledge creation* measures the investments in R&D activities, +
 - *Innovation & entrepreneurship* measures the efforts towards innovation at the firm level
 - *Application* measures the performance expressed in terms of labour and business activities and their value added in innovative sectors,
 - *Intellectual property* measures the achieved results in terms of successful know-how.

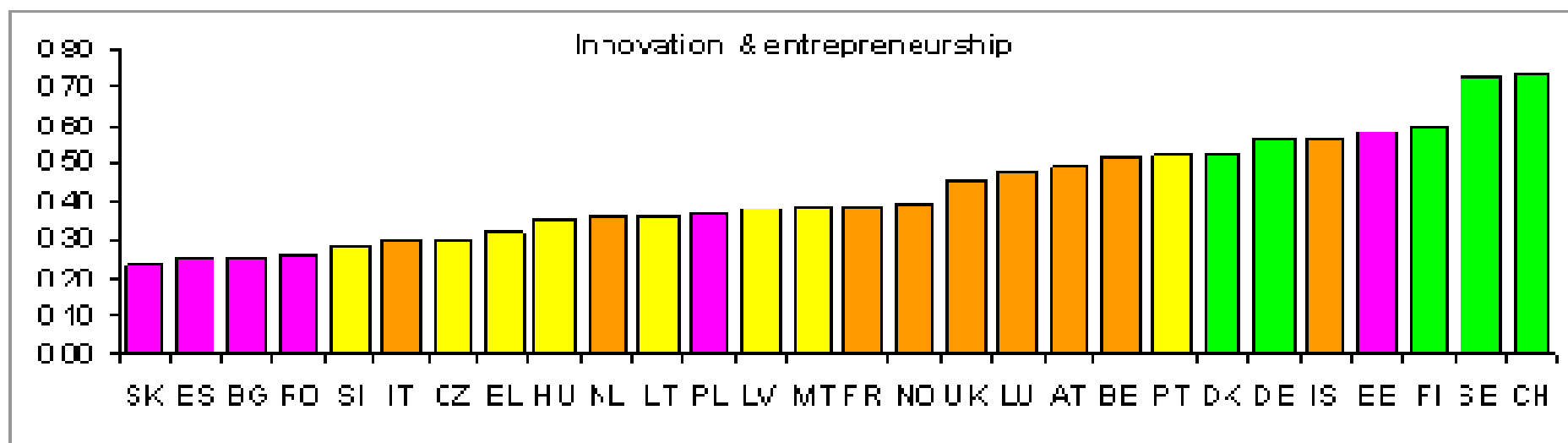
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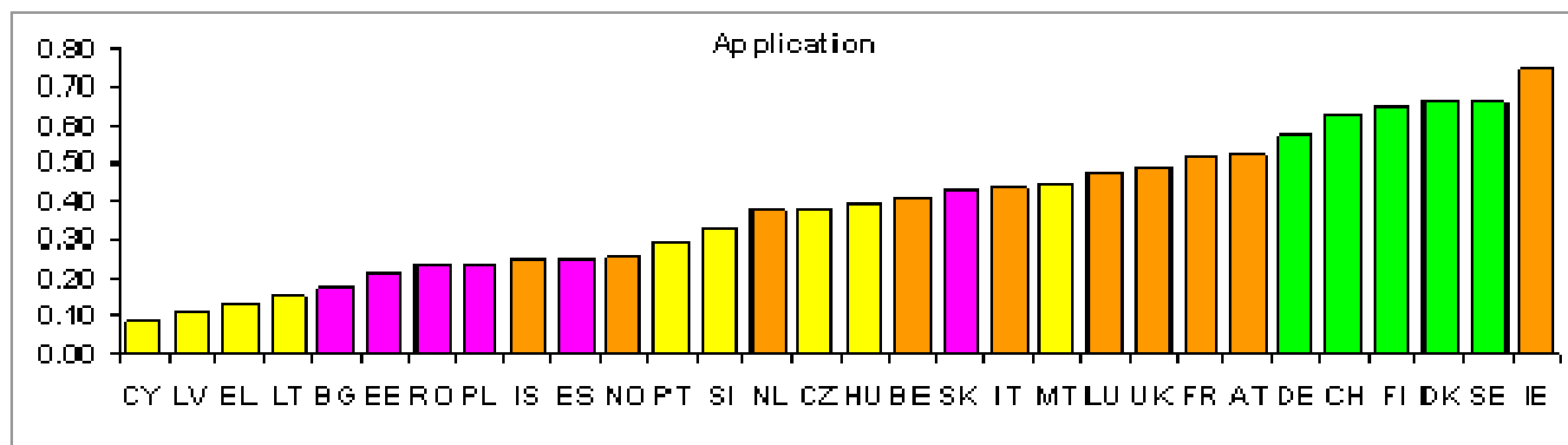
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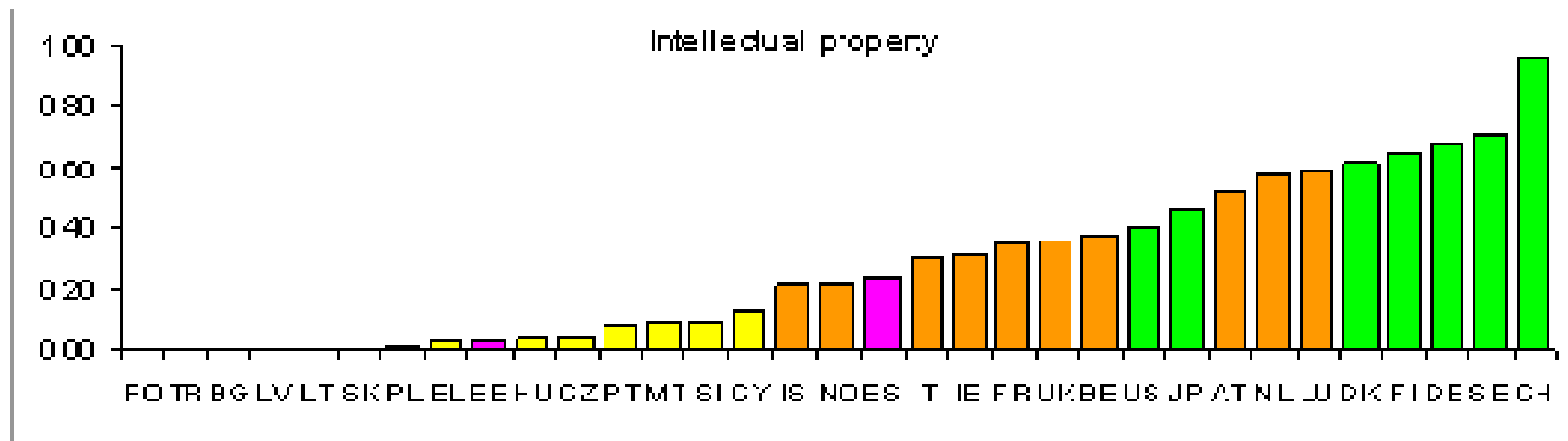
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- **Problemática de los indicadores**

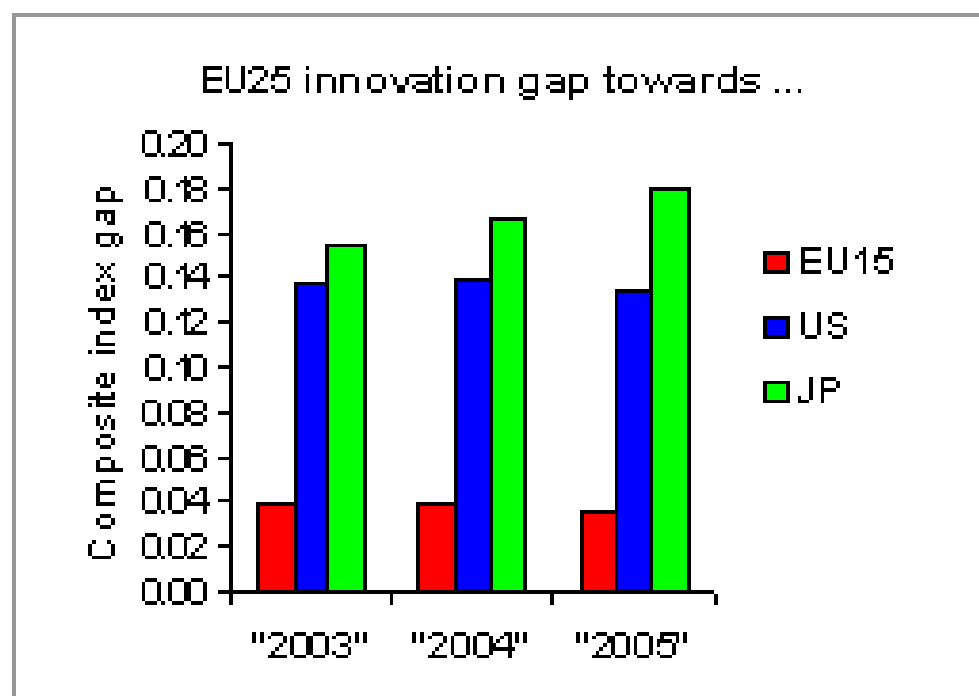
- The IDEA project (Indicators and Data for European Analysis) addressed a key issue both for research and policy-making with respect to innovation. This issue is the existence, availability and adequacy of statistical information. Our ability to understand the complex structure and dynamics of innovation processes, and our ability to design policies to support innovation, depend on an adequate empirical grasp of the extent and nature of innovation activity and its outcomes.

Until very recently, however, we have had to use indicators for this field, which were partial and/or indirect, and this has limited the abilities of researchers and policymakers to formulate well-designed theories and policies.

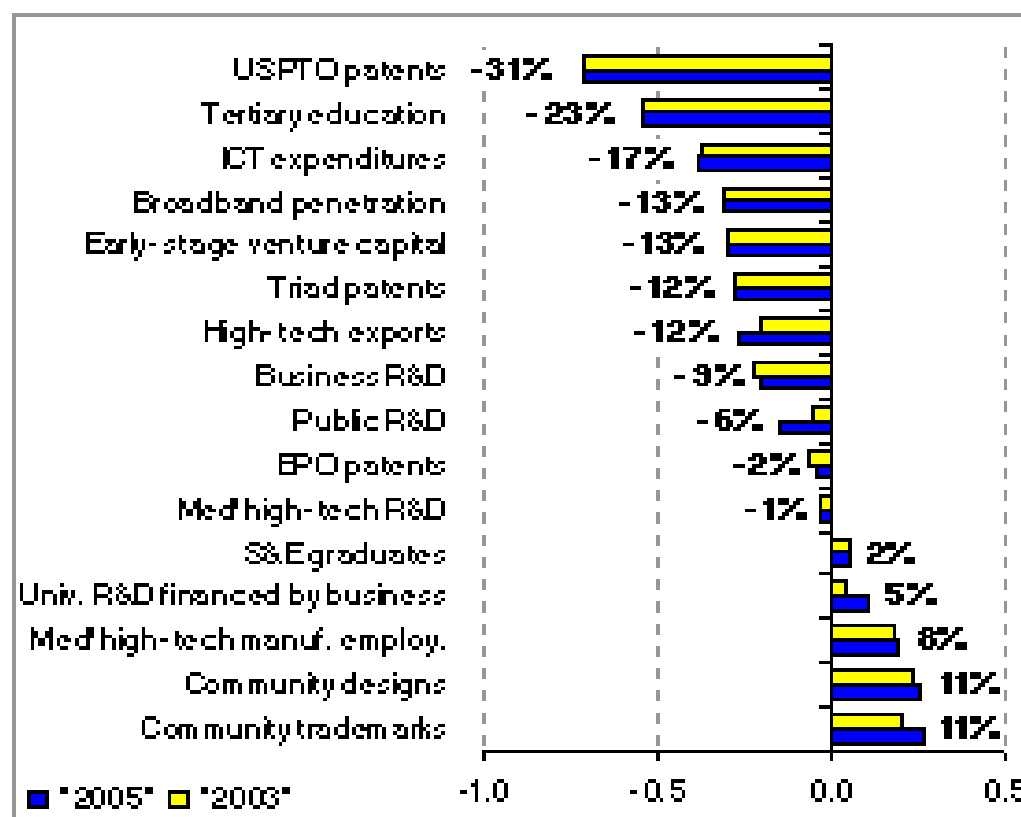
Against this background, the objective of the project has been to undertake policy-relevant research on the conceptual foundations and empirical usability of existing science and technology indicators, and on the potential for new indicators that might expand our understanding of key issues in innovation and the knowledge-based economy.

- In the view of the IDEA researchers, innovation indicators should provide information that can meet three requirements:
 - Directly assist the development and implementation of policy actions.
 - Verify innovation theory as part of a continual process of testing and improving theories of innovation.
 - Assist private firms and other institutions to develop and adjust their own innovation strategies.

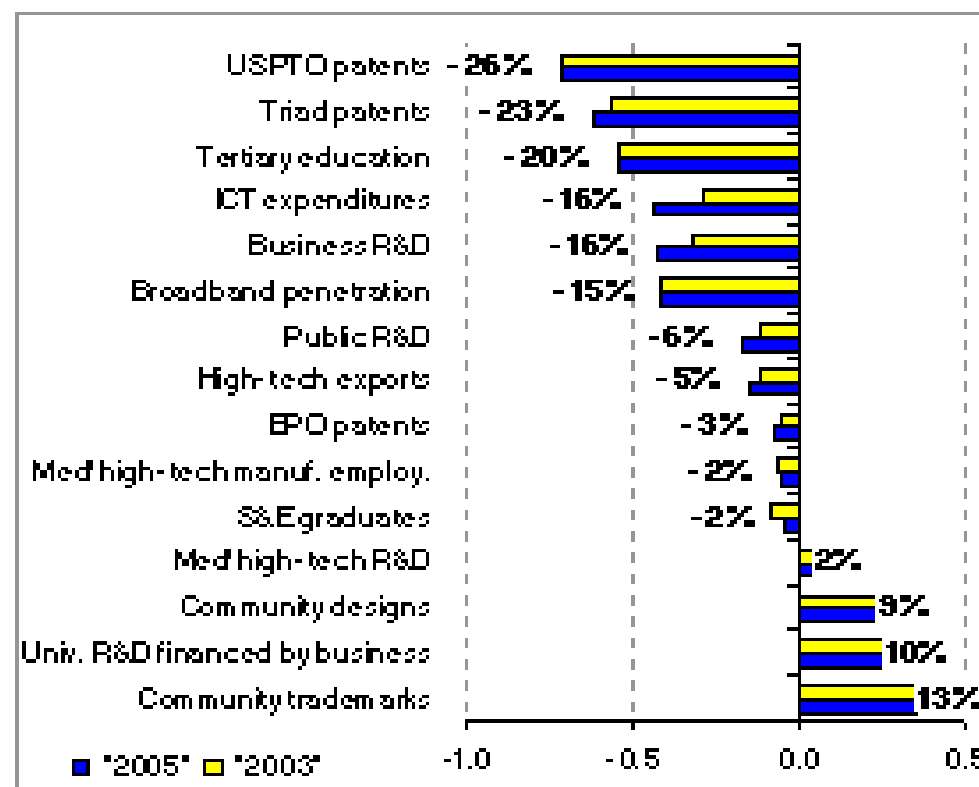
- Europa, Japon, Usa



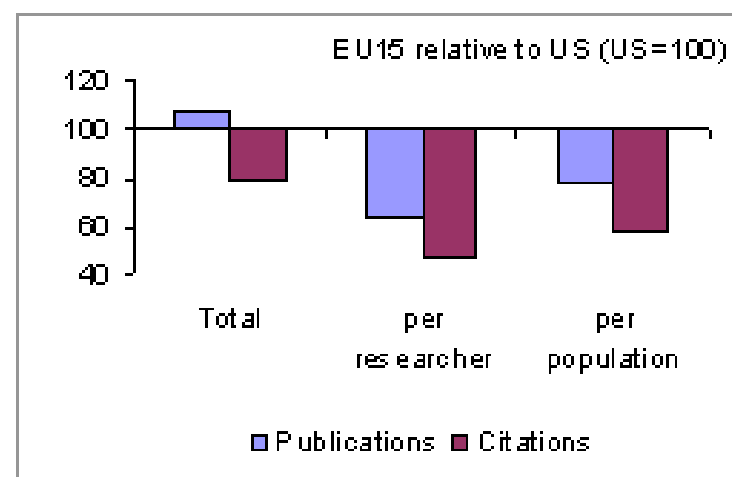
- UE- USA Gaps



- UE – Japan Gaps

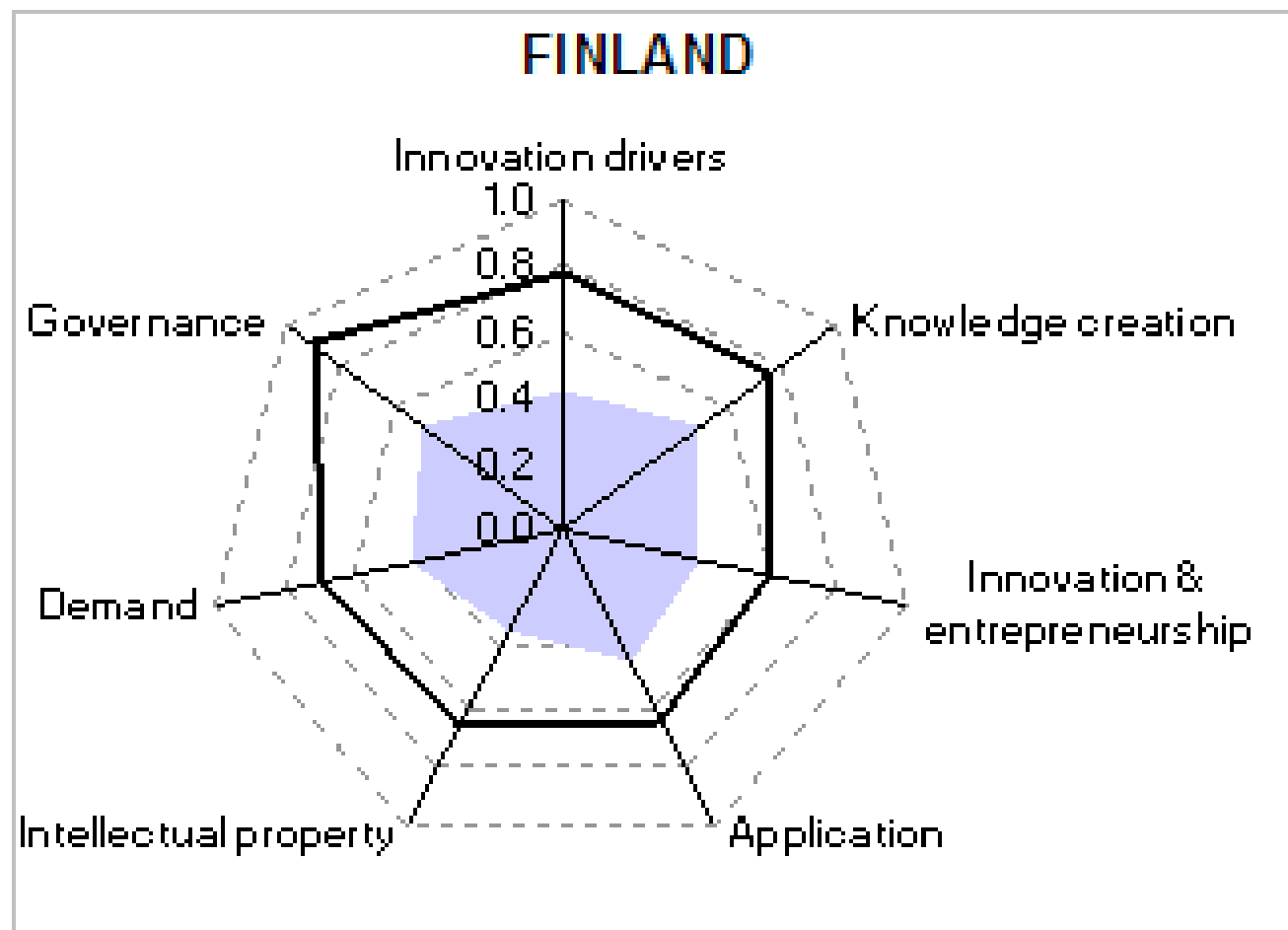


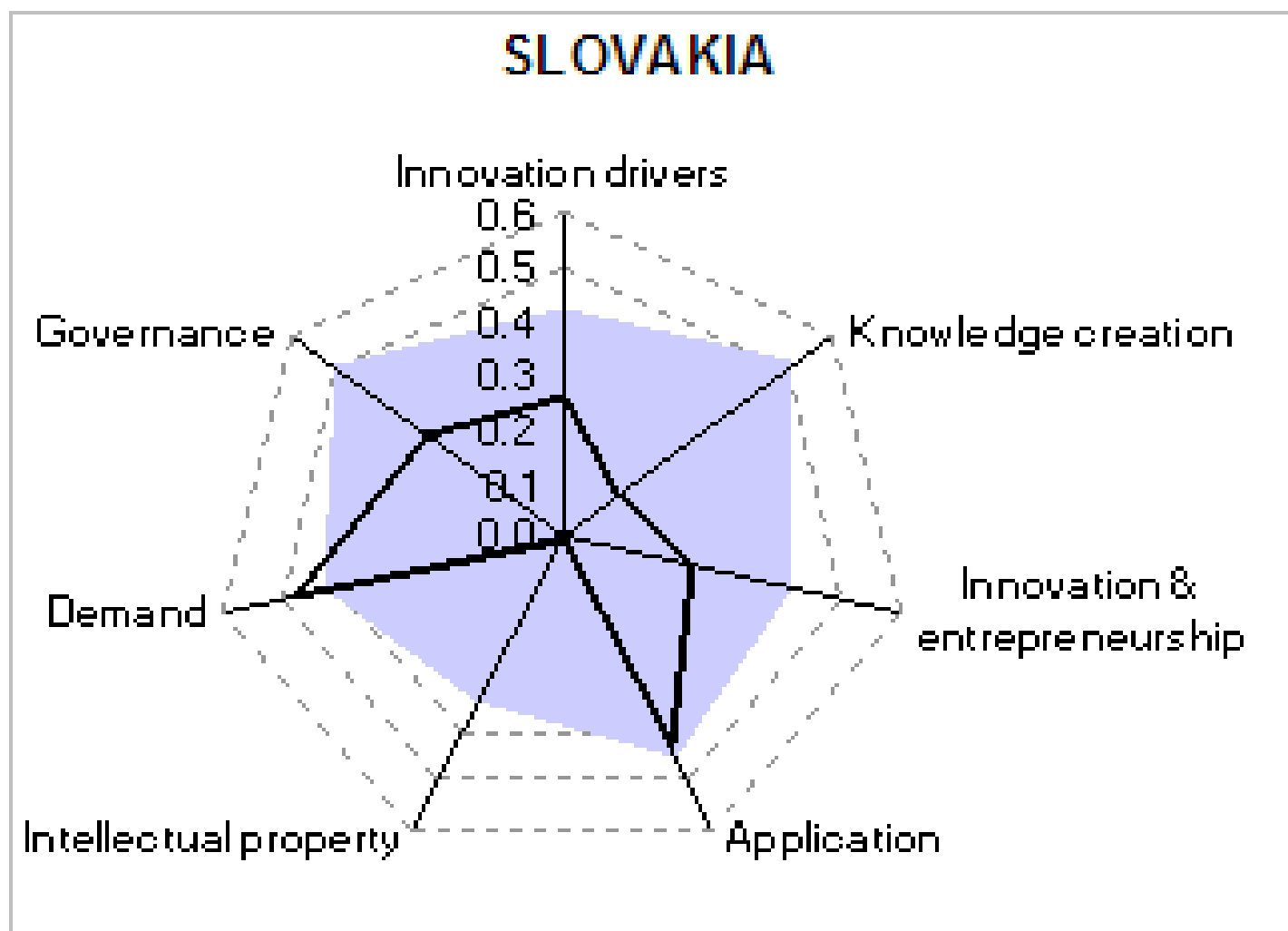
- The myth of European Leadership in science: Leading in number of publications, but not in relative measures nor citations



National strengths and weaknesses

- The EIS results by country, combined with EXIS [1](#) data for innovation demand and governance, were used to explore national strengths and weaknesses. Many countries show marked differences in innovation capabilities. For instance, the Czech Republic performs much better on innovation demand and applications than on intellectual property. An important question of policy significance is if the best policy response is to further improve the country strengths or to improve areas of weakness.
- The optimal policy response will depend on specific national conditions that might make it easier to improve the strengths than the weaknesses, or vice versa. In some cases building up the areas of strengths could have a positive influence on the weaknesses, as when investment in knowledge creation leads to higher levels of patenting. Alternatively, this might not occur if very poor performance in innovation and entrepreneurship acts as a barrier to an improvement in patenting.
- This example points to two opposing perspectives on how innovative capabilities develop. The first suggests that innovative capabilities can spill over from areas of strengths to areas of weakness. The second perspective suggests that all inputs must develop approximately equally - a 'blockage' in one field, such as poor knowledge creation or low levels of entrepreneurship, would prevent progress. Of course, both perspectives could also be true, depending on specific conditions or indicators.





La vía finlandesa hacia el progreso

- El milagro económico finlandés es un fenómeno estudiado con asombro en todo el mundo y fue acogido en Finlandia con notable orgullo. ¿Cómo ha podido un pequeño país escandinavo pasar de una economía que carecía de capacidad tecnológica en los años 70 a la fuente inagotable de innovación que es hoy en día?
- La industria de Finlandia empezó a invertir en desarrollo técnico a lo largo de los años 60 de modo que invirtió en sí misma en I+D (investigación y desarrollo) técnicos. A partir de mediados de los 60 se realizaron esfuerzos extraordinarios para ampliar la educación superior, con una ley sobre educación superior aprobada en 1966. Esta ley es válida todavía hoy en día y es responsable de generar un gran aumento del número de estudiantes y profesores. Esta ampliación se aplicó de manera que se fundaron universidades nuevas en varias regiones, no ampliándose simplemente las antiguas².
- En 1982, a consecuencia de los descubrimientos del Gran Comité Tecnológico, el gobierno tomó la decisión de promover el principio de tecnología, tomando una amplia visión de la política tecnológica y técnica. ²La tecnología adquirió la posición que se había mantenido en otros países después de la Segunda Guerra Mundial², señaló. ²Considerando la tecnología no sólo para ingenieros, sino como un fenómeno social en todos los niveles.
- El cambio hacia la tecnología se produjo más desde la misma industria, unida a excelentes canales de comunicación entre la industria y el gobierno. En lugar de pedir apoyo la industria invirtió en sí misma y su financiación privada se ajustó entonces a los gastos del gobierno.
- El gobierno invirtió grandes cantidades de dinero en investigación, innovación e iniciativa empresarial. ¿Pero cómo podía el gobierno finlandés permitirse esos grandes gastos? ²Privatización. Después del periodo de recuperación, después de la depresión. La recuperación fue buena a partir de 1996. Fue posible recibir ingresos extra del gobierno y el sector público dio claras señales para continuar la inversión

La vía finlandesa hacia el progreso

- Un país del tamaño de Finlandia tiene limitaciones, de modo que el país ha concentrado sus esfuerzos en áreas específicas. ²Finlandia es una pequeña nación en lo que se refiere a la población - 5,3 millones, lo que restringe y limita la capacidad de tener empresas competitivas con una base amplia, pero esto es lo que queremos intentar alcanzar, tener éxito globalmente en ciencia, tecnología y comunicaciones.² Para ser global necesitas especializarte porque no puedes ser bueno en todo. Las empresas globales son diferentes de aquellas que están en un mercado local.²
- Podemos decir que los actores públicos más importantes en ciencia y tecnología en los 90 son tres organizaciones expertas en financiación en el sector público. La Academia de Finlandia, un sistema de consejos de investigación nacionales que financia la investigación básica en universidades. Tekes tiene un papel parecido ya que financia la investigación técnica aplicada en universidades y centros de investigación públicos y dirige la financiación tecnológica para compañías de negocios. SITRA, el Fondo Nacional Finandés de Investigación y Desarrollo, que es el fondo más importante de capital de riesgo público.
- Estas tres organizaciones cubren todo el proceso de innovación. Es importante que pongan en funcionamiento programas nacionales en sus áreas y tengan una buena cooperación horizontal. Tanto por separado como en conjunto, constituyen el factor más importante del éxito alcanzado hasta ahora y serán la base del próximo.
- Hemos aprendido que la innovación técnica favorece la concentración de actividades - las industrias de TIC se sitúan en los mayores centros, que tienen actividades de ocio, aeropuertos, etc. Este es un factor, la concentración provoca un desarrollo económico rápido y la emigración procedente del campo y áreas escasamente pobladas. En esta depresión de hace 15 años el sector público se retiró de las regiones. Esto significa que hay diferencias a la hora de analizar los niveles y las tasas de desarrollo, la velocidad que las regiones desarrollan hoy en día.

The PAXIS pilot action http://cordis.europa.eu/paxis/src/about_paxis.htm

The European Commission developed PAXIS so as to take example from the experience of the Regions of Excellence and learn from the sophisticated policies that support their networking activities. This facilitates better documentation of policy decisions and the elaboration of solid measures, which enable regions to be more innovative and competitive, simultaneously transferring their expertise to other regions. Creation of new innovative enterprises, support of spin-off companies and development of start-ups are some of the main policy objectives in both the EU and worldwide. The rich European scientific base needs to be further explored and promoted so as to include European citizens' welfare, developing new ideas for implementation. PAXIS aspires to gather all these ideas and recommendations and through advanced networking and collaboration, make them prolific and accessible

The 22 Regions of Excellence are grouped together in five Thematic Networks, according to their thematic priorities and previous links. The overall objective of these Thematic Networks is to analyse and describe their process models in order to encourage and develop start-ups. The results of this work are shared between all the members of the network who learn from each other and are able to adapt ideas and approaches tried and tested elsewhere. This working method should allow the improvement of regional systems through mutual learning, active exchange of experiences and should promote the visibility of successful schemes in Europe.

More concretely the Thematic Networks will :

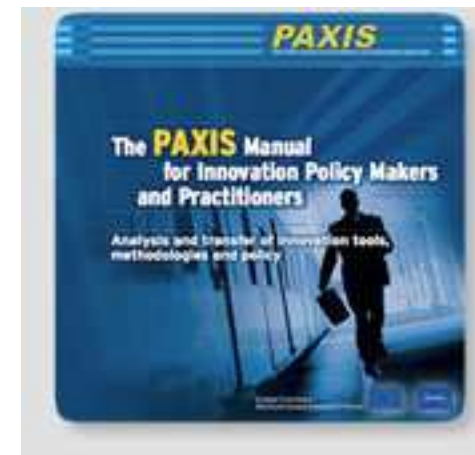
- Identify existing resources and competencies in areas of excellence, as well as of relevant experiences and regional players,
- Organise information flows and interactive workshops, seminars, working groups, etc.,
- Exchange of information, knowledge and skills,
- Disseminate of success stories and good practices.

The five thematic networks and their members are :

- [KREO](#) : Oxford (UK), Karlsruhe (DE), Lyon-Grenoble (FR) and Emilia-Romagna (I).
- [HIGHEST](#) : Alpes-Maritimes (FR), Helsinki Region (FIN), Torino Area (I) South Sweden (S) and Berlin (DE).
- [SPRING](#) : Stockholm (S), Cambridge (UK), Stuttgart (DE) and Madrid (ES).
- [PANEL](#) : Munich (DE), Milan (I), Barcelona (ES) and Dublin (IR).
- [START](#) : Copenhagen (DEN), Edinburgh (UK), Hamburg (DE) Veneto Region (I) and Vienna Region (A).

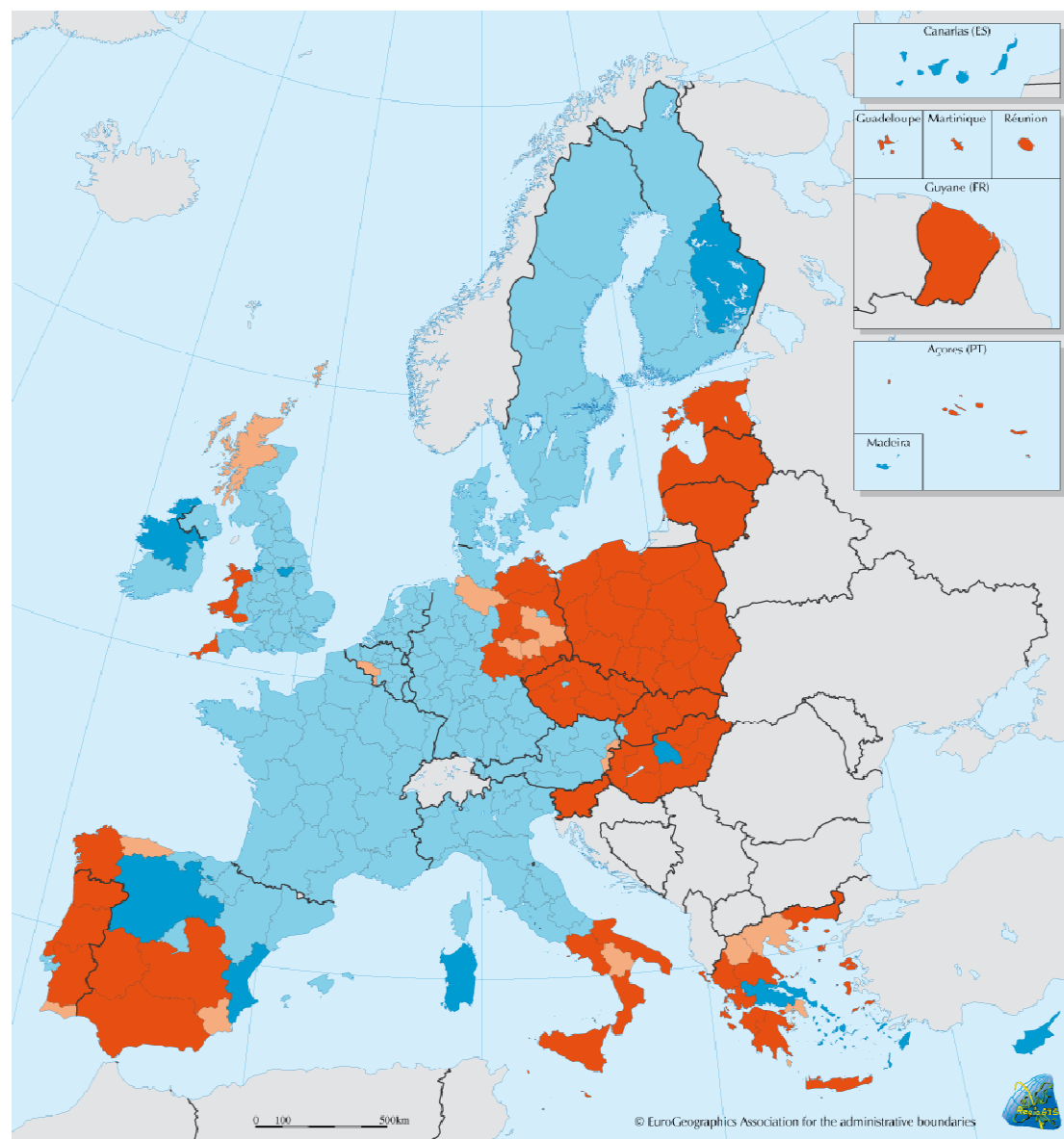
**Prefaced by Gunther Verheugen,
this manual describes the main good
practices identified by PAXIS in the
areas of**

- policy design,
- pre-seed and early-stage financing; incubation;
- technology transfer and spin-offs;
- promotion of an entrepreneurial
- innovation culture
- political awareness.



- **COHESION : Fondos estructurales**





- Convergence Regions
- Phasing-out Regions
- Phasing-in Regions
- Competitiveness and Employment Regions

Fourth progress report on cohesion

The Growth and Jobs Strategy and the Reform of European cohesion policy

The report contains 2 parts

1. Analysis of economic and social disparities in the enlarged EU
2. Recent developments in cohesion policy

Regional disparities

- 10% of EU27 population living in the most prosperous regions (19% of total EU-27 GDP)

Convergence regions

- 12½% total share in EU27 GDP with 35% population share
- Several regions in Romania and Bulgaria with GDP per head below 25% of the EU average GDP
- Also regional disparities in R&D and ICT access

Cohesion policy objectives 2007-2013

	Number of regions	% pop EU27	GDP/cap in PPS % EU25	Employment rate 2004	Unemployment rate 2004	Growth rate 1995- 2002	%EU25 GDP 2002
Convergence	84	31.7	51.9	55.5	13.7	2.6	12.5
Phasing-out	16	3.4	79.2	59.5	12.2	2.3	2.6
Phasing-in	13	3.9	89.9	61.7	8.8	3.4	3.3
RCE	155	61.0	119.7	66.7	6.9	2.4	81.6
EU27	268	100	95.6	62.7	9.2	2.4	100.0

Indicative Financial Allocations

2007-2013

Cohesion policy 2007-2013: indicative financial allocations (million EUR, 2004 prices)¹

	CONVERGENCE OBJECTIVE			REGIONAL COMPETITIVENESS AND EMPLOYMENT OBJECTIVE		EUROPEAN TERRITORIAL COOPERATION OBJECTIVE	TOTAL
	Cohesion Fund	Convergence	Statistical Phasing out	Phasing in	Regional competitiveness and employment		
België/Belgique			579		1.268	173	2.019
Ceska Republika	7.830	15.149			373	346	23.697
Danmark					453	92	545
Deutschland		10.553	3.770		8.370	756	23.450
Eesti	1.019	1.992				47	3.058
Ellas	3.289	8.379	5.779	584		186	18.217
Espana	3.250	18.727	1.434	4.495	3.133	497	31.536
France		2.838			9.123	775	12.736
Ireland				420	261	134	815
Italia		18.867	388	879	4.761	752	25.647
Kypros	193			363		24	581
Latvija	1.363	2.647				80	4.090
Lietuva	2.034	3.965				97	6.097
Luxembourg					45	13	58
Magyarország	7.589	12.654		1.865		343	22.451
Malta	252	495				14	761
Nederland					1.477	220	1.696
Österreich			159	0	914	228	1.301
Polska	19.562	39.486				650	59.698
Portugal	2.722	15.240	254	407	436	88	19.147
Slovenija	1.239	2.407				93	3.739
Slovensko	3.433	6.230			399	202	10.264
Suomi-Finland				491	935	107	1.532
Sverige					1.446	236	1.682
United Kingdom		2.436	158	883	5.349	642	9.468
Bulgaria	2.015	3.873				159	6.047
Romania	5.769	11.143				404	17.317
Not allocated						392	392
TOTAL	61.558	177.083	12.521	10.385	38.742	7.750	308.041

¹ Figures result from the application of the methodology agreed by the European Council in December 2005. They are inclusive of all additional provisions decided by the European Council. Technical assistance at the initiative of the Commission is included in the national allocations. Amounts under the "European territorial cooperation" objective include the contribution of the ERDF to the financing of cross-border and sea-basin programmes on the external borders of the Union. Figures for Bulgaria and Romania are without prejudice to the date of accession of these countries

Lisbon Agenda and cohesion policy 2007-2013

- **Lisbon National Reform Programmes** - Ensuring that Lisbon priorities are fully integrated into cohesion policy programmes
- **Earmarking** - Increase the share of cohesion policy spending on "Lisbon" activities through earmarking
 - 60% Convergence
 - 75% Regional Competitiveness and Employment
- **New instruments** – JASPERS, JEREMIE, and JESSICA

Timetable

- July 2005:** Draft Regulations enter into force
Final version of Community Strategic Guidelines and Communication on the urban dimension of cohesion policy adopted by Commission
- Autumn 2006:** Adoption by Council of Community Strategic Guidelines
Submission of National Strategic Reference Frameworks and Operational Programmes 2007-2013
- 1 Jan 2007:** Implementation begins

Future events: Lisbon and cohesion policy

- “Regions for economic change: Innovating through the EU Regional Policy”, Brussels, 12 – 13 June 2006
- “Investing in Europe’s Regions and Cities: Public and Private Partners for Growth and Jobs”, Open Days, 9 - 12 October 2006
- Informal meeting for the ministers responsible for Regional Policy (Brussels, 21 November 2006, Finnish Presidency, TBC)

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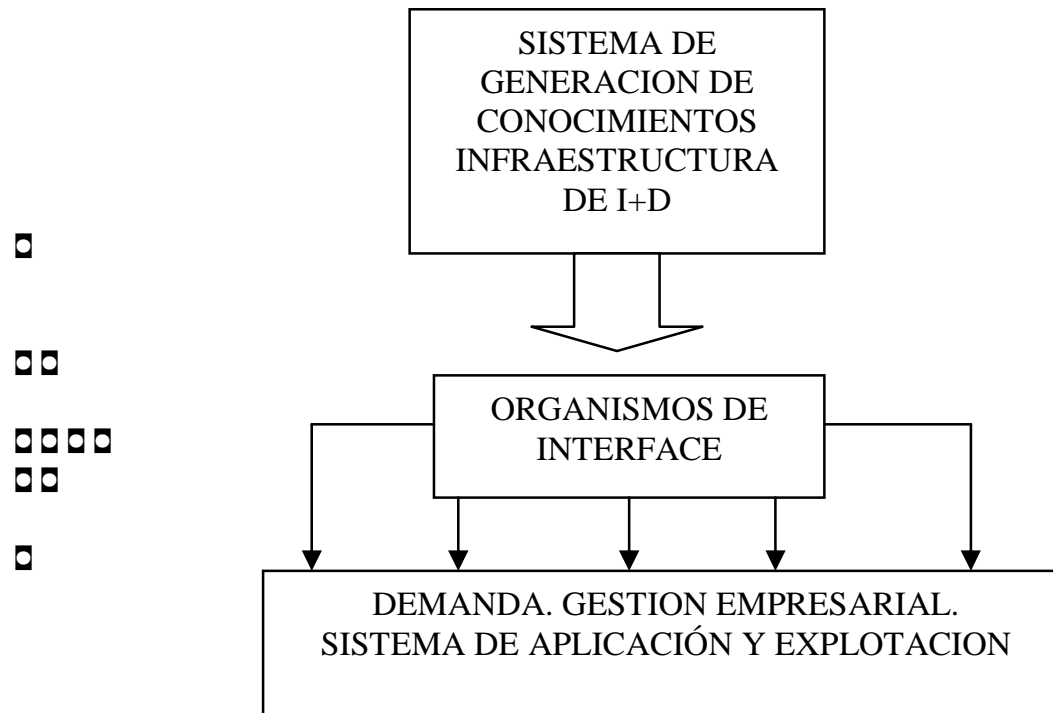
Algunas reflexiones

Las métricas habituales de Ciencia, Tecnología e Innovación tienden a centrarse de forma básica en la evaluación del esfuerzo inversor que se realiza en actividades de I+D+i. De esta forma, la evaluación del porcentaje del PIB destinado a estas actividades, que en lo sucesivo denominaremos actividades innovadoras entendidas en sentido amplio, se ha convertido en un indicador básico para medir la importancia que la innovación tiene en una economía y, por ello, en un indicador de su potencial innovador.

Sin embargo, la realidad demuestra que no siempre una mayor inversión acaba dando lugar a unos mejores resultados, sobre todo si lo que definimos como resultados del proceso innovador son cuestiones tales como la mejora de la productividad, el lanzamiento de nuevos productos o nuevos procesos, la puesta en marcha de nuevos negocios o la reconfiguración de los actuales; en eslabones anteriores de la cadena de valor de la innovación, si definimos como resultados la publicación de artículos científicos en revistas internacionalmente reconocidas, el número de citas que generan, la obtención de patentes o modelos de utilidad o los ingresos derivados de las licencias concedidas sobre las mismas.

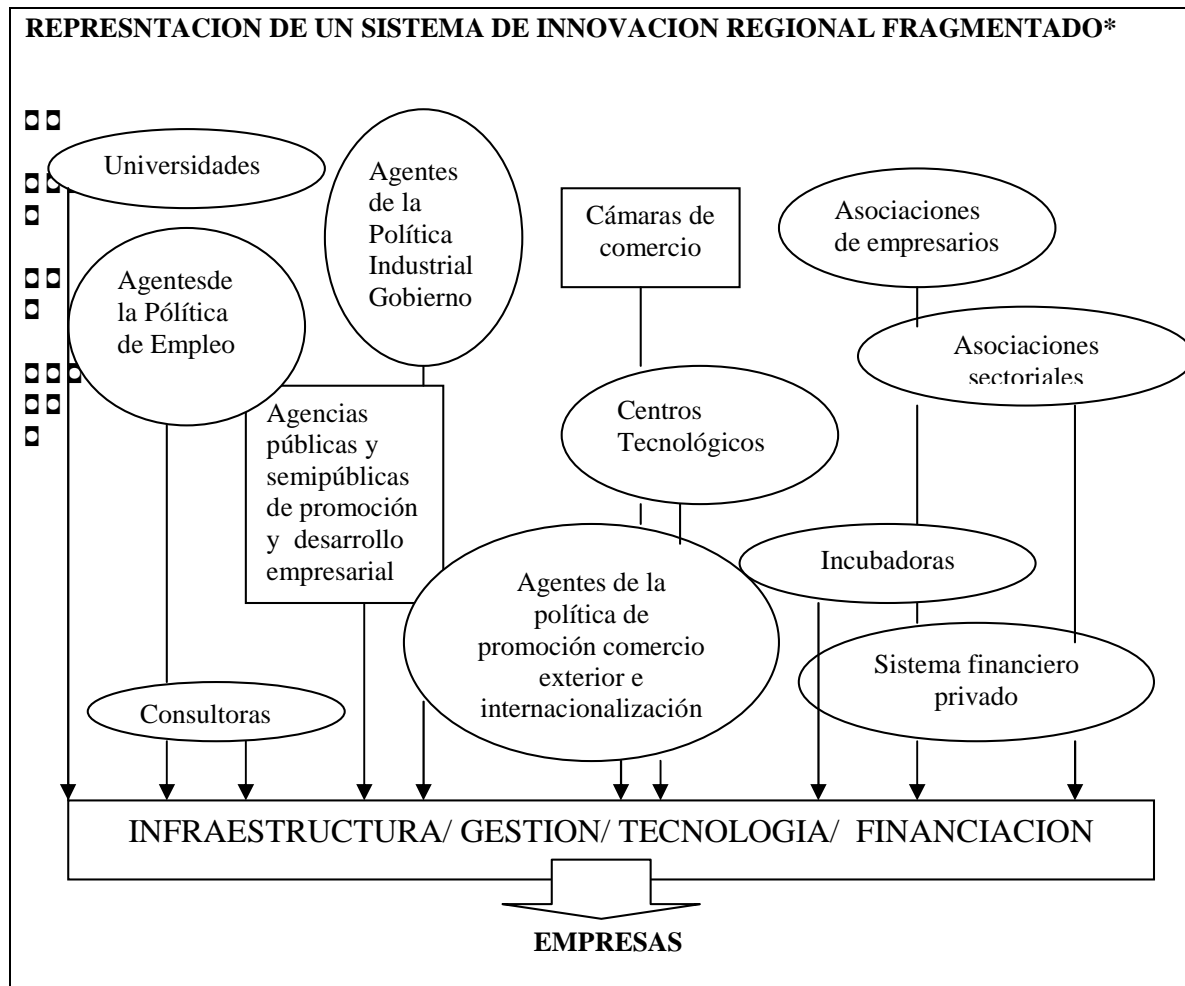
Impacto de las acciones

SISTEMA DE INNOVACION. Modelo convencional: los receptores intervienen pasivamente en el sistema. Todo el énfasis descansa en la infraestructura de manera. Se supone que por “decantación” los conocimientos llegarán a las empresas para aplicación



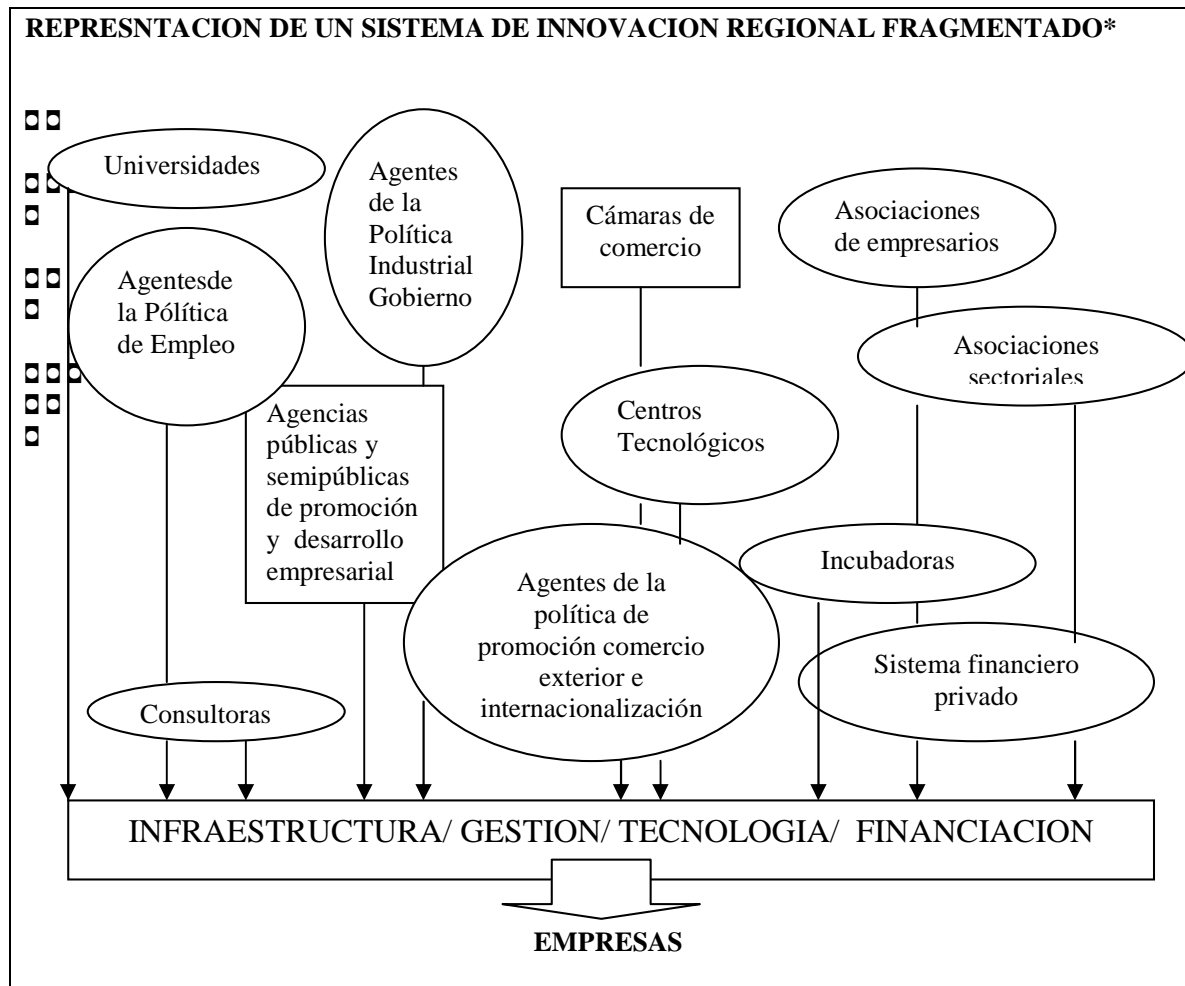
Fuente: Arbonies (2001) “Cómo evitar la miopía en la Gestión del Conocimiento”.

Impacto de las acciones



Fuente: Arbonies (2001) "Cómo evitar la miopía en la Gestión del Conocimiento".

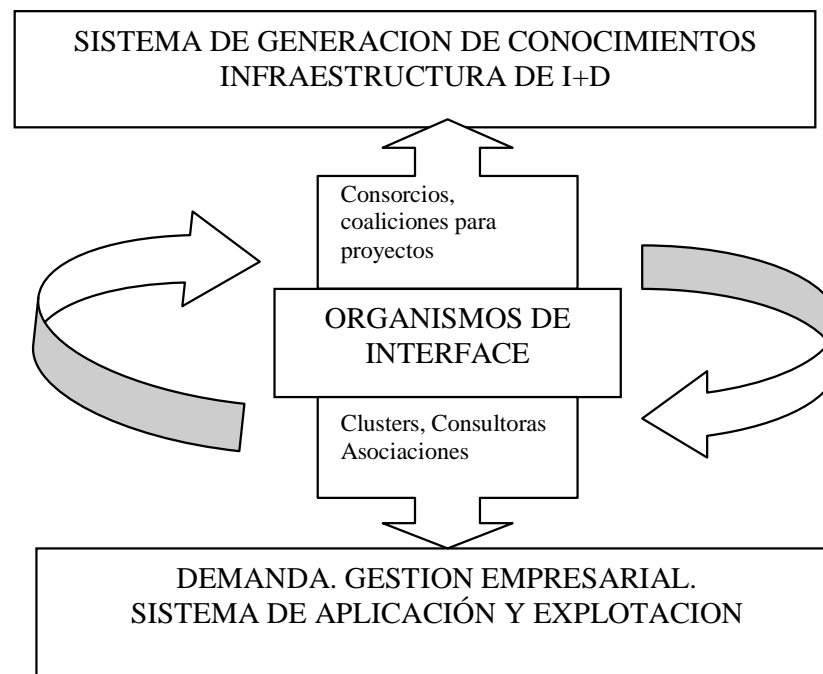
Impacto de las acciones



Fuente: Arbonies (2001) "Cómo evitar la miopía en la Gestión del Conocimiento".

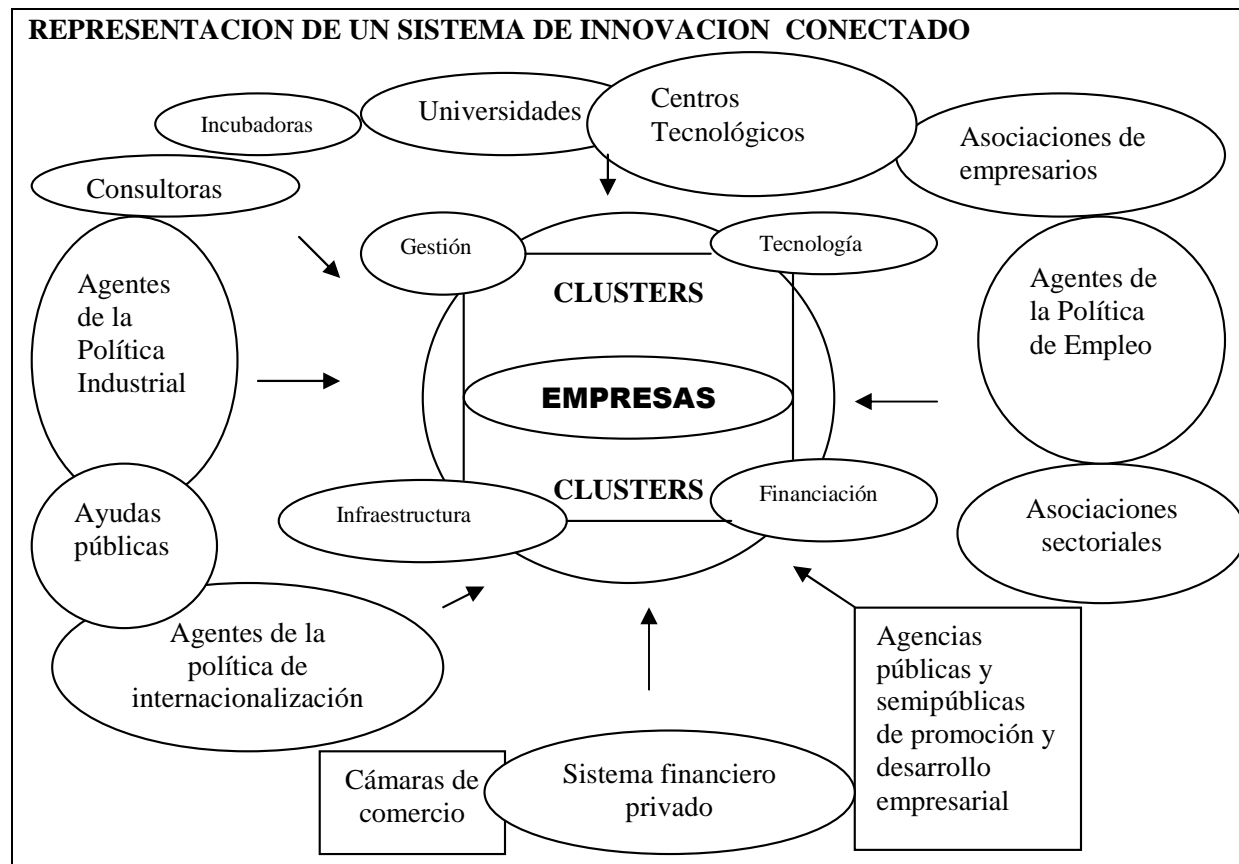
Impacto de las acciones

SISTEMA DE INNOVACION SUGERIDO. Base: Conocimientos compartidos, mercado y tecnología son igualmente importantes y por ello los receptores intervienen activamente en el sistema. El énfasis descansa en el intercambio de conocimientos para generar innovaciones.



Fuente: Arbonies (2001) "Cómo evitar la miopía en la Gestión del Conocimiento".

Impacto de las acciones de Colciencias



Fuente: Arbonies (2001) "Cómo evitar la miopía en la Gestión del Conocimiento".

Medir impacto pensando en un nuevo sistema de innovación

