



3a JORNADA DE RECERCA

A L'INSTITUT CATALÀ DE LA SALUT

28 d'octubre de 2010

Catalonia RDI Policies

Jordi Cartanyà

Director General

Coordination Office for Research and Innovation

2010-2013

Research and Innovation Plan of Catalonia



Looking for RDI impact on Catalonia progress

EMPLOYMENT

**REGIONAL
BALANCE**

WELLBEING

SUSTAINABILITY

COMPETITIVENESS

SOCIAL CAPITAL

**Economic
diversification:**
renovate the present,
flourish in the future

**Regions
capable of
making progress**

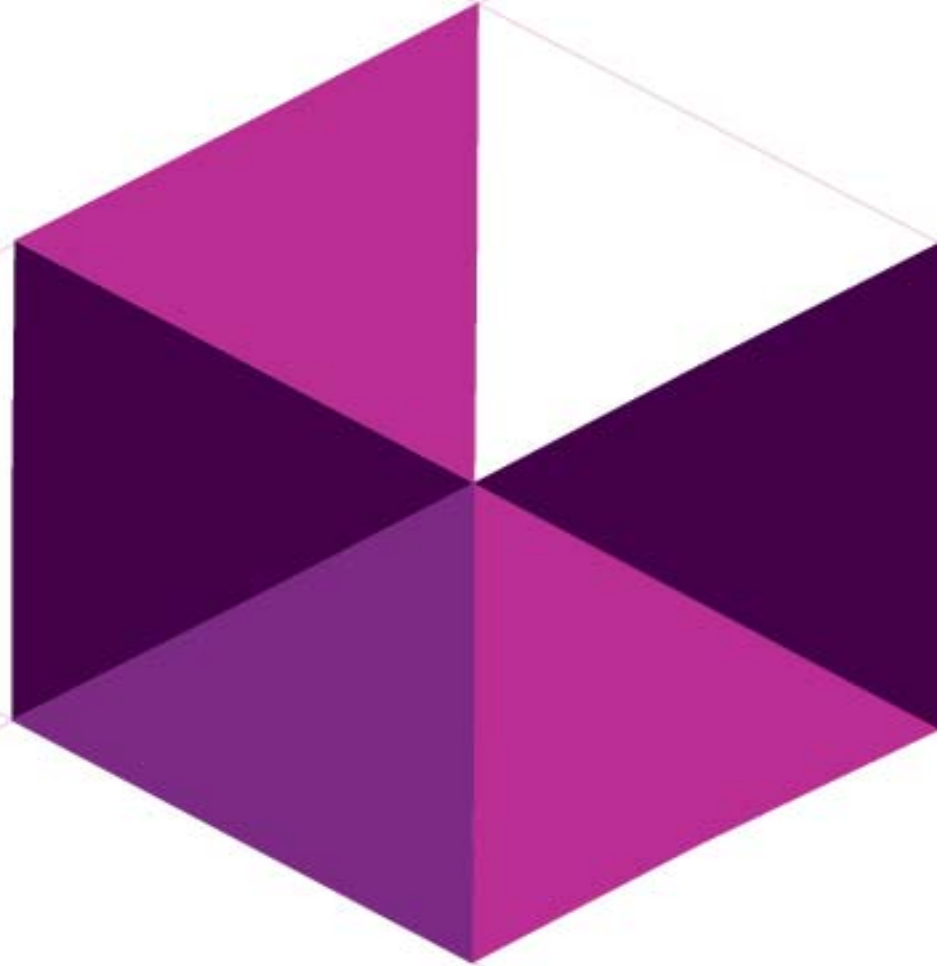
**Quality
collective
services**

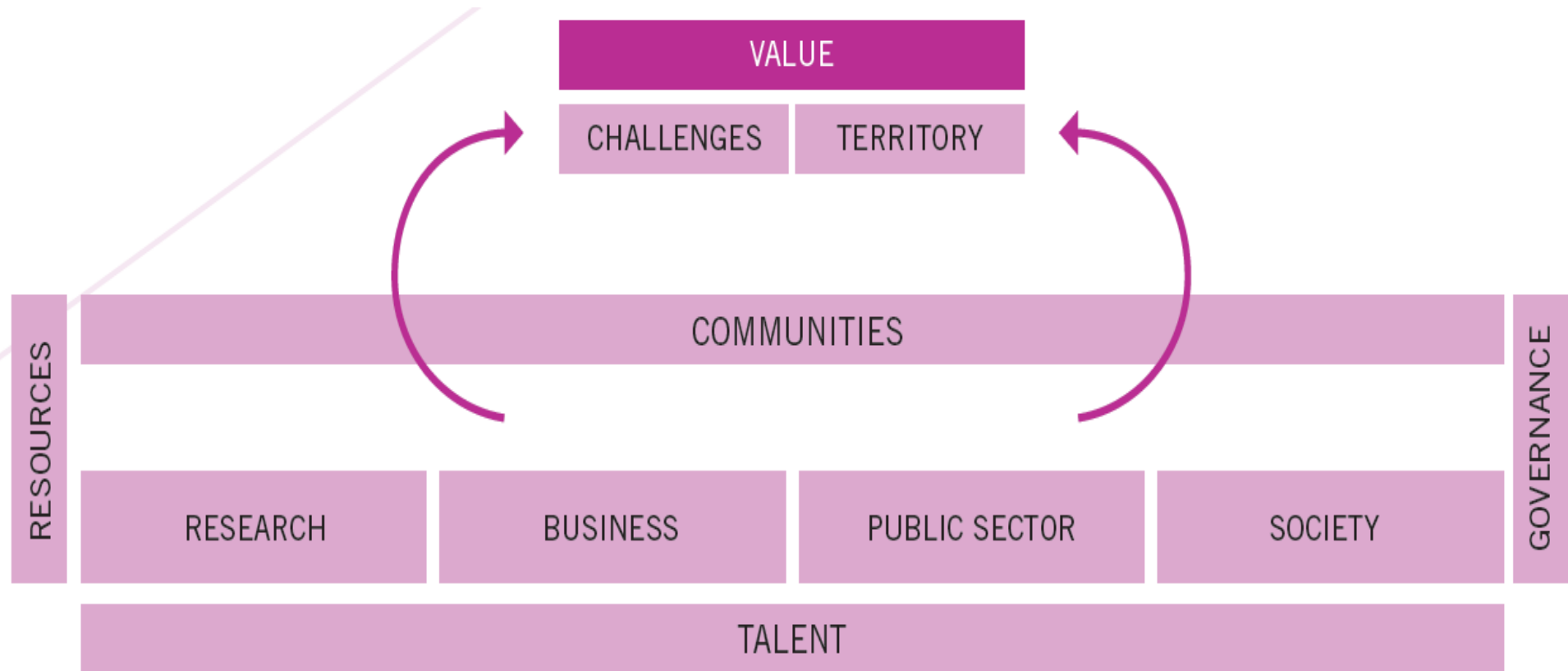
**A cohesive
society, rich
in culture**



2010-2013 Research and Innovation Plan (PRI) of Catalonia

STRATEGIC VISION





THE 2010-2013 PRI FOCUSES ON **TALENT** AND THE **KEY AGENTS OF THE SYSTEM** (THE PUBLIC RESEARCH SYSTEM, ENTERPRISES, INTERMEDIARIES, THE PUBLIC SECTOR AND THE GENERAL PUBLIC), PARTICULARLY ENCOURAGING COOPERATION BETWEEN THEM.

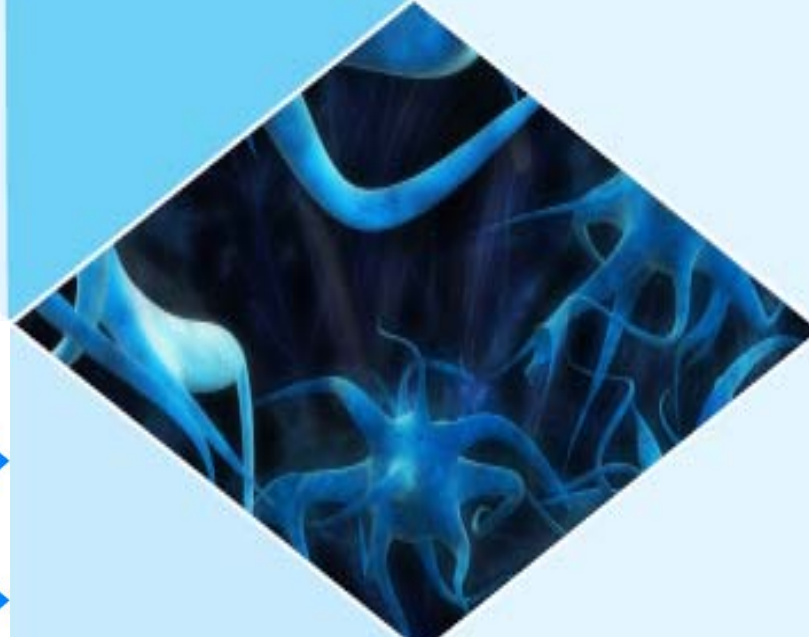
THE PRI IS COMMITTED TO A **NEW STRATEGIC ORIENTATION OF THE RDI SYSTEM THAT FOCUSES ON CHALLENGES** AND A **REGIONAL APPROACH** TO ENSURE THAT THE PLAN BENEFITS ALL PARTS OF THE COUNTRY.

THE POLICIES AND ACTIONS CONTAINED
IN THE 2010-2013 PRI ARE SET OUT ALONG
THREE TRANSVERSAL LINES (SMEs,
SERVICE INNOVATION AND INTERNATIONAL-
LISATION), WHICH COVER **TEN STRATEGIC
OBJECTIVES**.

SMEs

Internationalisation

Services

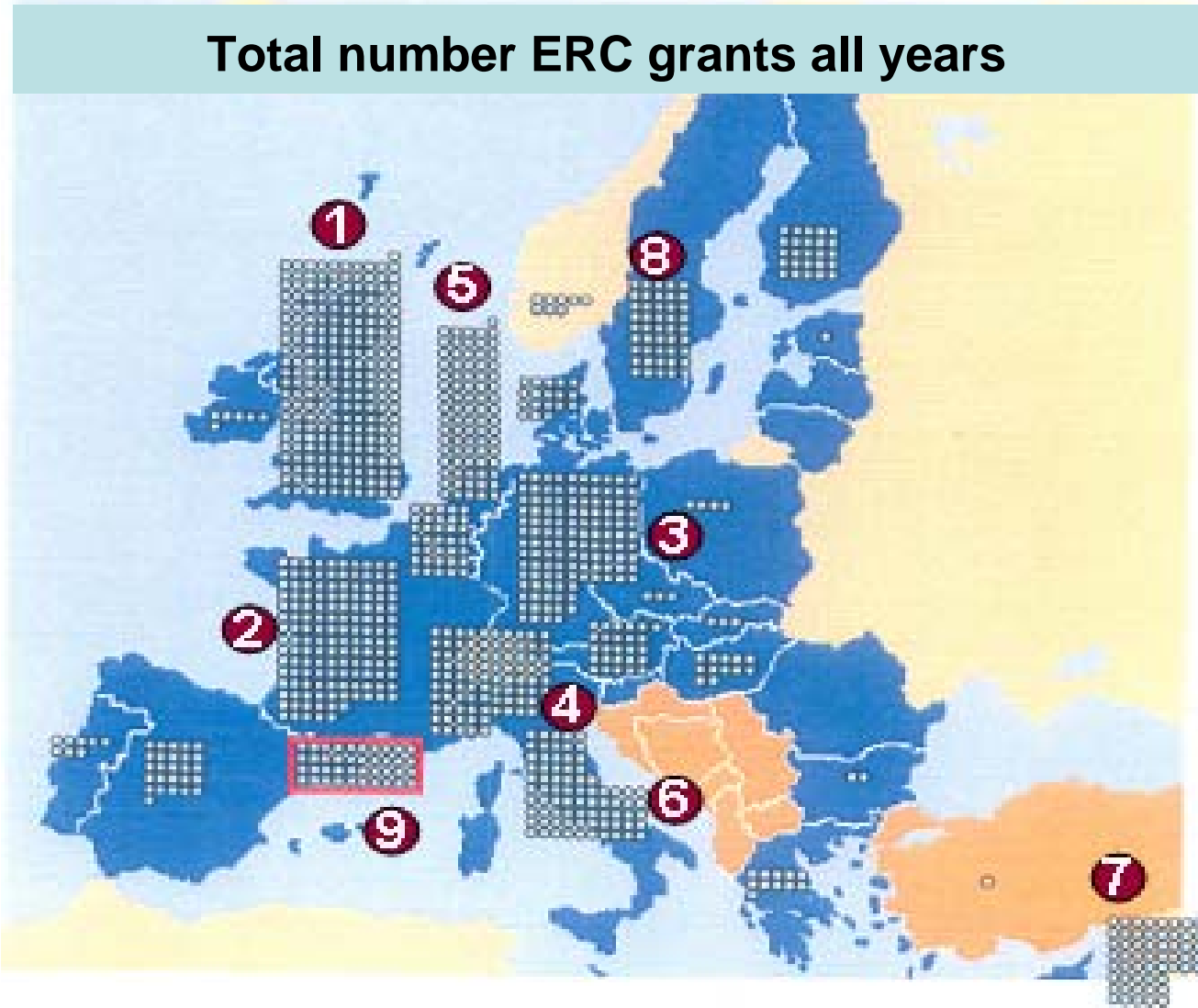




1. The best scientific, creative, innovative and entrepreneurial **talent**



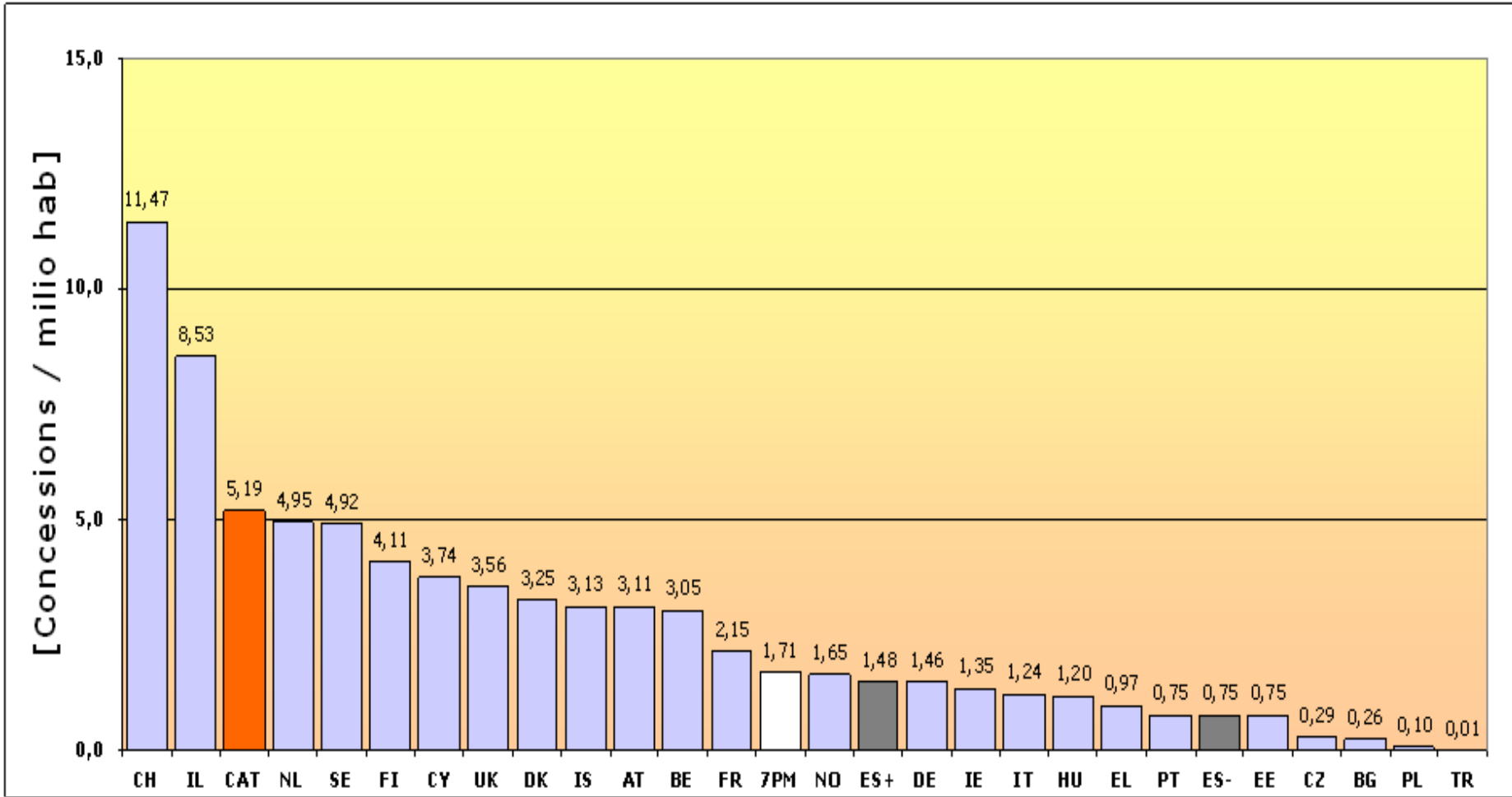
Catalonia scientific talent for frontier research



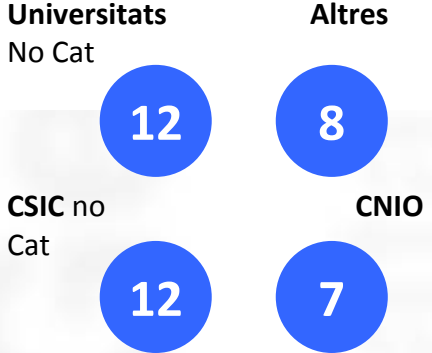
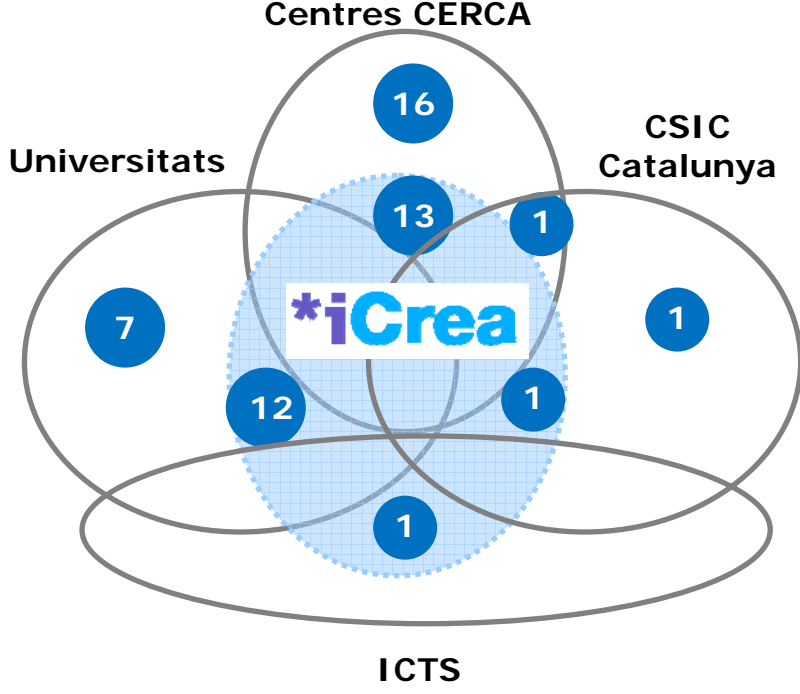
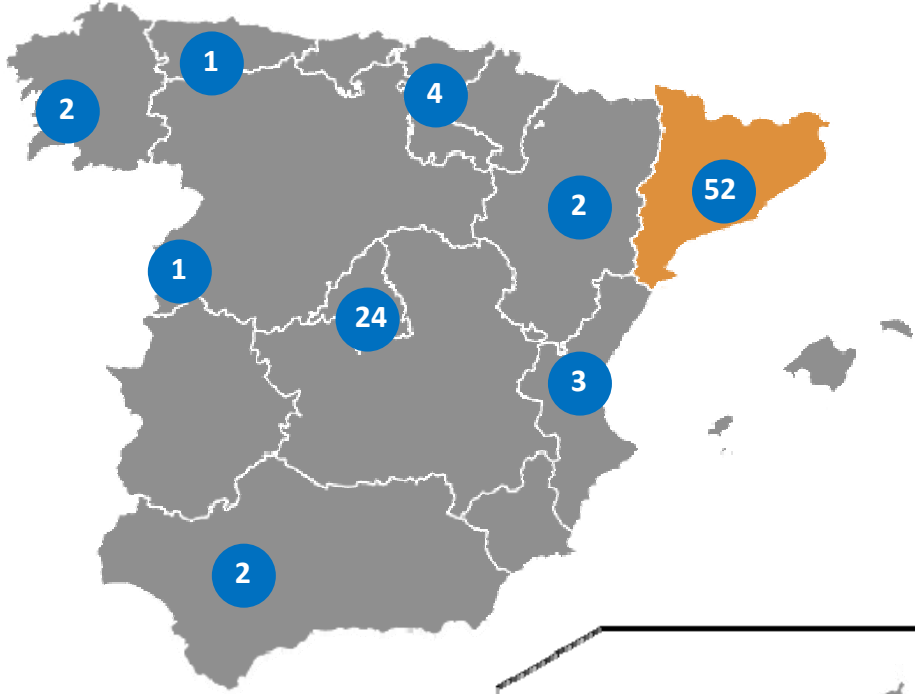


Catalonia scientific talent for frontier research

Total number ERC grants all years / per million inhabitants



Catalonia scientific talent for frontier research



	CAT	Altres CCAA
LS	16	18
PSE	18	15
SSH	16	6
INT	2	0
	52	39

CERCA	Univ. CAT	ICTS	CSIC CAT	ICREA
30	19	1	2	27

1. The best scientific, creative, innovative and entrepreneurial **talent**

Talent

- ▶ *Skills*
- ▶ *Profiles*
- ▶ *Flows*

2. A strong public **research** system, connected to value creation



Strong, young and fragmented research system

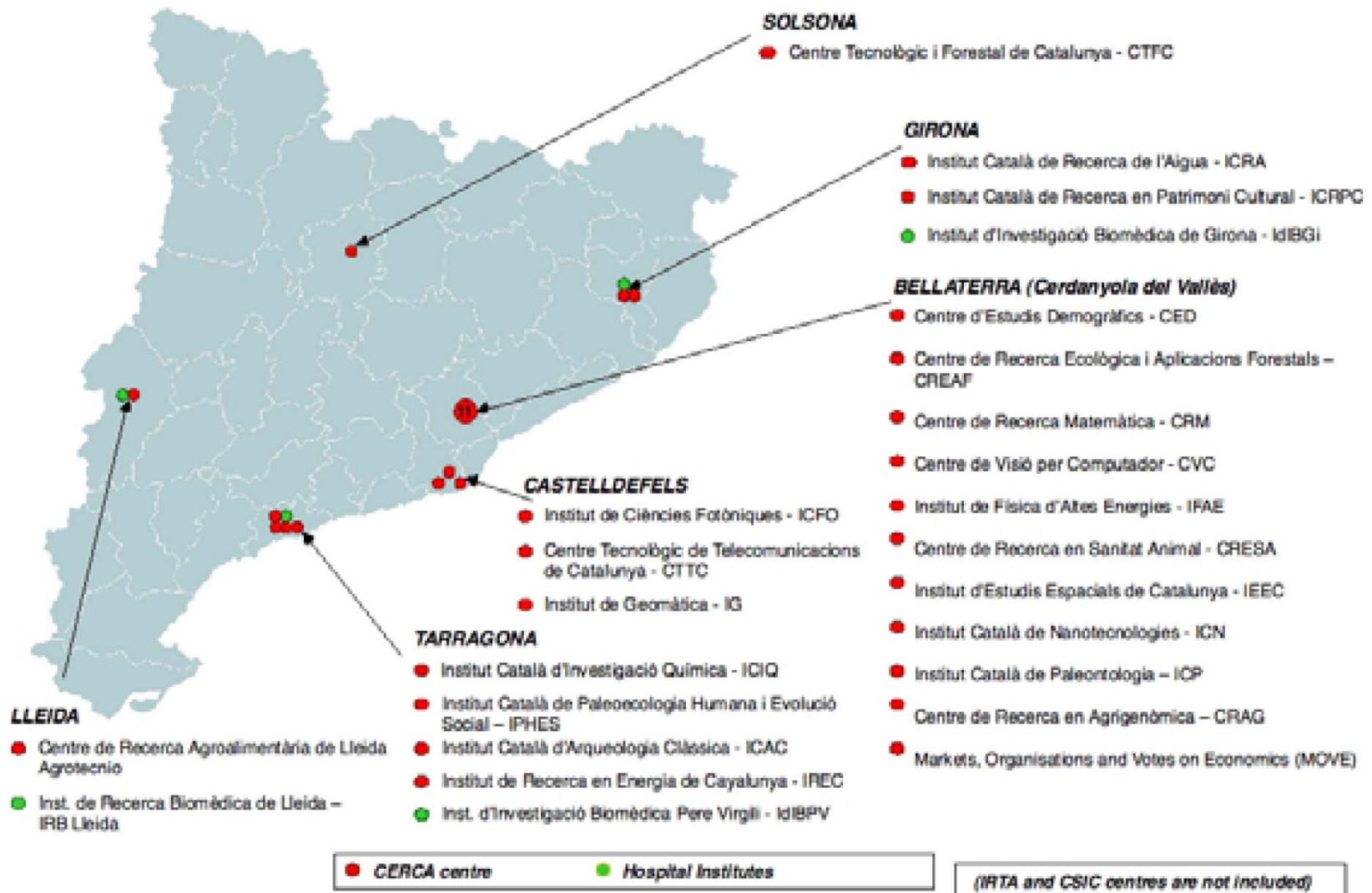
Universities and consolidated research groups

- YEARLY**
- 230,000 students
 - 33,000 graduates
 - 1,500 PhD awards



Strong, young and fragmented research system

CERCA Research Centres (25) and Hospital Institutes (4) (except in Barcelona)





Strong, young and fragmented research system

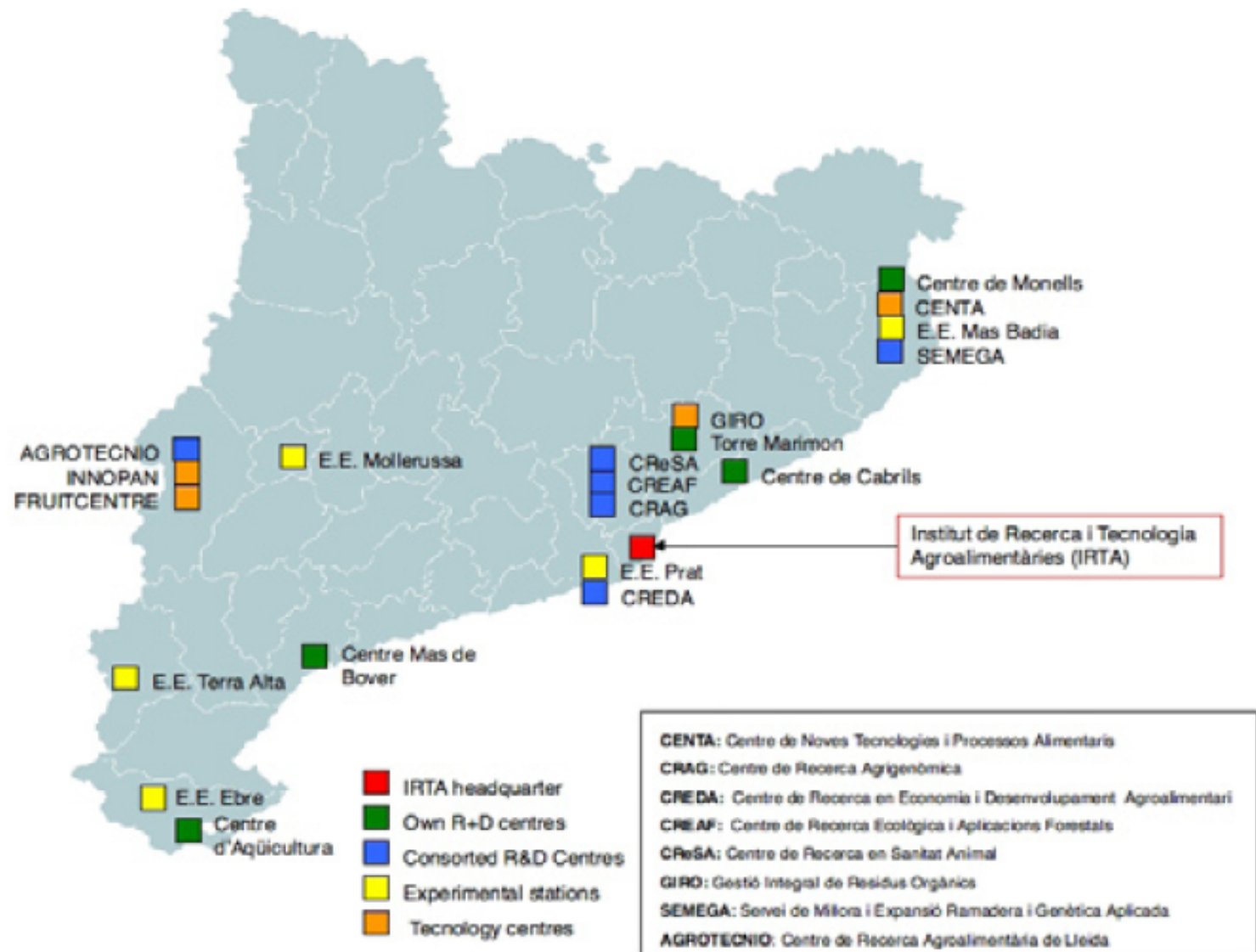
CERCA Research Centres and Hospital Institutes (Barcelona)





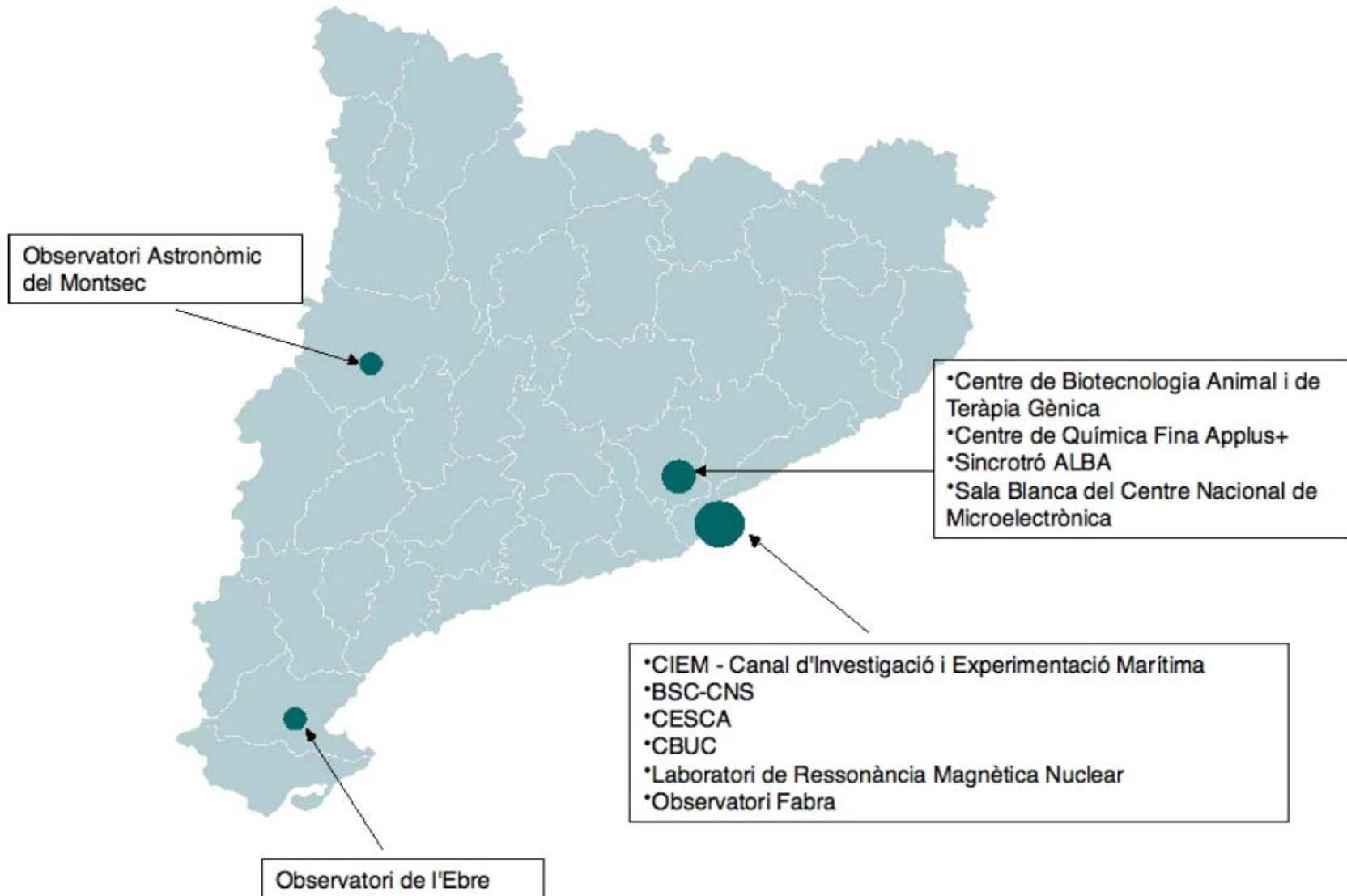
Strong, young and fragmented research system

IRTA Centres (Institute of Food and Agricultural Research)



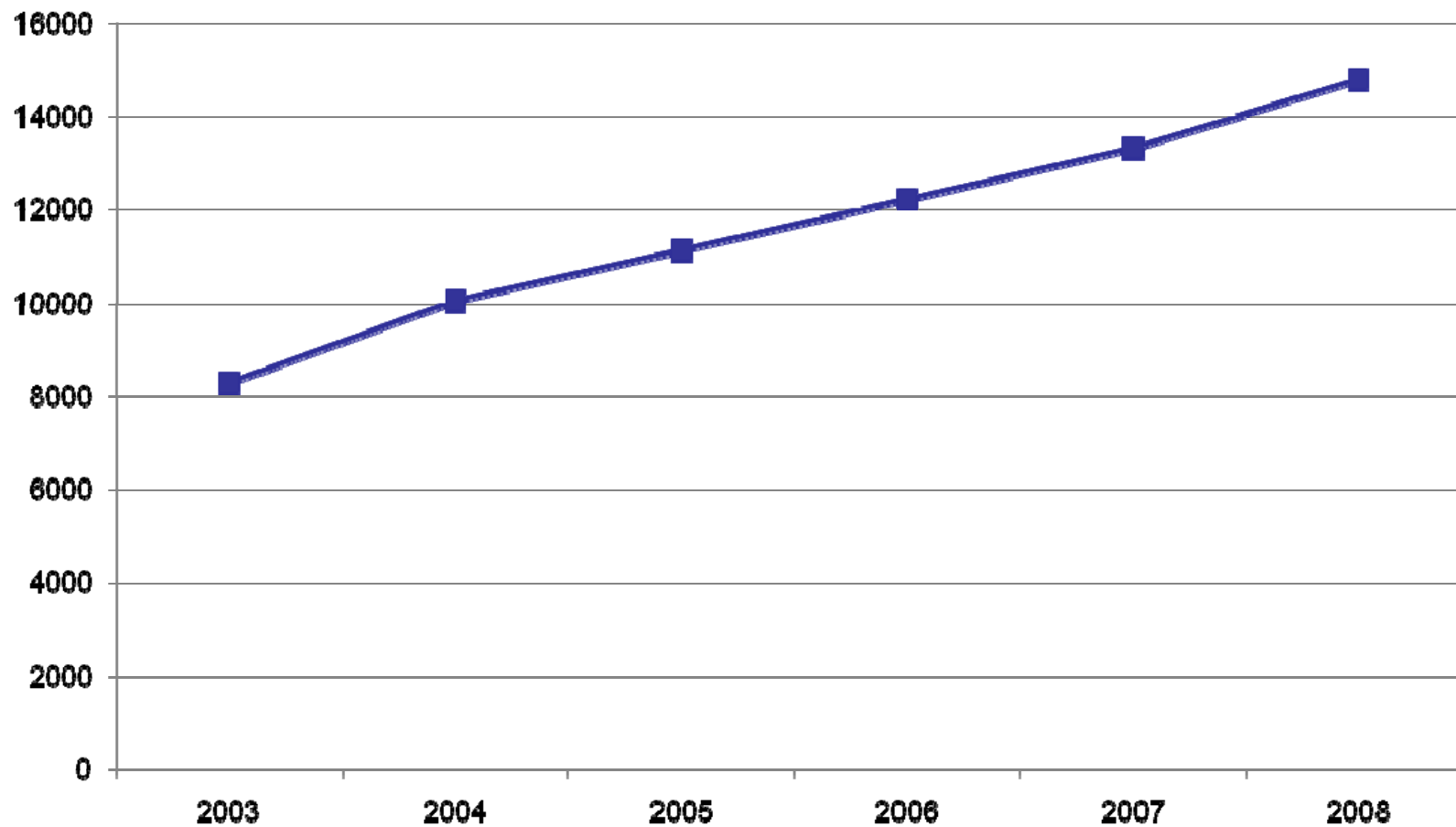
Insufficient and fragmented technology system

Large Scale Research Infrastructures

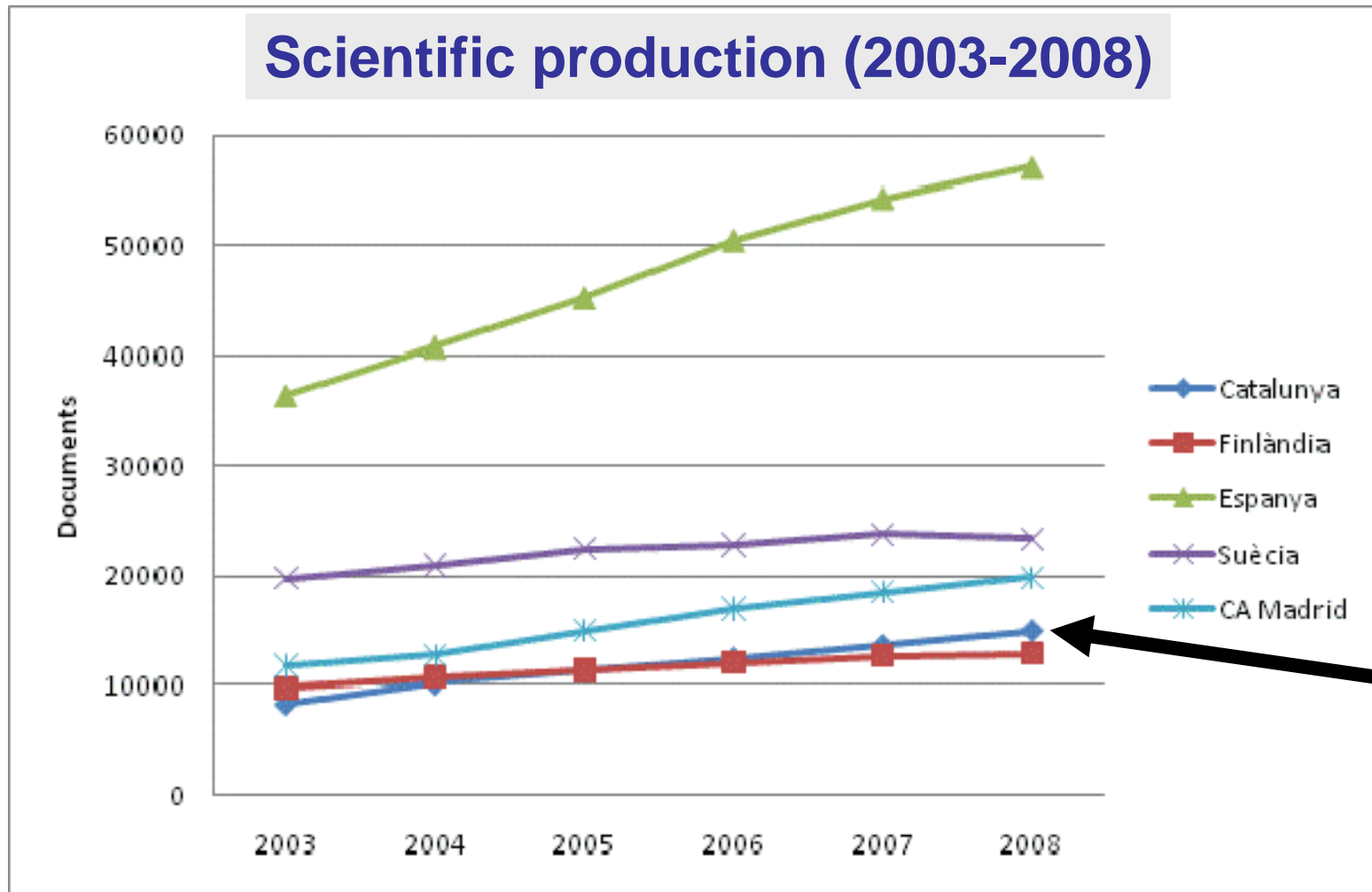


▶ Strong, young and fragmented research system

Scientific production (2003-2008)

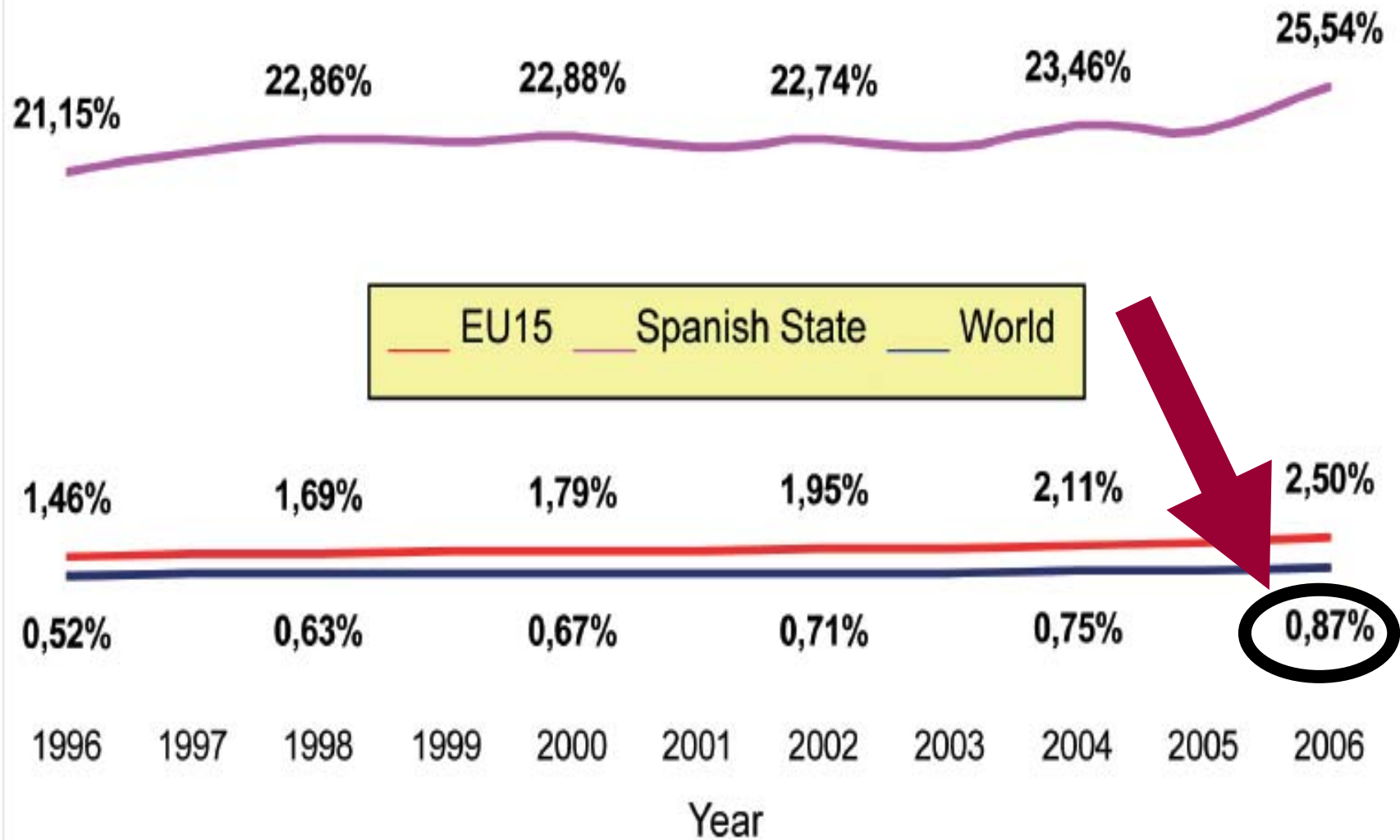


Strong, young and fragmented research system



▶ Strong, young and fragmented research system

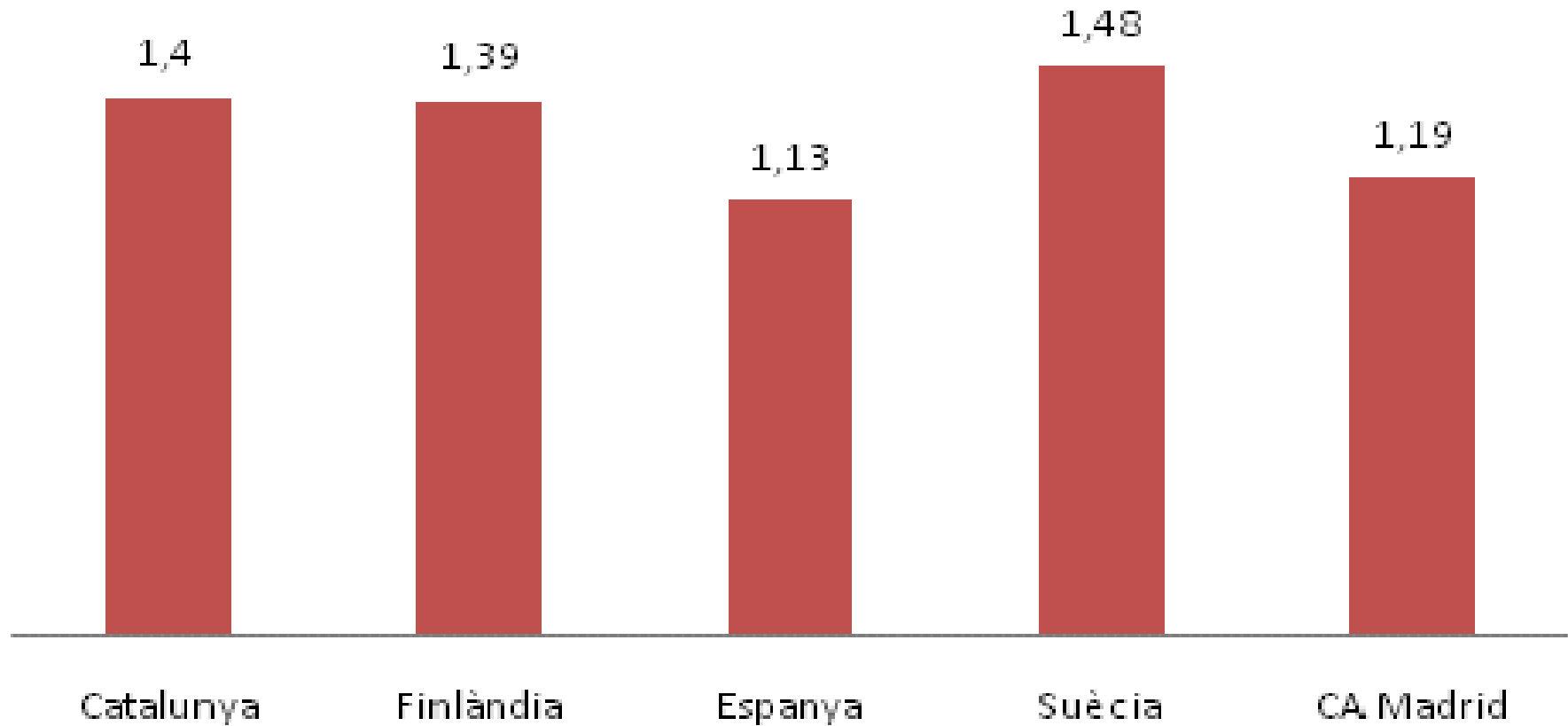
Catalonia Share in scientific production





Strong, young and fragmented research system

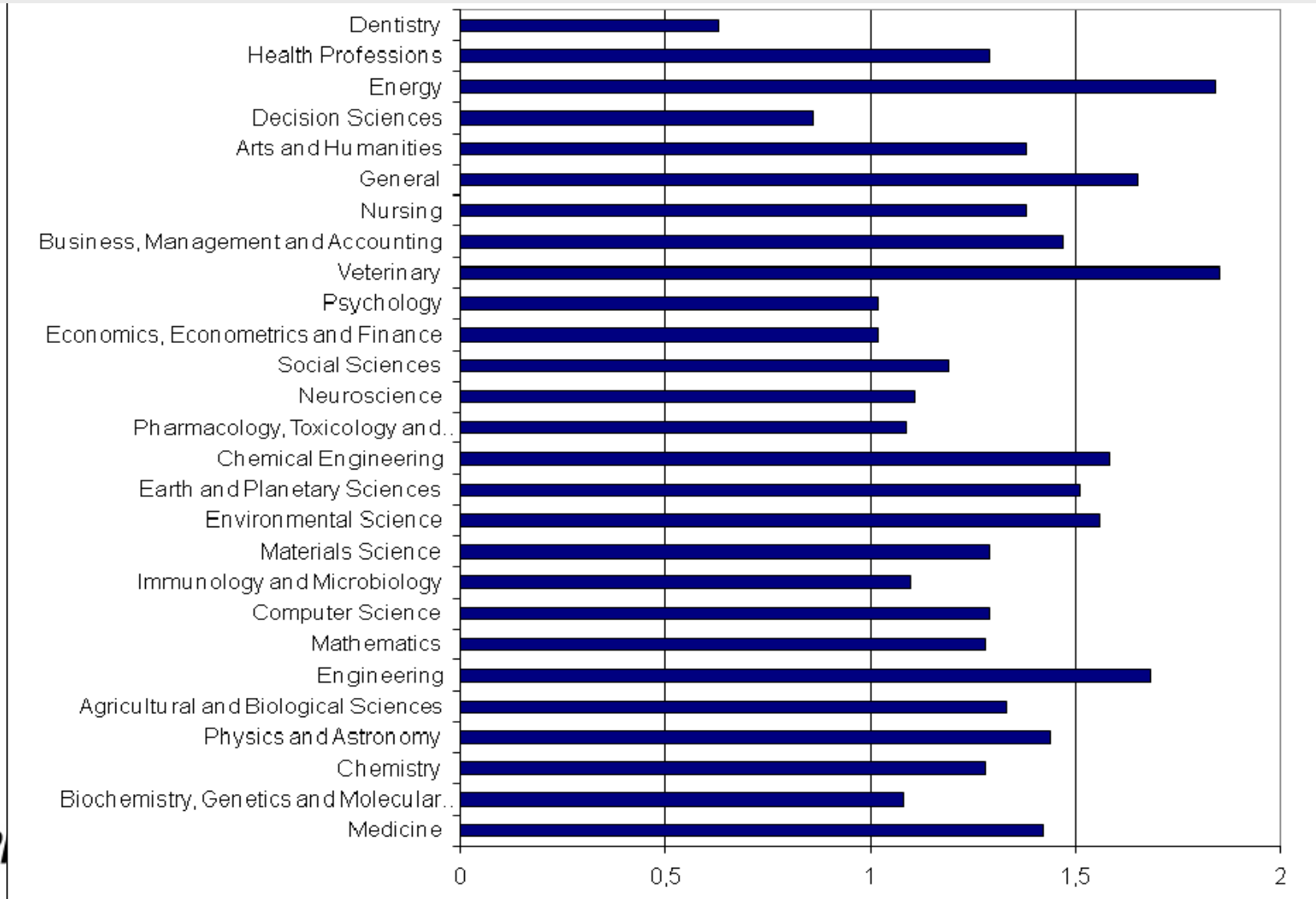
Scientific quality, normalized impact (2003-2008)





Strong, young and fragmented research system

Scientific quality by field, normalized impact (2003-2008)



2. A strong public **research** system, connected to value creation

Research

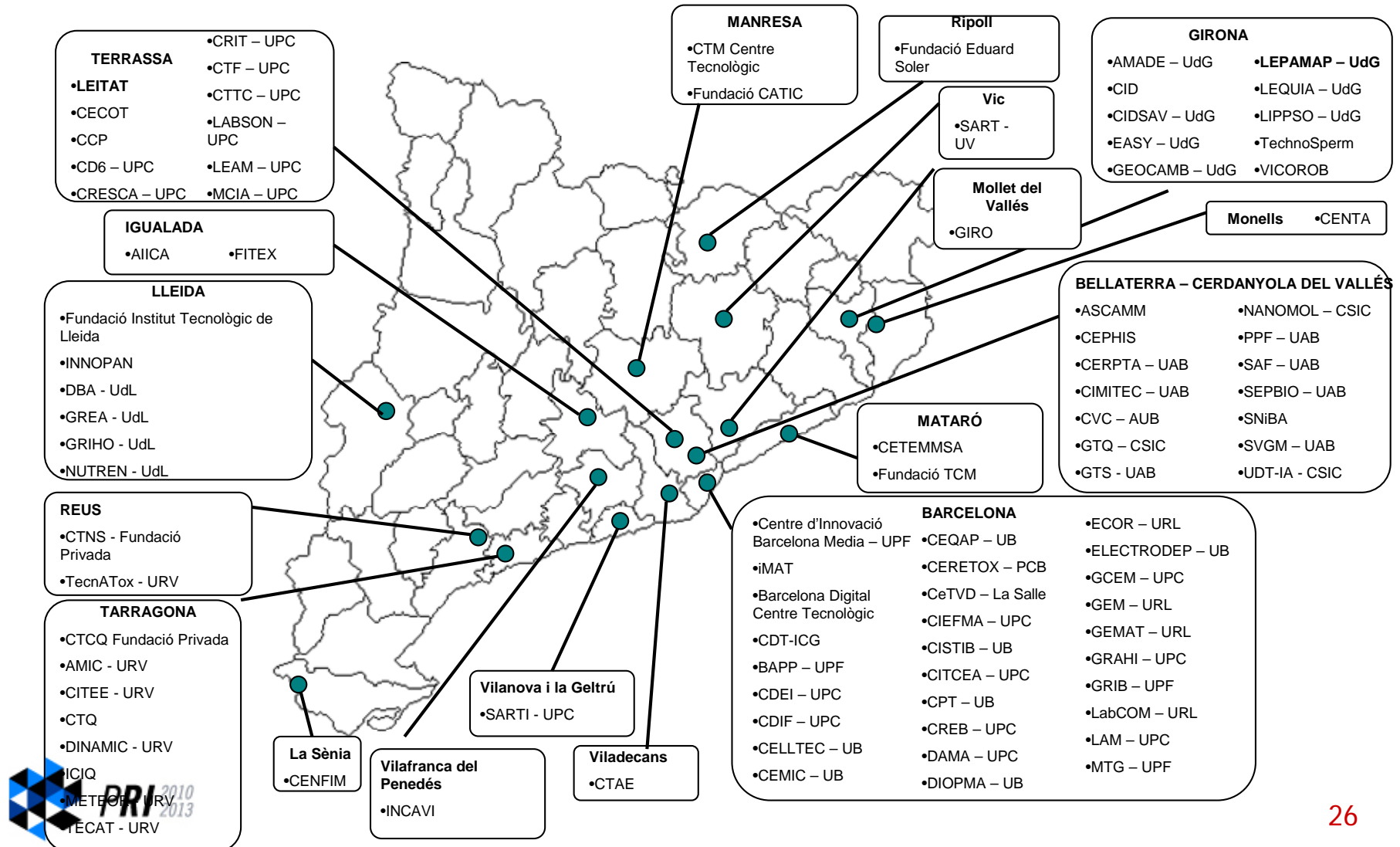
- ▶ *Funding*
- ▶ *Alignment*
- ▶ *Knowledge transfer*
- ▶ *Research infrastructures*
- ▶ *Strategic RDI Projects*

3. **Companies** that systematically innovate and are internationalised



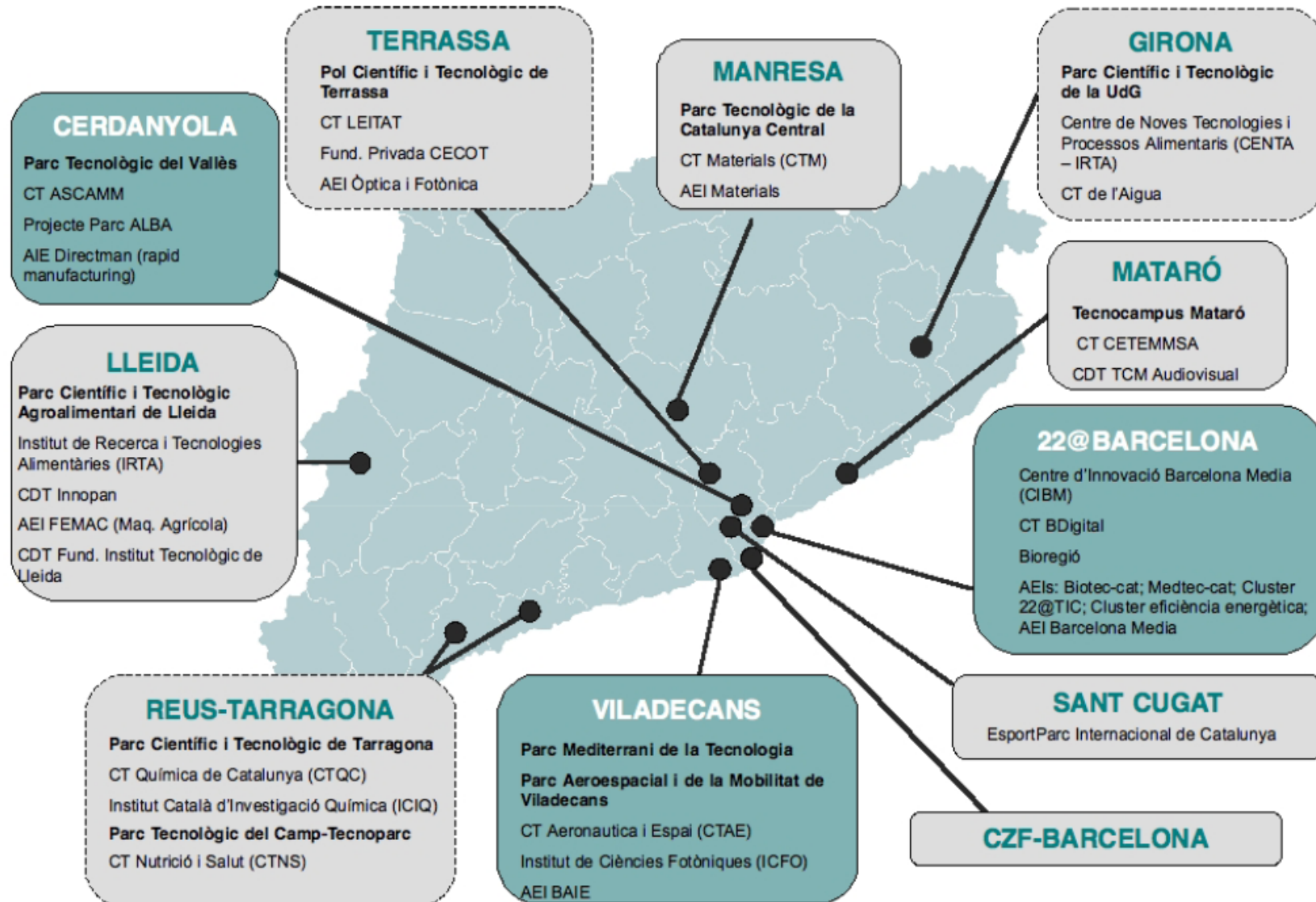
Insufficient and fragmented technology system

Catalan Technological network (TECNIO)



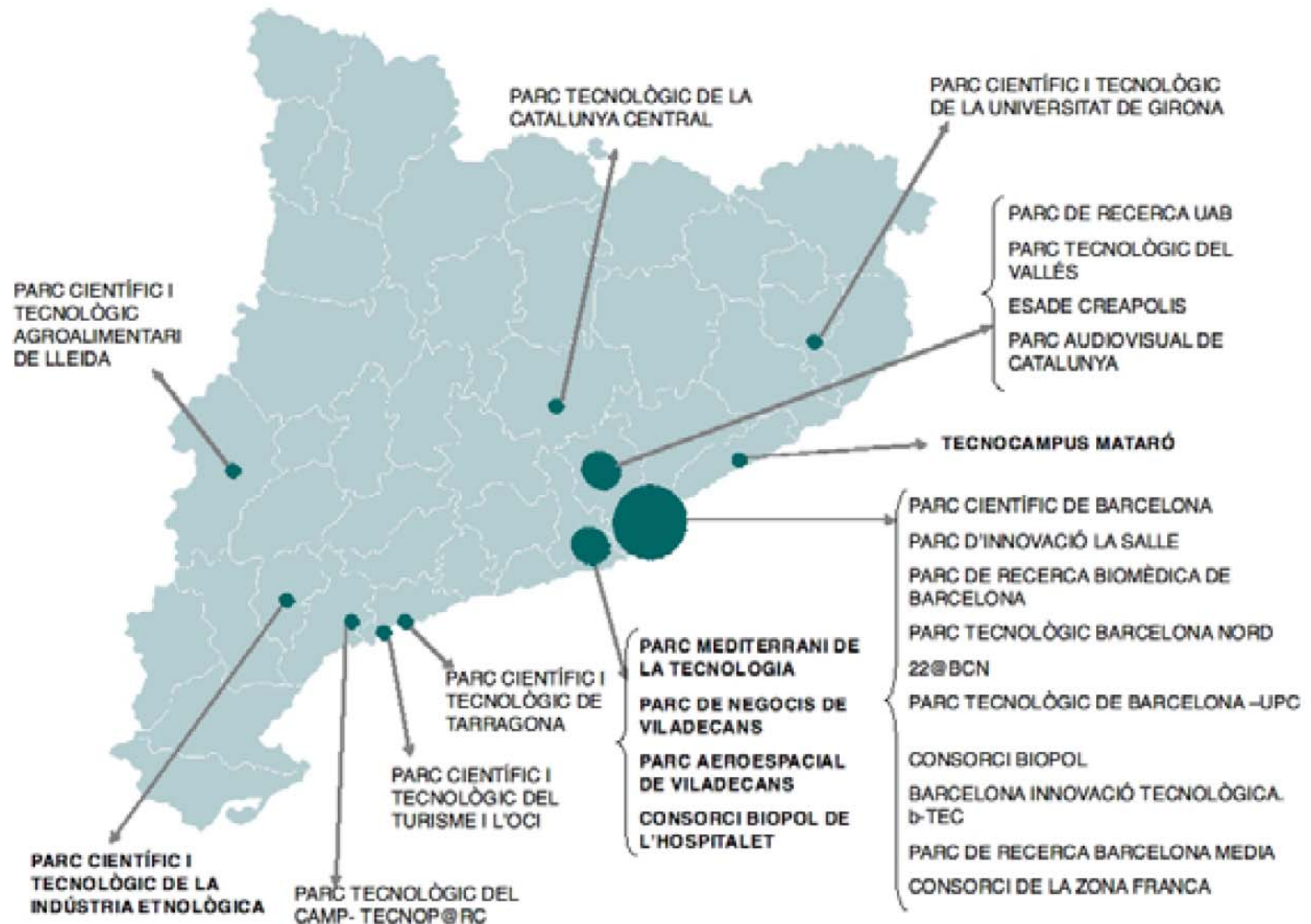
Insufficient and fragmented technology system

Technological Innovation Areas



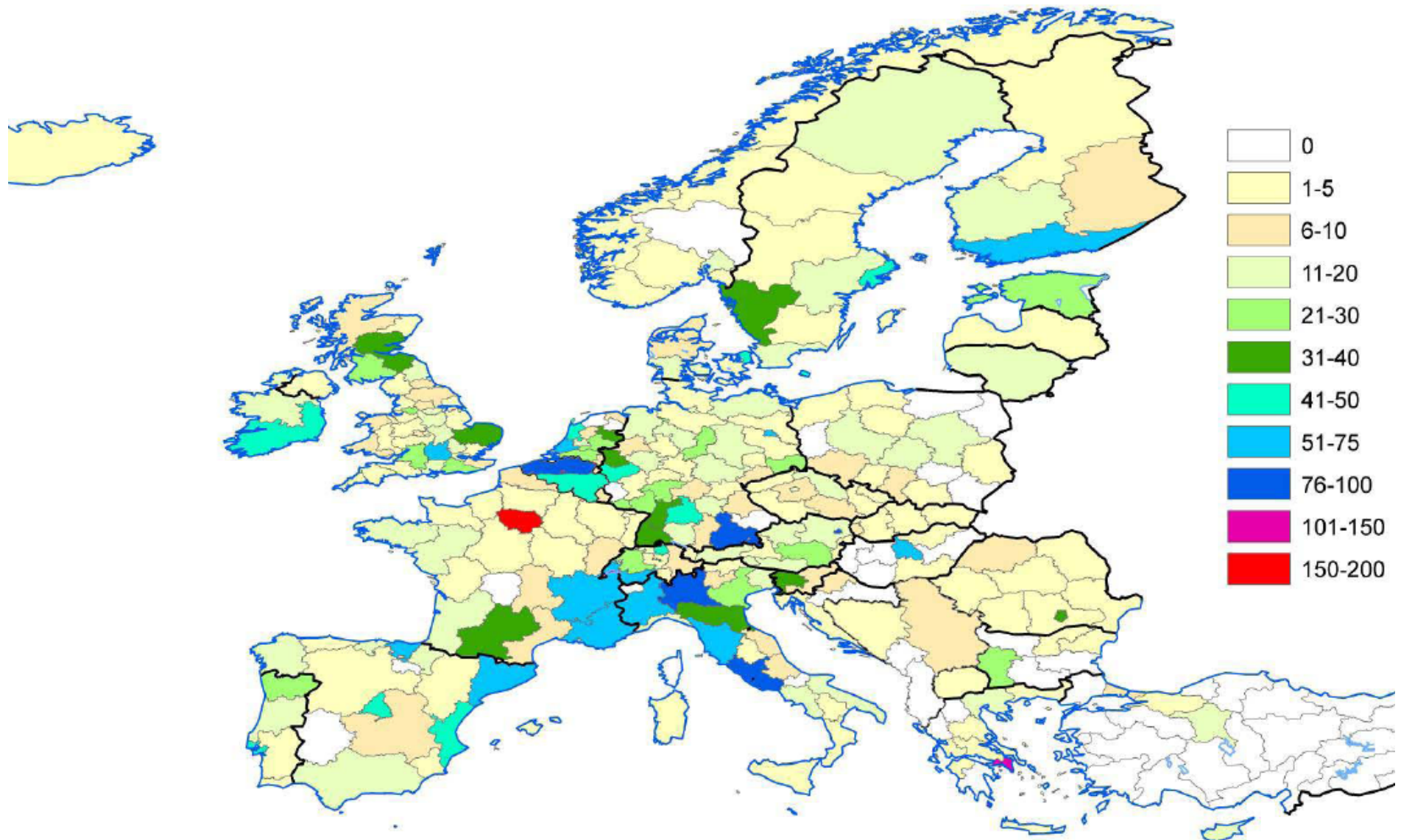
Insufficient and fragmented technology system

Science and Technology Parks



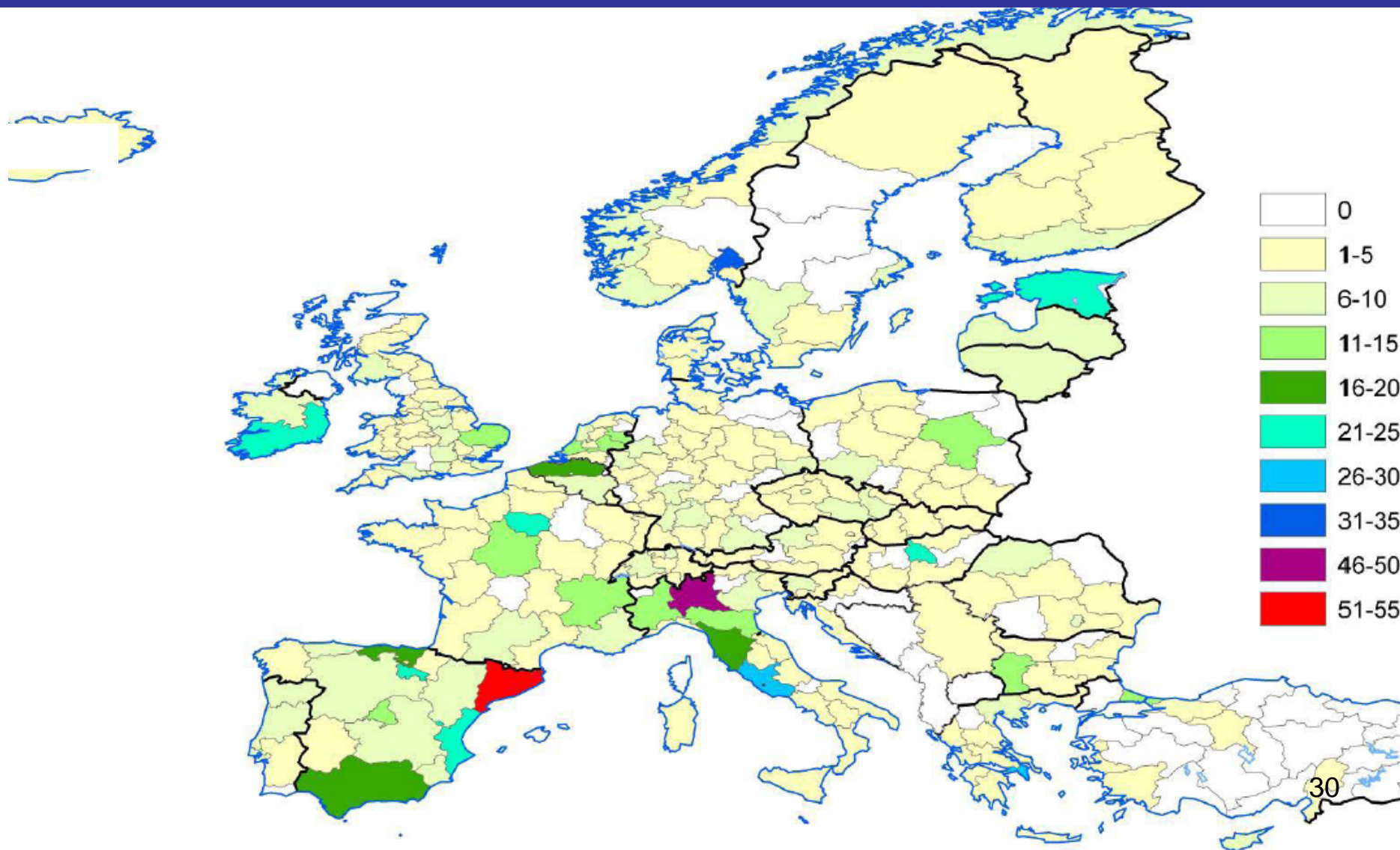
COOPERATION PROGRAMME – FP7

SME BENEFICIARIES IN SIGNED CONTRACTS –MARCH 2010



CAPACITIES PROGRAMMES – FP7

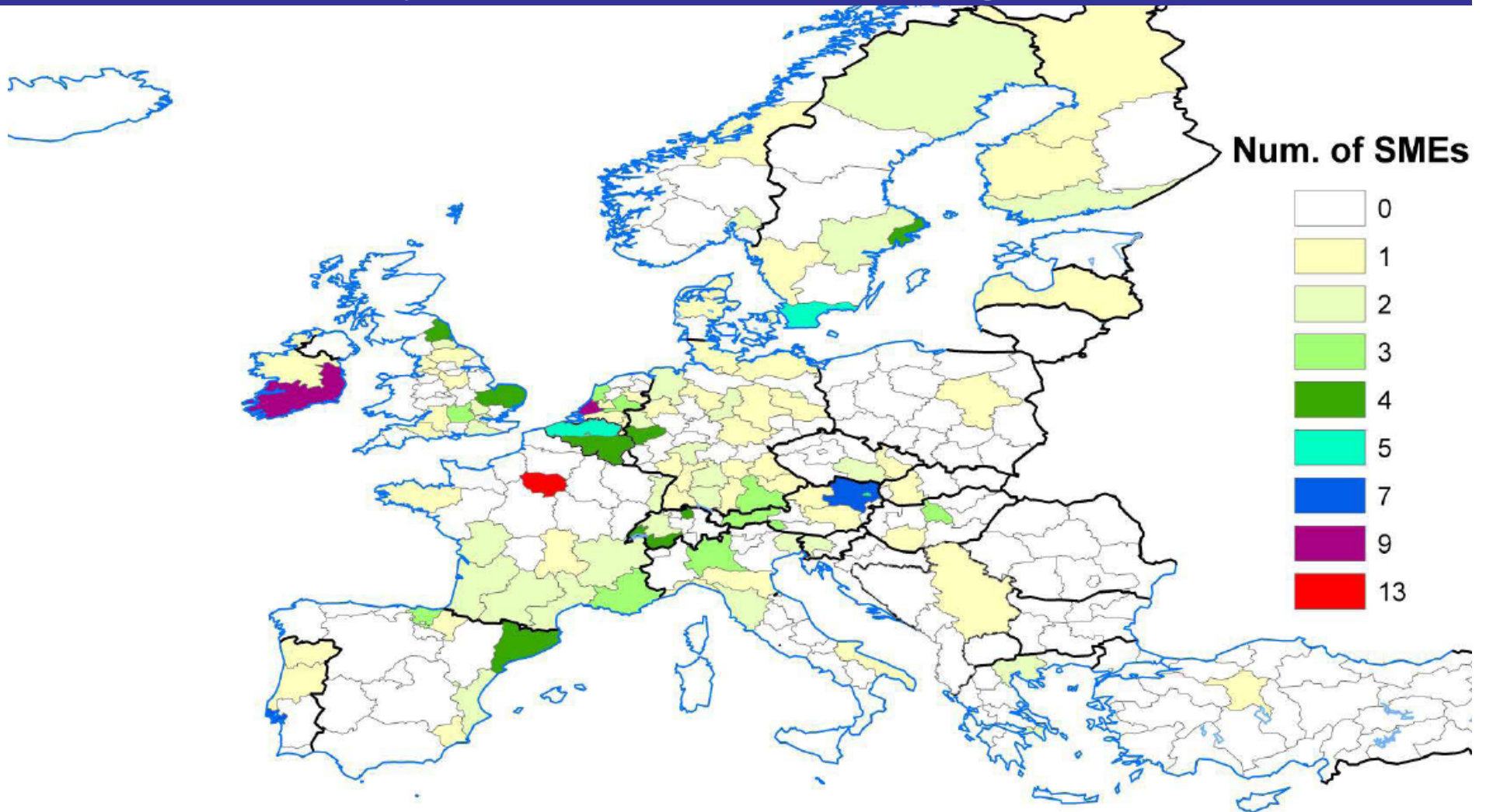
SME BENEFICIARIES IN SIGNED CONTRACTS – MARCH 2010



PEOPLE PROGRAMME – FP7

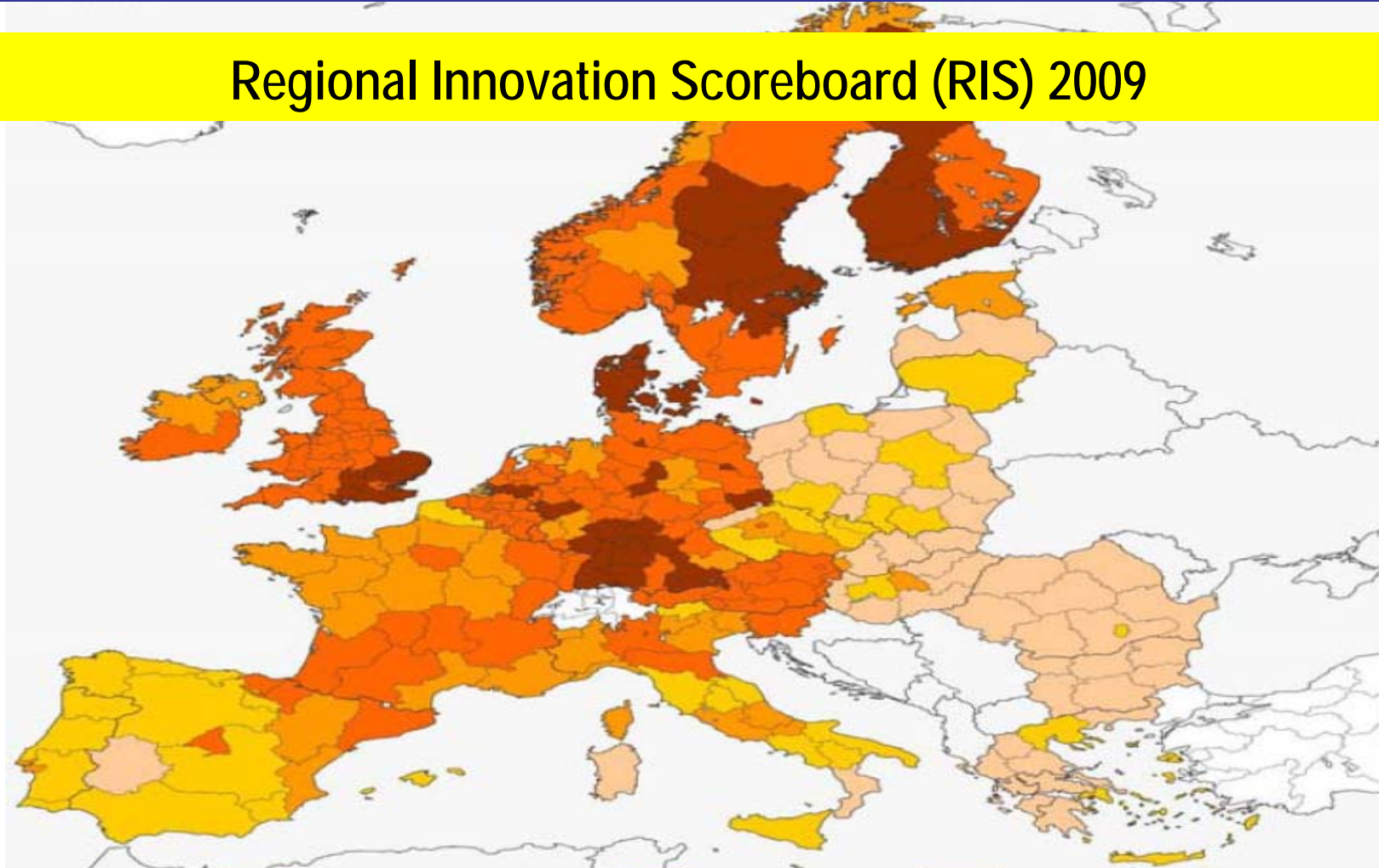
SME BENEFICIARIES IN SIGNED CONTRATS – MARCH 2010

Marie Curie Industry Academia Partnerships and Pathways and Marie Curie Initial Training Networks

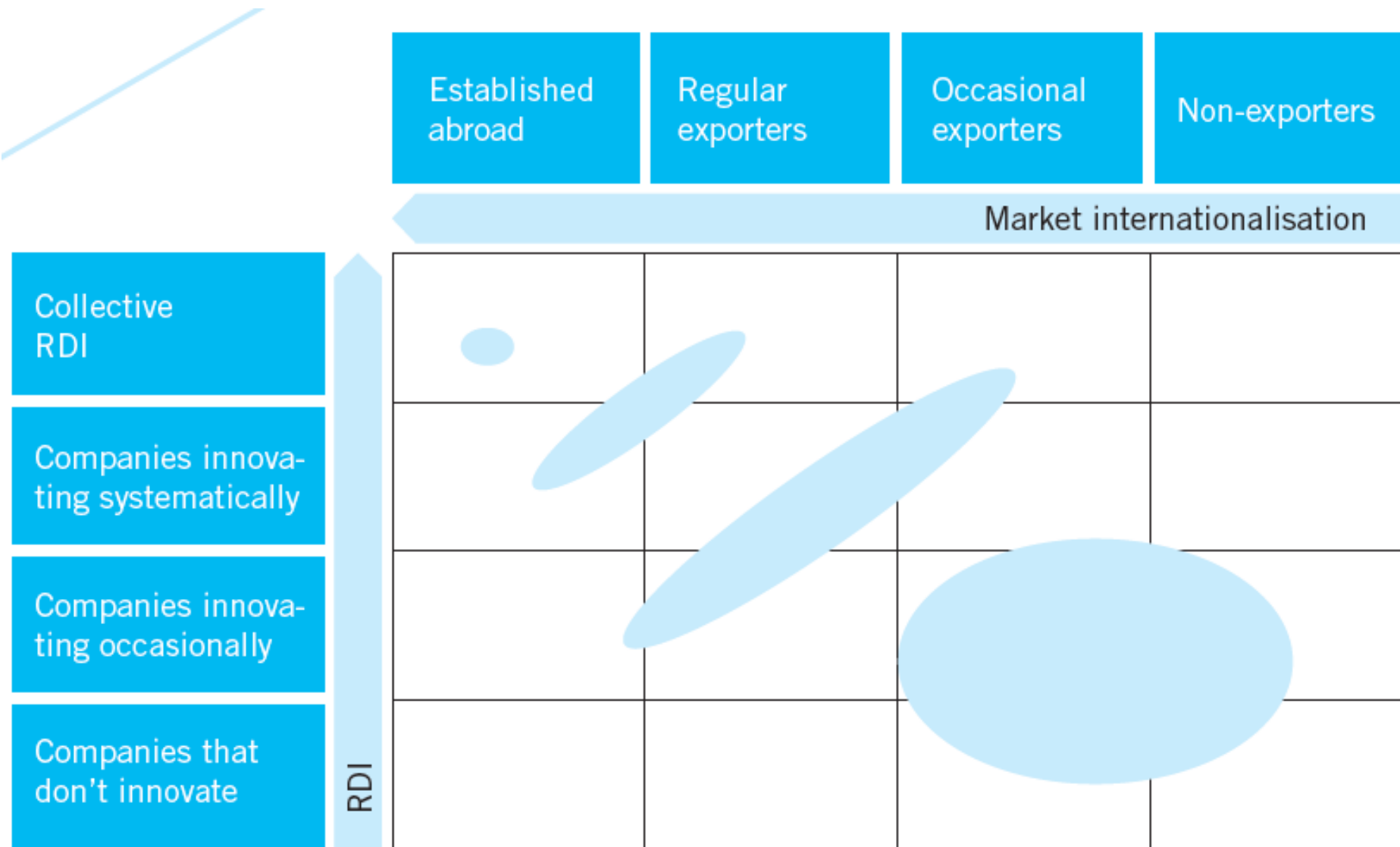


▶ Catalonia has good overall innovation performance with available indicators but far from leaders (*take care of region comparisons because socioeconomic and demographic differences!*)

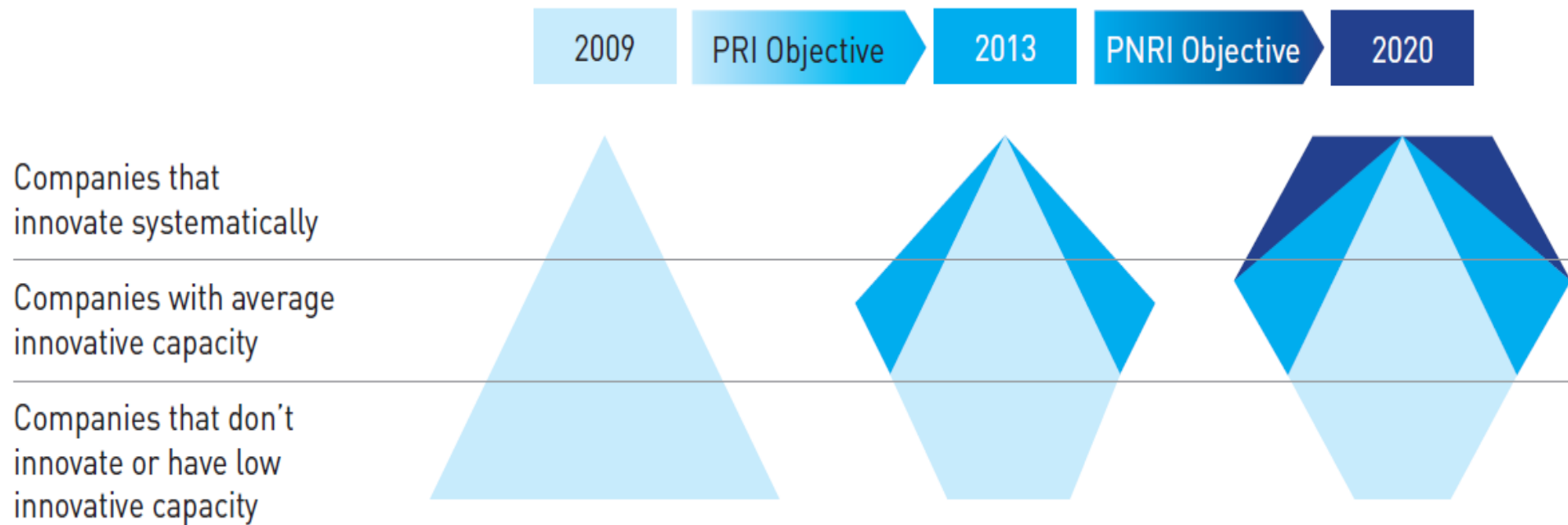
Regional Innovation Scoreboard (RIS) 2009



3. Companies that systematically innovate and are internationalised



3. Companies that systematically innovate and are internationalised



3. Companies that systematically innovate and are internationalised

Enterprise

- ▶ *Able to innovate*
- ▶ *Technological and non-technological innovation*
- ▶ *Entry to new markets*
- ▶ *New knowledge-intensive companies*
- ▶ *Attraction and retention of RDI activities*

4. Innovative public sector



4. Innovative public sector

Public sector

- ▶ *Innovation in public services*
- ▶ *Innovative Government*
- ▶ *Public procurement*
- ▶ *Regulation*



EUROPEAN COMMISSION

Brussels, 6.10.2010
COM(2010) 546 final

COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN
PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL
COMMITTEE AND THE COMMITTEE OF THE REGIONS

Europe 2020 Flagship Initiative Innovation Union

9. **Our strengths in design and creativity must be better exploited. We must champion social innovation. We must develop a better understanding of public sector innovation, identify and give visibility to successful initiatives, and benchmark progress.**

innogencat

Innovació a l'Administració de la Generalitat

**Innogencat is the overall innovation
strategy for the Generalitat**

Administration and its public sector

2010

Identifying, understanding and giving visibility

**Generalitat
Administration and its
public sector already
innovate**



- What's innovation in the public sector
- **25 Innovative initiatives**
- Lessons learned

2010

Identifying, understanding and giving visibility

El Calaix d'experiències de l'ICS, una finestra a la innovació

El Calaix d'experiències és un nou espai virtual per compartir i conèixer els millors projectes i les iniciatives més innovadores desenvolupades pels professionals en els centres i serveis de l'Institut Català de la Salut (ICS). El Calaix neix amb l'objectiu de ser una eina viva a l'abast de tots els professionals de l'ICS i les empreses col·laboradores, on es poden

consultar totes aquelles experiències innovadores que s'estan portant a terme arreu del territori.

Aquest instrument permet a l'autor d'un projecte abocar-hi contínuament les novetats i els resultats que es vagin coneixent de forma progressiva. Fins al moment, els professionals de l'ICS han introduït més de 400 experiències relacionades amb projectes de terciarisme, atenció a l'usuari, relació entre diferents nivells assistencials o noves propostes encarades a millorar el servei a la ciutadania.

Espais d'aprenentatge i d'intercanvi de coneixement, com aquest Calaix de l'ICS, afavoreixen el sentit de pertinença a una organització. Els professionals disposen d'un lloc virtual on interactuar amb d'altres companys i, fins i tot, aportar noves solucions a temes concrets.

Per escollir les millors experiències, hi ha un grup gestor de l'eina en el qual participen tècnics experts de salut i metodologia científica.



2011

Analysing, Modelling, Road-mapping

**Generalitat
Administration looking
for a systematic
innovation approach**



- Pre-conditions for innovation
- New innovation approaches
- Generalitat innovation model
- **Looking foward**



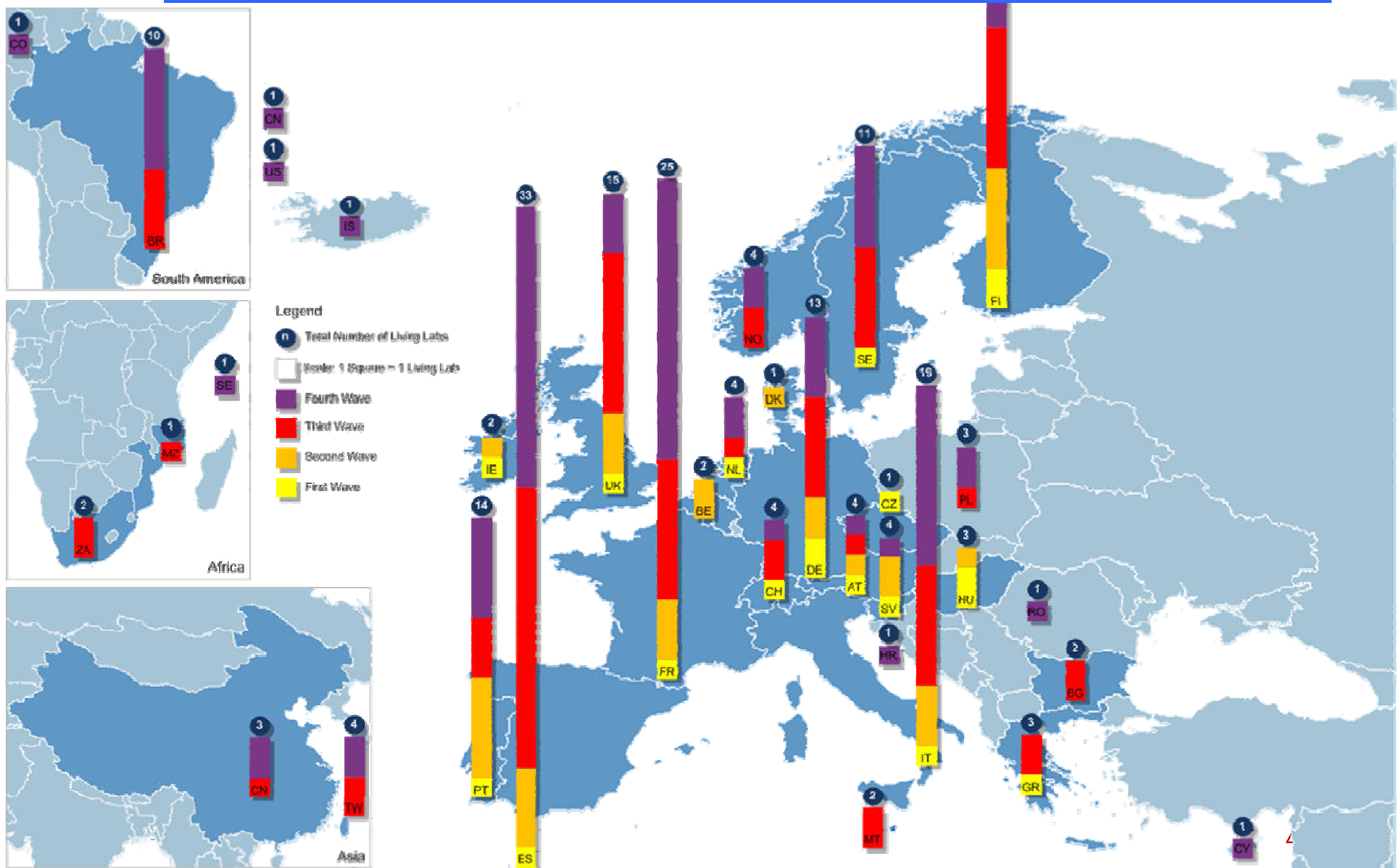
5. **Society** and citizens involved in scientific and innovative progress



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living labs: user centered innovation







6. Internationalisation and knowledge and innovation communities

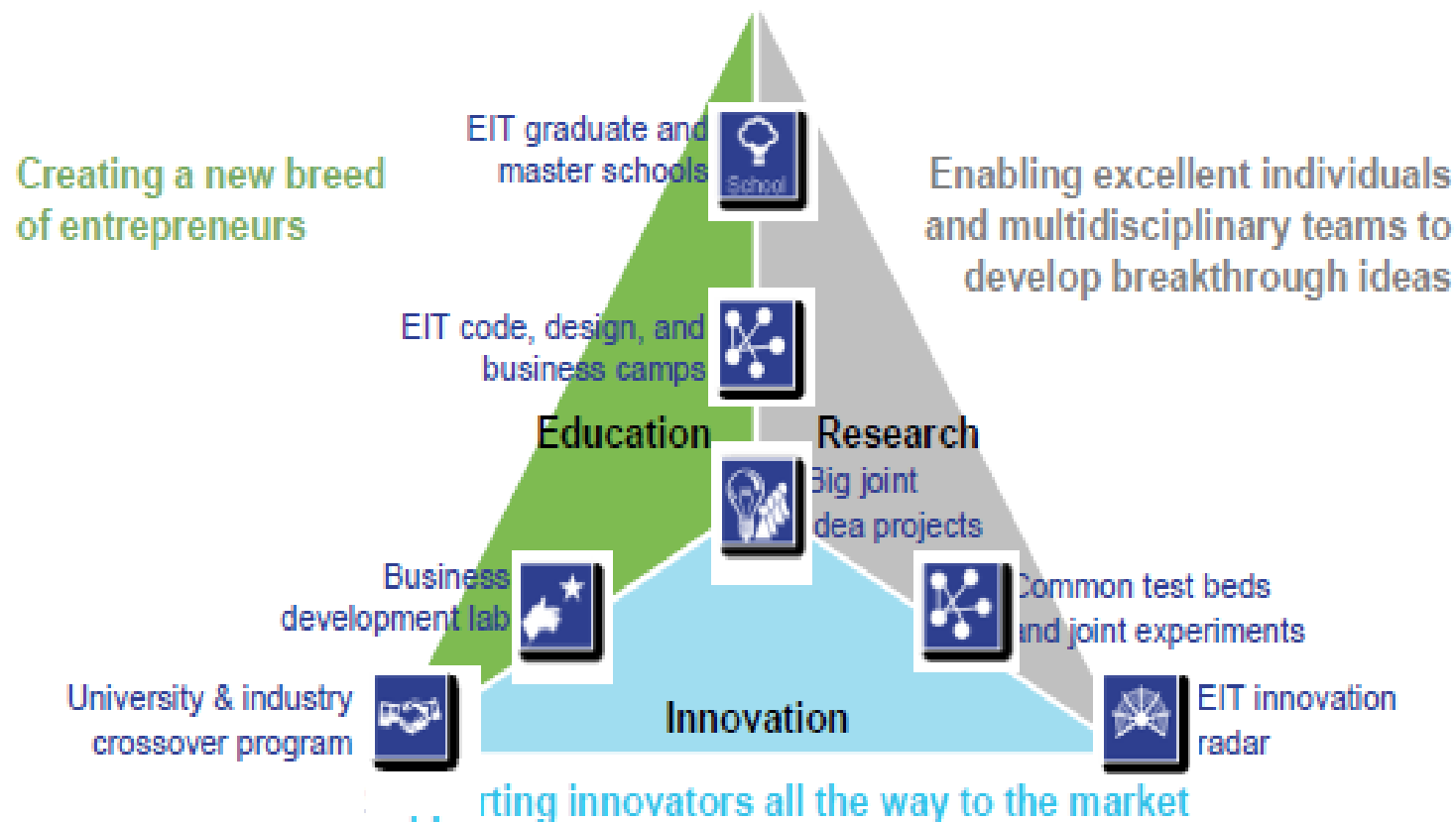


6. Internationalisation and knowledge and innovation communities



- ▶ *Beyond clusters:
Strong Partnerships for co-creation and co-innovation*

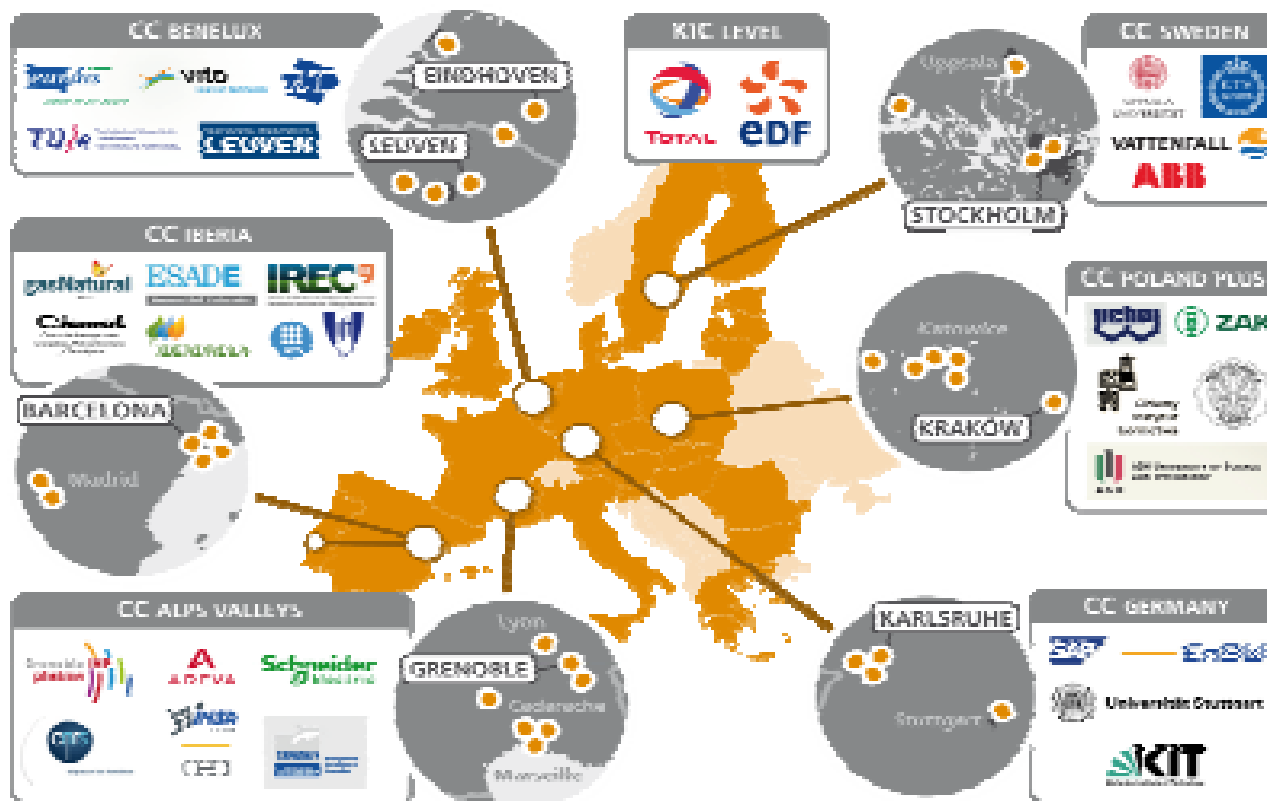
EIT ICT Labs Knowledge Triangle



Beyond clusters:

Strong Partnerships for co-creation and co-innovation

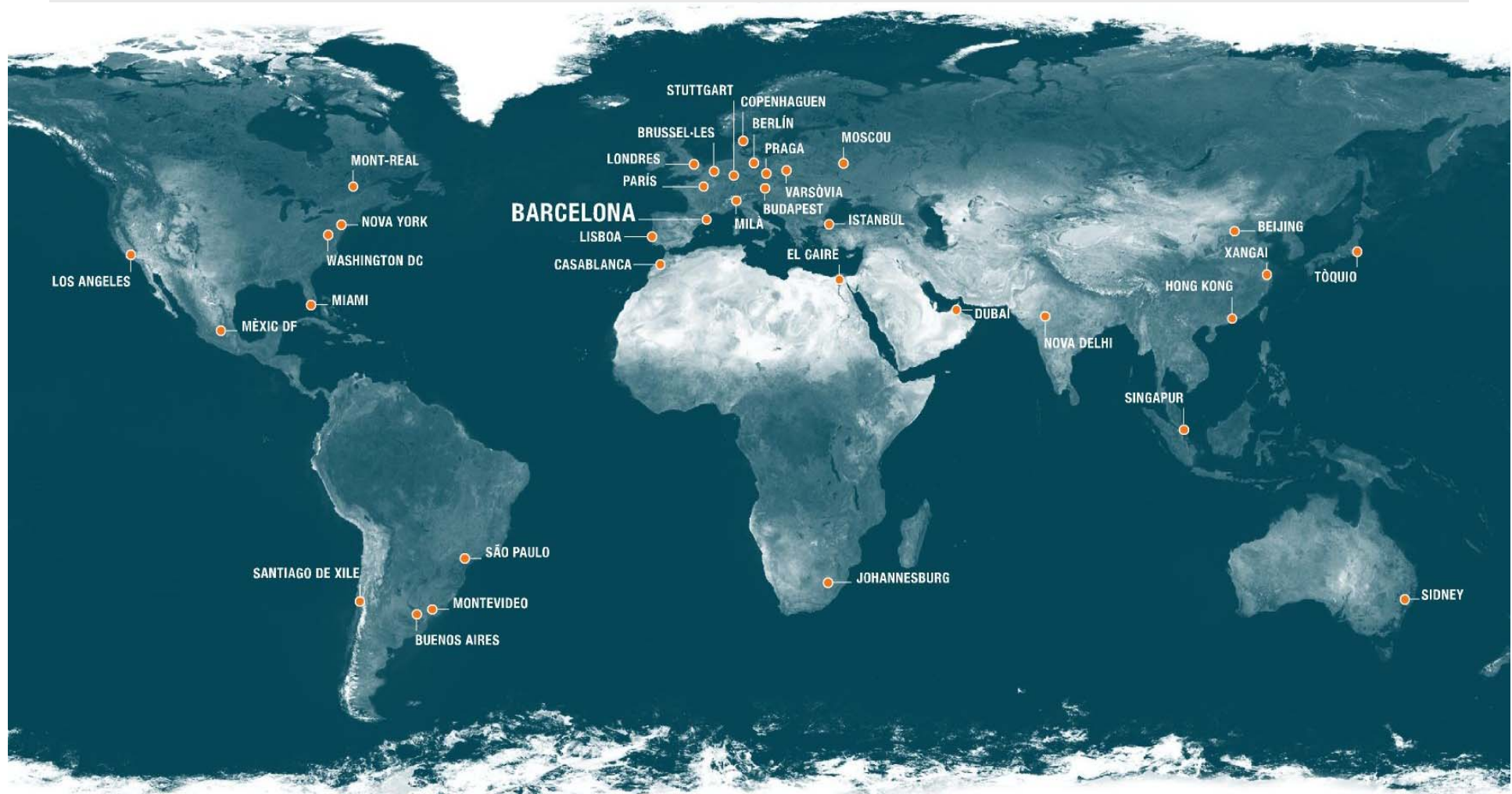
KIC InnoEnergy – A world class alliance of top European players with a proven track record



- 13 companies, 10 research institutes, 13 universities
- ~50% industry partners (incl. associated partners)
- >50% of key research players in Europe
- Covering the whole energy mix
- Knowledge triangle balanced along all dimensions
- Strong connection with VCs and local governments

▶ *Value chain networked to the world:
Talent-RDI-innovation-trade*

Innovation and Internationalisation Network (ACC10)



8. Focusing RDI on **challenges**



8. Focusing RDI on **challenges**

A close-up photograph of a hand holding a pen, poised to write on a document. The document features technical drawings, including a ruler and a scale with markings like '150' and '140'. The word 'Challenges' is overlaid in large white text on the left side of the image. On the right side, there is a list of focus areas for RDI.

Challenges

17 focus areas for RDI

- ▶ *Environmental challenges*
- ▶ *Challenges for people and society*
- ▶ *Scientific, productive and organisational challenges*

Environmental challenges

- ▶ Mitigation and adaptation to climate change
- ▶ Energy efficiency and decentralised renewable energy
- ▶ Water management and planning for sustainable use
- ▶ Effective flows of people and goods (sustainable mobility) and of information
- ▶ Buildings, cities and regions for living and generating value

Challenges for people and society

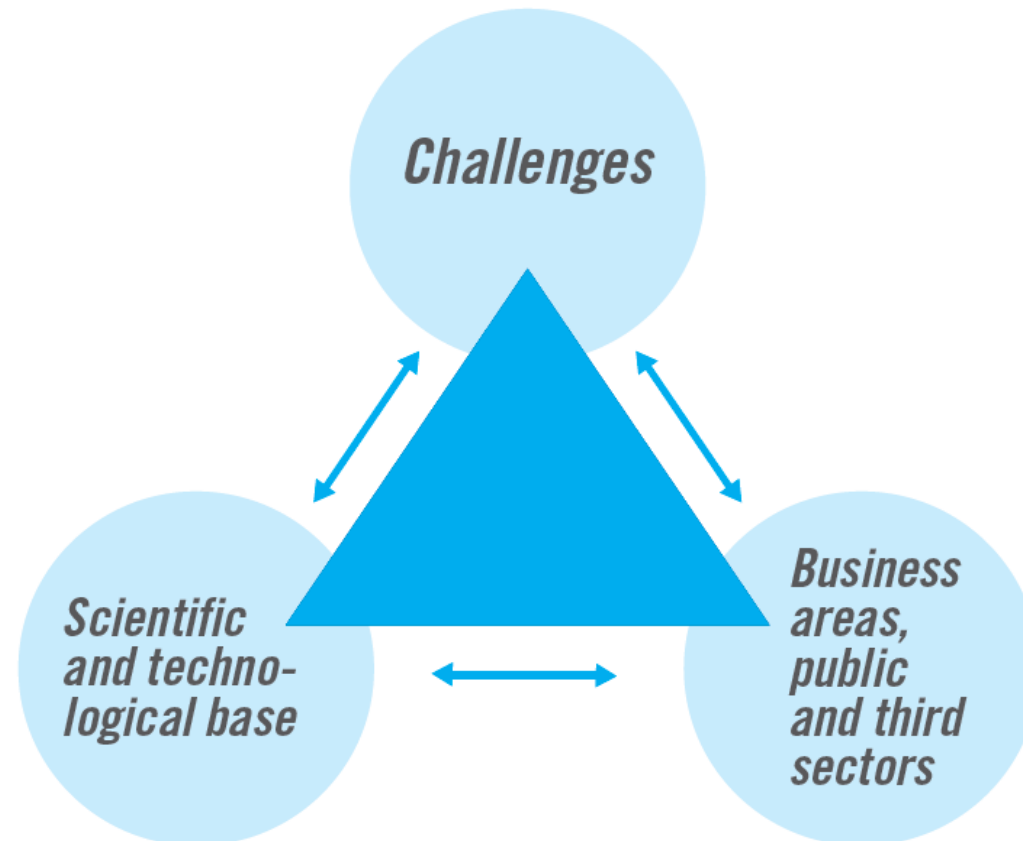
- ▶ Quality, healthy and pleasurable food
- ▶ Prevention and health care
- ▶ Lifelong learning and distance learning
- ▶ Artistic creations and cultural products and services of excellence that are broadly disseminated
- ▶ Products and services linked to tourism, leisure and emotional consumption
- ▶ Social cohesion and management of social complexity to generate opportunities
- ▶ New services society with innovative consumer and business service products and e-services
- ▶ Security of people, goods, information and the territory

Scientific, productive and organisational challenges

- ▶ Frontier research and scientific research and technology of excellence
- ▶ Development of materials, production systems and eco-products with innovative designs
- ▶ Non-technological innovation, transformation of organisations and new working methods.
- ▶ Improvement of governance, socioeconomic and political mechanisms



Focusing RDI on challenges





Focusing RDI on challenges

Focus development

- ▶ *Involvement of all Catalan ministries*
- ▶ *Knowledge and innovation communities*
- ▶ *Orientation of PRI policies to challenges*
- ▶ *Inter-ministerial FOCUS fund*



9. Environments and **regions** with the ability to incorporate knowledge and innovation



9. Environments and **regions** with the ability to incorporate knowledge and innovation

ENSURE THAT ALL THE REGIONS OF CATALONIA ARE ABLE TO DEVELOP THE SKILLS NEEDED TO TAKE ADVANTAGE OF KNOWLEDGE AND INNOVATION AS DRIVERS OF PROGRESS AND WELLBEING, BASED ON THEIR OWN CIRCUMSTANCES AND POTENTIAL.





7. Improving the **governance** of the RDI system

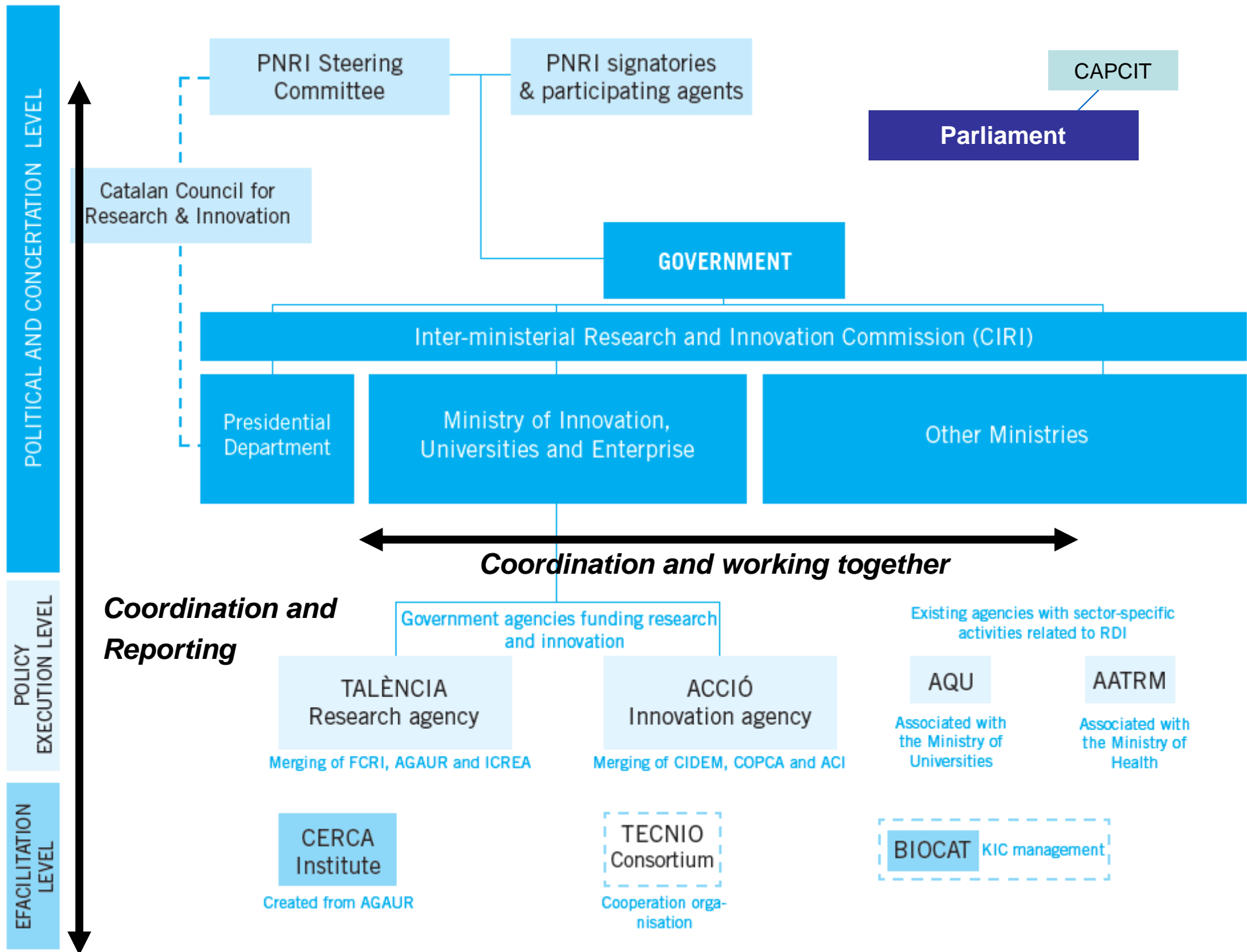


7. Improving the **governance** of the RDI system

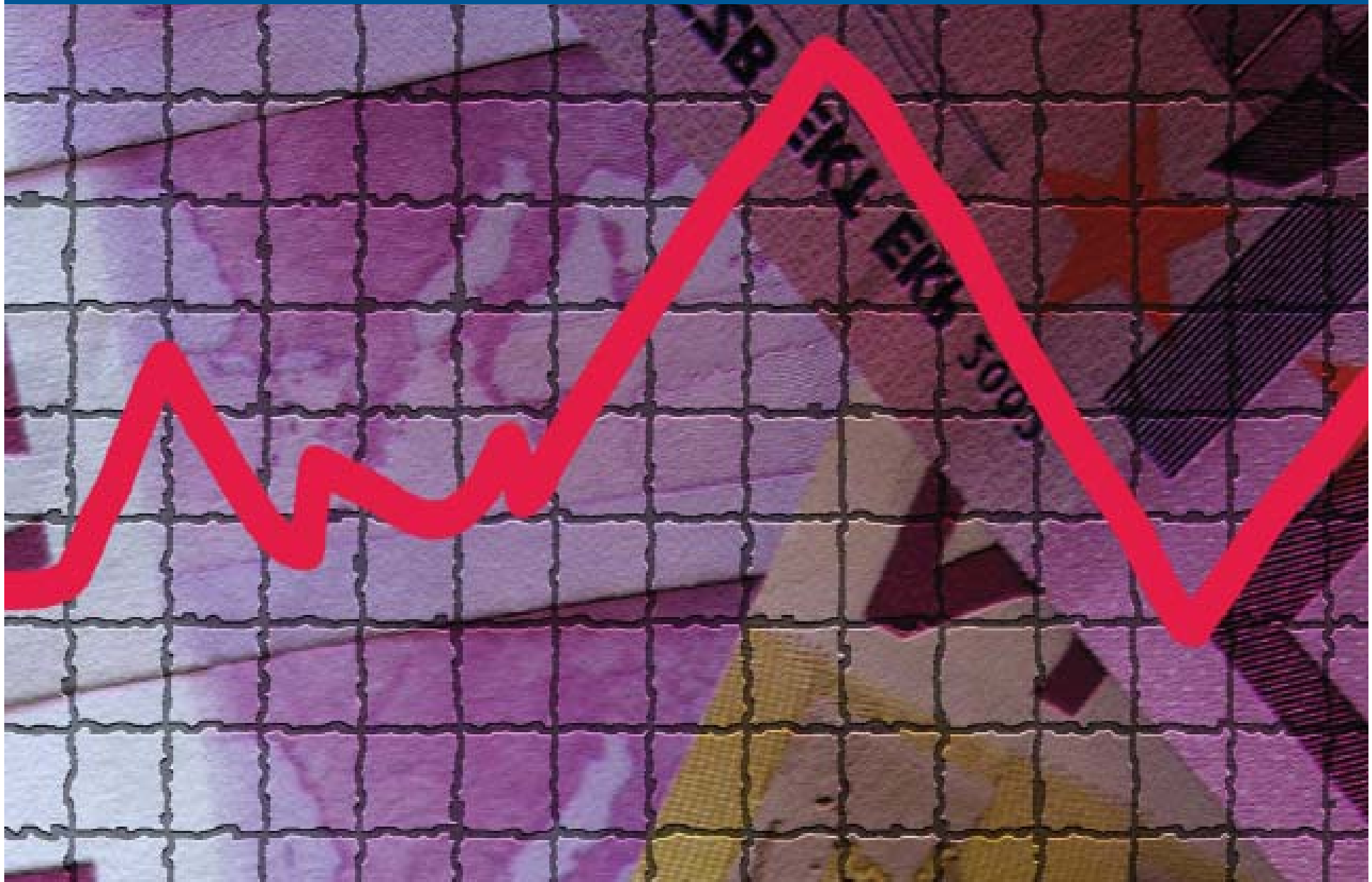


Governance

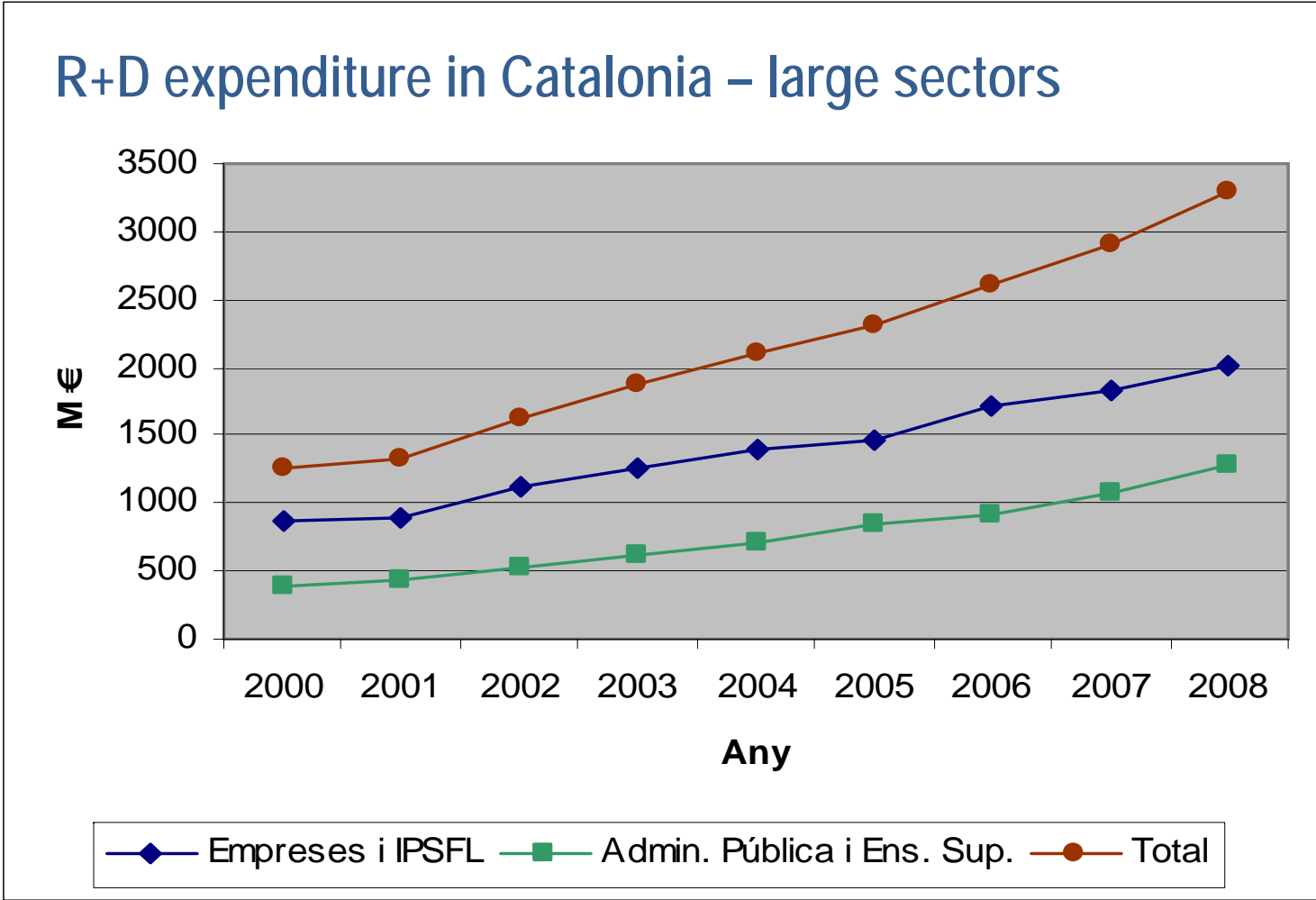
- ▶ *Organisation of the RDI system*
- ▶ *Design and implementation of RDI policies*



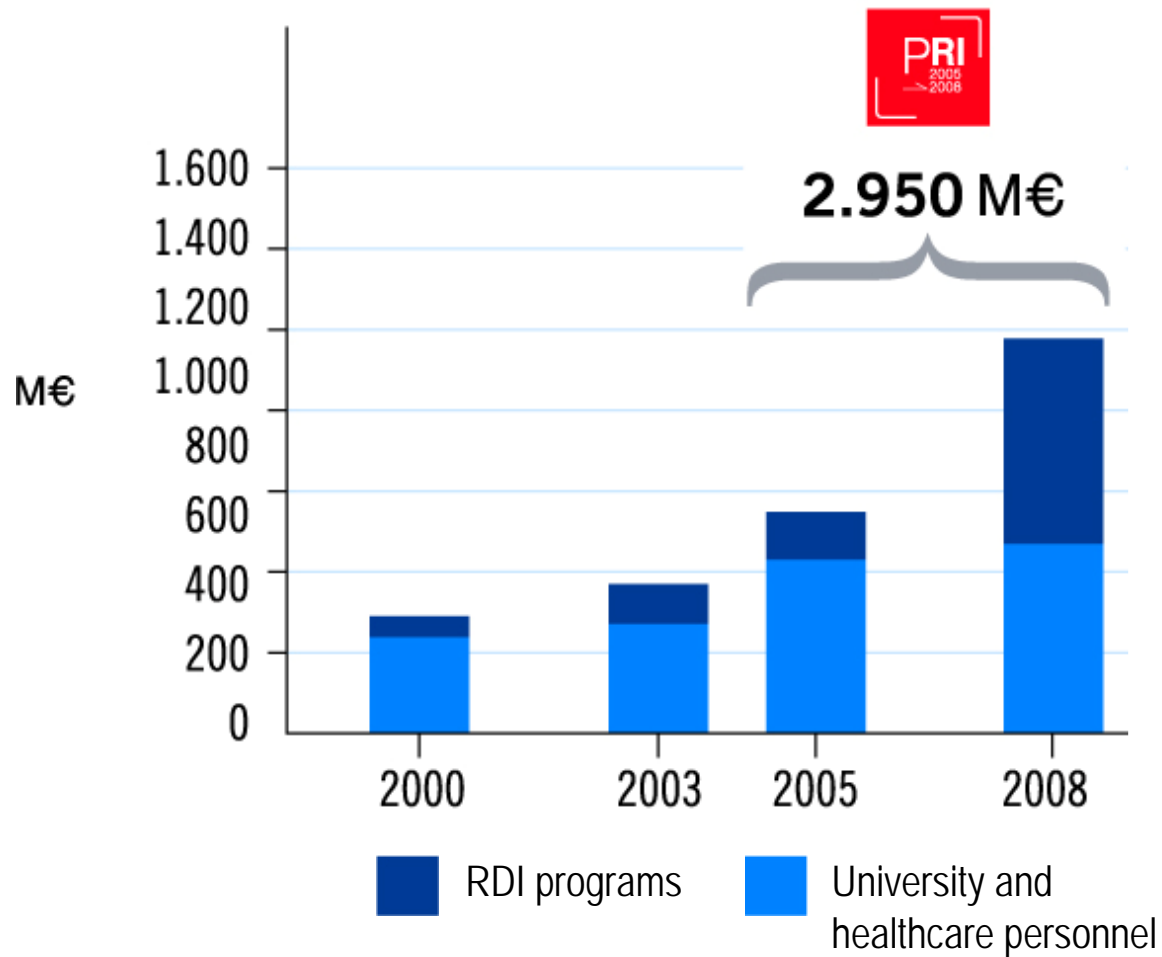
10. Mobilising more **resources** for RDI more efficiently



Relevant increase in RD expenditure in all sectors



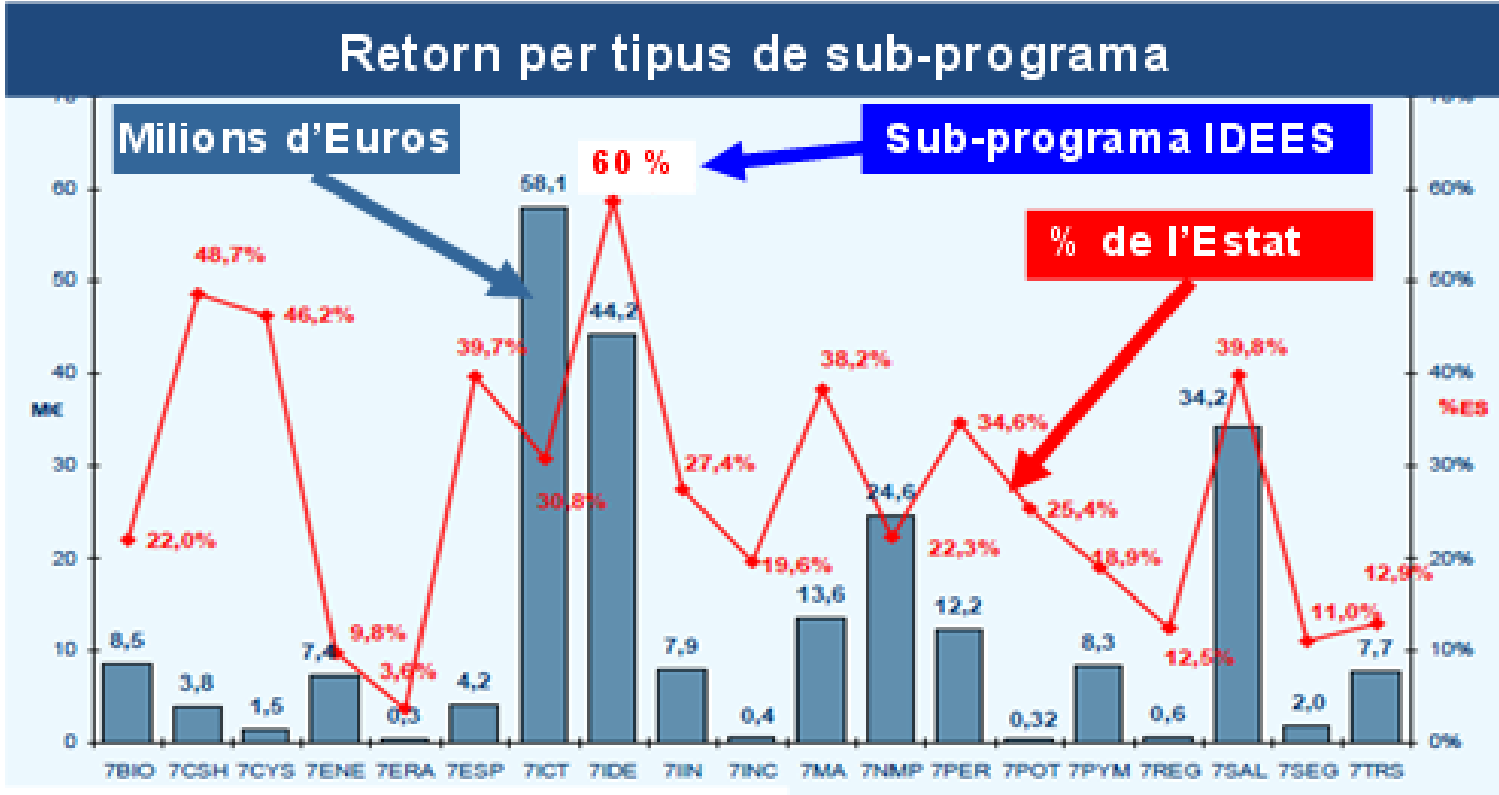
▶ Huge increase in Catalan Government RD expenditure



► Also relevant EU competitive funding attraction

Catalonia in 7th Framework Programme

► 102 M€ in 2008



EDFR (FEDER)

OBJ. 2 - AXIS 1. Knowledge economy, innovation and business development

Construction and equipment for research, development and innovation

Some of the main projects are:

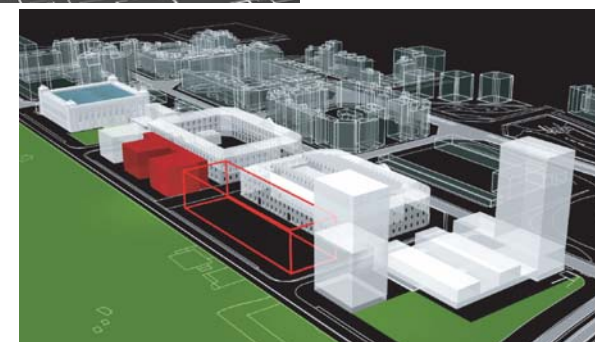
- Construction of the CICRIT (Center of Scientific Infrastructures for the Research and the Technological Innovation) in Barcelona
- Construction and equipment of the IREC's (Catalonia Institut for Energy Research) head offices in Barcelona and Tarragona
- ICARIA's project (Campus of International Excellence): research park of the UPF in social science and humanities
- ICIQ's (Institute of Chemical Research) new building
- ICFO's (Photonic Institute) new scientific equipment



CICRIT



IREC



ICARIA

Sources: Catalan Ministry of Economy and Finances, IREC, CICRIT and ICARIA'S Project.

▶ EDFR (FEDER)

OBJ. 2 - AXIS 1. Knowledge economy, innovation and business development

▶ *Bussines innovation*

- In the frame of a global subsidy of 50 M€, the following lines will be developed:
 - ✓ Technology transfer: support to structures of promotion, valorization and commercialization of technologies
 - ✓ Business development: generation of new technological companies from mature companies, (spin-out). New business opportunities for mature SME.
 - ✓ Industrial R&D: support and consolidation of public - private consortia for corporative R&D.

▶ *JEREMIE initiative (50 MEUR eligible expenditure)*

- The funds are distributed among financial institutions selected by public concurrence, in four lines of action: Guarantees, Microcredits, Risk capital end Co-investment.

10. Mobilising more **resources** for RDI more efficiently



Resources

- ▶ *Government expenditure*
- ▶ *Spanish government expenditure*
- ▶ *EU and other regions*
- ▶ *Private resources*

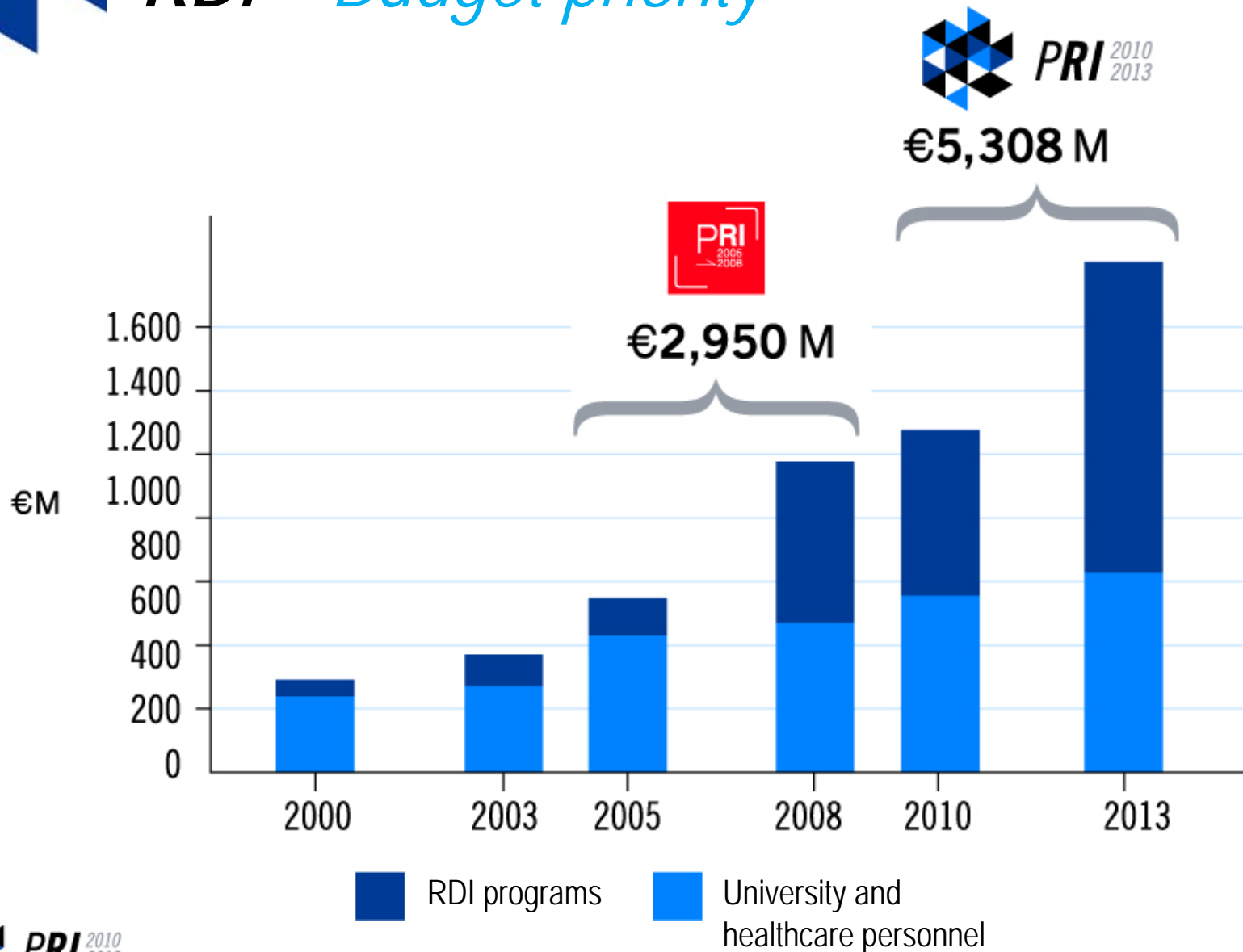
10. Mobilising more **resources** for RDI more efficiently

RDI is a clear priority, sure ?

So, let's go

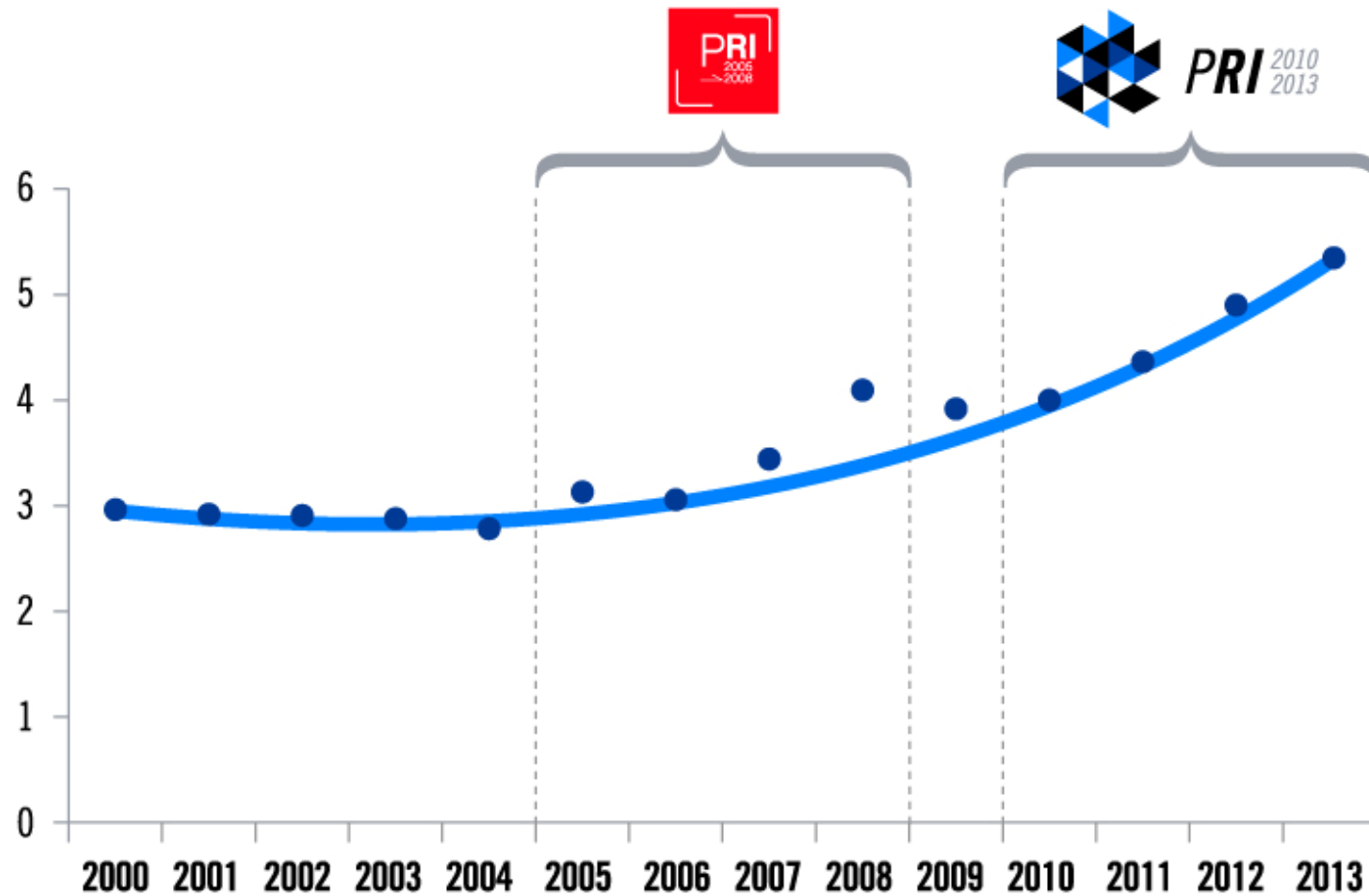


RDI – Budget priority





RDI – Budget priority



Financial programming of the 2010-2013 PRI

EXPENDITURES	YEAR				2010-2013
	2010	2011	2012	2013	

Figures in millions of euros

Block-1					
University research personnel research	310	322	342	362	1.336
Healthcare research personnel	190	197	205	214	806
University research investments	15	16	16	20	67
Subtotal	515	535	563	596	2.209

Block-2 - PRI strategic objectives					
Scientific, innovative and entrepreneurial talent	58	65	72	80	275
Public research system, connected to value creation	206	221	267	353	1.047
Transfer, innovation and internationalization in BES	272	288	343	384	1.287
Innovative public sector	5	7	12	15	39
Innovative citizens and society	5	6	9	10	30
Internationalisation and local and global communities	5	7	10	20	42
Improving the governance of the RDI system	2	3	4	5	14
Focusing RDI on challenges (including inter-ministerial focus fund)	2	60	95	135	292
Regional innovation strategy	7	9	22	35	73
Subtotal	562	666	834	1.037	3.099

TOTAL	1.077	1.201	1.397	1.633	5.308
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**These policies are here to stay at the
first level of the political agenda**



Generalitat de Catalunya

Catalan Agreement
on Research and Innovation

OCTOBER 2008



Generalitat de Catalunya

Catalan Agreement
on Research and Innovation



OCTOBER 2008



Generalitat de Catalunya

Catalan Agreement
on Research and Innovation

A LONG TERM COMMITMENT AND A SHARED AGENDA

GOVERNMENT

POLITICAL PARTIES

UNIVERSITIES

ENTERPRISE ASSOCIATIONS

TRADE UNIONS

CATALONIA 2020

A GLOBAL LEADER IN SCIENCE, TECHNOLOGY AND INNOVATION



**Generalitat
de Catalunya**

Catalan Agreement
on Research and Innovation

Follow-up report - 2010

Catalan Council for Research and Innovation

14th October 2010

Avenços rellevants

- **El PRI 2010-2013 integra els compromisos del PNRI de l'Administració de la Generalitat** que ara cal executar
- **Governança del sistema d'R+D+I:** millors instruments per a la presa de decisions i implementació de polítiques, tot i que convé avançar en el model PNRI
- **Focalització de l'R+D+I a reptes:** un canvi significatiu que serveix per fer confluïr els agents cap a nínxols de valor diferencial on Catalunya té capacitats/necessitats
- **Agenda renovada d'R+D+I en línia amb les noves estratègies de la UE:**
 - Educació i formació per a la creativitat i la innovació
 - Innovació no-tecnològica
 - Sector públic motor d'innovació
 - Aproximació territorial als sistemes d'innovació...
- **Altres avenços significatius en els compromisos vinculats a:**
 - Captació i retenció talent científic
 - Centres de recerca catalans i instituts recerca sanitària
 - Enfortiment xarxa de transferència de tecnologia
 - Internacionalització sistema R+D+I i socialització de la ciència i la tecnologia,...

Avenços insuficients

- Implantació, en tots els nivells educatius, de metodologies sistemàtiques per **afavorir la creativitat, la innovació i potenciar la iniciativa emprenedora**.
- Dèficits en el nombre de **personal tècnic i postdoctoral** a les universitats, així com a la qualitat de la direcció i gestió dels RRHH dedicats a la recerca.
- Foment de la incorporació de **talent investigador i innovador a les empreses**, especialment a les PIME.
- Insuficient **valorització** dels resultats de la **recerca pública**.
- Persistent **fragmentació** estructural i funcional del **sistema d'R+D+I** català públic, i public-privat.
- Insuficient desenvolupament de les **infraestructures** científiques i tecnològiques i necessitat d'optimització del seva explotació.
- No han avançat suficientment, atesa la relativa novetat en l'agenda d'R+D+I a Catalunya: foment de la **innovació no-tecnològica, compra pública tractora d'innovació i sistemes territorials d'innovació**.

Recursos econòmics per a l'R+D+I

- Recursos per a l'R+D+I a la **UE**: **increment significatiu captació competitiva**, clau reforçar aquesta via de finançament en els propers anys.
- Recursos per a l'R+D+I a **Estat**: perill per la **reducció dels fons**, insuficients recursos addicional 3^a a infraestructures científiques i tecnològiques.
- Recursos per a l'R+D+I a **Catalunya**: necessitat de desenvolupar un marc estratègic i pluriennal per al finançament públic de l'R+D+I que permeti complir les previsions del **Pla de Recerca i Innovació 2010-2013**.
- Desenvolupament de mecanismes i instruments innovadors de **cooperació publicoprivada** per al finançament de l'R+D+I.

Look to Europe



EUROPEAN COMMISSION

Brussels, 6.10.2010
COM(2010) 546 final

COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN
PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL
COMMITTEE AND THE COMMITTEE OF THE REGIONS

Europe 2020 Flagship Initiative

Europe 2020 Flagship Initiative Innovation Union

Europe 2020 Flagship Initiative Innovation Union

European Innovation Partnerships

8. **European Innovation Partnerships should be launched to accelerate research, development and market deployment of innovations to tackle major societal challenges, pool expertise and resources and boost the competitiveness of EU industry, starting with the area of healthy ageing.**

Aims and scope of a pilot European Innovation Partnership in the field of active and healthy ageing

The aims of the innovation partnership are, by 2020, to enable our citizens to live longer independently in good health by increasing the average number of healthy life years by 2, and, in achieving this target, to improve the sustainability and efficiency of our social and healthcare systems, and to create an EU and global market for innovative products and services with new opportunities for EU business.

In summary

- ▶ *Long term Catalan commitment in RDI*
- ▶ *Broad RDI approach with emerging targets*
(non-technological innovation, innovation in public sector)
- ▶ *RDI focus on challenges and territorial approach*
- ▶ *RDI as an overarching policy in catalan government*
- ▶ *RDI policy aligned with European Innovation Strategy*
- ▶ *Improving RDI performance with persistent weaknesses*



Gràcies per la vostra atenció !

Thank you very much for your attention !

Jordi Cartanyà

jcartanya@gencat.cat - **fell free to contact**

Director General

**Coordination Office for Research and Innovation
Ministry of Innovation, Universities and Enterprise**



Generalitat de Catalunya
Government of Catalonia



3a JORNADA DE RECERCA

A L'INSTITUT CATALÀ DE LA SALUT

28 d'octubre de 2010

Catalonia RDI Policies

Jordi Cartanyà

Director General

Coordination Office for Research and Innovation

2010-2013

Research and Innovation Plan of Catalonia



Looking for RDI impact on Catalonia progress

EMPLOYMENT

**REGIONAL
BALANCE**

WELLBEING

SUSTAINABILITY

COMPETITIVENESS

SOCIAL CAPITAL

**Economic
diversification:**
renovate the present,
flourish in the future

**Regions
capable of
making progress**

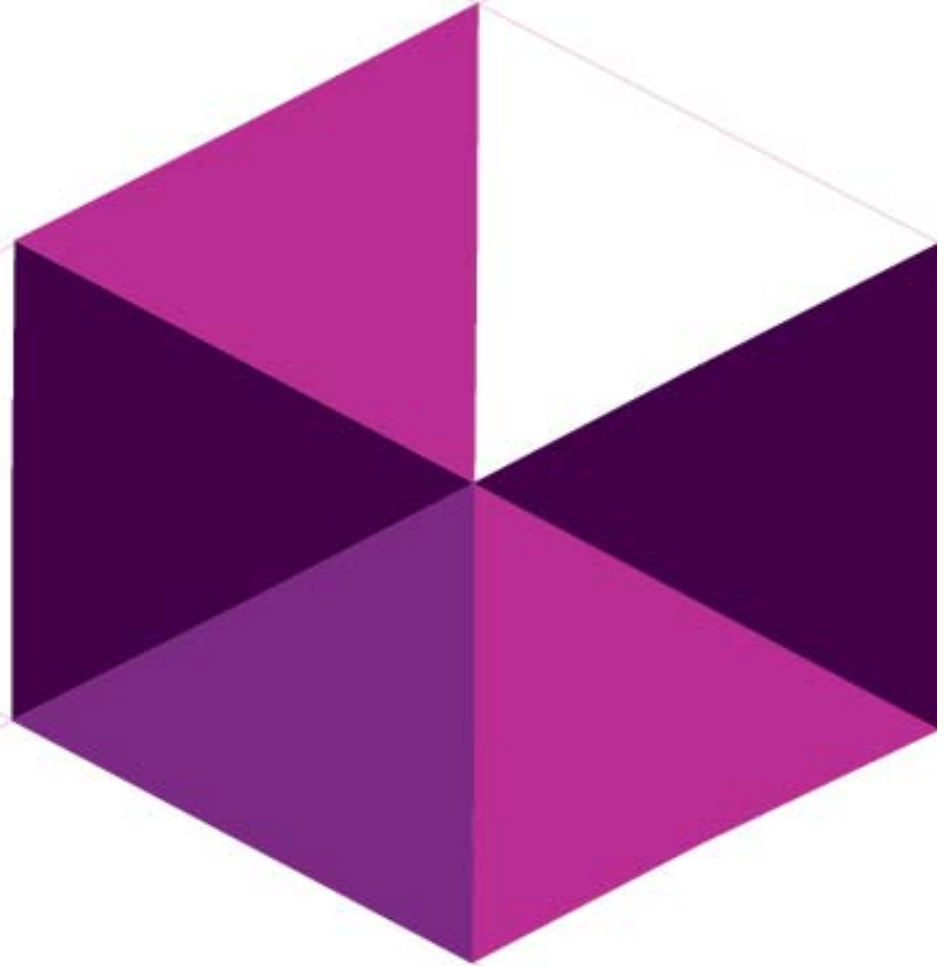
**Quality
collective
services**

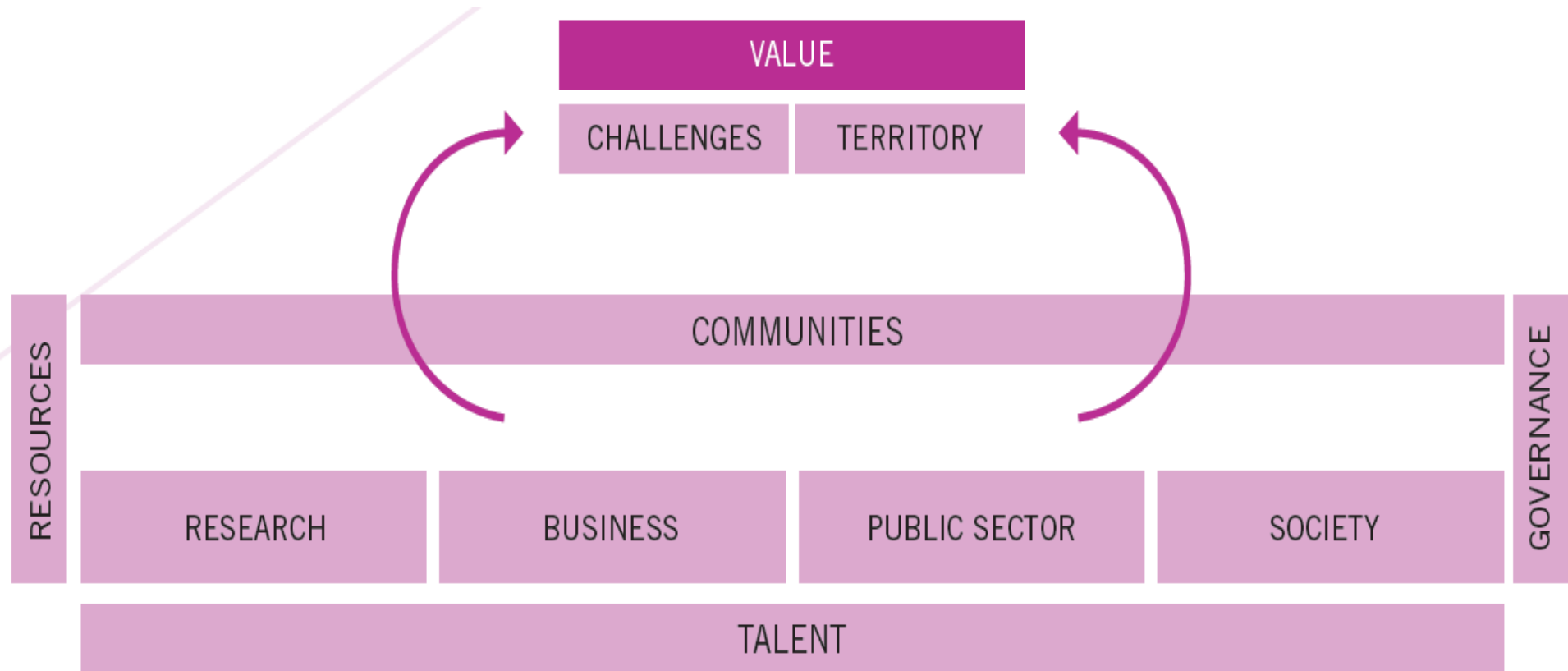
**A cohesive
society, rich
in culture**



2010-2013 Research and Innovation Plan (PRI) of Catalonia

STRATEGIC VISION





THE 2010-2013 PRI FOCUSES ON **TALENT** AND THE **KEY AGENTS OF THE SYSTEM** (THE PUBLIC RESEARCH SYSTEM, ENTERPRISES, INTERMEDIARIES, THE PUBLIC SECTOR AND THE GENERAL PUBLIC), PARTICULARLY ENCOURAGING COOPERATION BETWEEN THEM.

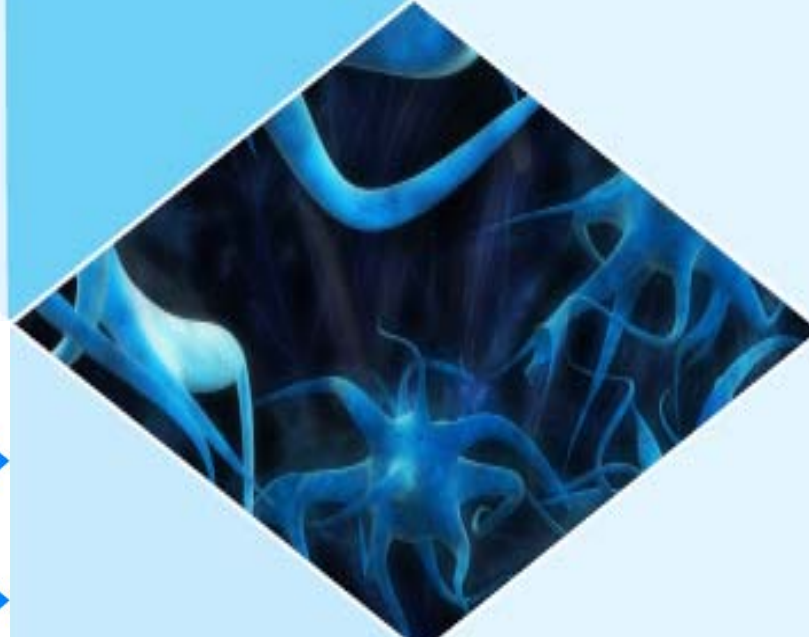
THE PRI IS COMMITTED TO A **NEW STRATEGIC ORIENTATION OF THE RDI SYSTEM THAT FOCUSES ON CHALLENGES** AND A **REGIONAL APPROACH** TO ENSURE THAT THE PLAN BENEFITS ALL PARTS OF THE COUNTRY.

THE POLICIES AND ACTIONS CONTAINED
IN THE 2010-2013 PRI ARE SET OUT ALONG
THREE TRANSVERSAL LINES (SMEs,
SERVICE INNOVATION AND INTERNATIONAL-
LISATION), WHICH COVER **TEN STRATEGIC
OBJECTIVES**.

SMEs

Internationalisation

Services



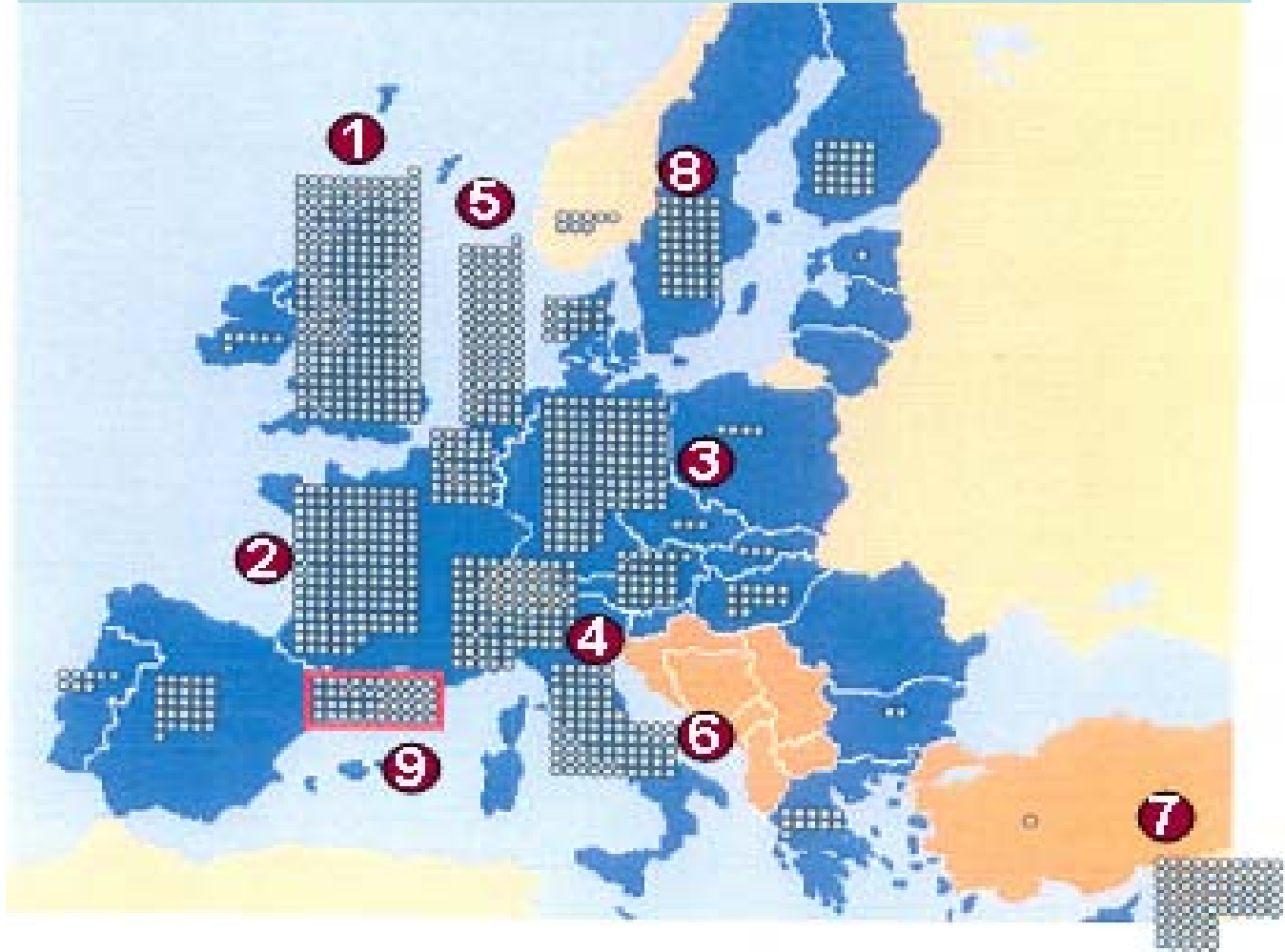


1. The best scientific, creative, innovative and entrepreneurial **talent**



Catalonia scientific talent for frontier research

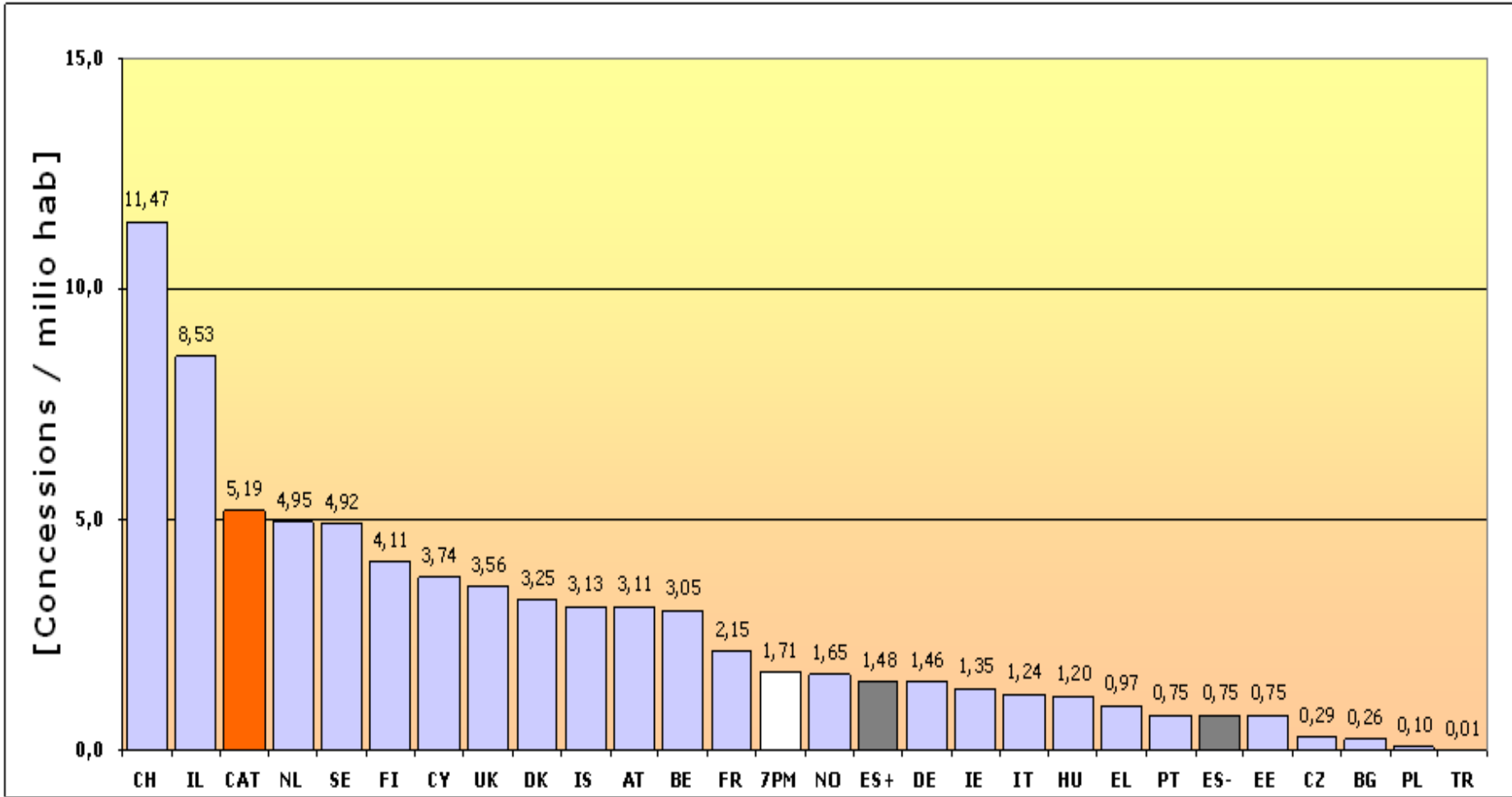
Total number ERC grants all years



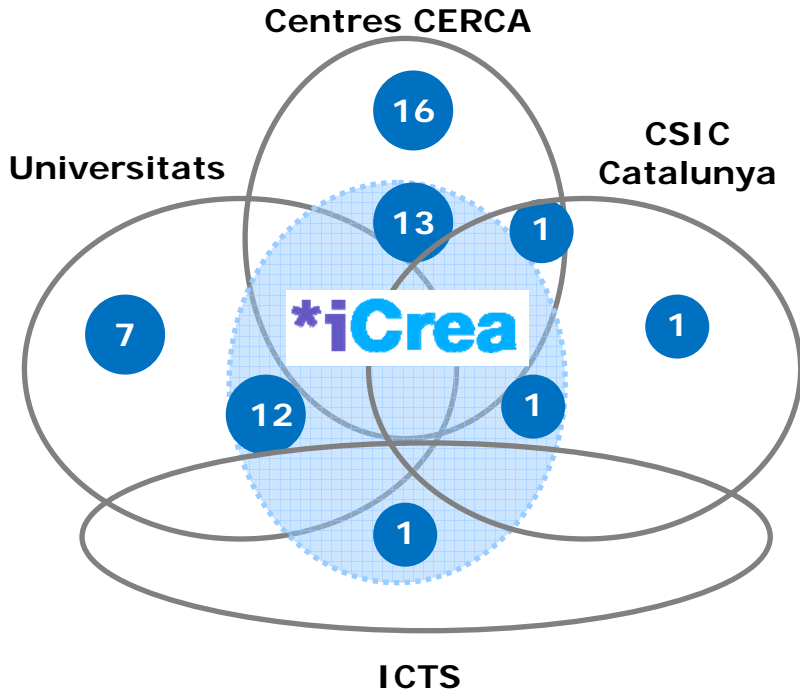
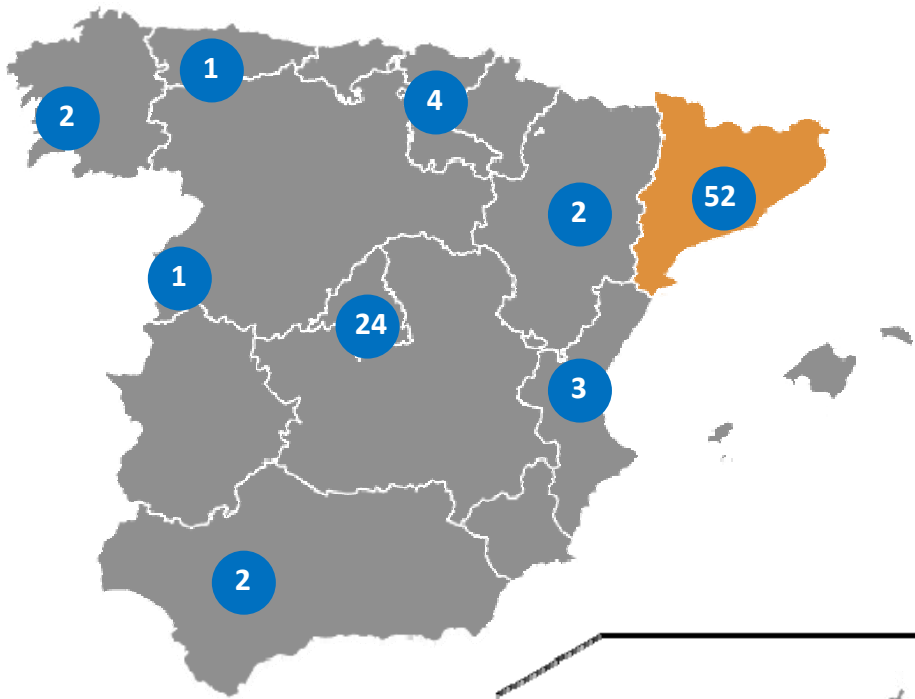


Catalonia scientific talent for frontier research

Total number ERC grants all years / per million inhabitants



Catalonia scientific talent for frontier research



	CAT	Altres CCAA
LS	16	18
PSE	18	15
SSH	16	6
INT	2	0
	52	39

CERCA	Univ. CAT	ICTS	CSIC CAT	ICREA
30	19	1	2	27

1. The best scientific, creative, innovative and entrepreneurial **talent**

Talent

- ▶ *Skills*
- ▶ *Profiles*
- ▶ *Flows*

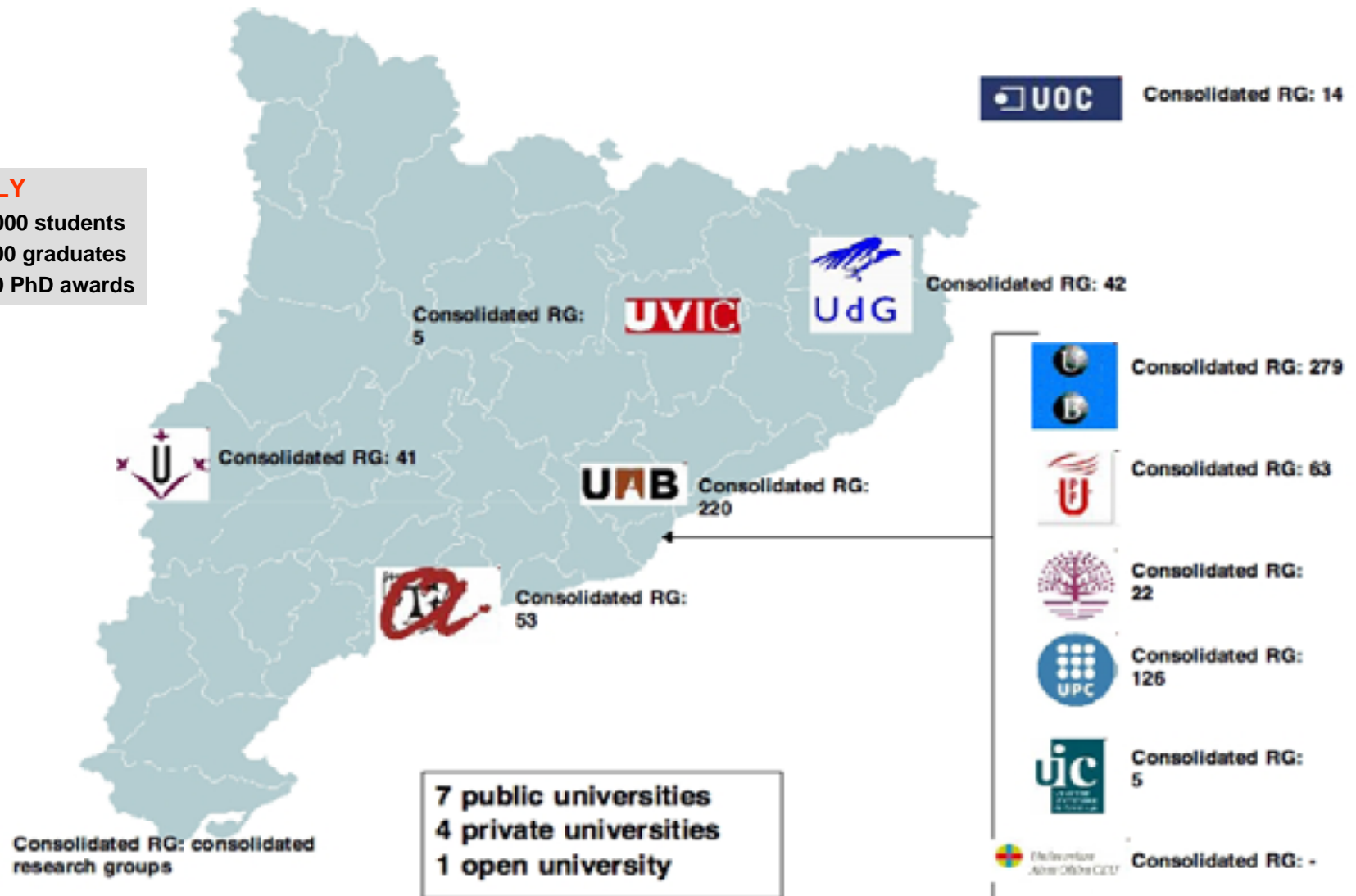
2. A strong public **research** system, connected to value creation



Strong, young and fragmented research system

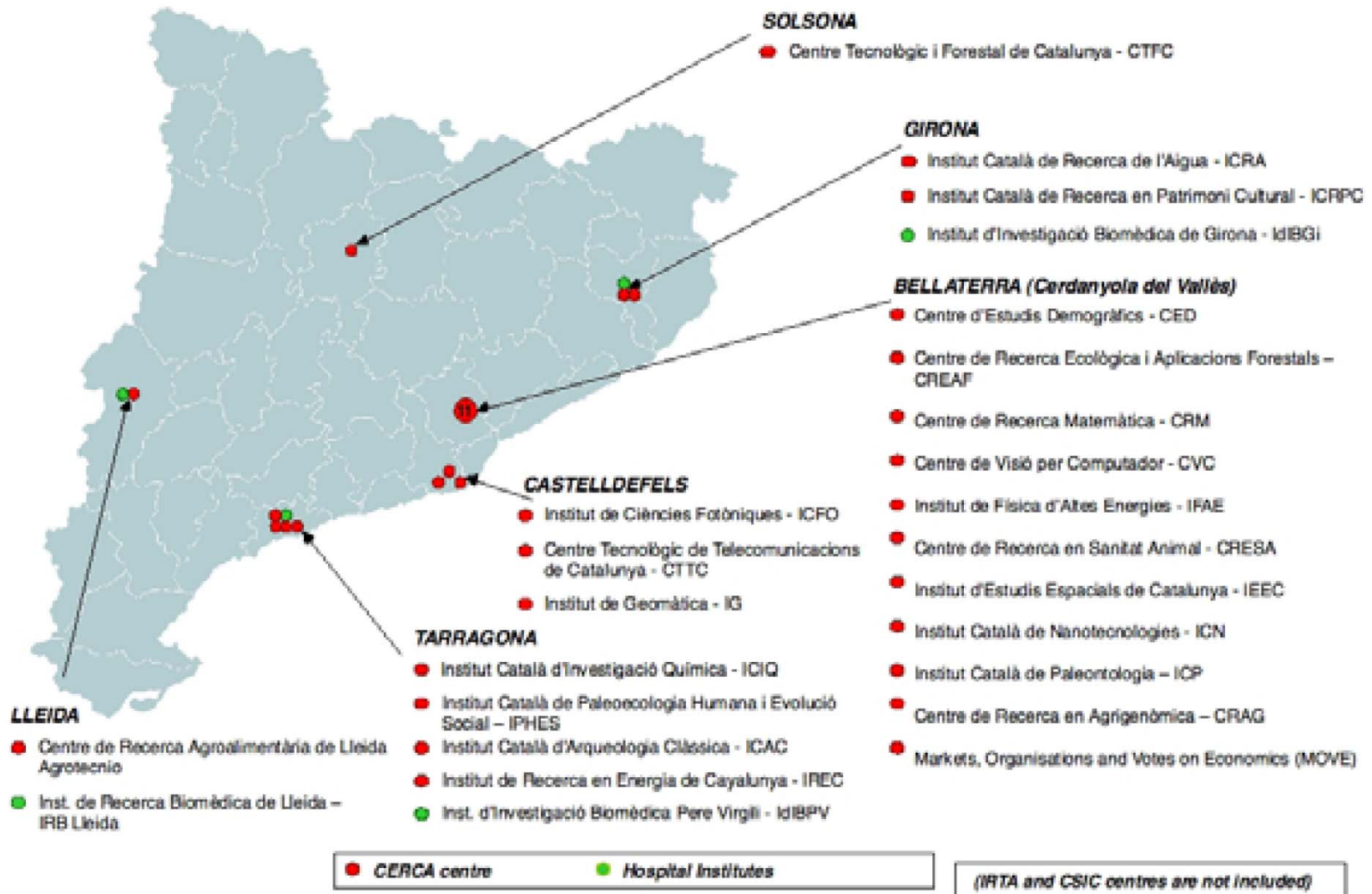
Universities and consolidated research groups

- YEARLY**
- 230,000 students
 - 33,000 graduates
 - 1,500 PhD awards



Strong, young and fragmented research system

CERCA Research Centres (25) and Hospital Institutes (4) (except in Barcelona)





Strong, young and fragmented research system

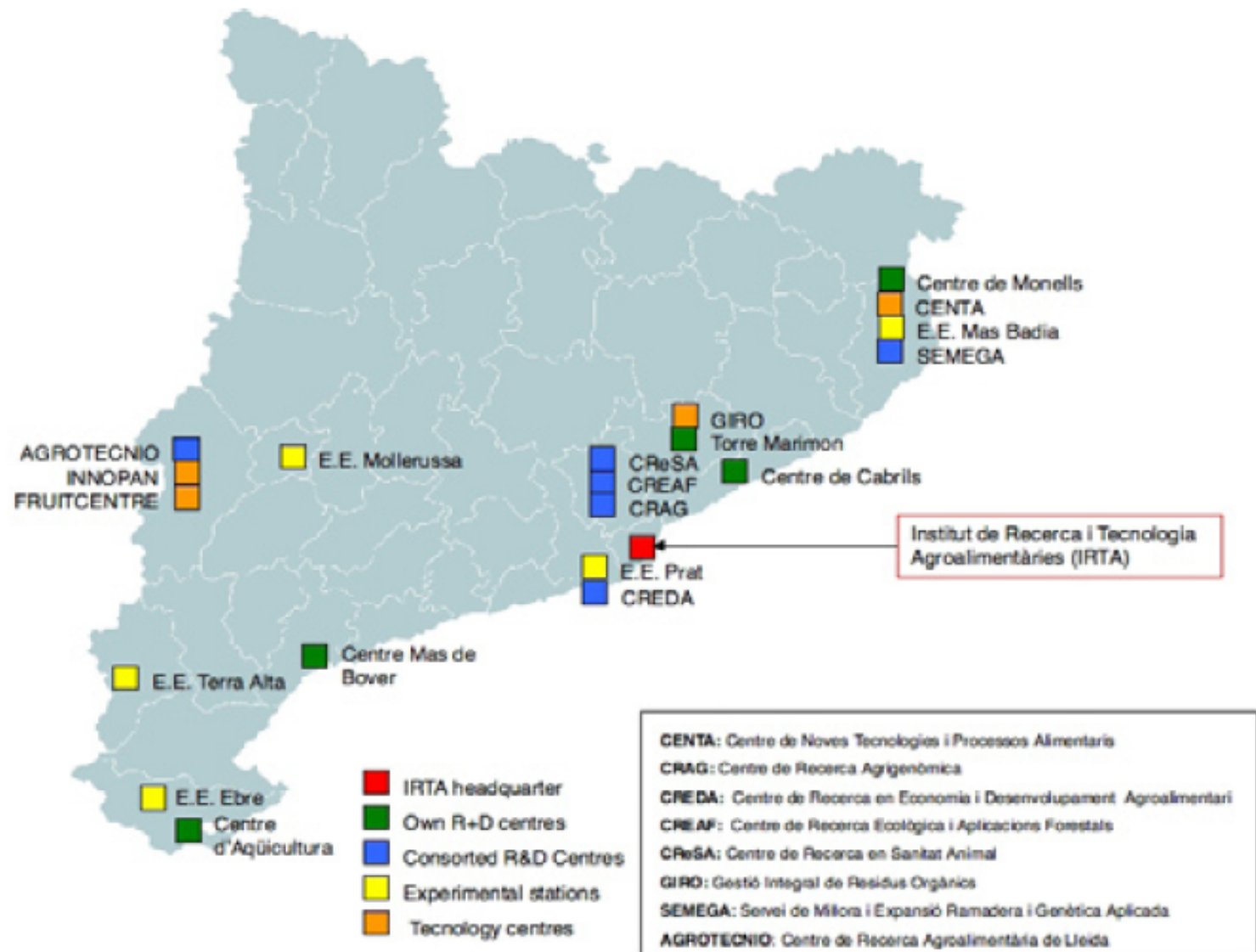
CERCA Research Centres and Hospital Institutes (Barcelona)





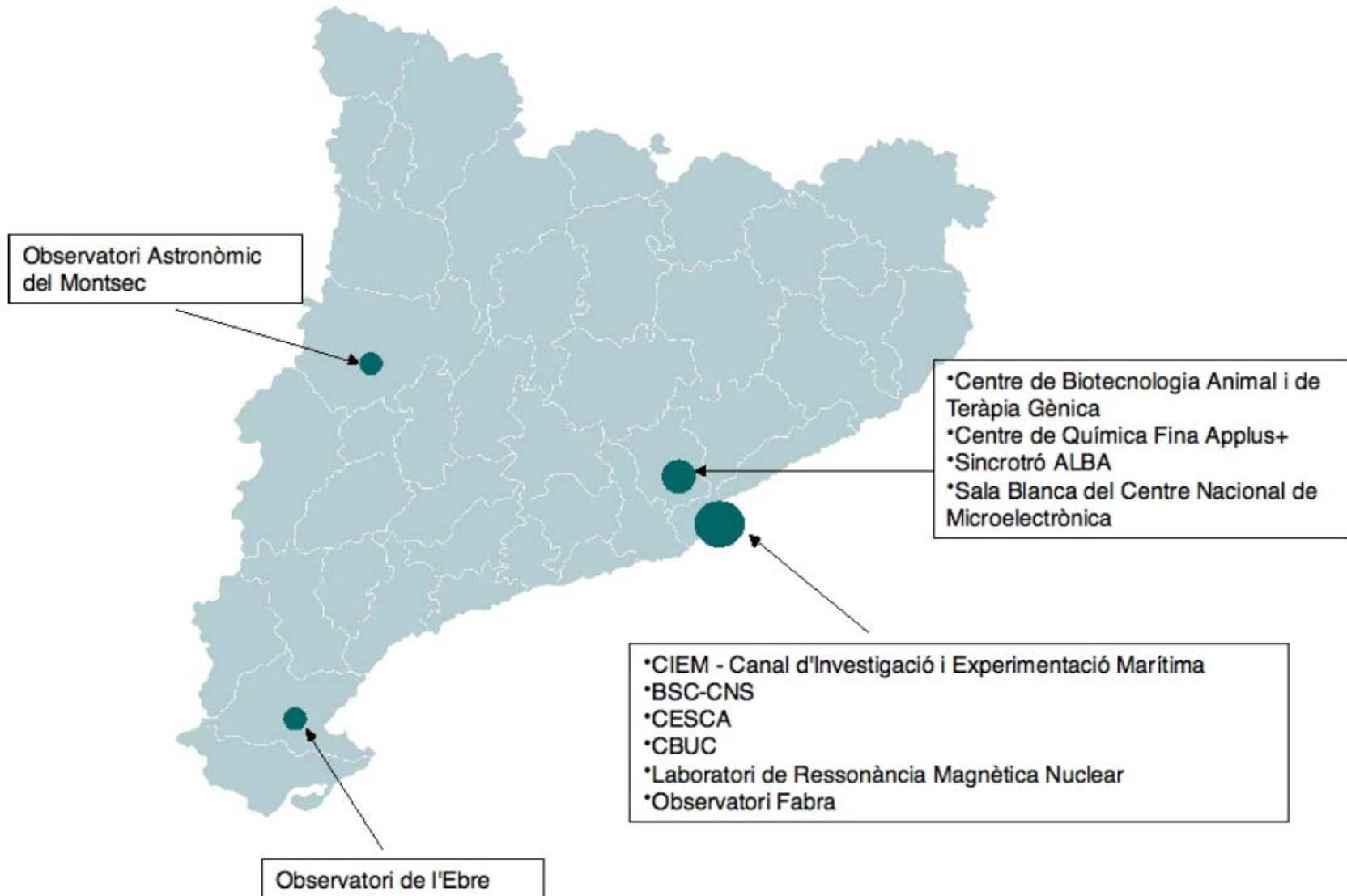
Strong, young and fragmented research system

IRTA Centres (Institute of Food and Agricultural Research)



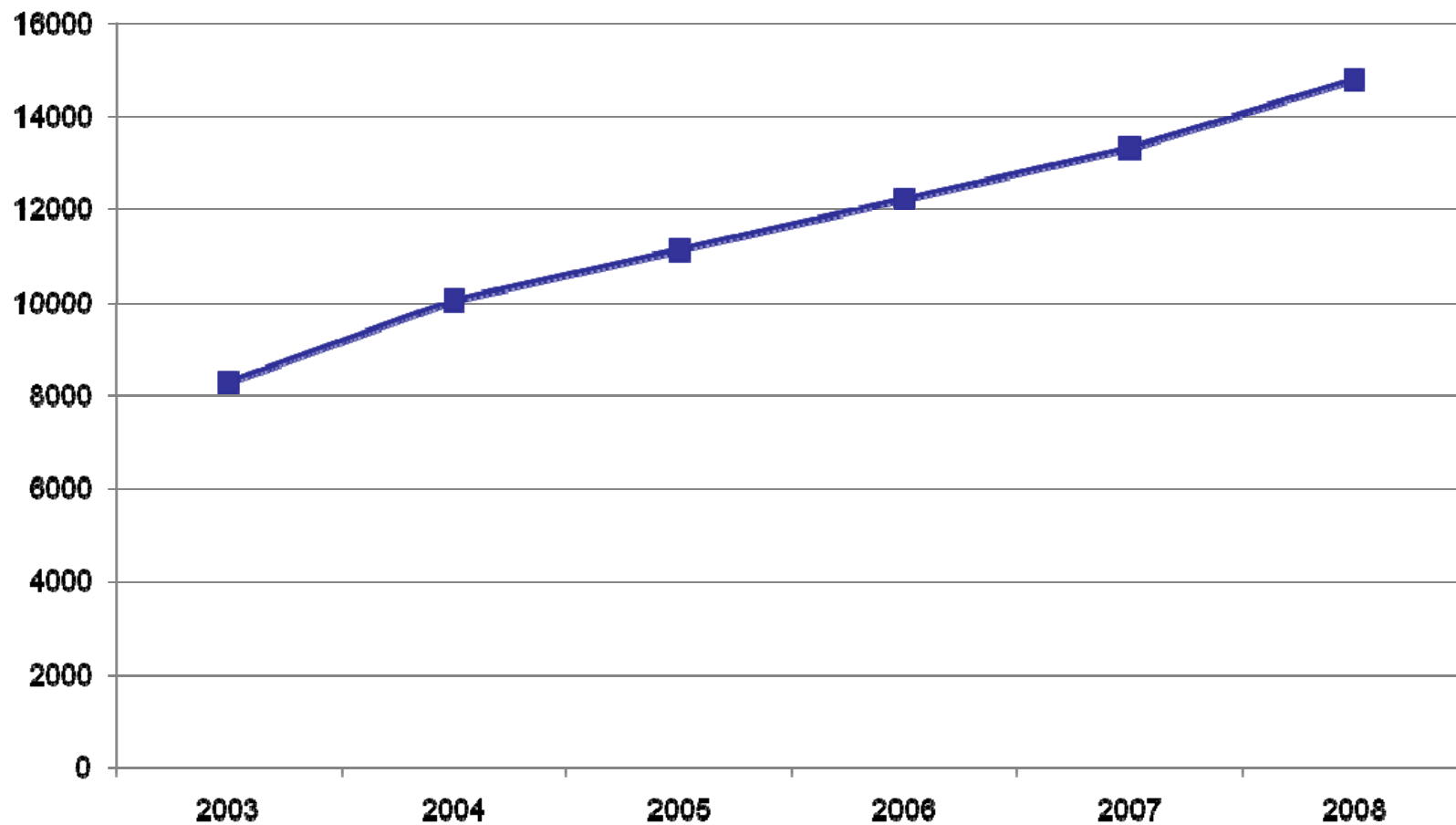
Insufficient and fragmented technology system

Large Scale Research Infrastructures

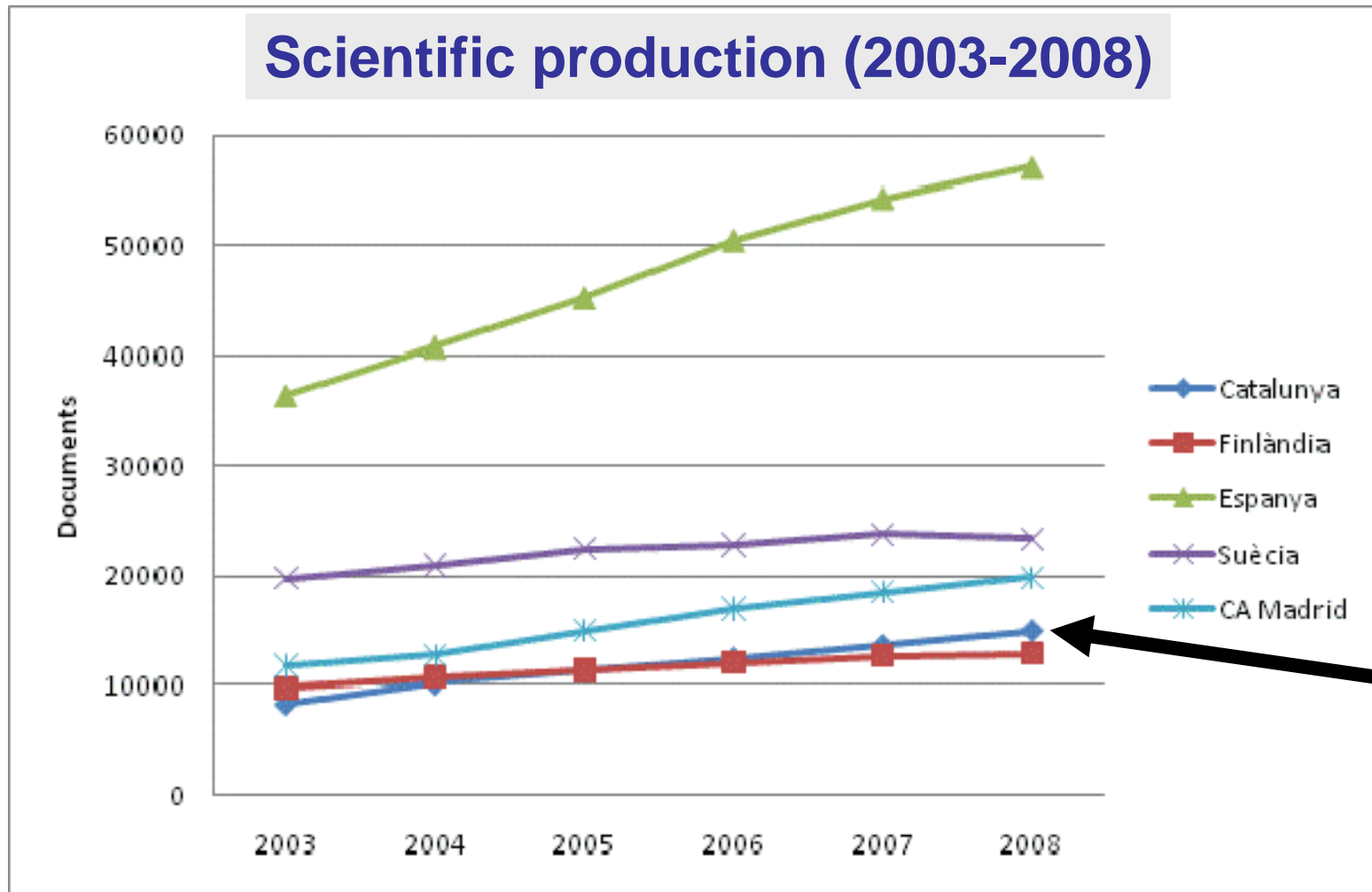


▶ Strong, young and fragmented research system

Scientific production (2003-2008)

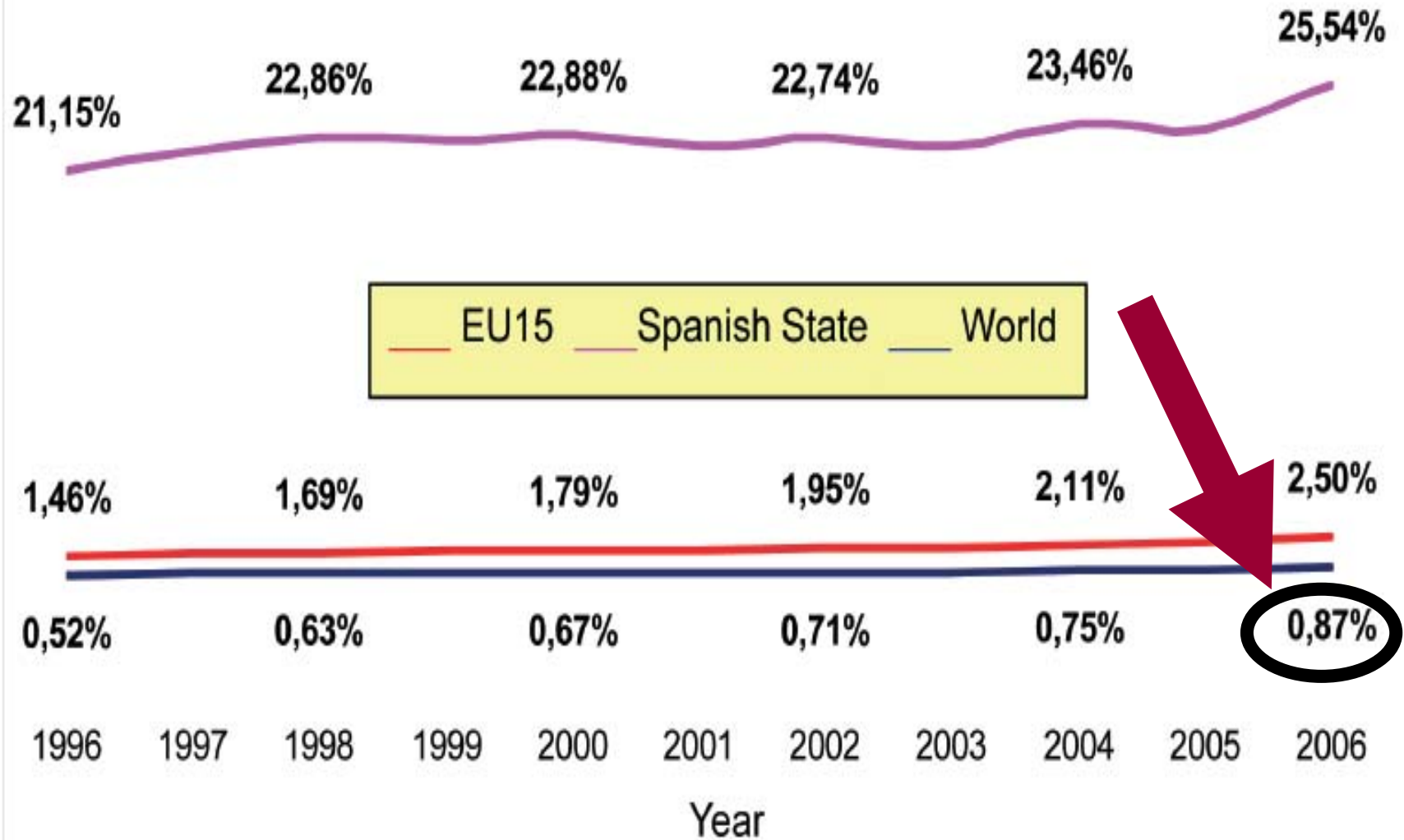


Strong, young and fragmented research system



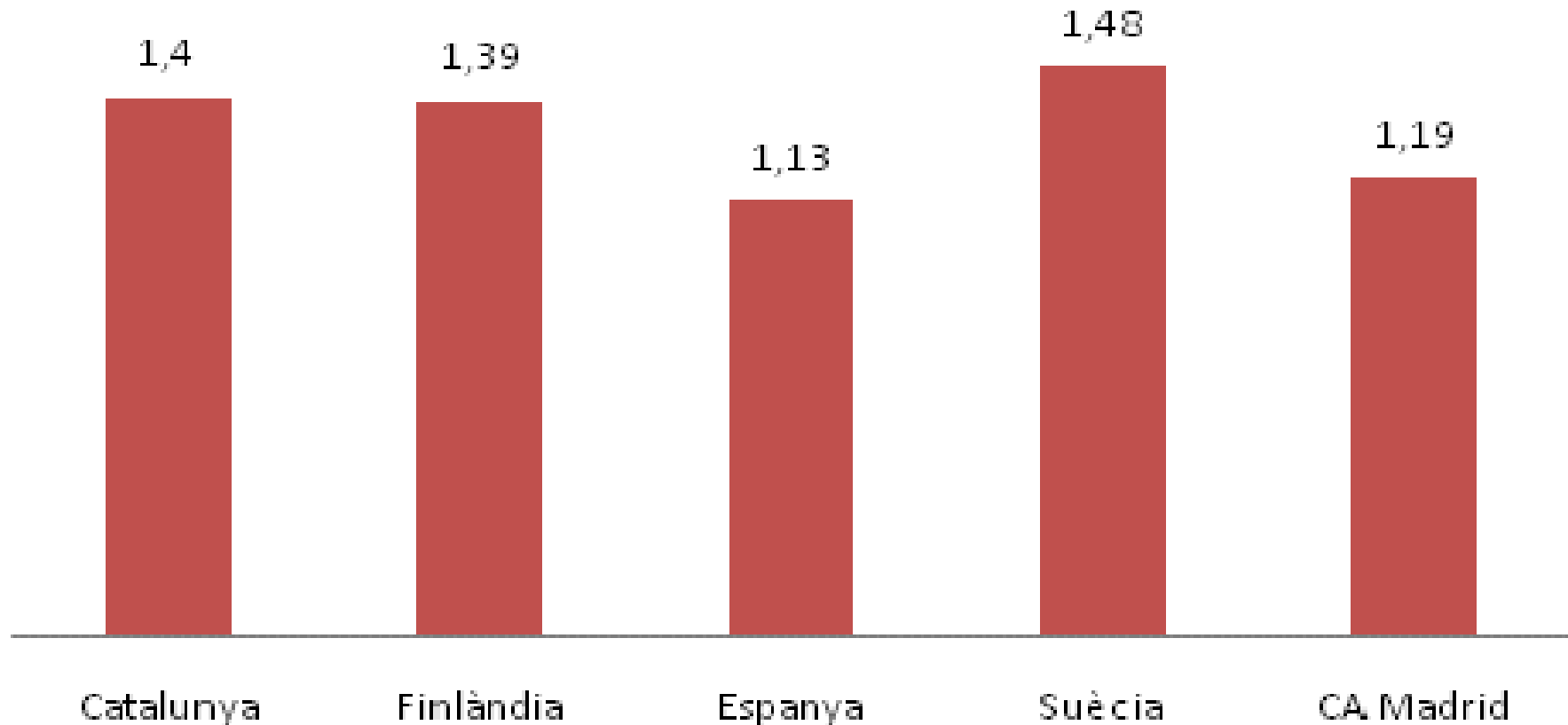
▶ Strong, young and fragmented research system

Catalonia Share in scientific production



► Strong, young and fragmented research system

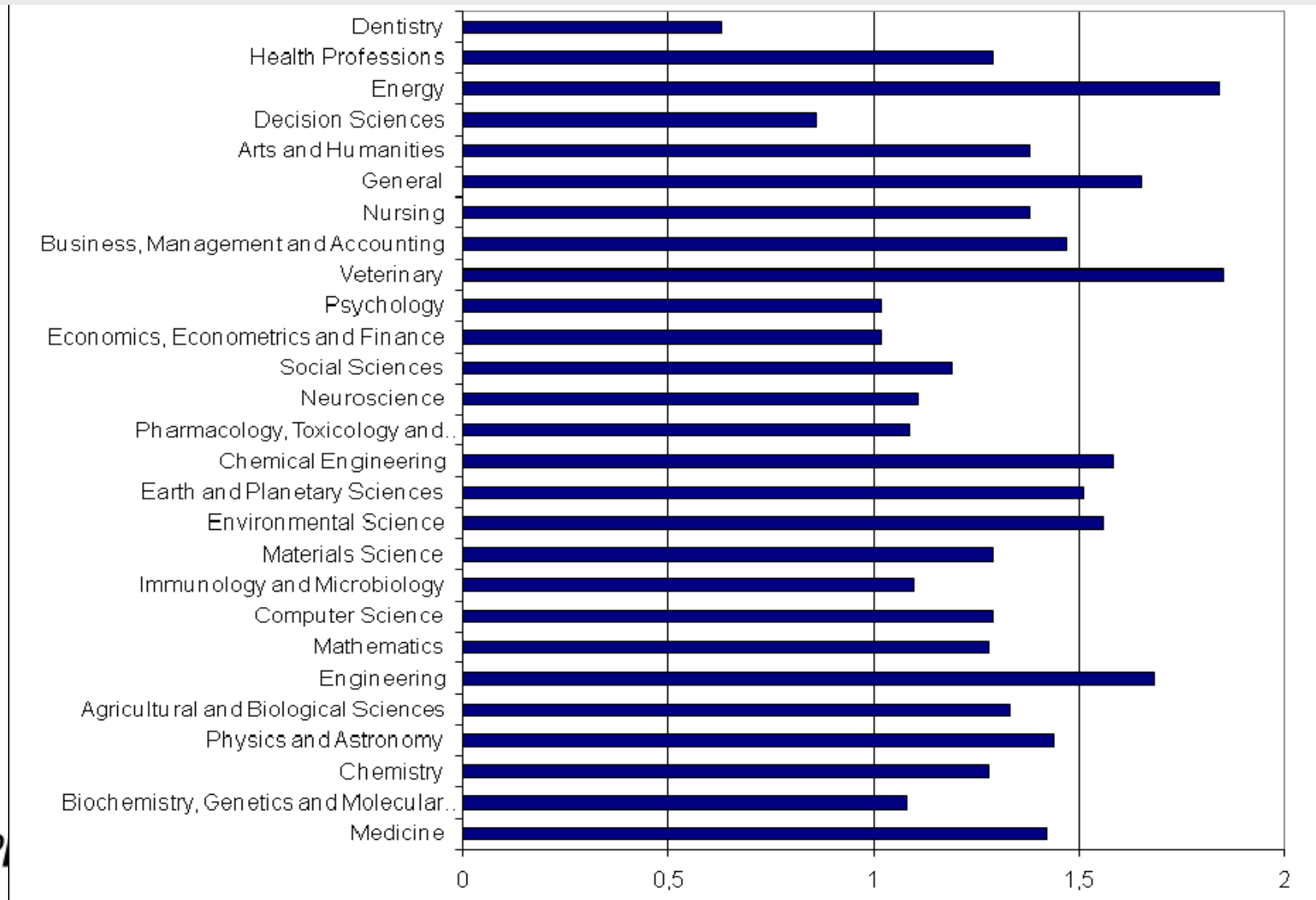
Scientific quality, normalized impact (2003-2008)





Strong, young and fragmented research system

Scientific quality by field, normalized impact (2003-2008)



2. A strong public **research** system, connected to value creation

Research

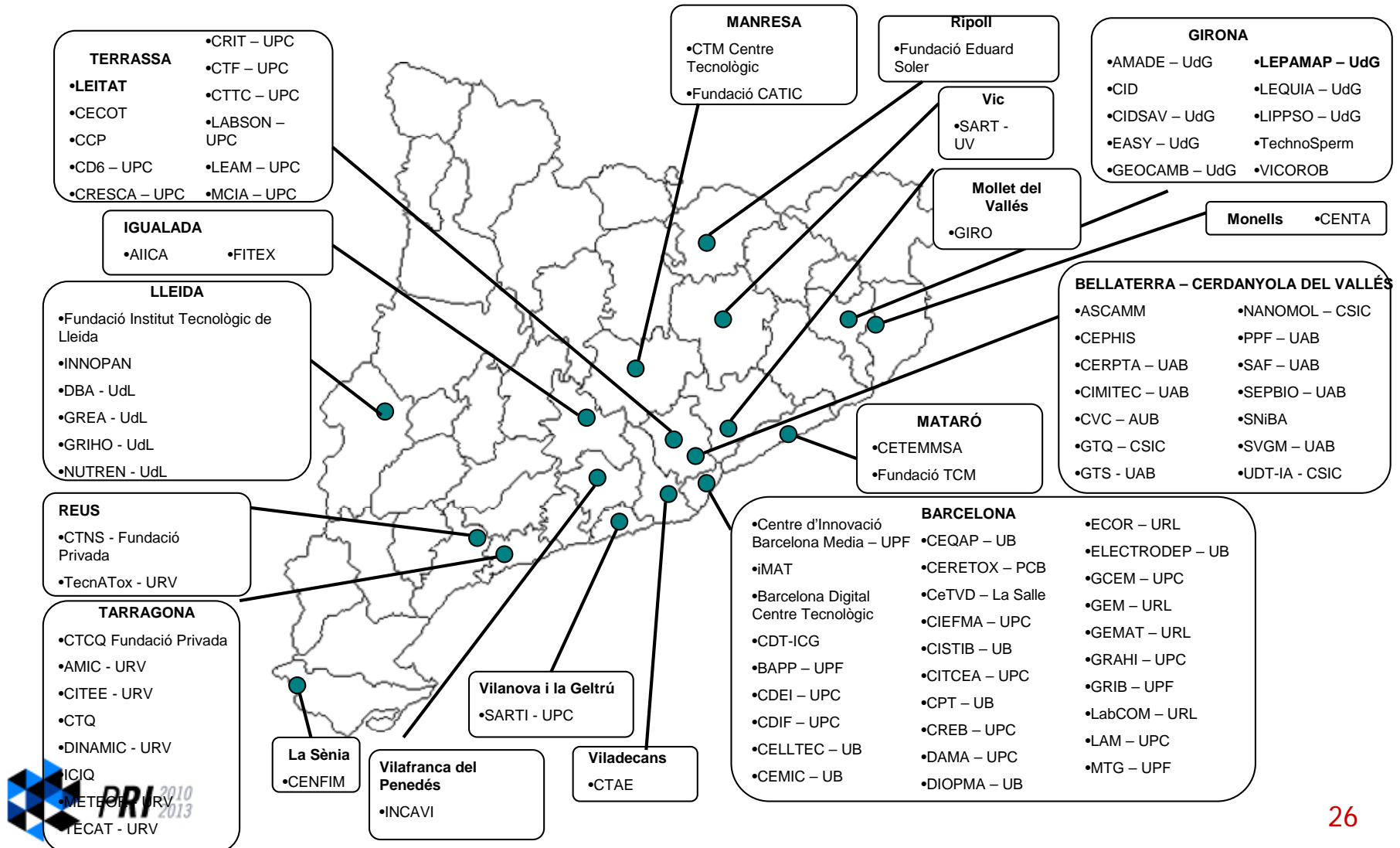
- ▶ *Funding*
- ▶ *Alignment*
- ▶ *Knowledge transfer*
- ▶ *Research infrastructures*
- ▶ *Strategic RDI Projects*

3. **Companies** that systematically innovate and are internationalised



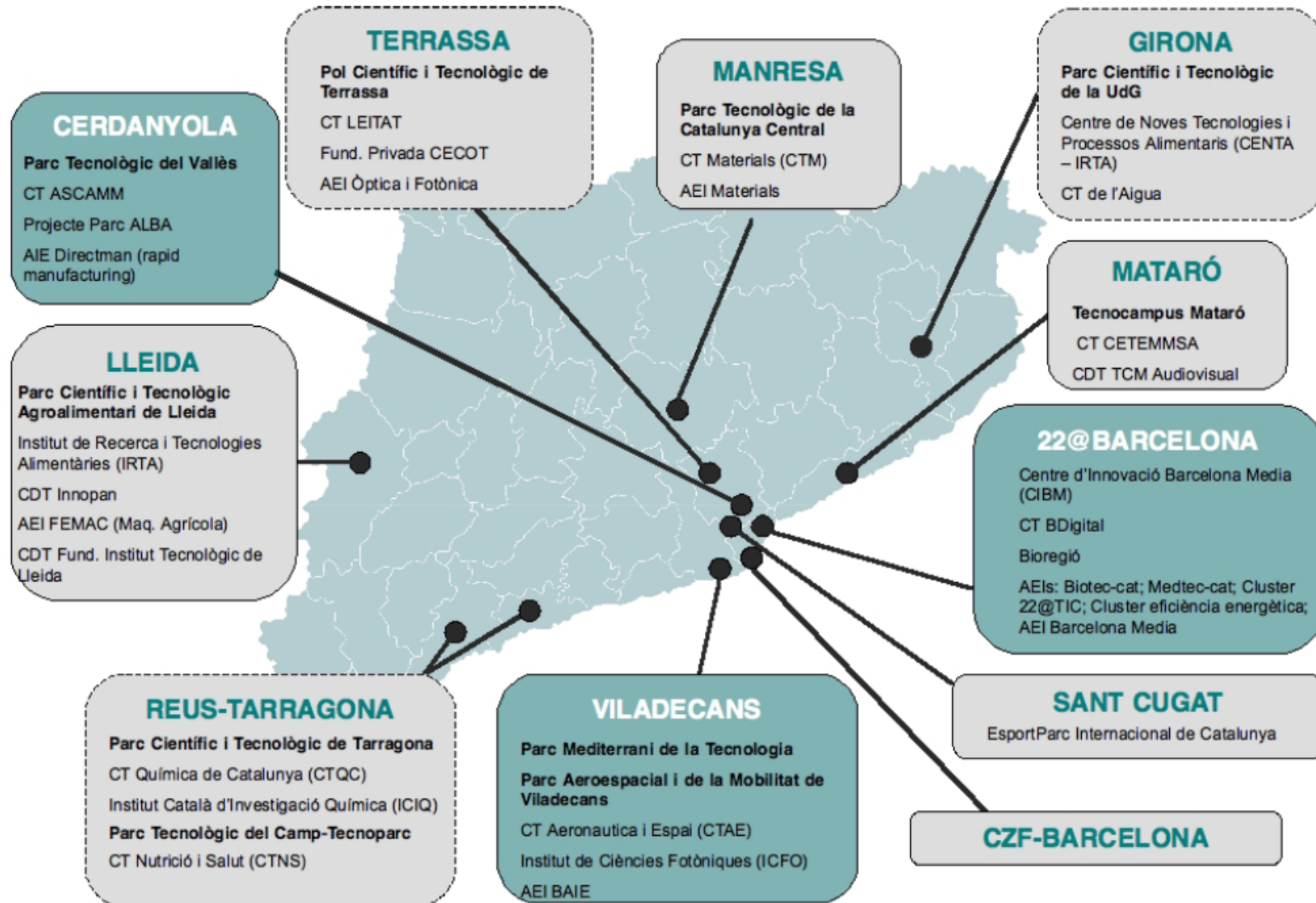
Insufficient and fragmented technology system

Catalan Technological network (TECNIO)



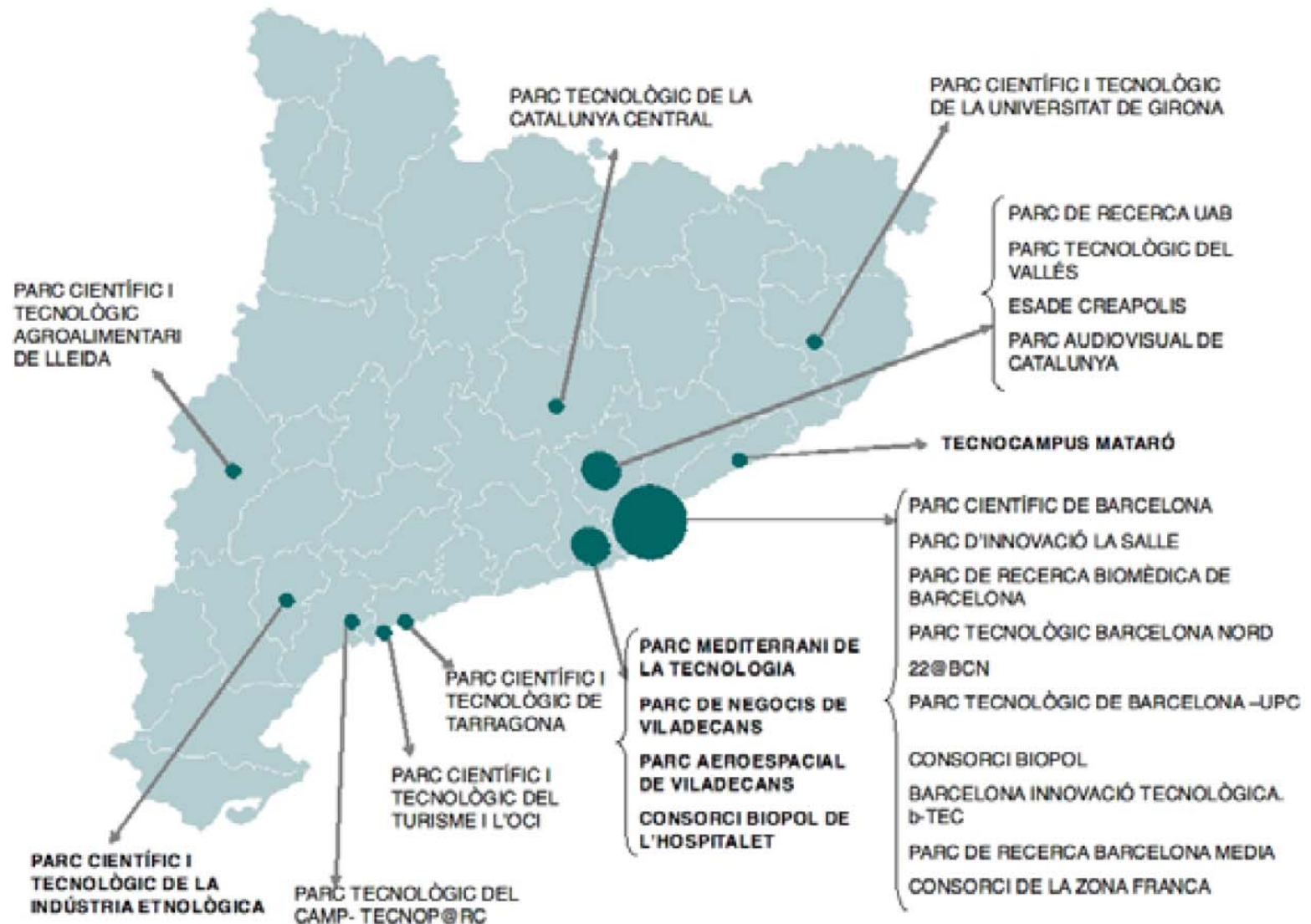
Insufficient and fragmented technology system

Technological Innovation Areas



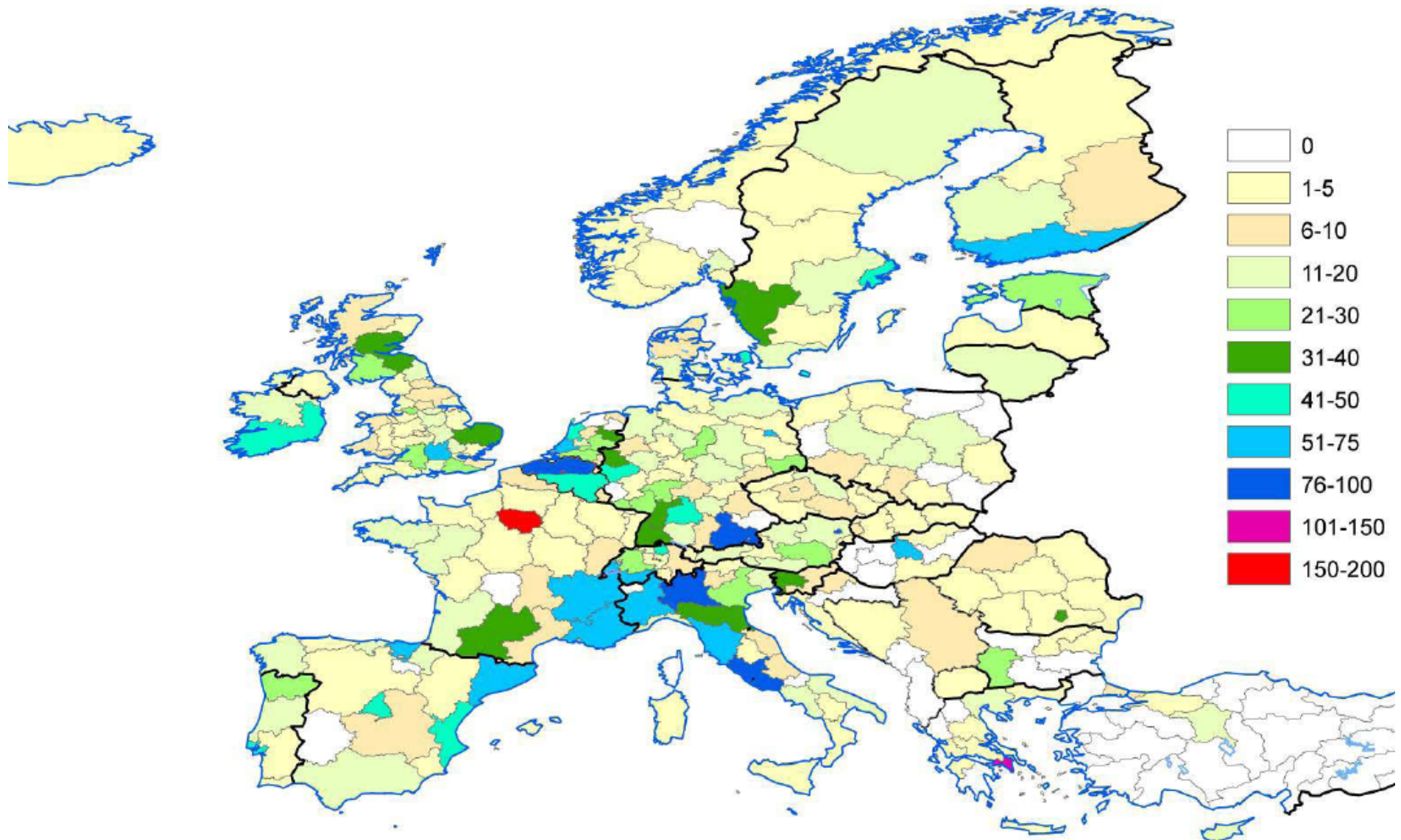
Insufficient and fragmented technology system

Science and Technology Parks



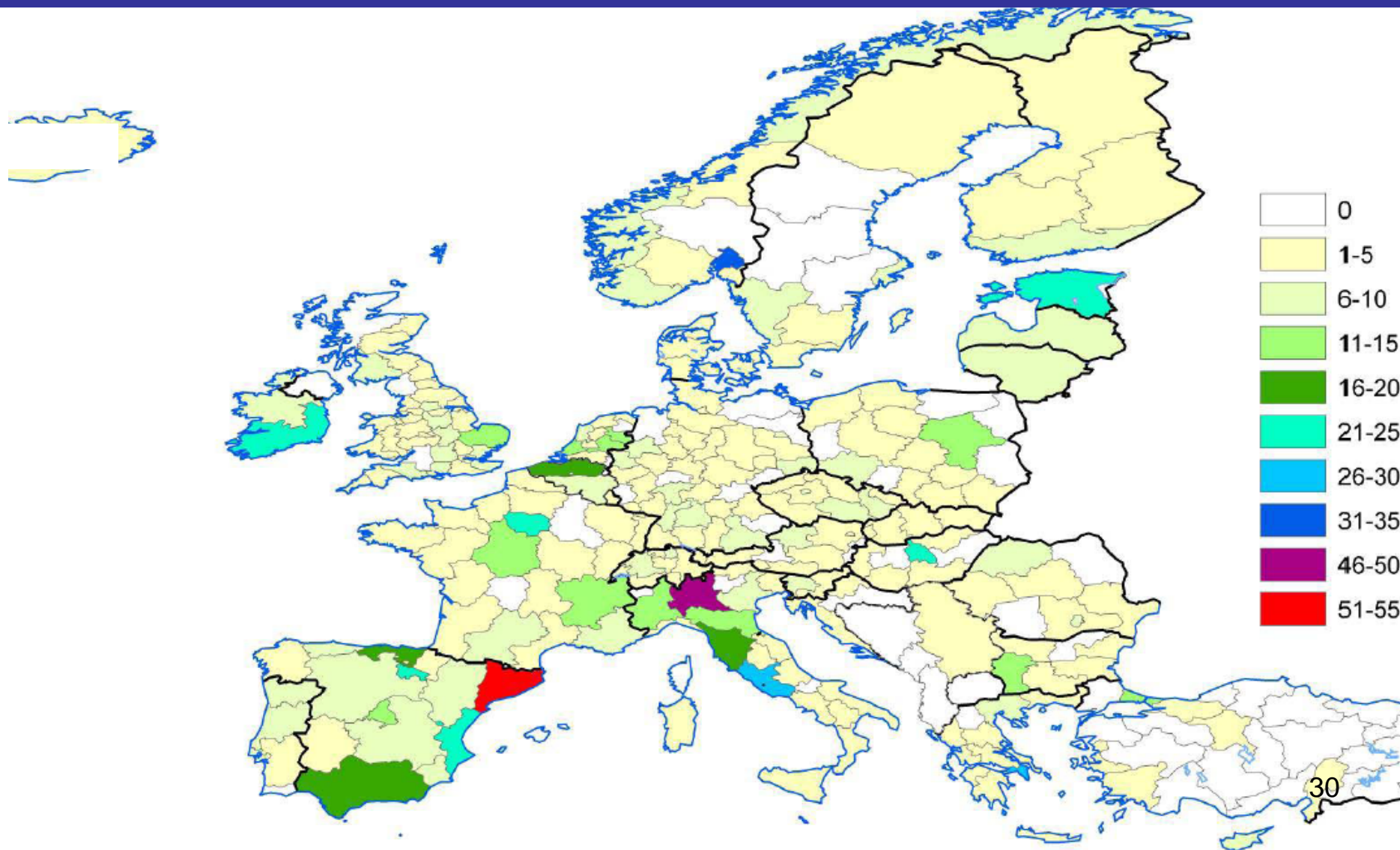
COOPERATION PROGRAMME – FP7

SME BENEFICIARIES IN SIGNED CONTRACTS –MARCH 2010



CAPACITIES PROGRAMMES – FP7

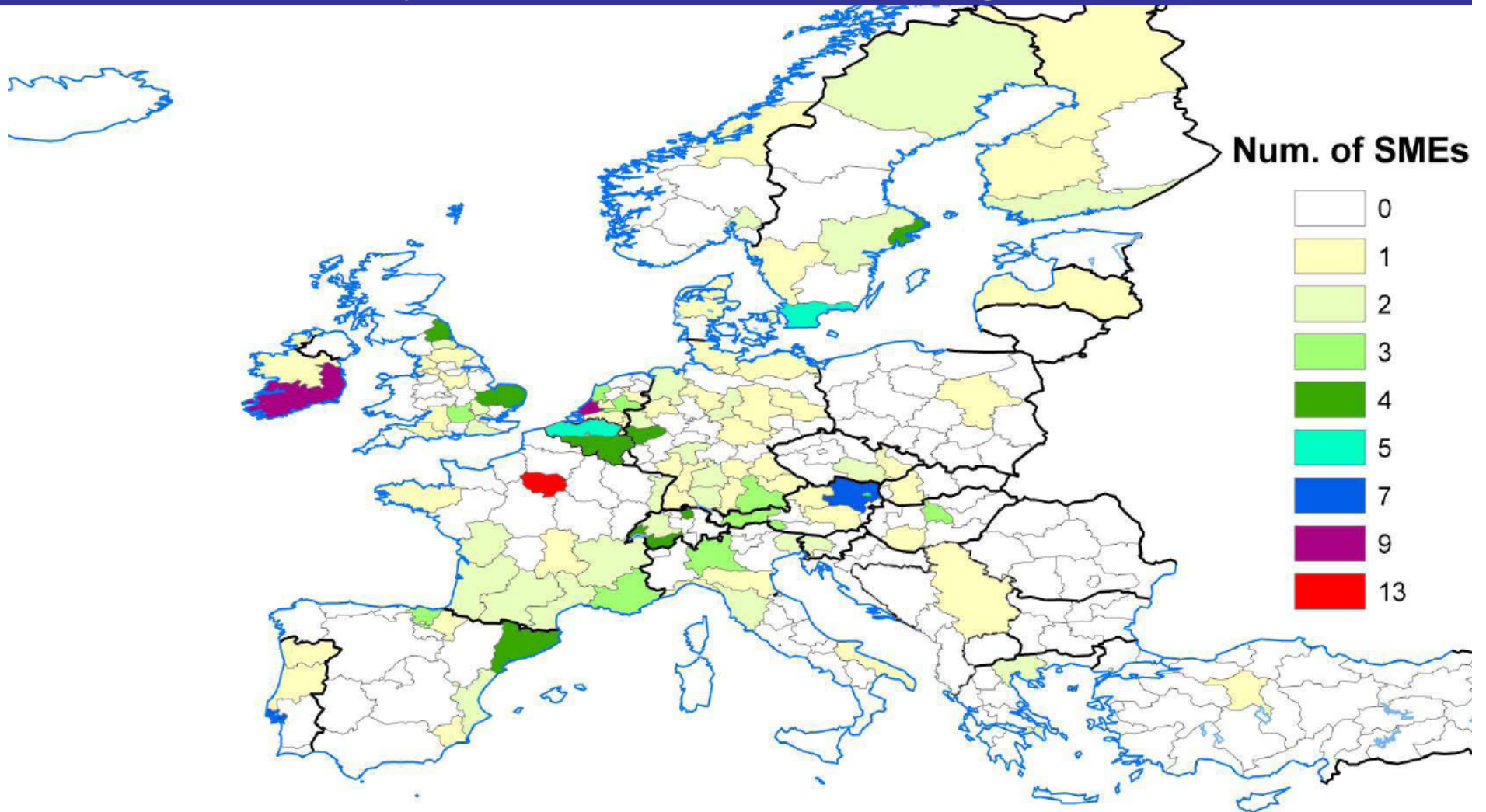
SME BENEFICIARIES IN SIGNED CONTRACTS – MARCH 2010



PEOPLE PROGRAMME – FP7

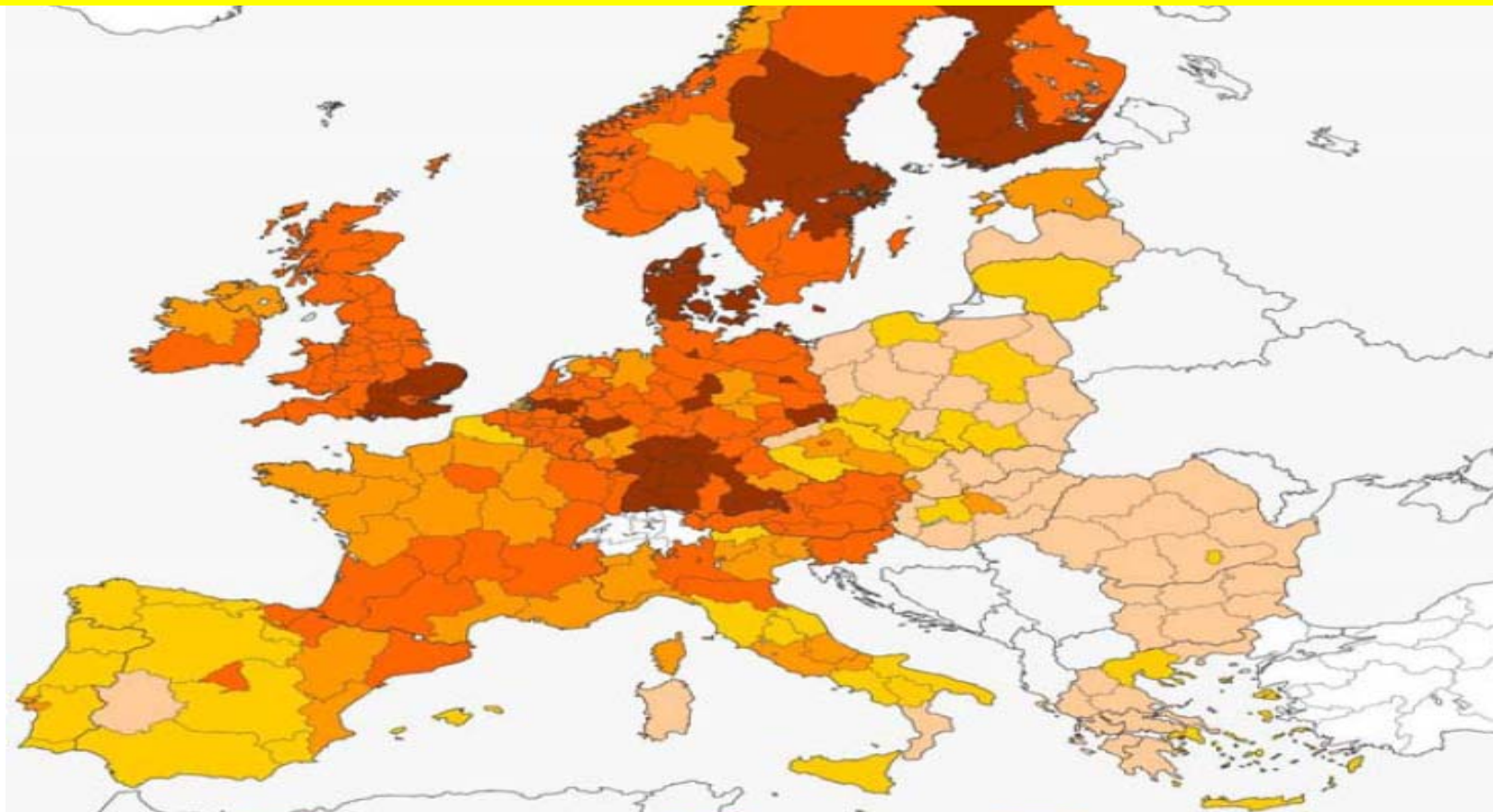
SME BENEFICIARIES IN SIGNED CONTRATS – MARCH 2010

Marie Curie Industry Academia Partnerships and Pathways and Marie Curie Initial Training Networks

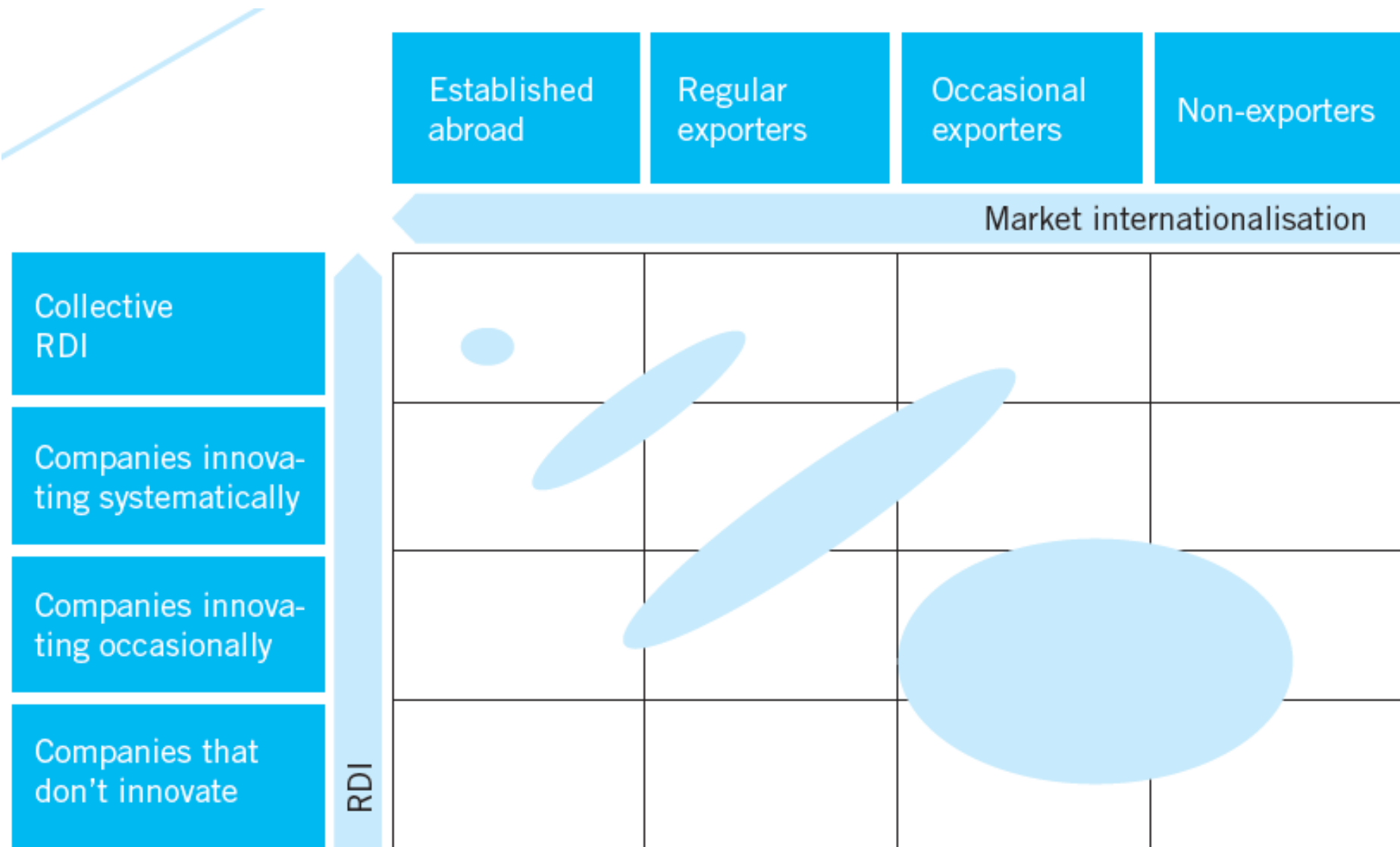


▶ Catalonia has good overall innovation performance with available indicators but far from leaders (*take care of region comparisons because socioeconomic and demographic differences!*)

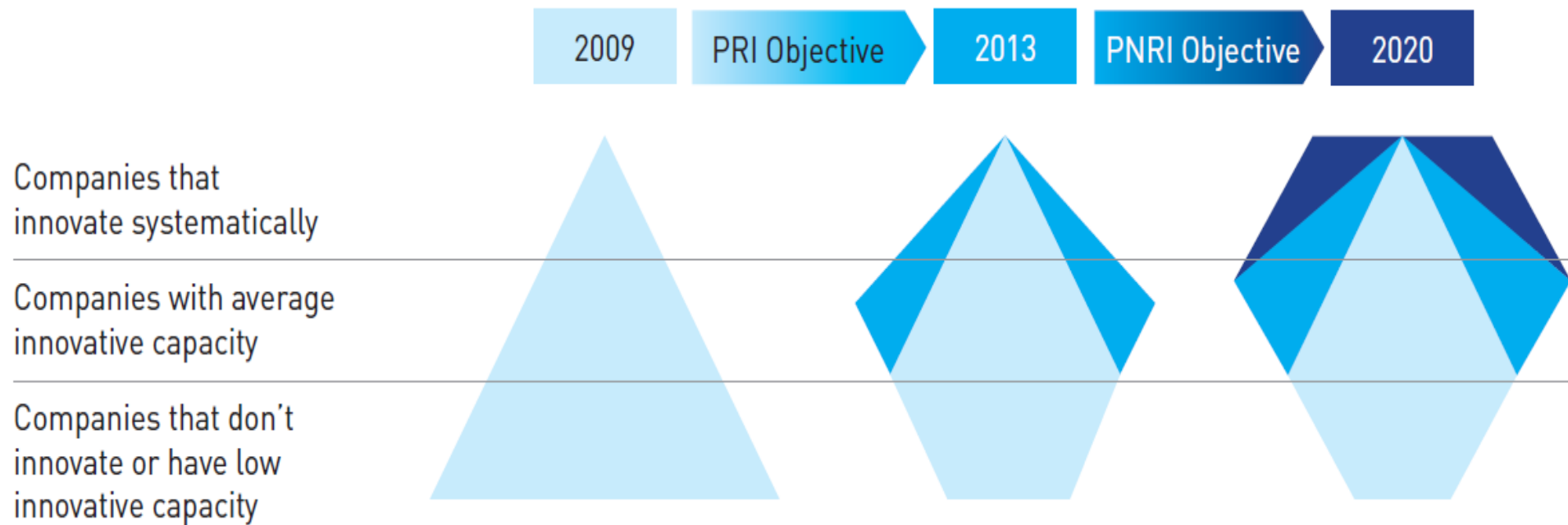
Regional Innovation Scoreboard (RIS) 2009



3. Companies that systematically innovate and are internationalised



3. Companies that systematically innovate and are internationalised



3. Companies that systematically innovate and are internationalised

Enterprise

- ▶ *Able to innovate*
- ▶ *Technological and non-technological innovation*
- ▶ *Entry to new markets*
- ▶ *New knowledge-intensive companies*
- ▶ *Attraction and retention of RDI activities*

4. Innovative public sector



4. Innovative public sector

Public sector

- ▶ *Innovation in public services*
- ▶ *Innovative Government*
- ▶ *Public procurement*
- ▶ *Regulation*



EUROPEAN COMMISSION

Brussels, 6.10.2010
COM(2010) 546 final

COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN
PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL
COMMITTEE AND THE COMMITTEE OF THE REGIONS

Europe 2020 Flagship Initiative Innovation Union

9. **Our strengths in design and creativity must be better exploited. We must champion social innovation. We must develop a better understanding of public sector innovation, identify and give visibility to successful initiatives, and benchmark progress.**

innogencat

Innovació a l'Administració de la Generalitat

**Innogencat is the overall innovation
strategy for the Generalitat**

Administration and its public sector

2010

Identifying, understanding and giving visibility

**Generalitat
Administration and its
public sector already
innovate**



- What's innovation in the public sector
- **25 Innovative initiatives**
- Lessons learned

2010

Identifying, understanding and giving visibility

El Calaix d'experiències de l'ICS, una finestra a la innovació

El Calaix d'experiències és un nou espai virtual per compartir i conèixer els millors projectes i les iniciatives més innovadores desenvolupades pels professionals en els centres i serveis de l'Institut Català de la Salut (ICS). El Calaix neix amb l'objectiu de ser una eina viva a l'abast de tots els professionals de l'ICS i les empreses col·laboradores, on es poden

consultar totes aquelles experiències innovadores que s'estan portant a terme arreu del territori.

Aquest instrument permet a l'autor d'un projecte abocar-hi contínuament les novetats i els resultats que es vagin coneixent de forma progressiva. Fins al moment, els professionals de l'ICS han introduït més de 400 experiències relacionades amb projectes de terciarisme, atenció a l'usuari, relació entre diferents nivells assistencials o noves propostes encarades a millorar el servei a la ciutadania.

Espais d'aprenentatge i d'intercanvi de coneixement, com aquest Calaix de l'ICS, afavoreixen el sentit de pertinença a una organització. Els professionals disposen d'un lloc virtual on interactuar amb d'altres companys i, fins i tot, aportar noves solucions a temes concrets.

Per escollir les millors experiències, hi ha un grup gestor de l'eina en el qual participen tècnics experts de salut i metodologia científica.



2011

Analysing, Modelling, Road-mapping

**Generalitat
Administration looking
for a systematic
innovation approach**



- Pre-conditions for innovation
- New innovation approaches
- Generalitat innovation model
- **Looking foward**



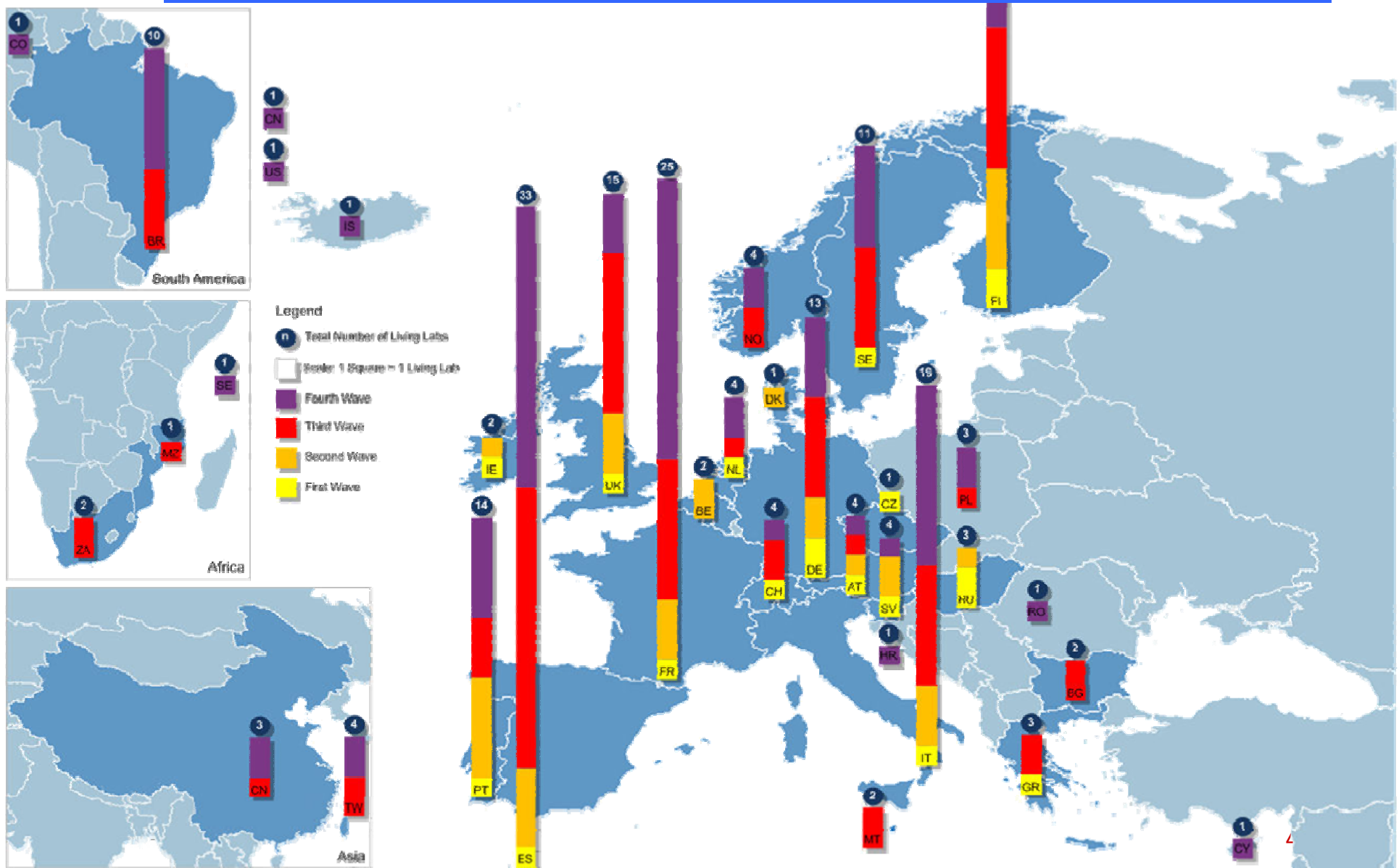
5. **Society** and citizens involved in scientific and innovative progress



5. **Society** and citizens involved in scientific and innovative progress



living labs: user centered innovation







6. Internationalisation and knowledge and innovation communities

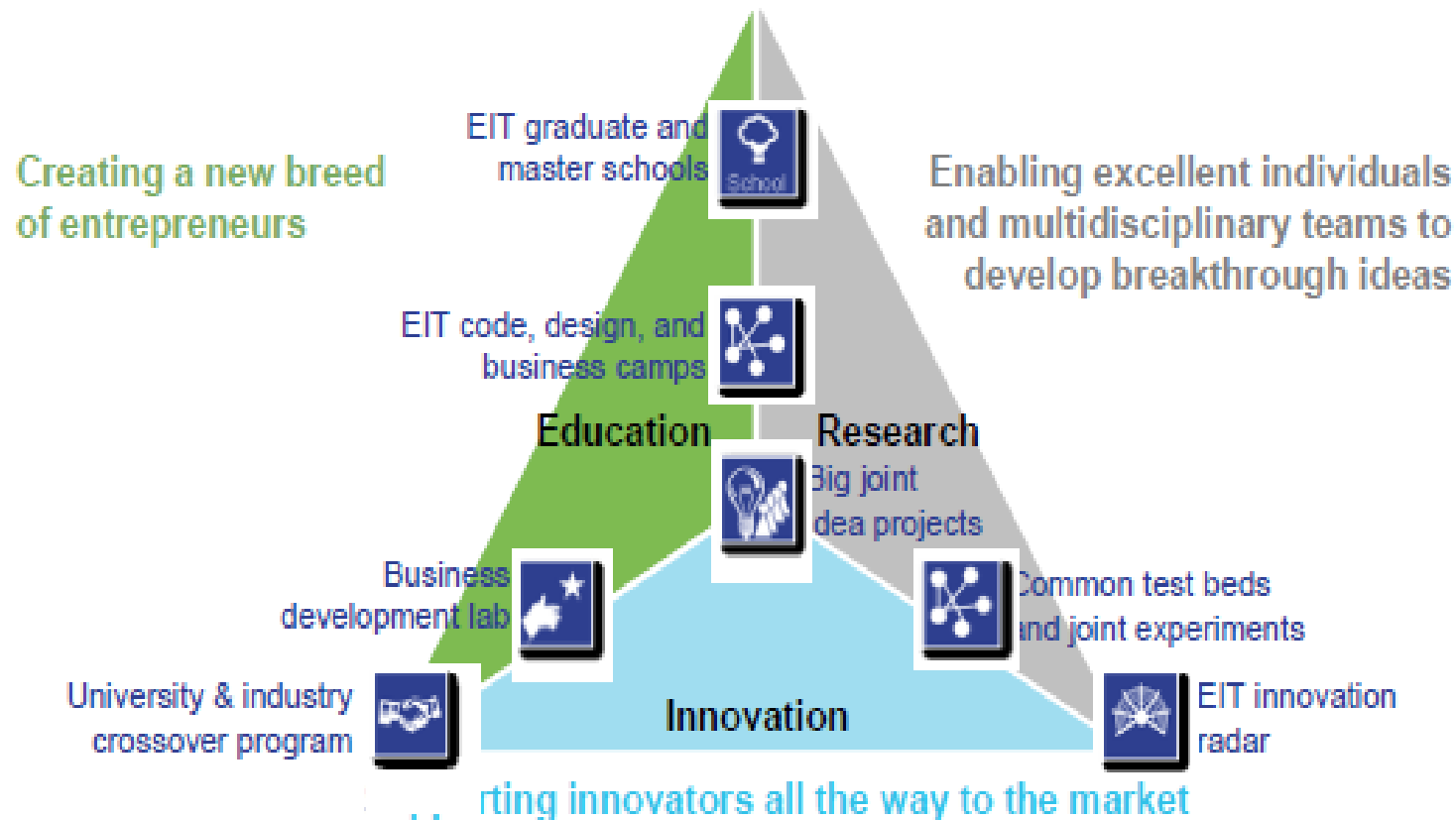


6. Internationalisation and knowledge and innovation communities



- ▶ *Beyond clusters:
Strong Partnerships for co-creation and co-innovation*

EIT ICT Labs Knowledge Triangle



Beyond clusters:

Strong Partnerships for co-creation and co-innovation

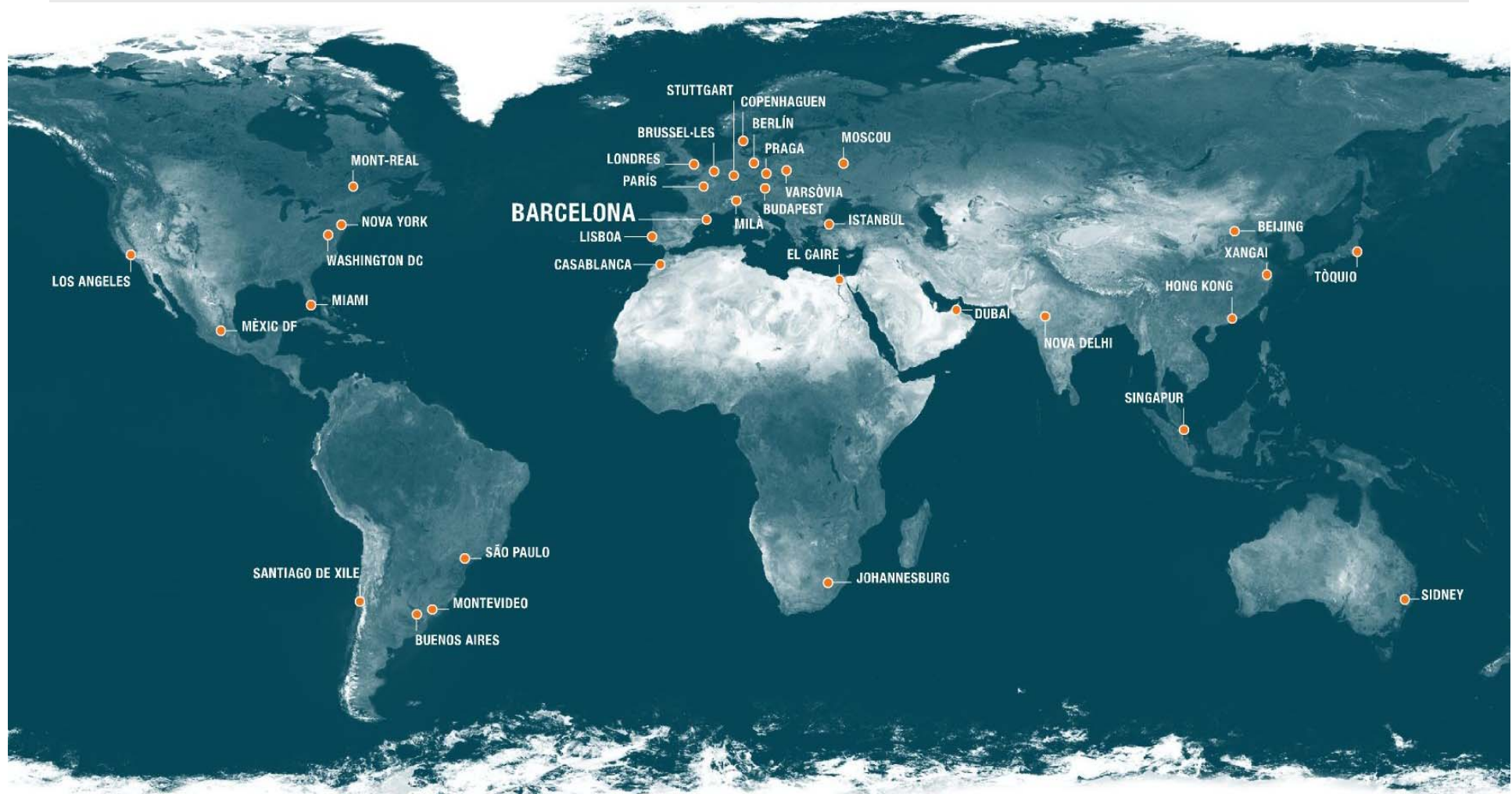
KIC InnoEnergy – A world class alliance of top European players with a proven track record



- 13 companies, 10 research institutes, 13 universities
- ~50% industry partners (incl. associated partners)
- >50% of key research players in Europe
- Covering the whole energy mix
- Knowledge triangle balanced along all dimensions
- Strong connection with VCs and local governments

► *Value chain networked to the world:
Talent-RDI-innovation-trade*

Innovation and Internationalisation Network (ACC10)



8. Focusing RDI on **challenges**



8. Focusing RDI on **challenges**

A close-up photograph of a hand holding a pen, poised to write on a document. The document features technical drawings, including a ruler and various markings. The word "Challenges" is overlaid in large white text on the left side of the image. On the right side, there is a list of focus areas for RDI.

Challenges

17 focus areas for RDI

- ▶ *Environmental challenges*
- ▶ *Challenges for people and society*
- ▶ *Scientific, productive and organisational challenges*

Environmental challenges

- ▶ Mitigation and adaptation to climate change
- ▶ Energy efficiency and decentralised renewable energy
- ▶ Water management and planning for sustainable use
- ▶ Effective flows of people and goods (sustainable mobility) and of information
- ▶ Buildings, cities and regions for living and generating value

Challenges for people and society

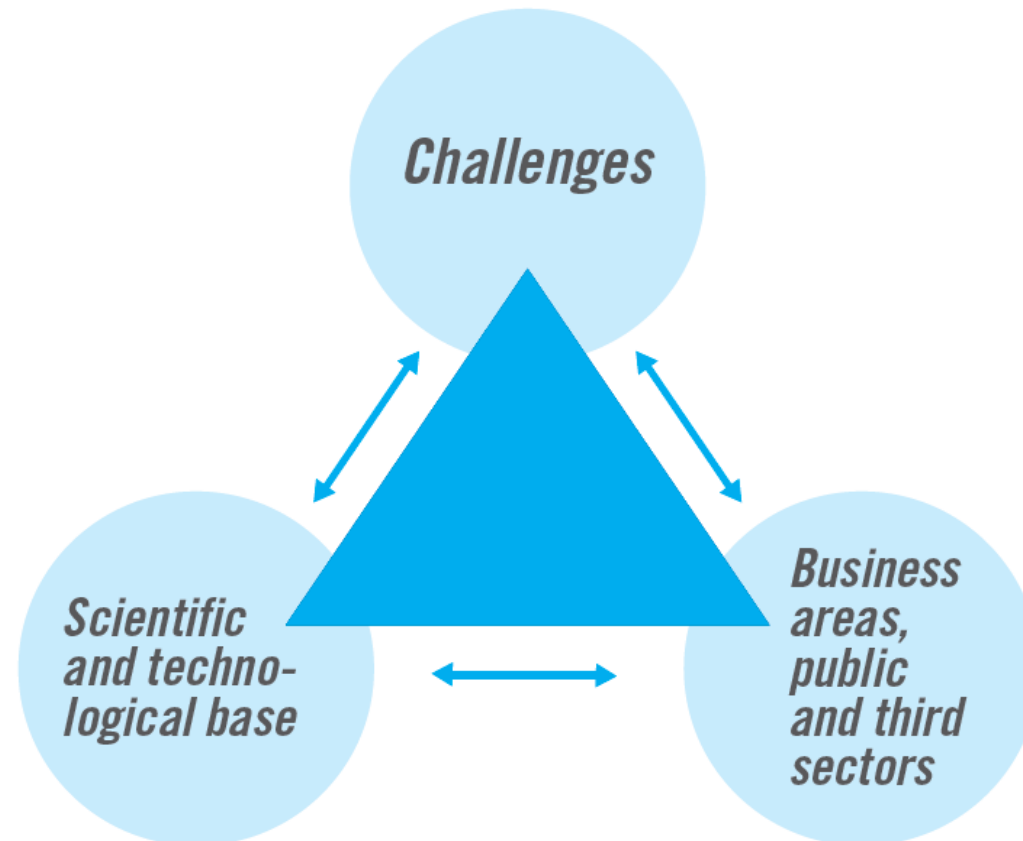
- ▶ Quality, healthy and pleasurable food
- ▶ Prevention and health care
- ▶ Lifelong learning and distance learning
- ▶ Artistic creations and cultural products and services of excellence that are broadly disseminated
- ▶ Products and services linked to tourism, leisure and emotional consumption
- ▶ Social cohesion and management of social complexity to generate opportunities
- ▶ New services society with innovative consumer and business service products and e-services
- ▶ Security of people, goods, information and the territory

Scientific, productive and organisational challenges

- ▶ Frontier research and scientific research and technology of excellence
- ▶ Development of materials, production systems and eco-products with innovative designs
- ▶ Non-technological innovation, transformation of organisations and new working methods.
- ▶ Improvement of governance, socioeconomic and political mechanisms



Focusing RDI on challenges





Focusing RDI on challenges

Focus development

- ▶ *Involvement of all Catalan ministries*
- ▶ *Knowledge and innovation communities*
- ▶ *Orientation of PRI policies to challenges*
- ▶ *Inter-ministerial FOCUS fund*



9. Environments and **regions** with the ability to incorporate knowledge and innovation



9. Environments and **regions** with the ability to incorporate knowledge and innovation

ENSURE THAT ALL THE REGIONS OF CATALONIA ARE ABLE TO DEVELOP THE SKILLS NEEDED TO TAKE ADVANTAGE OF KNOWLEDGE AND INNOVATION AS DRIVERS OF PROGRESS AND WELLBEING, BASED ON THEIR OWN CIRCUMSTANCES AND POTENTIAL.



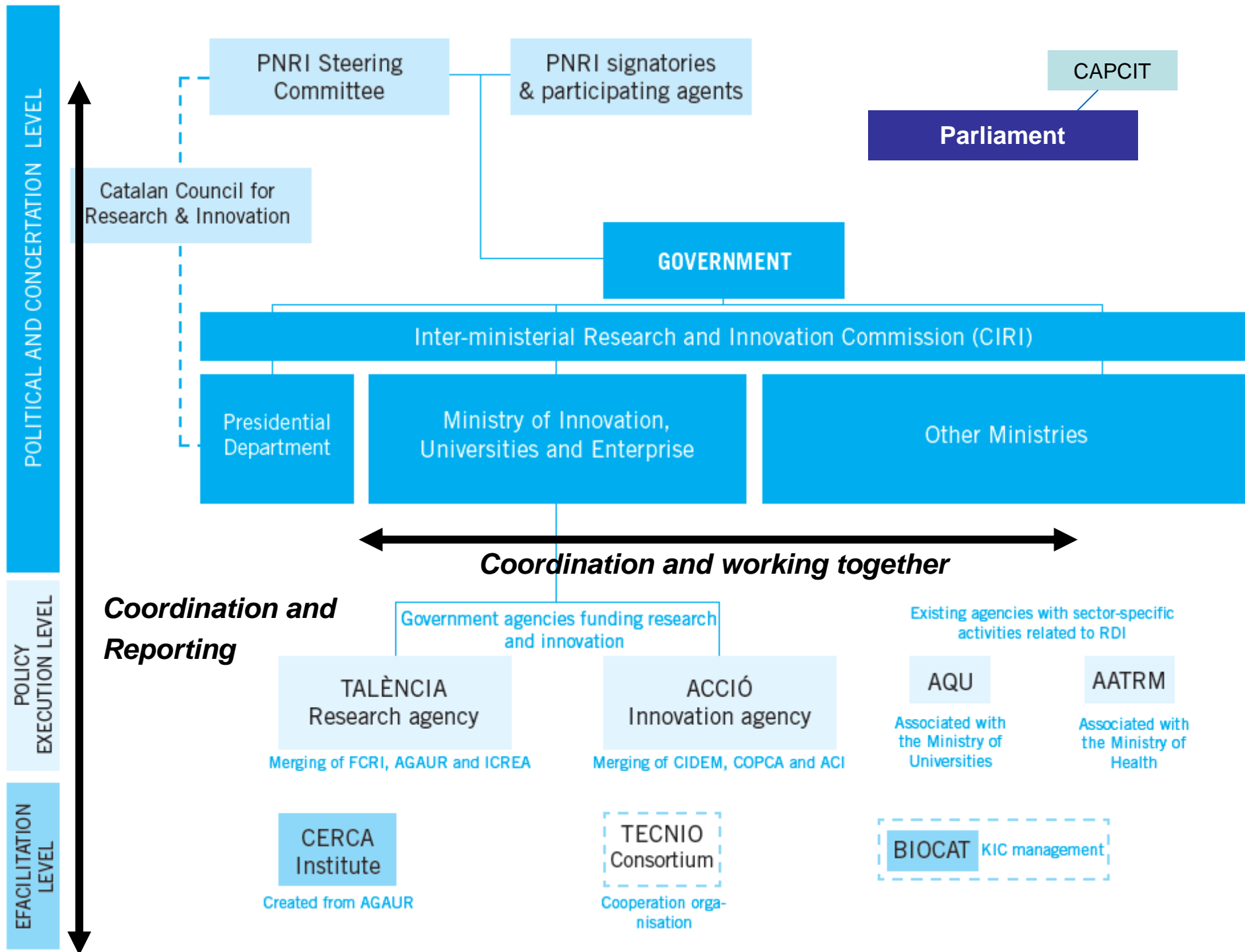


7. Improving the **governance** of the RDI system

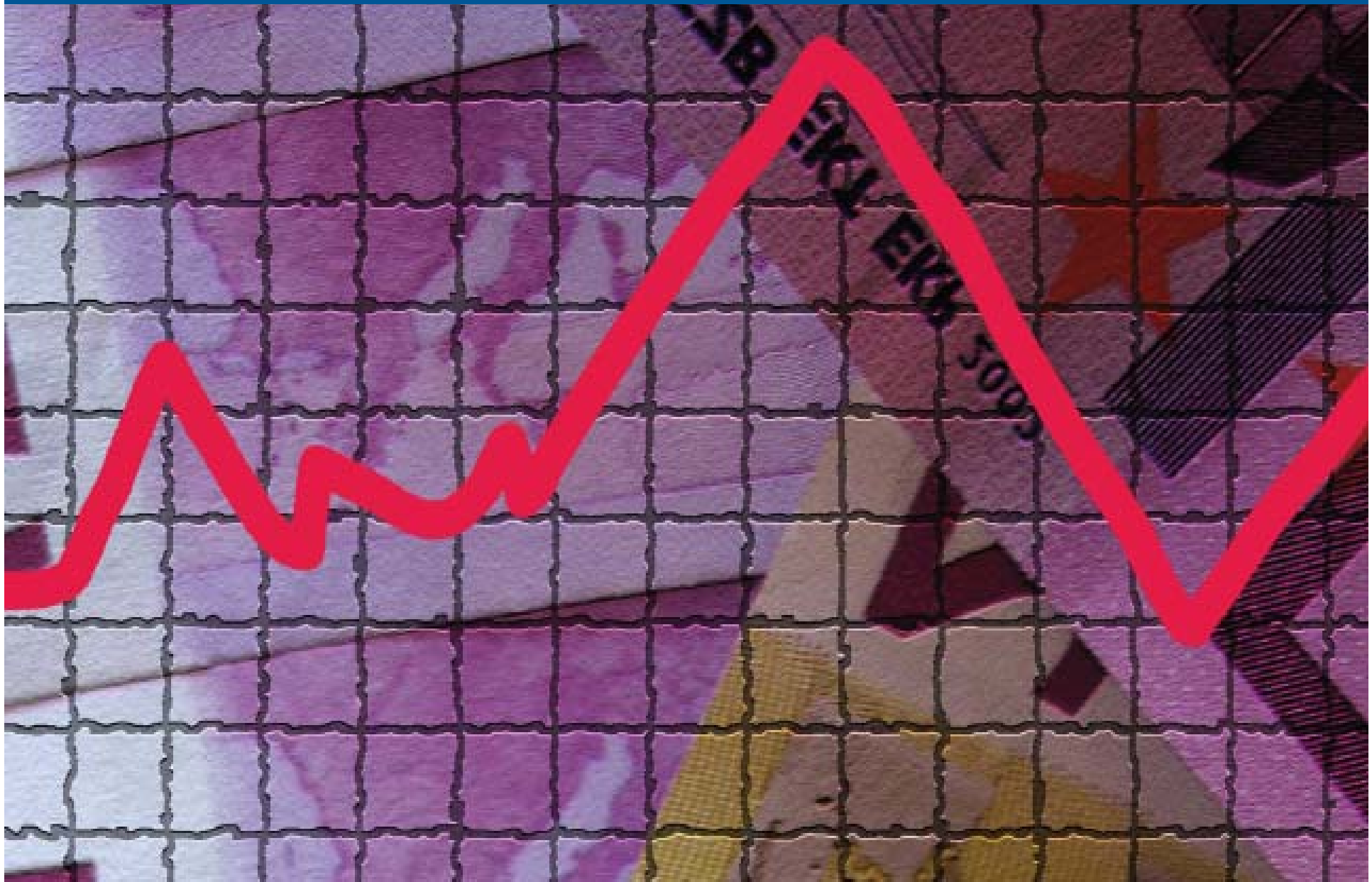


7. Improving the **governance** of the RDI system

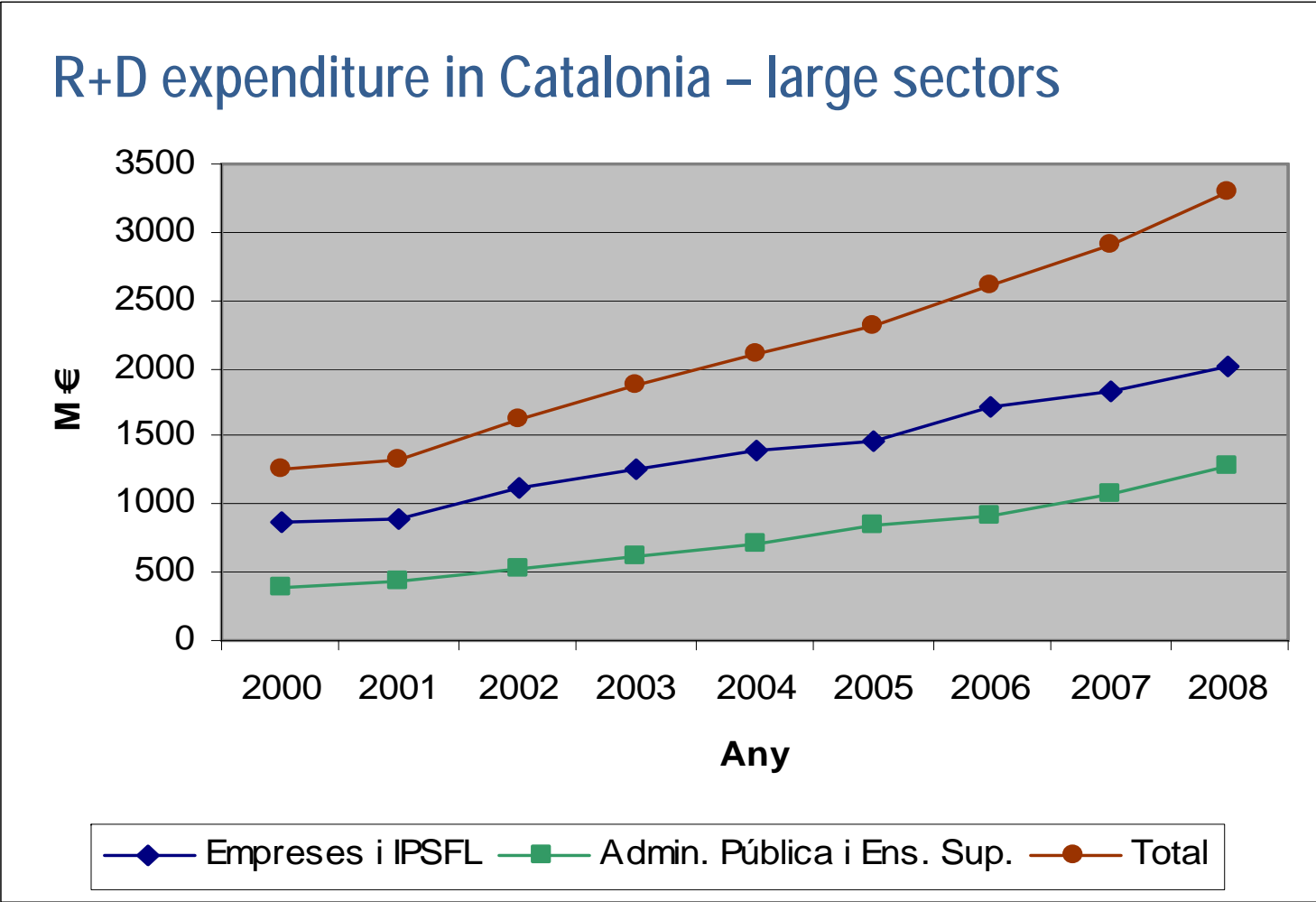




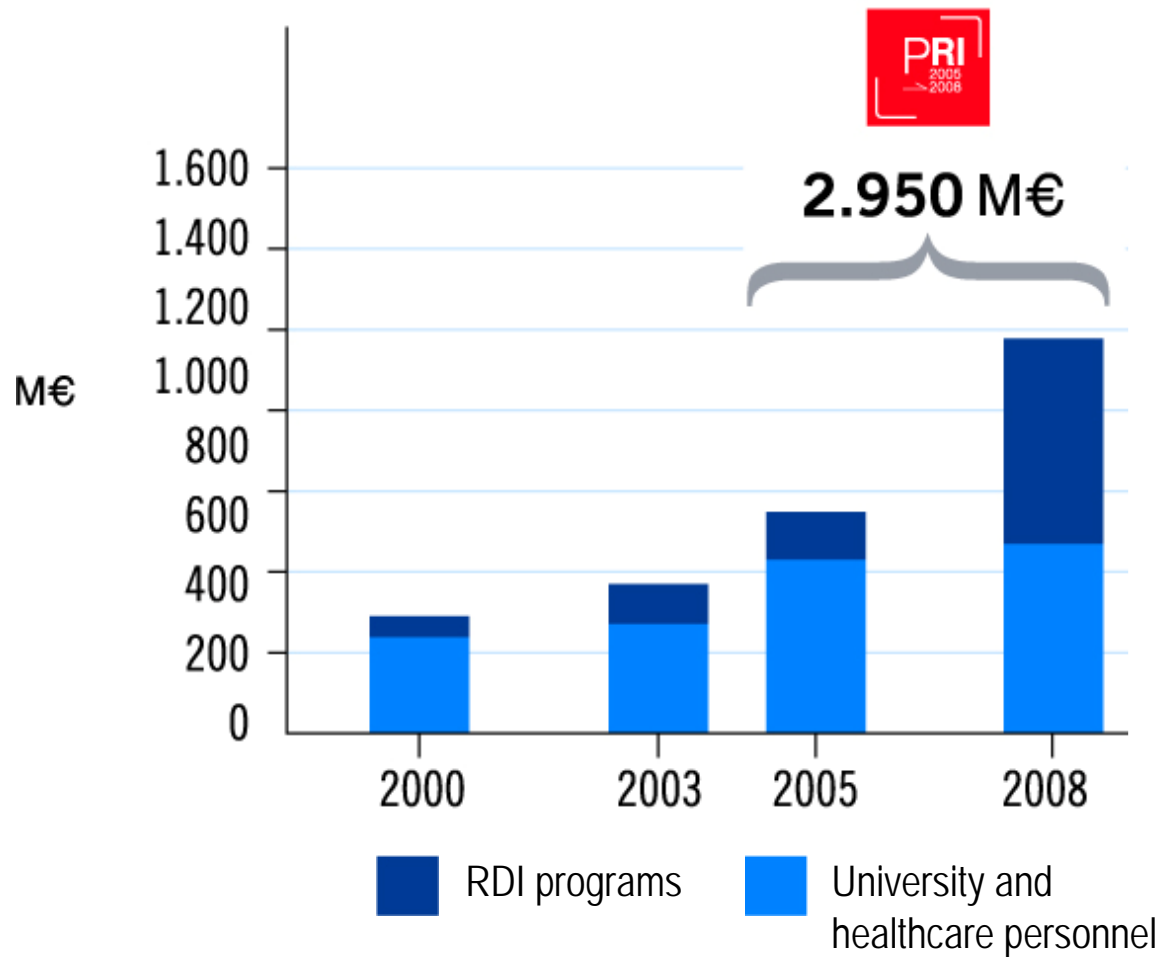
10. Mobilising more **resources** for RDI more efficiently



Relevant increase in RD expenditure in all sectors



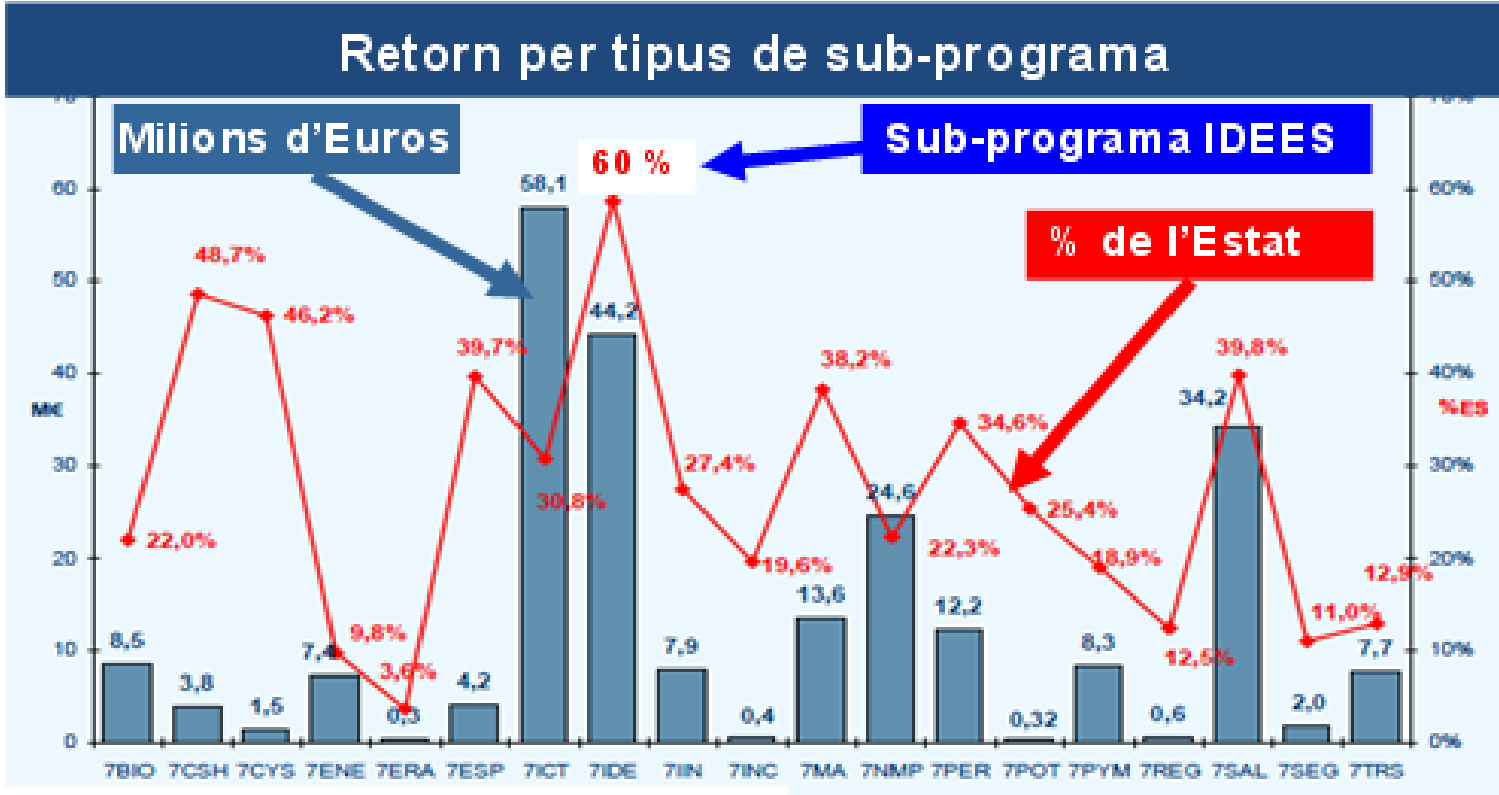
▶ Huge increase in Catalan Government RD expenditure



► Also relevant EU competitive funding attraction

Catalonia in 7th Framework Programme

► 102 M€ in 2008



EDFR (FEDER)

OBJ. 2 - AXIS 1. Knowledge economy, innovation and business development

Construction and equipment for research, development and innovation

Some of the main projects are:

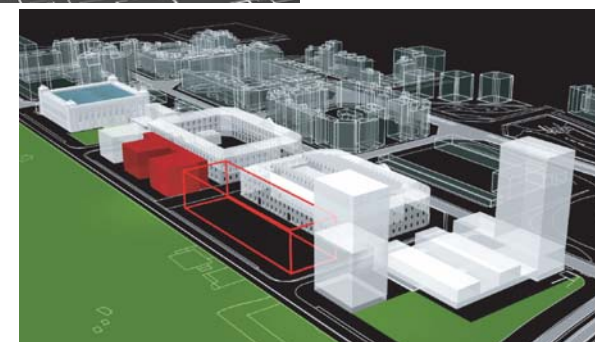
- Construction of the CICRIT (Center of Scientific Infrastructures for the Research and the Technological Innovation) in Barcelona
- Construction and equipment of the IREC's (Catalonia Institut for Energy Research) head offices in Barcelona and Tarragona
- ICARIA's project (Campus of International Excellence): research park of the UPF in social science and humanities
- ICIQ's (Institute of Chemical Research) new building
- ICFO's (Photonic Institute) new scientific equipment



CICRIT



IREC



ICARIA

Sources: Catalan Ministry of Economy and Finances, IREC, CICRIT and ICARIA'S Project.

▶ EDFR (FEDER)

OBJ. 2 - AXIS 1. Knowledge economy, innovation and business development

▶ *Bussines innovation*

- In the frame of a global subsidy of 50 M€, the following lines will be developed:
 - ✓ Technology transfer: support to structures of promotion, valorization and commercialization of technologies
 - ✓ Business development: generation of new technological companies from mature companies, (spin-out). New business opportunities for mature SME.
 - ✓ Industrial R&D: support and consolidation of public - private consortia for corporative R&D.

▶ *JEREMIE initiative (50 MEUR eligible expenditure)*

- The funds are distributed among financial institutions selected by public concurrence, in four lines of action: Guarantees, Microcredits, Risk capital end Co-investment.

10. Mobilising more **resources** for RDI more efficiently



Resources

- ▶ *Government expenditure*
- ▶ *Spanish government expenditure*
- ▶ *EU and other regions*
- ▶ *Private resources*

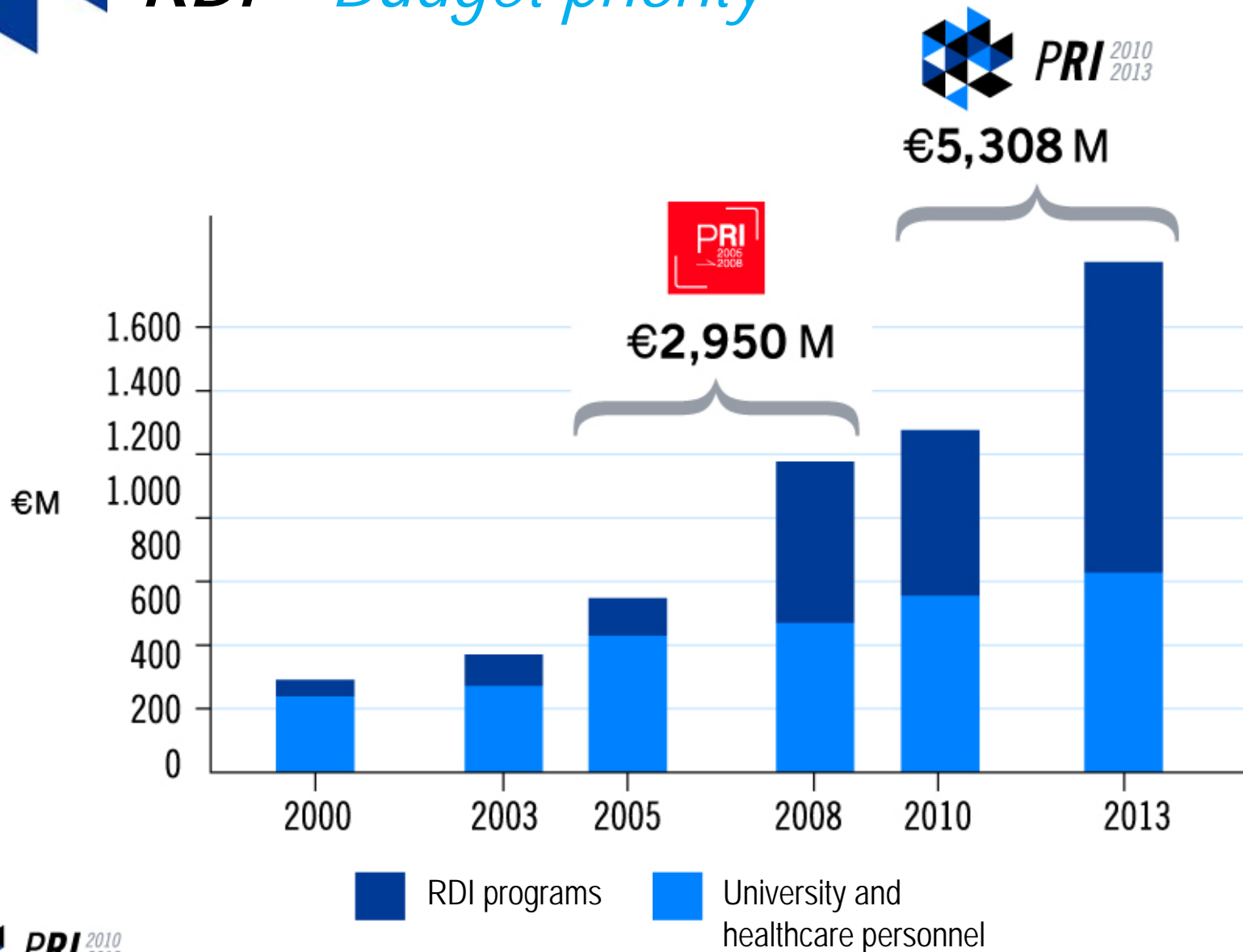
10. Mobilising more **resources** for RDI more efficiently

RDI is a clear priority, sure ?

So, let's go

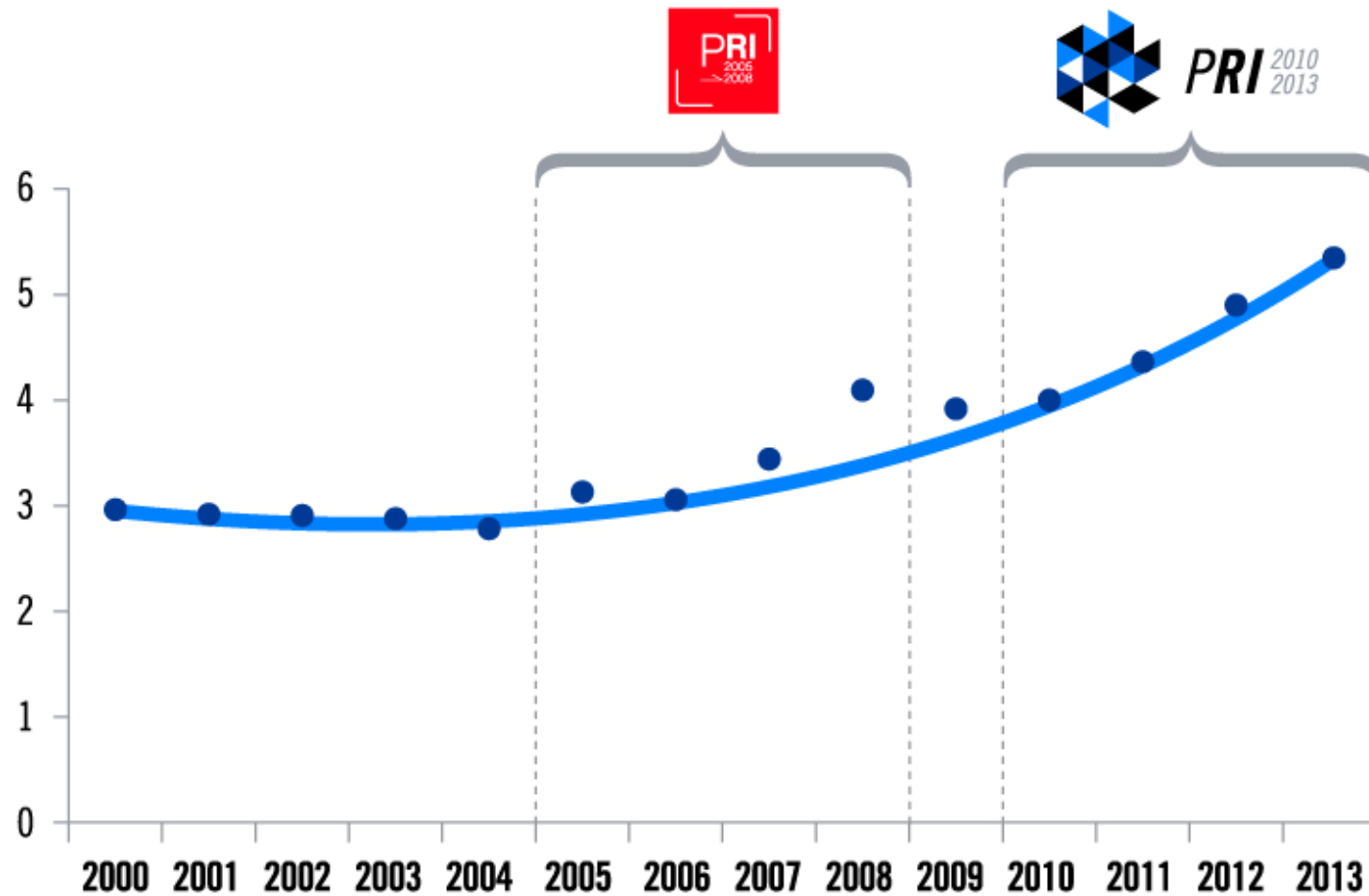


RDI – Budget priority





RDI – Budget priority



Financial programming of the 2010-2013 PRI

EXPENDITURES	YEAR				2010-2013
	2010	2011	2012	2013	

Figures in millions of euros

Block-1					
University research personnel research	310	322	342	362	1.336
Healthcare research personnel	190	197	205	214	806
University research investments	15	16	16	20	67
Subtotal	515	535	563	596	2.209

Block-2 - PRI strategic objectives					
Scientific, innovative and entrepreneurial talent	58	65	72	80	275
Public research system, connected to value creation	206	221	267	353	1.047
Transfer, innovation and internationalization in BES	272	288	343	384	1.287
Innovative public sector	5	7	12	15	39
Innovative citizens and society	5	6	9	10	30
Internationalisation and local and global communities	5	7	10	20	42
Improving the governance of the RDI system	2	3	4	5	14
Focusing RDI on challenges (including inter-ministerial focus fund)	2	60	95	135	292
Regional innovation strategy	7	9	22	35	73
Subtotal	562	666	834	1.037	3.099

TOTAL	1.077	1.201	1.397	1.633	5.308
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**These policies are here to stay at the
first level of the political agenda**



Generalitat de Catalunya

Catalan Agreement
on Research and Innovation

OCTOBER 2008



Generalitat de Catalunya

Catalan Agreement
on Research and Innovation



OCTOBER 2008



Generalitat de Catalunya

Catalan Agreement
on Research and Innovation

A LONG TERM COMMITMENT AND A SHARED AGENDA

GOVERNMENT

POLITICAL PARTIES

UNIVERSITIES

ENTERPRISE ASSOCIATIONS

TRADE UNIONS

CATALONIA 2020

A GLOBAL LEADER IN SCIENCE, TECHNOLOGY AND INNOVATION



**Generalitat
de Catalunya**

Catalan Agreement
on Research and Innovation

Follow-up report - 2010

Catalan Council for Research and Innovation

14th October 2010

Avenços rellevants

- **El PRI 2010-2013 integra els compromisos del PNRI de l'Administració de la Generalitat** que ara cal executar
- **Governança del sistema d'R+D+I:** millors instruments per a la presa de decisions i implementació de polítiques, tot i que convé avançar en el model PNRI
- **Focalització de l'R+D+I a reptes:** un canvi significatiu que serveix per fer confluïr els agents cap a nínxols de valor diferencial on Catalunya té capacitats/necessitats
- **Agenda renovada d'R+D+I en línia amb les noves estratègies de la UE:**
 - Educació i formació per a la creativitat i la innovació
 - Innovació no-tecnològica
 - Sector públic motor d'innovació
 - Aproximació territorial als sistemes d'innovació...
- **Altres avenços significatius en els compromisos vinculats a:**
 - Captació i retenció talent científic
 - Centres de recerca catalans i instituts recerca sanitària
 - Enfortiment xarxa de transferència de tecnologia
 - Internacionalització sistema R+D+I i socialització de la ciència i la tecnologia,...

Avenços insuficients

- Implantació, en tots els nivells educatius, de metodologies sistemàtiques per **afavorir la creativitat, la innovació i potenciar la iniciativa emprenedora**.
- Dèficits en el nombre de **personal tècnic i postdoctoral** a les universitats, així com a la qualitat de la direcció i gestió dels RRHH dedicats a la recerca.
- Foment de la incorporació de **talent investigador i innovador a les empreses**, especialment a les PIME.
- Insuficient **valorització** dels resultats de la **recerca pública**.
- Persistent **fragmentació** estructural i funcional del **sistema d'R+D+I** català públic, i public-privat.
- Insuficient desenvolupament de les **infraestructures** científiques i tecnològiques i necessitat d'optimització del seva explotació.
- No han avançat suficientment, atesa la relativa novetat en l'agenda d'R+D+I a Catalunya: foment de la **innovació no-tecnològica, compra pública tractora d'innovació i sistemes territorials d'innovació**.

Recursos econòmics per a l'R+D+I

- Recursos per a l'R+D+I a la **UE**: **increment significatiu captació competitiva**, clau reforçar aquesta via de finançament en els propers anys.
- Recursos per a l'R+D+I a **Estat**: perill per la **reducció dels fons**, insuficients recursos addicional 3^a a infraestructures científiques i tecnològiques.
- Recursos per a l'R+D+I a **Catalunya**: necessitat de desenvolupar un marc estratègic i pluriennal per al finançament públic de l'R+D+I que permeti complir les previsions del **Pla de Recerca i Innovació 2010-2013**.
- Desenvolupament de mecanismes i instruments innovadors de **cooperació publicoprivada** per al finançament de l'R+D+I.

Look to Europe



EUROPEAN COMMISSION

Brussels, 6.10.2010
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COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN
PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL
COMMITTEE AND THE COMMITTEE OF THE REGIONS

Europe 2020 Flagship Initiative

Europe 2020 Flagship Initiative Innovation Union

Europe 2020 Flagship Initiative Innovation Union

European Innovation Partnerships

8. **European Innovation Partnerships should be launched to accelerate research, development and market deployment of innovations to tackle major societal challenges, pool expertise and resources and boost the competitiveness of EU industry, starting with the area of healthy ageing.**

Aims and scope of a pilot European Innovation Partnership in the field of active and healthy ageing

The aims of the innovation partnership are, by 2020, to enable our citizens to live longer independently in good health by increasing the average number of healthy life years by 2, and, in achieving this target, to improve the sustainability and efficiency of our social and healthcare systems, and to create an EU and global market for innovative products and services with new opportunities for EU business.

In summary

- ▶ *Long term Catalan commitment in RDI*
- ▶ *Broad RDI approach with emerging targets*
(non-technological innovation, innovation in public sector)
- ▶ *RDI focus on challenges and territorial approach*
- ▶ *RDI as an overarching policy in catalan government*
- ▶ *RDI policy aligned with European Innovation Strategy*
- ▶ *Improving RDI performance with persistent weaknesses*



Gràcies per la vostra atenció !

Thank you very much for your attention !

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Director General

**Coordination Office for Research and Innovation
Ministry of Innovation, Universities and Enterprise**



Generalitat de Catalunya
Government of Catalonia