



No circular más allá del GT-Innov sin
autorización previa de los autores

PROYECTO HOJA DE RUTA HACIA UNA MAYOR COLABORACIÓN UNIVERSIDAD, INVESTIGACIÓN Y EMPRESA EN ESPAÑA:

Conclusiones fase diagnosis y próximos pasos hacia la hoja de ruta

Reunión Grupo Trabajo Innovación – Red IDI
9 Julio 2021

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Funded by the European Union
via the Structural Reform Support
Programme and implemented
by the OECD, in cooperation
with the European Commission



The project in a nutshell



Objectives :

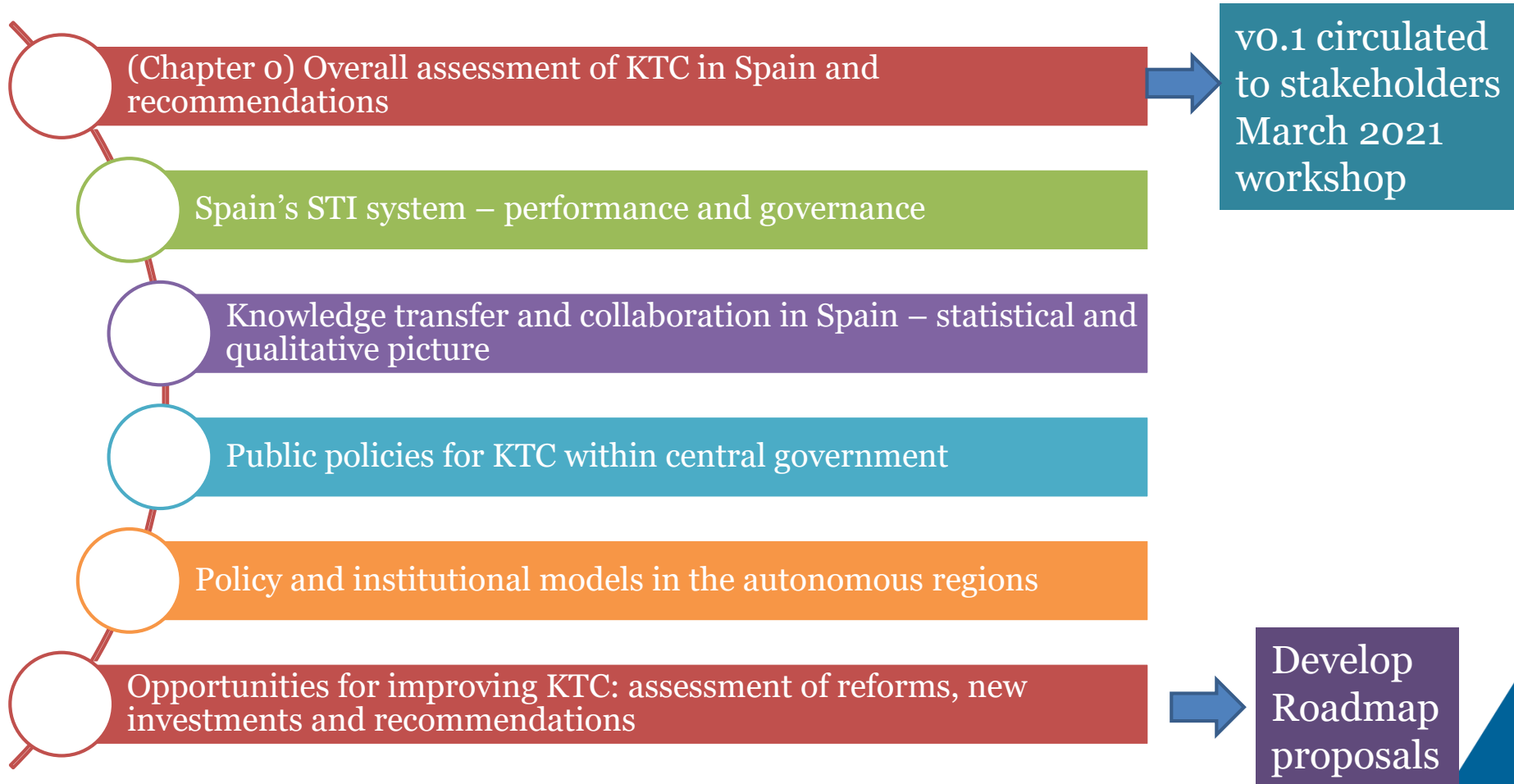
1. Analyse the **current state of public research – business collaboration**, and identify priorities for policy reform
2. Develop a **policy implementation roadmap** with **concrete, evidence-based and actionable policy measures** to enhance collaborative research and innovation, tailored to the Spanish context

The project builds on **extensive analytical work as well as expert & stakeholder engagement**:

- **47 interviews** with stakeholders, experts and policy officers (90+ participants) (as of June 2021)
- **Stakeholder workshop** (March 2021) with 120+ participants
- **Working groups** to develop specific policy proposals
- **Webinar** and (virtual) missions to learn more about international practices



Diagnosis report – outline





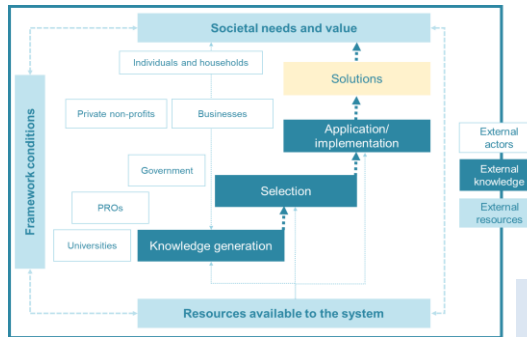
Diagnosis: Despite its important **achievements**, the **Spanish science & innovation system** presents **structural imbalances** that threaten its sustainability and contribution to economic and social welfare, esp. through Knowledge Transfer and Collaboration (KTC) channels

Strong science base not sufficiently competitive overall, managed with inappropriate models for knowledge generation, not oriented to its strengths and to non-scientific uses

Overregulation, bureaucratic barriers and funding instability

Public policies have introduced instruments and adapted regulatory frameworks, but as a whole have not sustained STI with the necessary resources and facilitating actions compared to other countries

Sub-optimal scale of projects, teams, centres and companies



Limited effective incentives and spaces for interaction

Economic structure oriented towards industries with low R&D intensity; disparities across sectors and firms - most do not perceive innovation as a their own strategic priority.

Self reinforcing cycle of low innovation and productivity

Society is open and positive towards S&T, but limitations exist in terms of education and culture of innovation and entrepreneurship



Key messages (1/3)

Regulatory reform and investments

- Flexibility, risks of building regulatory habit, more emphasis on **principles, behaviours and soft guidance/codes of conduct**
- Funding – quantity and composition
 - Pact to **raise real budget baseline** - “*don’t ask if Spain can afford to spend on STI, but whether Spain can afford not to do it*”
 - Roadmap for “**handover 2023**” – manage EU funds-dependence risks. Business must step-up.

Incentives in the research base

- Experimentation/ new institutional models expose **weakness of rigid models**
- Welcome emphasis on **individual incentives** and recognition of KTC merits, but adds on to an already complex system
- Remember **STI is a “team sport”** – need to shift more emphasis on incentives at research **institutions**, their core governance/funding, and give them autonomy on how to pursue the objectives that have been set – KTC or other

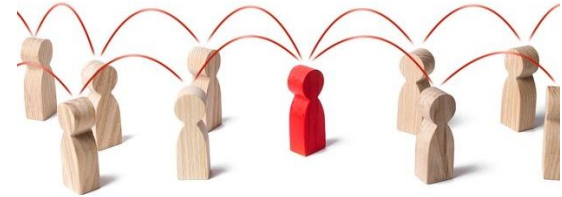




Key messages (2/3)

Intermediation spaces

- Complex and atomised – need to allow and incentivise **mutualisation** of efforts x-regional/sectoral
- Move from contract/agreement management units **to innovation offices**
- Bring in **competition**, prof. **skills** including market experience, open to outsiders / high flyers



Business capabilities

- **Broader view of innovation** necessary in messages from public administrations
- **Different needs**/pathways to engage with research
 - Align instruments to effective needs and constraints of firms at different places in the in the innovation capability spectrum.
- Help navigate complex menu – common **one-stop shop** for all business support
- Research base could help with **training** for innovation capabilities.



Key message (3/3)

Policy governance and implementation

- **Learn** from diversity of experiences within and outside Spain
- Governance co-design
- Get the **data and people** to enable:
 - More transparent mechanisms for **assessing policy options ex-ante**, to inform decisions and allow time for effective coordination
 - More robust and **regular evaluation**, of different types to guide different re-assessments, and to check what is on course to achieve objectives
 - Use **quantitative evidence** and make systematic **use of cases** to explain impacts and to argue for reforms to different audiences

Vision

- Concretise a realistic vision for the role to be played by STI and **STI policies up to 2030**
- Articulate how KTC enables achievement of **societal goals** regarding most pressing challenges
- Demonstrate initiative in policy making – apply responsible innovation principles to this policy area





Planning structured discussions under the following thematic areas, leading to Roadmap proposal

Incentives in
the research
base

Knowledge
intermediation
spaces

Business
innovation
capability

Information
systems for KTC

We trust the group can be engaged in this work, the roadmap finalisation and its ulterior consideration for implementation and monitoring

GRACIAS POR SU ATENCIÓN

More information

Project website: <http://oe.cd/roadmap-innova-es>

Contact email: roadmap_innova_ES@oecd.org

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Sandra Planes Satorra (OECD STI) – Project manager

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Raffaele Trapasso (OECD CFE)

With support from:

José Guimón (UAM)

Catalina Martínez (CSIC)



ADDITIONAL SLIDES



Selected key messages

- 1 An overview of the Spanish science and innovation system
- 2 Public policies for knowledge transfer and collaboration
- 3 Priority areas of reform



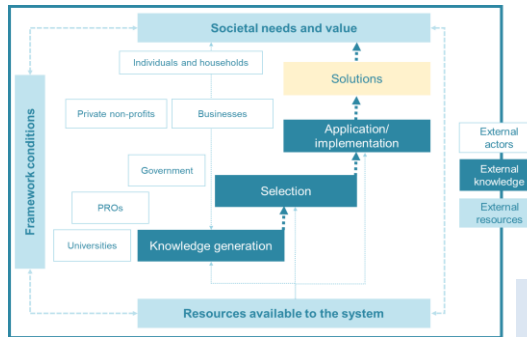
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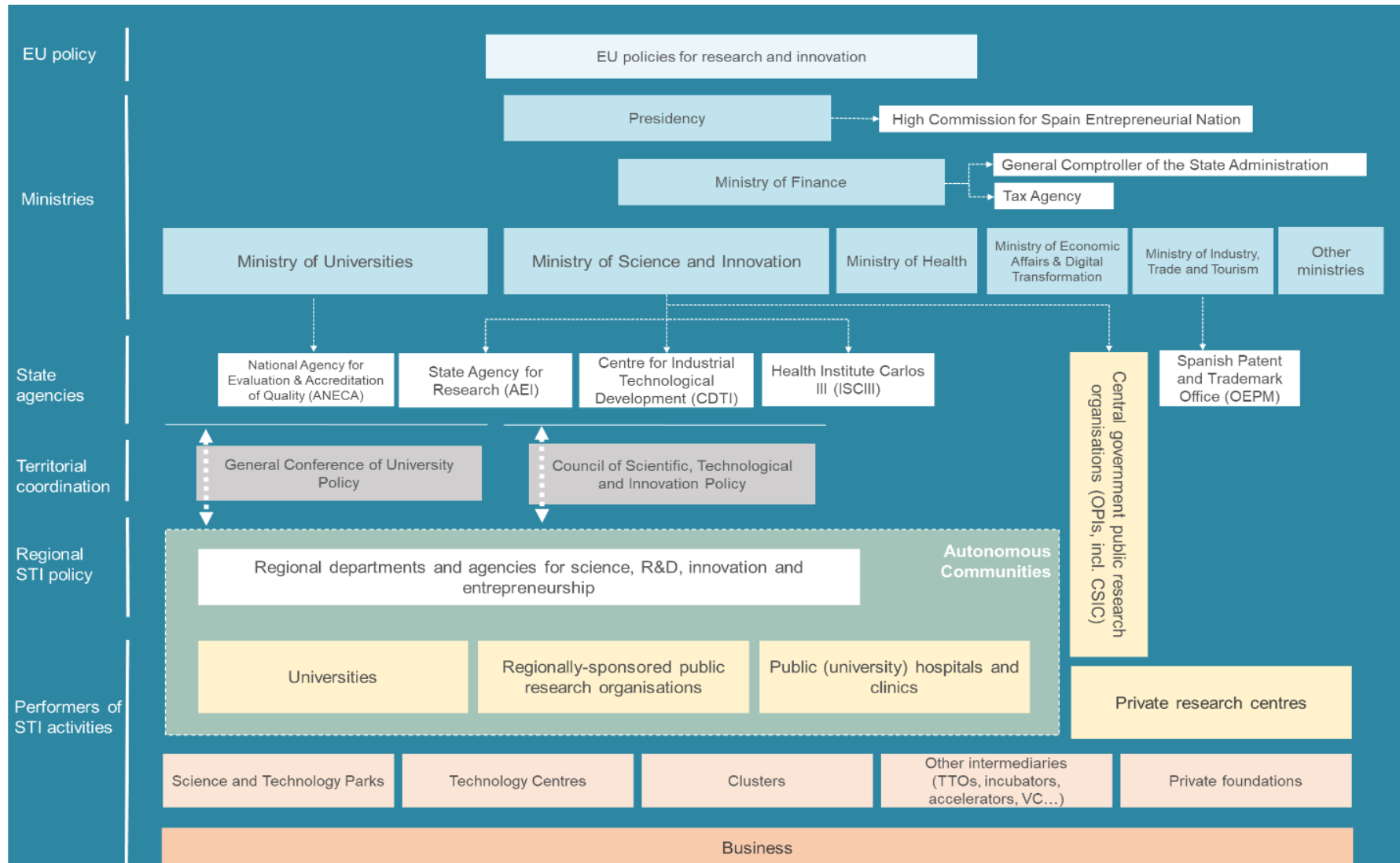
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Self reinforcing cycle of low innovation and productivity

Society is open and positive towards S&T, but limitations exist in terms of education and culture of innovation and entrepreneurship



The governance of the Spanish science and innovation system is **complex** and involves a large number of stakeholders; but this is also a source of **rich experiences** to learn from.



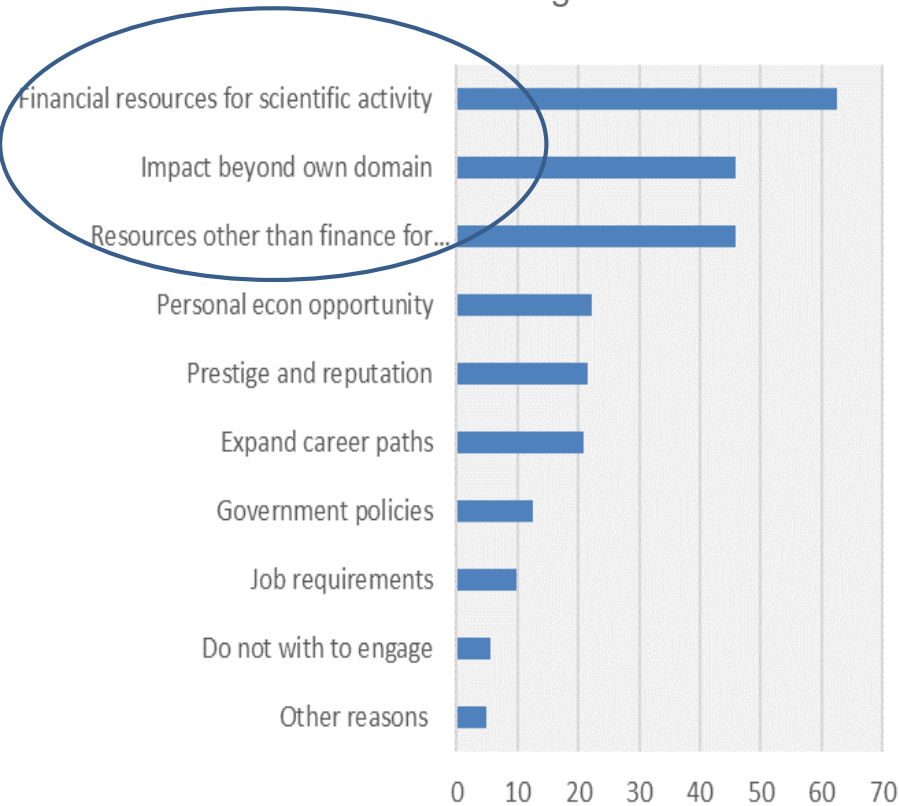


Transfer and collaboration between science and business is not only one of the **main weaknesses** of the system but also one of the **greatest opportunities for progress**

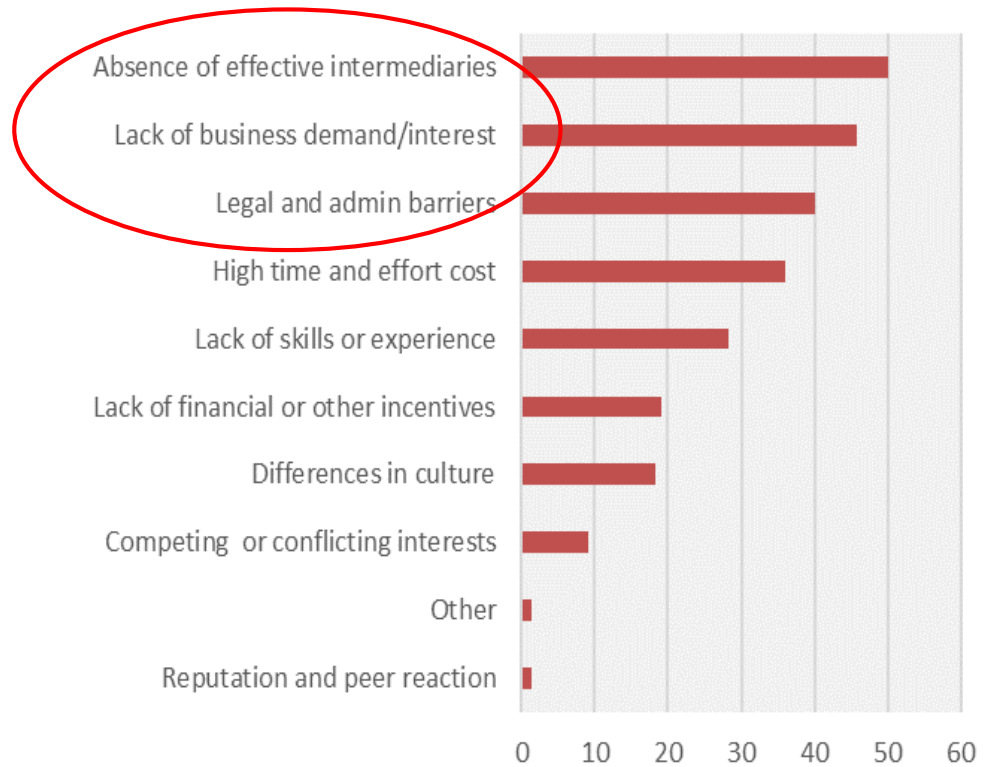
Positive and negative factors influencing engagement with business

As % of Spain respondents not in business

Factors working in favour



Factors working against



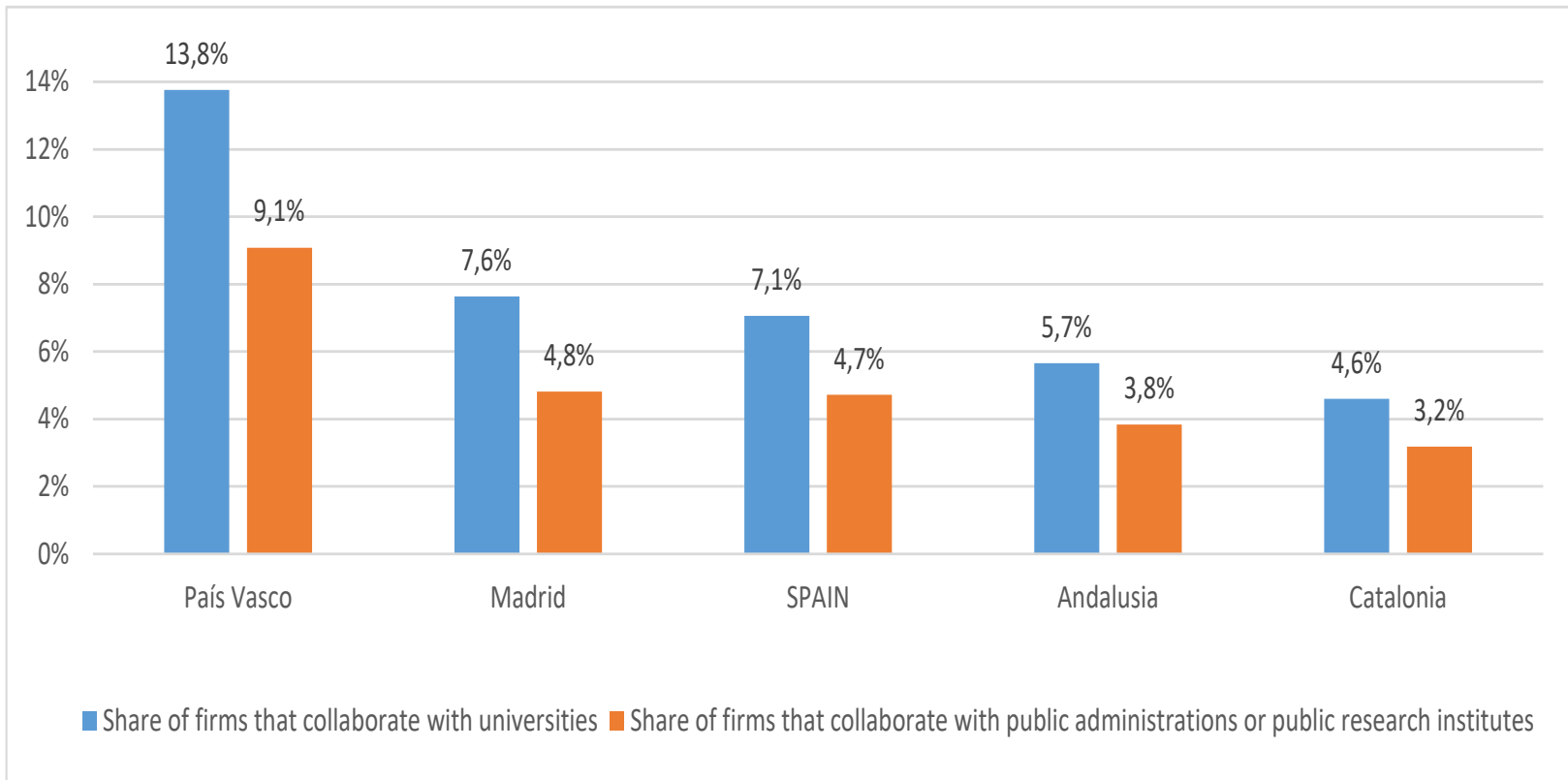
Notes: Results are preliminary, unweighted and at this point not representative of the Spanish research community. Question only addressed to a random subset of respondents not affiliated to business enterprises.

Source: OECD International Survey of Science, ISSA2021. **Experimental and highly preliminary results.**



Different regional realities in terms of collaboration reflect differences in focus & evolution of science and innovation policies

Percentage of innovative firms collaborating in innovation with universities and research institutions



Source: Encuesta sobre Innovación en las empresas 2019. Instituto Nacional de Estadística (INE)



1

An overview of the Spanish science and innovation system

2

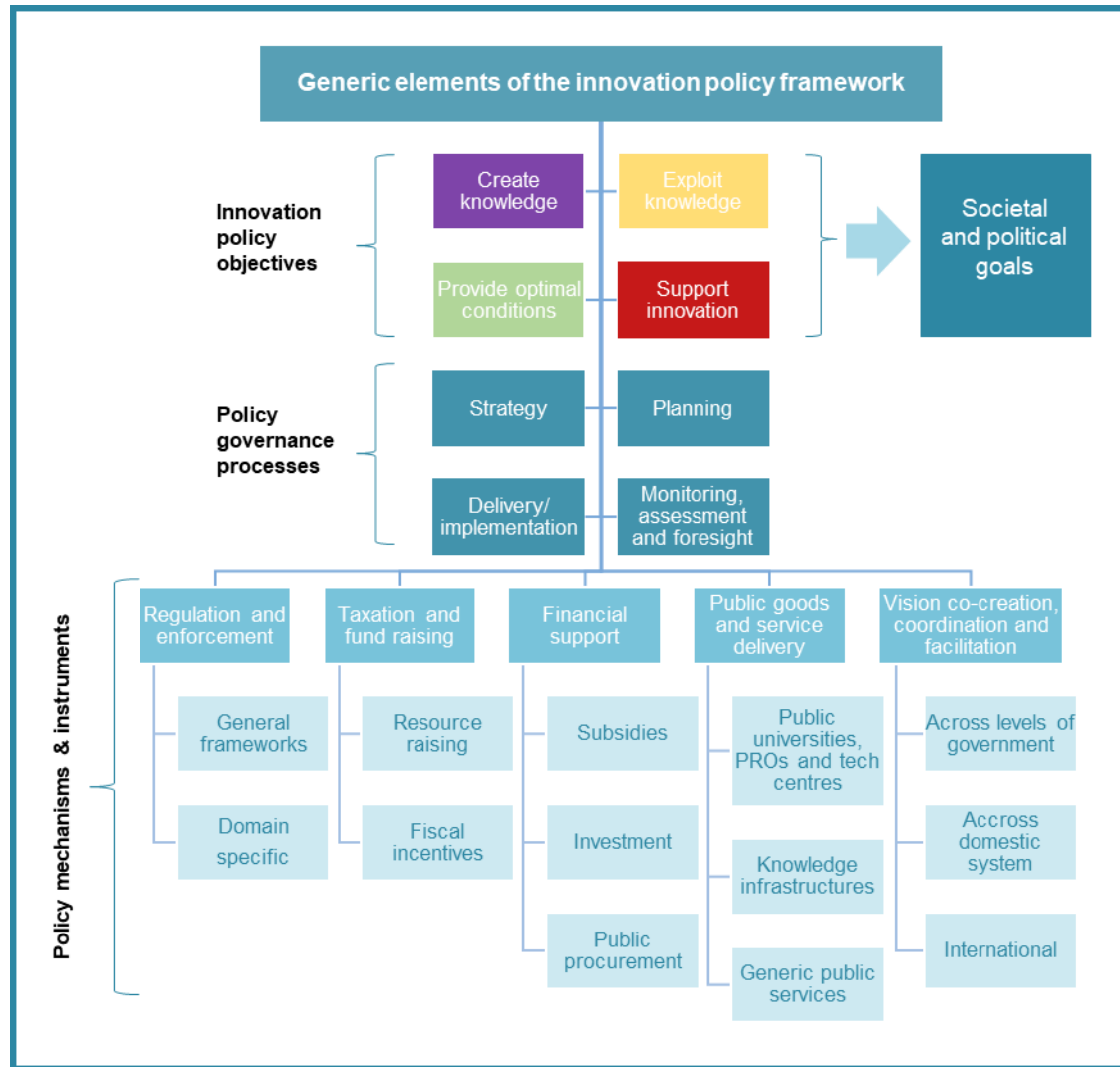
Public policies for knowledge transfer and collaboration

3

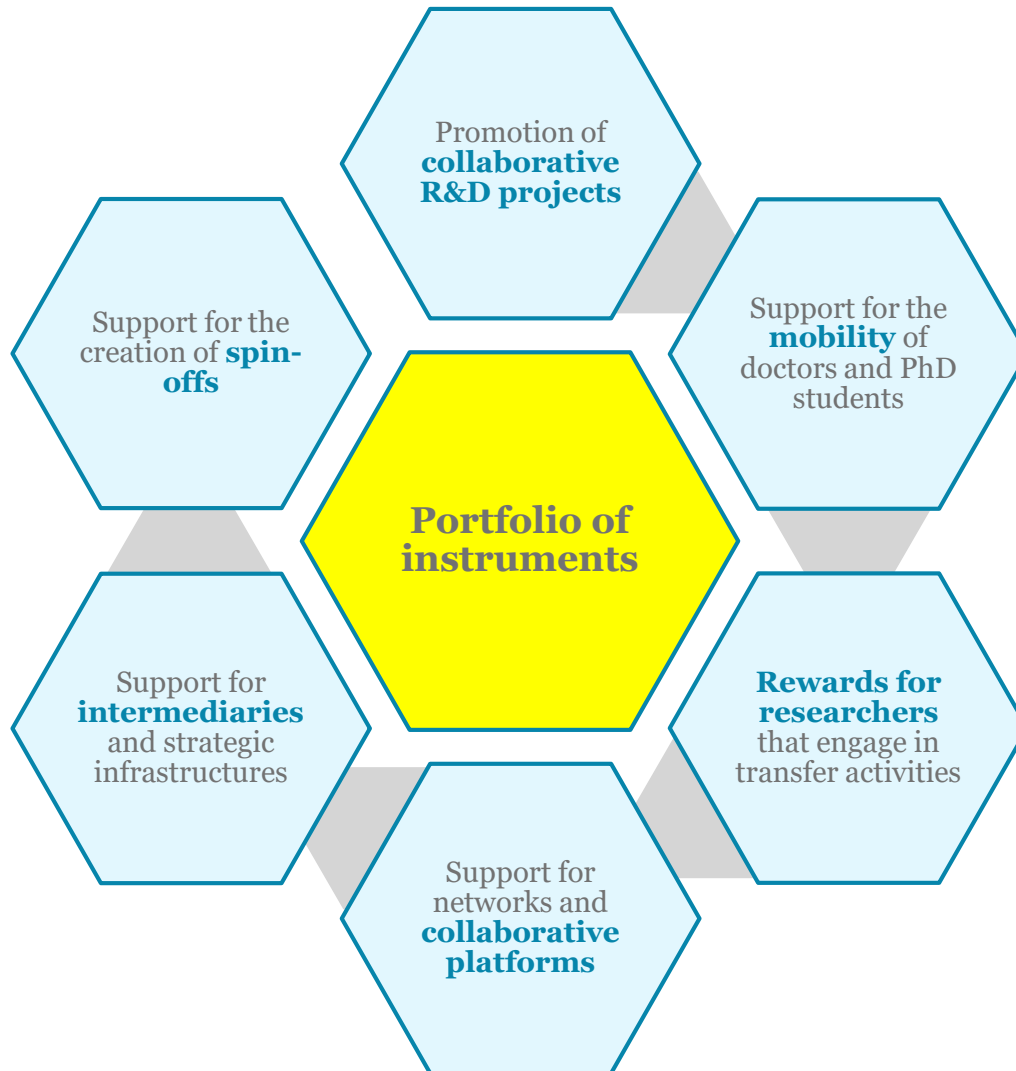
Identification of priority areas of reform



Our analysis has looked at Spain's innovation policy framework for KTC through a broad lens



Portfolio of **policy instruments** to support knowledge transfer and collaboration



New/adjusted policy instruments are planned to be implemented as part of the **Recovery, Transformation and Resilience Plan**



Main instruments for science-industry knowledge transfer at regional level

Sponsorship of technology centres

(e.g. Tecnia, Eurecat)

Support for science and technology parks

Regionally-sponsored public research centres

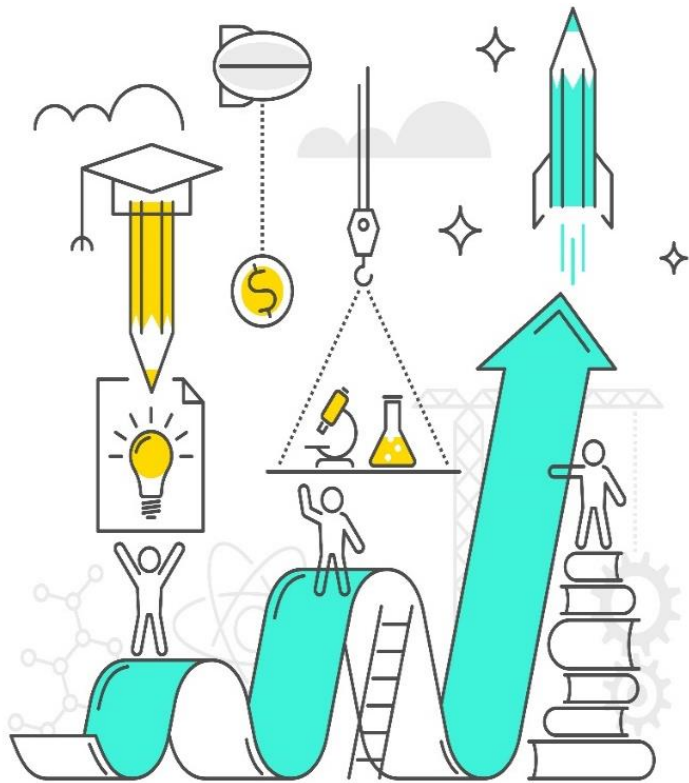
(e.g. CERCA, BERCS, CICs, IMDEA)

Other instruments

- Competitive grants for collaborative R&D projects
- Innovation vouchers
- Talent mobility programmes
- Soft policies to foster networking



Instruments that could be considered for implementation in Spain (central gov. level)



- **Performance-based funding at institutional level**, enabling autonomous institutions to organise their resources in line with their missions and strategic objectives (in line with recommendation in ERAC Peer Review 2014).
- Instruments to support the **advancement of maturity levels (TRLs)** of developed technologies
 - Launch of **proofs of concept programme** by the AEI in 2021 responds to this need
- Instruments to support the establishment of **joint research centres** (e.g. CoLabs in Portugal, Research Campus in Germany)



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We propose 4 priority areas for reform, to be developed by working groups during the following project phase

1

Institutional and individual funding mechanisms and incentives to better align research efforts with objectives and missions

2

Improve the **absorptive capacity of firms** to enhance their collaboration and innovation performance

3

Initiatives to support **intermediaries** in their role of supporting knowledge diffusion and use (TTOs, technology centers, science parks, platforms, private foundations, clusters, etc.)

4

Information and intelligence systems to analyse, manage and promote knowledge transfer and collaboration

More information on SRSP project for Spain

Project website: <http://oe.cd/roadmap-innova-es>

Room document with a project overview: [DSTI/STP/TIP/RD\(2021\)2](#)

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For more information on the SRSP project for **Italy**, please contact Caroline.Paunov@oecd.org and Sandra.PlanesSatorra@oecd.org

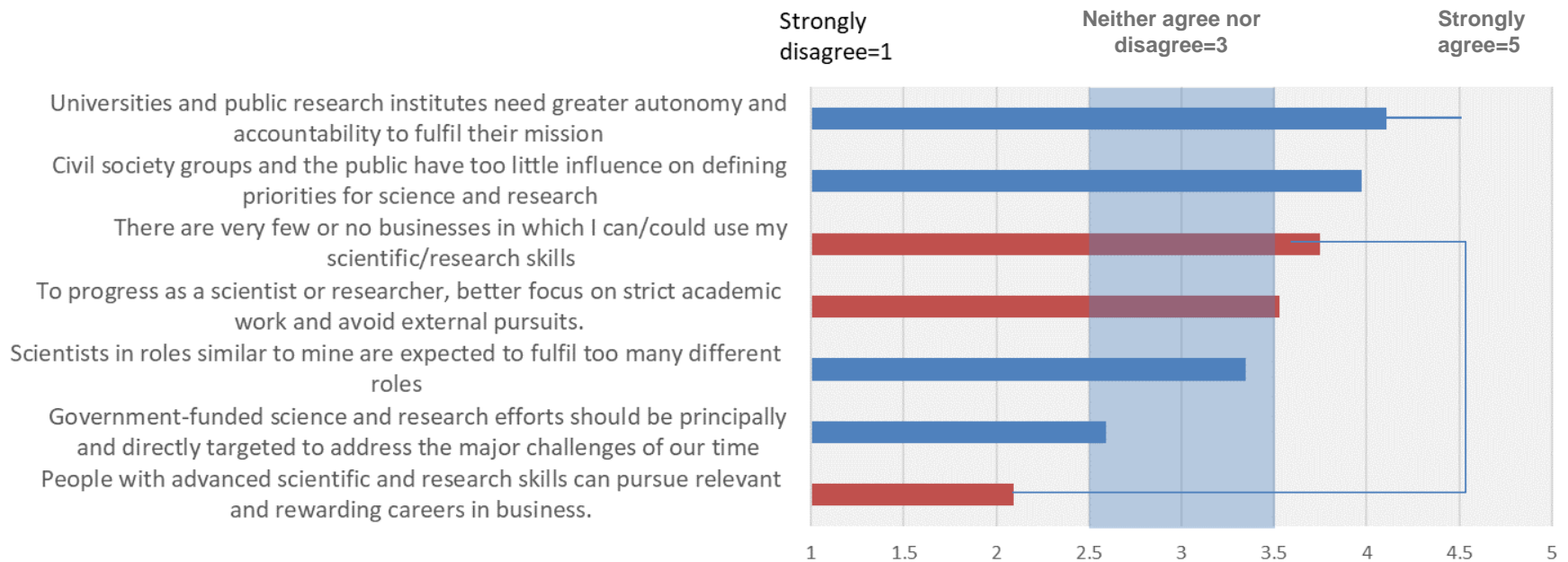


BACKGROUND SLIDES :
PRELIMINARY ISSA RESULTS
FOR SPAIN



Views about science careers and science in society, Spain

(Average agreement scores, all sample, Spain)



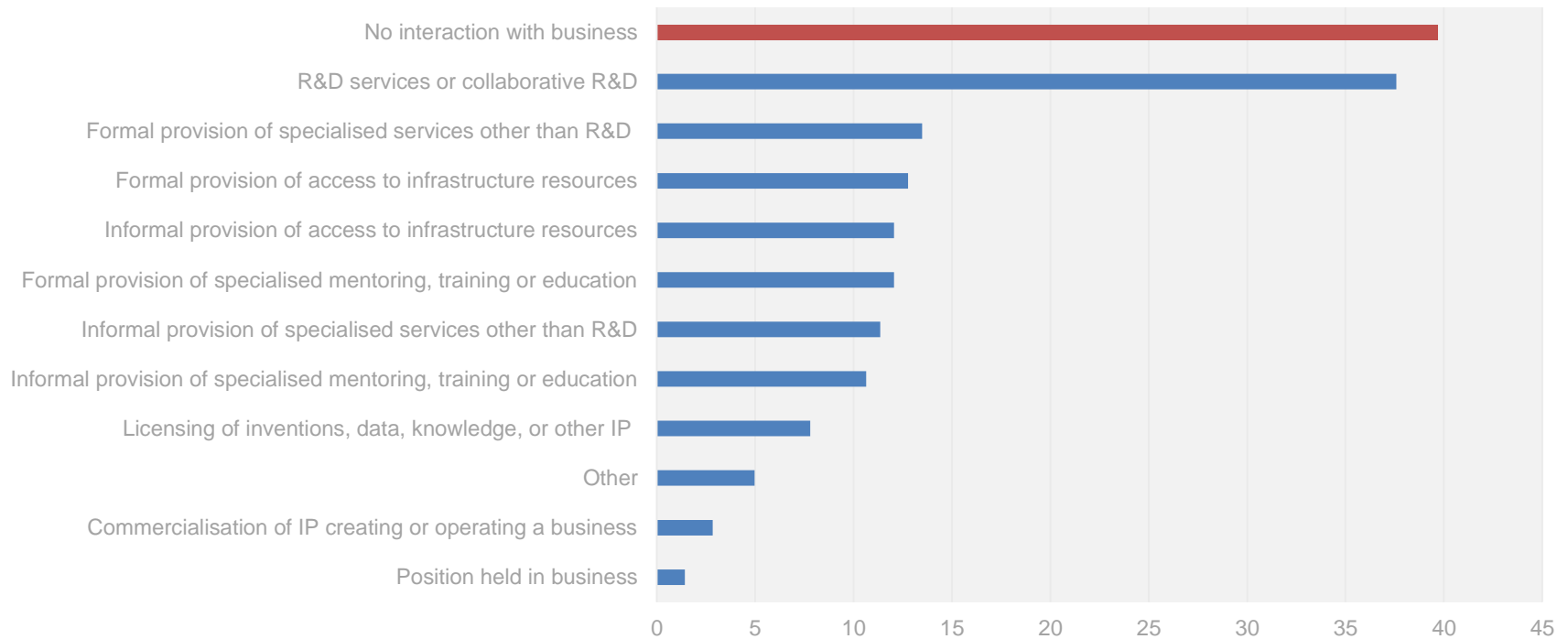
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Knowledge-based engagement with business among Spain's researchers

As a percentage of non-business respondents



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Implications of ISSA survey results with respect to engagement with business

- **A majority of researchers** are principally:
 - Motivated by opportunities to sustain and improve their core scientific work, and to some extent by doing something “good” that transcends.
 - Constrained by lack of intermediation and appreciation of demand – but at least no perception of conflict of interest between public/private
- **Only a minority of researchers**, under the current set up, are motivated by economic and other formal factors.
 - Self-selection into research outside business.
 - While HEIs and Unis may have a generic duty towards knowledge transfer, hardly no public sectors researchers perceive this is part of their “job description”.