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HESS Navarra case study

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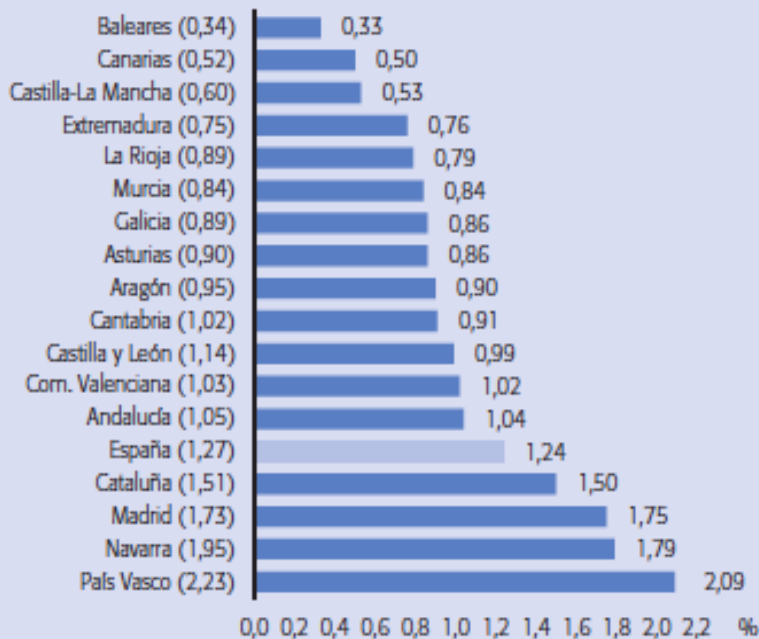
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- Evolution of innovation policy in Navarra
- Navarra universities and national vs regional competencies
- Navarra S3: the role for education
- Key instruments to boost HEI role in S3

Fieldwork research in HESS – Navarra Case

- HESS Project
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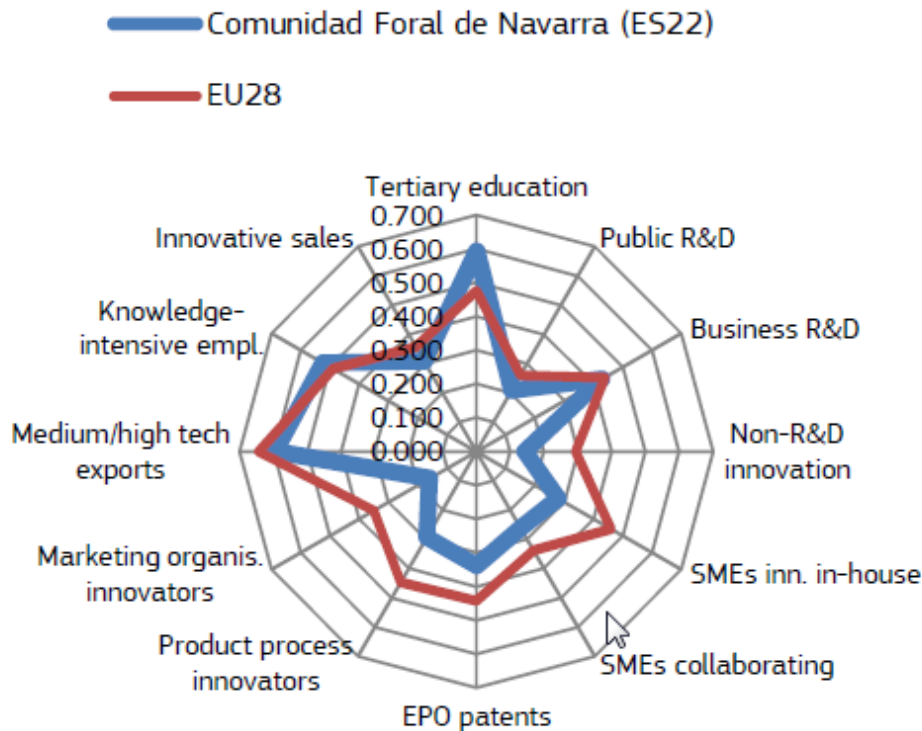
Navarra R&I and education profile

Gráfico I.5. Gasto en I+D por comunidades autónomas en porcentaje del PIB regional en 2013. (Entre paréntesis datos de 2012). PIB base 2010

Región	%
Baleares (0,34)	0,33
Canarias (0,52)	0,50
Castilla-La Mancha (0,60)	0,53
Extremadura (0,75)	0,76
La Rioja (0,89)	0,79
Murcia (0,84)	0,84
Galicia (0,89)	0,86
Asturias (0,90)	0,86
Aragón (0,95)	0,90
Cantabria (1,02)	0,91
Castilla y León (1,14)	0,99
Com. Valenciana (1,03)	1,02
Andalucía (1,05)	1,04
España (1,27)	1,24
Cataluña (1,51)	1,50
Madrid (1,73)	1,75
Navarra (1,95)	1,79
País Vasco (2,23)	2,09

Fuente: "Estadística sobre las actividades en Investigación Científica y Desarrollo Tecnológico (I+D). Indicadores básicos 2013". INE (2015) y elaboración propia. Tabla 6, segunda parte.
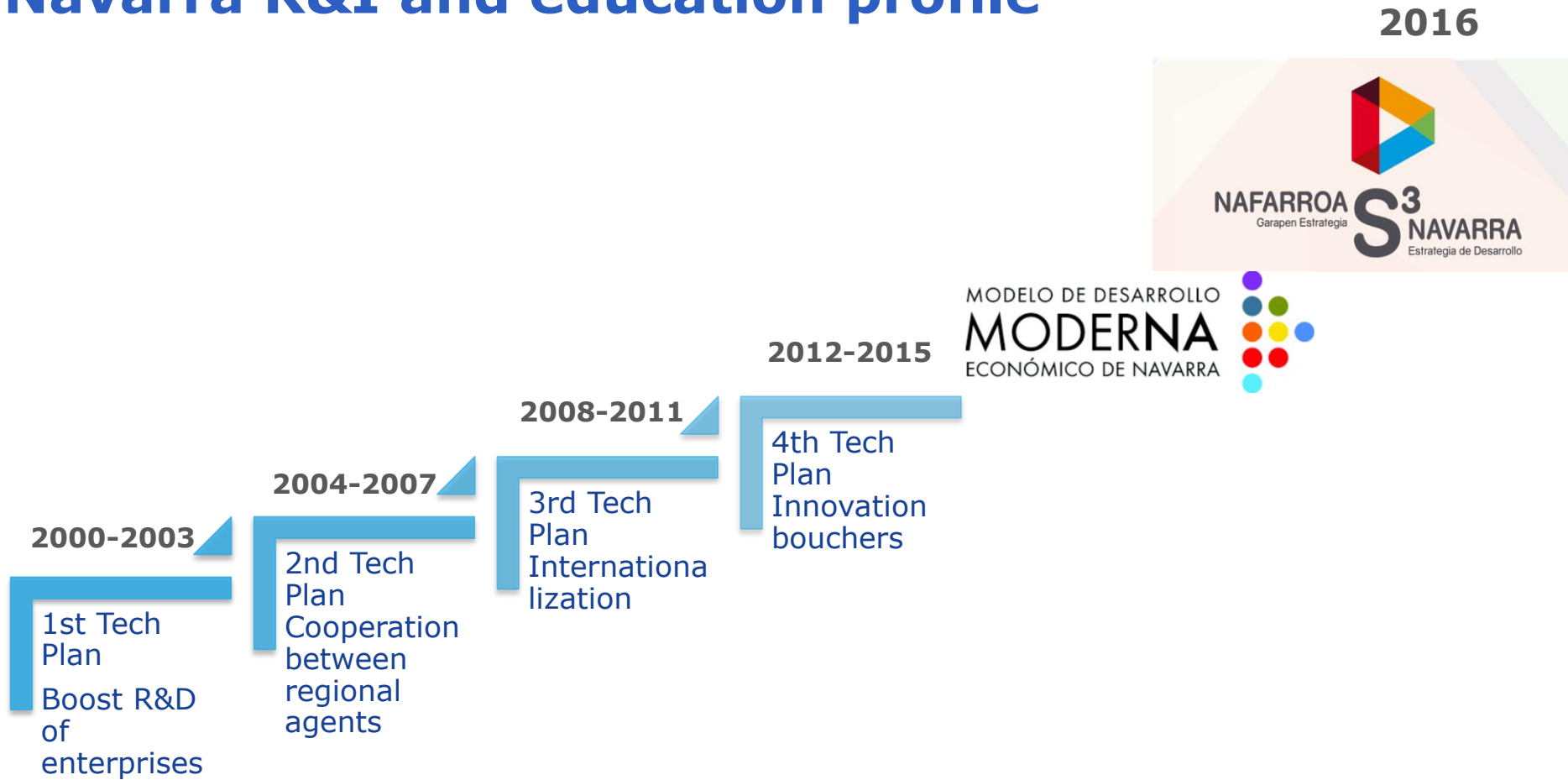
- Navarra is a moderate innovator in EU28 (RIS, 2016)
- Strong decline in innovation performance in the last two years (-22%)
- Among the first Spanish autonomous communities in terms of innovation performance
- Second highest private R&D in Spain (COTEC, 2015)

Source: COTEC Annual Report 2015

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Navarra R&I and education profile

Legend:
- Comunidad Foral de Navarra (ES22)
- EU28

Radar chart axes: Tertiary education, Public R&D, Business R&D, Non-R&D innovation, SMEs inn. in-house, SMEs collaborating, EPO patents, Product process innovators, Marketing organis. innovators, Medium/high tech exports, Knowledge-intensive empl., Innovative sales. Scale: 0.000, 0.100, 0.200, 0.300, 0.400, 0.500, 0.600, 0.700

- High performer in tertiary education attainment as well as knowledge intensive employment (RIS, 2016).

- High performance in population aged 30-34 having completed tertiary education - above EU28 average and Spanish average.

Source: Regional Innovation Scoreboard, 206

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Navarra R&I and education profile

2016

NAFARROA **S³** NAVARRA
Garapen Estrategia Estrategia de Desarrollo

MODELO DE DESARROLLO
MODERNA
ECONÓMICO DE NAVARRA

2012-2015

4th Tech Plan Innovation bouchers

2008-2011

3rd Tech Plan Internationalization

2004-2007

2nd Tech Plan Cooperation between regional agents

2000-2003

1st Tech Plan
Boost R&D of enterprises

Source: Sodena

Navarra universities

Public
8.000 students
"Regional" university
Strong in engineering
Tech transfer

Private
10.000 students
International university
Strong in bio-health
Teaching and research

National vs regional competencies

National level

- Structure and governance of universities - Ley Orgánica de Universidades (LOU)
- Modalities of recruitement and contract types
- ANECA national agency evaluates/accredits researchers and evaluates degrees
- Launching calls for research personnel/groups, projects and programmes for HEI orientation (CEI)

Regional level

- Public universities are funded by regional Governments
- *Yearly framework agreement* regulate the terms and funding received
- Evaluation and monitoring of performance
- Specific calls for attracting talent, collaboration projects with regional actors, etc

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Navarra S3: the role for education

6 PRIORITY AREAS

Food chain

Automotive and mechatronics

Health

Renewable energies & resources

Integral tourism

Creative & digital industries
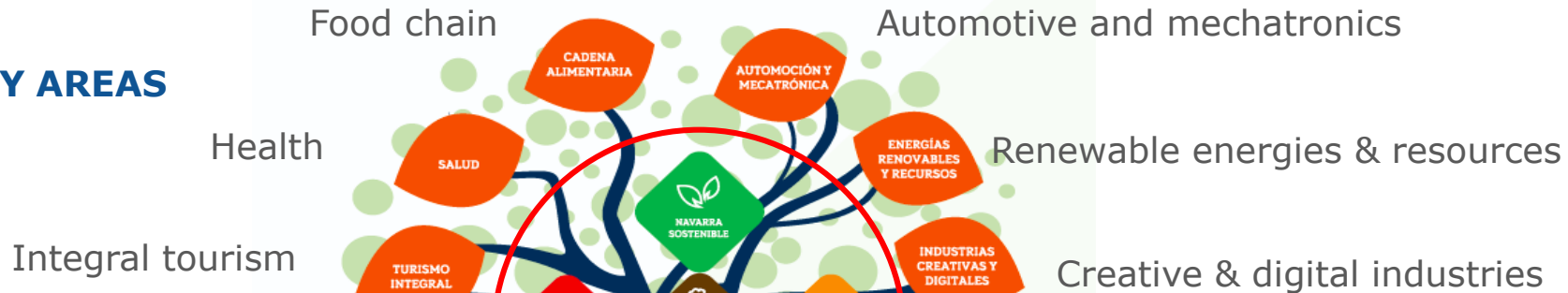
5 AXES OF DEVELOPMENT:
- **Cohesive Navarra**
- **Healthy Navarra**
- **Sustainable Navarra**
- **Industrial Navarra**
- **Competitive Navarra**

5 CROSS-CUTTING FACTORS OF COMPETITIVENESS

- Business development
- Public administration& fiscality
- Education and training
- R&D&I
- Infrastructures   8

Source: Navarra S3 document. SODENA

Navarra S3: the role for education

PRIORIDADES S3	POLÍTICAS DE DESARROLLO
Desarrollo empresarial	• Desarrollo de Industria 4.0 • Clústeres • Crecimiento empresarial • Internacionalización • Emprendimiento • Nuevo modelo de empresa: innovación organizativa y participación laboral
I+D+i	• Fomento de la investigación • Red tecnológica orientada a prioridades y resultados • Digitalización • Creación de empresas innovadoras
Infraestructuras	• Infraestructuras industriales • Energía • Conectividad y comunicaciones • Transporte de personas y mercancías • Suministro de agua
Administración pública y fiscalidad	• Modernización, simplificación y agilización administrativa • Fiscalidad como instrumento de fomento de la economía productiva
Educación y Formación	• Educación innovadora • Formación Profesional Superior • Formación universitaria • Formación a lo largo de la vida

FACTORES DE COMPETITIVIDAD

Priorities:
- Innovative education oriented towards values and professional skills for the future.
- Quality HE and VET, close to companies and focused in strategic sectors.
- Enhance skills and competencies for employability and life-long learning.

Tools:
- Innovation projects
- Vocational education and training strategy
- Specialization of universities
- Actions for professional development.

Navarra S3: the role for education

	MID-TERM OBJECTIVES	DESCRIPTION	STARTING POINT	OBJECTIVE 2020	OBJECTIVE 2025	OBJECTIVE 2030
EDUCATION AND TRAINING	**Educational system**	PISA points	513	520	525	530
	Higher Education Graduates	% population aged 18-25 with higher education	42.3%	45%	50%	55%
	Education drop-outs	% population abandoning studies	10.8%	10%	9%	8%
	VET graduates and employability	Nº VET graduates	2.577	3.000	3.600	4.200

Priorities:

- Not concrete definition of mid-term objectives in line with defined priorities and tools
- Not specific monitoring & result indicators
- Challenge of data gathering at regional level

Navarra S3: the role for education

Specific plans to develop certain priority axes:

- [Plan for Science, Technology and Innovation 2016-2020 (draft)](#)

  1. Reinforce the vocational education and training (VET) in cooperation with the industry and trade unions
  2. Attraction of international talent
  3. Adapt and tailor the educational offer of Navarra universities
  4. Promote the access to STEM education
  5. Promote scientific & technological culture of citizens

- [Vocational and Education Plan (not public)](#)

Key instruments to boost HEI role in S3

National level

- Campus of International Excellence programme

(Navarra: Campus Iberus)

To foster the modernisation and internationalisation of Spanish university campuses.

1. Specialisation
2. Connection to territory
3. International positioning

Regional level

- AdiTech Corporation and Innovation communities
- First industrial PhD call in 2017
- Research Institutes of Public University of Navarra (UPNA):

1. Institute of smart cities (ISC).
2. Institute for advanced materials (InaMat).
3. Institute for advanced research in business and economics (INARBE).
4. Institute for innovation & sustainable development in food chain (IS-FOOD).

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HESS Navarra case study: action-research project

The research work will try to answer to <u>two challenges</u> that the region of Navarra is currently facing in the RIS3 implementation phase:

a) **Developing the future talent for the region and alignment of the educational offer and scientific capabilities of universities to the RIS3 priorities of Navarra**

b) **Incentives to university researchers to cooperate with RIS3 and regional development activities.**

<u>Two additional dimensions</u> covered:

- Euro-regional collaboration Aquitaine-Euskadi-Navarra potential for RIS3 implementation
- Complementarities of HEI education with VET to better answer to RIS 3 priorities

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HESS Navarra case study: Methodology and fieldwork

- Exploratory workshop in May 2016
- Selection of objectives for case study
- Interviews with selected stakeholders of the region
- First analysis of interview outcomes
- Validation workshop in December 2016
- Final report
- Benchmarking exercise North-East Romania with Navarra

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Interview questions and themes

General questions
- Balance global perspective/local engagemet
- Most valued skills/capacities of graduates

Theme 1 – Alignment of HEI to RIS3
- Participation and involvement in RIS3 design and governance
- Current contribution of HEIs to RIS3
- Future role in RIS3
- Barriers and gaps

Theme 2 - Incentives to HEIs and university researchers to be involved RIS3 and regional development activities.
- Incentives, tools and programs

Theme 3 - Inter-regional cooperation, and specifically, cooperation in the perimeter defined by the Euro-region Aquitaine-Euskadi-Navarra.

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Organisation	Position	Name
1. Public University of Navarra (UPNA)	Rector	Alfonso Carlosena
	Vice-rector for Academic Policy	Carmen Jarén
	Vice-rector for Research	Ramón Gonzalo
	Director of INARBE (Institute for Advanced Research in Business and Economics)	Pablo Arocena
	Head of Business Development of Research Institutes	Begoña Vicente
2. University of Navarra (UNAV)	Vice-Rector for Academic Policy	Pablo Sánchez
	Vice-Rector for Research	Iciar Astiasarán
3. Government of Navarra	Director General for Universities and Educational Resources	Nekane Oroz
	Director General for Industry, Energy and Innovation	Yolanda Blanco
4. ADITECH	Director General	Juan Ramón de la Torre
5. Grupo Cooperativo Alimentación Natural (AN)	Director for Fundación Grupo AN	Maite Muruzabal
6. Navarra Business Confederation (CEN)	Responsible for international projects	José Manuel Olivar

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Workshop objectives

- To present the major findings of the Navarra case study interviews and first analysis carried out by JRC to the key stakeholders of the region involved in each of the objectives

- To get feedback from the actors on the accuracy of the information gathered

- To validate and discuss the main findings of the interviews in an open discussion

- To identify potential actions that could be taken by the stakeholders participating in the case study, and especially by Sodena as leading agency of the Government of Navarra driving the RIS3 process.

Workshop discussions

Topic 1 – Alignment of university educational offer with RIS3 priorities

Topic 2 – Entrepreneurial spirit and innovation among students and the academic community as a contribution to RIS3 in Navarra

Topic 3 – University researchers' recognition/incentives to motivate involvement in RIS3.

Topic 4 – Contributions of universities to RIS3

Topic 5 – Collaborations at different scales: Navarra, Euroregion Aquitaine-Navarra-Basque Country and worldwide

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CONCLUSIONS
and
RECOMMENDATIONS

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Most valued skills/capacities of graduates

- *Employers demand graduates with comprehensive transversal skills, i.e., team work aptitudes, communication and negotiation skills, multilingualism, etc.*
- *Employers are satisfied with the disciplinary and technical competences of graduates. Navarra employers demand that graduates are not so specialized*

- ***Universities do not only 'train' professionals, but they must 'educate' people for the future*** *and provide solid knowledge foundations that allow to deal with complexity and changing demands.*

Participation and involvement in RIS3 design and governance

- *Both universities are always available and eager to contribute and take part in the RIS3 process.*

- *The rectors themselves are involved at the highest level of governance, i.e. in the steering committee for the Navarra S3, where the final decisions are made.*

- *Personnel in research institutes and centers, both in UPNA and UNAV, are more aware of Navarra RIS3. Strategic plans of the institutes usually take into account Navarra RIS3.*

Role that universities have played in identifying the region's research and knowledge strengths/assets as part of the RIS3 development process.

- *Most of the selected RIS3 priorities map fairly well onto the research and educational strengths of UPNA and UNAV, although those strengths were not considered as key factors for the selection of the priorities (save for Health).*

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Current and potential contribution of HEIs to RIS3 development

- ***Navarra RIS3** is always 'on the table' and 'present in the discussions' in the participatory teams for degree renewal, but **it is not the guiding principle in shaping the new degrees or the educational offer itself**. Maybe it is still too soon for RIS3 to have such an important enlightening role.*

- *Research Institutes in UPNA, Research Centers in UNAV, University Chairs, and ecosystems for innovation promoted by ADITECH are key initiatives enabling strong interaction between different actors in Navarra to contribute to the RIS3 development.*

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Main barriers and gaps for the HEIs and other types of organisations to work together in the development of the RIS3

- *An underlying conflict* *between HEIs and technological centres.*

- *A 'clash of cultures' between HEIs and companies* *that prevents each other from getting closer and mutual understanding. There is a need to foster dialogue and, above all, mobility and exchange of university and company people.*

- *Several system barriers that limit the interaction and prevents universities from working together with other agents* *and responding to the demands of society, such as governance system of universities, internal bureaucracy, accreditation process for degrees, etc.*

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Incentives for HEIs and university researchers to be (more) involved RIS3 and regional development activities (I)

- *A societal recognition of the university activity by its own sake as a clear and distinct contribution to the region.*

- *Include metrics that foster interaction with other regional agents (participation in industrial projects, contracts with companies, industrial doctorates, promotion of internship programs, seminars and encounters with companies, etc.).*

- ***Merits of knowledge transfer activities and interactions with other regional actors could be acknowledged by the regional authorities***, *since the development of Navarra RIS3 is a regional endeavour.*

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Incentives for HEIs and university researchers to be (more) involved RIS3 and regional development activities (II)

- *Private companies must invest more in research by sponsoring programs with universities for high-added value, high risk research projects.*

- *Individual remuneration of different kinds (extra salary, compensation packages for teaching and management, etc.) to academics when they participate in projects with other regional actors could be a motivating factor.*

- *Companies should promote and value that their staff participate in university teaching, either as associate professors or in dedicated seminars and workshops.*

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Incentives for HEIs and university researchers to be (more) involved RIS3 and regional development activities (III)

- ***Not all researchers have to play the same role in the institution and have to be measured by the same parameters**. It is important to define a career path for the different type of researchers that can contribute to different type of activities in the institution: more focused on basic research, more oriented to interact with companies, etc.*

- ***Existing research institutes and centres in both universities are crucial instruments to design more flexible career paths** that can be recognised and incentivised in proper ways to stimulate interaction with other actors in Navarra.*

General conclusions (I)

- ***Navarra must value its universities as such, and must facilitate that its universities fulfil their missions.*** *Universities 'produce' and concentrate talent. This talent should not stagnate in universities but must spill into the region.*

- ***Increasing the collaborations between Navarra universities is a key aspect,*** *so that they do not overlap in the fields they cover.*

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General conclusions (II)

- *The proactive involvement of universities in the regional innovation dynamics is necessary and welcome, and universities can play a decisive role in the future S3 deployment, i.e.,* **the objectives of the Navarra S3 will not be achieved without the strong involvement of universities***.*

- *Navarra government is a key and decisive actor to foster university-business collaborations and any kind of collaboration between all the actors participating and contributing to Navarra RIS3.* **Industrial doctorates program, university-business industrial programs and challenge-oriented cooperative programs must be in the regional toolkit to deploy Navarra RIS3.**

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Recommendations (I)

- *Intensify the university-business dialogue:*
  - *Enhance existing communication channels, with more specific themes and sessions.*
  - *Create new channels for university-business communication: promote and organise thematic university-business forums at different geographical scales within Navarra.*

- *Analytical studies:*
  - *Analytical studies and surveys, such as the one carried out by CEN ("Empleo 2030") or by any other entity in Navarra, must be shared by all the stakeholders.* **There was unanimous consensus that "information must flow".**

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Recommendations (II)

- *Reach agreements between the public university and the private university for a common, or at least coordinated, education offer in some fields relevant to Navarra.*

- *Incorporate social sciences and humanities in the Navarra RIS3 deployment.*

- *Re-valorise the 'associate professor' figure in universities, since this would facilitate closer university-business cooperation and more connected curricula to companies demand by having company professionals teaching in universities.*

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Recommendations (III)

- *Intensify and improve the first and recent 'Industrial Doctorate' call for proposals in Navarra.*

- *Although the Spanish accreditation system does not include career recognition/incentives to motivate involvement in RIS3,* **Navarra Government and Navarra universities can introduce metrics to acknowledge and stimulate regional engagement.** *The introduction of specific indicators in a 'Contract-Program' (yearly framework agreement) between the government and universities could be a possible and easy-to-implement pathway.*

- *Introduce indicators for the absorption of graduates by the socioeconomic fabric entities.*

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Recommendations (IV)

- *Universities must monitor and assess the advancement of Navarra RIS3. In particular, INARBE (institute for advanced research in business and economics, UPNA) can accomplish this task following the example of Orkestra in the Basque Country and other similar university institutes worldwide.*

- *Strengthen thematic university-company chairs and 'classrooms'.*

- *Study the viability of introducing dual higher education in Navarra.*

- *Promote alumni networks and communities as a way to better connect with companies and other stakeholders.*

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- Confederación de Empresas de Navarra (CEN)

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Thank you!

and keep in touch:

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