



Begoña Vicente Yenes – Head of Business Development of Research Institutes  
[www.unavarra.es/research-institutes](http://www.unavarra.es/research-institutes)

# PUBLIC UNIVERSITY OF NAVARRA (UPNA)

Public University of Navarra ([www.unavarra.es](http://www.unavarra.es))

The Public University of Navarra was set up in 1987 by the Parliament of Navarre.

## 2 CAMPUSES

### ACADEMIC COURSES

- **18 official degrees + 3 double degrees**
- 9 International programmes
- 30 Master degrees adapted to the EEES
- 13 Doctorate programmes
- 12 Own degrees



Pamplona  
(capital of Navarre)



Tudela  
(2<sup>th</sup> city of Navarre)

### INTERNATIONAL ACTIVITIES

- **300 bilateral agreements** with international institutions of more than 50 countries
- First position among Spanish Universities offering degrees in English
- EBRoS (European Bioregion of Science) Western Pyrenees.

### HUMAN RESOURCES

- Students: 8,200
- Teaching staff: 900
- Administration & services staff: 450
- **Graduates: 32,000**

## UPNA IN A SNAPSHOT

Public University of Navarra ([www.unavarra.es](http://www.unavarra.es))

### in 2017

**69 new publicly funded projects**  
valued at **5,4 M€**

Has signed **161 research contracts**  
valued at **1,6 M€**

Has applied for **5 new patents**  
(44 in the last 5 years)

**379 PhD students**



### excellence



### independent rankings

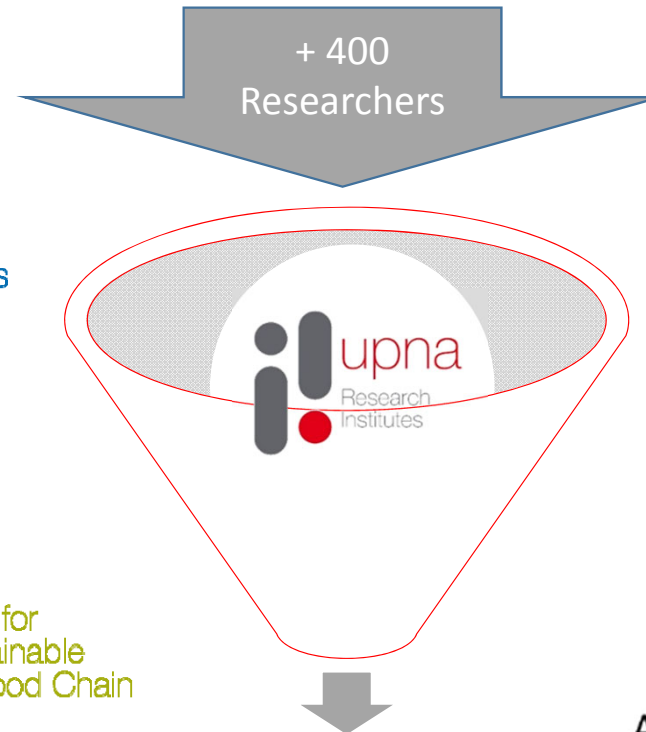
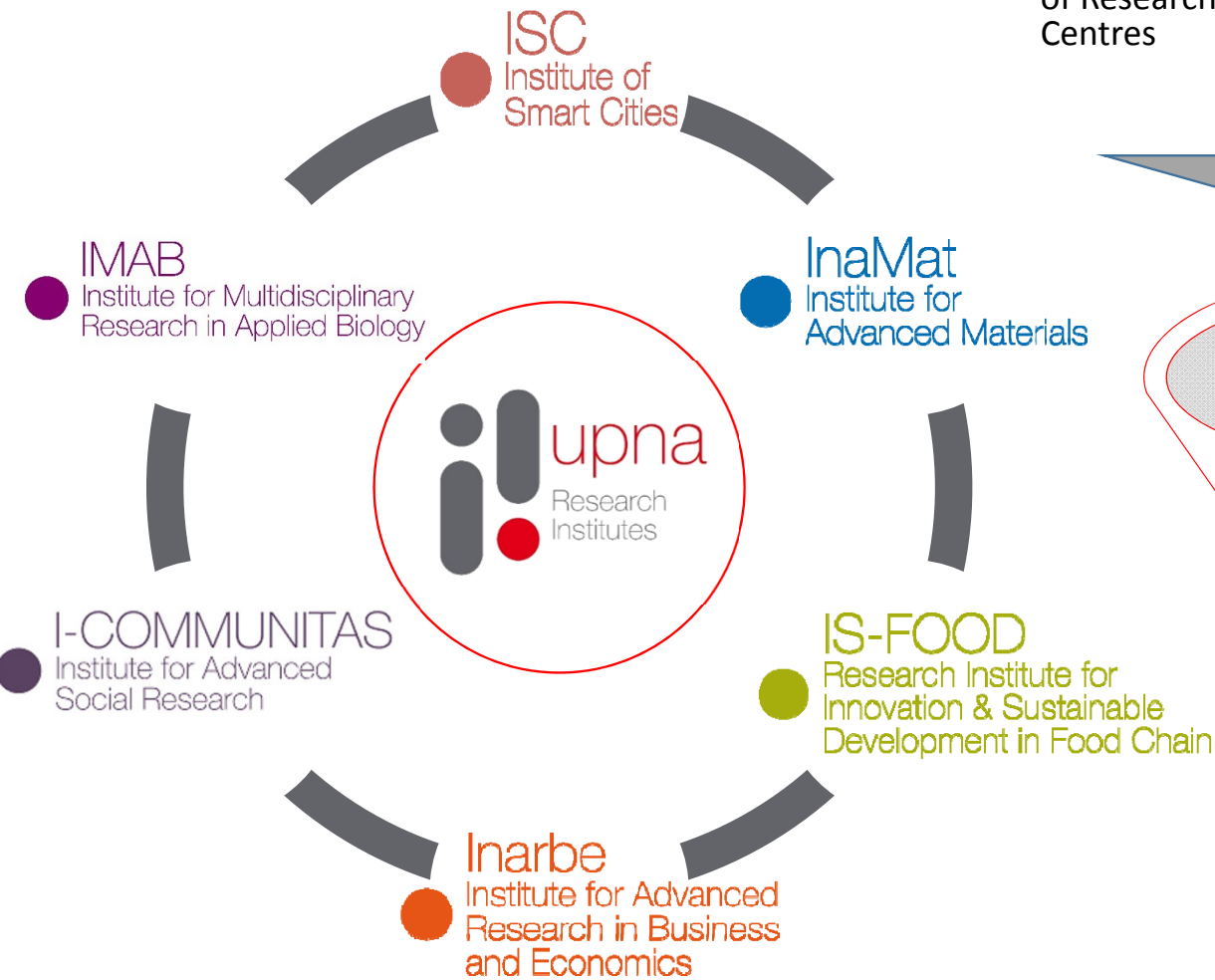
- ✓ Scientific production **Top 10**
- ✓ Innovation & Technology Development **6<sup>th</sup>** out of 48
- ✓ Teaching quality **2<sup>th</sup>** out of 48
- ✓ Capacity to attract new students **9<sup>th</sup>** out of 48

### knowledge transfer collaborations

Publicly funded projects: European calls (H2020, POCTEFA, LIFE+, SUDOE...), National calls and Regional calls.  
Research and Knowledge Transfer Contracts  
Industrial Doctorates  
Industrial Research Chairs  
Technology co-development and licensing  
Promotion and participation in new Technology Based Companies  
IPR licenses

# RESEARCH ACTIVITY

Research, Innovation and Knowledge Transfer is based on the foundations of Research Institutes, Research Groups and Collaborative Research Centres



## COLLABORATIVE RESEARCH CENTRES



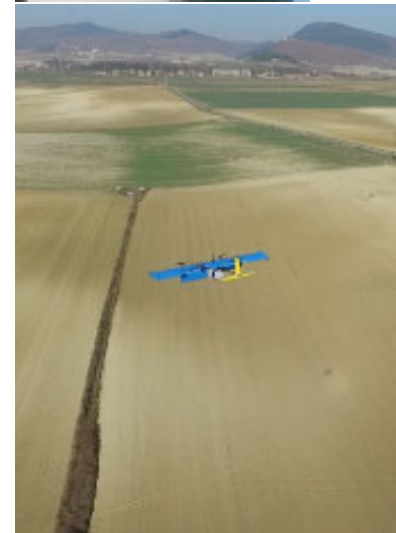
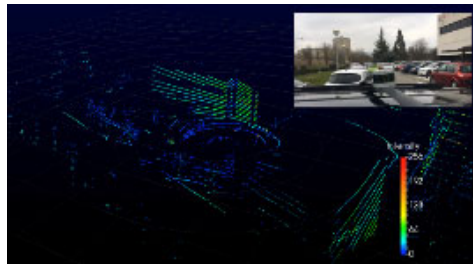
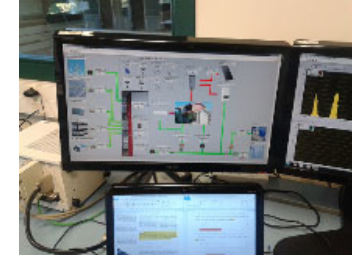
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# RESEARCH INSTITUTES FOCUS

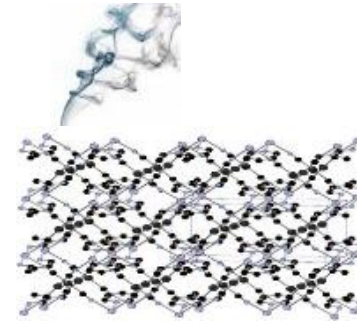


- ✓ **Data analysis and signal processing:** Focused on the analysis and extraction of knowledge from all types of sources through different mathematical and statistical techniques including modelling, simulation, data mining, Big Data and Artificial Intelligence.
- ✓ **Internet of Things:** Which seeks to improve the functioning of the cities, factories and homes of the future by using millions of sensors, actuators and devices that communicate with each other and with people to provide a better quality of life to its inhabitants and a more efficient use of all its resources
- ✓ **Sustainability and energy efficiency:** Essential to make the above developments viable in the long term without damaging the natural environment on which we depend.
- ✓ **Intelligent Environments:** The final result of the aforementioned developments. The harmonious combination of ubiquitous and intelligent technology, based on limited resources, with the people and societies that want to use it.





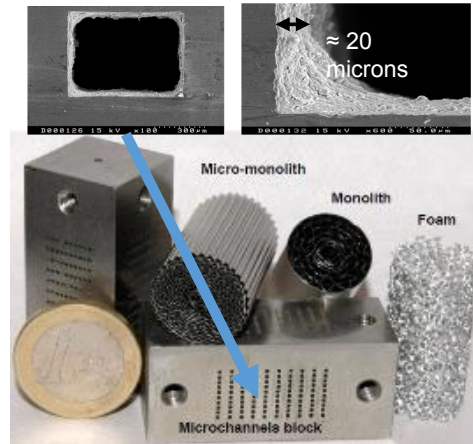
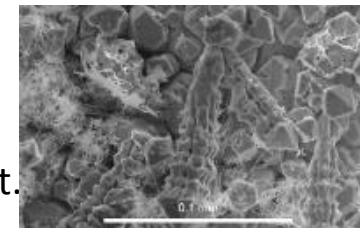
# RESEARCH INSTITUTES FOCUS



- ✓ Smart materials and functional coatings
- ✓ NanoScience applications and materials characterization
- ✓ Data science and Mathematical modelling

The results of the research are focused on Health, Industry, Energy and Environment.

- **Health:** Pharmacological synthesis, Development of biomedical sensors, bacterial biofilms, controlled release of drugs, acoustics, food control.
- **Industry:** Surface treatment, laser, sensory spectroscopy, data processing.
- **Energy:** Magnetic Cooling, energy harvesting, biofuels, magnets for converting and generating electricity, hydrogen economy, high and ultra high frequency (UHF) electronic applications and control systems.
- **Environment:** sustainable processes, optimization of agricultural resources (water, fertilizers etc ...), detection of volatile organic compounds (VOCs) and recovery of industrial waste.

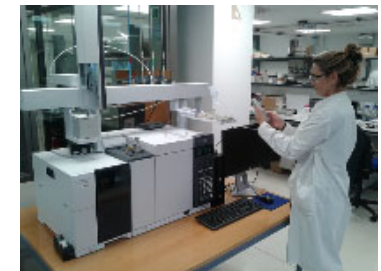
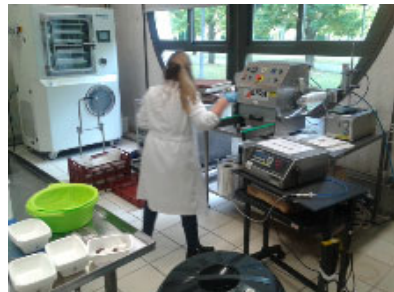




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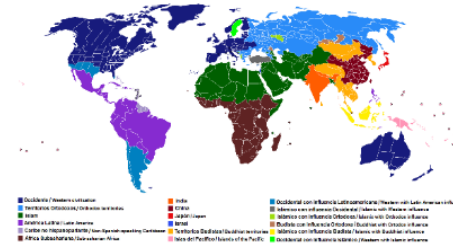


- ✓ **Sustainable production and food quality:** improvement of sustainable agricultural and livestock production systems. Environmental impact assessment of agricultural activity and food safety and traceability, by predicting and determining the quality of products by using non-destructive, instrumental and sensory techniques.
- ✓ **Agrofood Innovation:** emerging technologies for processing and preserving products such as high pressures, formulation and development of foods with healthy properties, functional foods or those ones adapted to situations with special nutritional needs; improvement of foods shelf-life.
- ✓ **Consumer:** Sensory analysis, innovative packaging, consumer food behavior, quality labels, bio-hazard assessment, nutritional composition, healthy diets...





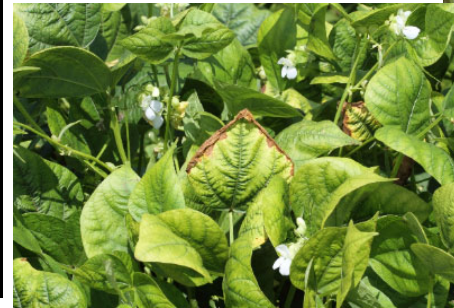
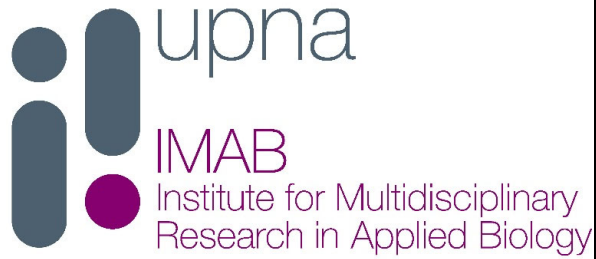
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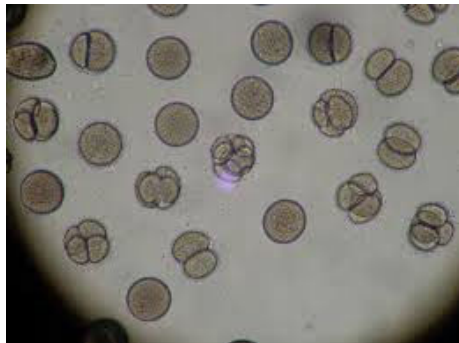
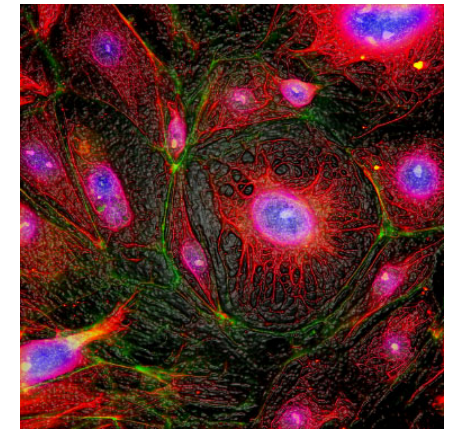
- ✓ **Territories and cultures:** Genesis of the urban world, Rural and urban sociology: mobility and territorial management, Cultural and linguistic heritage, education and arts, Temporalities, creativity and social change and Analysis of the religious fact
- ✓ **Memory, Politics and Identity:** Genesis of the State and characterization of power, Nationalisms and nationalization processes, Memories, social imaginaries and political cultures, Transitions, democracy, territorial model of the State and political parties, Political management of cultural diversity.
- ✓ **Human Rights:** History and current limits of human rights, Immigration, refuge, citizenship and multiculturalism, Freedom of conscience and public freedoms, Elites, power and corruption, Scientific-technological challenges and bioethical implications
- ✓ **Communication and Social Intervention:** Communication, plurality and social development, Intolerance and processes of legitimization of collective violence, Social inequalities and analysis of social policies, Anthropology and sociology of health: current challenges, Ethics of social intervention



# RESEARCH INSTITUTES FOCUS



- ✓ **Biotechnology:** Biotechnology of Agriculture, Microbial Biotechnology, crop protection, crop production, Health biotechnology
- ✓ **Environmental Agrobiolgy:** Management of agroforestry systems, Agrobiolgy and Plant Physiology, agrobiolgy, ecology and environment.



## LINKED SPIN OFFS

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upna





# COLLABORATION

## General:

- Specific framework agreement
- Cathedras: individual or group



## Research:

- Technology Transfer Agreements
- Research Contracts
- Public Research Funding Projects (regional, national (CDTI, PE...), european funding)
- In Company PhD students



## Students:

- In Company internships
- Final degree or Master final degree projects (TFG, TFM)



## Specific training:

- Specific technical training
- In Company training
- Ad-hoc Seminars, conferences....



