

GALICIA



**An innovative UAV initiative with
impact in Agriculture and Forestry
Matera, November 2016**

BASIC FEATURES

POPULATION: **2,7** million
AREA: **29.575** m2
1.500 km of coastal line

ECONOMY

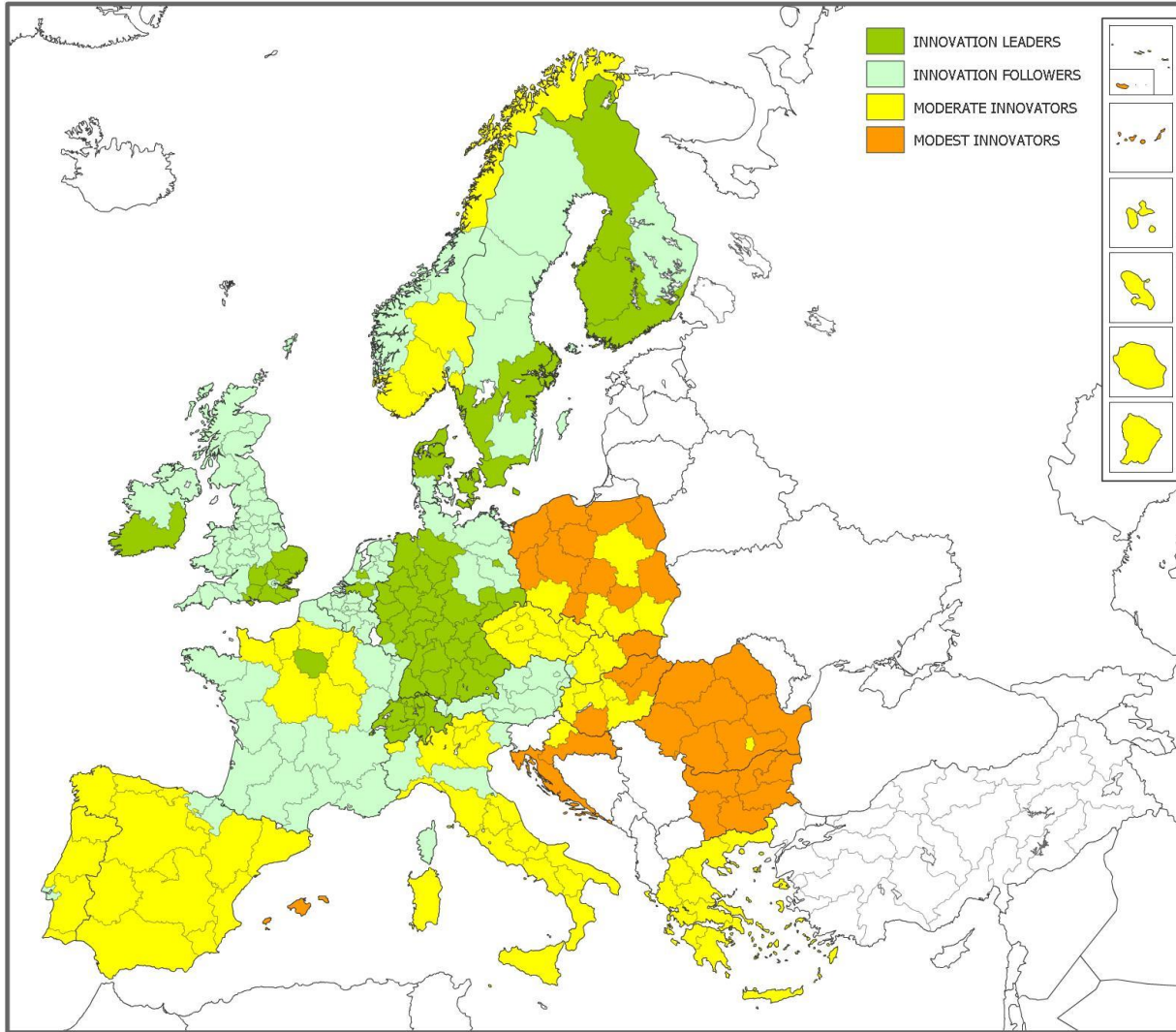
LABOR FORCE: **1,1** million
GDP: **58.000** € millions
COMPANIES: **206.426**
NET EXPORTS: **125%**
BALANCE OF TRADE : **112,3 %**

INFRASTRUCTURES

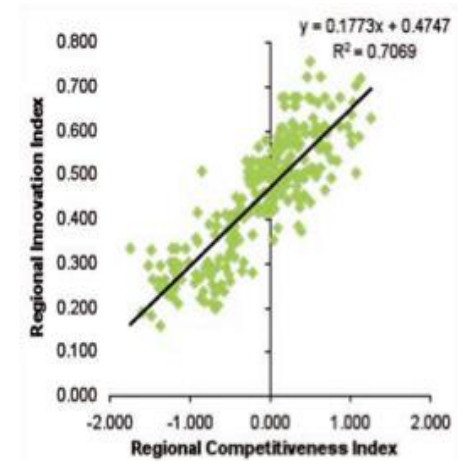
INTERNATIONAL AIRPORTS: **3**
PORTS: **127**
INDUSTRIAL SURFACE: **47** millions m2

OTHER DATA

RENEWABLE ENERGY PRODUCTION: **94,5%**
LIFE EXPECTANCY: **82** years (EU: 80 years)
POPULATION OVER 65 YEARS: **23%**
WORLD HERITAGE SITES: **4** (1 OF THEM, A LIGHTHOUSE)
MICHELIN STARRED RESTAURANTS: **11**

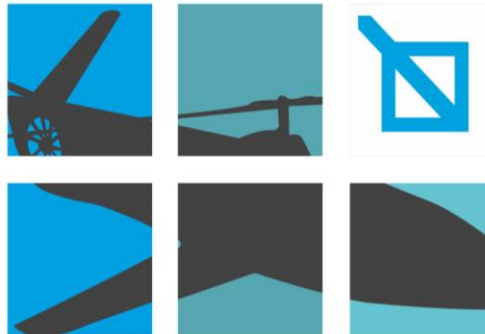


Regional Innovation Scoreboard 2014



CIVIL UAVs INITIATIVE

THE GALICIAN TECHNOLOGICAL &
INDUSTRIAL PARK OF UNMANNED AIRCRAFT



GALICIA S3 CHALLENGES AND PRIORITIES

10 priorities split into 3 challenges:

- New innovative models to manage natural and cultural resources
 - **Modernisation of Primary Sectors**
 - Valorisation of Sea
 - Development of Aquaculture
 - **Biomass & Marine Energies**
 - Tourism & ICT
- New industrial model
 - **Diversification of Driving Sectors**
 - Enhanced competitiveness through new industrial concepts
 - Knowledge-based economy through ICT & KETs
- New healthy lifestyle
 - Development of Active Aging Sector
 - **Food & Nutrition for healthy living**

AD HOC SUPPORT INSTRUMENTS FOR THE S3

PEME INNOVA
TO SUPPORT
INNOVATIVE SMES

INNOVA EN GALICIA
TO STIMULATE AND
ATTRACT PRIVATE
INVESTMENT

GALICIA
TRANSFERS
TO ENHANCE TRANSFER OF
KNOWLEDGE TO MARKET

INNOVATIVE
ENTREPREN.
TO SUPPORT
INNOVATIVE
ENTREPR & TALENT

Nº	Instrumentos	Acrónimo
1	Programa Innovación Sectorial	Innov. Sectorial
2	Proxectos Innovación Aberta	Innov. Aberta
3	Bonos Servizos Tecnolóxicos	Bonos Tecnolóxicos
4	Bonos Financiamento Internacional	Bonos Financiamento
5	Homologación/Certificación	Homologación/Certificación
6	Programa de Fomento da Capacidade de Absorción de Coñecemento das Empresas	Fomento capac. Absorción

Nº	Instrumentos	Acrónimo
7	Fondo Atracción Centros Desenvolvemento	Fondo Atracción Centros
8	Fondo Demanda Temperá	Demanda Temperá
9	Proxectos Demostración	Prox. Demostración
10	Proxectos Estratéxicos Publico Privados	Unidades Mixta
11	Cooperación con Horizon 2020 no desenvolvemento de Proxectos Colaborativos de I+D+i	Complemento H2020
12	Instrumentos de Enxeñaría Financeira para a Mobilización de Capital Privado	Mobilización de Capital

Nº	Instrumentos	Acrónimo
13	Contrato Programa de Transferencia para Centros Científicos & Tecnolóxicos	Contrato Progr. CC e CT
14	Investimentos en Activos de Coñecemento e Tecnoloxía en Centros Científicos e Tecnolóxicos	Investimentos CC e CT
15	Proba Concepto	Proba concepto
16	Compra pública Innovadora	Comprar Pública Innov.
17	Fomento da Propiedade Industrial	Propiedade Industrial

Nº	Instrumentos	Acrónimo
18	Programa de Aceleración de la Innovación	Aceleradora
19	Programa de Retención, Incorporación e Mobilidade de Talento	Talent

Nº	Instrumentos	Acrónimo
20	Difusión e Asistencia Técnica	Asistencia Técnica

AERONAUTICS INDUSTRY ALSO IN THE RIS3-T FOCUS



**THE S3 FOR THE
EUROREGION**



PRIORITIES IN THE RIS3 GALICIA-NORTH OF PORTUGAL

**MARINE ENERGY
& BIOMASS**

**AGRO-BIO/FOOD
INDUSTRY**

**TRANSFORMATION
INDUSTRY
(manufacturing)**

**MOBILITY /
AERONAUTICS
INDUSTRY**

**CREATIVE / ICT /
TOURISM
INDUSTRY**

**HEALTH / ACTIVE
AGING**

ALIGNMENT OF THE CIVIL UAVs INITIATIVE WITH GALICIA S3



The priority of RIS3-Galicia is the **diversification of Galician driving sectors** and the ancillary industries through an intensive use of enabling technologies, oriented towards provision of new processes and high added value products that facilitate exploration of new markets based on hybridisation, knowledge and technology (An example being the **aeronautical and aerospace industry**).



Objective



Innovative technological solutions through PPI

Improve provision of public services

Creation of a technological development pole for UAVs

**CIAR
Aeronautic
Technology Park**

Attraction of investment for technological and industrial development

THE CIVIL UAVS INITIATIVE (CUI) PLAN

		BUILDING CIAR	PHASE A	PHASE B	CUI
AIM		Development of ROZAS & high level equipment for the aerospace sector	Joint R+D programme and long-term association	Improvement of public services in the short term with UAV-based innovative solutions	PROMOTING THE AEROSPACE POLE
SCHEDULE		2015-2019	2015-2026	2015-2019	2015-2026
INVESTMENT		10 M€	115 M€	24 M€	149 M€
PARTICIPANTS	PUBLIC	XUNTA, MINECO & INTA (GAIN & IGAPE)	XUNTA (GAIN & IGAPE) User ministries	XUNTA & MINECO (GAIN & AMTEGA) User ministries	5 DEPTS. FROM 2 ADMINISTRATIONS + REGIONAL USER MINISTRIES
	PRIVATE	Equipment suppliers	INDRA, INAER & 31 firms	<ul style="list-style-type: none"> Market consultations preliminary Dialogue process 	COMPANIES, RTOS, UNIVERSITIES

PHASES

This is an interdepartmental initiative of the Xunta de Galicia whose objectives are:

- **Promote the use of civilian UAVs**, especially to improve public services.
- Creation of a **technological research and development pole**.

To achieve these objectives the initiative is structured into **2 complementary phases**:

Phase A: In this phase, one or more **technological and industrial strategic partners** are selected to establish public-private collaboration through a partnership agreement for pre-commercial development where the aim is to jointly develop a **research and aerospace technology pole based on UAVs**.



Phase B: In this phase, public procurement is used, to obtain **concrete innovative solutions based on UAVs for the technological challenges identified** by the departments of the Xunta de Galicia.

Phase A

DEVELOPMENT OF PHASE-A

69

Entities filled in the annexes to the *Request for Information* and expressed their interest to participate in the process

9

- Proposals were submitted to the Request for Proposals-Phase A
- Participants included leading companies from the aerospace industry



Aeroespacial y Defensa



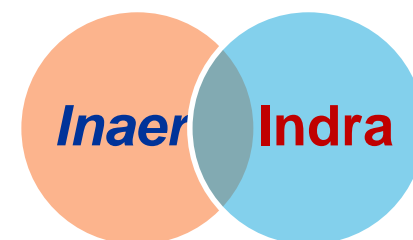
■ INAER HELICOPTERS / BABCOCK GROUP

- **British company** world leader in the provision of manned aircraft mission services
- Present in **23 countries**
- Turnover 2014: **€6,285 Million**
- **35,200 employees**



■ INDRA

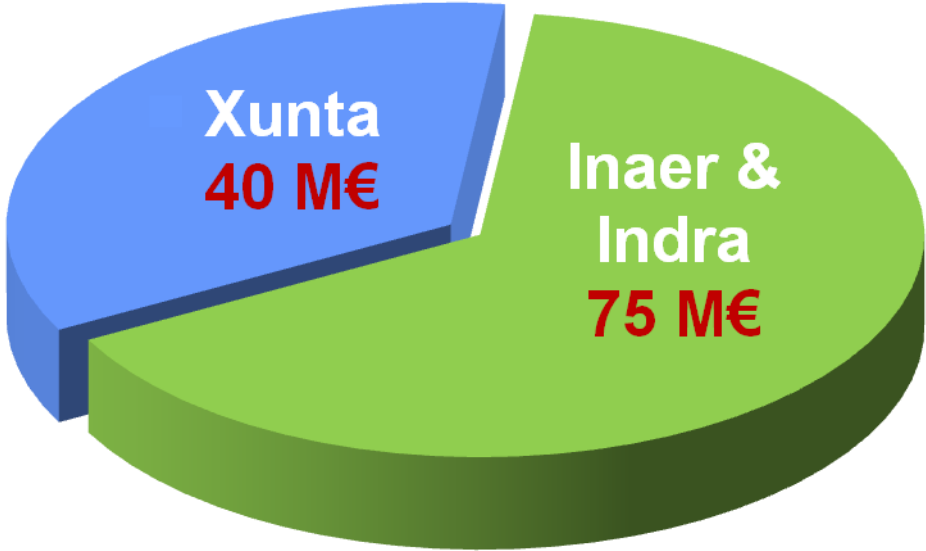
- **Spanish group** leader in high technology
- Present in **149 countries**
- Turnover 2014: **€2,938 Million**
- **37,931 employees**



€9,250 Million turnover and 72,500 employees

TECHNOLOGICAL AND INDUSTRIAL PARK: ECONOMIC IMPACT

€115 MILLION



Creation of 600 JOBS
DIRECT AND INDIRECT

MAJOR COMMITMENTS OF INAER AND INDRA (1)

- Relocation of Indra's and Inaer's entire UAV activity to Galicia:
INAER relocates the **manned helicopter maintenance centre of the fleet**
 - INAER and Indra will establish the **UAV maintenance centre**
- Introduction of 6 new companies.
- Development of a list of products that will be manufactured entirely **in Galicia** and **marketed worldwide**.
- Development of transversal technologies with a high impact on other sectors: naval, automotive, etc.

On-going R+D+I projects with impact in Agriculture:

- Forest fire fighting
- Preventive silviculture, forest & bio-mass management
- Post-fire forestry and hydrologic restoration
- Control of forest and agriculture plagues
- Territorial management and heritage control
- Management of hydrologic basins and civil work

PARTICIPATING COMPANIES (SUBCONTRACTING)

Companies

- | | |
|-----------------------|--------------------------------|
| 1. SIVSA | 12. MARINE INSTRUMENTS |
| 2. R-CINFO | 13. SIXTEMA |
| 3. SOTWCARE | 14. TELEVES |
| 4. Cablerías Auto | 15. ACLUNAGA |
| 5. COREMAIN | 16. ACUBENS |
| 6. CENTUM | 17. S4A Solutions for Aviation |
| 7. PILDOLAB | 18. TECNAM Aviation |
| 8. SOLDATEC | |
| 9. DELTA VIGO | |
| 10. AEROMEDIA | |
| 11. Ingeniería INSITU | |

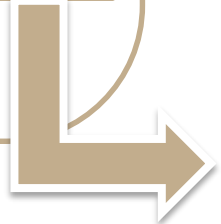
16. ACUBENS
17. S4A Solutions for Aviation
18. TECNAM Aviation



SECTORS

- Aeronautics
- Metallurgy
- Naval
- ICT

COMPANIES NEWLY ESTABLISHED IN GALICIA



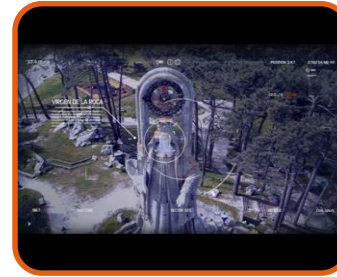
RTOS

1. AIMEN
2. LOURIZAN
3. CESGA
4. ITMATI
5. GRADIANT
6. CITIC
7. UDC
8. CTAG
9. USC
10. CETMAR
11. UVIGO
12. CIAR
13. ITG

Phase B

PHASE B

Procurement of UAV-based technological solutions to improve public services



**Land
management**
**Fire
prevention**
**Biomass
management**

**Fight against
poaching**
**Maritime
rescue**

**Emergency
management**

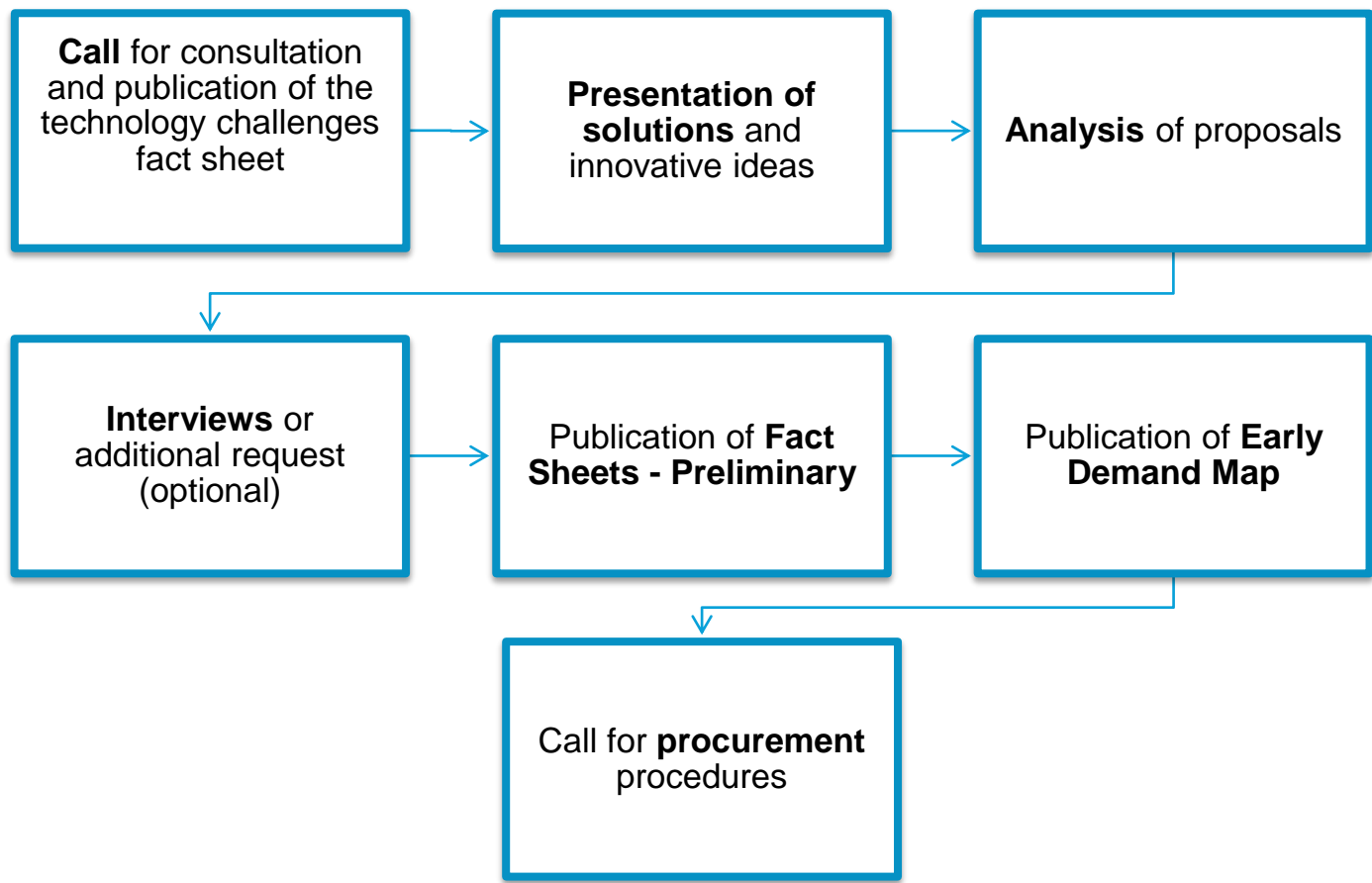
**Cultural
heritage
management**

Tourist flows

DIAGRAM OF PHASE -B

Start: 01 September 2015

Preliminary Market Consultations



INTERIM ASSESSMENT OF THE PRELIMINARY MARKET CONSULTATIONS



1. Cartography and geographic information:

- Automations to obtain cartography and geographic information

2. Rural development:

- Detection and monitoring of forest fires
- Forest inventory and management
- Phytosanitary condition of vegetation and plague fighting
- Abandonment and mobility of agricultural land

3. Environment:

- Obtaining cartography of habitats and assessing its condition
- Monitoring air pollution in emergency situations
- Development of sensors to measure pollutants in water
- Water sample collecting
- Cartography of underground water resources

4. Cultural heritage:

- Identification and mapping of cultural heritage elements

Thank you

www.civiluavsinitiative.com

<http://gain.xunta.es>

www.ris3galicia.es

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