III ineco

R&D+i   Innovation management in ineco, key to competitiviness and efficiency

Ineco´s commitment to innovation

5,9 M€

investment in innovation

2%

investment of its sales turnover

37

projects

12

projects in consortium, 4 of which are led by Ineco

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An active, innovative
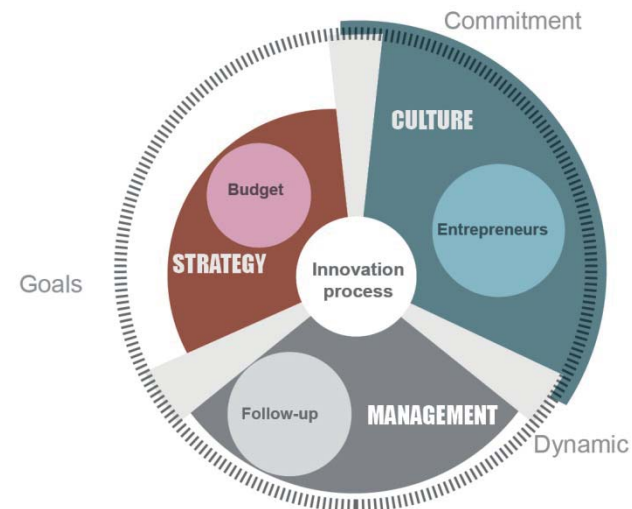and cross curricular model

Technological innovation model

Innovation in Ineco

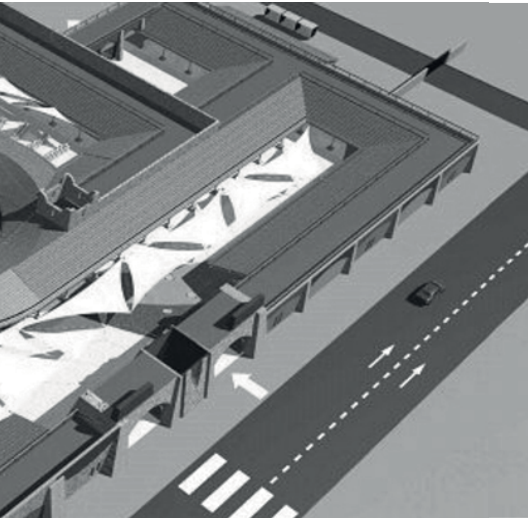| Ingenuity	Talent
Knowledge	Effort

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Innovation strategic guidelines

Air transport

- *Environmental sustainability*

- *Operation improvement and optimization*

- *Air navigation system optimization*

- *Operational safety*

- *Security*

- *Air transport new challenges*

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Railways

- *Environmental sustainability*

- *Operation improvement and optimization*

- *Operational safety and standardization*

- *Security*

- *Smart mobility*

- *Maintenance, design and construction*

- *Intermodality and freight*

- *Policies, planning, society and economics*

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Roads

- *Energy and environmental sustainability*

- *Smart mobility. Intelligent Transport Systems(ITS)*

- *Operational road safety and intermodality*

Ineco´s most relevant participations in R&D+i

European ATM Research and Development Association (EATRADA)

Spanish Railway Technological Platform (PTFE)

Spanish Road Technological Platform (PTEC)

ERRAC WG
The European Rail Advisory Council

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Appendix I. Internal financing

- **ACDA:** feasibility stuy for advanced CDAS procedures
- **CRM:** development of a solution and pilot for CRM for the International business area
- **DETEC:** development of online rail techniques implementation
- **HEPA:** a tool for the study of airports☐electrical power
- **PEIF:** a tool for railway installation exploitation programs
- **BRIDGE PIERS:** study of the erosion capacity in the river environment of bridge piers using two-dimensional river flow models.
- **SOFTDIS:** support software for the design of railways safety
- **SSICT:** solutions for the improvement of safety at transport critical infrastructures (railway sector)
- **ARQOS:** analysis of the quality parameters of GSM-R mobile communication networks service for the establishment of the right planning process of the network and its services
- **CLIMA:** viability study of solar air conditioning installations at airports
- **E-Plan Airport:** a tool for the planning and analysis of airports
- **Impulse:** application for the analysis of problems in navigation systems. Impulse signals simulator
- **Photovoltaic platform:** photovoltaic energy plant for Ineco☐central offices in Madrid
- **SIOS3:** information systems and comprhensive management of underground works

Appendix I. National joint financing

- **MAT:** design of an architectural module for the transit of passengers at locations related to means of transport. Madrid Autonomous Region
- **NAZPLV:** development of a computer application for the creation of flight plans at the airports of Aena´s network. Madrid Autonomous Region
- **RWX.EX:** flight simulator on land for safety evaluations. Madrid Autonomous Region
- **SAD:** help system for the decision making at the management of incidents in the railway transport sector. Madrid Autonomous Region
- **ACROR:** analyzer of actions of aircrafts based in RADAR data: CDTI (Centre for Industrial Technological Development)
- **CRONOS 2.0:** development of a comprehensive analysis soltuion for the operation of railway lines: CDTI
- **HECCO:** a tool for the evaluation of communications ranges: CDTI
- **TUNNEL:** aerodinamic effect of the high speed system in long tunnels and definition of a special performances for driving overpressures away: CDTI
- **HELIOS:** calculation and evaluation of aeronautical easements: CDTI
- **SIMULATOR A-320:** engineering flight simulator: CDTI (Centre for Industrial Technological Development)
- **VULCANO:** development of a methodology for the prevention and risk-of-fire evaluation in the surrounding area of electric and railway lines: Ministry of Agriculture, Food and Environmental Affairs
- **ARMÓNICOS:** study of interferences caused by harmonics generated by rollink stock: National R&D Plan, Ministry of Economic Affairs and Competitiveness
- **EUROLAZO:** advanced railway interoperability systems based on TIC technologies through the development of ERTMS components: National R&D Plan, Ministry of Economic Affairs and Competitiveness
- **TIGLOG:** identification and communications technologies for the improvement of information and security along the logistic line: National R&D Plan, Ministry of Economic Affairs and Competitiveness

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Appendix II. International joint financing

- **AAS:** Integrated airport apron safety fleet management
- **ACCEPTA:** Accelerating Egnos adoption in aviation
- **Airport 2050:** New concepts for the airport of the future
- **DEMASST:** Demo for mass transportation security
- **GIANT-2:** Egnos adaptation in the aviation sector
- **GRAIL-2:** GNSS introduction in the rail sector *2*
- **FILGAPP:** Filling the Gapp in GNSS advanced procedures and operations
- **PILOT4SAFETY:** Pilot for road safety
- **SAVASA:** Video archive search platform *for* authorized users *to* perform semantic queries over different, remote and non-interoperable video archives
- **SECUR-ED:** European demonstrator of new solutions for the security of mass transportation infrastructures
- **INNES:** Integrated European signaling system RESET. Reduced separation minima
- **STANDARDS:** Standardization and reference documentation support Standards
- **SUGAST:** Support to Galileo standardization
- **TITAN:** Turnaround integration in trajectory and network
- **TRIOTRAIN:** Total regulatory acceptance for the interoperable network

EGNOS

GNSS

GALILEO

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