

DISCIPLINES	KNOWLEDGE AREAS	TECHNOLOGY LINES	SECTORS									
			Agrifood	Energy and Water	Habitat	Leisure, Tourism and Sport	Consumer goods / Clothing	Mobility	Industry Processes	ICT	Health and Quality of Life	
Biotechnologies	Biotechnologies	Biological diagnosis and biotests	•	•	•	•	•	•	•	•	•	•
		Genetic engineering of microorganisms	•	•	•	•	•	•	•	•	•	•
		Biomaterials and bioproducts	•	•	•	•	•	•	•	•	•	•
		Bioprocesses	•	•	•	•	•	•	•	•	•	•
		Biodeterioration and environmental applications of the biotechnology	•	•	•	•	•	•	•	•	•	•
		Bioenergy	•	•	•	•	•	•	•	•	•	•
Competitive Intelligence	Competitive Intelligence	Technology watch and prospective	•	•	•	•	•	•	•	•	•	•
		Systems for strategic competitive intelligence (short-term)	•	•	•	•	•	•	•	•	•	•
		Systems for strategic competitive intelligence (mid-term)	•	•	•	•	•	•	•	•	•	•
		Systems for strategic competitive intelligence (long-term)	•	•	•	•	•	•	•	•	•	•
		Quatitative and qualitative market research	•	•	•	•	•	•	•	•	•	•
		Strategic advice	•	•	•	•	•	•	•	•	•	•
Nanotechnologies	Nanotechnologies	Synthesis and modification of nanoparticles	•	•	•	•	•	•	•	•	•	•
		Characterization of nanoparticles	•	•	•	•	•	•	•	•	•	•
		Incorporation of nanoparticles to the development of new materials	•	•	•	•	•	•	•	•	•	•
		Obtaining new coatings and paints from nanotechnology	•	•	•	•	•	•	•	•	•	•
		Properties improvement and/or use in new applications	•	•	•	•	•	•	•	•	•	•
		Nanosensors, nanobiosensors, nanochips	•	•	•	•	•	•	•	•	•	•
		Security and prenormative	•	•	•	•	•	•	•	•	•	•
Materials Technology	Adhesives	Synthesis of polymers basis	•	•	•	•	•	•	•	•	•	•
		Formulation of adhesive for different applications	•	•	•	•	•	•	•	•	•	•
		Adhesives characterization	•	•	•	•	•	•	•	•	•	•
		Surface treatments to improve the adhesion	•	•	•	•	•	•	•	•	•	•
		Adhesives development from renewable sources	•	•	•	•	•	•	•	•	•	•
	Hydraulic binders, derivatives and building stones	Development	•	•	•	•	•	•	•	•	•	•
		Optimization	•	•	•	•	•	•	•	•	•	•
		Evaluation	•	•	•	•	•	•	•	•	•	•
		Realization	•	•	•	•	•	•	•	•	•	•
		Service	•	•	•	•	•	•	•	•	•	•
	Iron and non-iron alloys	Iron and non-iron alloys	•	•	•	•	•	•	•	•	•	•
	Natural and artificial textile fibres	Natural fibres	•	•	•	•	•	•	•	•	•	•
		Artificial fibres	•	•	•	•	•	•	•	•	•	•
	Ceramic materials	Physical-Chemical characterization	•	•	•	•	•	•	•	•	•	•
		Ceramics based on silicates / traditional ceramics	•	•	•	•	•	•	•	•	•	•
		Advanced ceramics	•	•	•	•	•	•	•	•	•	•
		Ceramic pigments and synthesis processes	•	•	•	•	•	•	•	•	•	•
		Design of ceramic materials for a sustainable construction	•	•	•	•	•	•	•	•	•	•
		Ceramic materials for packaging	•	•	•	•	•	•	•	•	•	•
	Composite materials	Development of new materials with improved properties and/or new applications	•	•	•	•	•	•	•	•	•	•
		Analysis and characterization of composites	•	•	•	•	•	•	•	•	•	•
		Composites from renewable sources	•	•	•	•	•	•	•	•	•	•
		Textile reinforcement and support	•	•	•	•	•	•	•	•	•	•
Electric and magnetic materials	Intelligent materials	•	•	•	•	•	•	•	•	•	•	

Materials Technology	Wood materials	Materials and products characterization	•		•	•	•	•	•	•			
		Improvement in the use and durability of the wood			•	•	•			•			
		Boards derivative from wood			•	•	•			•			
		Sustainable management of the forest		•		•	•			•			•
		Management and valorization of wastes obtained from the wood		•						•			
	Paper and cardboard materials	Papers for the manufacturing of corrugated cardboard	•							•			•
		Papers for bags/sacks	•							•			•
		Special papers for wrapping and packaging	•							•			•
		Papers for non-packaging uses			•	•	•						•
		Cardboards for the manufacturing of packagings	•		•	•	•			•			•
		Cardboards for non-packaging uses			•	•	•						•
		Corrugated cardboard	•		•	•	•			•			•
		Other products for packaging obtained from paper and cardboard			•					•			•
	Plastic materials	Polymers and additives synthesis	•	•	•	•	•			•			•
		Functionalization of polymers and other plastic components (additives, reinforcements, etc.)	•		•	•	•			•			•
		Development of new materials with improved properties and/or new applications	•	•	•	•	•			•			•
		Plastics analysis and characterization	•	•	•	•	•			•			•
		Plastics from renewable sources, biodegradable and obtained from waste	•	•	•	•	•			•			•
	Inks and Tannings	Tannings			•		•			•			
		Inks	•	•	•		•			•			
	Coatings	Selection, characterization and analysis of coatings	•	•	•	•	•			•			•
		Coatings development	•	•	•	•	•			•			•
	Technologies for the environment	Technologies for the environment	Atmosphere	•	•	•	•	•			•		
Water			•	•	•	•	•			•			•
Waste			•	•	•	•	•			•			•
Pollution prevention			•	•	•	•	•			•			•
Environmental management			•	•	•	•	•			•			•
Materials			•	•	•	•	•			•			•
Energy			•	•	•	•	•			•		•	•
Other			•	•	•	•	•			•		•	•
Design technologies	Design technologies	People-oriented design	•	•	•	•	•			•			•
		Ergonomy: ergonomic design of products, processes and environments (thermic, acoustic, visual, physical, control of environments, etc.)	•	•	•	•	•			•			•
		Design technologies	•	•	•	•	•			•			•
		Technologies for rapid prototyping	•	•	•	•	•			•			•
		Technologies for modeling and simulation	•	•	•	•	•			•			•
		Eco-design	•	•	•	•	•			•			•
			•	•	•	•	•			•			•
Process technologies	Packaging technologies	Characterization and evaluation of packagings	•		•	•	•			•			•
		Design and development of packagings	•		•	•	•			•			•
		Manufacturing technologies for packagings	•		•	•	•			•			•
		Printing and labelling technologies	•		•	•	•			•			•
		Systems for packaging and preservation of the product	•		•	•	•			•			•
		Functional, active and intelligent packaging	•		•	•	•			•			•
		Sustainability applied to packaging	•	•	•	•	•			•			•

Process technologies	Construction technology	Construction technology			•	•	•			•	•	•	
		Architectural acoustics				•	•			•	•		•
		Concrete technology				•					•		
		Structures engineering				•				•	•	•	•
		Structures resistance			•	•					•	•	•
		Heat transmission in buildings				•					•	•	•
		Architectural design			•	•	•				•		•
		Sustainable construction			•	•		•			•	•	•
	Instrumentation technology	Automation technology (technologies that support the tasks automation and minimize human intervention)	•		•	•		•			•		•
		Instrumentation and control (technologies that allow measurement and handling of process variables)	•		•	•		•		•	•	•	•
		Metrology and calibration (instrumental technologies that allow the reading of physical or chemical magnitudes, with accuracy, knowing the uncertainty of the measurement, and being valid for certifications or accreditations)	•		•	•	•	•			•		•
	Wood technology	New technologies for the manufacturing of furniture and products derived from wood				•							
		Development and application of information and communication technologies to the processes management				•			•		•	•	
		Interoperability of informatic programmes				•			•		•	•	
		Design of flexible cells for the manufacturing and assembly of furniture and similar products				•			•		•		
		Lean Manufacturing applied to wood-furniture sector				•			•		•		
		SMED techniques applied to machines and processes for the furniture manufacturing				•			•		•		
		Robotics applied to the production processes for furniture and derivatives				•			•		•		
		RFID intelligent identification systems				•			•		•	•	
		Development of innovative and multifunctional furniture (semi-finished and final)				•			•				
	Food technology	Technology for food preservation	•								•		
		Development of new food products	•								•		•
		Food processing	•								•		
		Food packaging	•								•		
		Food industry hygiene	•		•						•		•
		Food products consumers	•								•		•
		Management of food quality and safety	•		•						•	•	•
		Reduction of food waste	•										•
		Use of food by-products	•		•								
		Detection of foreign bodies and chemical and microbiological risks in the production lines	•								•	•	•
Composites technology	Polymer matrix	•		•	•	•		•	•			•	
	Metal matrix				•			•	•			•	
Plastics technology	Compression	•		•	•	•		•	•			•	
	Extrusion and coextrusion	•		•	•	•		•	•			•	
	Coatings and laminates	•		•	•	•		•	•			•	
	Sheets thermoforming	•		•	•	•		•	•			•	
	Injection (conventional, bi-injection, co-injection, etc.)	•		•	•	•		•	•			•	
	Compounding	•		•	•	•		•	•			•	
Electric technology	Non-conventional processes	•		•	•	•		•	•			•	
	Electric technology			•	•			•	•				
	Electric applications			•	•			•	•				
	Electric motors			•				•					
	Manufacturing of electric equipments			•			•						
	Transmission and distribution			•				•					

Process technologies	Electronic technology	Laser devices	•	•	•	•	•	•	•	•		
		Microwaves devices		•	•		•		•		•	
		Other electronic devices	•	•	•		•	•	•	•	•	
		Sensors	•	•	•	•	•	•	•	•	•	
		Microelectronics	•	•	•	•	•	•	•	•	•	
	Energy technology	Storage, renewable energies, infrastructures, smart grids	•	•	•	•	•	•	•		•	
		Energy distribution		•	•				•			
		Energy generation		•	•				•	•		
		Energy transmission		•	•				•			
		Non-renewable sources of energy	•	•	•				•	•	•	
		Energy efficiency	•	•	•	•	•	•	•	•		•
		Other							•			
	Metallurgical technology	Metal forming processes						•	•	•		
		Processes of foundry						•	•	•		
		Thermal and surface treatments			•			•	•	•		
		Bonding processes							•	•		
		Coating application processes		•	•			•		•		
		Layered powder metallurgic processes		•				•	•	•		•
	Optics and photonics technology	Photometry and lighting	•	•	•	•	•	•	•	•	•	
		Colorimetry	•	•	•				•		•	
		Optometry									•	
		Spectroscopy	•		•			•		•	•	
		Optical sensors	•	•	•			•		•	•	
		Laser	•	•	•			•		•	•	
		Optical metrology				•	•			•		•
	Textile technology	Spinning	•	•	•	•	•	•	•	•	•	
		Weaving	•	•	•	•	•	•	•	•	•	
		Finishings and ennoblement	•	•	•	•	•	•	•	•	•	
		Confection		•	•	•	•	•	•	•	•	
	Ceramic technologies	Process technologies for ceramic materials (drying, grinding, shaping, cooking or sintering)								•		•
		Equipments design for the processing of ceramic materials								•		
		New manufacturing processes								•		
	Printing technologies	Functional printing	•					•		•		
		Conventional printing	•		•	•	•	•	•	•		•
		Color flow								•		
		Control of the printing process								•		
	Transport and mobility systems technologies	Intermodality and infrastructures for the transport	•	•	•	•	•	•	•	•	•	•
		Intelligent transport systems	•	•	•	•	•	•	•	•	•	•
		Transport sustainability			•					•		
		Security in transport	•		•			•	•			
		Traffic management	•	•	•	•	•	•	•	•	•	•
		Public transport and urban mobility	•	•	•	•	•	•	•	•	•	•
		Logistics of last mile freight	•	•	•	•	•	•	•	•	•	•
	Cardboard technologies	Analysis and implementation of new technologies in the productive process	•	•	•			•		•		•
		Incorporation of improved materials and treatments for the cardboard manufacturing	•	•	•			•		•		•
		Evaluation of printing techniques	•	•	•	•	•			•		•
		Regulatory/legislative issues in the manufacturing process of cardboard	•	•	•	•	•			•		•

Process technologies	Logistics and distribution technologies	Advanced logistics and integral management in the supply chain	•	•	•	•	•	•	•	•	•	•	
		Support systems for logistics management	•	•	•	•	•	•	•	•	•	•	•
		Conditioning and packaging of goods	•	•	•	•	•	•	•	•	•	•	•
		Logistics of dangerous goods	•	•	•	•	•	•	•	•	•	•	•
		Sustainability in distribution and logistics	•	•	•	•	•	•	•	•	•	•	•
	Technologies and systems for the monitoring, tracking and control of industrial processes	Monitoring of energy efficient systems in buildings	•	•	•	•	•	•	•	•	•	•	•
		Monitoring of energy efficient systems in productive processes of building materials	•	•	•	•	•	•	•	•	•	•	•
		Monitoring and tracking of the curing of concrete-based materials	•	•	•	•	•	•	•	•	•	•	•
		Development and construction of new equipments for variables monitoring	•	•	•	•	•	•	•	•	•	•	•
		Optic fibre sensors	•	•	•	•	•	•	•	•	•	•	•
		Traceability, security and management of the food chain	•	•	•	•	•	•	•	•	•	•	•
		Application of X-rays on the production control	•	•	•	•	•	•	•	•	•	•	•
		Monitoring of industrial processes	•	•	•	•	•	•	•	•	•	•	•
		Sensors development for goods traceability	•	•	•	•	•	•	•	•	•	•	•
		Integration of sensing and traceability systems in packagings (intelligent packing)	•	•	•	•	•	•	•	•	•	•	•
		Risk monitoring and characterization of the distribution environments	•	•	•	•	•	•	•	•	•	•	•
		Energy efficiency. Electric consumption management. Communications and advanced control	•	•	•	•	•	•	•	•	•	•	•
		Smart Grids. Request management, forecasting and segmentation algorithms. Energy metrology. Communications and advanced control.	•	•	•	•	•	•	•	•	•	•	•
Technologies for health	Technologies for health	Technology for health diagnosis, assessment and treatment	•	•	•	•	•	•	•	•	•	•	
		Technology and resources for quality of life	•	•	•	•	•	•	•	•	•	•	
		Rehabilitation techniques	•	•	•	•	•	•	•	•	•	•	
		Telemedicine	•	•	•	•	•	•	•	•	•	•	
		Biomaterials	•	•	•	•	•	•	•	•	•	•	
		Biomechanics	•	•	•	•	•	•	•	•	•	•	
		Work health and safety	•	•	•	•	•	•	•	•	•	•	
ICT	Audiovisual technology	Tecnologia audiovisual	•	•	•	•	•	•	•	•	•		
	TICS	Computers science	•	•	•	•	•	•	•	•	•	•	
		Hardware	•	•	•	•	•	•	•	•	•	•	
		Software engineering	•	•	•	•	•	•	•	•	•	•	
		Communications	•	•	•	•	•	•	•	•	•	•	
		Electronics	•	•	•	•	•	•	•	•	•	•	