Kick-off meeting of the Partnership "Industry 4.0. and SMEs" – S3 Platform for industrial modernization

28 Febbraio 2017
Firenze
Villa Vittoria

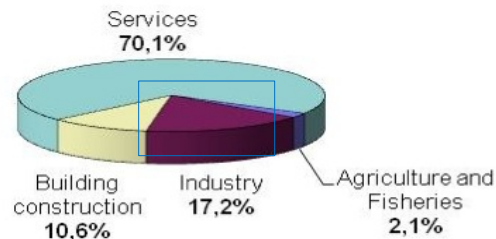# *La Comunitat Valenciana*

	C. Valenciana	España	% CV / España
Surface (km²)	23.255	505.968	4,6
Population (in habitants)	5.129.266	47.265.321	10,9
Density (hab/km²)	221	93	-
Gross Value Added (millions €)	91.786,3	964.405,0	9,5
Active population (thousands)	2.494,4	23.051,0	10,8
Occupied population (thousands)	1.804,6	17.282,0	10,4
Exports (million €)	20.880,0	222.643,9	9,4
Exports / GVA (%)	22,7	23,1	-

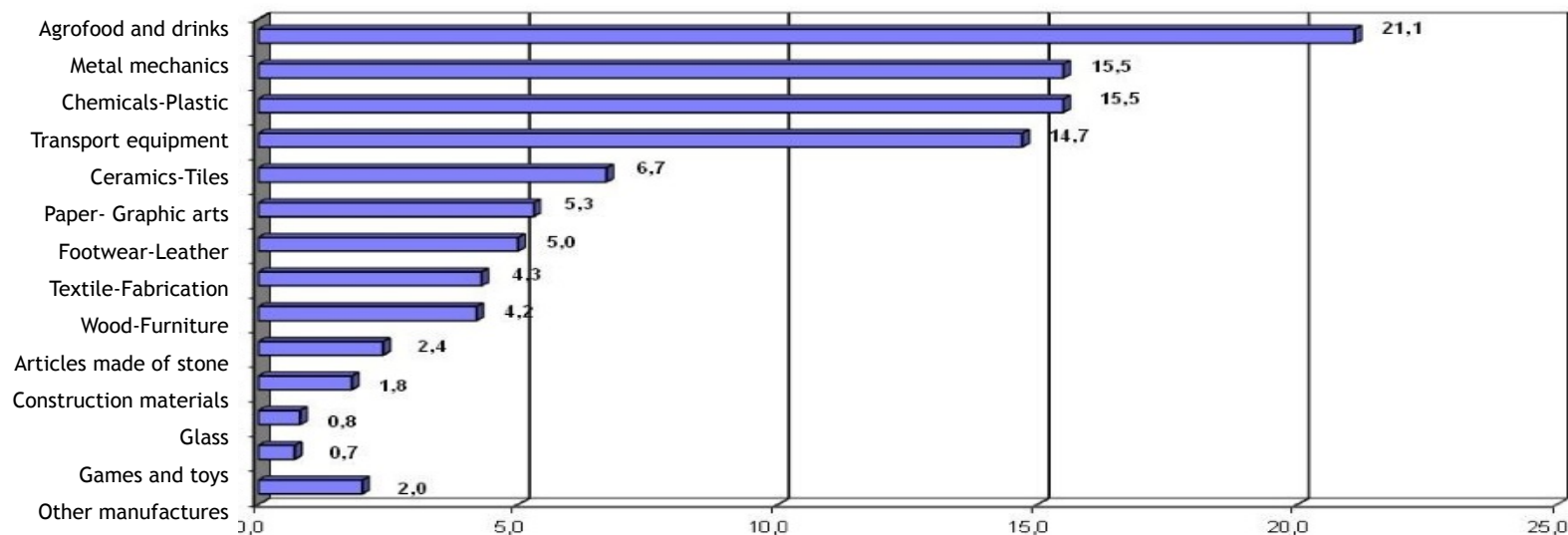**ECONOMICAL STRUCTURE (Comunitat Valenciana) Percentage of the GVA**

Services 70,1%

Building construction 10,6%

Industry 17,2%

Agriculture and Fisheries 2,1%

ARAGÓN

MAR MEDITERRÁNEO

CASTILLA-LA MANCHA

MURCIA

Industrias
- metal y maquinaria
- automovilística
- azulejera
- textil
- cuero y calzado
- madera y muebles
- juguetera
- alimentación
- química
- papel y artes gráficas
- cementera

La Comunitat Valenciana

Classification	Type	C. Valenciana			España			C. Valenciana
		Nº industries	% s/total	% cumulative	Nº industries	% s/total	% cumulative	Nº companies
0 a 9 employees	Micro	21.629	83,7	83,7	182.787	85,0	85,0	327.761
10 a 49	Small	3.553	13,8	97,5	26.413	12,3	97,3	12.511
50 a 199	Medium	547	2,1	99,6	4.575	2,1	99,4	1.803
200 or more	Large	113	0,4	100,0	1.217	0,6	100,0	409
Total		25.842	100,0		214.992	100,0		342.484

MAIN SECTORS. Comunitat Valenciana.
(% of Revenues of exploitation)

| Sector	%
Agrofood and drinks	21,1
Metal mechanics	15,5
Chemicals-Plastic	15,5
Transport equipment	14,7
Ceramics-Tiles	6,7
Paper- Graphic arts	5,3
Footwear-Leather	5,0
Textile-Fabrication	4,3
Wood-Furniture	4,2
Articles made of stone	2,4
Construction materials	1,8
Glass	0,8
Games and toys	0,7
Other manufactures	2,0

Industry 4.0.: the strategy

- The objective of **Agenda i4.0-CV** is:

  - THE **EVOLUTION** OF THE PRODUCTIVE SYSTEM OF THE VALENCIAN COMMUNITY TOWARDS THE CONCEPT OF **A NEW, SUSTAINABLE, INTELLIGENT AND INTEGRATING INDUSTRY** THROUGH THE DIGITIZATION AND THROUGH THE PERFORMED ACTUATION OF THE PUBLIC AND PRIVATE SECTOR INA CONTEXT OF

- KEY OBJECTIVES:

  - Increasing business competitiveness through the **digization of the regional industrial sector.**
  - The development and consolidation of the **regional TEIC offer** of digital solutions and advanced elctronics to the industry.
  - The establishment of sustainable **collaboration platforms** between companies, interface agents and knowledge generators.
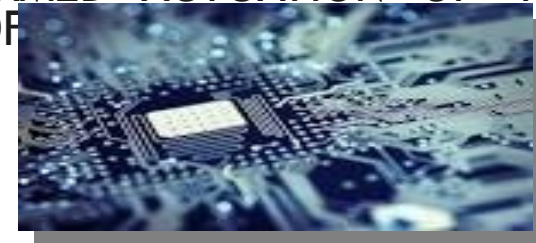
Ris3 - CV

AXES OF DEVELOPMENT

TOURISM
EFFICIENT HEALTH
FOOD AGRICULTURE
CUSTOMIZED CONSUMPTION GOODS
HABITAT: HOUSING AND ITS ENVIRONMENT
AUTOMOTION AND MOBILITY
EQUIPMENT GOODS

AREAS OF TECHNOLOGICAL SPECIALIZATION

Advanced materials and nanotechnology
Advanced Manufacturing
TIC
Biotechnology
Micro and nanoelectronics and photonics
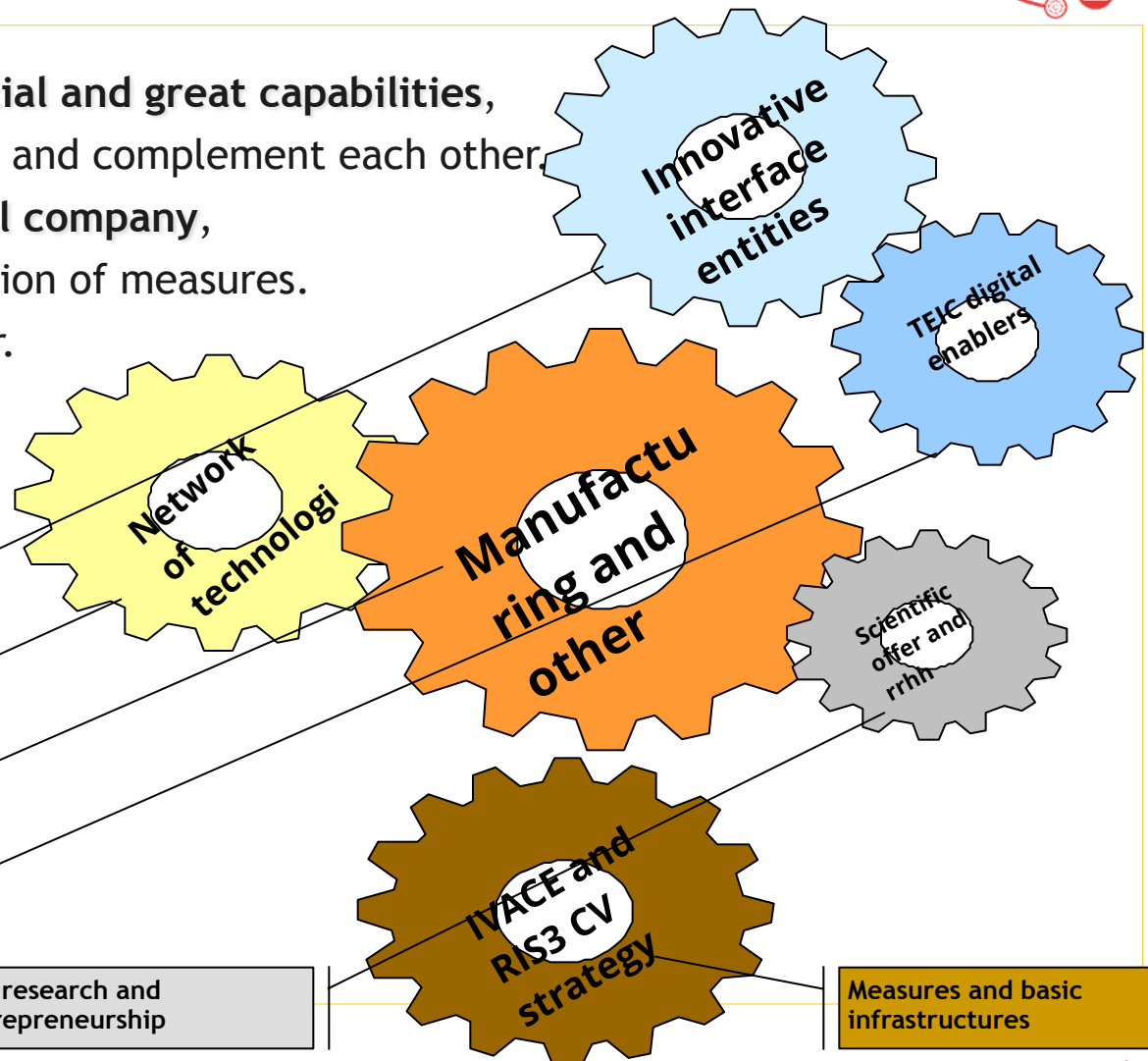Energy and environmental technologies
Logistics

QUALITY OF LIFE
INNOVATIVE PRODUCTS
ADVANCED MANUFACTURING PROCESSES

DIGITAL AGENDA
SUSTAINABLE MANAGEMENT OF THE ENVIRONMENT

FOCAL POLICIES AND TRANSVERSAL PRIORITIES

Industry 4.0.: Key Actors

- **A high knowledge potential and great capabilities**,

but we must synergy efforts and complement each other.

- **Focusing in the industrial company**,

but with a proper segmentation of measures.

- **Specializing a** TEIC sector.

- **Territorial** dynamization

to strengthen cooperation

Innovative interface entities

TEIC digital enablers

Network of technologi

Manufactu ring and other

Scientific offer and rrhh

IVACE and RIS3 CV strategy

Diffusion, sensitization and connection

Research, Technology Transfer and Demonstrators

New sustainable industry, RIS3 CV European strategy

Advanced Services, Enablers and TEICs

HR, research and entrepreneurship

Measures and basic infrastructures

Partnership "Industry 4.0 and SMEs" - KoM

The main sectorial industry 4.0. plan:
the Action plan for Methal-mechanic sector

IE-1 KNOW THE SITUATION OF THE SECTOR AND OUR COMPANIES ABOUT I-4.0

Action 1.1. – Diagnosis I-4.0

Action 1.2. – Digital solutions vademecum.

Action 1.3. – Observatory I-4.0.

Action 1.4. – Cooperation with other platforms.

IE-2 CREATE A COLLABORATIVE ENVIROMENT BETWEEN AGENTS

Action 2.1. – Metal Sector platform I-4.0.

Action 2.2. – Collaborative website.

IE-3 PROMOTE VALENCIAN OFFER ON DIGITAL SOLUTIONS

Action 3.1. – Promote R+D projects on I-4.0.

Action 3.2. – Lead demonstration projects on I-4.0 collaboration along the value chain.

IE-4 PROMOTE DIGITAL TRANSFORMATION

Action 4.1. – Diagnosis of I-4.0 needs.

Action 4.2. – Implementation of I-4.0 projects.

Action 4.3. – Dissemination activities of I-4.0 Industry.

IE-5 STABLISH I-4.0 CURRICULUM PROGRAM

Action 5.1.- Meetings with the regional goverment to include I-4.0 in academic education

Action 5.2.- Development of I-4.0 curriculum program.

Action 5.3.- I-4.0 training.

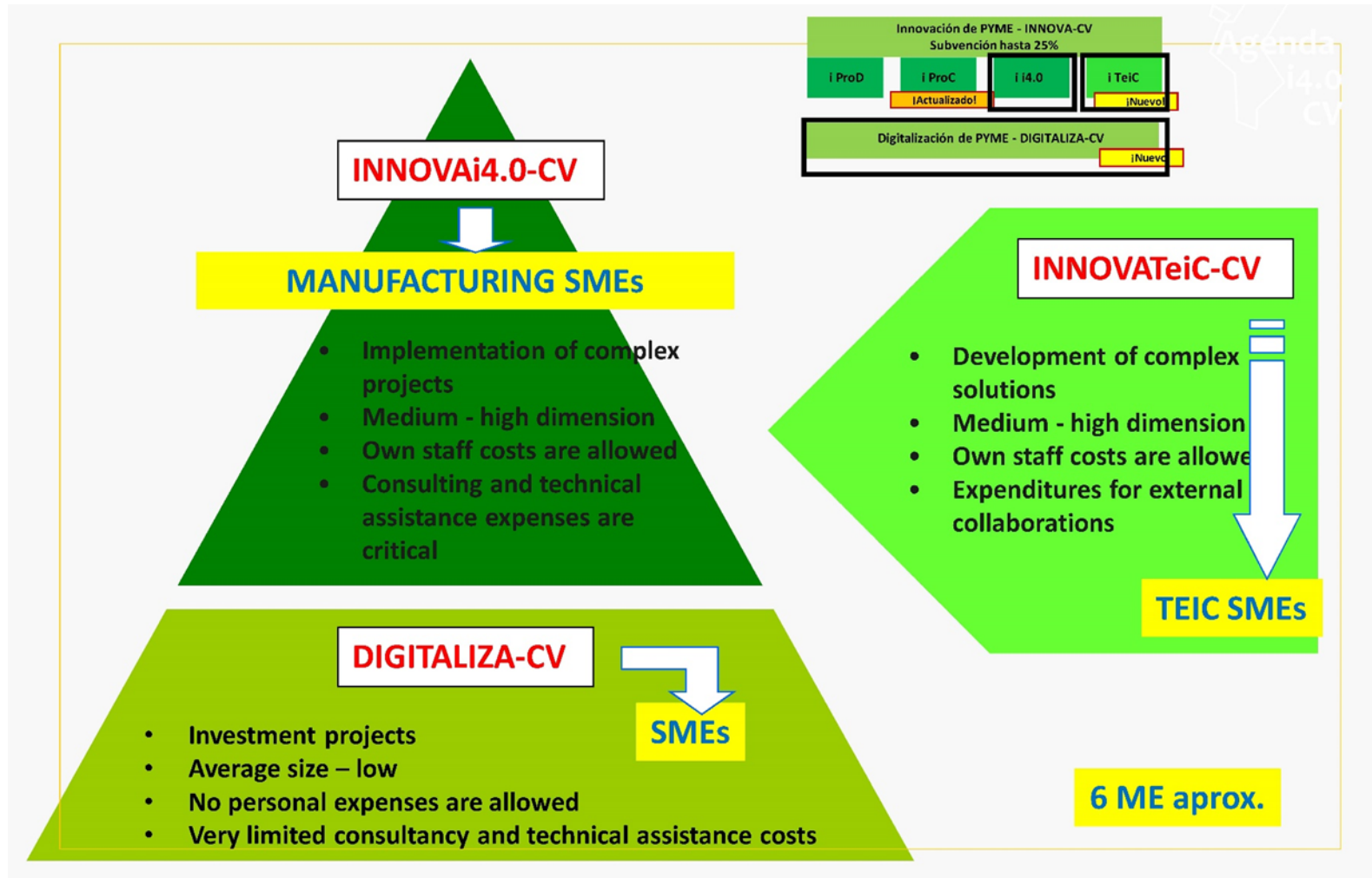### IE-6 PROMOTE GRANTS FOR DIGITAL TRANSFORMATION

Action 6.1. – meetings with the Regional goverment to establish I-4.0 grants,
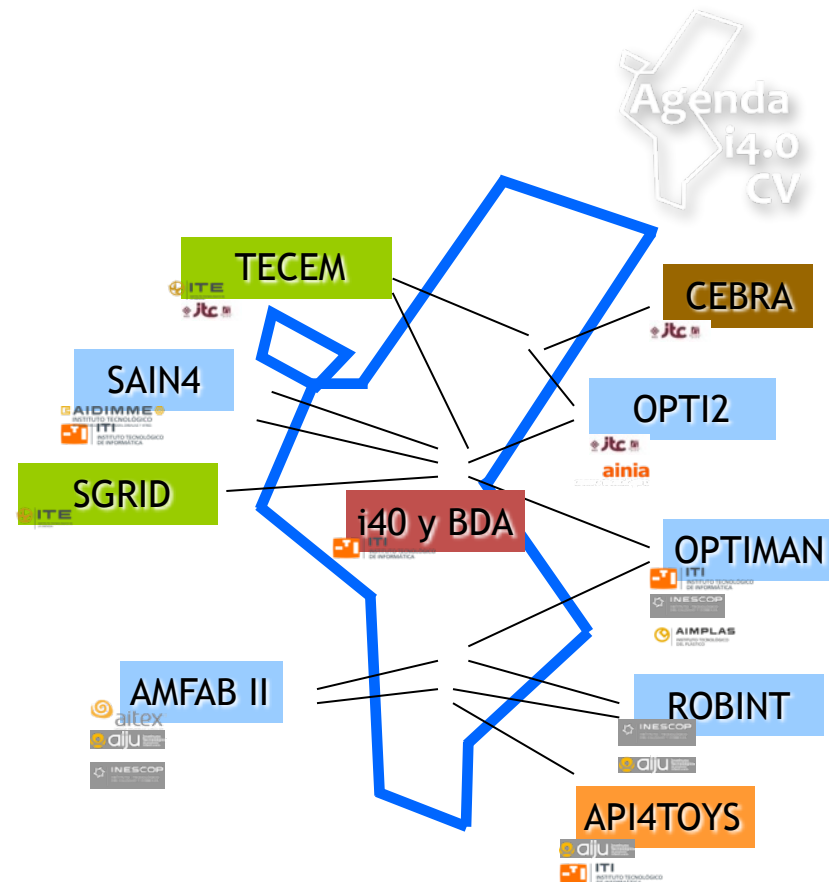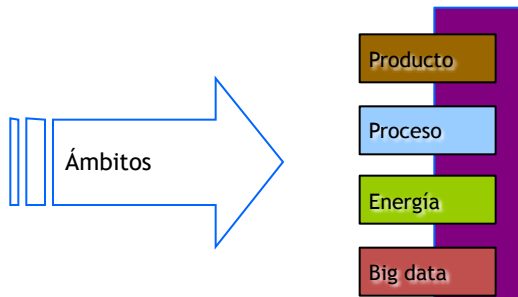
Action 6.2. – Grants information service.

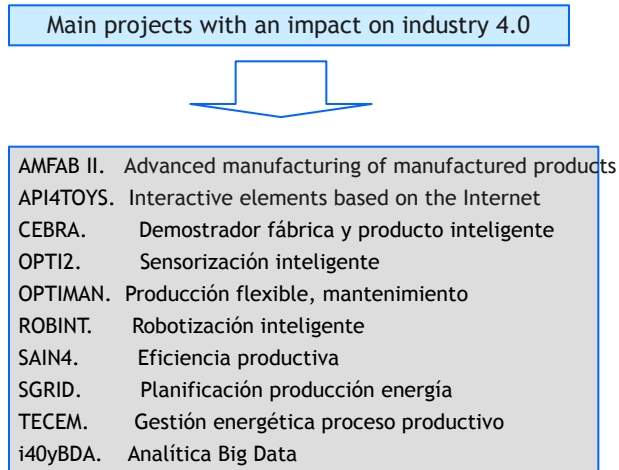# Industry 4.0: Main initiatives of support

Industry 4.0: Main research projects

- In collaboration between Regional Research Centres

Main projects with an impact on industry 4.0

AMFAB II.   Advanced manufacturing of manufactured products
API4TOYS.   Interactive elements based on the Internet
CEBRA.   Demostrador fábrica y producto inteligente
OPTI2.   Sensorización inteligente
OPTIMAN.   Producción flexible, mantenimiento
ROBINT.   Robotización inteligente
SAIN4.   Eficiencia productiva
SGRID.   Planificación producción energía
TECEM.   Gestión energética proceso productivo
i40yBDA.   Analítica Big Data

Ámbitos

Producto
Proceso
Energía
Big data

TECEM
CEBRA
SAIN4
OPTI2
SGRID
i40 y BDA
OPTIMAN
AMFAB II
ROBINT
API4TOYS

Industry 4.0: Some examples

- SAIN4 - Advanced System of Productive Efficiency for Industry 4.0

  - The objective of the project is to define a reference model for industry 4.0, the development of a "big data" infrastructure, data capture and advanced management, for validation in a pilot with two main sectors of the Valencian economy, the wood-furniture and metal-mechanic.

  - The technical scope of the initiative has been limited to the quality of product and process (digital quality management, advanced process control and statistical process control), and the use of resources in processes (intelligent energy consumption and optimization Of production in real time.

AIDIMME
INSTITUTO TECNOLÓGICO
METALMECÁNICO, MUEBLE, MADERA, EMBALAJE Y AFINES

ITI
INSTITUTO TECNOLÓGICO
DE INFORMÁTICA

Industry 4.0: Some examples

- CEBRA - Ceramic Brain, the transition from the traditional ceramics company to the intelligent factory

  - CEBRA platform is key to providing a paradigm change in the production model within the ceramic sector. If the expected results are achieved, a new production model based on knowledge, technology and high professional qualifications will have been created.

  - The aim of the research is to develop a system that allows the transition of a traditional ceramic production plant in an industry. The 'Ceramic Brain' system will be implemented during two years of research in a ceramic production plant.

EU-inter-regional partnerships:

Some European initiatives

EFFECTIVE	IVACE+3	H2020 FoF – PPP- CSA Factories of the future
INCOMERA	IVACE+ 19	ERANET Financing of projects based on KETs and new productive technologies.
HUB4MANUVAL	IVACE+3	(H2020 I4MS project HORSE mentoring activities: creation of a Regional Digital Innovation Hub to stimulate the uptake of Robotics and CPS/IoT by Valencian manufacturing SMEs and MidCaps.
SAMT SUDOE	IVACE+4	INTERREG SUDOE Projects to apply new KETs in productive sectors. Robotics, materials and plastics for advance manufacturing processes.
TRIS	IVACE+5	INTERREG EUROPE Circular economy and industrial symbiosis: recylcling, value chains, waste approach for new products generation.
BEinCPPS	ITI	H2020-FoF (I4MS Phase 2): improve the adoption of CPPSs (Cyber Physical Production Systems) all over Europe by means of the creation, nurturing and flourishing of CPS-driven regional innovation ecosystems

Next steps: what we are going to do

•To promote best practices, competence centres, solution suppliers, manufacturers and financial opportunities for i4.0.

•To act as a network for filtering opportunities, instruments and services provided by different EU DG´s in relation with i4.0, and make them easily accessibles to regional companies.

•To co-work in the definition of new and adapted inter regional cooperation instruments and services to support i. 40.

•To serve as a collaboration platform to define and launch proposals to EU calls on i4.0.

• **Thanks**:

- Júlia Company
  - General Director IVACE

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  - Programme ManagerIVACE

- Mª Gómez
  - Innovation expert IVACE

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