

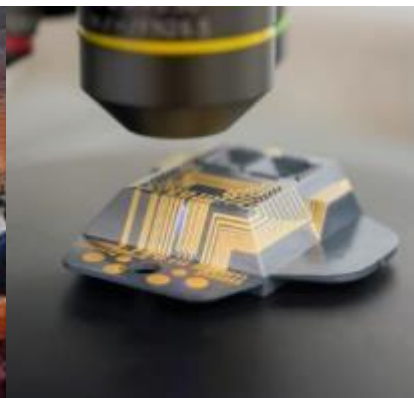


PÔLE DE COMPÉTITIVITÉ PLASTURGIE ET COMPOSITES

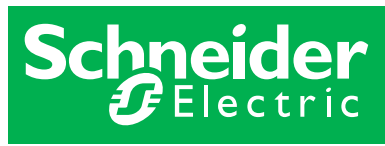
Workshop: *Artificial Intelligence and Work*



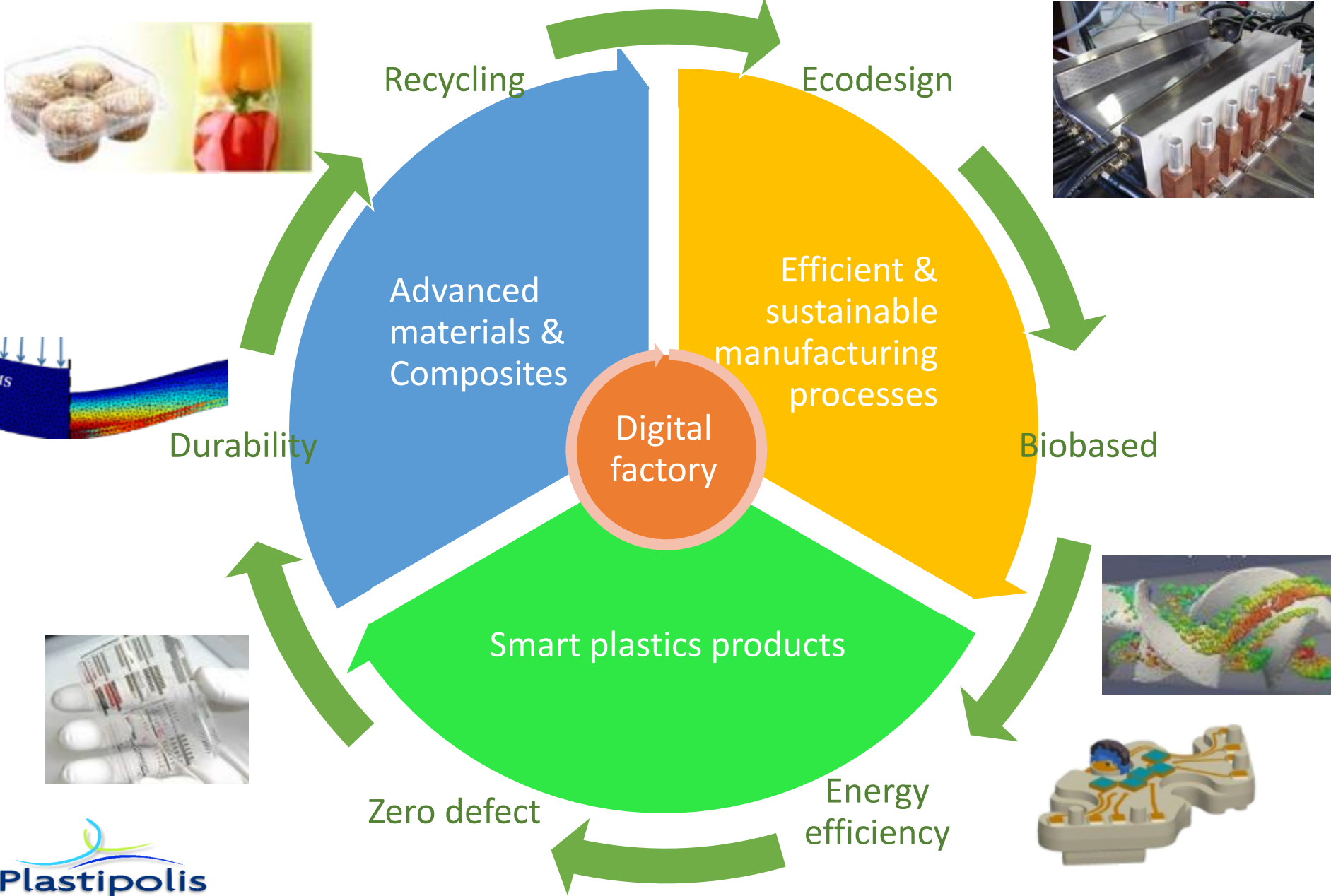
Intl Scientific Symposium «Future of Work »
Stuttgart , July 2019



PLASTIPOLIS: Among our members



Plastipolis 2020: Strategic roadmap

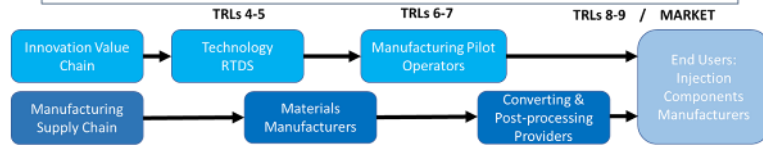


Plastipolis 2020: Strategic roadmap

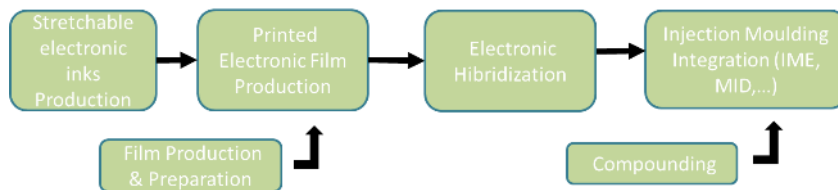
Sustainability and eco-design	<ul style="list-style-type: none"> • Bio based materials • Recycled materials • Eco-design • Recycling technologies 	Advanced materials & Composites	<ul style="list-style-type: none"> • New materials (e.g. nanomaterials) • Advanced materials (e.g. lightweight, self healing) • Functional materials (e.g. sensorial, photosensitive, 	<ul style="list-style-type: none"> • Process simulation & modeling • Data analysis • Predictive maintenance including VR • Prototyping & 3D printing 	Digital Factory
		Efficient & sustainable manufacturing processes	<ul style="list-style-type: none"> • High efficiency processes including tooling • Processes for composites • New or innovative processes (e.g. Rapid manufacturing, Surface texturing) • Process management and control • Assembly • Printing, coating and painting 		
		Smart plastics products	<ul style="list-style-type: none"> • Electronic function integration • Organic and printed electronics 		

Plastipolis 2020: European cooperations for Smart Plastics and digital transfo

Smart Plastics & Plastronics Components



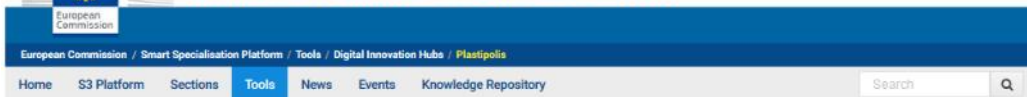
Use-case Example:



Vanguard Initiative Use Case



SMART SPECIALISATION PLATFORM



Digital Innovation Hubs

Plastipolis Plastipolis

Contact Data

Coordinator (Networked, cluster organization)

Plastipolis

Coordinator website
<https://www.plastipolis.fr/>

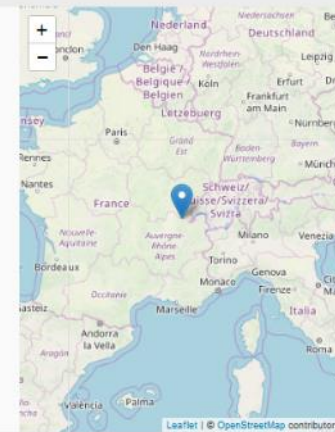
Year Established
2005

Location
180 Rue Pierre et Marie Curie, 01100 Bellignat, 01100, Bellignat (France)

Website
<http://www.plastipolis.fr/>

Social Media
[in](#) [t](#) [v](#)

Contact information
Vuillermoz Patrick
patrick.vuillermoz@plastipolis.fr
+33687659974



Organization

Organizational form
Public Private Partnership

Turnover
1.000.000-5.000.000

Number of employees
10-25

Evolutionary Stage

Fully operational

Geographical Scope

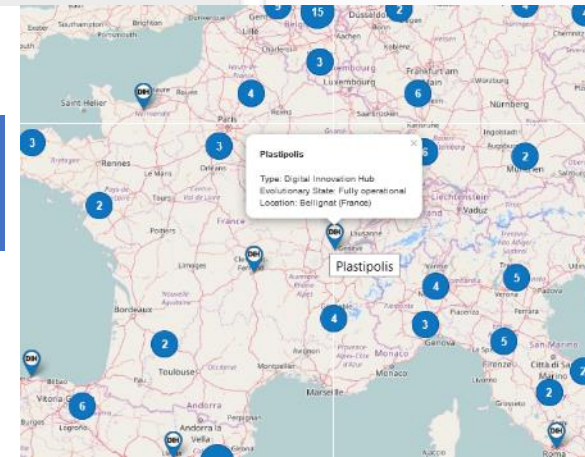
National

Customers

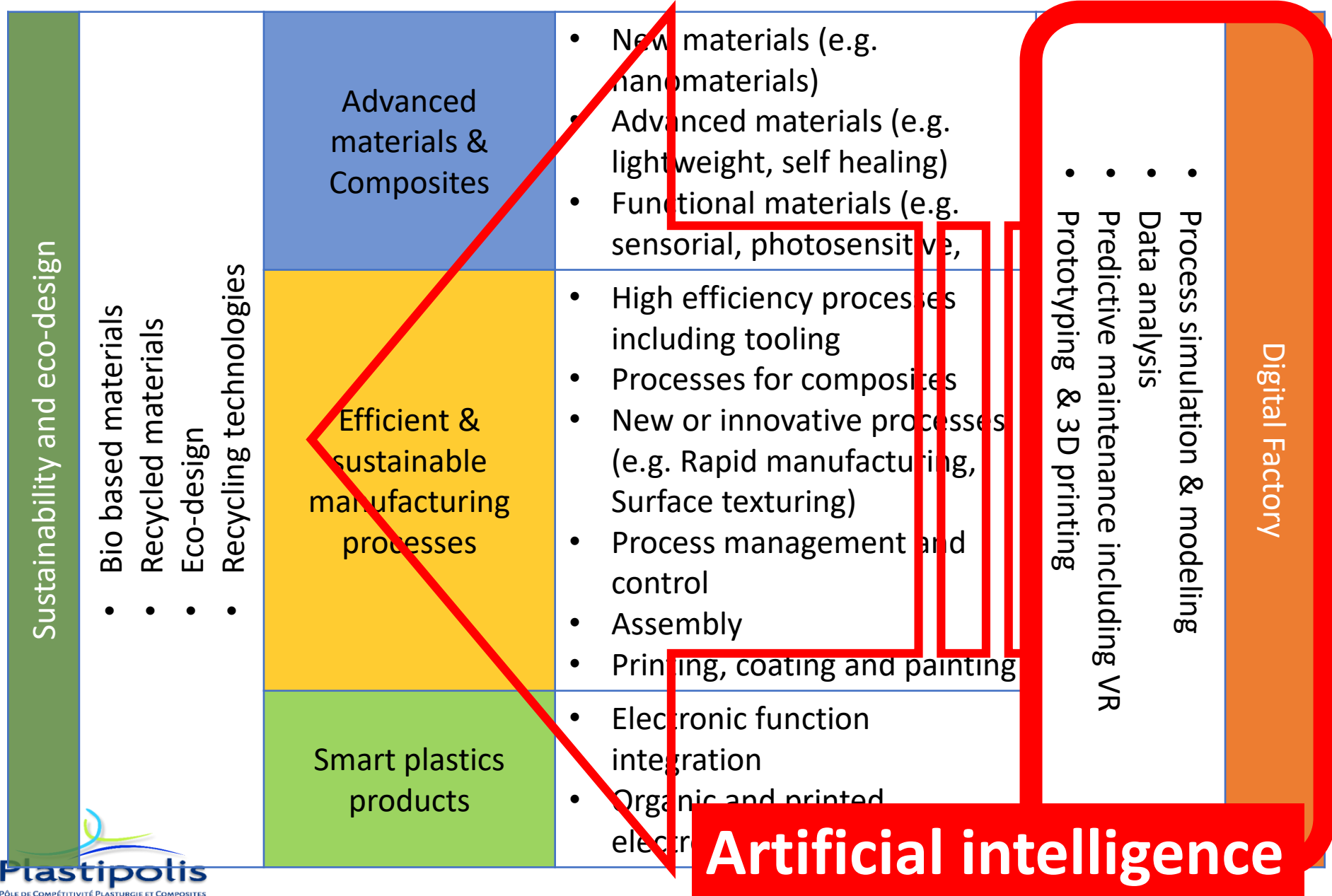
Number of customers annually
>50

Description

Plastipolis Digital Innovation Hub



Plastipolis 2020: Strategic roadmap



Plastipolis 2020: Example of ongoing project

SAPRISTI

SAPRISTI

Système Autocorrectif pour la PProduction zéro défaut de pièces plaSTIques

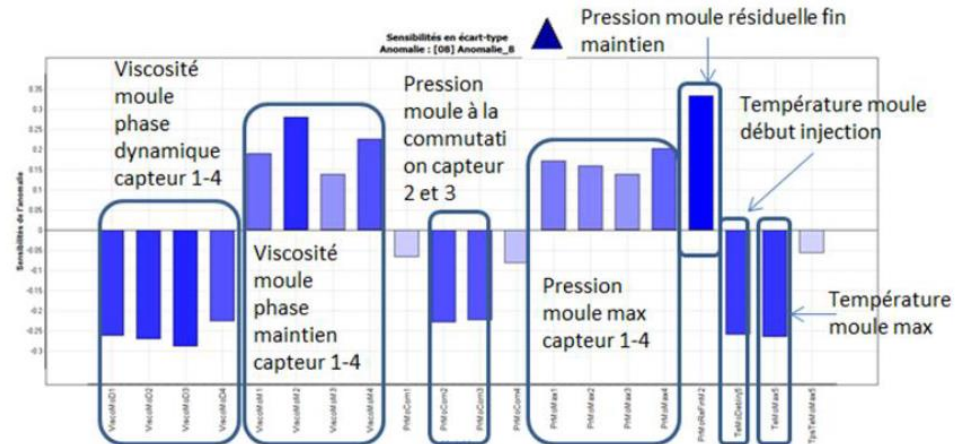
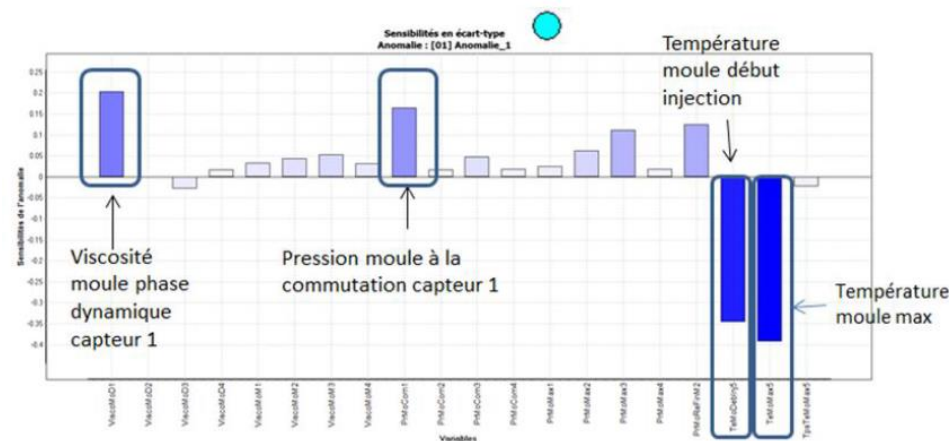
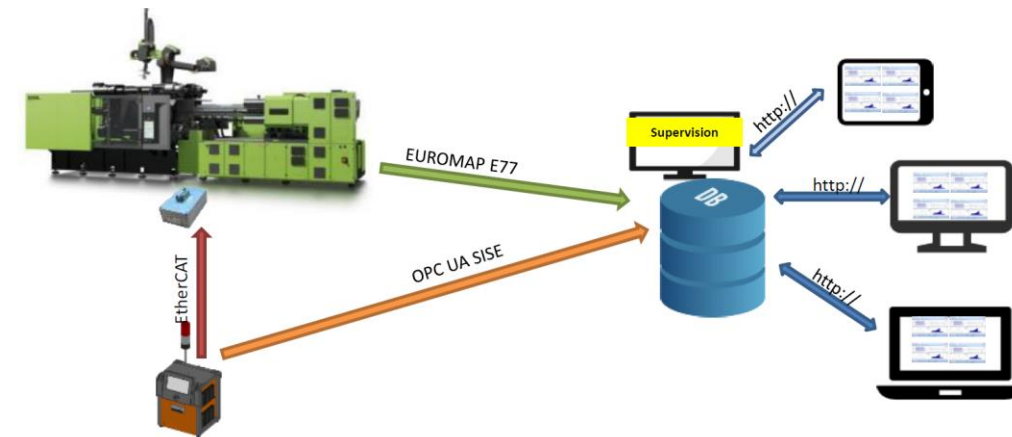


Coordinateur

S.I.S.E.



In-line autonomous data acquisition and data analysis system for auto-correction of manufacturing process





MAIA Institute: seizing new opportunities in Artificial Intelligence



MAIA
Multidisciplinary
Institute in
Artificial Intelligence

MIAI Research: themes, axes and programs

NEXT STAGE AI

**Axis 1. Machine learning
and reasoning (8)**

**Axis 2. Embedded AI & hardware
architecture for AI (3)**

Axis 3. Perception and interaction (7)

Deep learning, Neural network, Fair AI
Neuromorphic architectures, distributed
intelligence
Computer vision, Speech and natural language
processing, Robotics

AI FOR HUMAN BEINGS AND THE ENVIRONMENT

Axis 4. AI and society (4)

Axis 5. Health (4)

Axis 6. Environment and energy (4)

Axis 7. Industry 4.0 (2)

AI regulation, Integration of AI into society
Real-life 4P medicine, Multi-omics, C-A medical
intelligence
AI solutions for natural disasters, Optimizing energy
management
Human-centric manufacturing, Predictive quality

MIAI Industrial Partners

23 big companies

21 small and medium companies

11 very small companies





- AI enhanced Human Robot Collaboration**

Flexibility and adaptability for high degree of personalization in production

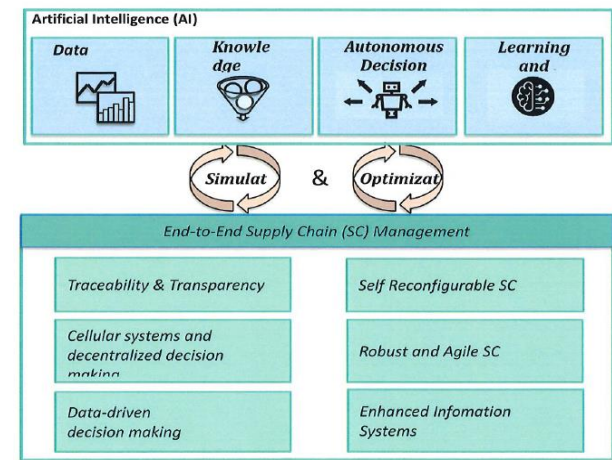
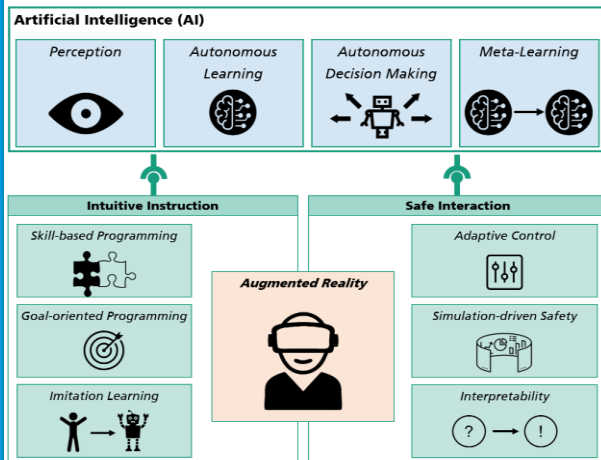
Safe and intuitive Human-Robot collaboration enhanced by augmented reality

- AI for quality and safety of products and systems**

Machine learning for material design and defect recognition
Predictive maintenance

- AI for data-driven and self-configurable supply chains**

React fast with higher uncertainties in demand
Forecasting (predictive analytics) and optimization (prescriptive analytics)





Plastipolis

PÔLE DE COMPÉTITIVITÉ PLASTURGIE ET COMPOSITES

Thank you for your attention



avec le soutien de :



PLASTIPOLIS

Maison des entreprises CS 50004 BELLIGNAT 01117 Oyonnax Cedex
Tél. 04 74 12 19 23 / Fax 04 74 12 19 24 / Contact@plastipolis.fr
www.plastipolis.fr

Bellignat - Lyon - Monistrol-sur-Loire - Dijon



LCE 2020
Grenoble

The 27th CIRP Conference on Life Cycle Engineering

13th -15th May, 2020 - Grenoble, France



<http://www.lce2020.fr>

Advancing Life Cycle Engineering from technological eco-efficiency to technology that supports a world that meets the development goals and the absolute sustainability



Grenoble INP Auditorium

Sponsored and organised by



Institute of Engineering
Univ. Grenoble Alpes



PhD students'
training
12 May



Topics

Abstract expected by 30 June

- | | |
|---|---|
| <ul style="list-style-type: none">• Sustainable manufacturing – efficiency and effectiveness• Sustainable technologies for manufacturing• Sustainable production systems and services• Sustainability of smart products• Circular economy• Life cycle engineering and management | <ul style="list-style-type: none">• Life cycle engineering education and training• Advanced industrial sustainability• Sustainable consumption and production• Eco-design methods and eco-designed products• Environmental and social analysis and assessment |
|---|---|