

**Interreg
Europe**



Co-funded by
the European Union

Fostering the development of the regional aerospace ecosystem

Promoting the emergence and growth of new businesses in future-oriented sectors

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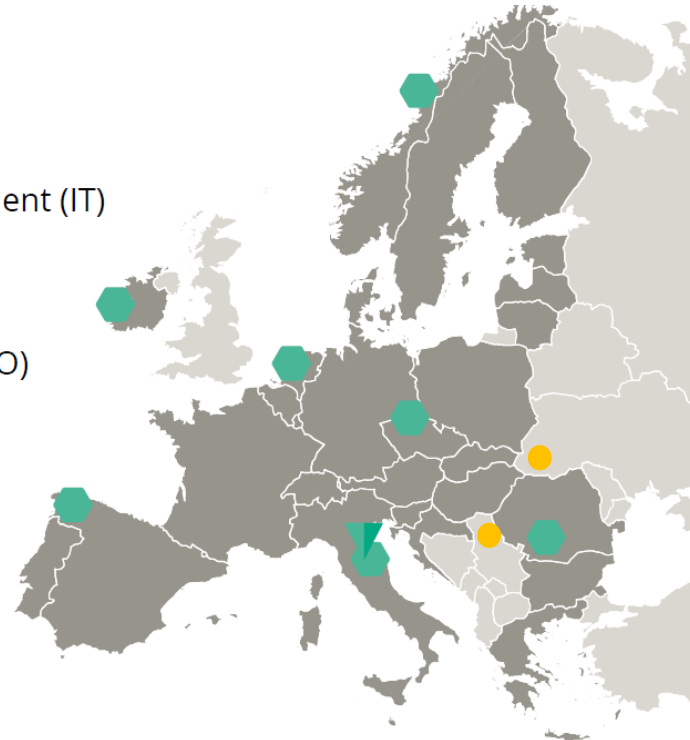
MAE

Moving towards Aerospace (MAE)

The project MAE (Moving Toward Aerospace) is implemented in the framework of the Interreg Europe programme and co-financed by the European Union.

MAE's consortium

- ❖ **LP:** CISE – Centre for Innovation and Economic Development (IT)
- ❖ **P2:** Municipality of Forlì (IT)
- ❖ **P3:** South-West Oltenia Regional Development Agency (RO)
- ❖ **P4:** Nordland County Council (NO)
- ❖ **P5:** Galicia Innovation Agency (ES)
- ❖ **P6:** Delft University of Technology (NL)
- ❖ **P7:** Prague Innovation Institute (CZ)
- ❖ **P8:** Clare County Council (IE)



Added partners from EU
candidate countries:

P9: Serbian Automotive and Mobility
Cluster (AC Serbia)

P10: International association of Regional
Development Institutions "IARDI" (UE)

Fostering the development of the regional aerospace ecosystem
Promoting the emergence and growth of new businesses in future-oriented sectors



 SMART Skills for S3 and industrial transition

Leading industrial transition



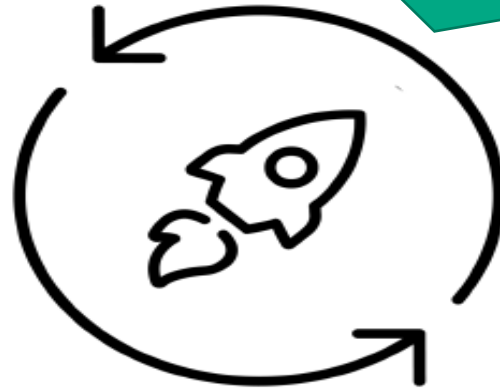
Leading industrial transition

Towards a green, digital and resilient economy in Aerospace



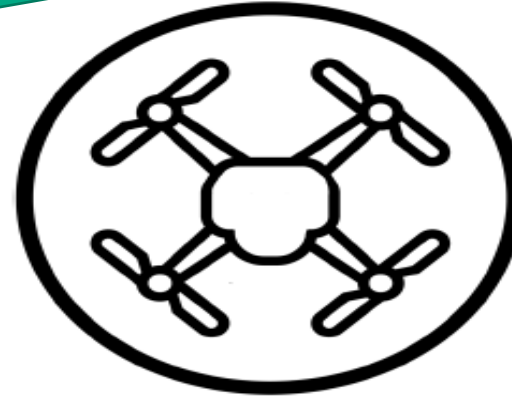
Aviation

- Reducing Noise
- Fuel Consumption
- Airport Innovations
- Digitalisation
- Sustainable Aviation
 - H2
 - Electric
 - SAF



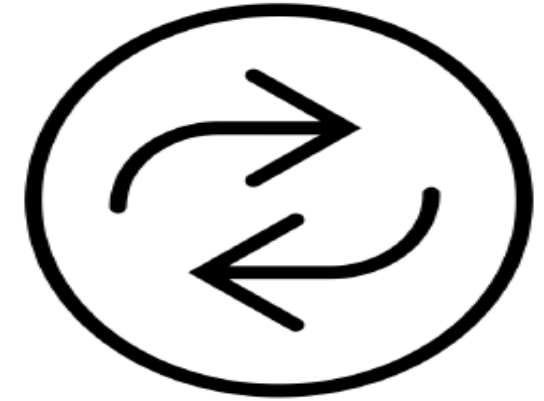
Space

- Upstream and downstream
- digital / data solutions
- green propulsion
- Miniaturization and digital innovation for space applications



Drones

- Rules/laws to be defined
 - Safety issues
 - Privacy
 - Sound
- Development BVLOS
- Data/Communicating technology
- H2
- Market Development



Industry overlap

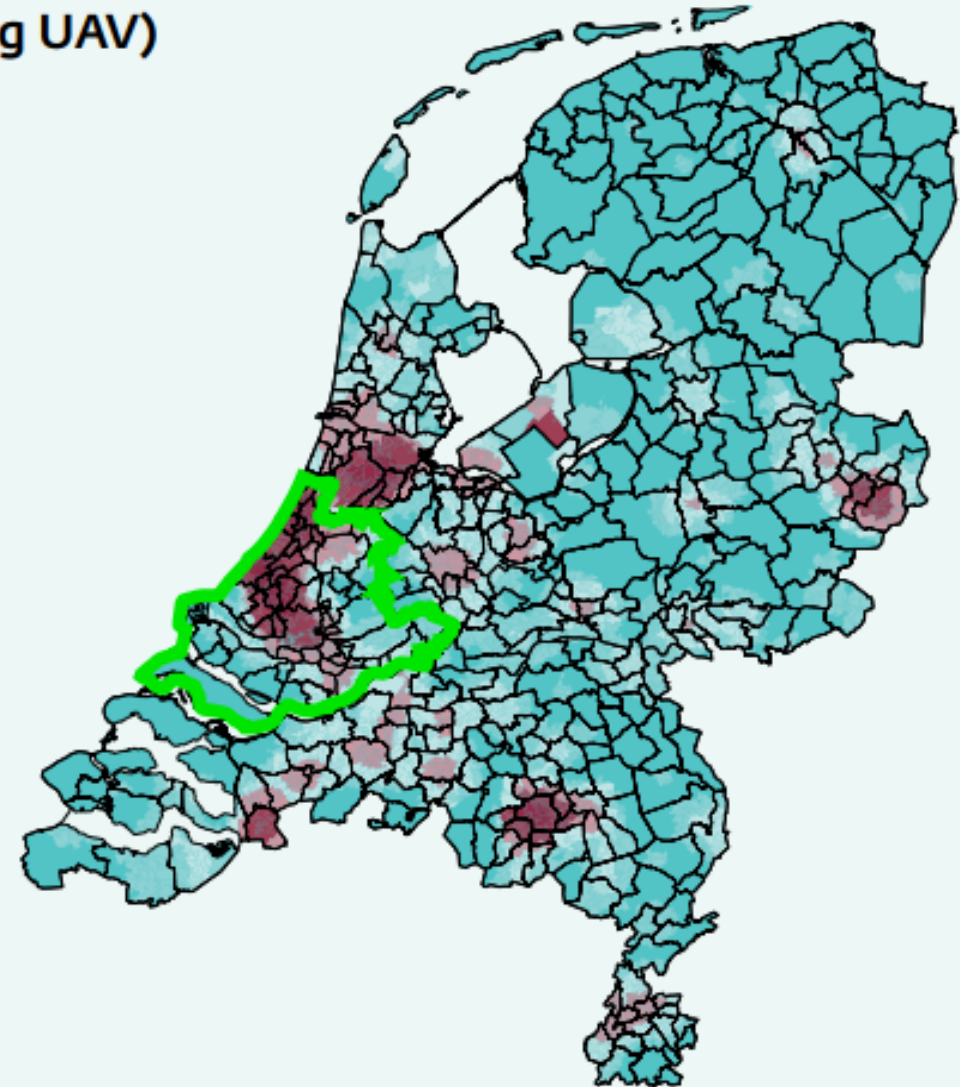
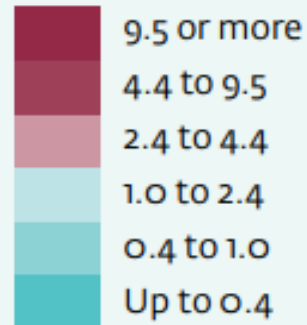
- Example: Composites
 - Industry 4.0
 - Recycling of materials / bio materials

Leading industrial transition



Distribution of Aerospace companies (including UAV) in the Netherlands

SCORE



Source: Aerospace cluster in Zuid-Holland, Bureau Louter, 2016



7,320

Aerospace professionals



€4 billion

turnover in the aerospace industry



157

aerospace companies



12,500

Indirect jobs in the aerospace industry



2,600

Students at TU Delft's Faculty of Aerospace Engineering (largest in Europe). Over 40% of students are international



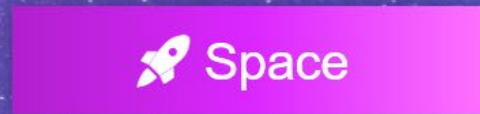
800

Students enrolled at aerospace courses other than TU Delft



Driving innovation:

In 2023 Regional Aerospace Cluster launched Action Program in Zuid-Holland



<https://www.aerospacedelta.nl/aerospace-delta-agenda-2030/>


POWERED BY:

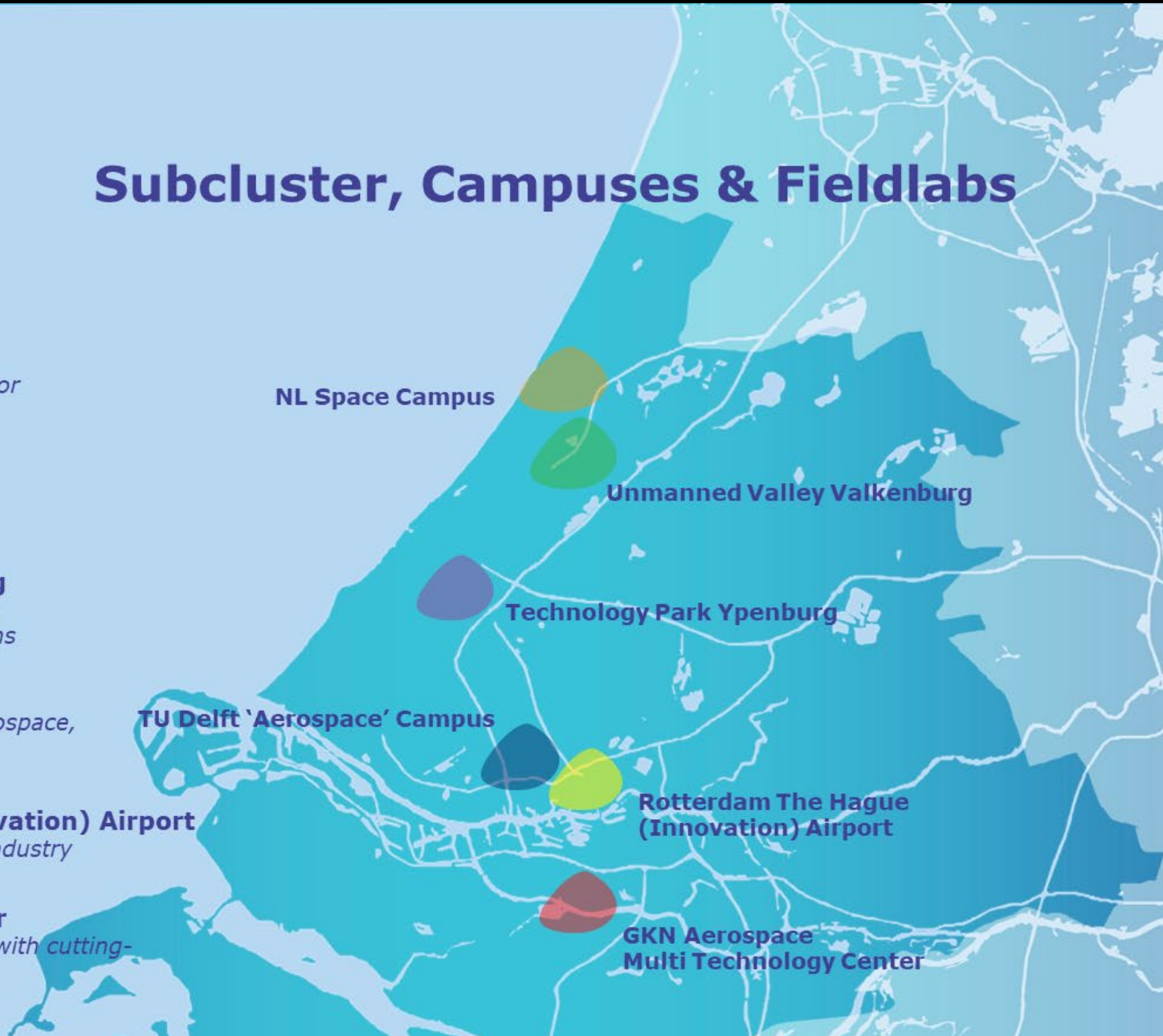


Regional Eco Systems

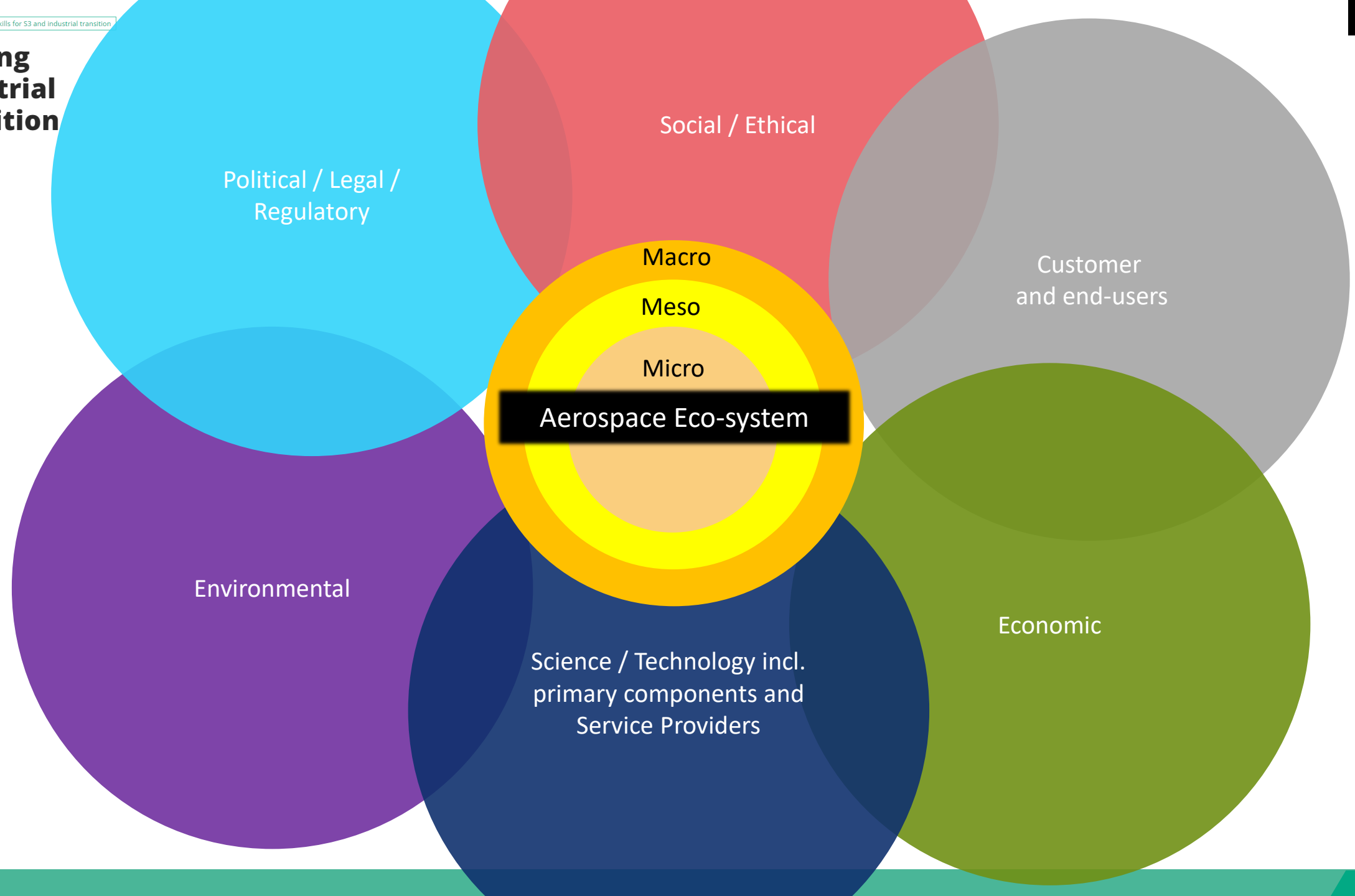


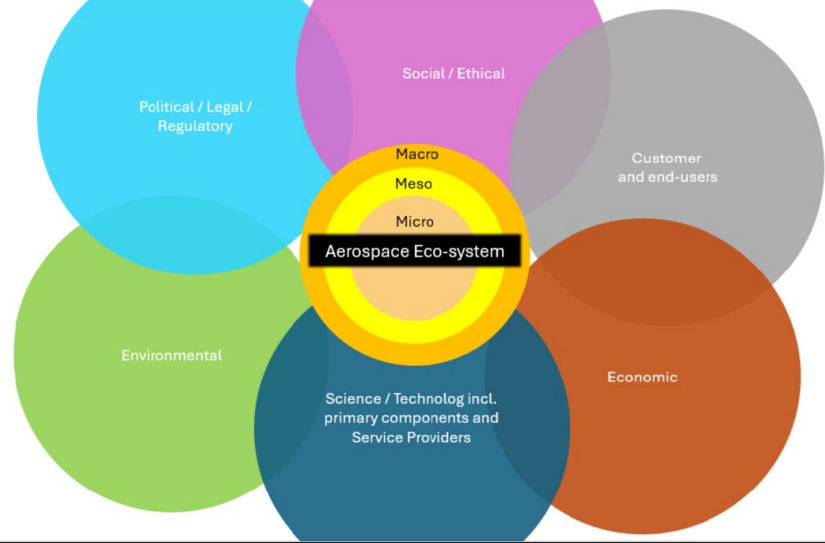
Subcluster, Campuses & Fieldlabs

-  **TU Delft Aerospace Campus**
The international breeding ground for radical Aerospace innovations
-  **NL Space Campus**
Connecting the Curious in Space
-  **Unmanned Valley Valkenburg**
Europe's most advanced ecosystem for drone development & applications
-  **Technology Park Ypenburg**
The High-tech business park in Aerospace, MedTech, Semicon & Composites
-  **Rotterdam The Hague (Innovation) Airport**
Towards a zero emission aviation industry
-  **GKN Multi Technology Center**
Empowering the Aviation Industry with cutting-edge technology

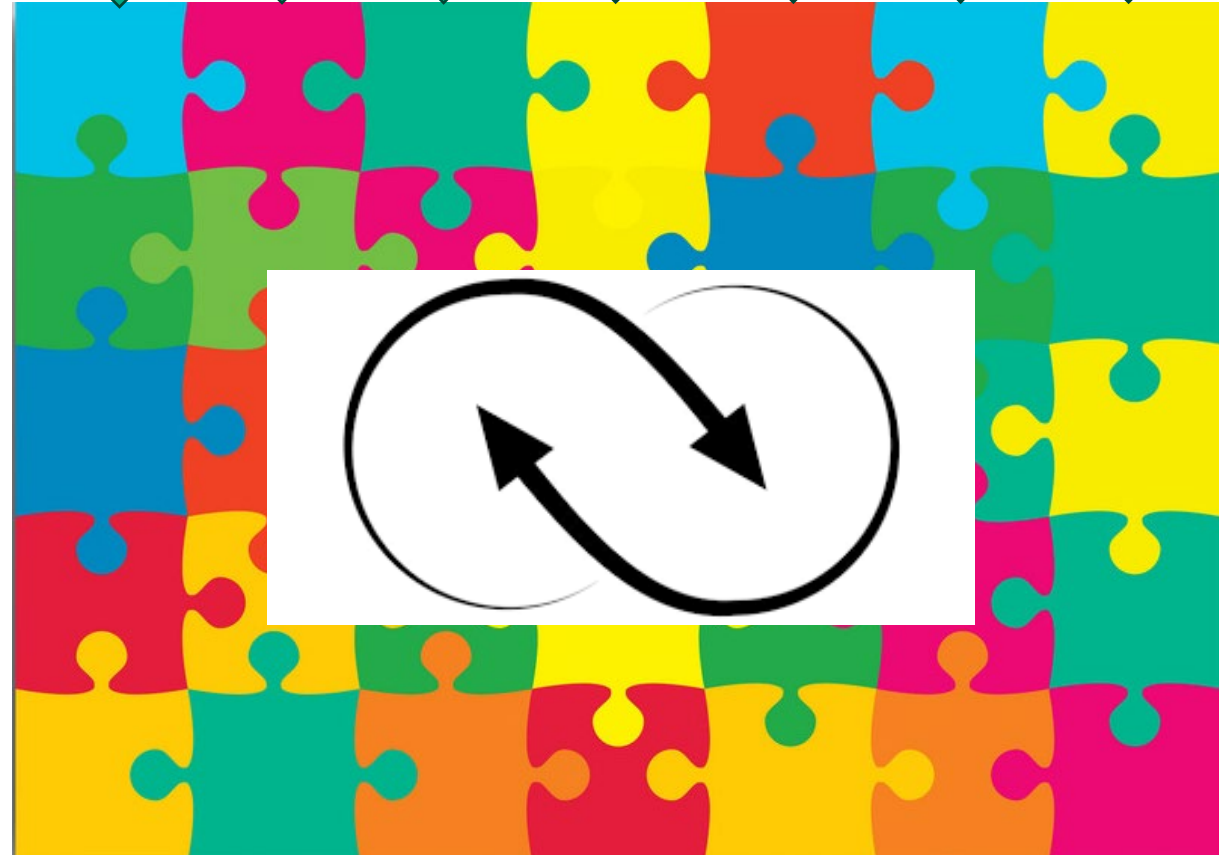
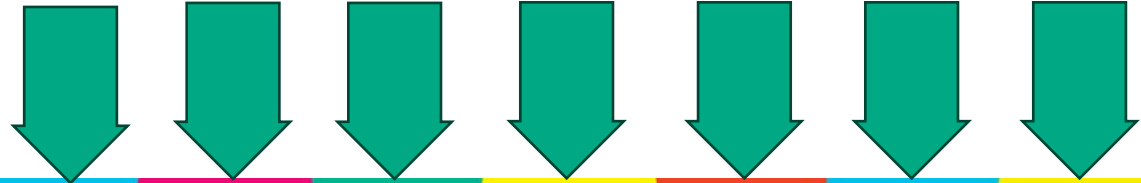


Leading industrial transition



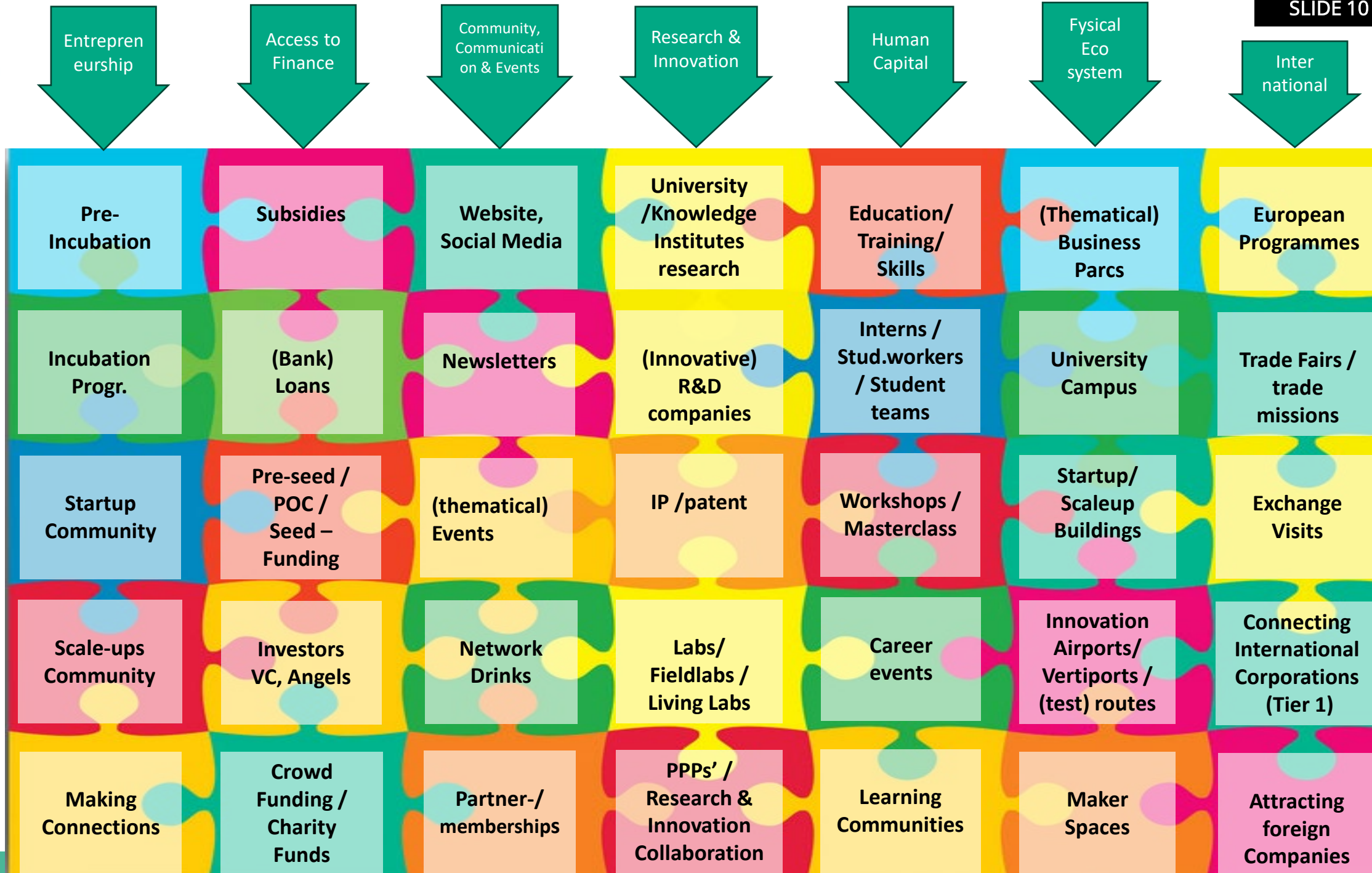


Building Innovative Aerospace Ecosystem



Quadruple Helix Model







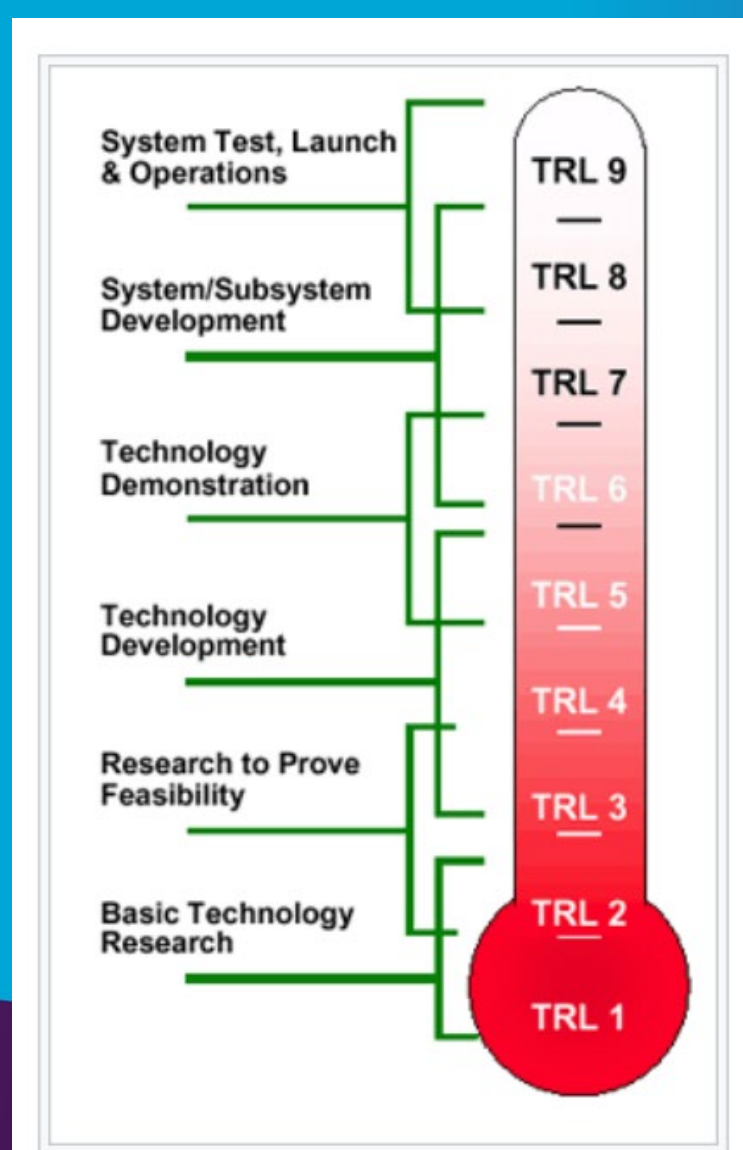
Good Practice

FIELDLABS

- Co-creation and real-life experimental space / infrastructure (Facilities is essential part)
- Independent and collaboration organization
- Accelerating innovation by collaborating of Knowledge institutes , Companies corporates , SME's , Startups), and Governmental institutes
- Scaling up technology
- (Life long) learning community
- Community around a specific theme
- Events on the theme

Towards a green, digital and resilient economy in Aerospace





Fieldlabs

SAM|XL Establishment 2018



SAM|XL is an initiative from TU Delft, Fokker-GKN and regional government.

The EFRD program **CADC** (Composite Automation Development Centre) forms part of the seed-funding for establishing SAM|XL



We are a

We are not

FIELDLAB

- Community Membership model (open)
- Co-Creation
- Testing, validating, Demonstrators
- Joint Projects, private or public funded or mix
- Projects with academia and industry
- Knowledge expertise Centre (multi-disciplinary)
- Two way innovation:
 - Demand PULL from Industry
 - Technology PUSH from University
- Brand independent infra structure

COMPANY

- Selling machines or products with service
- Selling complete solutions ready to implement
- Bring your challenge to us and after few months we bring you the solution
- We work with pre-selected suppliers

UNIVERSITY DEPARTMENT

- Low TRL research
- Focus on PHD research

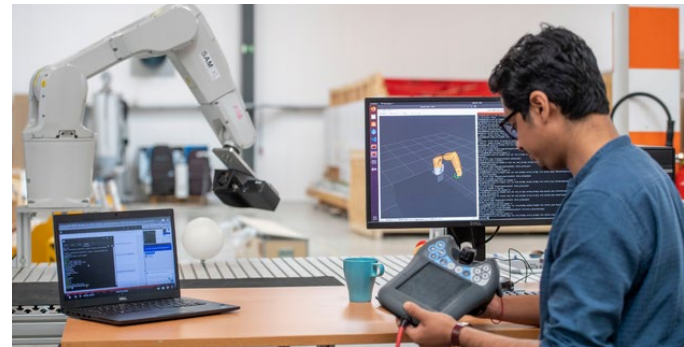
TU Delft Fieldlab SAM XL



Prototype Factory of the Future



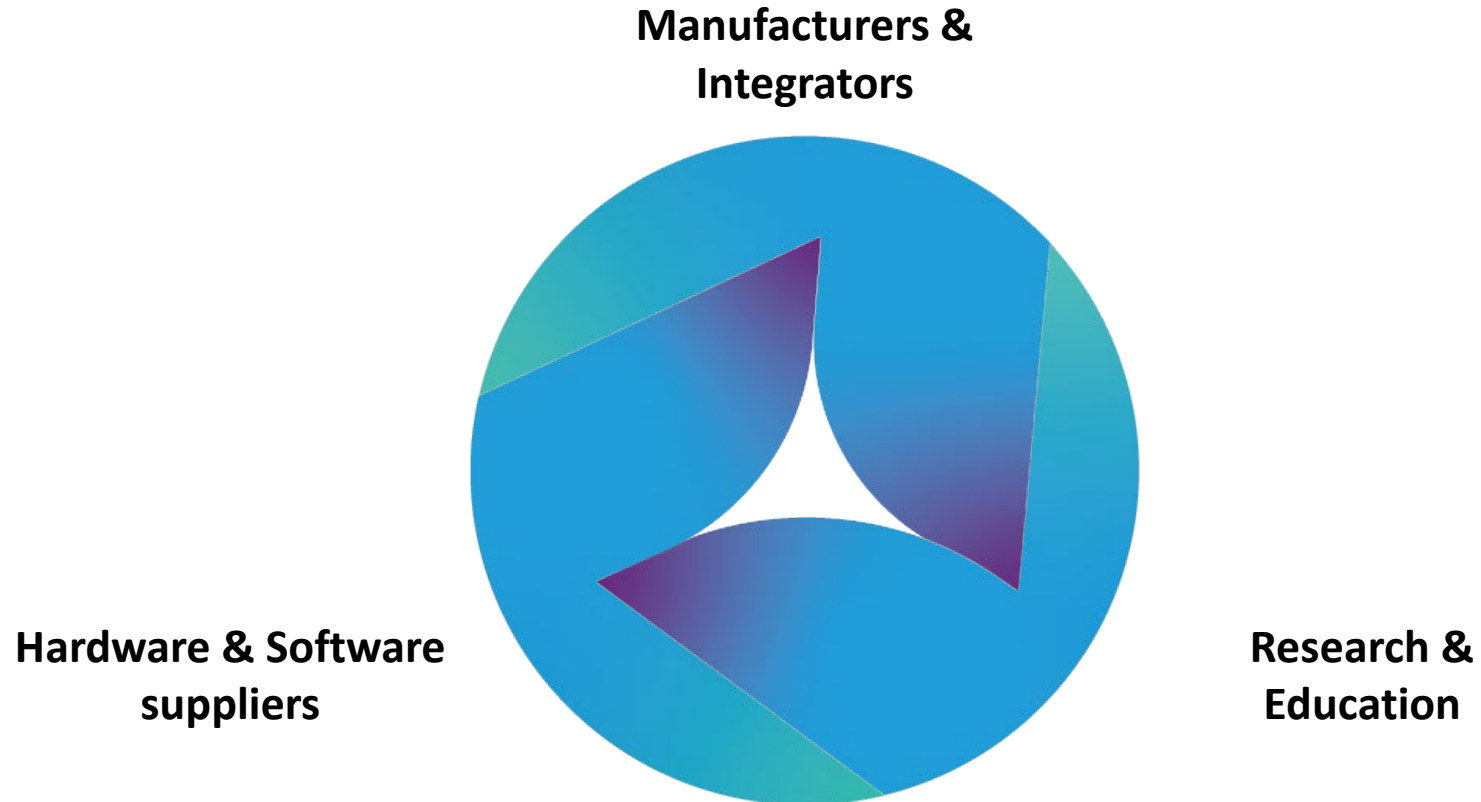
Industry 4.0 Research Institute



Didactic Factory



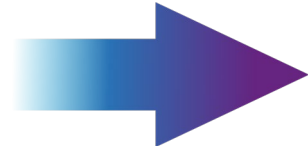
Collaboration is key



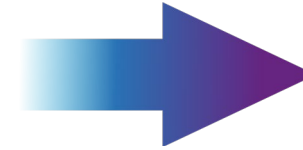
Pioneering every day

Our expertise

- Automated manufacturing
- Additive manufacturing
- Software and AI
- Mechatronics
- System integration
- Customized hardware
- Materials
- Processes
- Safety
- Education
- Research methods
- Validation



Robotics



Partner Benefits

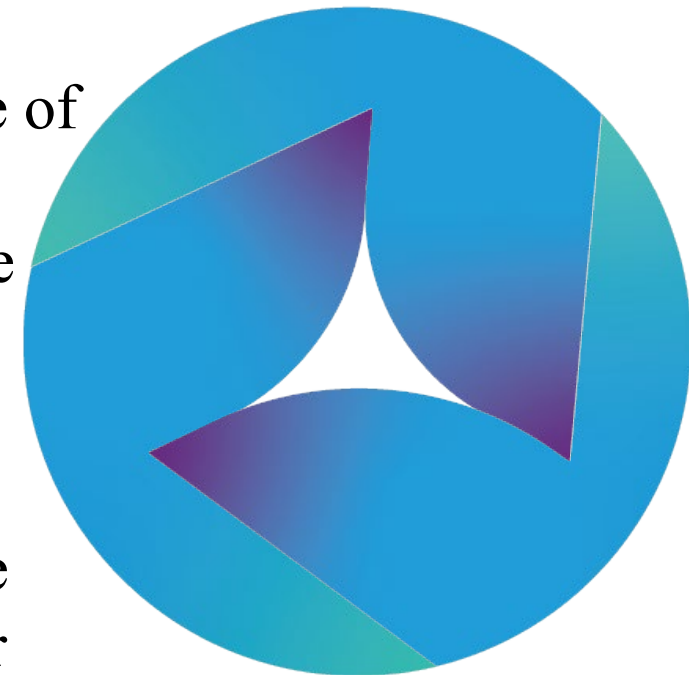
- Smarter
- Faster
- More precise
- Self-learning
- Interactive
- Future-proof

FIELDLAB as a concept

Field labs can play an important role in the innovation we need in the transition to a sustainable and digital economy.

Promoting and facilitating open innovation is also described as a principle to contribute to research & innovation objectives. An important precondition for this ambition is having a wide range of (open and shared) research and innovation facilities and facilitating public-private partnerships. Field labs are one of the facilities that play a leading role in this.

A field lab is an important vehicle that contributes to achieving impact. At TU Delft, we specifically use field labs to accelerate innovation and the application of knowledge from TU Delft for the benefit of a sustainable economy and a flourishing society.





CHALLENGES

In the development of the regional aerospace ecosystem

- Public opinion Aviation and Drones (and effect on young people)
- Legislation new innovations (for example BVLOS for Drones)
- Shortage of staff (vacancies)
- Dependence on materials and components from distant regions
- Investment money (long time to market for new innovations)
- Transition Defence Industry
- Government budget cuts on innovation and education



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industrial
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**Time for
questions**





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TU Delft Delft
University of
Technology



aerospace
innovation
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Thank you!

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www.interregeurope.eu/MAE

