

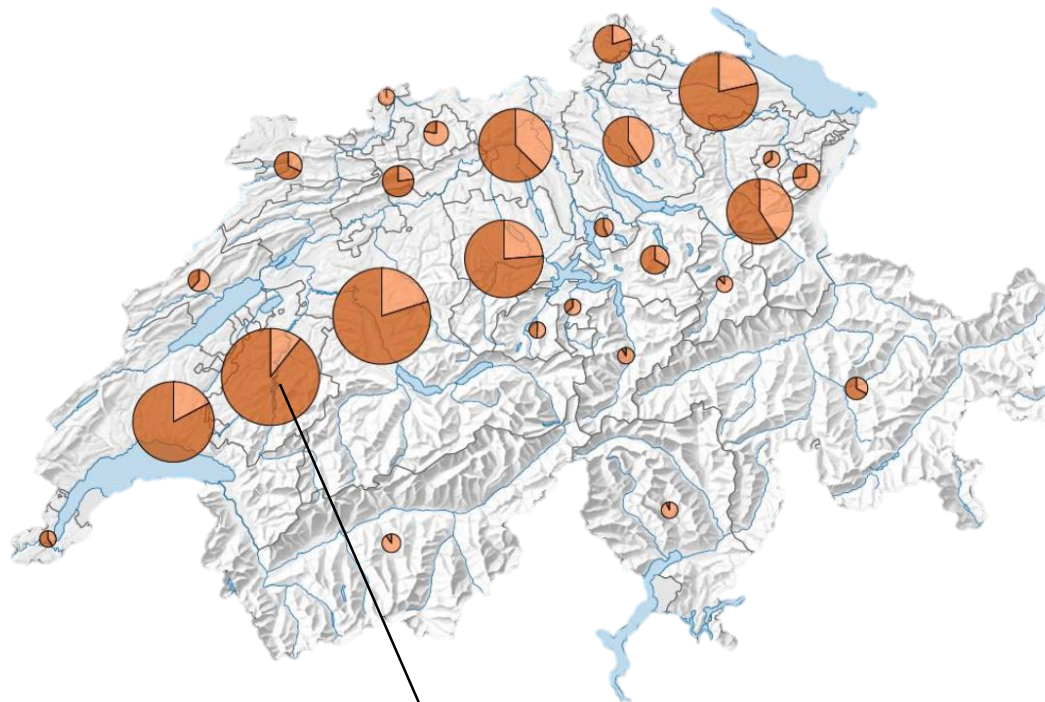
# **Smart Specialisation Strategies with Smart Clusters A New Approach to Generating Transformative Activities**

**Michael Keller**

HES-SO - University of Applied Sciences and Arts Western  
Switzerland, School of Engineering and Architecture of Fribourg

LIUC – Università Cattaneo

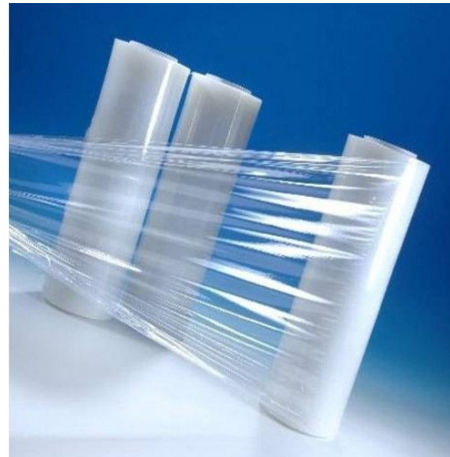


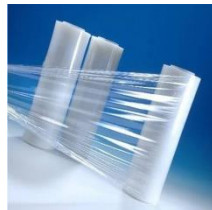


**Canton of Fribourg:**  
Biggest producer of poultry in  
Switzerland

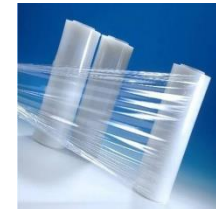


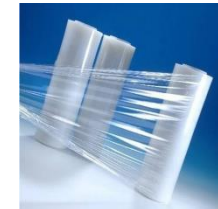
**cluster food  
& nutrition**





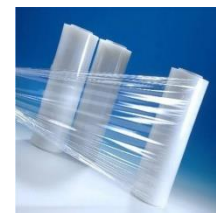
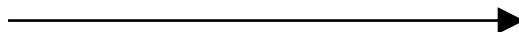
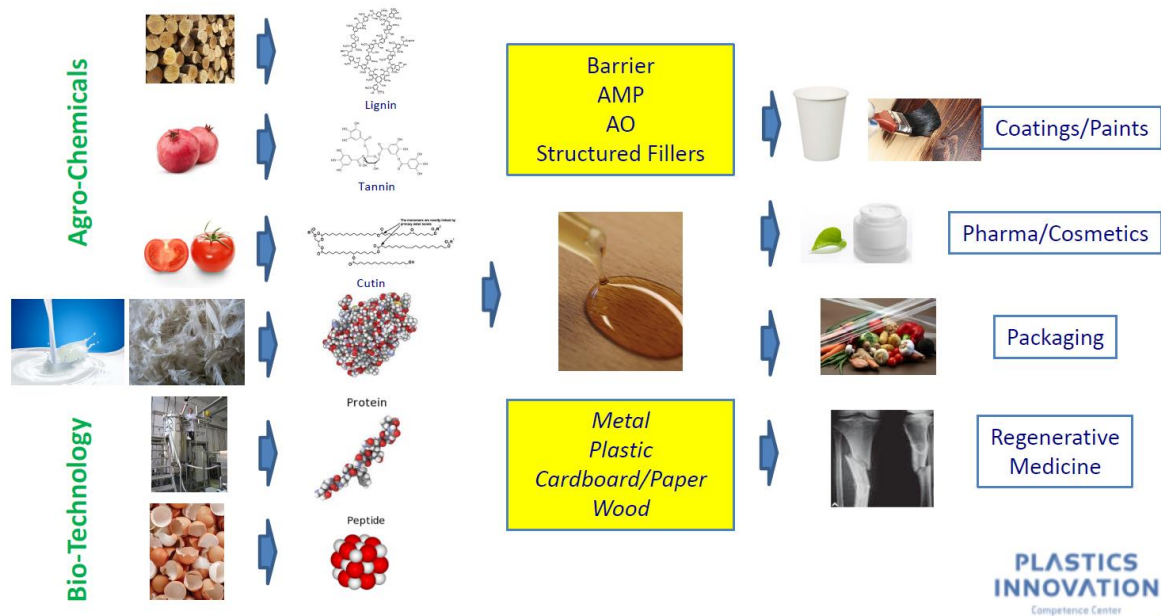
**swiss plastics  
cluster**





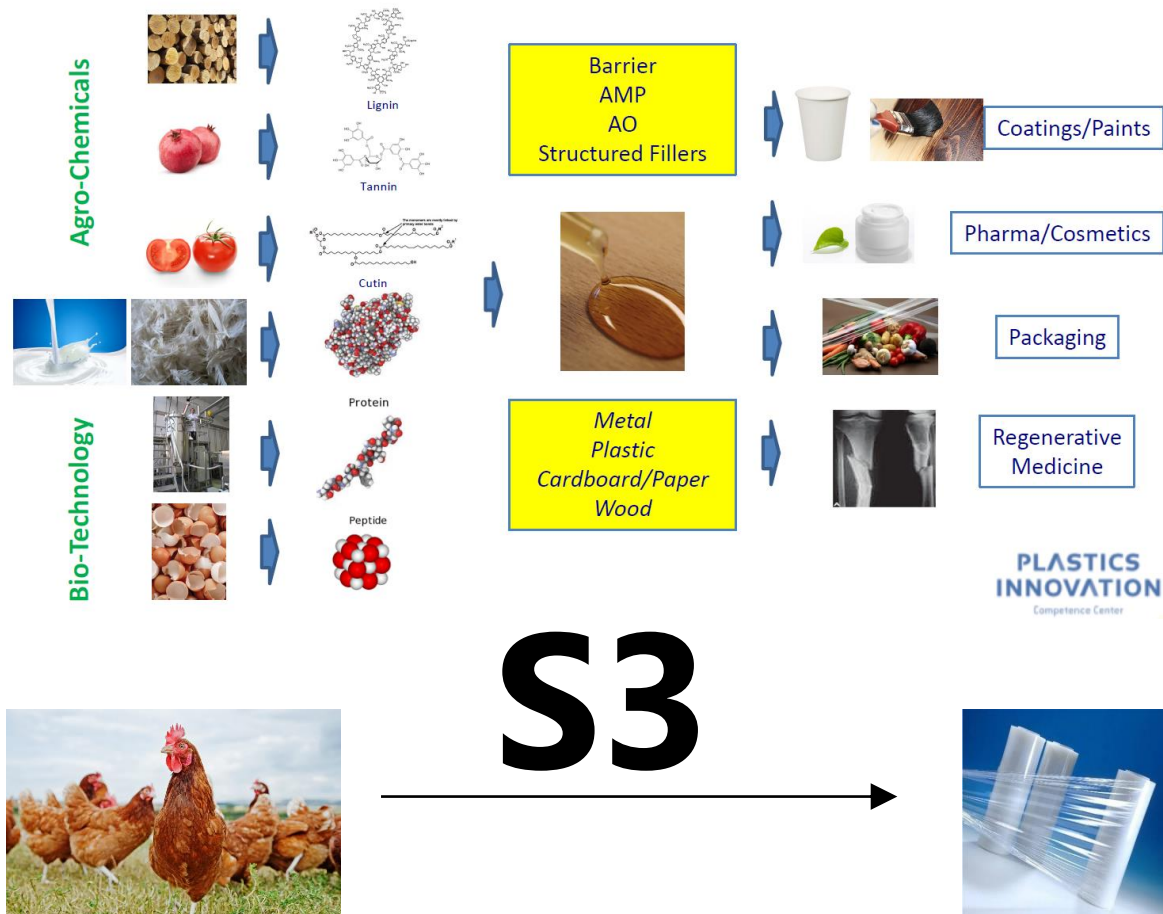
**Development of bio-based inputs for the plastics industry**





**Development of bio-based inputs for the plastics industry**



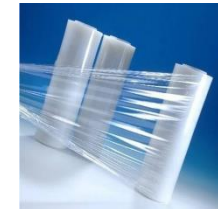


**Development of bio-based inputs for the plastics industry**

# Clusters



**S3**

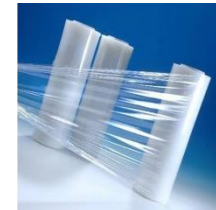


**Development of bio-based inputs for the plastics industry**

# Clusters identify and develop **Transformative Activities**



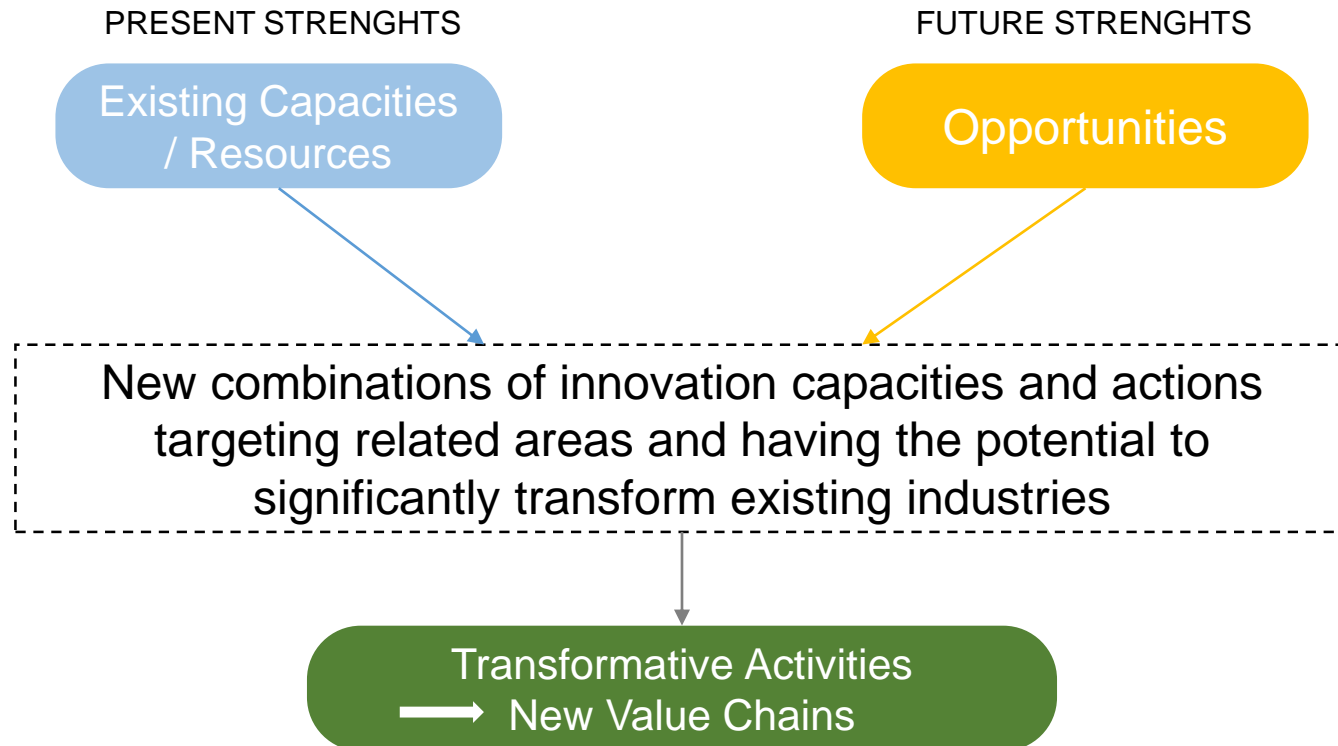
**S3**



**Development of bio-based inputs for the plastics industry**

# Transformative Activities

Regions need to achieve differentiation by specialising on a limited number of prioritised economic activities



Source: Keller et al., 2018

# Transformative Activities



Haute école d'ingénierie et d'architecture Fribourg  
Hochschule für Technik und Architektur Freiburg



## Transformative Activities for Smart Specialisation: Considerations on a Workshop Methodology

Working Paper, October 2018

Dominique Foray\*, Michael Keller<sup>+</sup>, Jacques Bersier<sup>+</sup>, Gerd Meier zu Köcker<sup>^</sup>

\* *Ecole Polytechnique Fédérale de Lausanne*

<sup>+</sup> *School of Engineering and Architecture of Fribourg, HES-SO - University of Applied Sciences and Arts  
Western Switzerland*

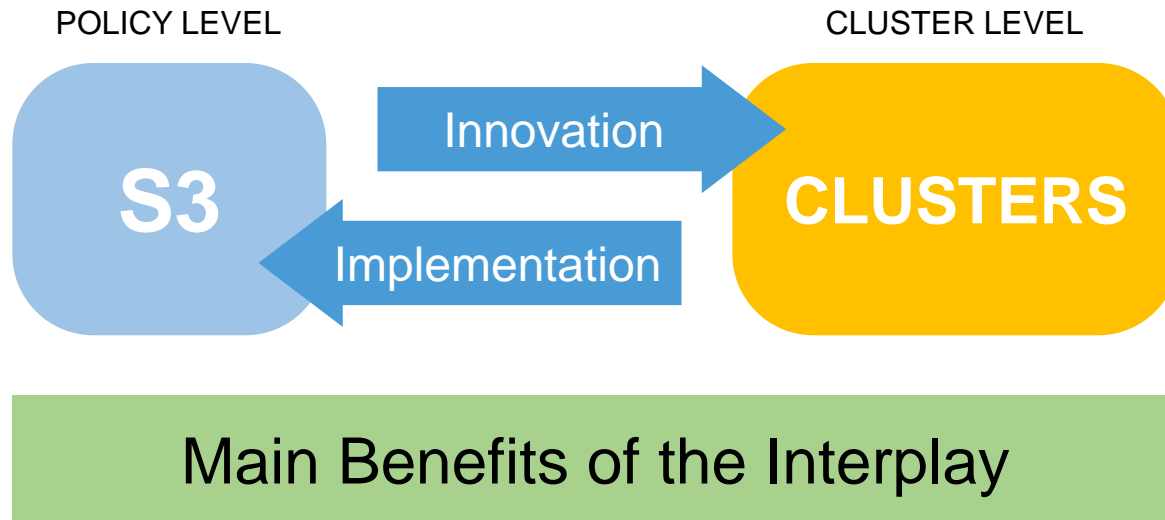
<sup>^</sup> *ClusterAgentur Baden-Württemberg*

Contact: [michael.keller@hefr.ch](mailto:michael.keller@hefr.ch)

TA: Transformative Activities can be understood as a collection of *innovation capacities* and *actions* of a group of actors, derived from an innovative combination of existing structures, targeting related areas and having the potential to significantly transform existing industries.

# Interreg Project S3-4AlpClusters

## The S3-Innovation Model



- **S3 triggers**

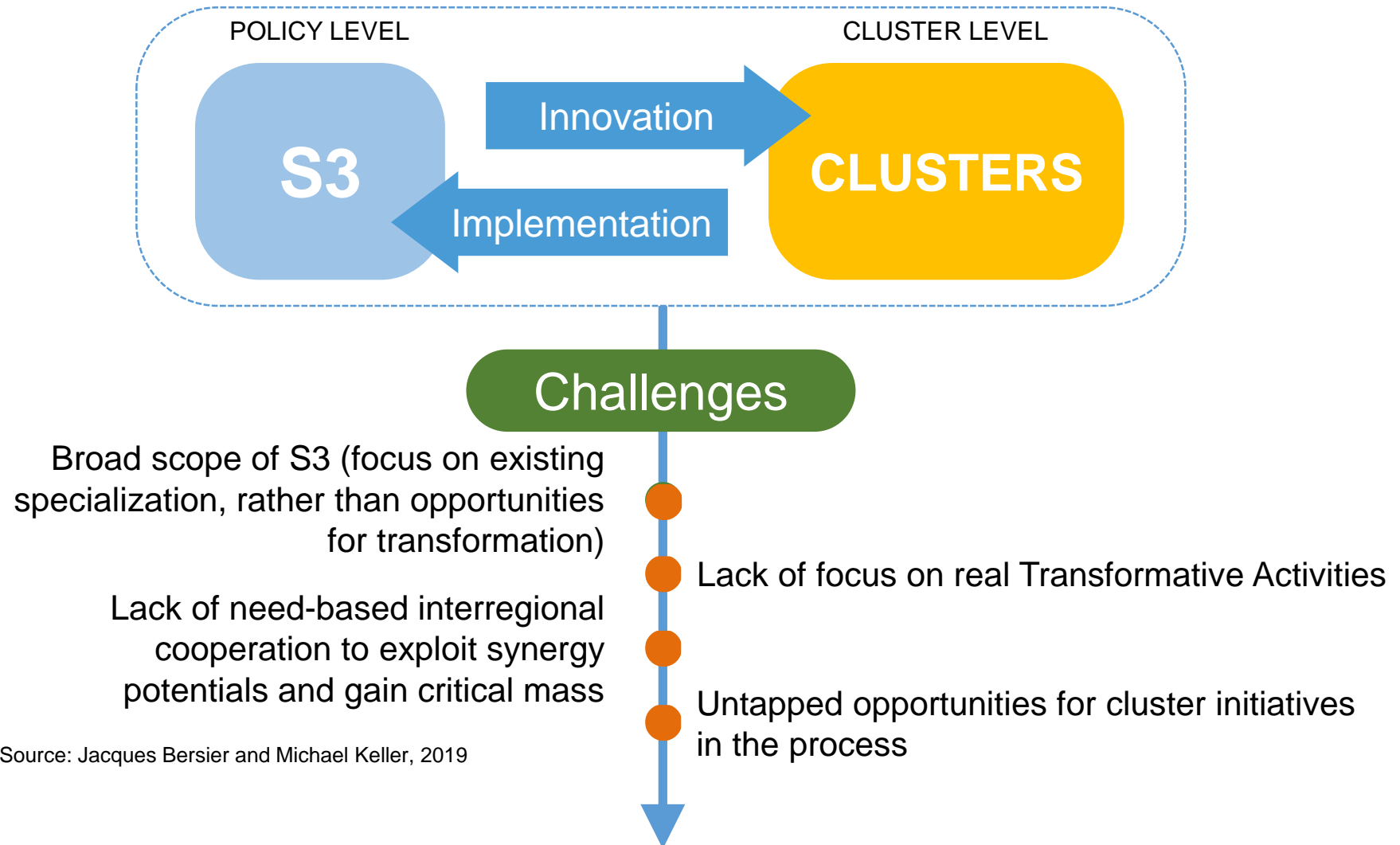
- Transformation process
  - Entrepreneurship
    - Innovation

- **Cluster represent**

Local concentration of capacities  
Entrepreneurial resources  
Cross-sectoral connectivity  
Actors from the quadruple helix

Source: Jacques Bersier and Michael Keller, 2019

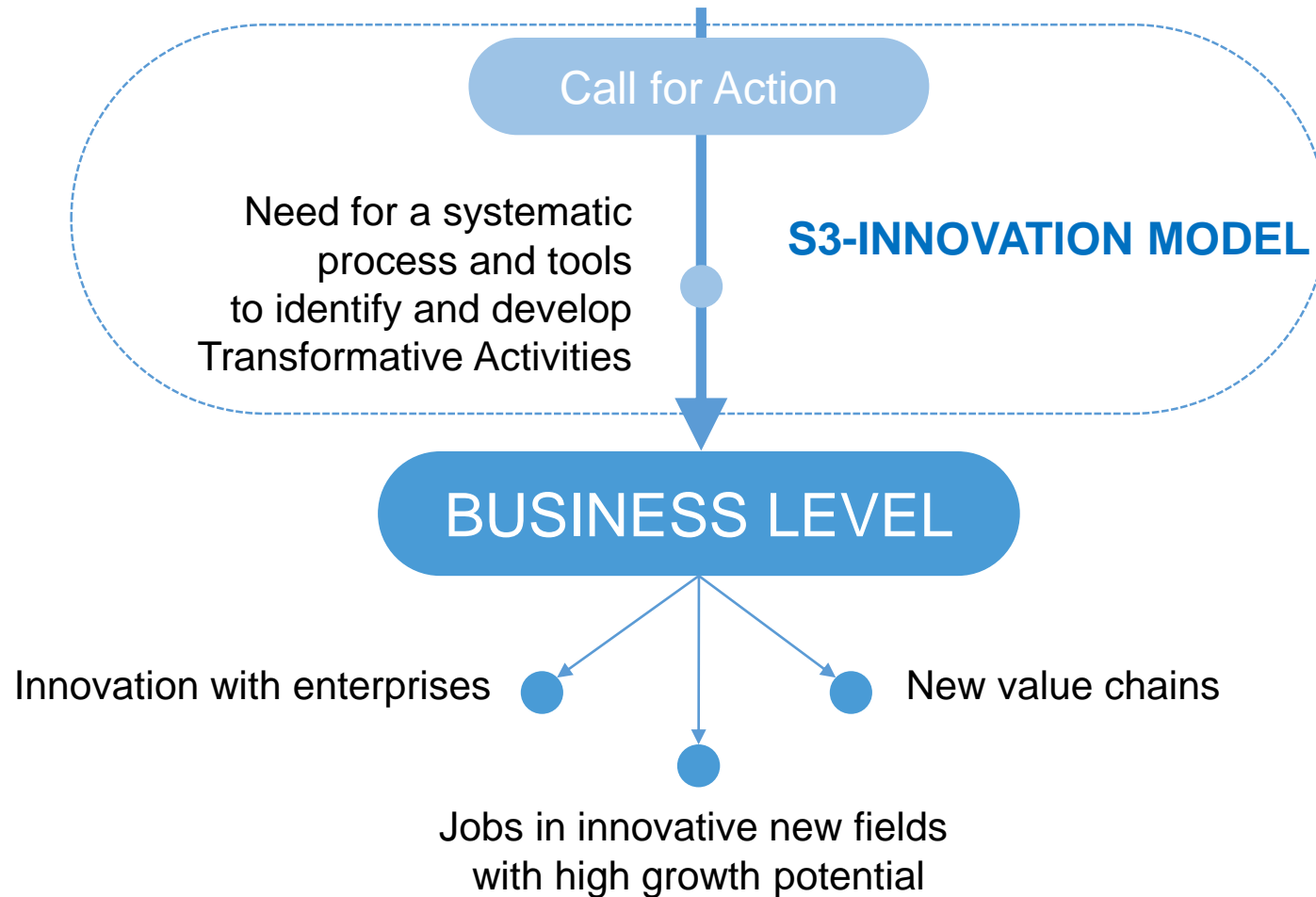
# Challenges



Source: Jacques Bersier and Michael Keller, 2019



# Call for Action

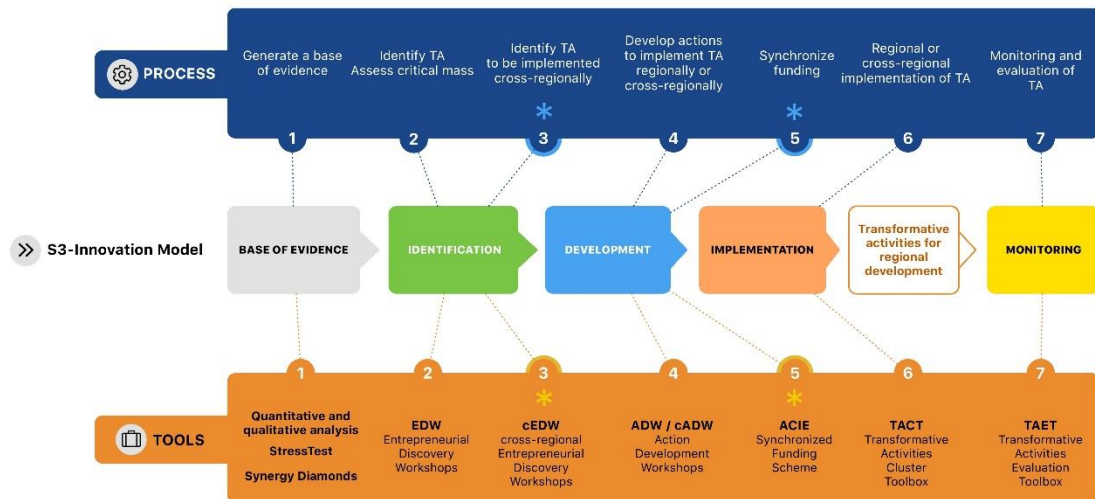


Source: Jacques Bersier and Michael Keller, 2019

# The S3-Innovation Model

Need for a systematic  
process and tools  
to identify and develop  
Transformative Activities

## S3-INNOVATION MODEL



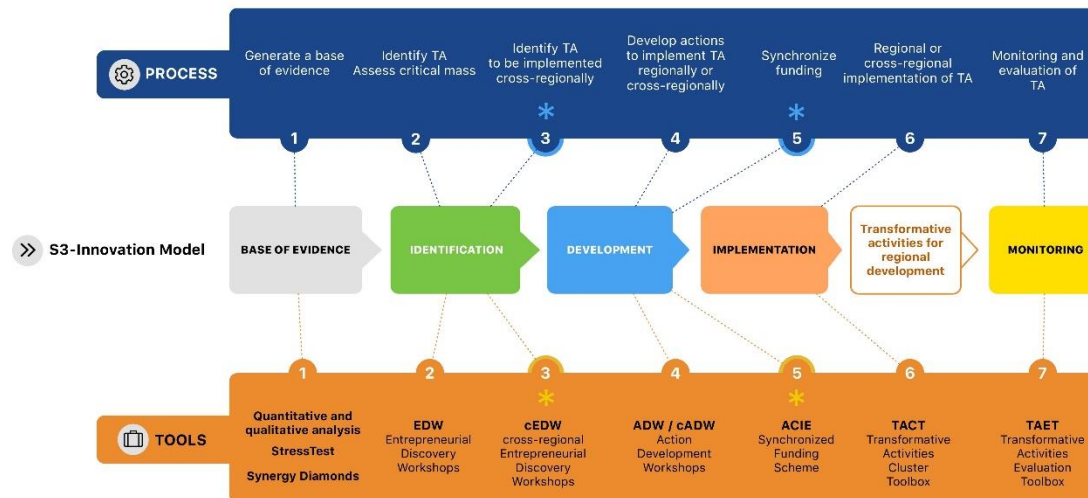
# The S3-Innovation Model



Bersier, J. and Keller, M. (Eds.). (2019). *Smart Specialisation Strategies with Smart Clusters*. S3-4AlpClusters Final Publication.

## Website:

<https://www.alpine-space.eu/projects/s3-4alpclusters/en/project-results/the-s3-innovation-model/discover-the-model-and-its-tools>



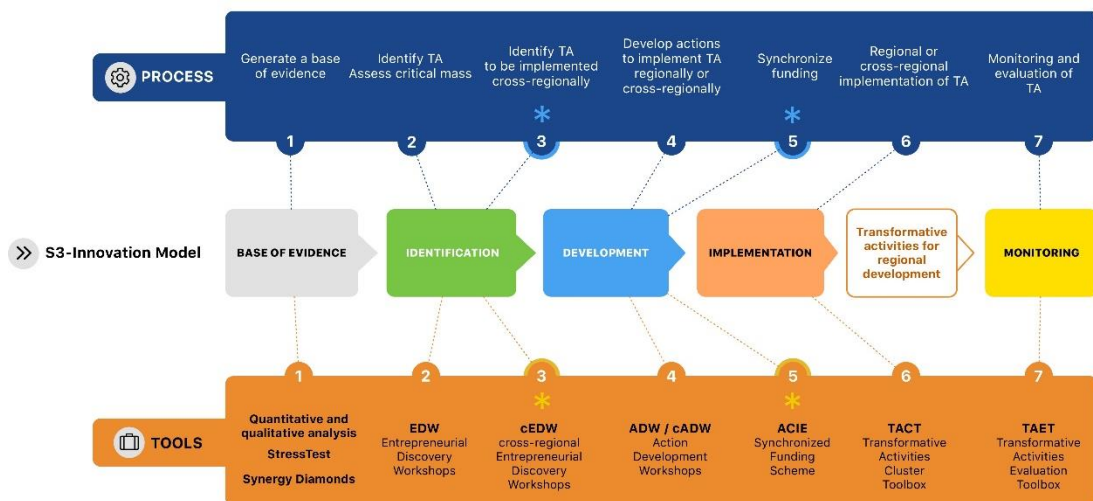
# The S3-Innovation Model

ISSUE 47 | MAY 2019 23

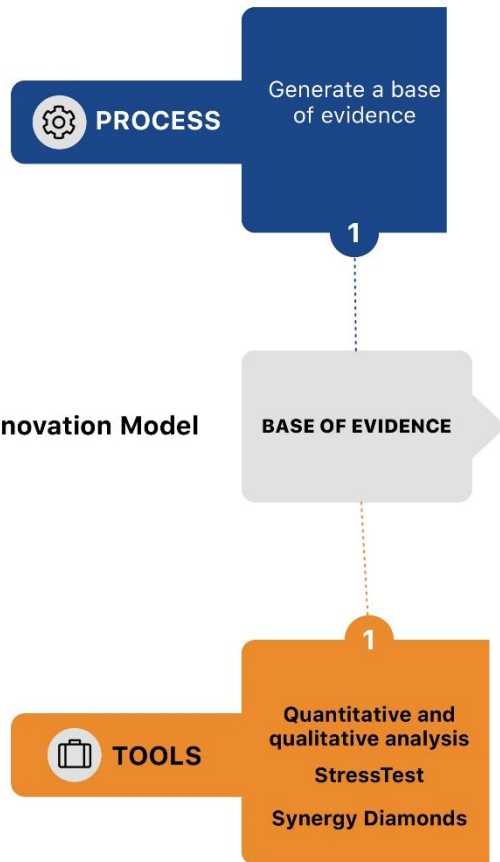
## IMPLEMENTING S3 WITH CLUSTERS – AN INNOVATION MODEL FOR TRANSFORMATIVE ACTIVITIES

MICHAEL KELLER, IRIS REINGRUBER, MATEJA DERMASTIA, JACQUES BERSIER AND GERD MEIER ZU KÖCKER  
DOI: 10.22163/fteval.2019.325

Keller, M., Reingruber, I., Dermastia, M., Bersier, J. and Meier zu Köcker, G. (2019). Implementing S3 with Clusters - An Innovation Model for Transformative Activities. *Fteval Journal for Research and Policy Evaluation*, Issue 47, pp. 23-34. DOI: 10.22163/fteval.2019.325.



# Base of Evidence



©S3-4AlpClusters

## Quantitative and Qualitative Analysis

PRESENT STRENGTHS

Existing Capacities  
/ Resources

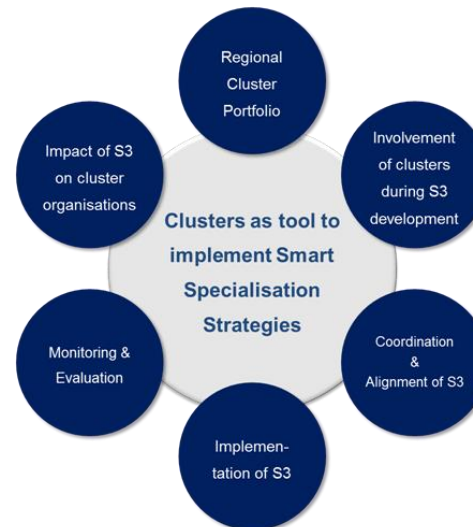
FUTURE STRENGTHS

Opportunities

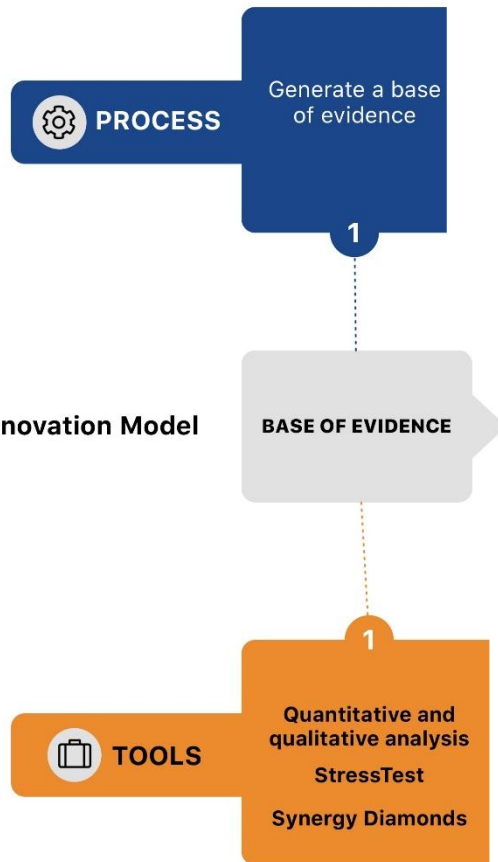
Source: Keller et al., 2018

## StressTest

Source: Meier zu Köcker and Dermastia, 2018

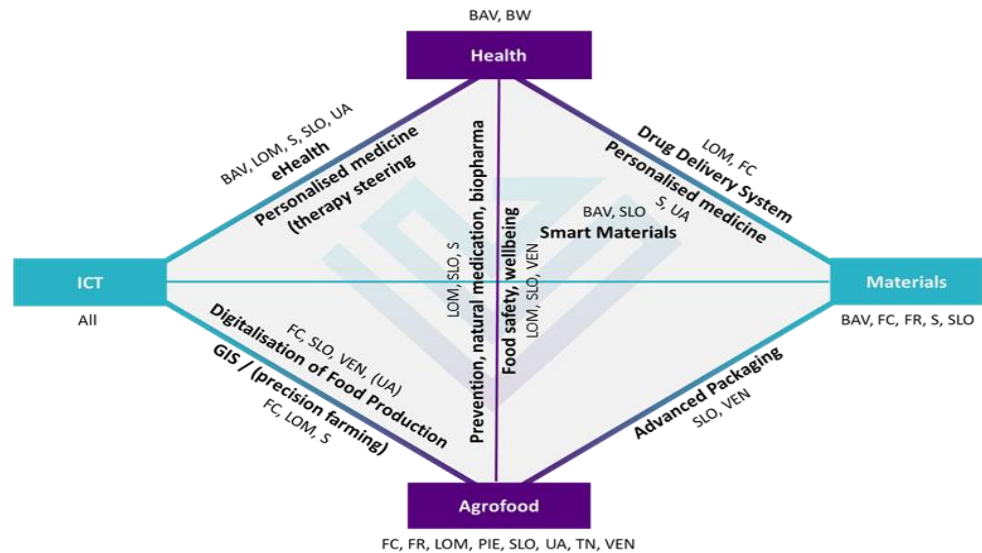


# Base of Evidence



©S3-4AlpClusters

## S3 – Synergy Diamonds



Source: Meier zu Köcker et al., 2017



# Base of Evidence

## Existing Capacities / Resources

- Agrofood
- Construction
- Materials
- Energy
- IT
- Tourism

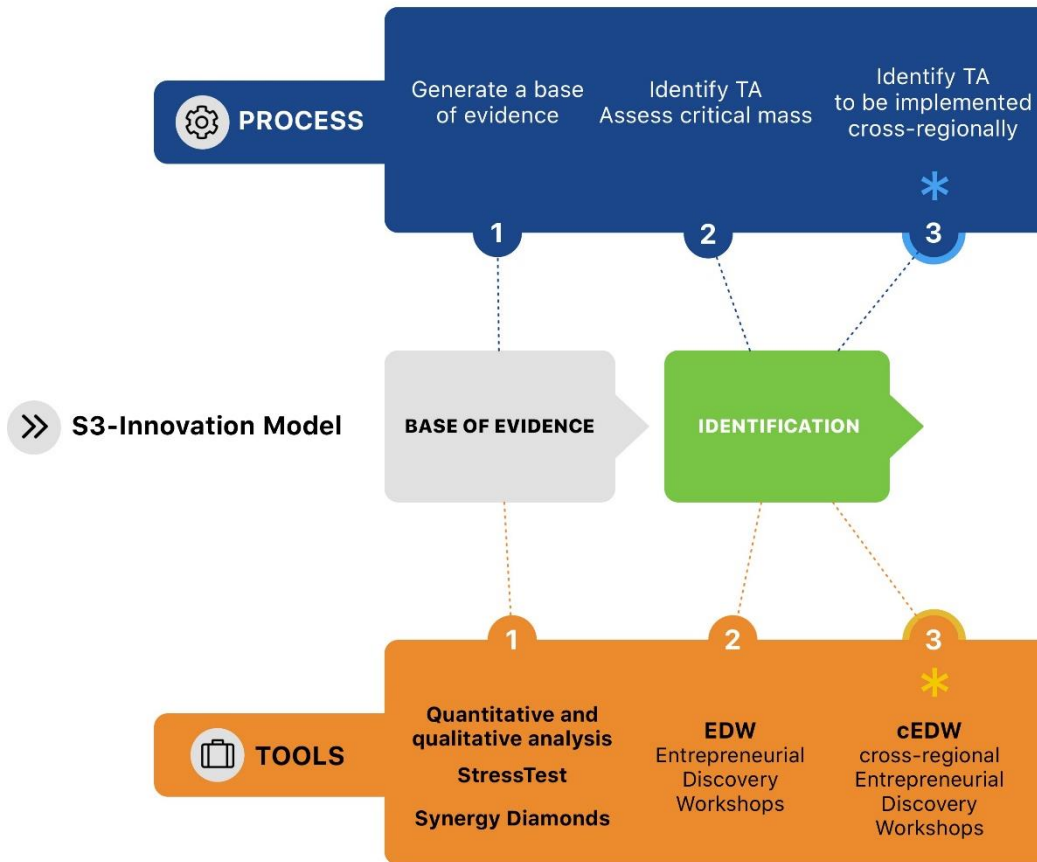


# polymer valley



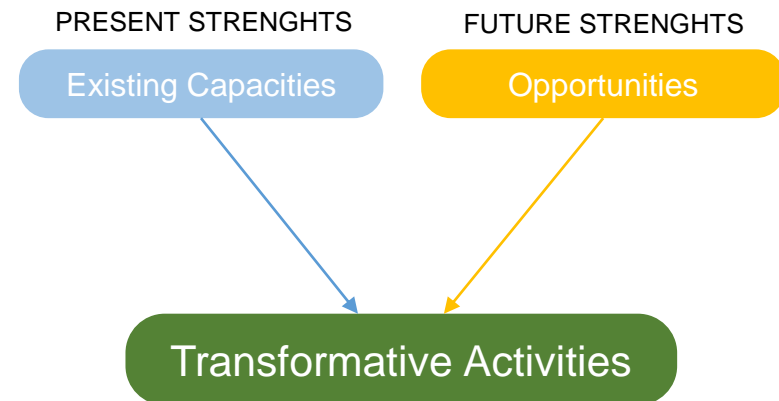
Haute école d'ingénierie et d'architecture Fribourg  
Hochschule für Technik und Architektur Freiburg

# Identification



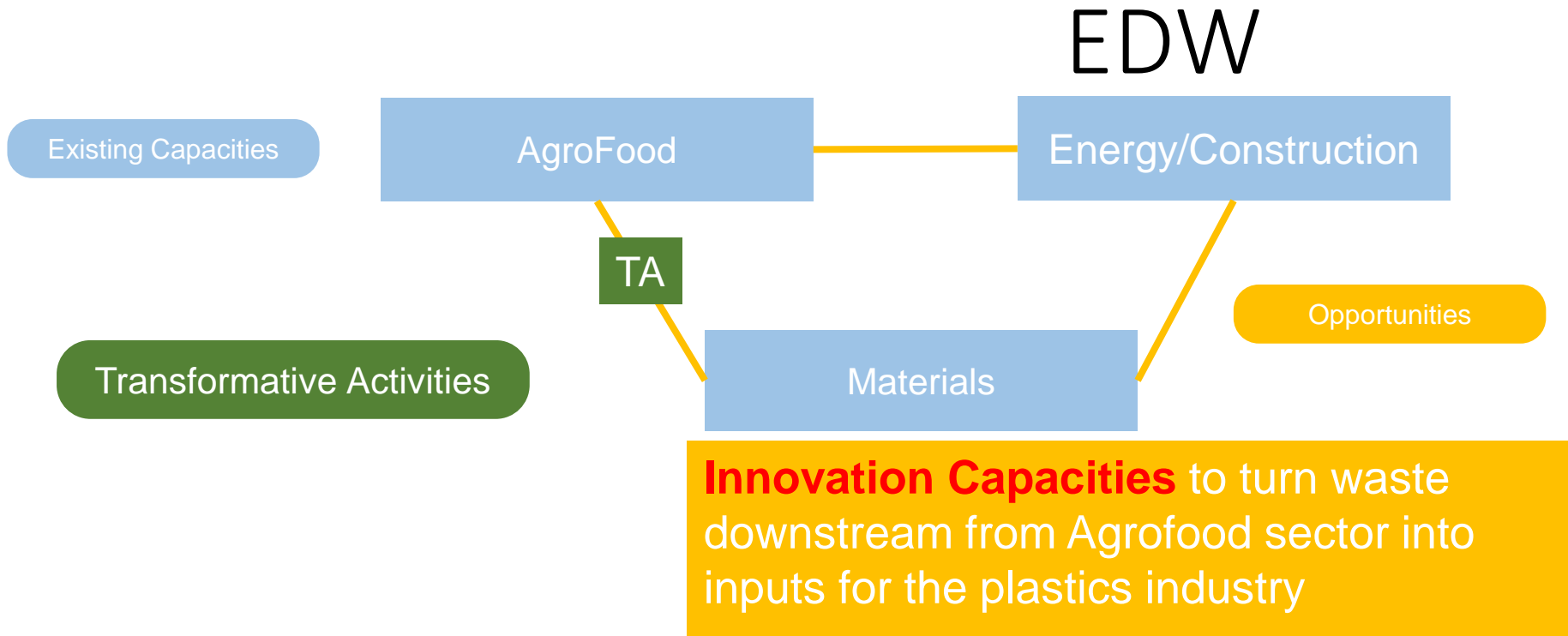
©S3-4AlpClusters

- Entrepreneurial Discovery Workshop EDW
- cross-regional Entrepreneurial Discovery Workshop cEDW

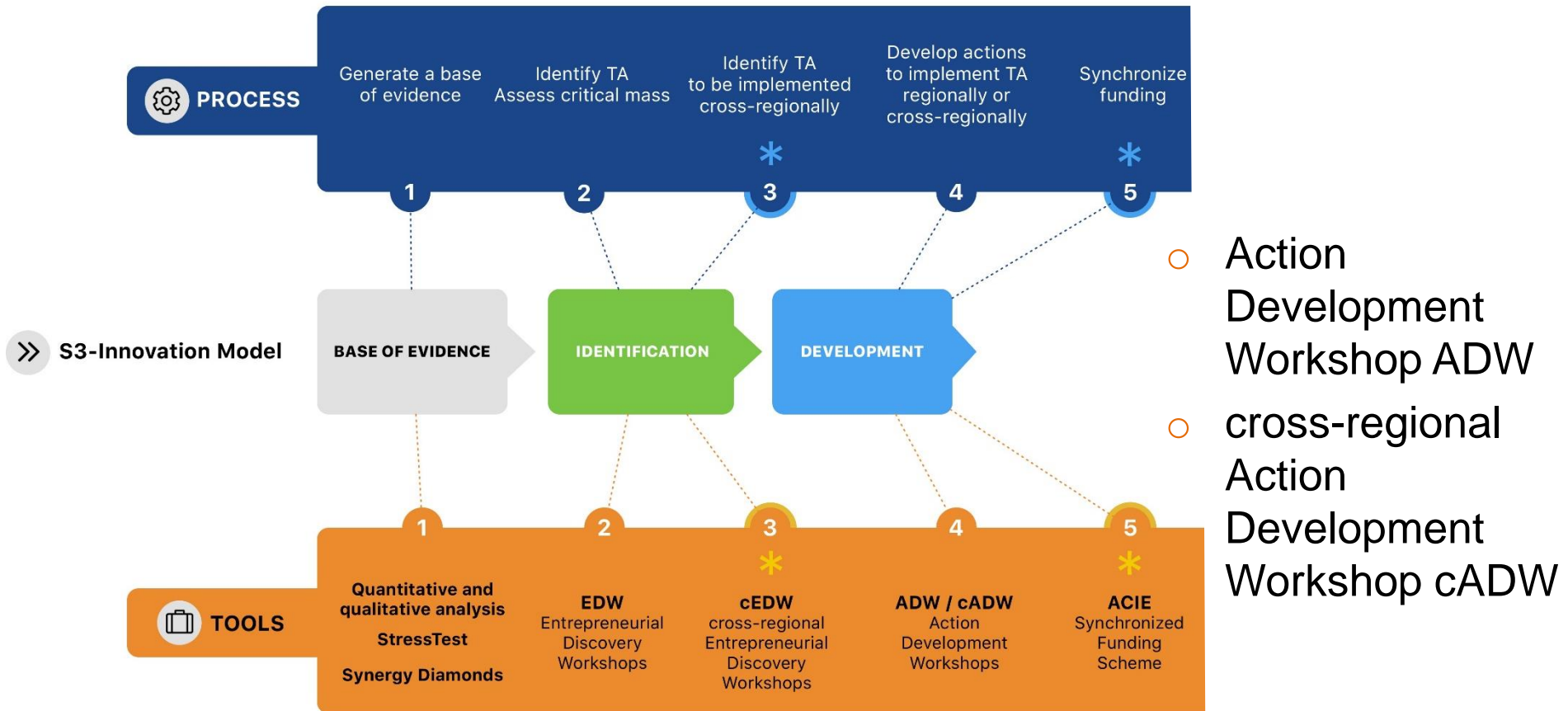


Source: Keller et al., 2018





# Development



Source: Keller et al., 2018



ADW



# polymer valley



Transformative Activities

**Actions** to turn waste downstream from Agrofood sector into inputs for the plastics industry



Haute école d'ingénierie et d'architecture Fribourg  
Hochschule für Technik und Architektur Freiburg



Chicken farming



Chicken feathers



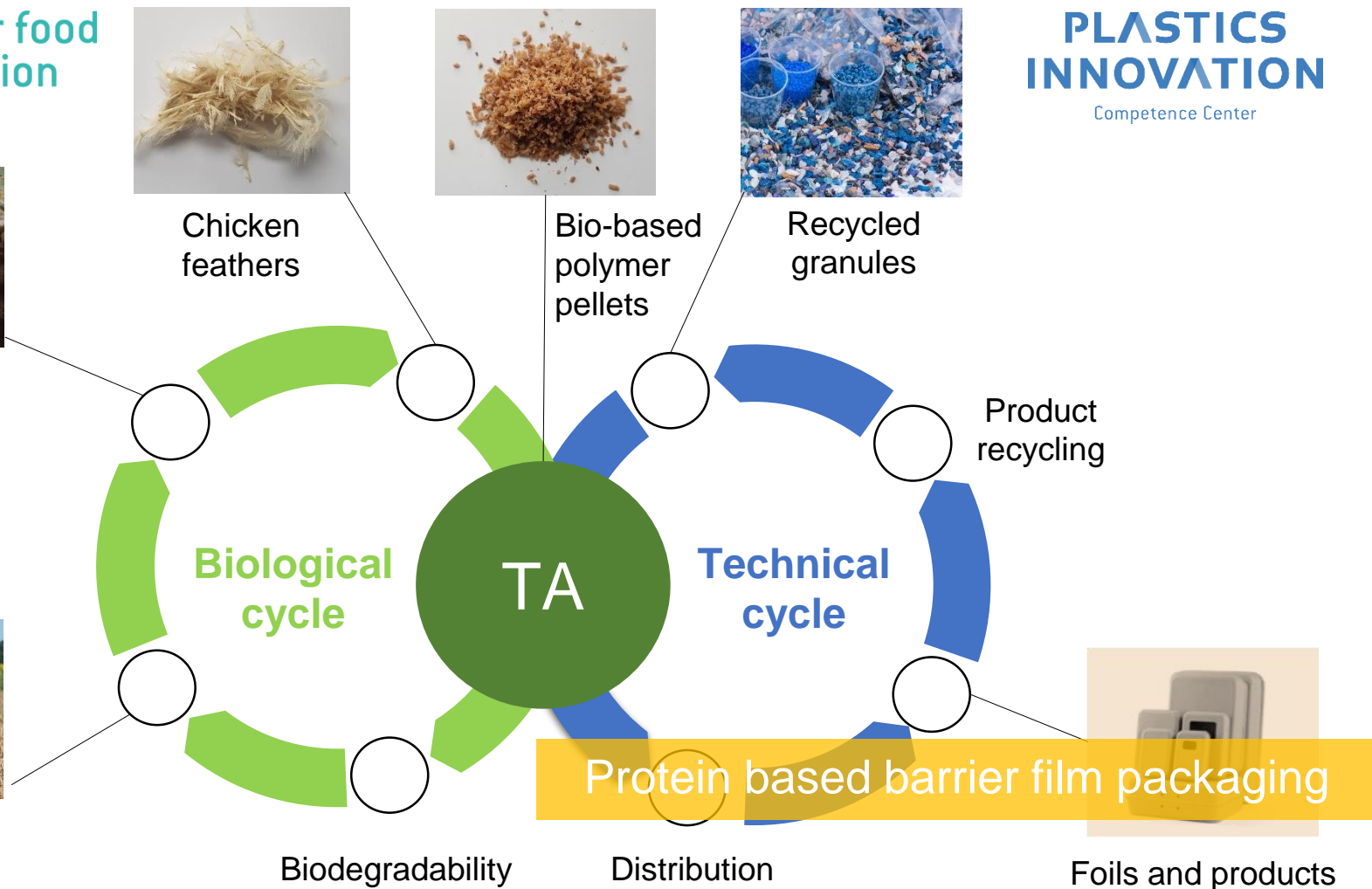
Bio-based polymer pellets



Recycled granules



Agri-food production



Source: Pascal Bovet, 2019

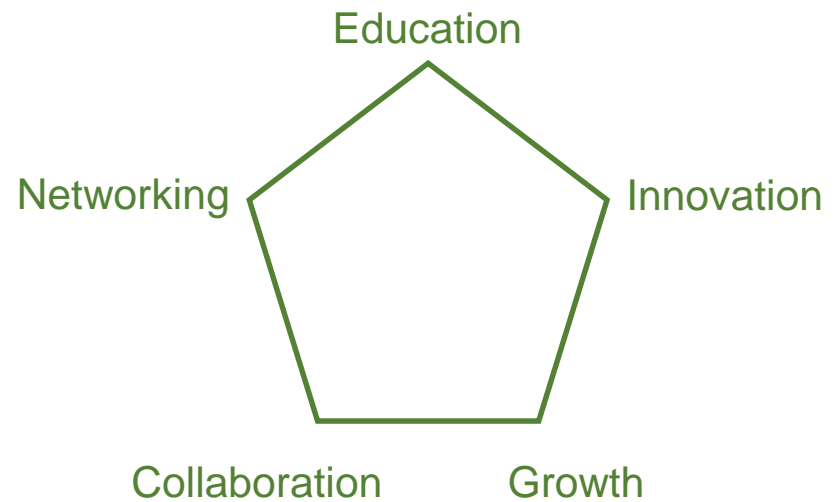


# Implementation



©S3-4AlpClusters

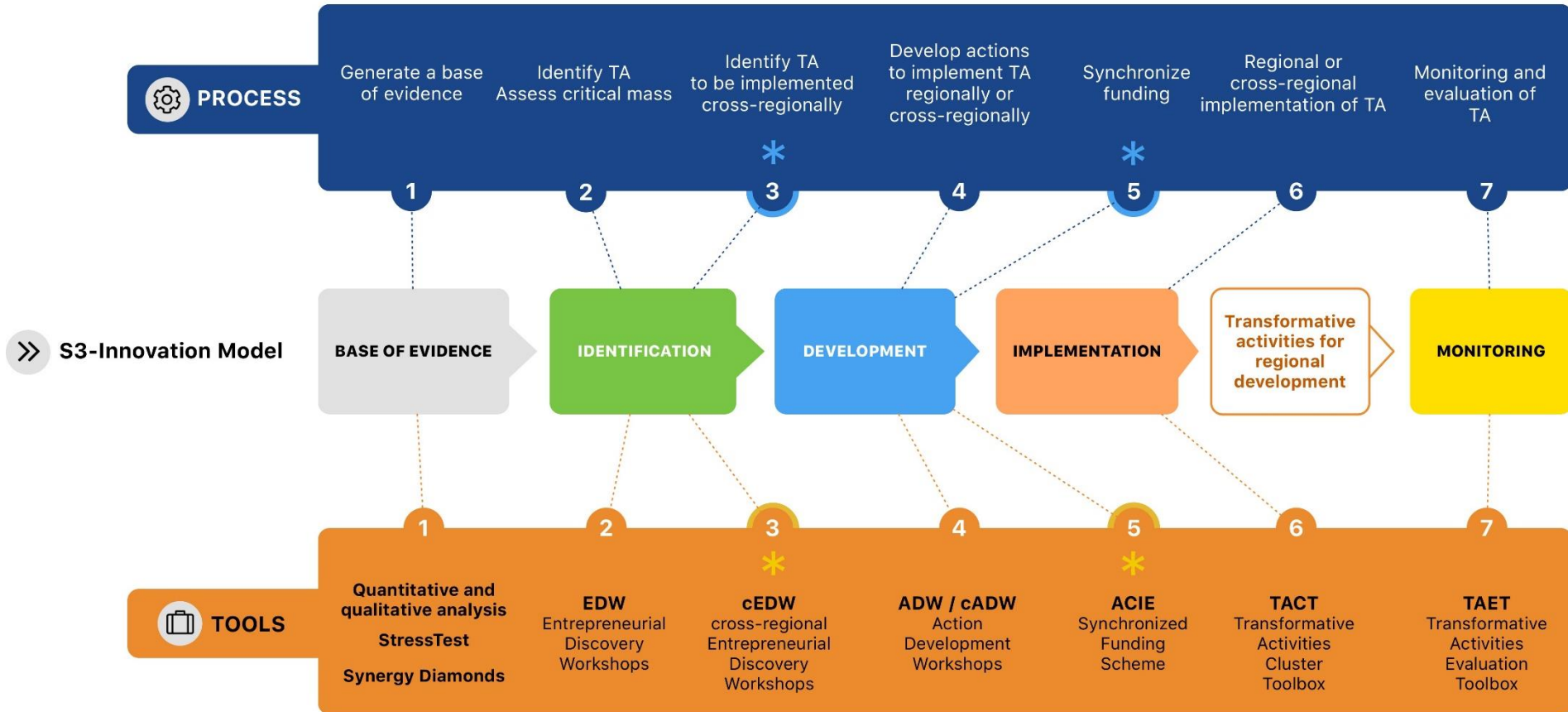
- Transformative Activities Cluster Toolbox TACT



27 Best practices  
14 New Services

# Evaluation

## ○ Evaluation of the Process TAET



©S3-4AIPClusters

# Conclusion and Recommendations

- Ongoing debate on updating the S3 efforts in the European innovation policy framework
- Based on the experience with the **S3-Innovation Model** we recommend:
  - Shift focus of S3-implementation from existing priority areas to **new transformative activities** (TA)
  - Use **cluster initiatives** to take over active roles in a **systematic process** to identify and develop TA
  - Support **cross-regional cooperation** by cross-regional **synchronised funding schemes**

# Conclusion and Recommendations

- Ongoing debate on updating the S3 efforts in the European innovation policy framework
- Based on the experience with the **S3-Innovation Model** we recommend:
  - Shift focus of S3-implementation from existing priority areas to **new transformative activities** (TA)
  - Use the tools of the S3-Innovation Model

# Conclusion and Recommendations

- Ongoing debate on updating the S3 efforts in the European innovation policy framework
- Based on the experience with the **S3-Innovation Model** we recommend:
  - Shift focus of S3-implementation from existing priority areas to **new transformative activities** (TA)
  - Use **cluster initiatives** to take over active roles in a **systematic process** to identify and develop TA
  - Assign active roles to cluster initiatives

# Conclusion and Recommendations

- Ongoing debate on updating the S3 efforts in the European innovation policy framework
- Based on the experience with the **S3-Innovation Model** we recommend:
  - Shift focus of S3-implementation from existing priority areas to **new transformative activities** (TA)
  - Use **cluster initiatives** to take over active roles in a **systematic process** to identify and develop TA
  - Support **cross-regional cooperation** by cross-regional **synchronised funding schemes**
- Synchronise Funding for S3 Implementation within the EUSALP Macroregion











# Interreg Alpine Space S3-4AlpClusters

European Regional Development Fund

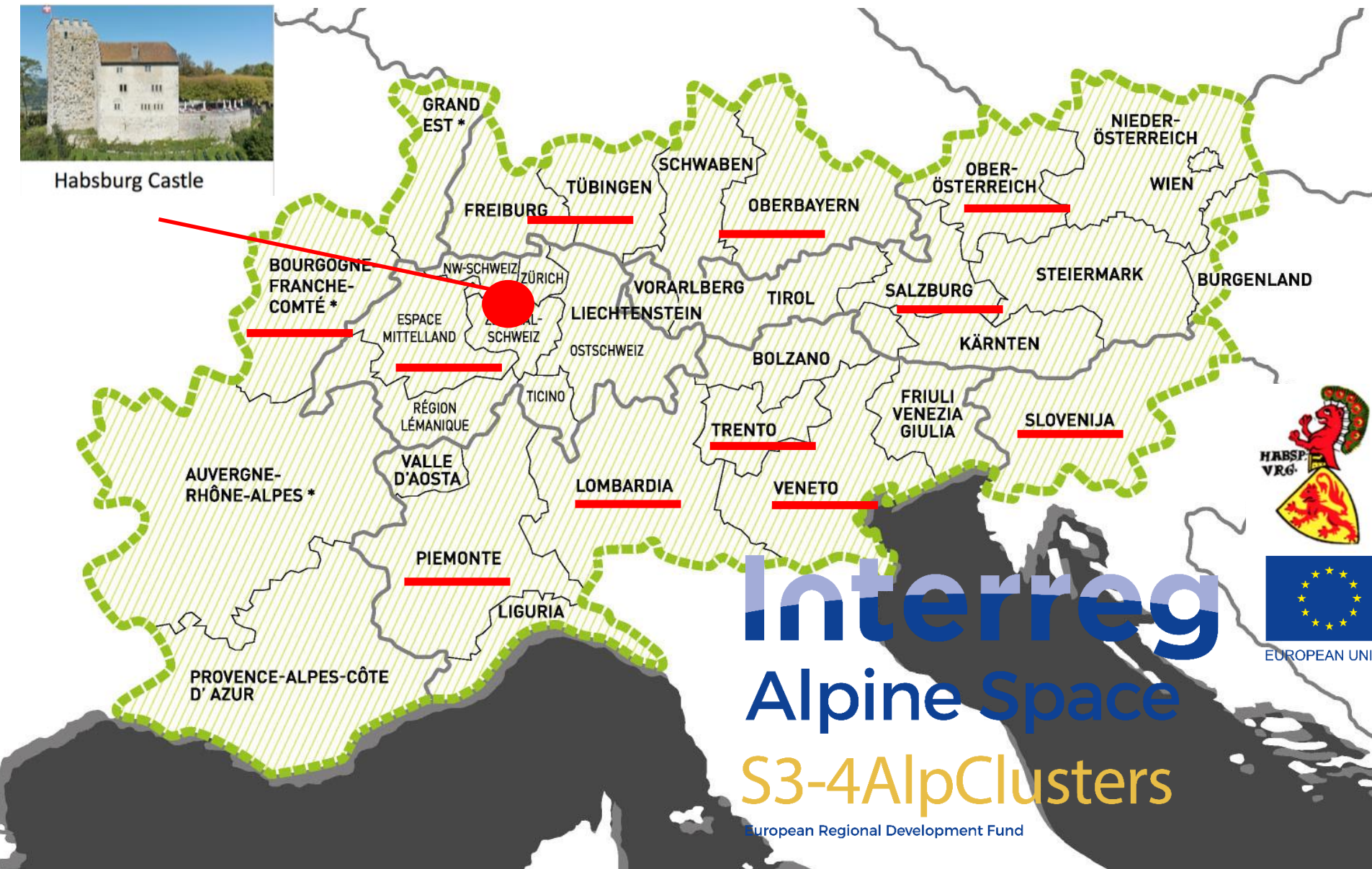


EUROPEAN UNION





Habsburg Castle



# Interreg Alpine Space S3-4AlpClusters

European Regional Development Fund





Habsburg Castle



Abbey Church Muri



# Interreg Alpine Space S3-4AlpClusters

European Regional Development Fund



EUROPEAN UNION









# Synchronise Funding for S3 Implementation within the EUSALP Macroregion

- Success of the Alpine Space:
  - Subsidiarity
  - Decentralised Federation of Diversity
- Future RIS-3 in the Alpine Space
  - Do **not synchronise content** (Alpine S3)
  - **Synchronise the mechanism** (Identification and Development of Transformative Activities)
  - ... and its funding:
    - **Synchronised Funding Scheme for the Development of Transformative Activities**