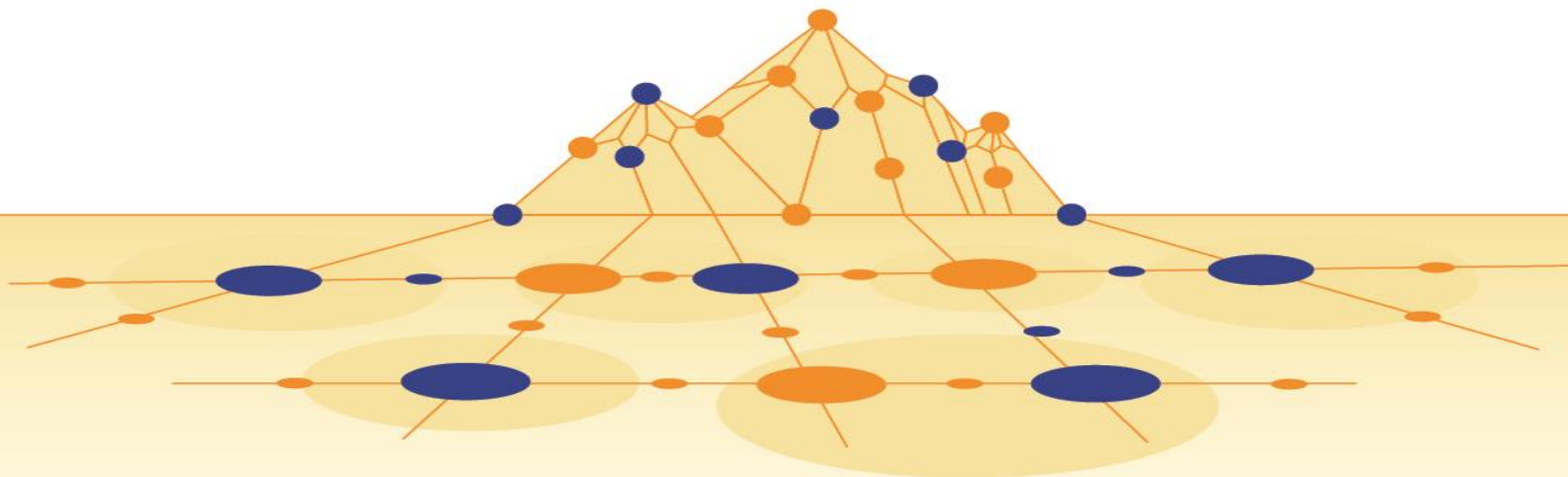


S3-4AlpClusters

Smart Specialisation with Smart Clusters
Synergy Diamond

Training Tool



Smart Specialisation with Smart Clusters

In the implementation of S3 three challenges have been identified:

- Lack of real Transformative Activities to support innovation and structural transformation
- Lack of cross-regional collaborations to gain critical mass
- Need to better integrate and collaborate with clusters in S3

Smart Specialisation with Smart Clusters proposes a **systematic process** that follows **5 Action Lines** to address these challenges:

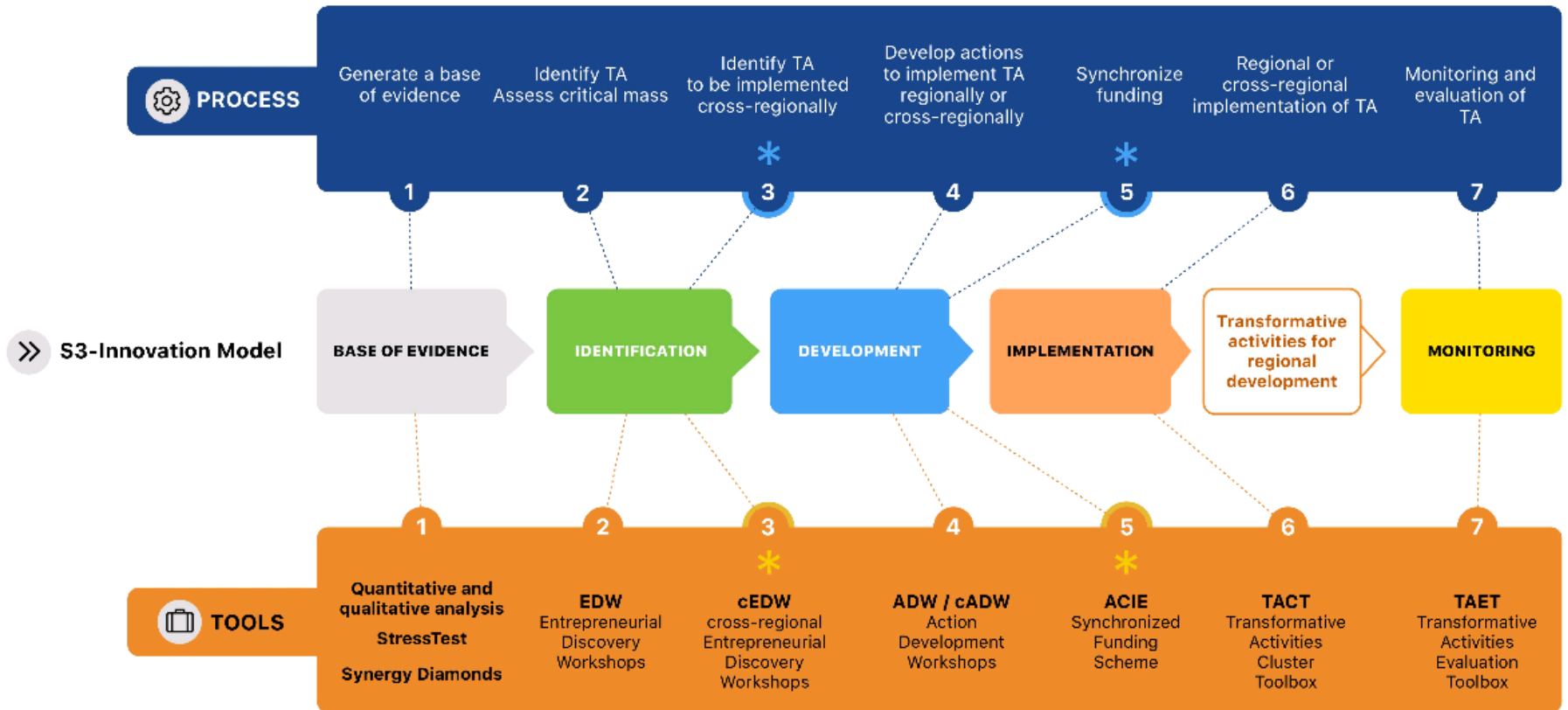
1. Provide a **Base of Evidence**
2. **Identification** of Transformative Activities
3. **Development** of actions
4. **Implementation** of Transformative Activities
5. **Monitoring**

To support the implementation of the individual process steps, **specific instruments and services** are developed. The **Training Tool Kit** provides guidance on how to implement the process and the instruments in a region.



Smart specialisation with smart clusters

A new approach to generate Transformative Activities (TA)



Training Tool Kit – Smart Specialisation with Smart Clusters



1. Base of Evidence

Qualitative & Quantitative
Analysis

Stress Test

Synergy Diamond

2. Identification

Entrepreneurial Discovery Workshop
regional / cross-regional

3. Development

Action Development
Workshop

Synchronized Scheme

4. Implementation

TA Cluster Toolbox

5. Monitoring

TA Evaluation Toolbox



Background

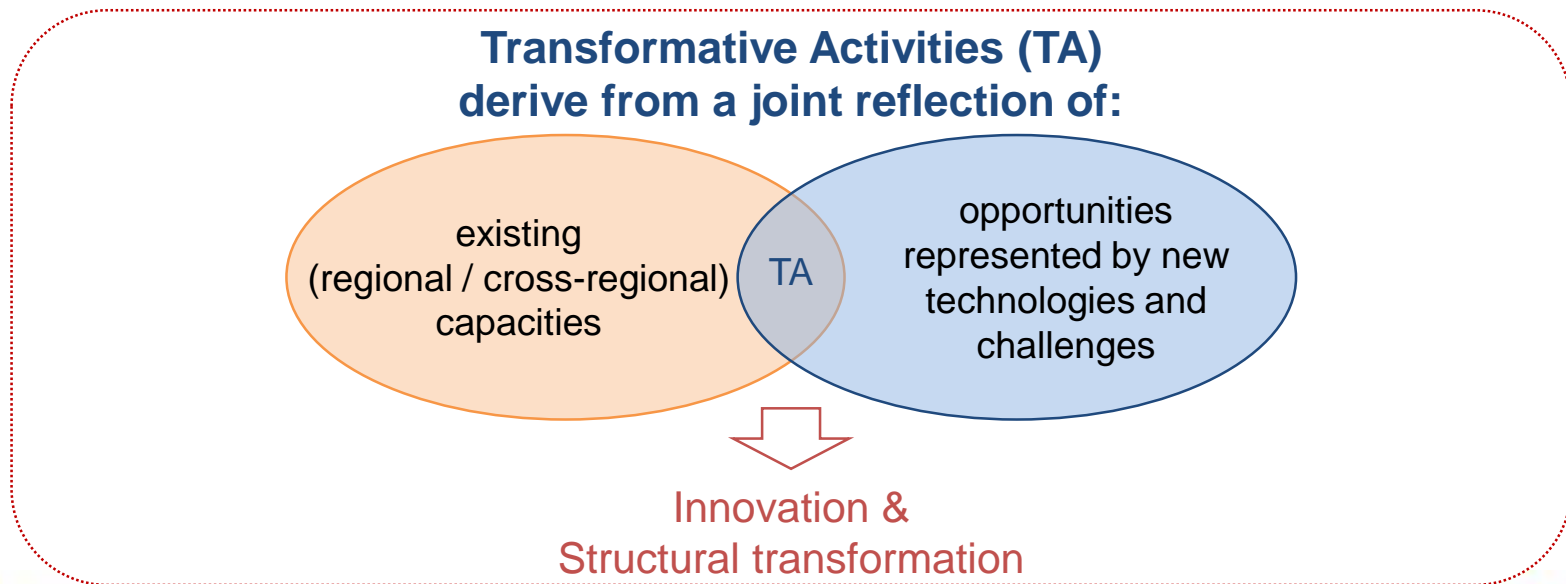
Synergy Diamond



Transformative Activities (I)

Smart Specialisation postulates to set priorities or strategic domains by finding unique combinations between specific **potentials** and **capacities** and new **opportunities** = „**Transformative Activities**“.

“**Transformative Activities**” can be understood as an accumulation of innovation-related capacities and activities with **sufficient critical mass** to scale and to lead to structural transformation of existing industries. Transformative Activities are inherently cross sectorial and are developed through targeted combination of activities and actors.

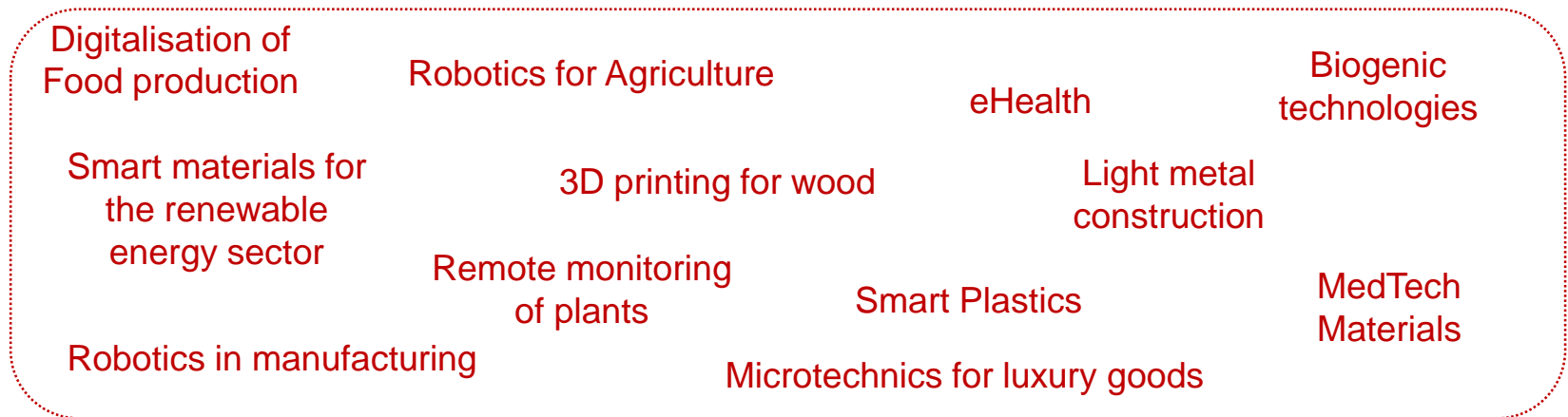


Transformative Activities (II)

Dominique Foray describes the concept of Transformative Activities as follows:

“It is neither an individual project nor a sector as a whole but rather a collection of innovation capacities and actions that have been “extracted” as it were from an existing structure or several structures, to which can be added extra-regional capacities and that is oriented towards a certain structural change.”

Examples of Transformative Activities are:



Transformative Activities (III)

Bottom-up Identification

The **identification of Transformative Activities** for the region should be the result of a **bottom-up approach** – an **entrepreneurial discovery process**. The bottom up approach engages the **quadruple helix** and involves stakeholders from policy, research & education, civil society and entrepreneurs. It considers the economic structure and performance as well as entrepreneurial activities present in the region.

The innovation model proposes an instrument for the joint discovery of Transformative Activities (see Training Tool Entrepreneurial Discovery Workshop).

Critical mass:

A key factor in enabling Transformative Activities to unleash their potential is critical mass. Only if **sufficient capacities and resources** are bundled TA can scale and sustainable structural change be achieved. A strong cluster portfolio enables regions, companies and entrepreneurs to be actively engaged in TAs that create impact. **Cross-regional cooperation** is a leverage to accelerate the developments, therefore cross-regional synergies should be exploited.



Objective

Synergy Diamond



Identification of Transformative Activities

The Synergy Diamond is a strategic tool that facilitates the **identification of Transformative Activities**. It can be used in a regional as well as in a cross regional context.

The **Synergy Diamond** supports regions

- to **analyse** their **areas of specialization** in the context of Transformative Activities (existing potentials, capacities and entrepreneurial resources vs. new technologies, challenges, trends and markets).
 - to **identify opportunities** for structural transformation:
e.g. new combinations and synergies.
- to better **target cross-regional collaboration** that can create synergies.

The tool is based on the presumption that Transformative Activities mainly **emerge between existing priority areas** and through increasing industrial convergence.

By placing existing priority areas (e.g. outlined in the Smart Specialisation Strategy) on the corners of the Synergy Diamond, **Transformative Activities** can be identified along the linkages.



Components

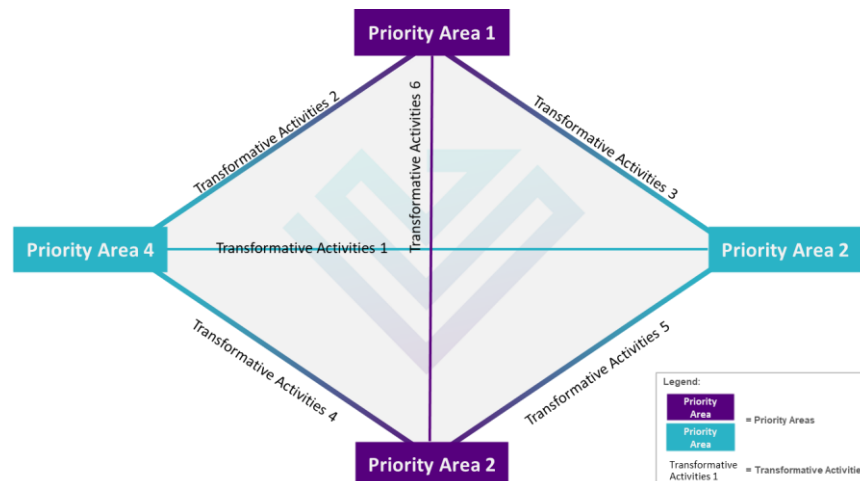
Synergy Diamond



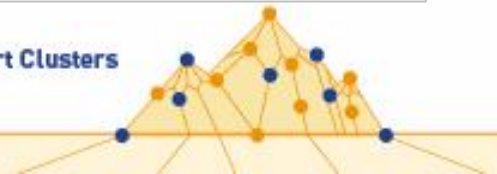
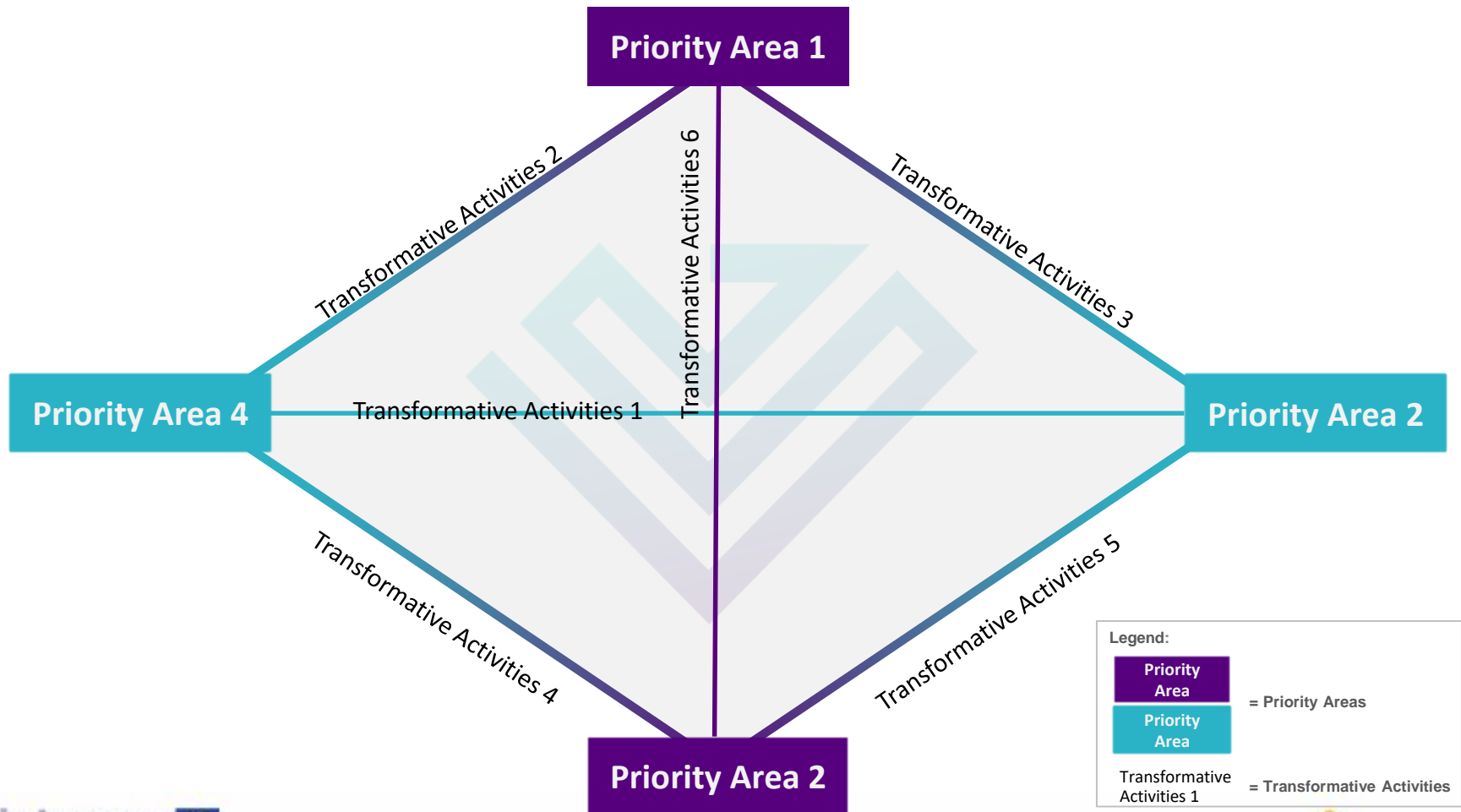
Structure of a Synergy Diamond

The Synergy Diamond is a visualisation tool to facilitate the identification of Transformative Activities, based on the following structure:

- The base shape is a **rhombus**.
- Each **corner** represents a priority area of the region.
- The corners are **linked** with each other **by a line**, symbolizing the linkages between them, where Transformative Activities can emerge.



Structure of a Synergy Diamond - Detail



Preparation of a Synergy Diamond - Starting point

Focus: regional challenges

- ⦿ In order to select priority areas and to facilitate a targeted discussion about potential Transformative Activities it is recommended to **focus on specific challenges** the region faces (e.g. demographic change, climate change).

Selection of priority areas

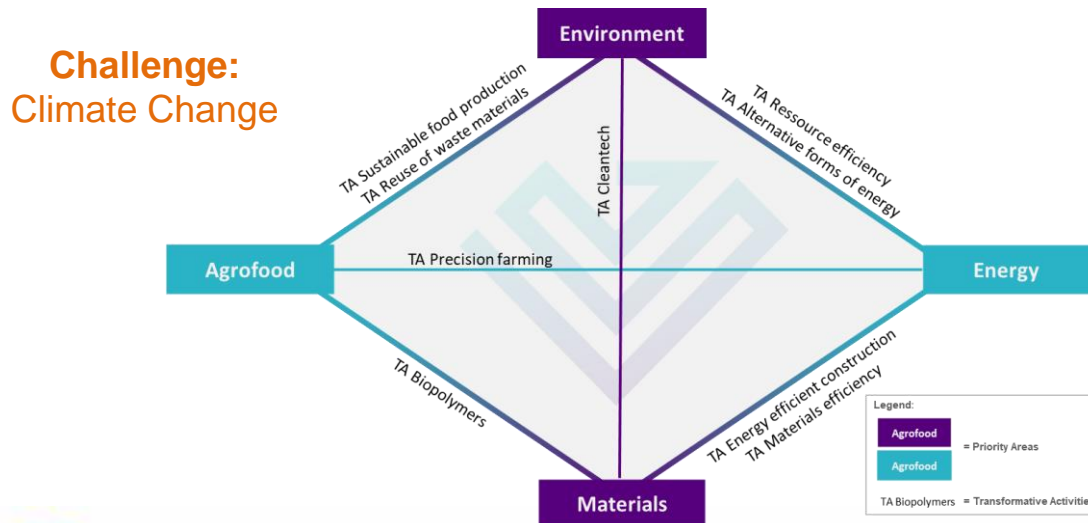
- ⦿ Based on the chosen regional challenge which serves as a framework, **relevant priority areas** (according to the regional Smart Specialisation Strategy) that can **contribute to tackle the challenge**, are selected.



Example of a Synergy Diamond

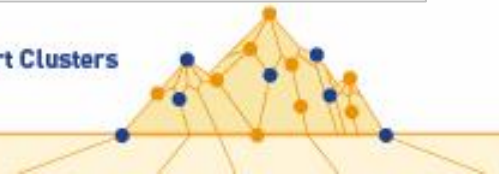
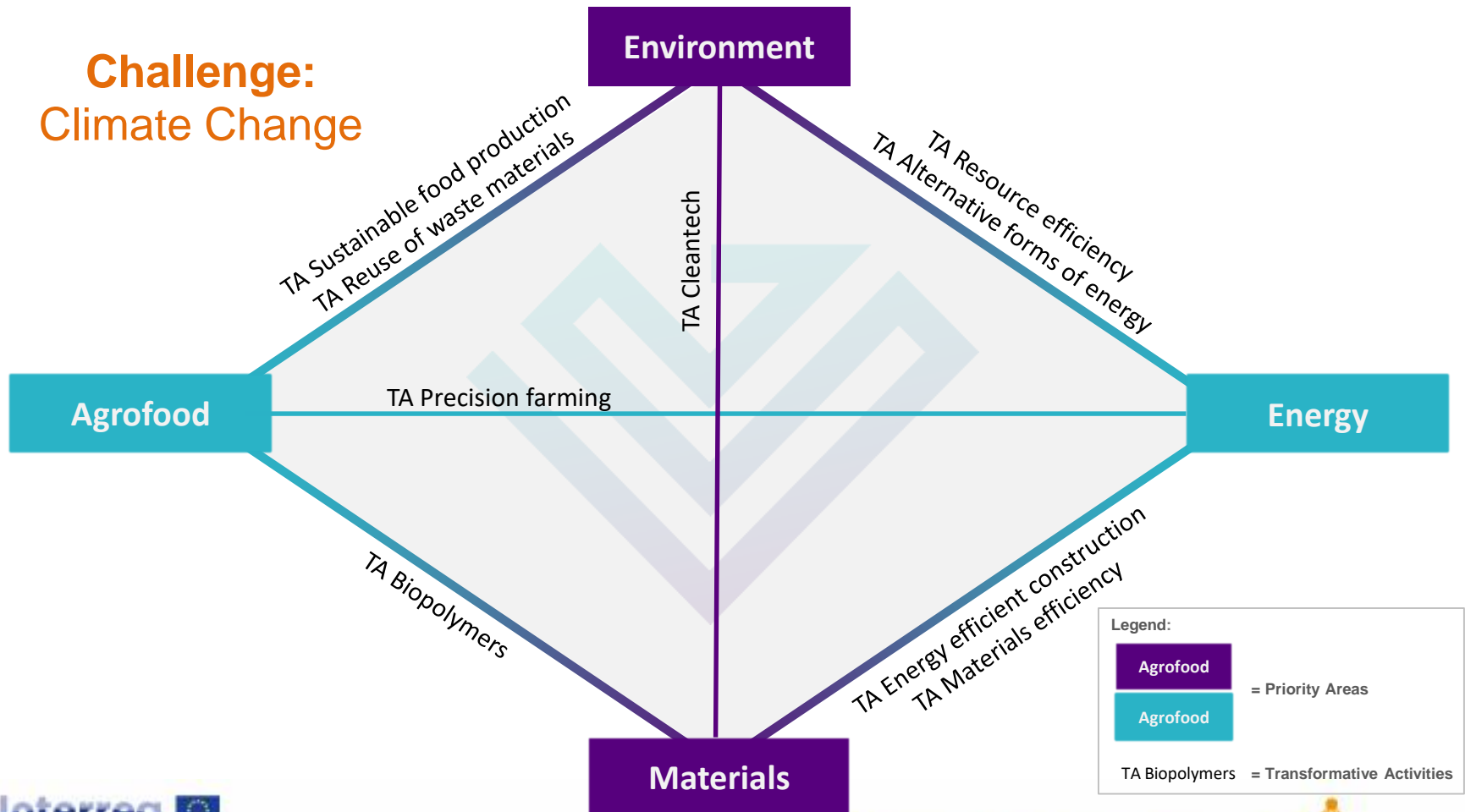
The following **example** of a Synergy Diamond addresses **Climate Change** as a crucial issue in the Alpine Area (=challenge). **The priority areas** on the corners can contribute to cope with this challenge and should be based on the regional S3.

Transformative Activities can then be identified **along the linkages** of the priority areas. e.g. the Transformative Activity “Biopolymers” can emerge between the priority areas “Agrofood” and “Materials”.



Example of a Synergy Diamond - Detail

Challenge:
Climate Change



How to work with the Synergy Diamond

- An identification of Transformative Activities by means of a Synergy Diamond is best done by a **bottom-up approach** where representatives of all areas of the quadruple helix participate (“entrepreneurial discovery process” → see Training Tool Entrepreneurial discovery workshop).
- Transformative Activities can only scale if **sufficient capacities and resources** are bundled. Therefore, it should be assessed whether critical mass to develop the identified TA can be achieved on regional level (see TA Assessment Matrix, p.18).
- Many regions are dealing with very similar Transformative Activities and **lack critical mass** to develop them further on their own. Hence, regional Synergy Diamonds can facilitate a **cross-regional discussion** to initiate and foster meaningful cross-regional linkages (→ see Training Tool Entrepreneurial Discovery Workshop – cross-regional variant)



TA Assessment Matrix (I)

In order to select those Transformative Activities with the **highest immediacy and potential** for further development, a method for classification of the identified TAs is proposed.

The criteria of classification are:

- Regional strengths
- Regional potential

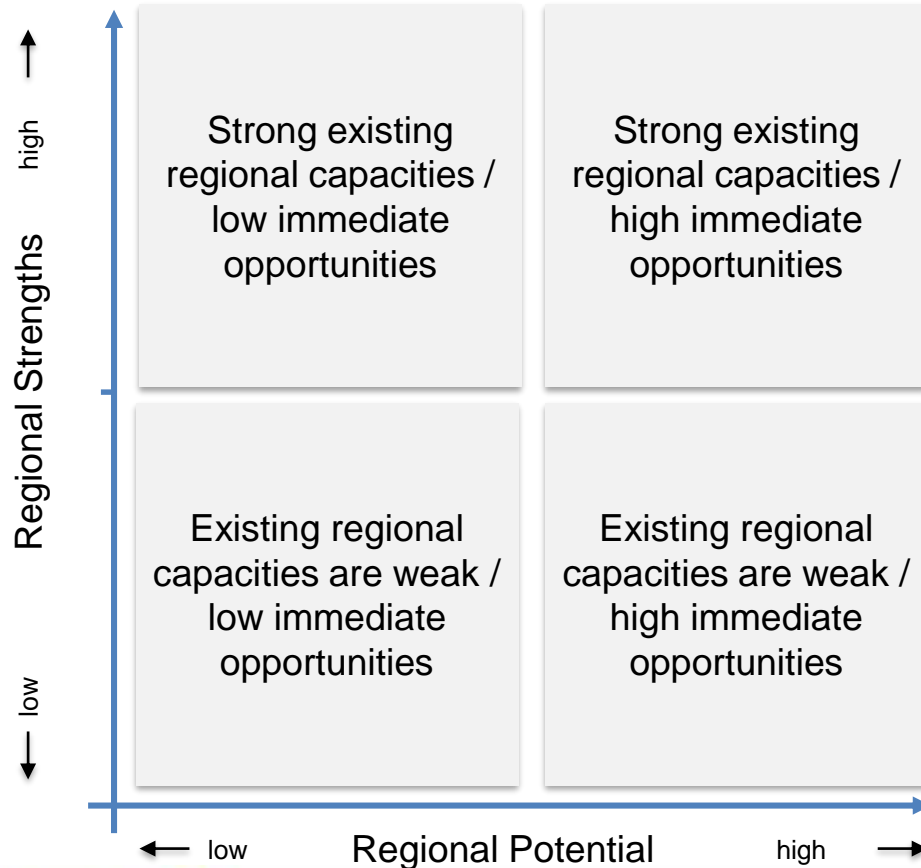
This classification helps a region to determine on which TAs the focus should be put on first (e.g. on those with high immediate opportunities).

Furthermore, it facilitates indicating where cross-regional cooperation might be needed in order to gain critical mass.



TA Assessment Matrix (II)

By placing these categories in a matrix, the identified TAs can be classified in 4 specific fields:



Useful Guiding Questions:

- Which entrepreneurial activities are present in the region to support the transformations identified?
- Are there enough capacities, resources and potentials in the region and in the concerned sector so that the activity could emerge, grow and ultimately drive the desirable structural change?
- Can the opportunities be realised in the region on a short term perspective or a long term perspective?
- Are there activities, collaboration, resources present in the region that already target the TA?
- How urgent are interventions to support the development of TA?



Synergy Diamond: contribution to the process

The Synergy Diamond contributes to the overall process as a promising tool to reflect the status quo and to **identify Transformative Activities**. Based on the results, the TAs can be assessed and **cross-regional collaboration** for further development of the TAs can be initiated.

Synergy Diamond Outputs:

Completed Synergy Diamond:

- Relevant priority areas are identified that can contribute to tackle regional/cross-regional challenges.
- Transformative Activities are identified that can lead to structural transformation.
- Similar Transformative Activities are a lever to initiate cross-regional collaboration.



Input for:

2. Identification

Entrepreneurial Discovery Workshop
regional / cross-regional

Smart Specialisation with Smart Clusters



Success Factors

Synergy Diamond



Success Factors

- ⦿ Chose a **challenge** that is relevant and of high immediacy for the region as a framework for the development of the Synergy Diamond.
- ⦿ Selecting the “**right**” **priority areas** as corner stones of the Diamond is essential to identify meaningful Transformative Activities.
- ⦿ Consider the current **capacities** and **entrepreneurial resources** as well as emerging technologies, trends and markets to identify TAs.
- ⦿ Ensure that the discussion does not adhere to traditional sectoral boundaries, but provides a setting that facilitates an **open forum to cross sectoral and regional limits**.
- ⦿ Integrate the perspectives of **the quadruple helix** in the development of the Synergy Diamond.
 - Involve stakeholders with a sufficient overview of the regional entrepreneurial basis and international market trends and who are able to identify linkages between priority areas.
 - Representatives of cluster initiatives can provide detail perspectives and expertise regarding their entrepreneurial background.



Contact and further Information

Synergy Diamond



Further literature and information

- Foray, D., Keller, M., Bersier, J., Meier zu Köcker, G., (2018): Transformative activities for smart specialisation: consideration on a workshop methodology, Working Paper; <https://www.innosquare.com/media/1205/foray-keller-bersier-and-meier-zu-koecker-2018.pdf>
- Keller, M., Reingruber, I., Dermastia, M, Bersier, J., Meier zu Köcker, G., (2018): Smart Specialization Strategies (S3) and Clusters – An Innovation Model for Transformative Activities; Working Paper; <https://www.innosquare.com/media/1214/s3-4alp-working-paper.pdf>
- Meier zu Köcker, G., Schneider, K., Grieb, B., (2017): Cluster-Initiativen als Schrittmacher der regionalen Innovationsentwicklung; ClusterAgentur Baden Württemberg; in German: <https://bit.ly/2PWLb3Y>



Contact and further information

Gerd Meier zu Köcker
ClusterAgentur Baden-Württemberg
Stuttgart, Germany
mzk@clusteragentur-bw.de
+49 711 123-3034

Laurent Larger
FEMTO-ST institute
Besancon, France
laurent.larger@femto-st.fr
+33 3 63 08 24 02

The training tool is based on the Synergy Diamond concept, developed by Gerd Meier zu Köcker, and further tested by FEMTO-ST.

The training tool was prepared by Simone Weiss (Innovation and Technology Transfer Salzburg) in cooperation with Renate Handler and Markus Gruber (convelop gmbh).

This training tool has been produced within the frame of the S3-4AlpClusters project, funded by the Alpine Space INTERREG Programme of the European Commission.



S3-4AlpClusters is cofinanced by the European Regional Development Fund through the Interreg Alpine Space Programme

S3-4AlpClusters Partners

