Transformative Activities for Regional Development
A New Approach for S3-Implementation with Clusters
Jacques Bersier, Michael Keller
S3-4AlpClusters LP, HES-SO//FR HEIA-FR, Innosquare
Veneto Region
Inhabitants 15 million
GDP 150 billion €

Canton of Fribourg
Inhabitants 315'000
GDP 15 billion €

Smart Specialisation Strategy (S3 / RIS3)
- Smart Agrofood
- Sustainable Living
- Smart Manufacturing
- Creative Industries

- Agrofood
- Construction
- Materials
In S3, focus should not be on broad areas but on modes of transformation of sectors

- Smart Agrofood
- Sustainable Living
- Agrofood
- Construction

Opportunities for cross-regional cooperations
Regions need to achieve differentiation by specialising on a limited number of prioritised economic activities.

**Present Strengths**

- Existing Capacities / Resources

**Future Strengths**

- Opportunities

New combinations of innovation capacities and actions targeting related areas and having the potential to significantly transform existing industries.

Transformative Activities

- New Value Chains

Source: Keller et al., 2018
Interplay with Clusters

Main Benefits of the Interplay

**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
Call for Action - Challenges

**Policy Level**

- **S3**
  - Innovation
  - Implementation

**Cluster Level**

**Challenges**

- Broad scope of S3 (focus on existing specialization, rather than opportunities for transformation)
- Lack of focus on real Transformative Activities
- Lack of need-based interregional cooperation to exploit synergy potentials and gain critical mass
- Untapped opportunities for cluster initiatives in the process

Source: Jacques Bersier and Michael Keller, 2019
Call for Action - Needs

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

S3-INNOVATION MODEL

BUSINESS LEVEL

Innovation with enterprises

New value chains

Jobs in innovative new fields with high growth potential

Source: Jacques Bersier and Michael Keller, 2019
Main Output

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

S3-INNOVATION MODEL
5 Action Lines – Process - Tools

**PROCESS**

Generate a base of evidence
Identify TA Assess critical mass
Identify TA to be implemented cross-regionally
Develop actions to implement TA regionally or cross-regionally
Synchronize funding
Regional or cross-regional implementation of TA
Monitoring and evaluation of TA

**BASE OF EVIDENCE**

**IDENTIFICATION**

**DEVELOPMENT**

**IMPLEMENTATION**

Transformative activities for regional development

**MONITORING**

**TOOLS**

Quantitative and qualitative analysis
StressTest
Synergy Diamonds

EDW Entrepreneurial Discovery Workshops
cEDW cross-regional Discovery Workshops
ADW / cADW Action Development Workshops
ACIE Synchronized Funding Scheme
TACT Transformative Activities Cluster Toolbox
TAET Transformative Activities Evaluation Toolbox

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1 Base of evidence

- Generate a base of evidence
- S3-Innovation Model
- BASE OF EVIDENCE
- Quantitative and qualitative analysis
  - StressTest
  - Synergy Diamonds

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2 Identification

S3-Innovation Model

BASE OF EVIDENCE

PROCESS

1. Generate a base of evidence
2. Identify TA Assess critical mass
3. Identify TA to be implemented cross-regionally

IDENTIFICATION

TOOLS

1. Quantitative and qualitative analysis
   StressTest

2. EDW Entrepreneurial Discovery Workshops

3. cEDW cross-regional Entrepreneurial Discovery Workshops

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3 Development

S3-Innovation Model

PROCESS

1. Generate a base of evidence
2. Identify TA Assess critical mass
3. Identify TA to be implemented cross-regionally
4. Develop actions to implement TA regionally or cross-regionally
5. Synchronize funding

BASE OF EVIDENCE

IDENTIFICATION

DEVELOPMENT

TOOLS

1. Quantitative and qualitative analysis
2. EDW Entrepreneurial Discovery Workshops
3. cEDW cross-regional Entrepreneurial Discovery Workshops
4. ADW / cADW Action Development Workshops
5. ACIE Synchronized Funding Scheme

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4 Implementation

**PROCESS**
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- Regional or cross-regional implementation of TA

**BASE OF EVIDENCE**

**IDENTIFICATION**

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**IMPLEMENTATION**
Transformative activities for regional development

**TOOLS**
- Quantitative and qualitative analysis
- StressTest
- Synergy Diamonds
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- ADW / cADW Action Development Workshops
- ACIE Synchronized Funding Scheme
- TACT Transformative Activities Cluster Toolbox

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5 Monitoring

PROCESS

1. Generate a base of evidence
2. Identify TA Assessment critical mass
3. Identify TA to be implemented cross-regionally
4. Develop actions to implement TA regionally or cross-regionally
5. Synchronize funding
6. Regional or cross-regional implementation of TA
7. Monitoring and evaluation of TA

S3-Innovation Model

BASE OF EVIDENCE
IDENTIFICATION
DEVELOPMENT
IMPLEMENTATION
MONITORING

TOOLS

1. Quantitative and qualitative analysis
   StressTest
2. EDW Entrepreneurial Discovery Workshops
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4. ADW / cADW Action Development Workshops
5. ACIE Synchronized Funding Scheme
6. TACT Transformative Activities Cluster Toolbox
7. TAET Transformative Activities Evaluation Toolbox

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1 Base of Evidence

Quantitative and Qualitative Analysis

**PRESENT STRENGTHS**

Existing Capacities / Resources

**FUTURE STRENGTHS**

Opportunities

Source: Keller et al., 2018

Source: Meier zu Köcker and Dermastia, 2018

**StressTest**

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Regional Cluster Portfolio

Involvement of clusters during S3 development

Coordination & Alignment of S3

Implementation of S3

Monitoring & Evaluation

Clusters as tool to implement Smart Specialisation Strategies

Impact of S3 on cluster organisations

Smart Specialisation with Smart Clusters
1 Base of Evidence

S3 – Synergy Diamonds

Source: Meier zu Köcker et al., 2017
Base of Evidence

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

Existing Capacities / Resources
polymer valley

Companies
AMI
UNIFR
iCoSys
iPrint
iRAP
SPC / CFN
ChemTech
Opportunities

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

Smart Specialisation with Smart Clusters
2 Identification

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

**BASE OF EVIDENCE**
- Quantitative and qualitative analysis
- StressTest
- Synergy Diamonds

**IDENTIFICATION**
- Generate a base of evidence
- Identify TA to assess critical mass
- Identify TA to be implemented cross-regionally

**TOOLS**
- EDW Entrepreneurial Discovery Workshops
- cEDW cross-regional Entrepreneurial Discovery Workshops

**PRESENT STRENGTHS**
- Existing Capacities

**FUTURE STRENGTHS**
- Opportunities

Transformative Activities

Source: Keller et al., 2018

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Turn waste downstream from Agrofood sector into inputs for the plastics industry.
3 Development

Diagram:

- **BASE OF EVIDENCE**
  - Generate a base of evidence
  - Assess critical mass

- **IDENTIFICATION**
  - Identify TA to be implemented cross-regionally

- **DEVELOPMENT**
  - Develop actions to implement TA regionally or cross-regionally
  - Synchronize funding

**TOOLS**
- Quantitative and qualitative analysis
- StressTest
- Synergy Diamonds
  - EDW: Entrepreneurial Discovery Workshops
  - cEDW: Cross-regional Entrepreneurial Discovery Workshops
  - ADW/cADW: Action Development Workshops
  - ACIE: Synchronized Funding Scheme

Source: Keller et al., 2018

- Action Development Workshop ADW
- Cross-regional Action Development Workshop cADW
- Synchronized Funding Scheme ACIE
ADW
Opportunities

Companies
SPC / CFN

AMI

iCoSys

iPrint

UNIFR

Chemetech

iRAP

Transformative Activities

Turn waste downstream from Agrofood sector into inputs for the plastics industry
Chicken farming

Biological cycle

Bio-based polymer pellets

Recycled granules

Technical cycle

Product recycling

Protein based barrier film packaging

Biodegradability

Distribution

Foils and products

Source: Pascal Bovet, 2019
4 Implementation

- Transformative Activities
- Cluster Toolbox TACT

27 Best practices
14 New Services
5 Monitoring

Evaluation of the Process TAET

S3-Innovation Model

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- Generate a base of evidence
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IDENTIFICATION
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DEVELOPMENT
- Synchronize funding
- Regional or cross-regional implementation of TA

IMPLEMENTATION
- Monitoring and evaluation of TA

TOOLS
- Quantitative and qualitative analysis
- EDW Entrepreneurial Discovery Workshops
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Conclusion

From Agrofood to Active Packaging

Active Interplay S3 - Clusters
Conclusion

From Agrofood to Active Packaging

Active Interplay S3 - Clusters

Synchronise Funding Scheme
Conclusion

Focus on transformative activities

Involve clusters

Support cross-regional cooperation