







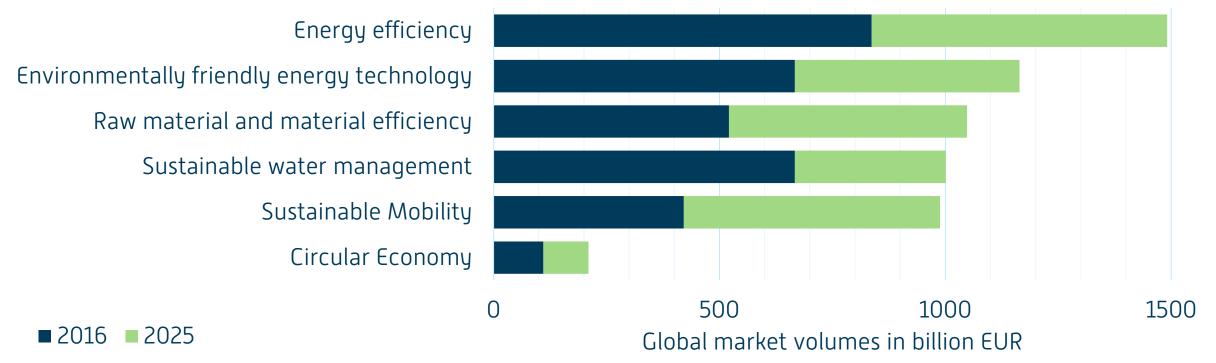








## The global market volume of environmental technology and resource efficiency amounts to 3214 billion EUR in 2016 and will increase to 5902 billion EUR in 2025.



Source: BMU. GreenTech made in Germany 2018. S. 7



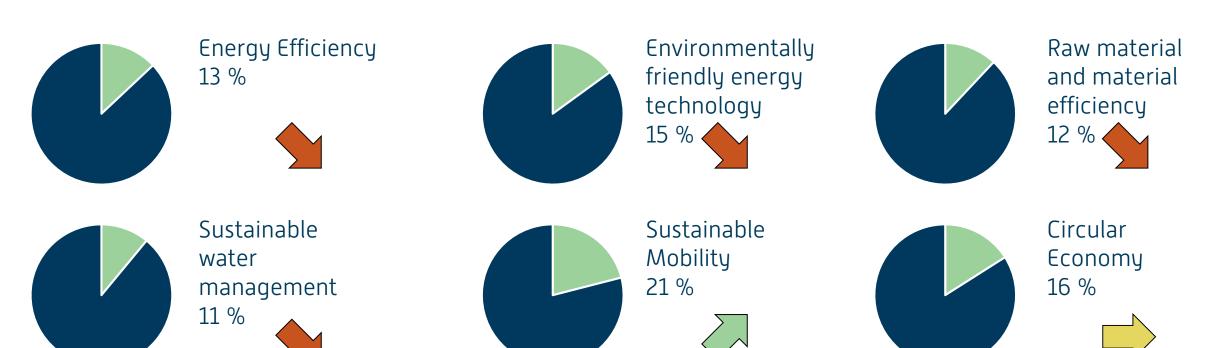








# Share of German companies in the world market for environmental technology and resource efficiency by lead market 2016 and outlook for 2025.



Source: BMU. GreenTech made in Germany 2018. S. 92f





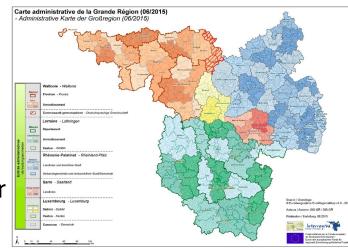






## Degree of internationalization of environmental technology companies (ETC) in Rhineland-Palatinate

- The environmental technology sector is dominated by SMEs (2/3 of all ETC companies are SMEs), including many engineering offices for environmental technology.
- Rhineland-Palatinate environmental technology companies generate on average 1/3 of their turnover abroad.
- 90 % of foreign business is transacted in Europe.
- 75 % of the environmental technology companies are interested in contacts in the markets close to the border, but only 20% pursue an active strategy for this.
- The location factor "internationality" is rated worse in comparison to other federal states, where there is a need to catch up.
- In particular, the cross-border market (Alsace, Lorraine, Luxembourg and Wallonia) has great potential (8.5 million consumers).





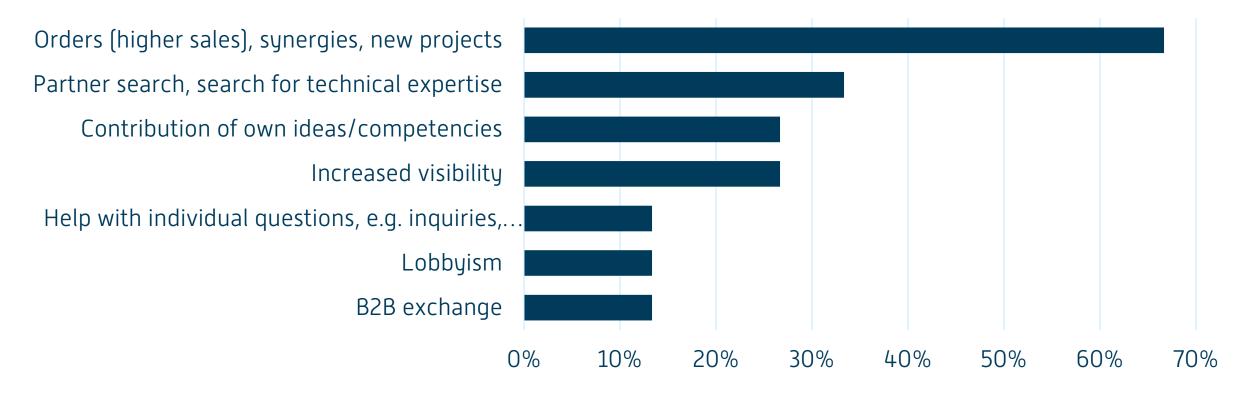








## What are general expectations of an environmental technology cluster?





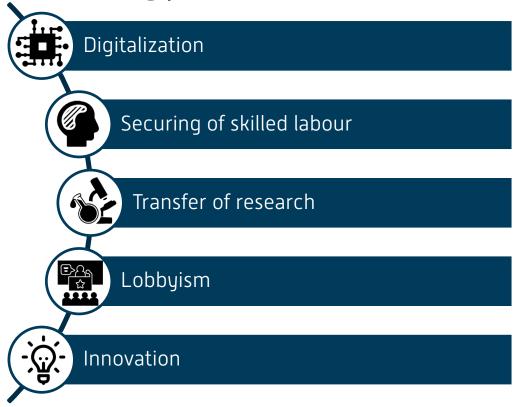








## Development potential: Identified key topics for environmental technology in RLP



Icons: Nithinan Tatah, Berkah Icon, Romli Ahmad, BomSymbols. License: CC



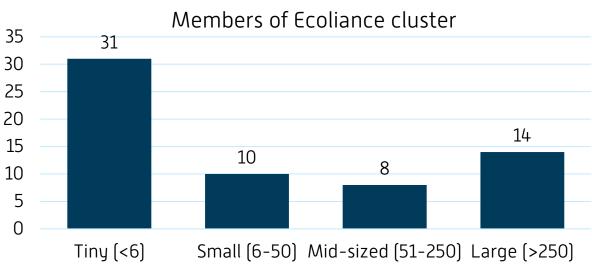


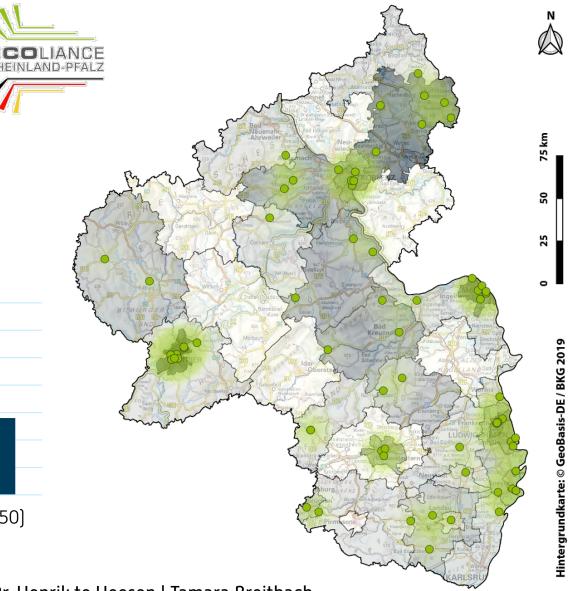






# Example: Enviromental technology cluster Ecoliance Rhineland-Palatinate







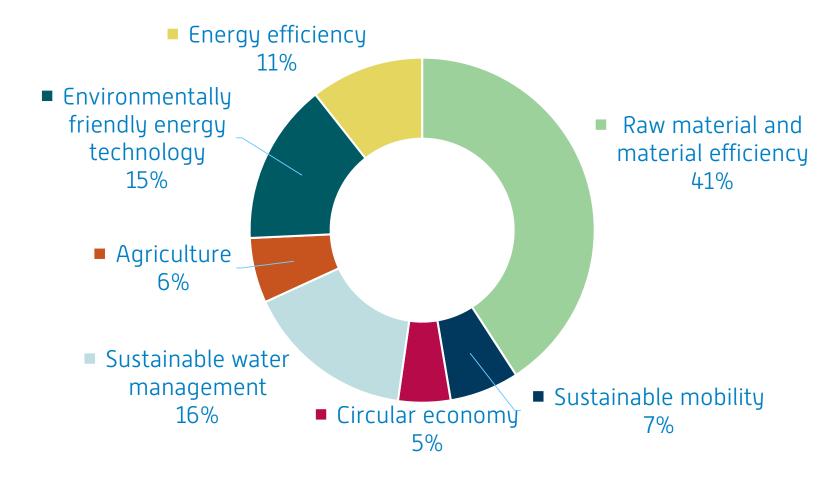








### Transfer of research: Topic distribution of research projects in universities of the Ecoliance cluster













### Cross-Clustering in the environmental technology sector

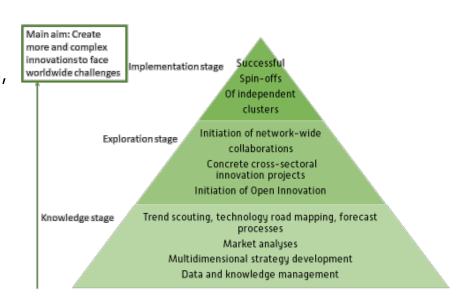
Innovations emerge at the boundaries or overlaps of technologies, industries and markets.

Opportunity for growth in cross-thematic and cross-target group cooperation

The so called: Cross-Clustering cooperation

Two possible ways of partner clustering:

- 1. Looking for partners with similar or adaptable value chains
- 2. Looking for partners with obviously different fields of activities and a high rate of innovation



Source: Measures for the preparation of cross clustering activities (Source: Künzel, M.; Meier zu Köcker, G.; Köhler, T. (2015): Cluster und Innovationen. Cluster-Initiativen als Innovationstreiber.







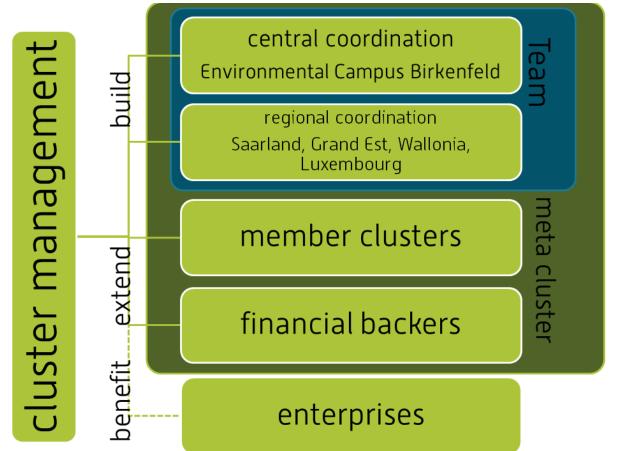




Establishment of the first crossborder GreenTech Meta-

Cluster GREATER GREEN







23 Oct 2019



















### Thank you for your attention!



Prof. Dr. Henrik te Heesen

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