THE DANUBE ALLIANCE FOR SME COMPETITIVENESS

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THE PROBLEM

- Corona lockdowns
- Blockage of the Suez Canal
- Extreme weather events
- Supply bottlenecks
- Lorry driver shortage
- Demand fluctuations and Bullwhip Effect

Supply chain disruption became an everyday occurence, showing the serious vulnerability of today's wide-ranging supply chains

Danube Alliance
Resilient Value Networks

THE PROJECT

- **A Connecting the Region**
  - 1 Mobility and multimodality
  - 2 Sustainable energy
  - 3 Culture and tourism, People to People
- **B Protecting the Environment**
  - 4 Water and Quality
  - 5 Environmental Risks
  - 6 Biodiversity, landscapes, air and soil quality
- **C Building Prosperity**
  - 7 Knowledge Society
  - 8 Competitiveness
  - 9 People and skills
- **D Strengthening the Region**
  - 10 Institutional capacity and cooperation
  - 11 Security

- The **Danube Alliance** is the new flagship project of Priority Area 8 of the EU Strategy for the Danube Region (EUSDR)
- The aim is to support small and medium enterprises to become embedded in more resilient value chains
- It is supported by the Baden-Württemberg State Ministry and Ministry of Economic Affairs
- The project is conducted in a consortium with the following partners:

VDI|VDE|IT

STEINBEIS-EUROPA-ZENTRUM

BIO PRO Baden-Württemberg GmbH

Hochschule Reutlingen
Reutlingen University

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THE OBJECTIVE

- Contribute to better resilience of selected **bioeconomic value chains** in the Danube Region
- Not only supply chain optimization, but also focus on creating **sustainable and circular-based value networks**
- Not only **economic**, but also **social** and **ecological** benefits for Danube (sub)regions
- Two pilot applications:
  - Sorghum
  - Miscanthus

TWO PILOT APPLICATIONS

Miscanthus

- Silvergrass with high energetic potential
- Potential to become an important raw material for the bioeconomy due to its versatility:
  - ❖ renewable & affordable
  - ❖ production of electricity, heat & fuel
  - ❖ material use, i.e. building & isolation materials
- Combination of biomass from harvest waste of agriculture and Miscanthus grasses from areas not used for agriculture
- Pilot project in North West of Bulgaria, scaling in other Danube regions possible

Goals:

1. Eliminate bottlenecks

2. Sustainable, reliable energy supply

3. Second source of income for farmers

Sorghum

- Extremly fast growing millet plant
- Stress resistant to heat, salts in the soil, drought, etc.
- Many possible uses:
  - ❖ food & animal feed
  - ❖ Fertiliser, fiber
  - ❖ bioethanol
- Avoids „Tank or dish“ discussions
- Searching for interested partners from the Danube Region

Goals:

1. Feasibility Study

2. Partnerships with local actors

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THE 3-STEP APPROACH

1. Sense

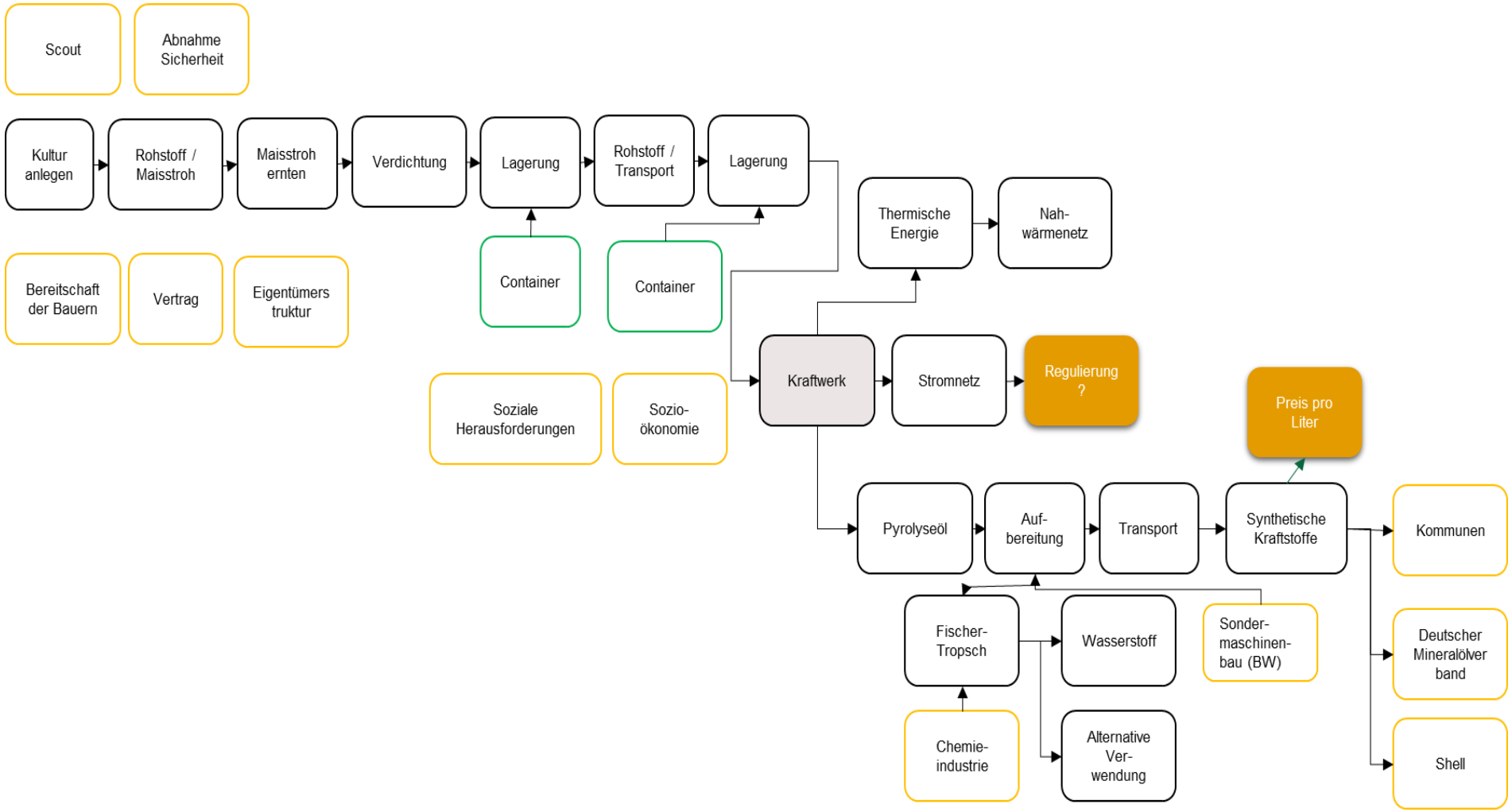
- Identification of a case with potential in the sense of the new resilience
- Involving experts, building up knowledge
- Taking social and ecological factors/benefits into consideration

2. Analyse & Predict

- Modelling in consortium with experts
- Identification of disruptive factors
- Identification of possible application

Source: 3 steps to safeguard the supply chain, Accenture, 10/06/2021: https://www.accenture.com/us-en/blogs/accenture-utilities-blog/safeguarding-supply-chain

THE MISCANTHUS CASE (STEP 2)



THE 3-STEP APPROACH

1. Sense

- Identification of a case with potential in the sense of the new resilience
- Involving experts, building up knowledge
- Including social and ecological factors

2. Analyse & Predict

- Modelling in consortium with experts
- Identification of disruptive factors and stress test
- Identification of possible application

3. Act & Adapt

- Still pending, power plant investment needed
- Operationalisation with digital tools and smart services, f.e.: Predictive maintenance applications, weather forecasts, load balancing, etc.

Source: 3 steps to safeguard the supply chain, Accenture, 10/06/2021: https://www.accenture.com/us-en/blogs/accenture-utilities-blog/safeguarding-supply-chain

YOUR PARTICIPATION IN THE DANUBE ALLIANCE

The Danube Alliance is looking for partnerships in the Danube Region!

Miscanthus

- Relevance for your region?
- Looking for regional partners and experts to carry out stress tests and validate the Miscanthus value network model

Sorghum

- In search of a specific use case for dry areas
- Looking for regional partners for potential assessments
- Assessing regional needs und potentials around Sorghum

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