

Circular business models and the business ecosystem

Valorization of food waste

Wiebke Reim

Entreprenörskap och Innovation

Luleå Tekniska Universitet



Northern Periphery and
Arctic Programme
2014-2020



EUROPEAN UNION

Investing in your future
European Regional Development Fund





About the project

Technology Innovations and Business Models for Valorisation of Industrial Waste Biomass in Sparsely Located Enterprises

Objective

To establish a Circular Economy related Technology Innovation Platform (TIP) in NPA region to boost eco-innovations in SMEs by:

- improved capacities to successfully identify new products or intermediates from process waste or side streams,
- to adopt new business models
- to cooperate to form new resource efficient value chains.



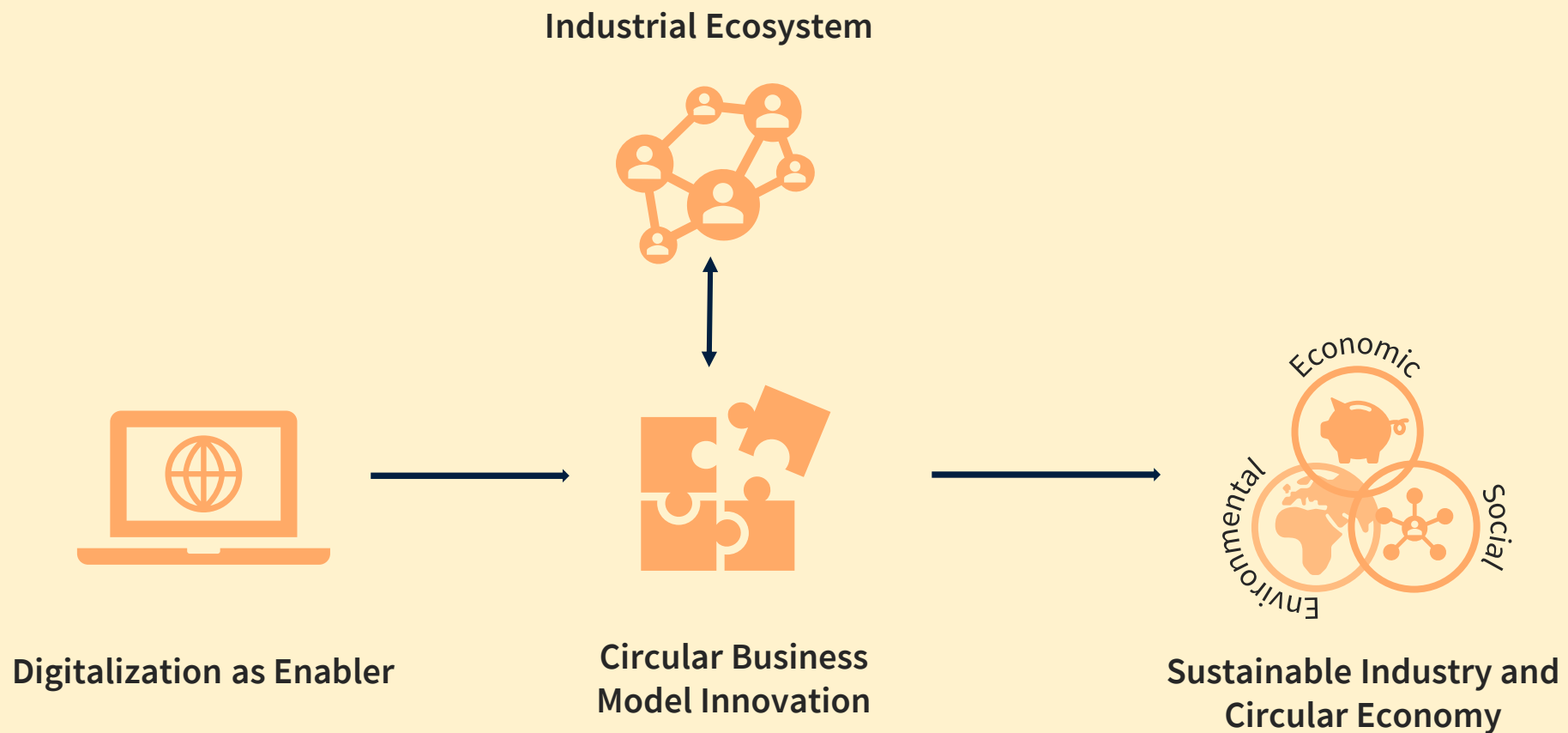
Northern Periphery and Arctic Programme
2014-2020



EUROPEAN UNION

Investing in your future
European Regional Development Fund





Project Logic - Circular business model innovation



Northern Periphery and
Arctic Programme
2014–2020



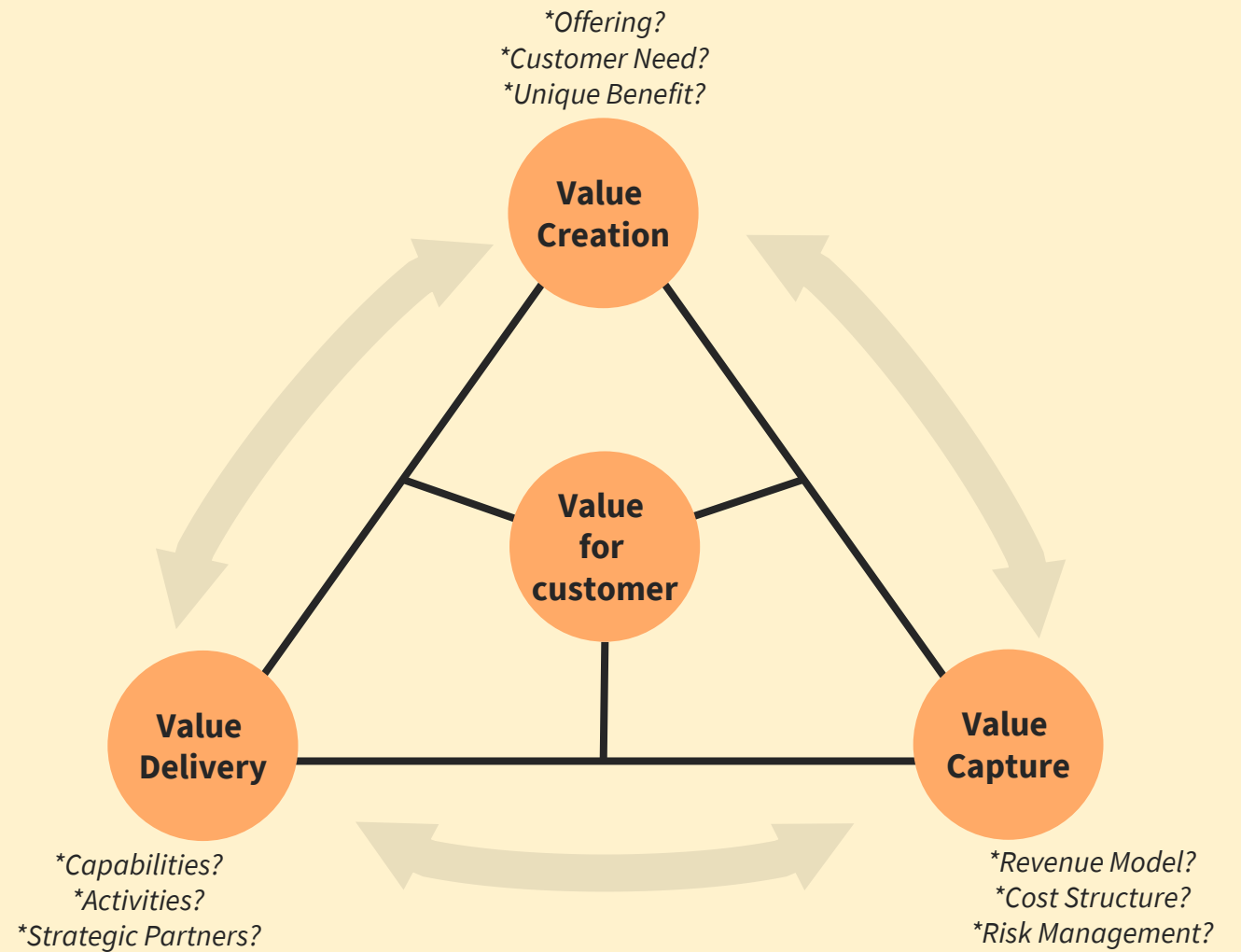
EUROPEAN UNION

Investing in your future
European Regional Development Fund

What is a Business Model?

“A business model defines the ways an organization creates, delivers and captures value”

Osterwalder and Pigneur (2010)



A powerful business model ensures that all elements work together



Northern Periphery and
Arctic Programme
2014–2020



EUROPEAN UNION

Investing in your future
European Regional Development Fund




Guldhaven Pelagiska AB

 **braxen.nu**
Hållbar fisk på tallriken

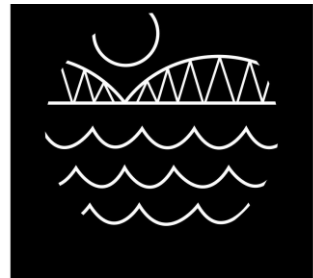
Sustainable and circular fishing

- Use of side streams
- Biodiversity



- Growing worms for chicken farm
- Less need of land, no/less water, no fertilizers
- Use of low temperature waste energy if needed
- Manure does not smell, is dry and ready to pack

Spent grain for cultivation of worms experiment



BOTTEN
VIKENS

CIRCULAR BUSINESS MODEL INNOVATION ROAD MAP

PHASE 1:

CIRCULAR
BUSINESS MODEL
AWARENESS

*Understand the need
for transformation and
existing opportunities*



PHASE 2:

ANALYSIS OF CURRENT
BUSINESS MODEL AND
RESOURCE STREAMS

*Understand your
potential*



PHASE 3:

PARTNERSHIP
DEVELOPMENT

*Get in contact with
the right partners*



PHASE 4:

TECHNOLOGY
INTEGRATION

*Get access to the
right technology*

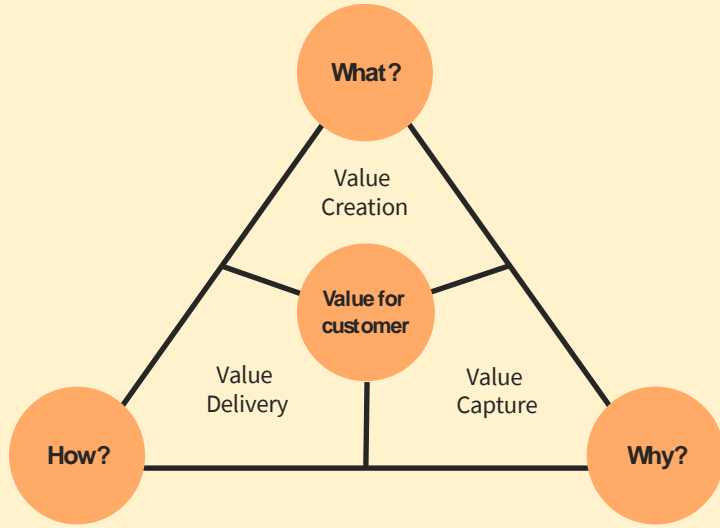


PHASE 5:

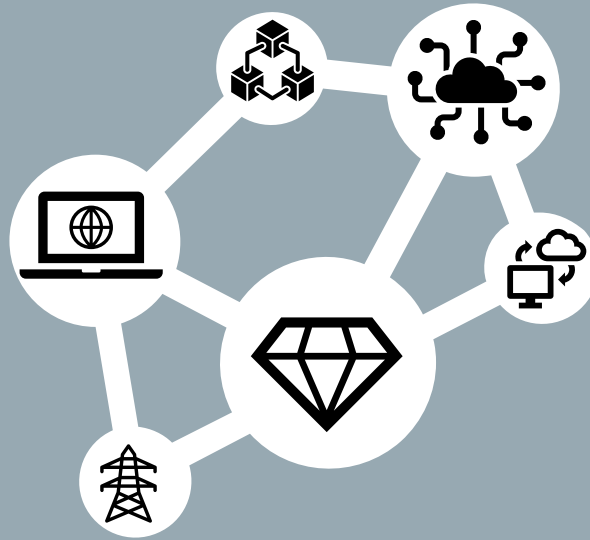
FULL SCALE
IMPLEMENTATION

*Validate and implement
new circular business
model*





Business model is important



Build collaborations with ecosystem actors



Circularity can look very different and everyone can contribute

Three key insights...



Thank you!

Follow us on LinkedIn **Symbioma**

Contact: wiebke.reim@ltu.se

<https://symbioma.eu/>



Panel questions

how does the collaboration between the countries look like and what can we learn from other countries

what is special about the arctic region?

<https://cireko.zoom.us/j/83507185729?pwd=aS9NMTlOb2Y2RWxselBhNU9DNDd0QT09>