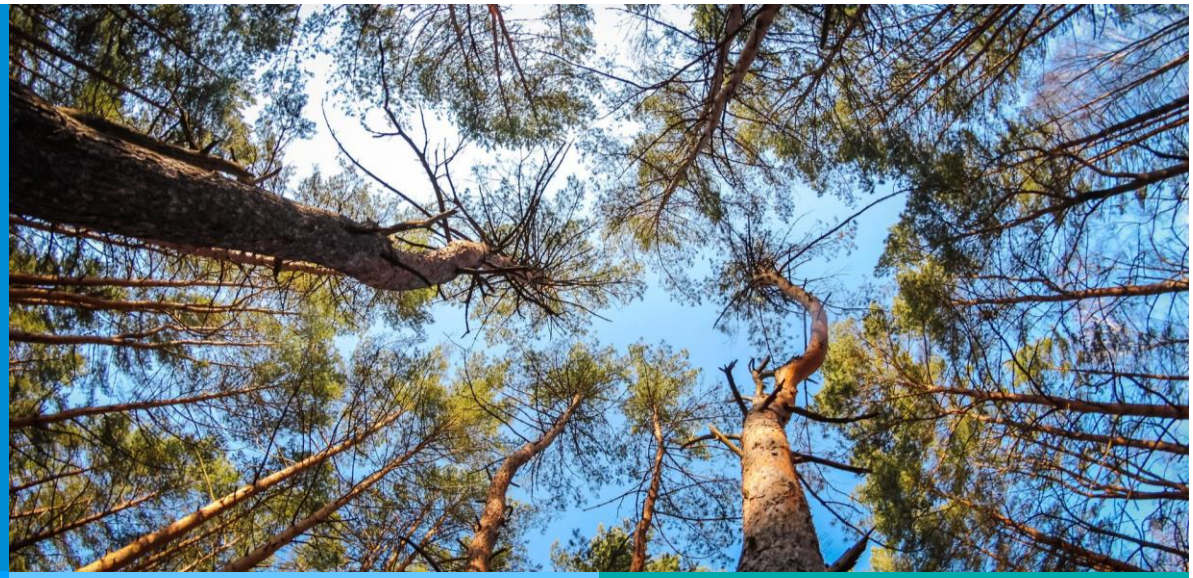
Collective action in Germany's forestry sector

The potential impact of a circular economy

Dr. Nele Schmitz, Dr. Jan Lüdtke

Seeing the forest,

for the trees



Vienna

22 Sep. 2022

The Charter for Wood 2.0

Collective action in Germany‘s forestry sector

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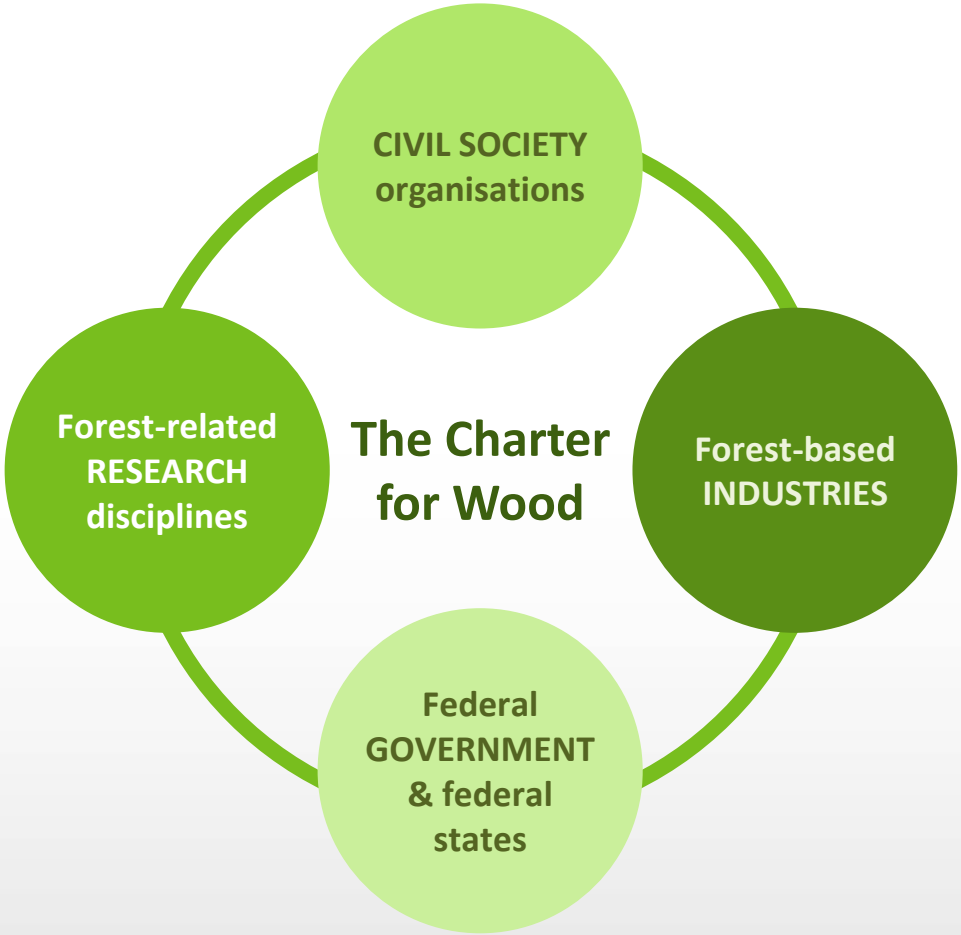
The Charter for wood 2.0

What is it?

- **A dialogue process**
  initiated by the German Ministry of Food & Agriculture
- **Between forestry sector experts**



CHARTA FÜR HOLZ 2.0 – KLIMA WERTE RESSOURCEN

The Charter for wood

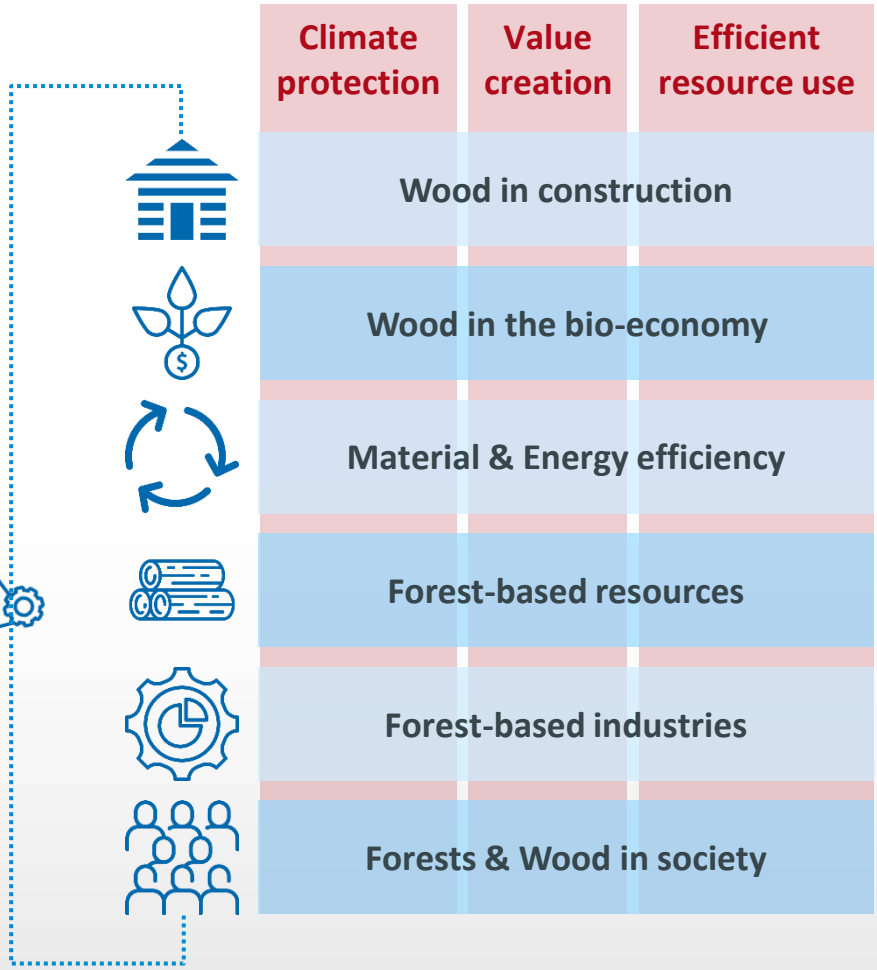
Main goals

Fostering the contribution of sustainable forest management & wood use

Working groups

On 6 collectively determined themes

R&D
cross-cutting theme



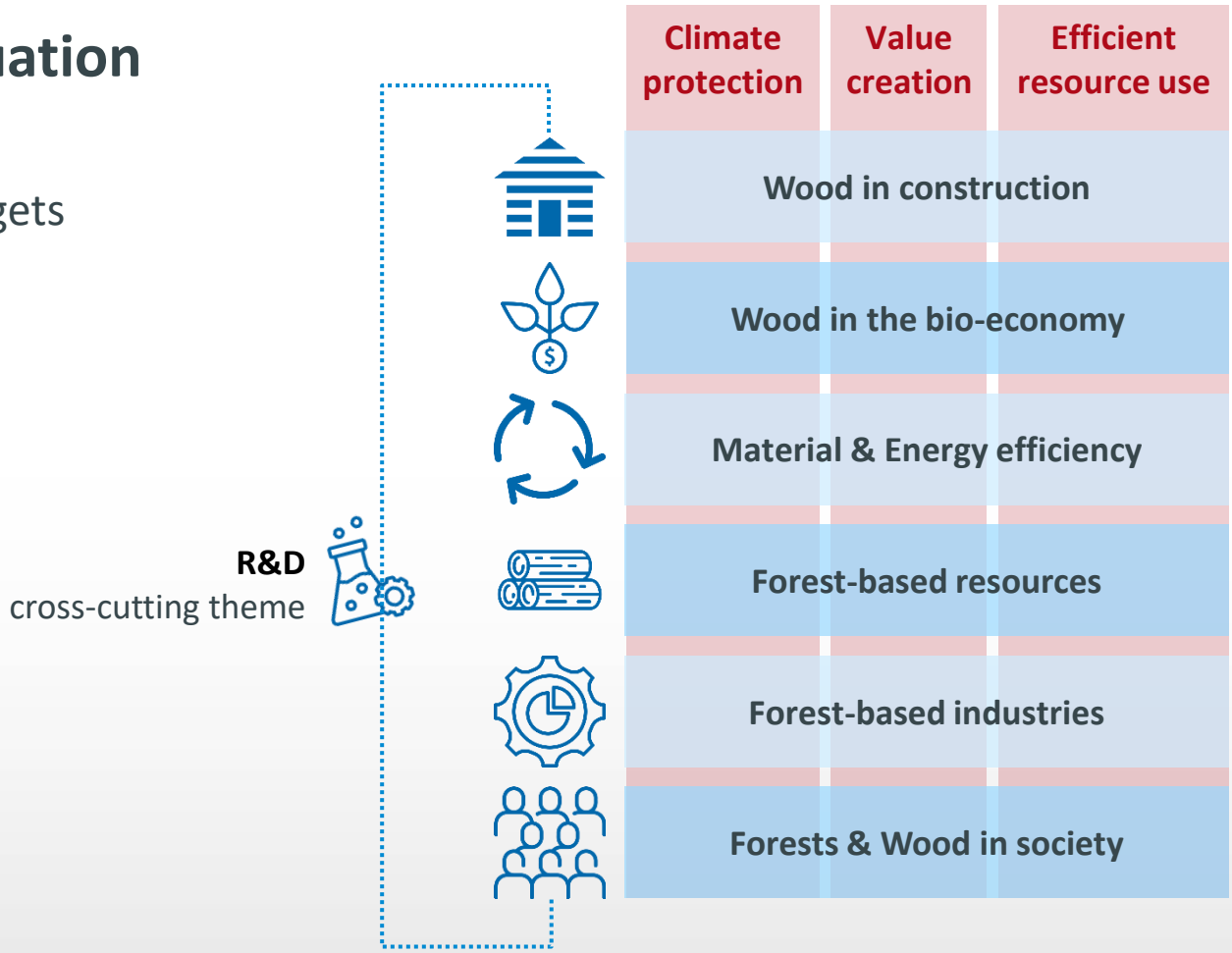
The Charter for wood

Indicators for evaluation

- of the main goals
- of working group targets

➤ Evaluation in 2017

➤ Evaluation in 2019

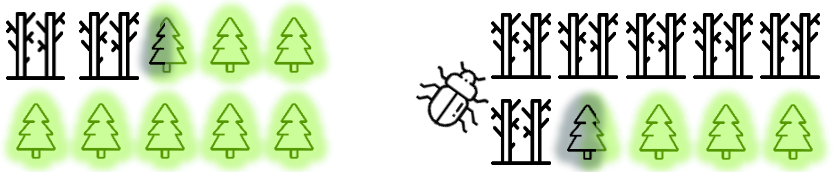


The Charter for wood

Key data

Calamity wood % ↑
of total loggings

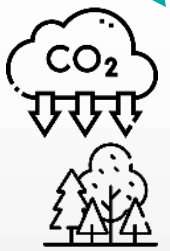
2017 | 2019



23% | 67%

CO_2 storage ↓
in forests

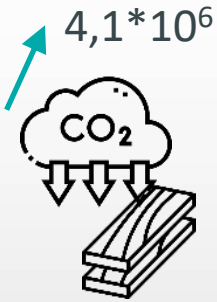
63*10^6 ton CO_2-eq → 57*10^6 ton CO_2-eq



Calamities

The Charter for wood

Key data

	2017	2019
Softwood exports ↑	 $3*10^6$ m³	 $8*10^6$ m³
Resource efficiency ↓	 264 €/m³	 246 €/m³
Carbon storage ↑ in timber products	$2,4*10^6$ ton CO_2-eq	$4,1*10^6$ ton CO_2-eq 

Unplanned wood use

The Charter for wood

Key data

	2017		2019
Wooden buildings ≈	17%		18%
Material use of timber ≈ of raw hardwood	28%		27%
Job vacancy duration ↑ in forestry sector	 118 days		 157 days

Stagnating value creation

A circular economy
Potential impact on the forestry sector

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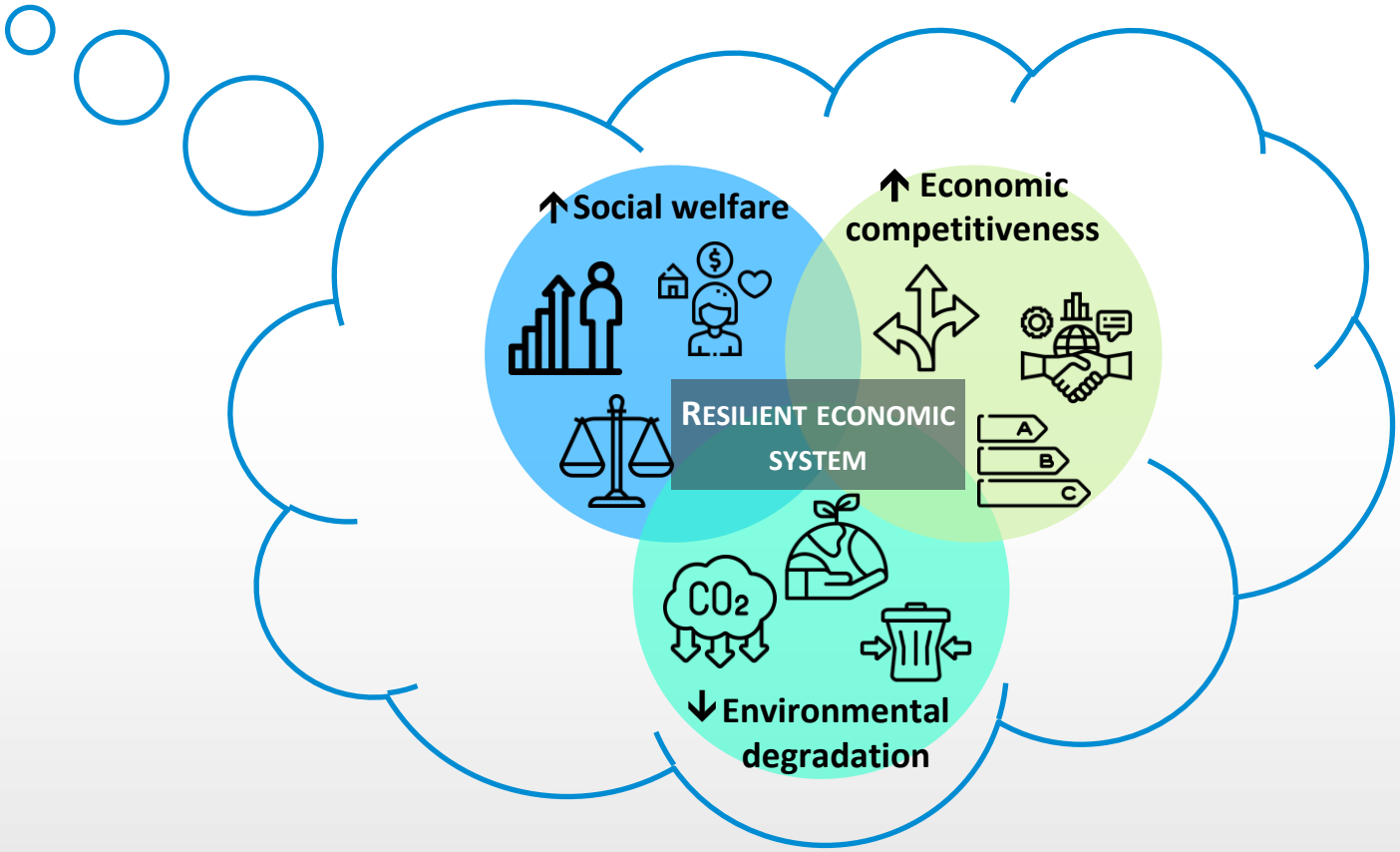
Illustrating the circular economy potential

The forestry sector

CURRENT SITUATION	CIRCULAR ECONOMY POTENTIAL
Calamities	**Resilient forest ecosystem**
Unplanned wood use	**Resilient economic system**
Stagnating value creation	**Valorising all forms of capital**

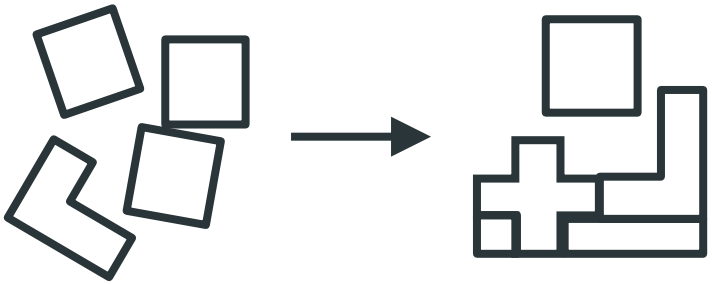
Illustrating the circular economy POTENTIAL

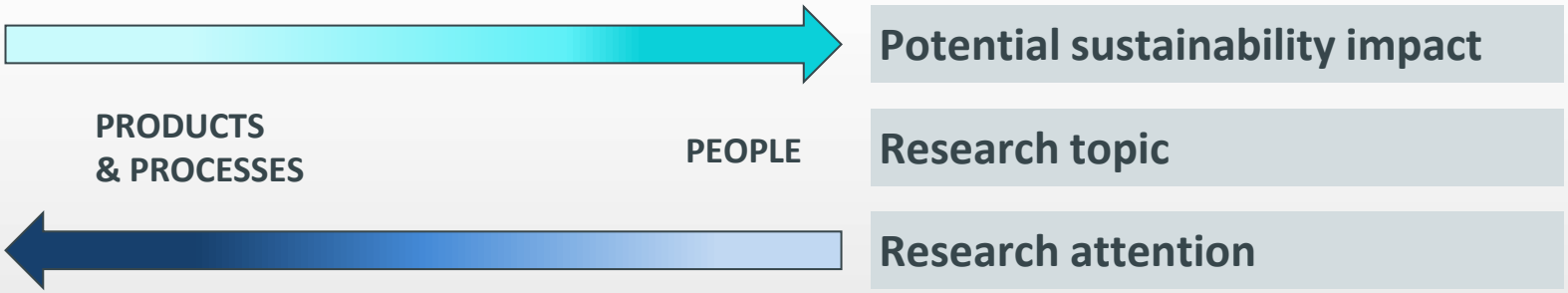
Is circular economy really the magical solution?



The TRANSFORMATION towards a circular economy

Coordinate & Align RESEARCH





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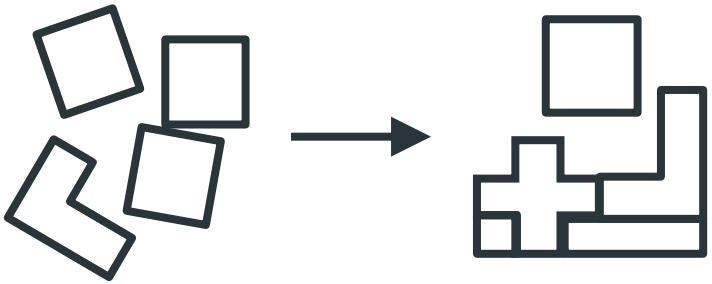
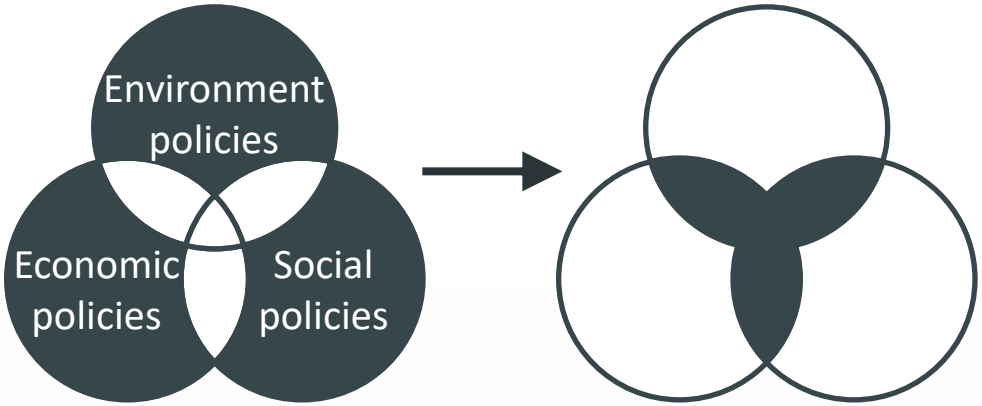
Coordinate & Align RESEARCH



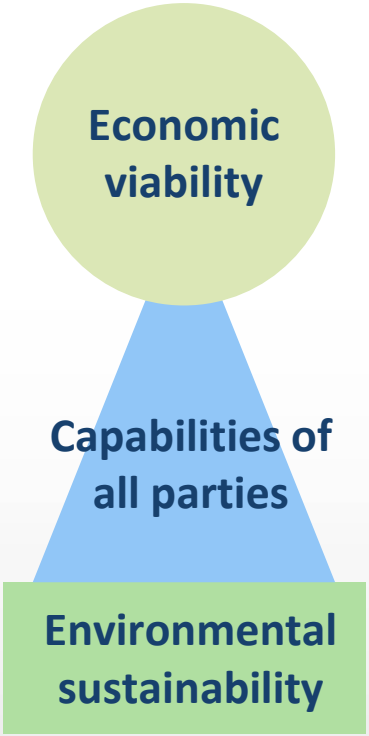
The TRANSFORMATION towards a circular economy

Coordinate & Align POLICIES



The TRANSFORMATION towards a circular economy

Align BUSINESS models with environment, stakeholders and technologies



The TRANSFORMATION towards a circular economy

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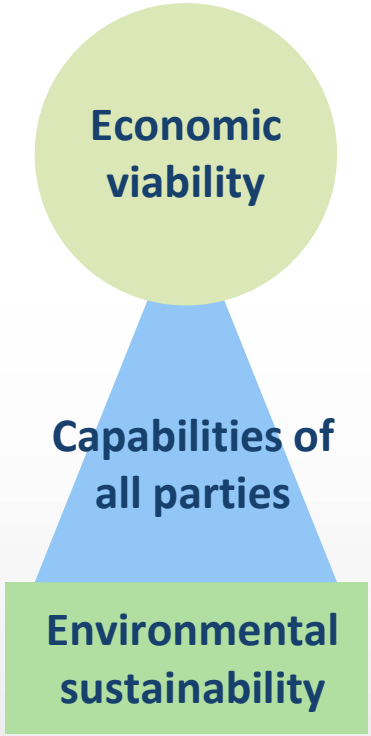

Organisational innovation → Social innovation → Technological innovation

Conclusion
Collective action & Circular economy

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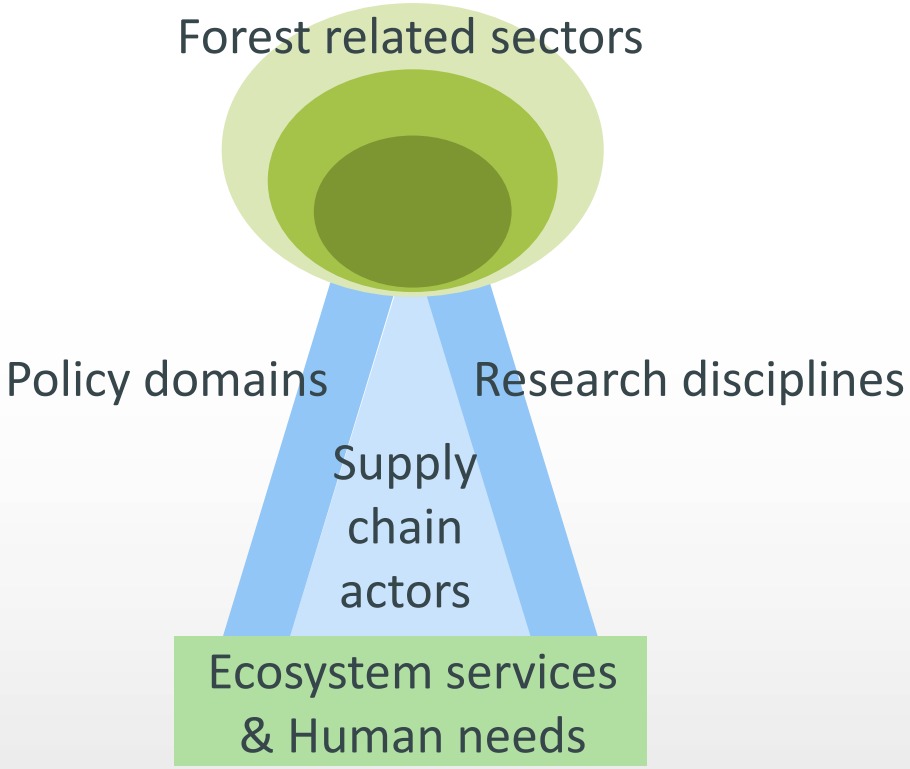
Conclusion

Circularity does not mean looping

Conclusion

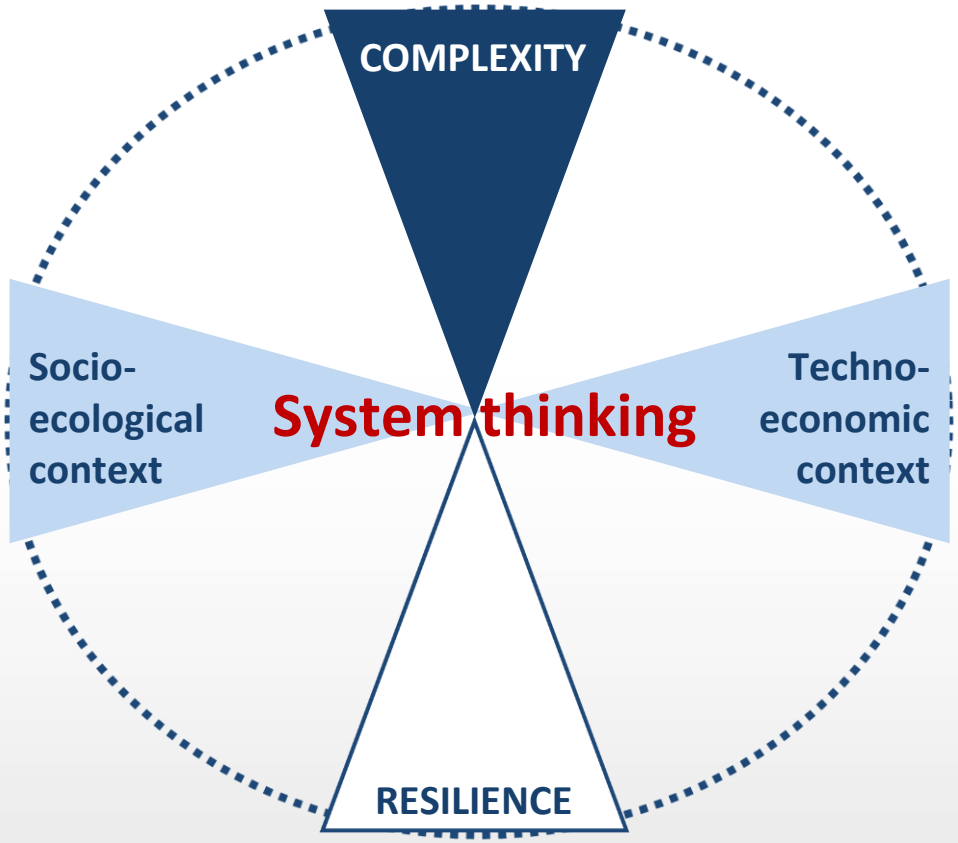
Circularity does not mean looping



Conclusion

There is not 1 pathway towards circularity

Options not orders



Conclusion

People are the core

CURRENT SITUATION	CIRCULAR ECONOMY
Resource dependent	**Collaboration dependent**

Sustainable = system wide = collaborative

Think widely, act collectively, reflect regularly

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Anticipating slides

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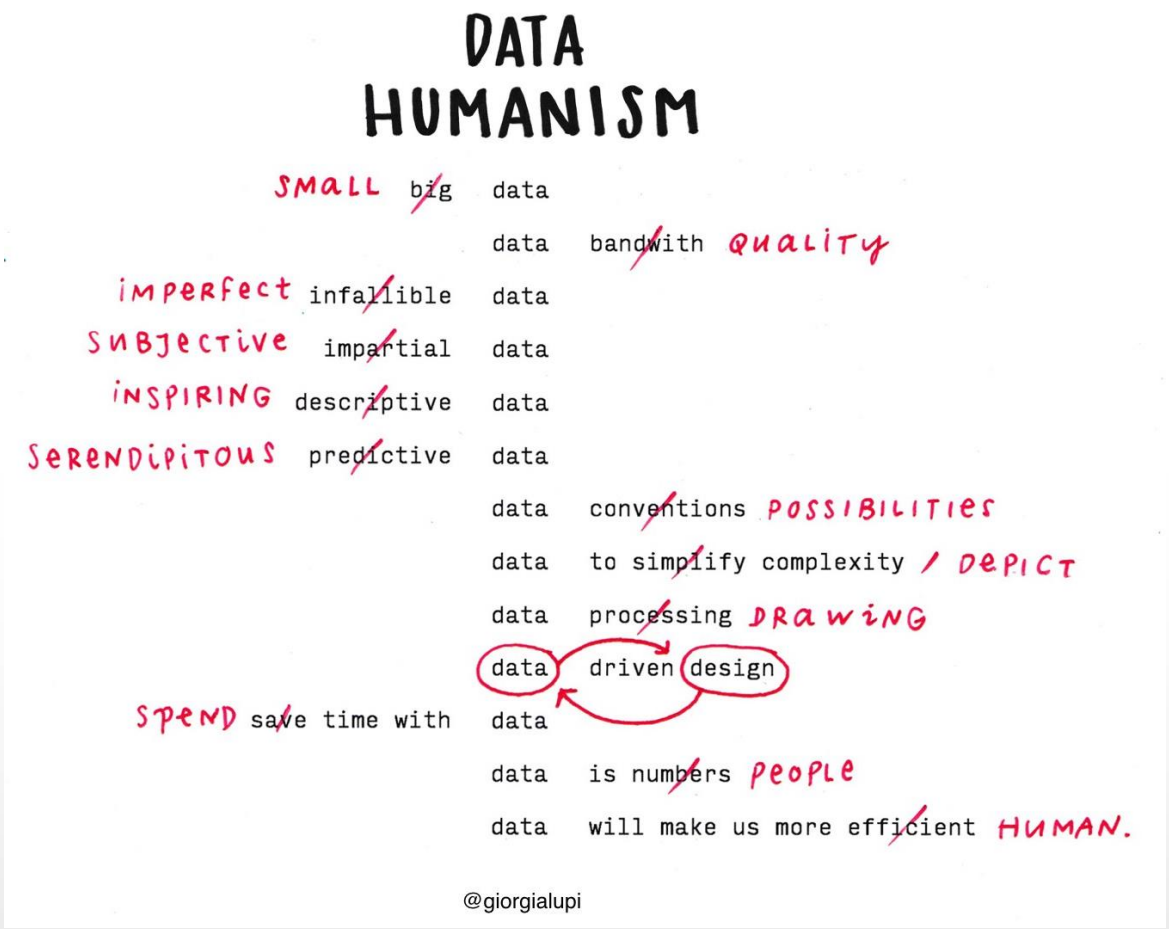

DATA
HUMANISM
SMALL big data
data bandwith QUALITY
IMPERFECT infallible data
SUBJECTIVE impartial data
INSPIRING descriptive data
SERENDIPITOUS predictive data
data conventions POSSIBILITIES
data to simplify complexity / DEPICT
data processing DRAWING
data driven design
SPEND save time with data
data is numbers PEOPLE
data will make us more efficient HUMAN.
@giorgialupi


TERMINAL BURCHARDKAI
HHLA
HOUSTON EXPRESS
HAMBURG

1

Grand societal challenges

Global activities

- Complexity
- Collaboration
- Combine & Use knowledge across borders

Consume resources

- **Unequal** resource distribution
- Human impact on **natural environment** (waste, pollution, habitat destruction)
- **Disconnection producers-consumers** (unfair work conditions, pollution)

Study/Work

- **Bullshit jobs** *vs.* societal relevant
- **i-overload** (collect, combine, use, share)
- **Valuable** impact indicators

Communication

- Diversity of **channels**
- **i-overload** (find & combine, keep overview)
- Communication **across borders** (sectors, disciplines, languages)
  - ➤ Science's reputation

Travel

- Spread of **diseases** (human, plant, animal)
- **Global** transport of people, data, resources (diversity of governance, languages, methods)
- **Pollution**, noise, habitat destruction

3

Potential research impact

➤ POTENTIAL STRATEGY

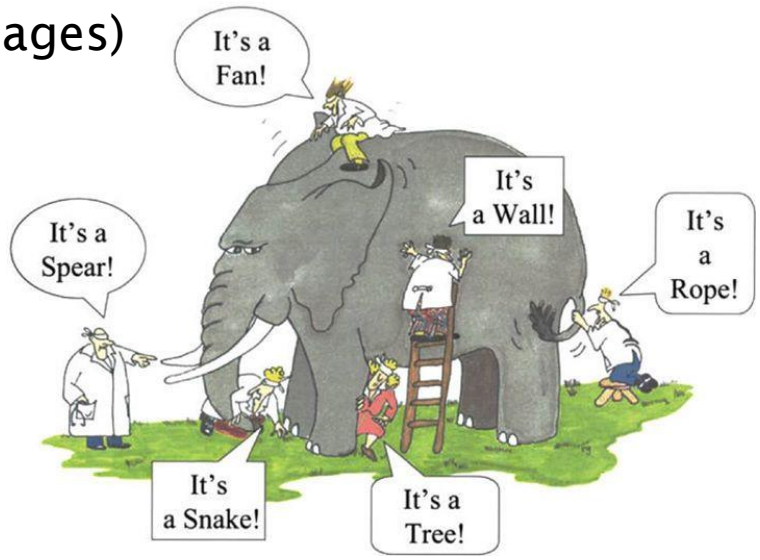
To contribute solving societal challenges

Be an example of good scientific & societal practice

Sustainable science

System thinking

1. **Use knowledge** from diverse sources (times, disciplines, sectors, languages)



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Potential research impact

➤ POTENTIAL STRATEGY

To contribute solving societal challenges

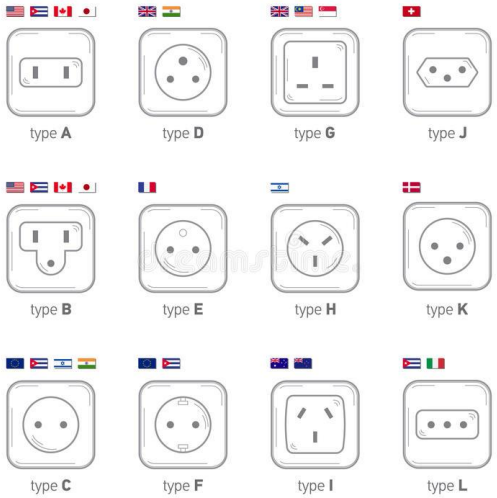
Be an example of good scientific & societal practice

Sustainable science: practical

Societal value

2. Facilitate collaborations

- Awareness of limitations, potential biases, meaning of words
- Standardisation, harmonisation



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Potential research impact

➤ POTENTIAL STRATEGY

To contribute solving societal challenges

Be an example of good scientific & societal practice

Sustainable science

Knowledge brokering

3. **Share knowledge** & hence communicate across borders