



EUROPEAN FOREST
INSTITUTE

Why circular bioeconomy is key for sustainable development?

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Insights based on EFI Publication

 FROM SCIENCE TO POLICY 5

Leading the way to
a European circular
bioeconomy strategy



Lauri Hetemäki, Marc Hanewinkel, Bart Muys,
Markku Ollikainen, Marc Palahí and Antoni Trasobares

Foreword

Esko Aho, Cristina Narbona Ruiz, Göran Persson and Janez Potočnik

1. Why circular bioeconomy is important?
2. Why it is important to define the circular bioeconomy in a new way?
3. How to advance all ecosystem services under circular bioeconomy?
4. How to implement circular bioeconomy?

Why Bioeconomy is important?

- It would be *unrealistic* to assume that the current way we consume and produce would lead us to reach global agreements (SDGs & Paris)
- *Realistic* approach is to change economic model – get rid-off of fossils and non-renewables

“We believe the circular bioeconomy has great potential to catalyse an inclusive European economic, political and societal project that is urgently needed.”

Esko Aho, Cristina Narbona Ruiz, Göran Persson and Janez Potočnik



Crucial how we understand circular bioeconomy. It will define:

1. What we try to achieve with it
2. The acceptance, and therefore the success, of it
3. What policies and measures are needed to implement it

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Our view of Circular Bioeconomy: How does it look?



Circular bioeconomy is not an end itself, but a necessary tool to achieve the global targets

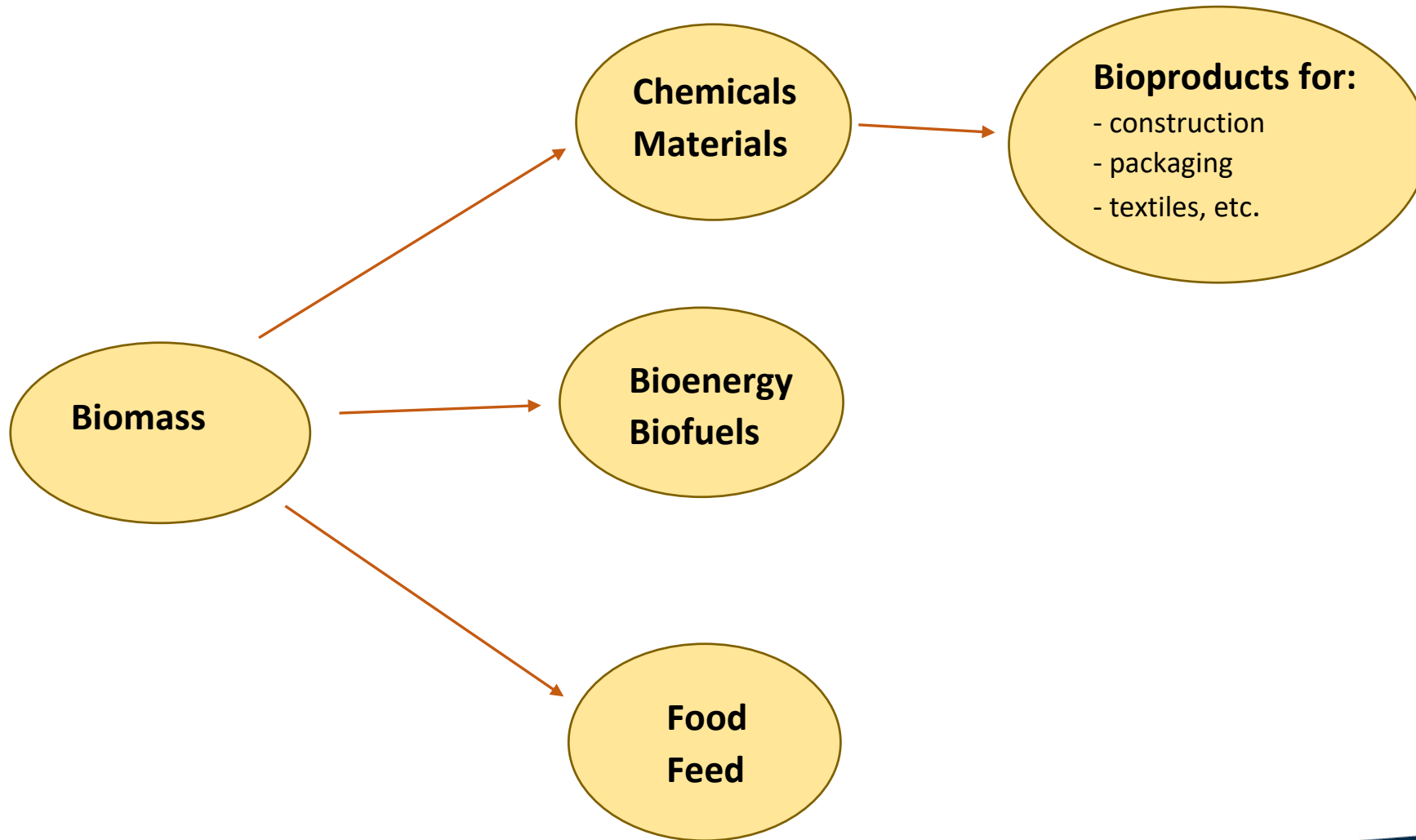
SDGs



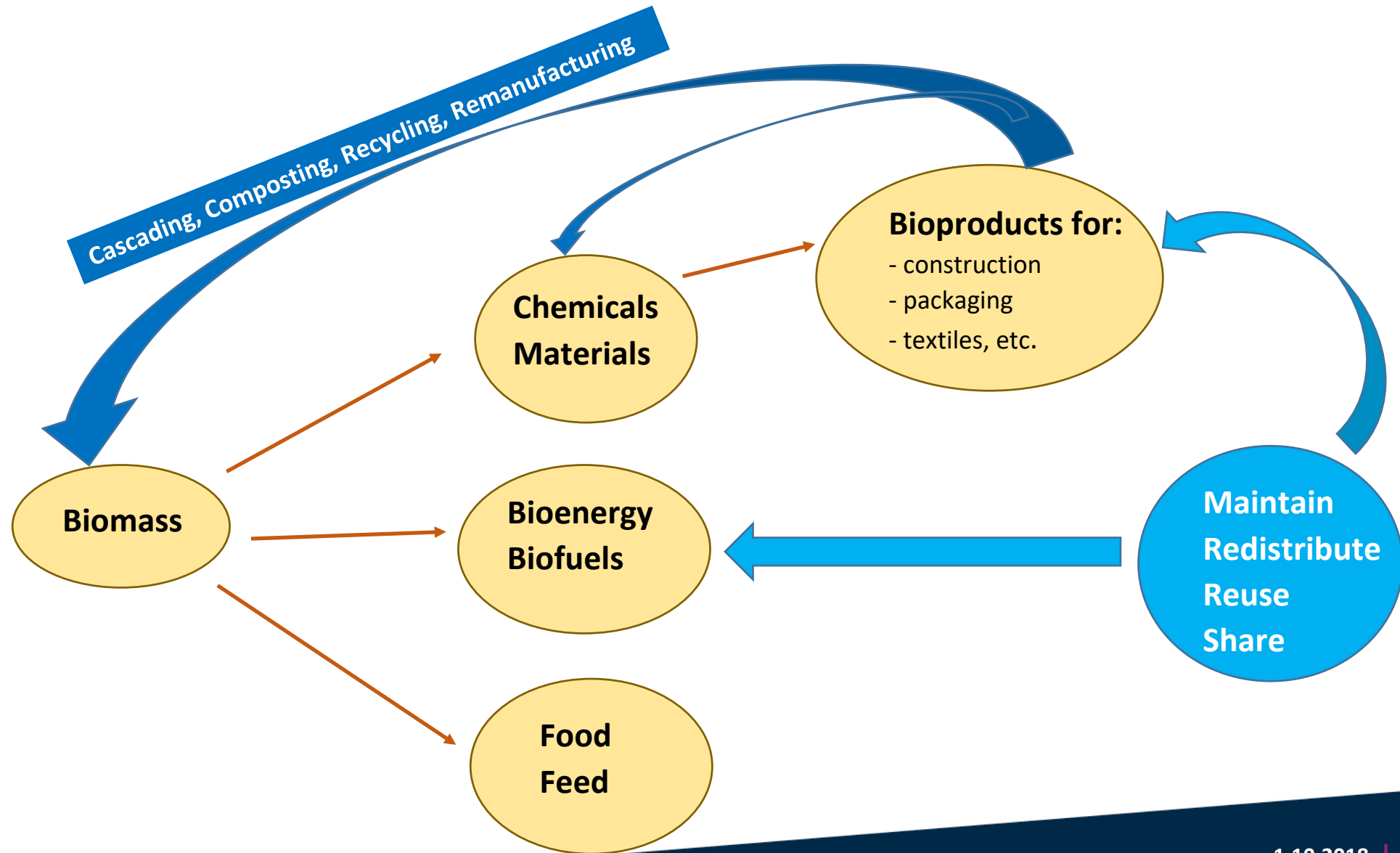
Keeping global temperature rise
this century well below 2°C



Bioeconomy: Conventional and EU strategy (2012) view



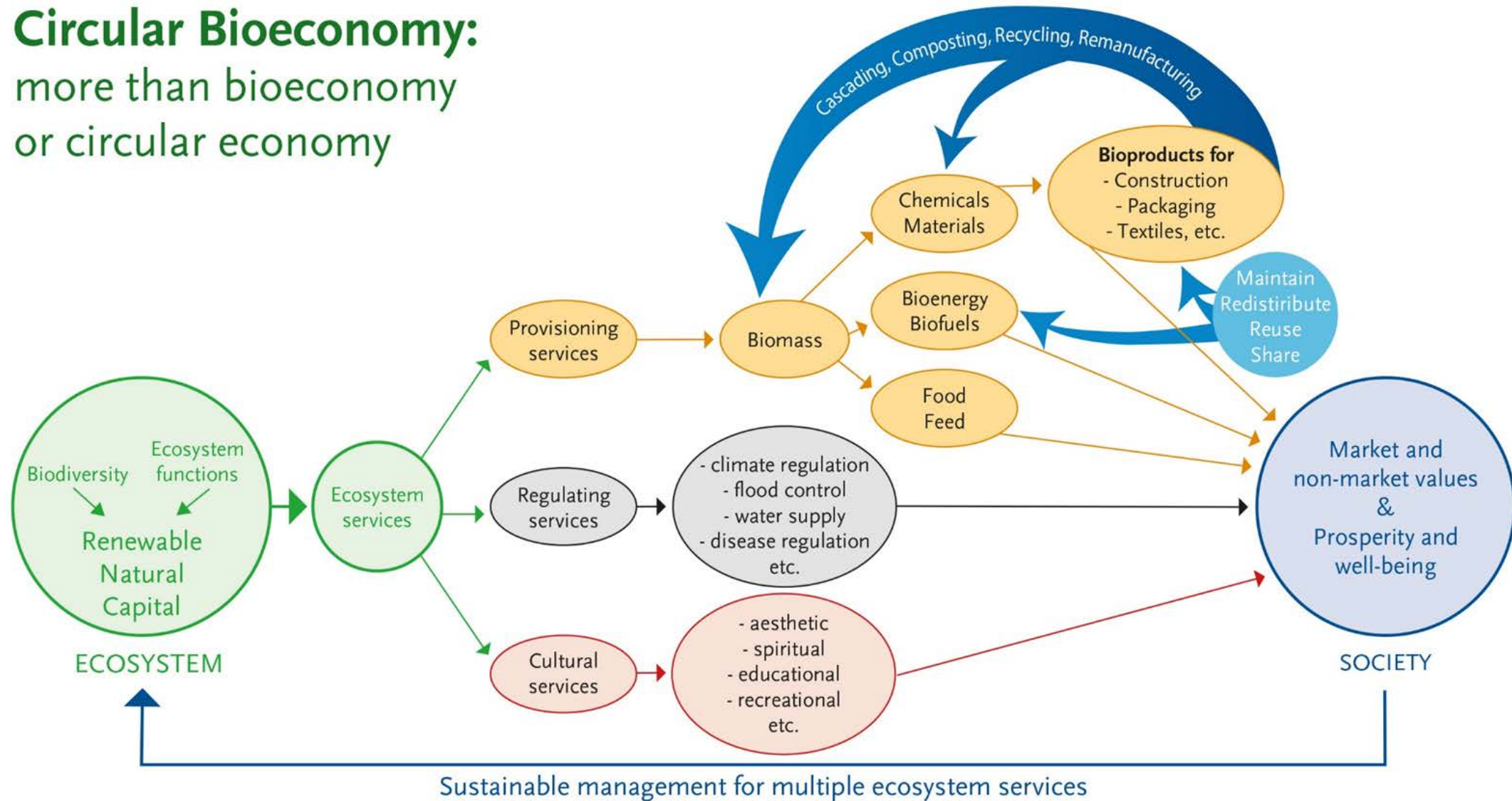
Bioeconomy: Conventional with Circular Economy (EMF)



But we think that it is necessary also to include the *natural capital* concept and all the *ecosystem services* under bioeconomy

Also the traditional circularity aspect needs to be complemented with the circularity of the society managing the nature (*e.g. forests*)

Circular Bioeconomy: more than bioeconomy or circular economy



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Source: Hetemäki, L., Hanewinkel, M., Muys, B., Ollikainen, M., Palahí, M. and Trasobares, A. 2017. Leading the way to a European circular bioeconomy strategy. From Science to Policy 5. European Forest Institute.

All ecosystem services need to be included under CB, because:

- To succeed (*also advancing SDGs*)
- We will not be able to engage urban population - 75% EU citizens - without advancing also regulating and cultural services (*recreation, water supply, public health, etc.*)
- To find *synergies* and address *trade-offs* between different ecosystem services and biodiversity
- In the end, it will be the role of political process to find acceptable balance between the different needs

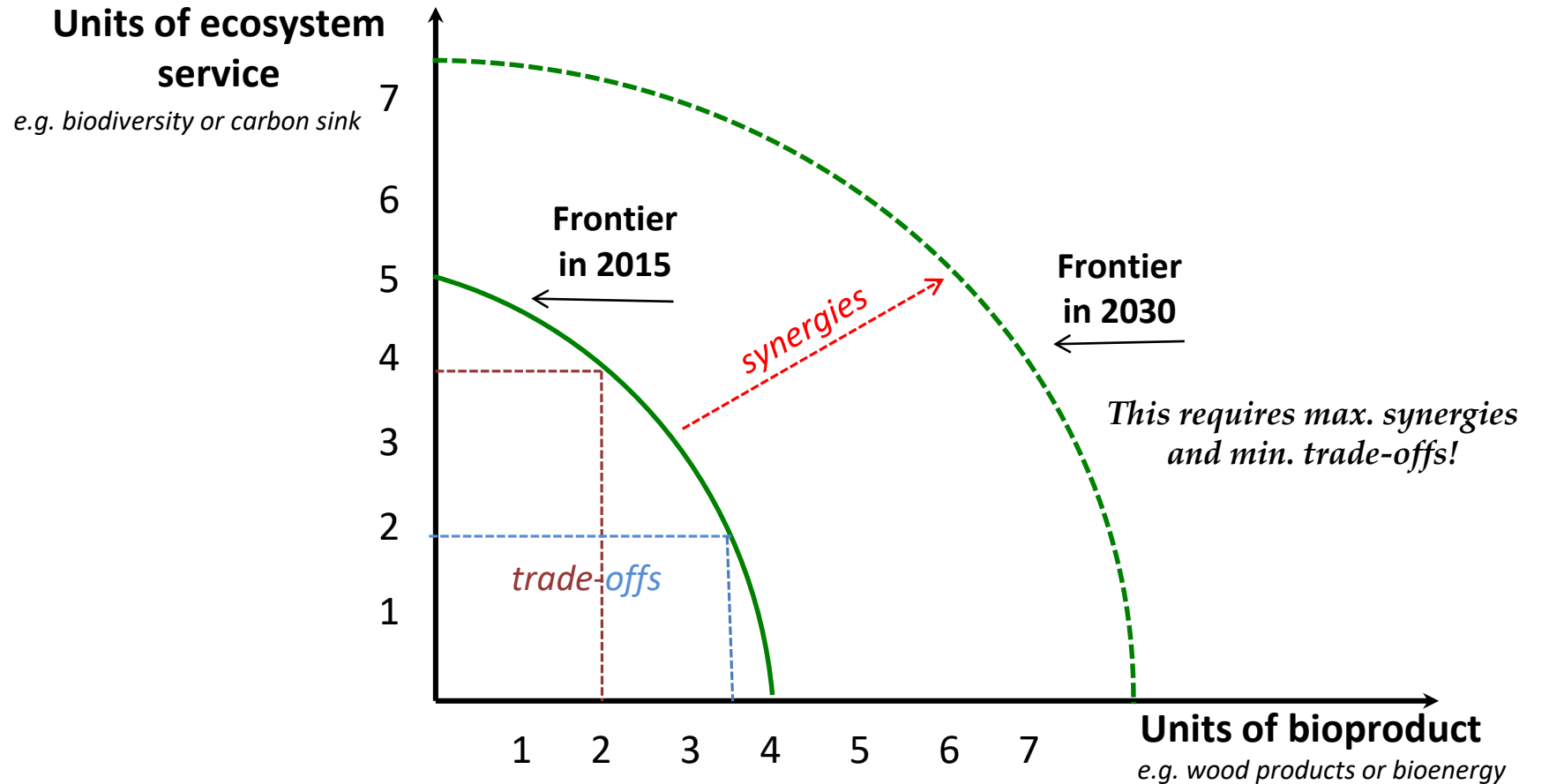


Role of circularity in bioeconomy: Case textiles

- Bioeconomy alone is not enough, but the recycling and circularity has to be built already at the design states of new products and businesses
- **Textile industry** is a big sector, in which recycling is in a bad shape, or it does not even exist
- Circular bioeconomy requires that those businesses, like forest industry, which are entering the sector, have to start to establish recycling institution, together with customers and policy makers (*c.f. paper recycling*)



Policy objective: seek to maximize synergies and minimize trade-offs between bioproducts and other ecosystem services



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Priorities for circular bioeconomy strategy



1. Create a science-based circular bioeconomy narrative *(next slide)*
2. Do not assume a bioeconomy is *sustainable*
3. Abolish fossil subsidies and increase the role of CO₂ price
4. Invest in *R&D*, innovations and new skills
5. Provide the right *regulatory framework*
6. Enhance *risk-taking* capacity
7. Develop EU-level *common standards* and regulations
8. Embrace biobased *services*

Narrative for urban population

“To cut a tree, is to kill a tree”

- We are living in times in which narratives or good stories have become even more important than in the past for engaging citizens for change
- Essential to engage urban population. Circular Bioeconomy (CB) is mainly about transforming urban living sustainable. It is only secondly about rural jobs and income
- It is important to tell a fact-based narrative that appeals to urban citizens:
Why they cannot live without circular bioeconomy?



Helsinki City new wooden library to be opened 2018



Thank you!

