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Can bioenergy be competitive?

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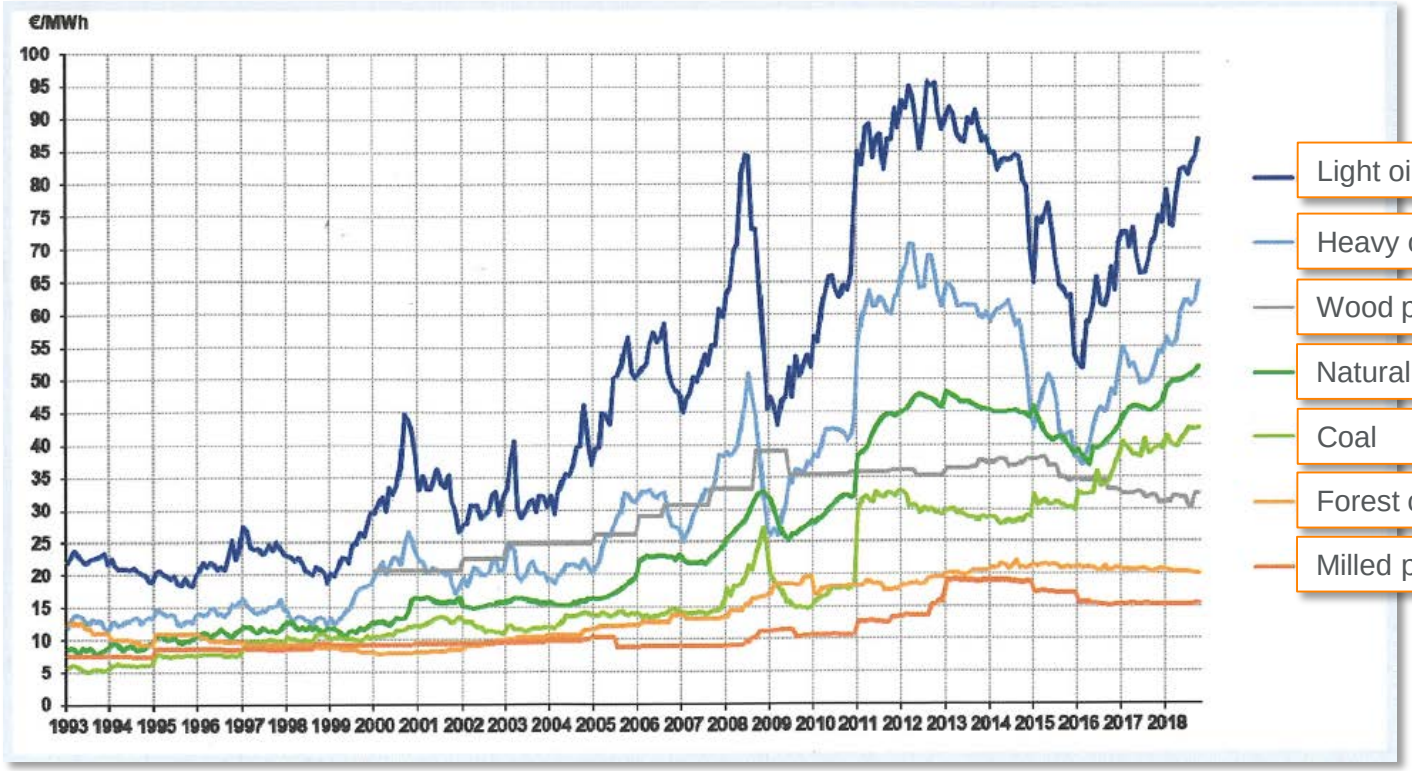
Can bioenergy be

Economically
Environmentally
Socially
Culturally

competitive?

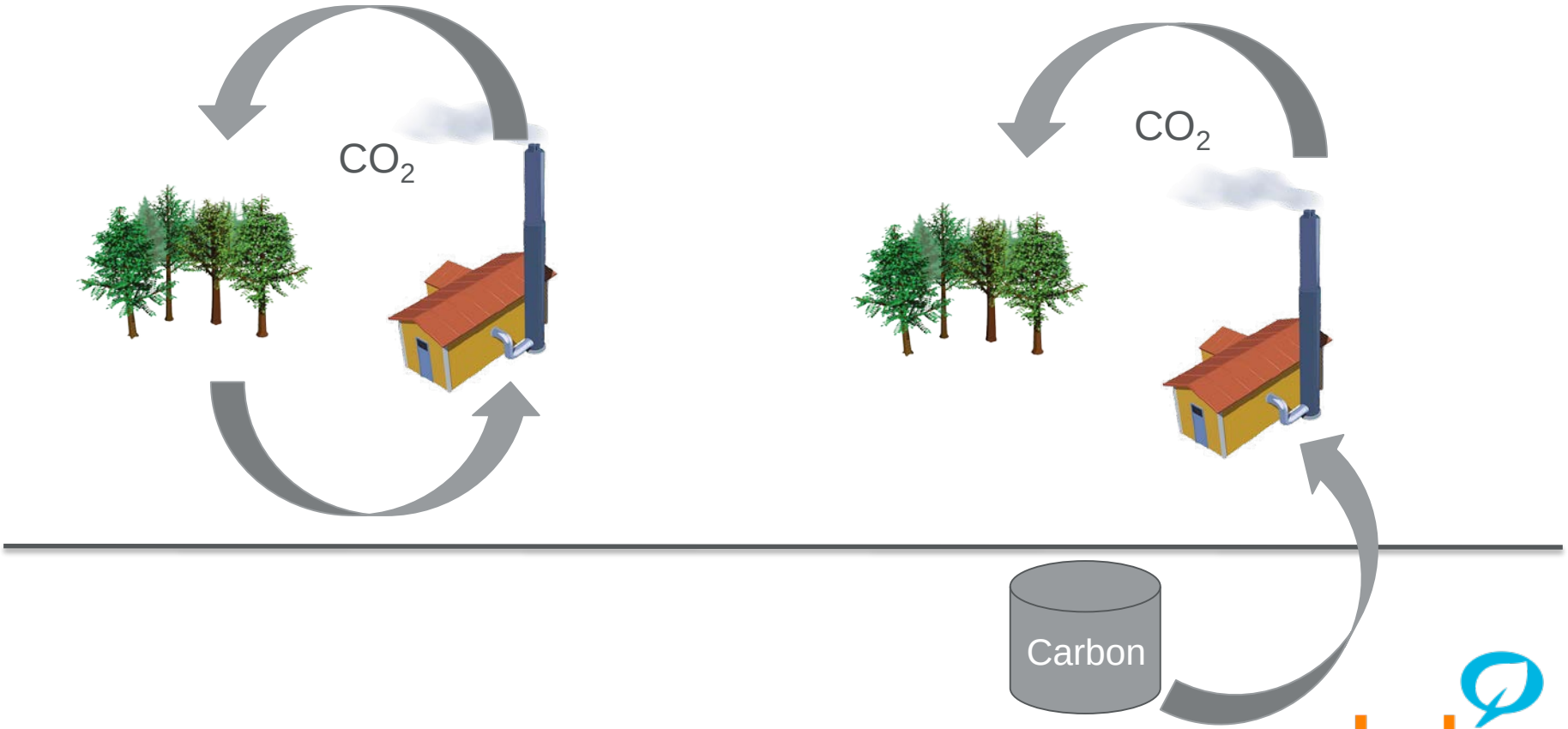
Price of Fuels in Finnish Heat and Power Production



Economic competitiveness is alway case-dependent and needs to studied carefully

Affecting factors:

- The price of *real* alternative fuels
- The scale of operations
- The performance of the system



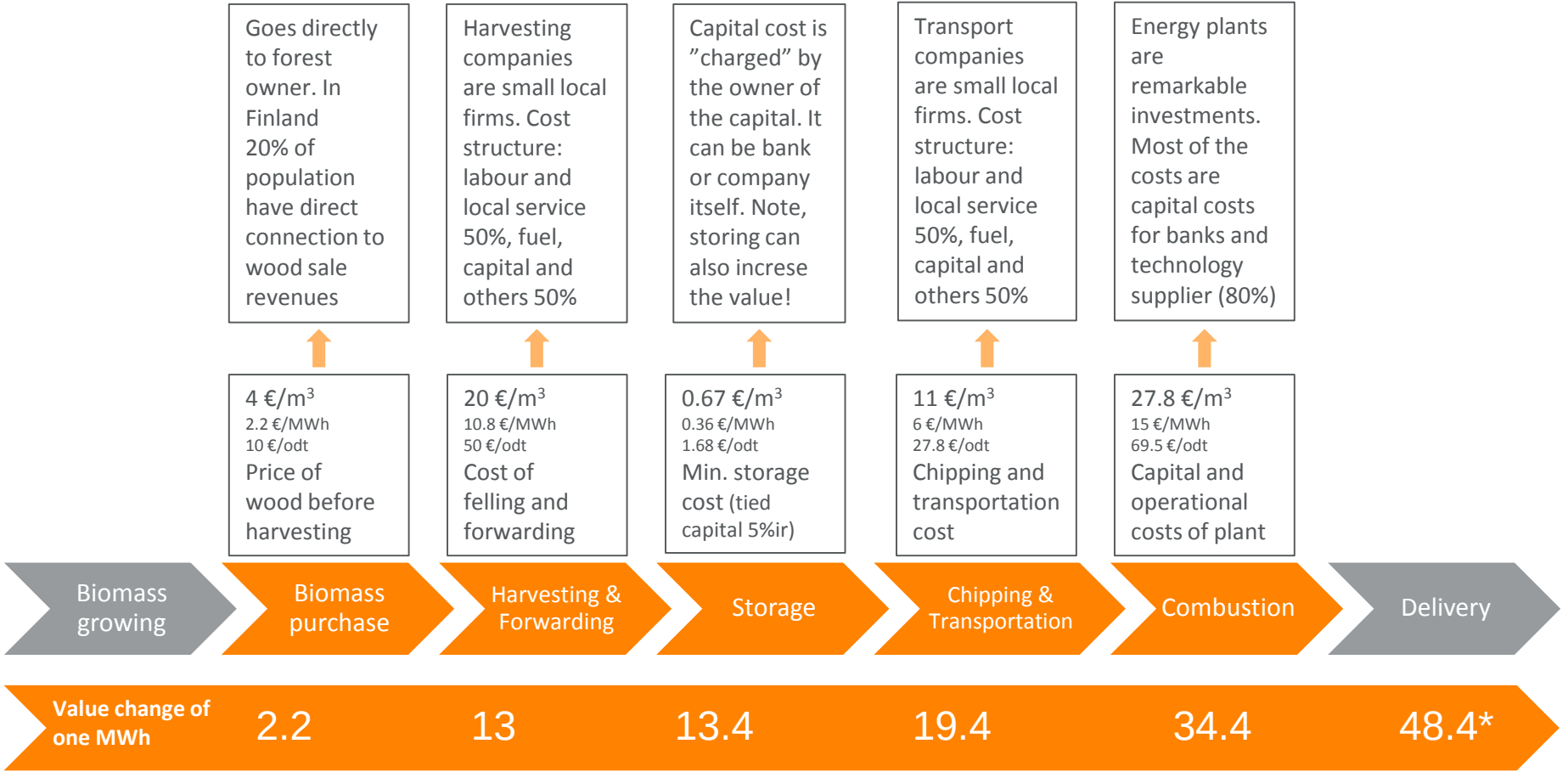
Environmental competitiveness

If you burn residual biomasses, the climate benefit is coming after 10-20 years.

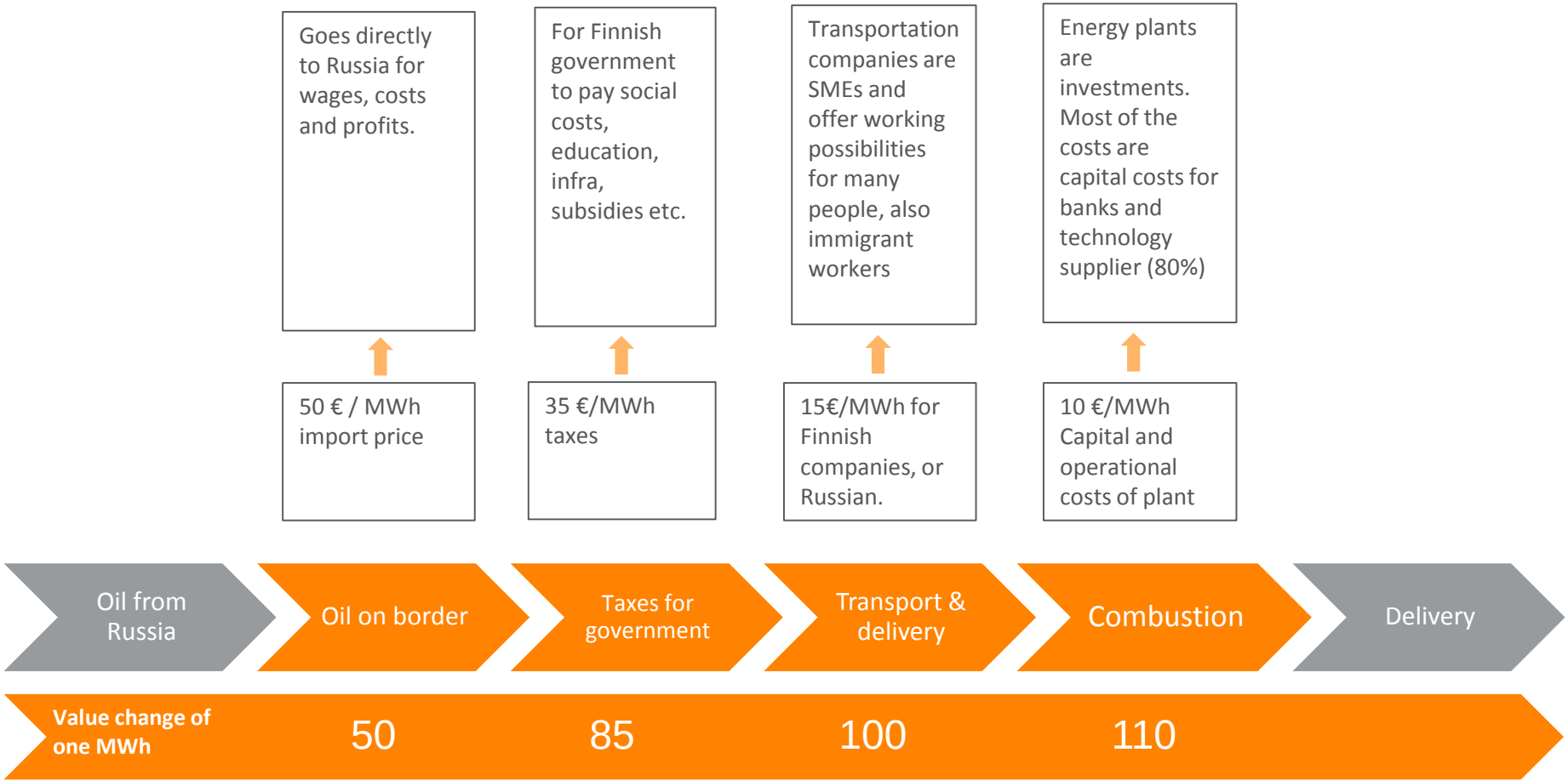
Decaying wood is bad for climate but good for insects and biodiversity.

Sun and wind are best but not available enough everywhere.

Social competitiveness



Social competitiveness



Cultural competitiveness

6 Mm^3 in Finland
15 Mm^3 in Finland
1 Bm^3 in Africa and Asia

Bioenergy can be competitive in many ways and in many places but definitely it cannot offer all energy needed everywhere.

The best option is to use combos of different energy sources and adapt them based on sources, needs and operational environment.

Thank you!

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