

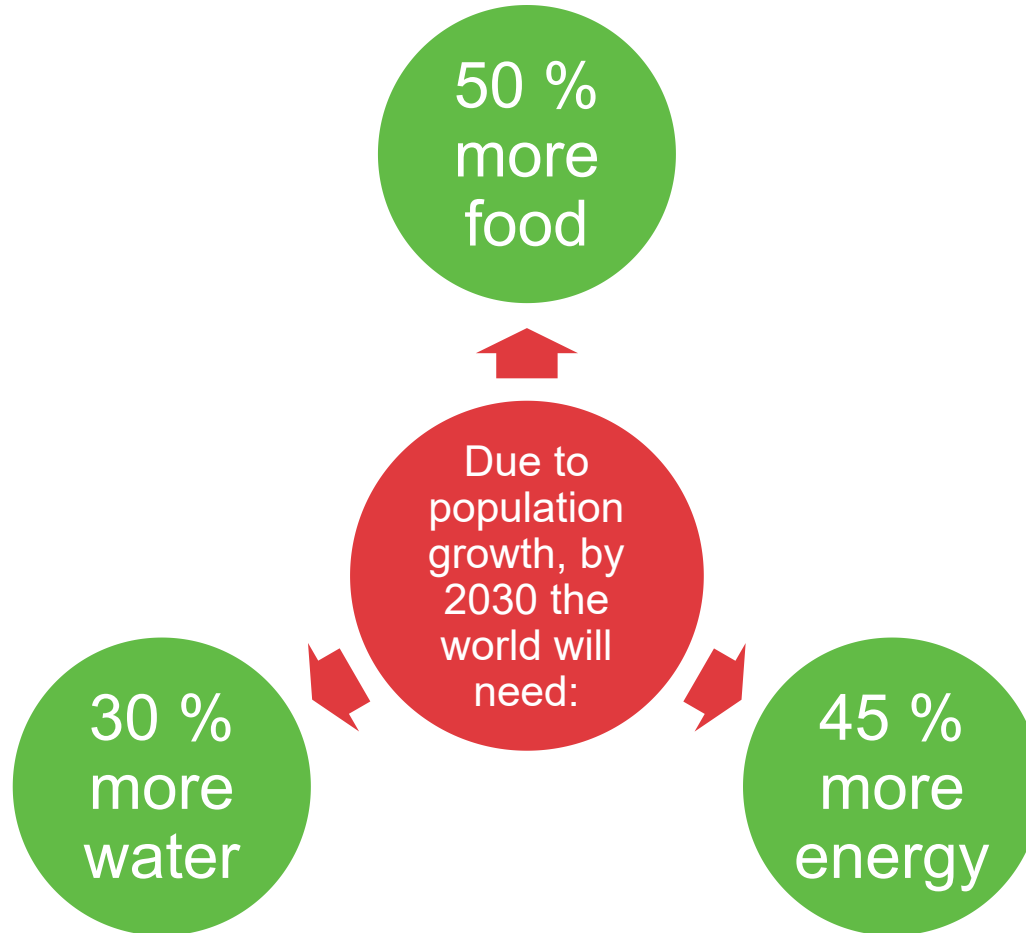
The Finnish Material Efficiency programme and the Finnish Circular Economy Roadmap

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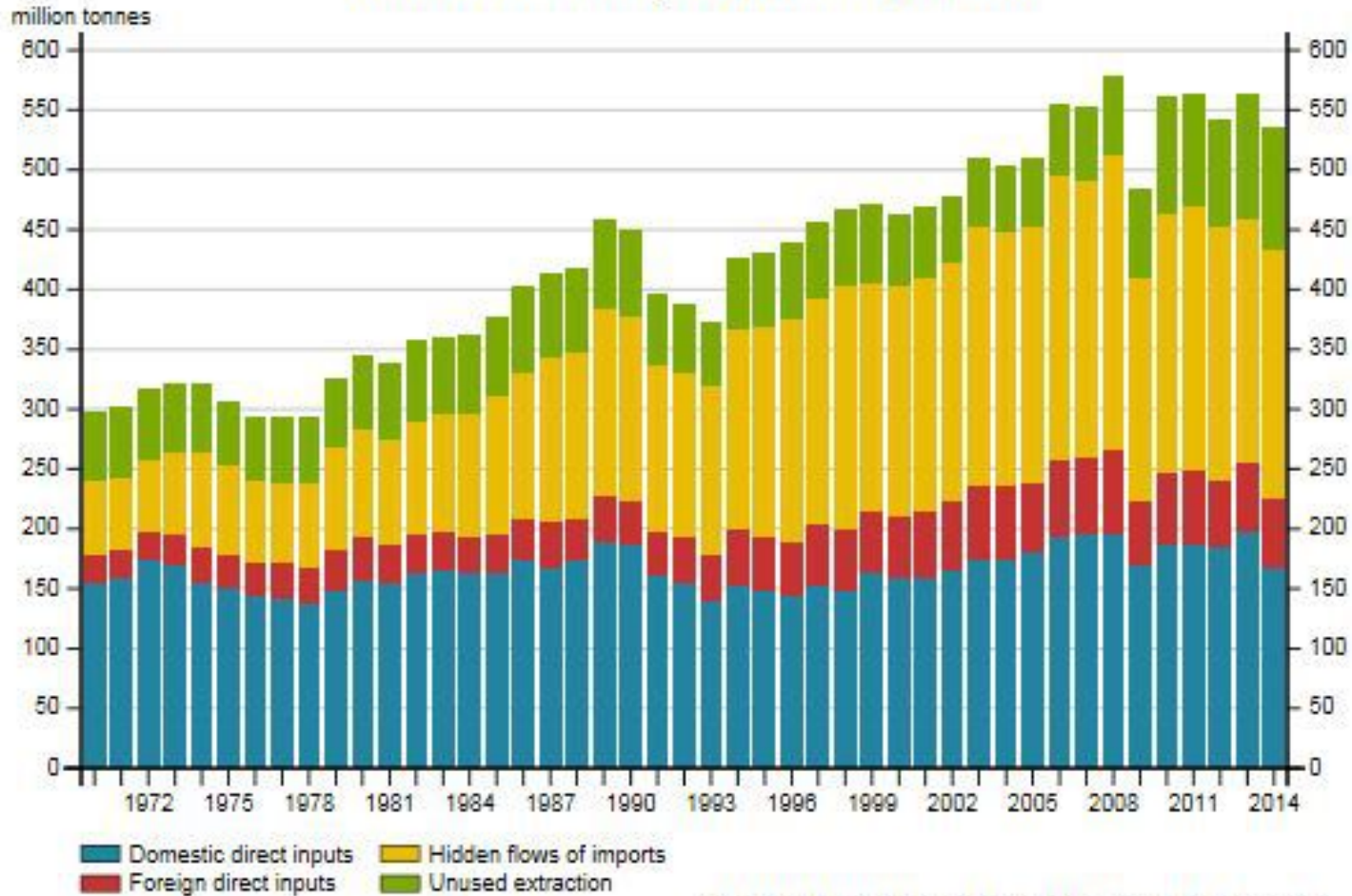
Due to population growth, by 2030 the world will need



Finland and total material flows TMR

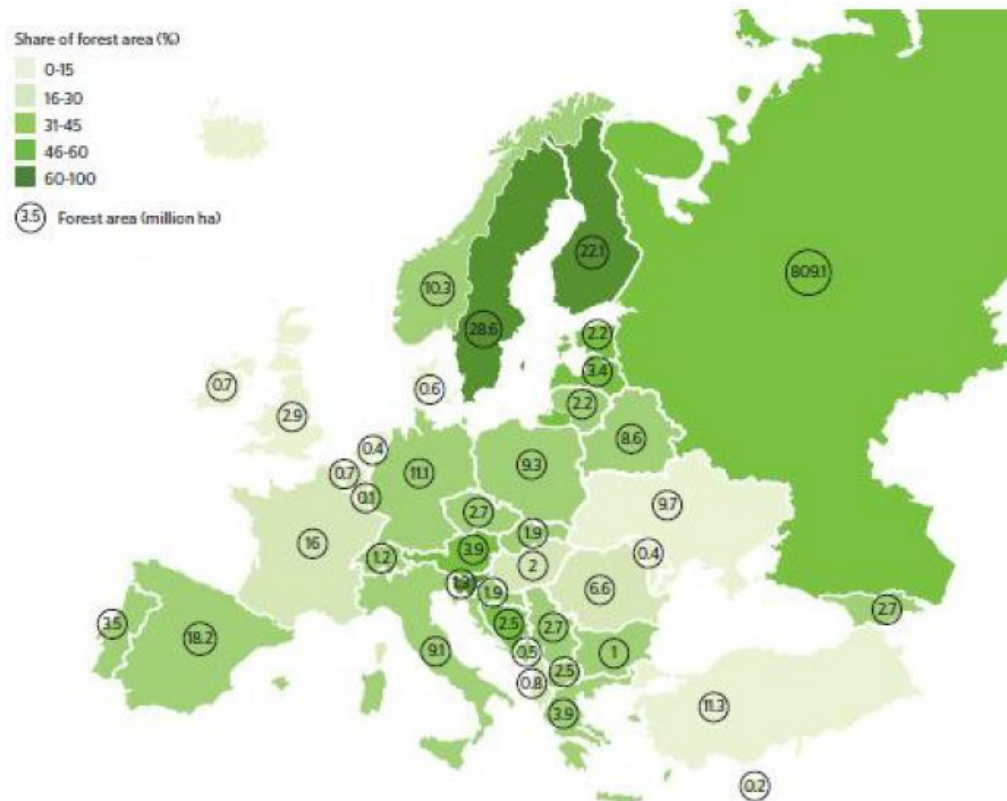


Total material requirement 1970-2014



Statistics Finland / Economy-wide material flow accounts

Finland is one of EU's most forested member states



Source: FOREST EUROPE, UNECE and FAO 2011. State of Europe's Forests 2011. Status & Trends in Sustainable Forest Management in Europe. Available:

http://www.forest-europe.org/documentos/State_of_Europes_Forests_2011_Report_Revised_November_2011.pdf

National materials efficiency programme 2013



- **Discussion on possible targets , indicators and metrics**
- **Need to improve metrics**
- **Need for a systemic approach and to avoid silo's**
- **Need to look for European material flows and global trade impacts**
- **Need to look at input – output at company and sector level**
- **Consumer choise: As long as there is demand there will be production...**

National Materials Efficiency Programme in december 2013 :



”Sustainable growth through material efficiency”, which aims to simultaneously achieve economic growth, the wise use of natural resources and decoupling from harmful environmental effects.

•:

- *Research and education, pilots , measurements incl. cooperation*
- *Tools for actors*
 - model for industrial symbioses a three-year project*
- *Strengthening resource-wise regional co-operation*
- *A five-year subsidised material audit project*
- *Voluntary contracts for wise material use (green deal)*
- *Smooth administration; Easing and clarifying the process for environmental permits*
- *International and EU cooperation*
 - *Links to EU policy , EU LIFE programme funding*

Finland's bioeconomy strategy (May 8, 2014)

Strategic goals

Implementation and
monitoring

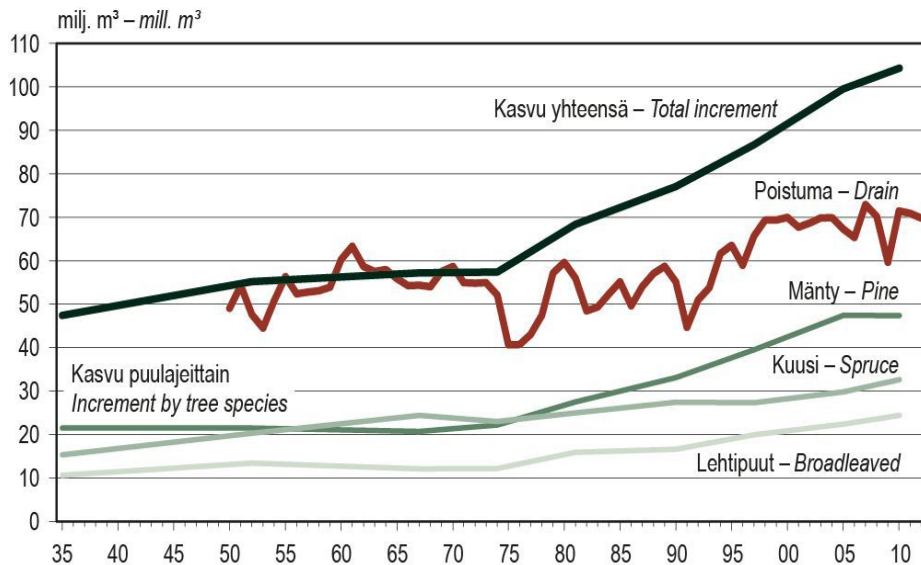
Sustainable bioeconomy solutions are the basis of Finland's welfare and competitiveness.



The potential of Finnish forests



Finland's well-being is based on our ability to use renewable resources efficiently and sustainably. Forests and clean nature have always been the basis of our existence.



Lähde: Metsätutkimuslaitos – Source: *Finnish Forest Research Institute*

Puuston kasvu ja poistuma

Annual increment of growing stock and drain

Metsätilastollinen vuosikirja 2013

Finnish road map on Circular Economy (2016-2025) by SITRA, Five focus areas

1 Sustainable food system

Consumers choose food that has been produced through the wiser use of raw materials that starts in primary agricultural production. Nutrients are recycled.



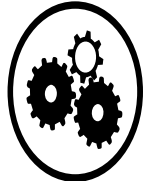
2 Forest-based loops

The forest industry's global competitiveness will increase with new commercial products, services, co-operation models and digital technology.



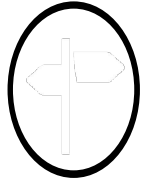
3 Technical loops

Minimising the use of virgin raw materials and maximising the length of material and product life cycles create a competitive edge.



4 Transport and logistics

Transport will develop into a seamless, smart system that uses fossil-free fuels.



5 Common action

Legislators, companies, universities and research institutes, consumers and citizens, and vibrant regions are all needed to achieve systemic change.



Next Steps:



**Implementation of MAT&EFF and the Roadmap
Assessment of implementation**

World Circular Economy Conference in Helsinki 2017 / SITRA



**Updating the Materials Efficiency Programme
By the end of 2017**

Thank you!

