

BOOSTING OF ECO-INNOVATIONS – POLICY STEPS PROMOTING GREEN ECONOMY

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Green economy is based on holistic change in whole society

- **Systems transition** and societal change reacting opportunities and challenges of future
- **New networks** between companies and communities, new business models
- **Sustainable lifestyle** and cultural change supporting well-being

Antikainen et al. 2013

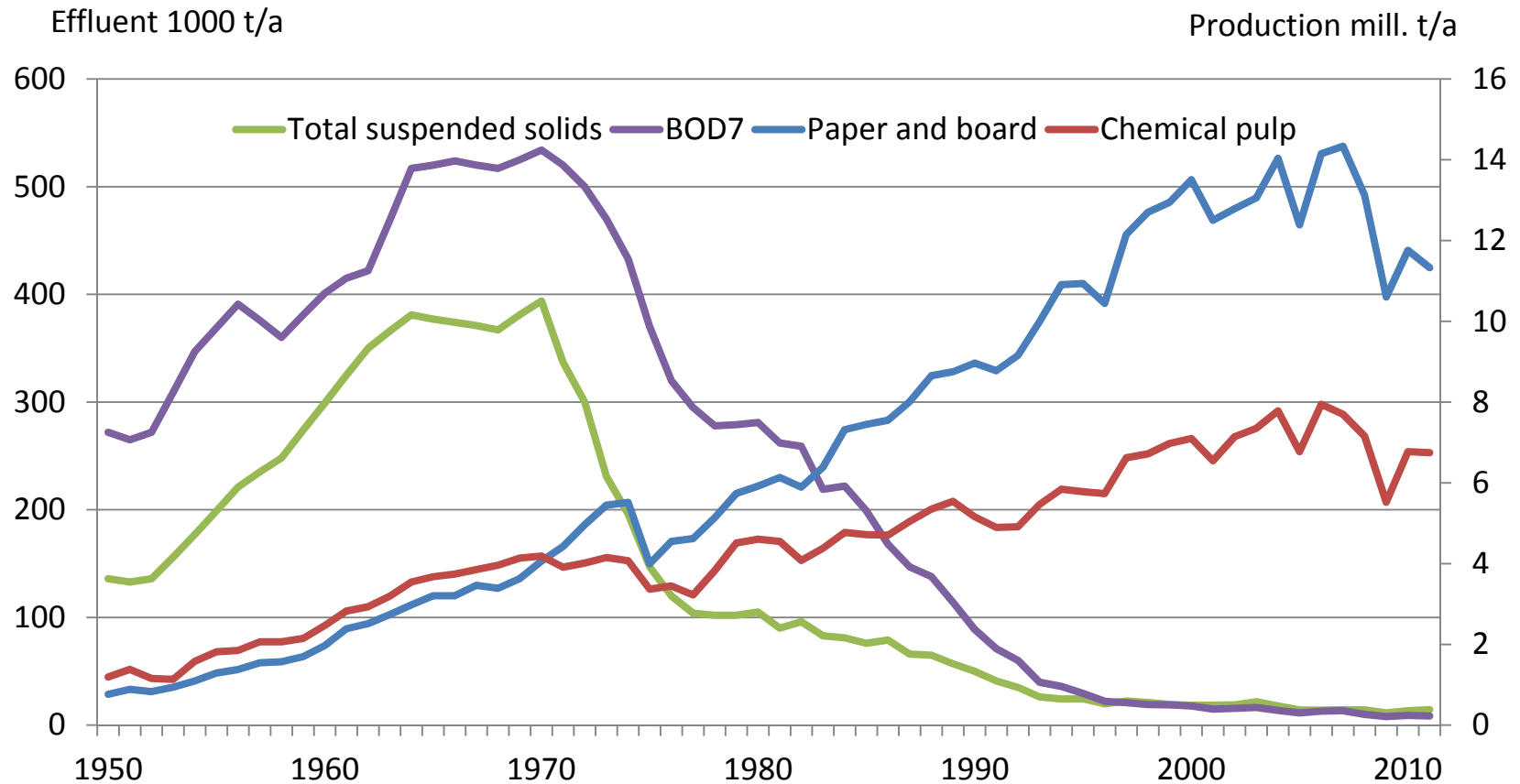
Eco-innovations

- “Any form of innovation resulting in or aiming at significant and demonstrable progress towards the goal of sustainable development, through **reducing impacts on the environment**, enhancing resilience to environmental pressures, or achieving a more efficient and responsible use of natural resources.” (EC, 2011)

Eco-innovations and green growth

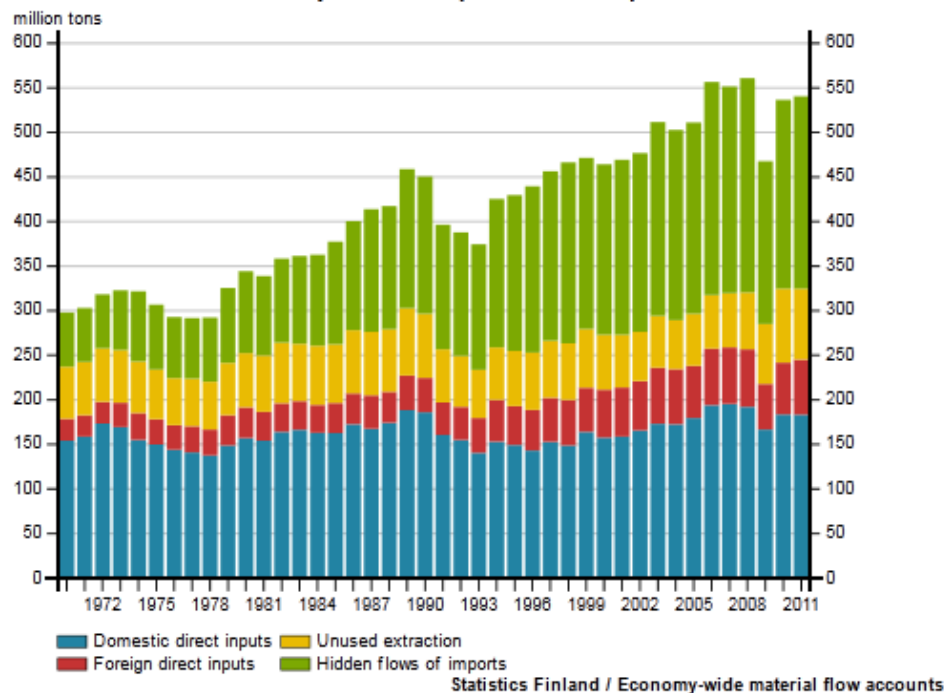
- **Eco-innovations** can play a crucial role in achieving **green growth**, promoting sustainable development and maintaining the **competitiveness** of European countries (European Commission, 2011; OECD, 2011b).

Good example: Pulp & Paper industry

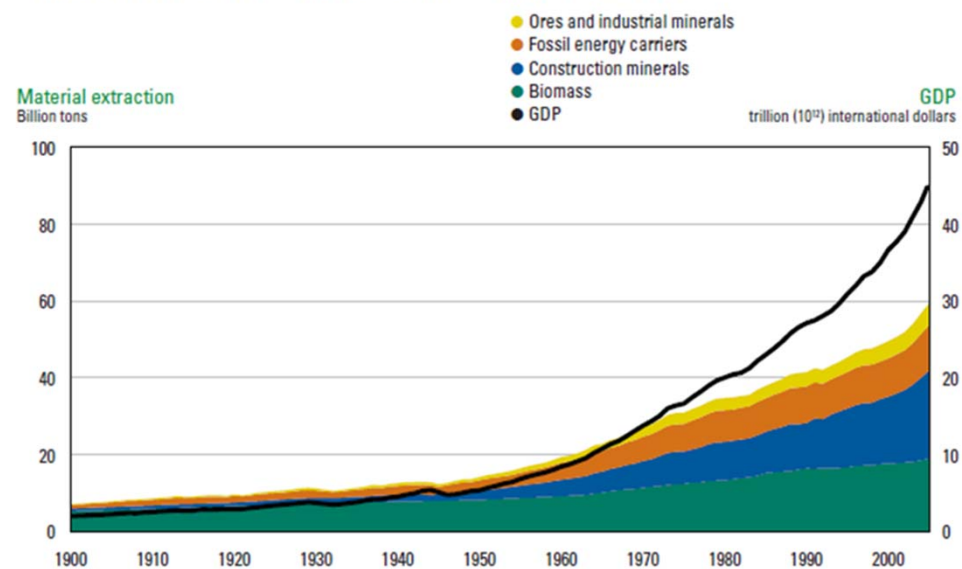


Increasing material requirement in Finland and globally

Total material requirement (million tons) 1970-2011



Global material extraction in billion tons, 1900-2005



Source: Krausmann *et al.*, 2009

Lähde: UNEP 2011

What needs to be done in Finland, on governmental level to promote green economy?

- Suggestions based on state-of-art analysis and comparison
 - forerunner countries:
 - Sweden, Germany, the Netherlands, Brazil
 - sectoral assessment:
 - Food system
 - Energy system
 - Transport system
 - Construction and infrastructure

Governmental level

- Before...
 - In 1993 committee for sustainable development
 - In 2005 Program for sustainable consumption and production
- At the moment...
 - Government program
 - Commitment process with more than 40 commitments
 - Several strategical programs for cleantech, material efficiency, ...

Bottom-up Processes

Carbon Neutral Municipalities – An innovative approach to climate change mitigation at local level

- 16% on average
between 2009-2013

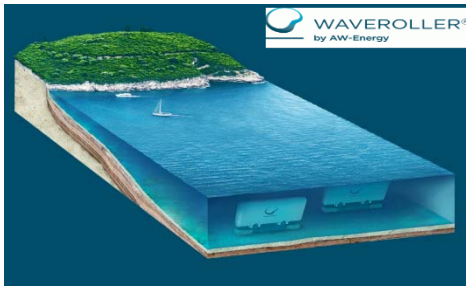
Municipalities act as forerunners
working to curb their greenhouse gas
emissions ahead of schedule
(-80% by 2030)

<http://www.hinku-foorumi.fi/en>

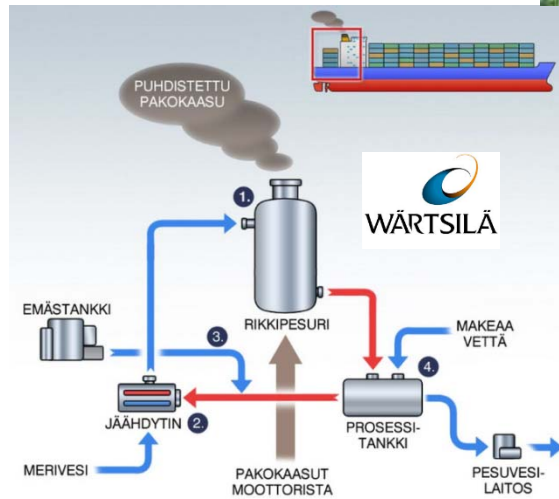
HINKUmappi



Green business in Finland



there.



Kääntöpöytä. Photo: Kirmo Kivelä / Dodo ry



<http://yle.fi/uutiset/kotimaa/article1455623.ece>



Good basis for green economy

- Large biomass stock
 - Knowledge in different sectors
 - Networks and co-operation
 - Various initiatives
 - Political support expressed
- =>Actions and initiatives – common win-win

Challenges

- Benefits cannot be seen immediately
- Changes in age structure and industry
- Path dependence in decision making
- Silo thinking

Proposals for steps forward

- A. **Joint vision** and political commitment
- B. Stimulating companies' **green growth potential** and boosting green demand
- C. Facilitating **green pilots** for the domestic and export markets
- D. Creating international and domestic **strategic opening** and partnerships
- E. Creating **space for green growth** by removing wasteful systems
- F. Fostering continuous and systematic **learning** as an accelerator

Antikainen *et al.* 2013

Conclusions

Green economy and eco-innovations = opportunity!

- Though there are needs for:
 - New kind of collaboration
 - Trust between actors
- Relevance of regulation to be considered
- More understanding needed how eco-innovations are boosted in SMEs

Thank you!

Further information:

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Presentation based on the report:

Antikainen et al. 2013. Opportunities for green growth,

<http://vnk.fi/julkaisukansio/2013/r04-vihrean-kasvun/PDF/fi.pdf>

[In Finnish with abstract in English]

www.syke.fi/en-US