



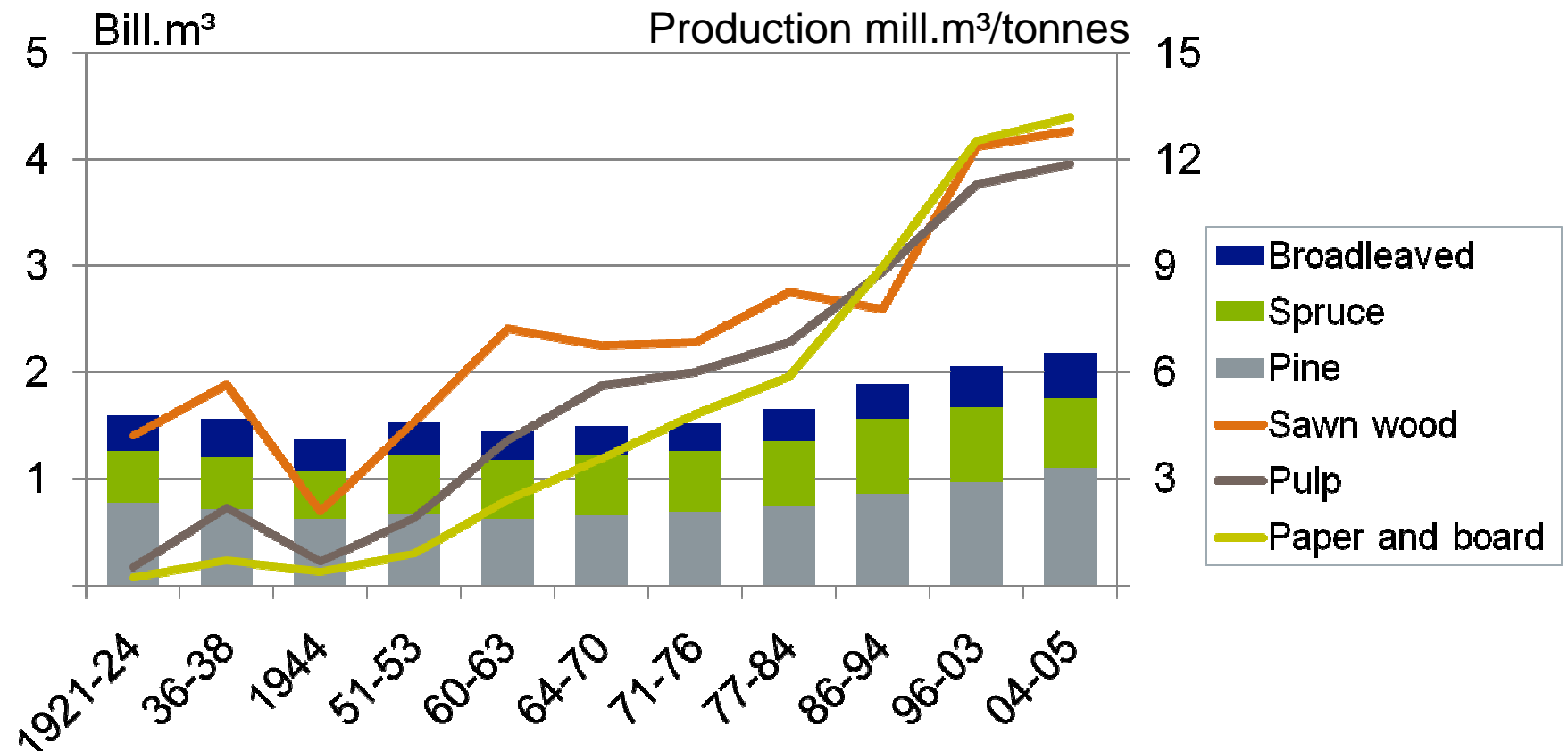
Innovative and sustainable forest-based industries

ECOSOC- Conference, Joensuu 23.9.2009

Anders Portin, Senior Vice President

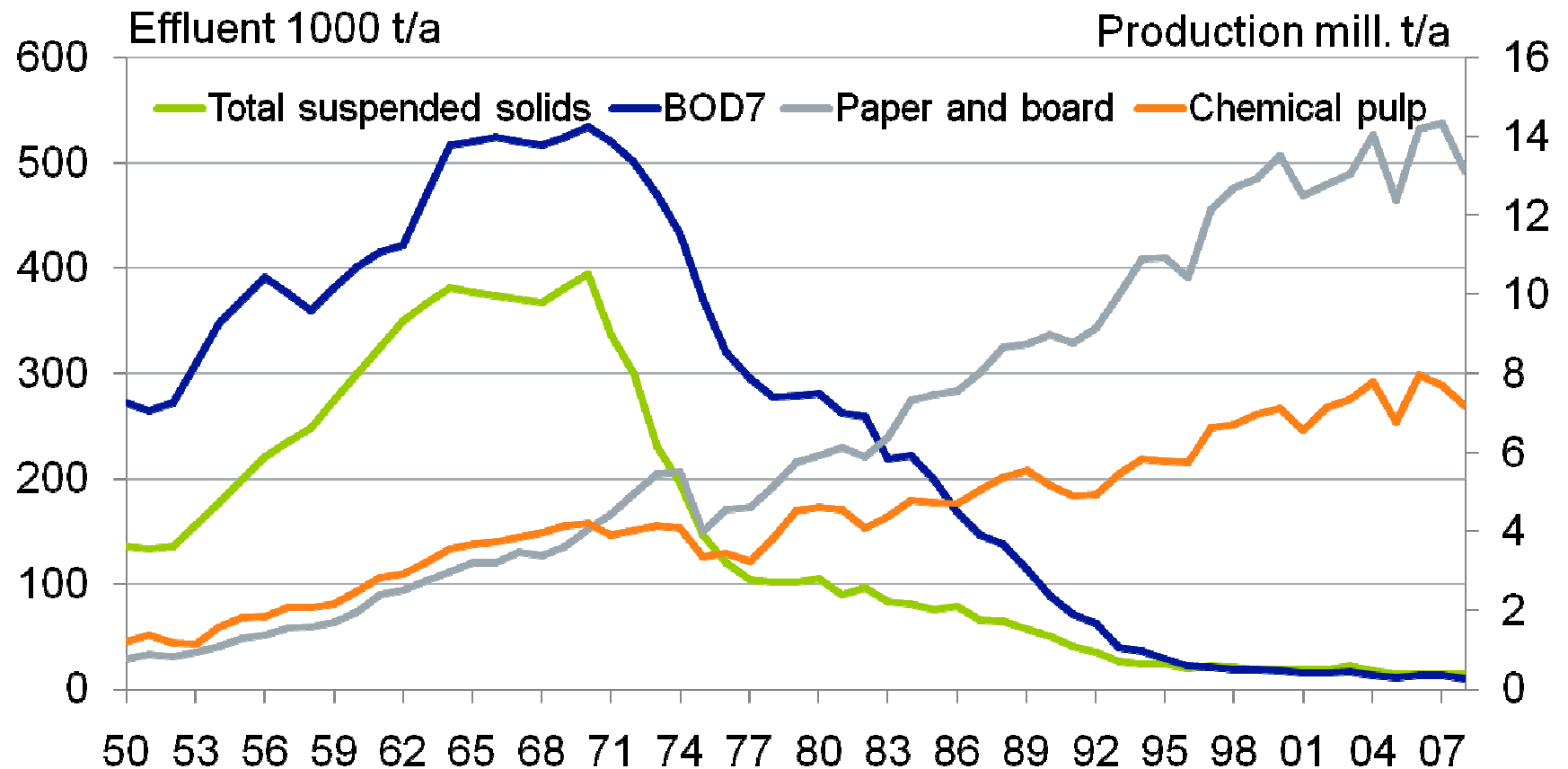
Finnish Forest Industries Federation

Development of forest resources and forest industry production in Finland 1921-2005



Water emissions have decreased to a fraction while the production has increased

Production of the pulp and paper industry in Finland and waste water load



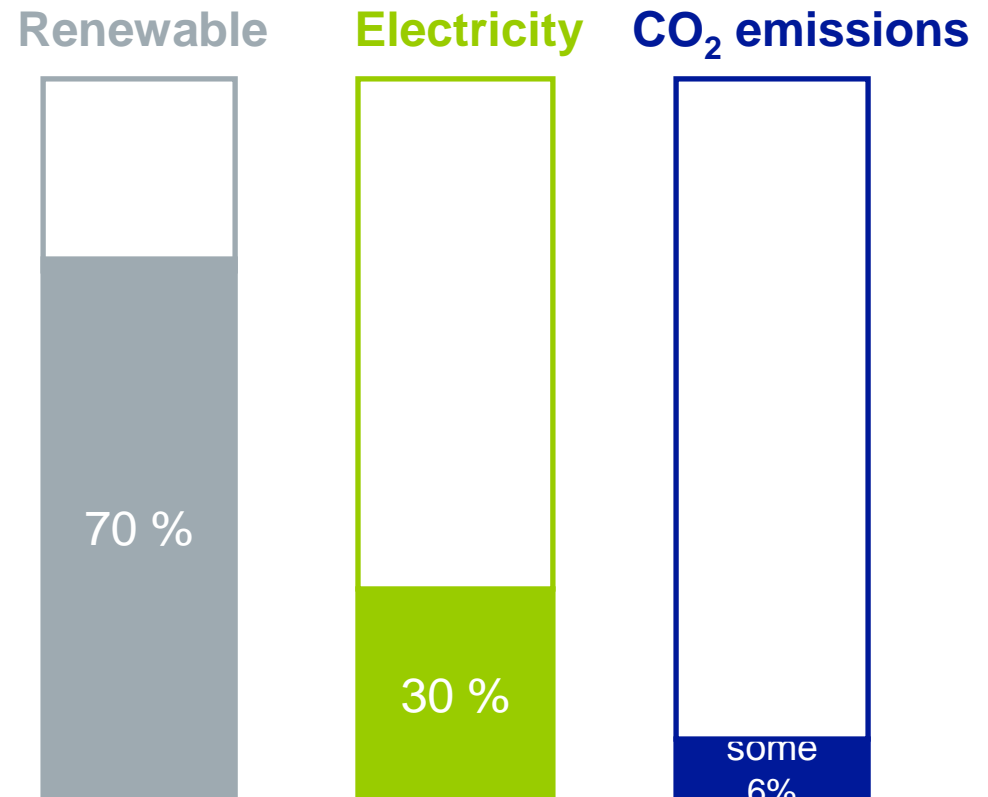
2.7.2009

SOURCE: Finnish Forest Industries Federation

Forest industry produces renewable energy, uses clean electricity and reduces emissions

Forest industry:

- Produces 70% of Finland's renewable energy
- Accounts for a third of overall electricity consumption in Finland
 - 80% CO₂-free
- Emits only a minimum share of carbon dioxide



Global bioeconomy – better place for all of us

Renewable will replace non-renewable materials in production and consumption

Sustainably managed forests provide a renewable natural material

Bioproducts ranging from pharmaceuticals to cars

Refined biomass will become as adaptable as plastics are now

Biofuels will keep us warm and in motion

Wood is the best alternative for housing and construction

Processing and recycling ensure a long useful life for biomass

Biomass - material and energy efficient, renewable

All of the properties of biomass are taken advantage of



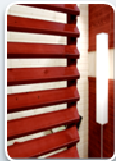
In a bioeconomy, consumption and production are based on renewable natural materials

The European forest industry invests in new products, efficient technologies and renewable energy

Renewal of the industry



Smart wood and fiber products



New products made of wood-based materials



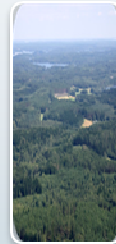
Forest based biorefinery/biofuels

Competitiveness

Customer solutions for the future

Intelligent, resource-efficient production technologies

Sustainable development



Sustainable forest management



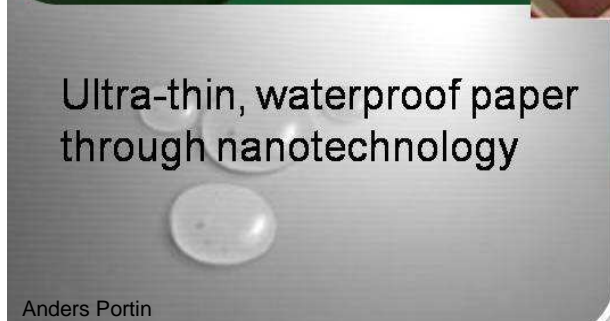
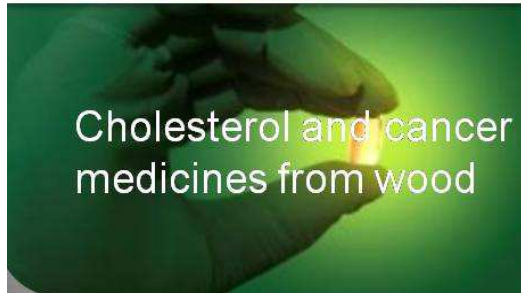
Increased value for wood biomass

Biorefineries will diversify the forest industry



- Biorefineries will produce new products, such as biofuels and -chemicals as well as various biocomposites, -plastics and other biomaterials and use considerable volumes of wood and other biomass
- Potential for becoming one of the forest industry's key growth areas and a new competitive advantage
 - A pulp mill is a biorefinery!

Sustainable development reforms consumption patterns – future bioproducts from wood



Anders Portin

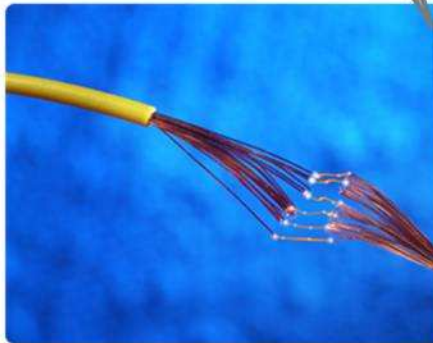
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New ways to select in the information flow

"Download the new Harry Potter to your book 19,95. Only today!"

"Yesss, Real Madrid won!"

Good that I can select the news that interests me!"

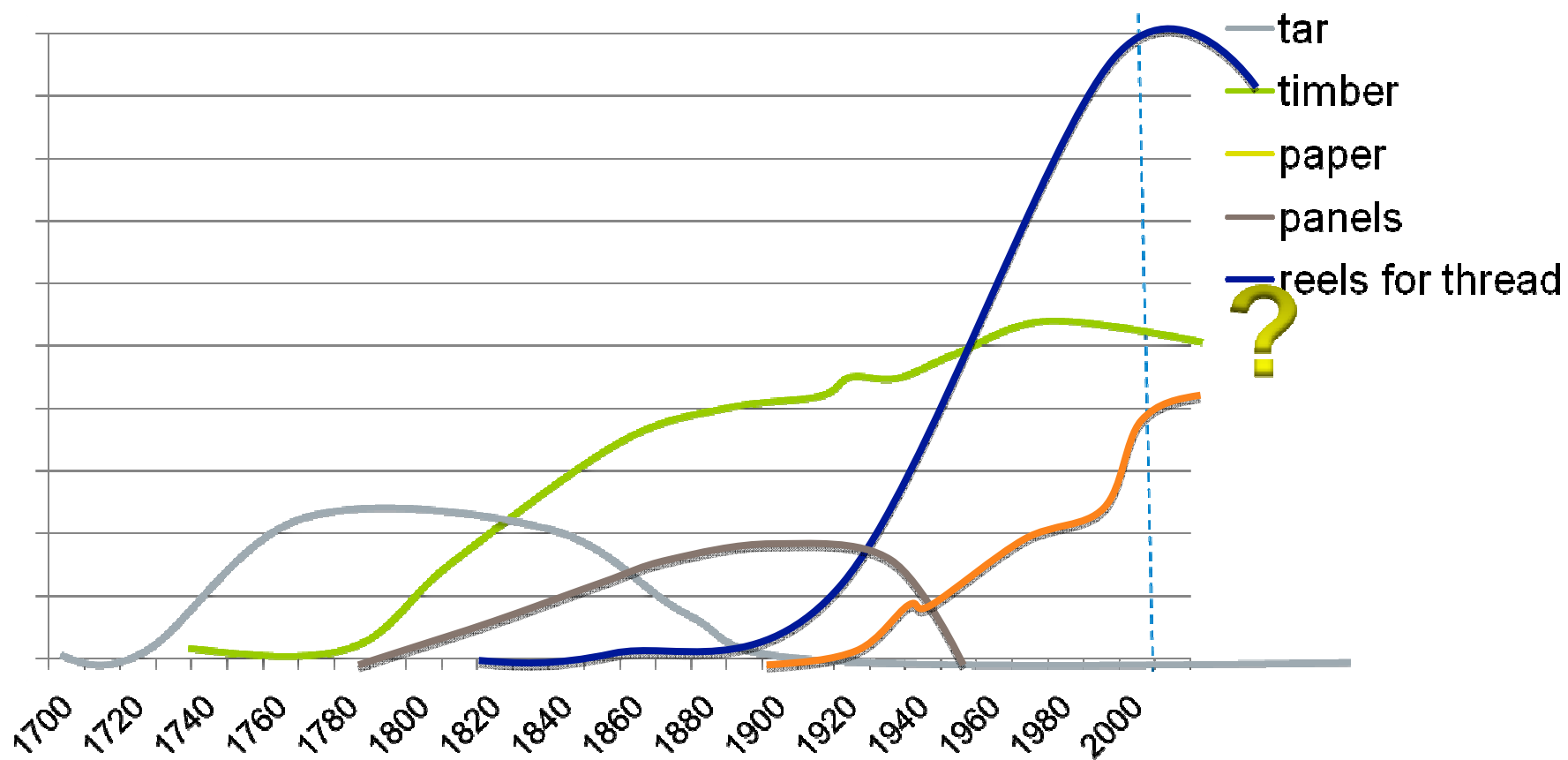


In the structural change old innovations and products gives way for something new

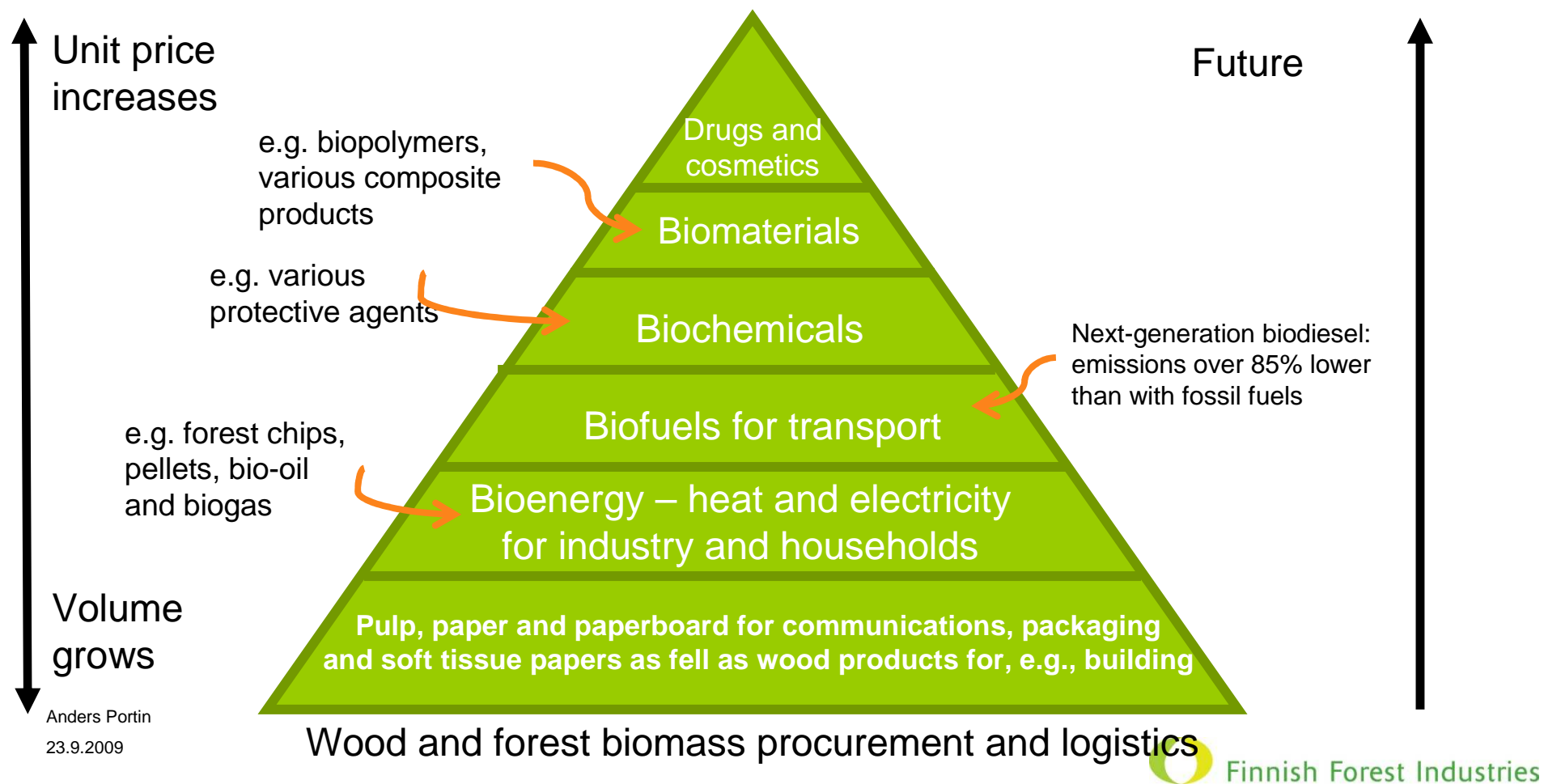


- The structural change is global: new technologies, raw-materials and markets challenges the old and traditional forest industry
- The European forest industry has still advantages: well managed forests, high knowledge and good infrastructure and a stable society
- A good basis for new success stories

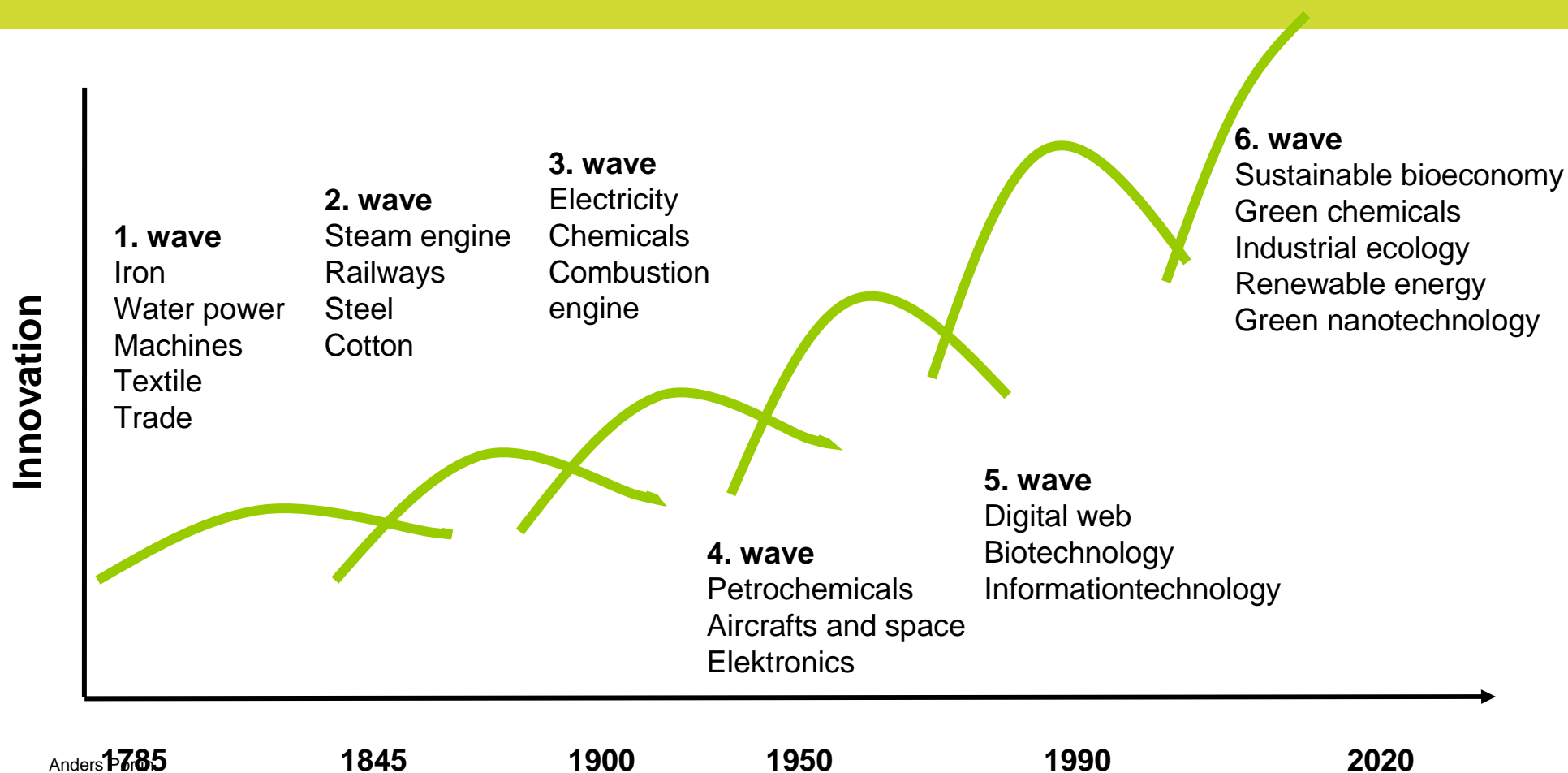
Life cycles of some Finnish forest industry products



The forest industry's new, bio-based business activities will be built on products with substantial markets



The sixth industrial revolution is biobased



Anders P.
23.9.2009

Forest industry has the basics for long term sustainability

Renewable raw material

Recyclable products

Low CO₂ emissions

Products bind CO₂

Structures to source and
move biomass in big
scale

Bio-energy driver in
Europe

Can any other industry match these criteria?

Two circular lenses, one above the other, showing a forest landscape with yellow flowers in the foreground and a body of water in the background.

Forerunner in the bioeconomy



Finnish Forest Industries

www.forestindustries.fi