Future of the European Forest-Based Sector

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www.efi.int
Outline of the presentation

1. The future of the European forest-based sector: A Synthesis

2. How does it link with the SCAR foresight report implications?


http://www.efi.int/portal/virtual_library/publications/what_science_can_tell_us/6/
Background to the EU forest-based sector
EU and Global Forest-Based Sectors are Going Through Major Structural Changes in Coming Decades

- Maybe the biggest changes for a century!

1. Climate Change
2. Emerging economies and changing competitive advantages
3. Increasing role of fast growing forest plantations in subtropics
4. Digital technology and media development → many implications
5. New forest-based products (bioenergy, biomaterials, biorefineries, etc.)
6. Services - the big megatrend of the 21st Century
Current state of EU forest-based sector could be labelled as *Creative Destruction*

Destruction:
- Economic activities or sectors decline and vanish

Creation:
- New technologies, products and business models emerge

**Creative Destruction**

Joseph Schumpeter
“Destructive” processes include

- Declining demand for communication paper products, and stagnating demand for number of other forest products

- Very long economic slump in the EU since 2008 and its many impacts

- Move of some forest industry investments to fast-growing markets in Asia, or low-cost production regions like South America
World Paper & Paperboard Production 2000 & 2014

*European countries dropping out from the top 10*

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>2000  (mil. tons)</th>
<th>COUNTRY</th>
<th>2014  (mil. tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. USA</td>
<td>86</td>
<td>1. China</td>
<td>109 (+3 X)</td>
</tr>
<tr>
<td>2. China</td>
<td>35</td>
<td>2. USA</td>
<td>72</td>
</tr>
<tr>
<td>5. Germany</td>
<td>18</td>
<td>5. South Korea</td>
<td>13</td>
</tr>
<tr>
<td>6. Finland</td>
<td>14</td>
<td>6. Canada</td>
<td>11 (-half)</td>
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<tr>
<td>7. Sweden</td>
<td>11</td>
<td>7. Sweden</td>
<td>10</td>
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<tr>
<td>8. France</td>
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<td>8. Finland</td>
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<td>9. South Korea</td>
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<td>9. Brazil</td>
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<td>10. Italy</td>
<td>9</td>
<td>10. India</td>
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Data: FAO
But, destructive drivers are enforcing the European forest-based sector to renew and be creative
New forest based bioproducts: Some examples

**Increasing demand in textile markets to replace e.g. cotton and polyester**

**Increasing demand in transportation sector**

**Increasing demand for low CO$_2$, healthy and cost competitive construction material**

*Forest biomass*

*Viscose fibre*

*Biofuels*

*Construction materials*
Creative destruction enforces and enables a change

Enforcing drivers
- mature markets for current products
- changing competitive advantages
  - long lasting economic slump

Enabling drivers
- climate and energy policies
- technological advances, new products, resource efficiency
  - forest resource base and potential
  - services & digitalisation megatrends

20th Century
TRAD. FOREST SECTOR

21st Century
BIO-ECONOMY
How do this *(EFI WSCTU report)* link with the SCAR foresight report reflections (Chp. 4)?
Role of policies and governance, and monitoring bioeconomy sustainability

- Technology and markets are necessary, but not sufficient → need also governance & policies. Yes!

- Monitoring and indicators for bioeconomy sustainability. The official statistics is lacking behind the actual bioeconomy development

- Do not repeat the problems experienced with bioenergy development in 2000-2010
From silos to diversity and cross-sectorial

➢ Diversity. 20th Century FBS was dominated by pulp and paper and wood products [21st Century FBS key word is diversity, many products

➢ This has impact also to policy coordination (see next slide)
Coordination of policies essential to reduce uncertainty and increase investments

Net effects hard to quantify

Policies impact more than ever

How lasting and consistent?

Many policies and cross linkages

Renewable energy policy

Industrial policy

Climate policy

Rural policy

Biodiversity policy
But, one size does not fit all!

- Regional differences in Member States. This is very true also for the EU FBS.

- Cascading principle is one good example where this is true (e.g. Netherlands vs. Sweden).

- Need the EU level coordination, but flexibility at MS level
Cross-border research coordination, new incentives for science

- Radical change in education systems and scientific incentives

- How to provide new incentives for scientists to engage in science-based policy support and stakeholder cooperation? You can do this, if you want.
One important issue not very much addressed in SCAR exercise: **Services**

- The great megatrend of 21\(^{st}\) Century is the marriage between digitalisation and services

- We need research and data what this means for bioeconomy development, e.g. to value added, comparative advantages in different regions, and employment
In order to enhance bioeconomy development in the EU FBS, structural changes needed in many fronts

Changes are necessary, but complex…
“For every complex problem there is an answer that is
- clear
- simple,
- and wrong”

This quote from Henry Mencken, an 20th Century American journalist, is also fitting when we think of bioeconomy development
Thank you!

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