Two Teams Break Through
The roadmap
Launched 11/2011
-80% carbon – How?

The exploration shows that a reduction of 50 to 60% of CO$_2$ emissions is possible given the right circumstances. To achieve a minus 80% reduction, however, the sector will need breakthrough technologies.
In our technology assessment, the CO₂ reduction pathway to 2050 depends on **breakthrough technologies**.

This is two investment cycles, or a maximum of two paper machines or boilers away. Breakthrough technologies have to become **available by 2030** to be on time for 2050.
Integration!

A system of integrated recycled and integrated virgin mills, balanced by non integrated mills. The final step – industrial symbiosis.
The core strategy on the path to 2050 is to get the highest possible value from resources – wood, virgin and recycled wood fibres, and non-fibrous raw materials.
The 2050 Roadmap

1. To shape EU policies.
2. To profile as an innovative, technologically advanced and value adding sector.
3. To enable and support the industry transformation
# A Cuckoo strategy for EU innovation funding

<table>
<thead>
<tr>
<th>The egg</th>
<th>The nest</th>
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<tbody>
<tr>
<td>Paper making without (fresh) water</td>
<td>Innovation Partnership on water efficiency</td>
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<td>The recycling mill of the future</td>
<td>Raw material Innovation Partnership</td>
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<td>Raw materials availability</td>
<td>Sustainable agriculture Innovation Partnership</td>
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<td>New products/biorefinery</td>
<td>Bioeconomy Public-Private Partnership</td>
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<tr>
<td>Breakthrough technology demo plant</td>
<td>Two Team Project ETS auctioning revenues/SILC2</td>
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The goal

- The Two Team Project brings key concepts for breakthroughs on which the sector agrees, which are the basis for possible next steps.

- It is a process and a project.
Why two teams

• Competition, Challenge and Fun
• Out of the box – into the future
• Innovative method for an innovative result
• A project defining the future of our sector.
• A project one should be proud to have been a part of.
• Winning “Eternal fame”, awarded by the sector.
Timeline

TWO TEAM PROJECT TIMELINE

- Launch at EPW 2012
- Atollum Brussels
- Leasing/Salzburg Austria
- Velser-Noord Netherlands
- Madrid Spain
- Helsinki Finland
- Ludwigsfelde in Rhein Germany
- Brussels CEPI-Office
- EPW 2013

14.11.2012
- Intro
- 1st meet
- 1st IPR
- Webplatform

- NDA signed
- Hotspots (where to breakthrough)
- 1st concepts
- Library
- Free seats

28/29.01.2013
- Thorough discussion of breakthrough concepts
- Collection of concepts/ideas
- Library built + judge
- "Fishing net"

25/26.02.2013
- Long list of generic concepts
- Final list of ideas
- Final report

20/21.03.2013
- Decide/choose generic concepts
- Define summer homework
- Draft structure of final report

14/15.05.2013
- Draft report to be:
- Discussed
- Finalised
- Agreed

19/20.06.2013

12.09.2013

27.11.2013
CEPI Annual meeting

IDEAS/CONCEPTS

+/- CONCEPTS

SELECT +
Launched
## Two Teams

<table>
<thead>
<tr>
<th>Team 1</th>
<th>Team 2</th>
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<tbody>
<tr>
<td>Frits Beurskens (Team Sponsor)</td>
<td>Veit Sorger (Team Sponsor)</td>
</tr>
<tr>
<td>Heiner Grussenmeyer (Stora Enso)</td>
<td>Jerome Grassin (CTP)</td>
</tr>
<tr>
<td>Sven Wird (Holmen)</td>
<td>Miguel Pelayo Guillen (SAICA)</td>
</tr>
<tr>
<td>Math Jennekens (SAPPI)</td>
<td>Pietro Alasia (Burgo)</td>
</tr>
<tr>
<td>Ronald Bredemo (SKG)</td>
<td>Thorsten Becherer (SCA)</td>
</tr>
<tr>
<td>Guido Purper (Voith)</td>
<td>Jouko Yli-Kauppila (Metso)</td>
</tr>
<tr>
<td>Ekhard Beuleke (Omya)</td>
<td>Uwe Wittendorfer (Siemens)</td>
</tr>
<tr>
<td>Robert Miller (Buckman)</td>
<td>Frank Höfer (BASF)</td>
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<tr>
<td>Kent I Jansson (ABB)</td>
<td>Benny Hallam (Imerys)</td>
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<tr>
<td>Harald Grossmann (TU Dresden)</td>
<td>Tapani Vuorinen (Aalto University)</td>
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<tr>
<td>Francois Julien Saint Amand (CTP)</td>
<td>Kennert Johansson (Innventia)</td>
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<tr>
<td>Janne Poranen (VTT)</td>
<td>Johannes Kappen (PTS)</td>
</tr>
<tr>
<td>Petri Vasara (Pöyry)</td>
<td>Ernst Worrell (Utrecht University)</td>
</tr>
<tr>
<td>Free seat 1</td>
<td>Free seat 1</td>
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<tr>
<td>Free seat 2</td>
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<tr>
<td>Marco Mensink (CEPI)</td>
<td>Bernard de Galembert (CEPI)</td>
</tr>
<tr>
<td>Ingrid Vantorre (CEPI)</td>
<td>Oliver Hahlbohm (CEPI)</td>
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Team Engines

Oliver Hahlbohm

Ingrid Vantorre
Enter your idea
1. Collection of ideas “the background”

2. The creative process: each team Developing “foreground”

3. Two Team Project result - Two reports with concepts

Input of ideas, IPR set, ideas marked

New ideas

Emerging, Long payback

Literature

Idea library

Short description and owners

The engine
Become a fan!

www.unfoldthefuture.eu
Rolling out the Roadmap