

# The industry transformation by 2050: Sensing the future

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# Outline

- 2050 – Our industry has a vision and a time horizon
- Industry transformation is gaining pace
- More technology step-changes are on the horizon
- A more stable EU policy framework is being set for the next decade
- Advancing a circular bio-economy agenda will be key for the future

# the forest fibre and paper industry in 2050

## roadmap *to a low-carbon bioeconomy*

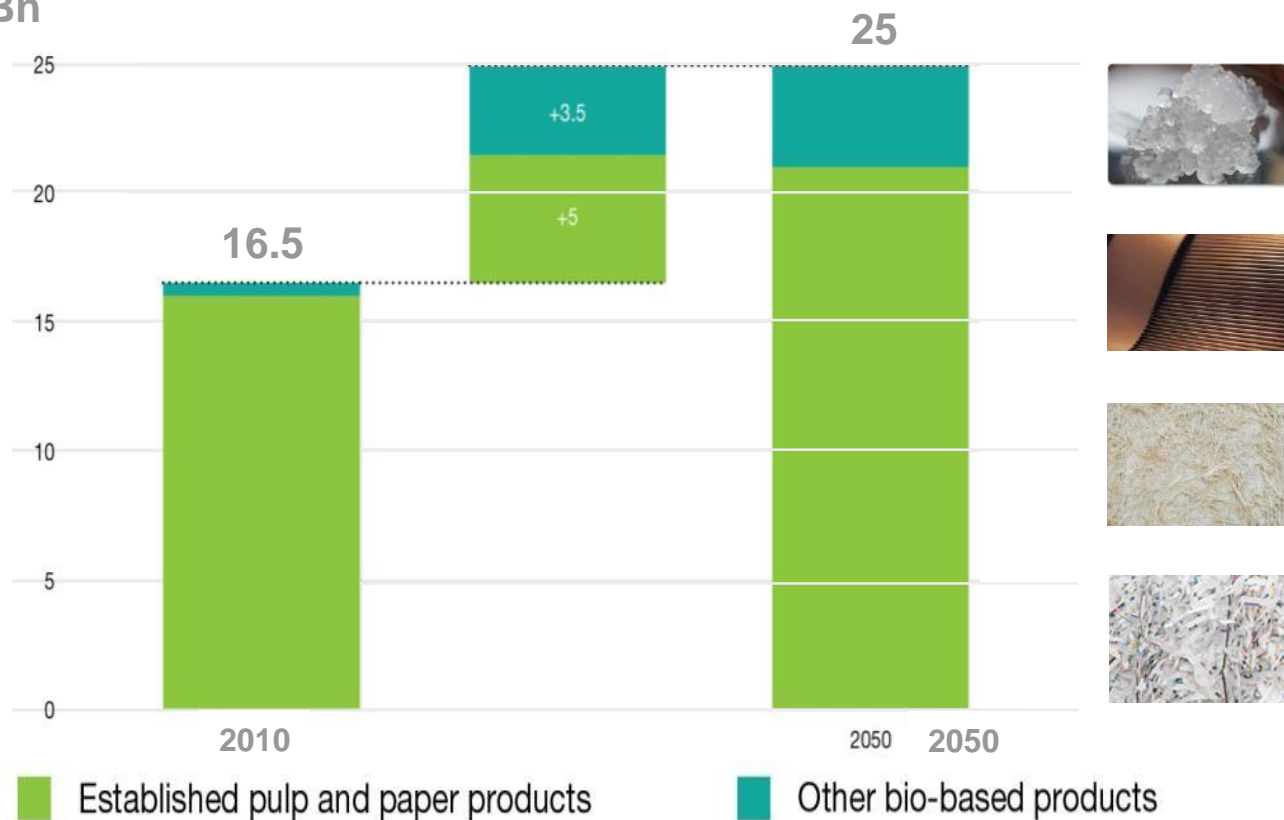
**+50% added-value**  
**-80% carbon emissions**



# Delivering 50% more added-value?

Annual added-value 2010-2050 in the EU forest-fibre and paper industry

€ Bn



Source: ICF/RISI/CEPI 2016

# Value creation will come from...



Material innovation



Design innovation

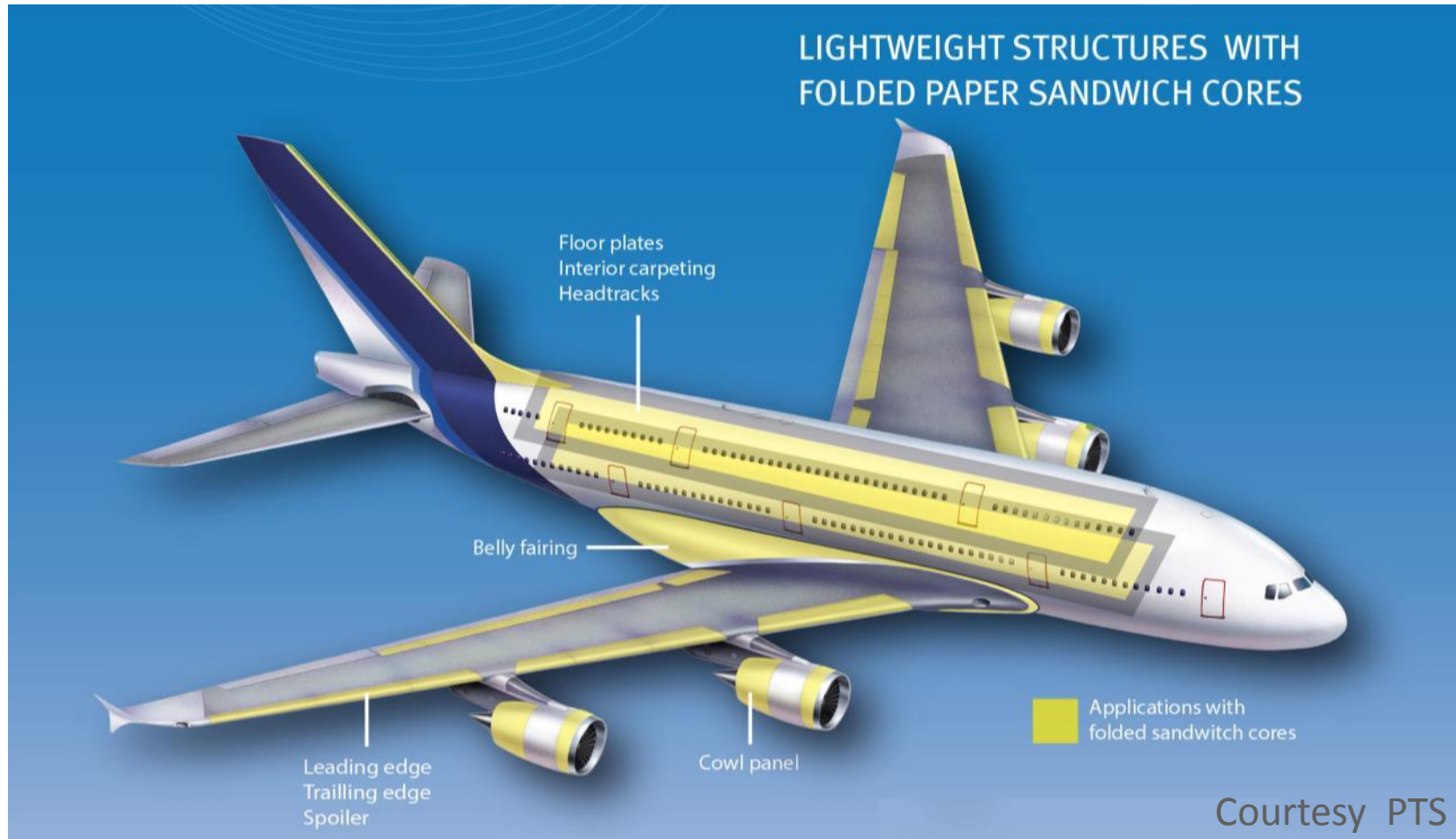


Delivery innovation

# Corrugated board?



# Aircraft paper honeycomb structures



# Novel light bulbs?



Courtesy CTP



# Soda and beers bottles

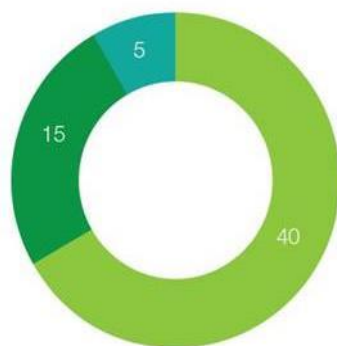


Courtesy CTP

# Decarbonising by 80%?

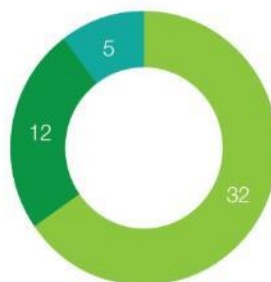
**1990**

60 million tonnes CO<sub>2</sub>



**2015**

49 million tonnes CO<sub>2</sub>



**2050**

12 million tonnes CO<sub>2</sub>

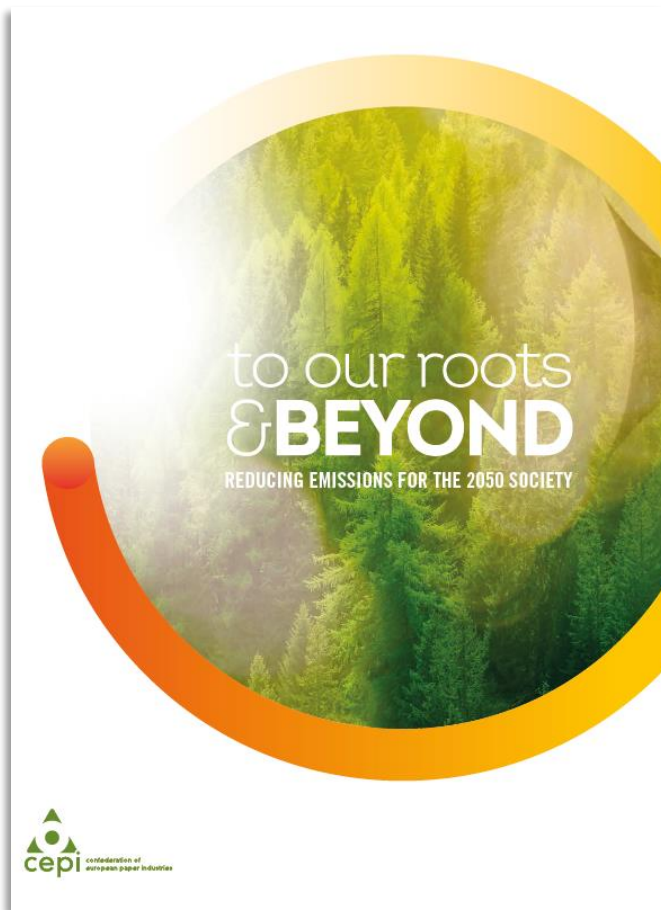


EU forest-fibre and paper industry greenhouse gases emissions in Mt CO<sub>2</sub>e

■ Direct emissions    ■ Purchased electricity    ■ Transport

Source Gaia 2016

# Industry's transformation is gaining pace



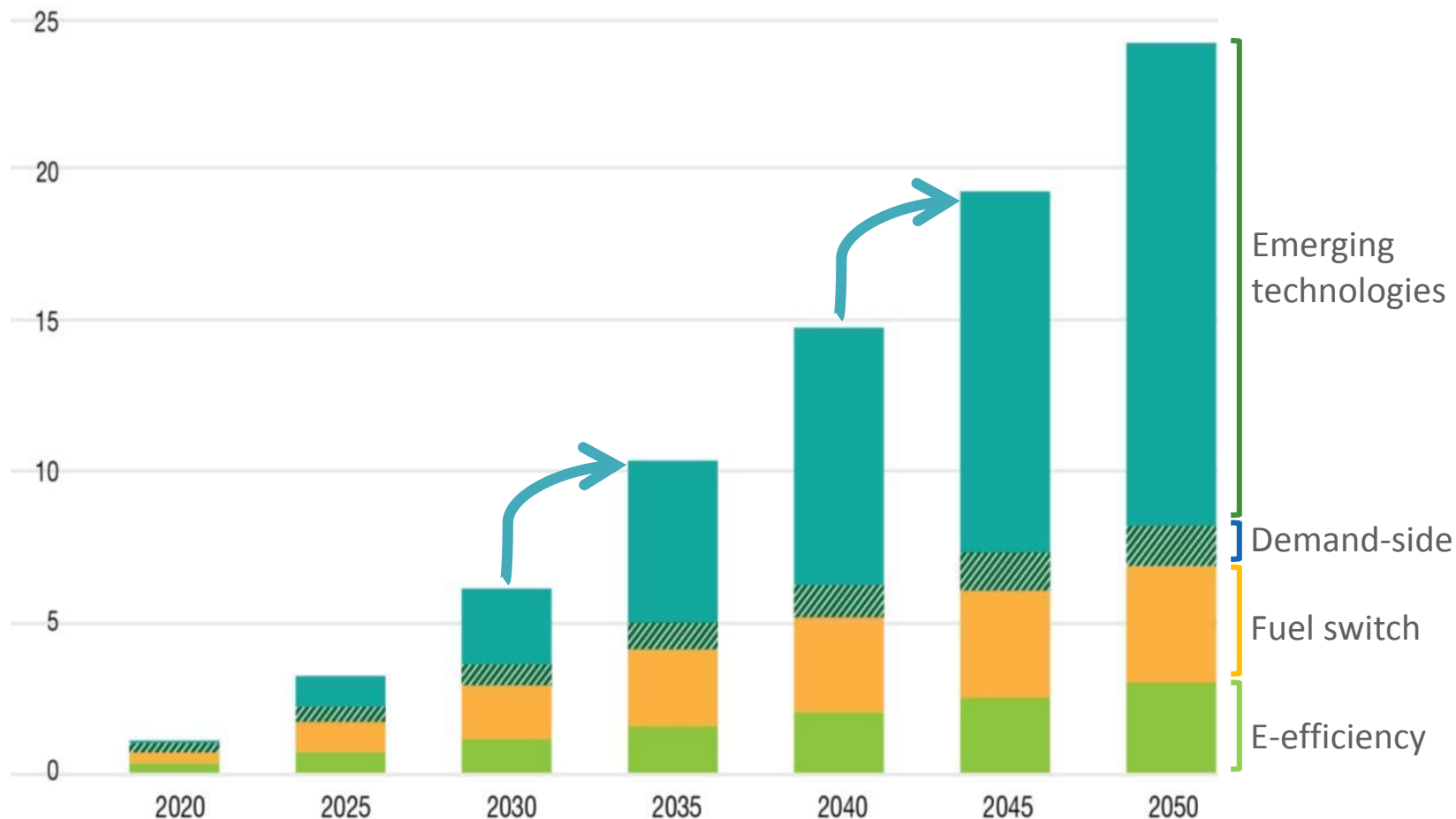
Energy efficiency, renewable integration, climate change: 14 projects from 12 companies in 10 EU countries



*Trends of production (t), energy consumption (TJ) and CO<sub>2</sub> emissions (per TJ) of the European paper Industry (2005-2015)*

# We are two machines away from 2050

EU forest-fibre & paper industries cumulative investments for decarbonisation in €Bn



Source: Gaia 2016

# DES technology is now ready for pilot



Lower heat and energy  
Reduced CAPEX



Natural solvents based  
High purity side products



<http://www.providespaper.eu>

# A policy frame for the next 10 years

## EU regulatory frame

## CEPI's position



wood

LULUCF - forest accounting  
Renewable energy directive

- ✓ Secure biomass carbon neutrality
- ✓ Prevent a cap to harvest levels  
→ RE distortion / wood markets?



recycling

Circular economy package  
Packaging waste directive

- ✓ Increase collection for recycling
- ✓ Drive quality standards for PfR  
→ Paper mills as final recycler?



energy & climate

Emissions trading Scheme  
Energy market and  
governance

- ✓ Secure level of carbon credits
- ✓ Allocate funds for new tech.  
→ Harmonised rules for indirect costs
- ✓ Support demand side flexibility

# ...what's next on the table

## EU challenges



bioeconomy



Mainstreaming bioeconomy  
Enhancing carbon benefits  
within a circular economy



R&D



Streamlining EU R&D funding,  
Adjusting budget to Brexit  
Focusing on clear deliverable



climate change



Revision of EU commitments  
under the Paris agreement...

## Our challenges

Everybody turns “bio” – how do we  
differentiate and get EU supporting  
markets growth?

Where should we focus R&D efforts?  
And how to make industry relevant  
for future R&D programmes?

Let's implement first the new ETS !  
How do we go beyond -80%  
emissions?

# Advancing a circular bioeconomy?

**renewable *and* recyclable**

75% certified sourcing

75% recycled

**renewed *and* recycled**



# SENSE THE FUTURE



## **European Paper Week**

28-30 November 2017  
Brussels, Belgium

[www.cepil.org/EPW](http://www.cepil.org/EPW)

# thank you

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