



EUROPEAN FOREST INSTITUTE

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A new role for EU forests and the forest sector in the climate targets beyond 2020

Eustafor 5 April, 2016, Brussels



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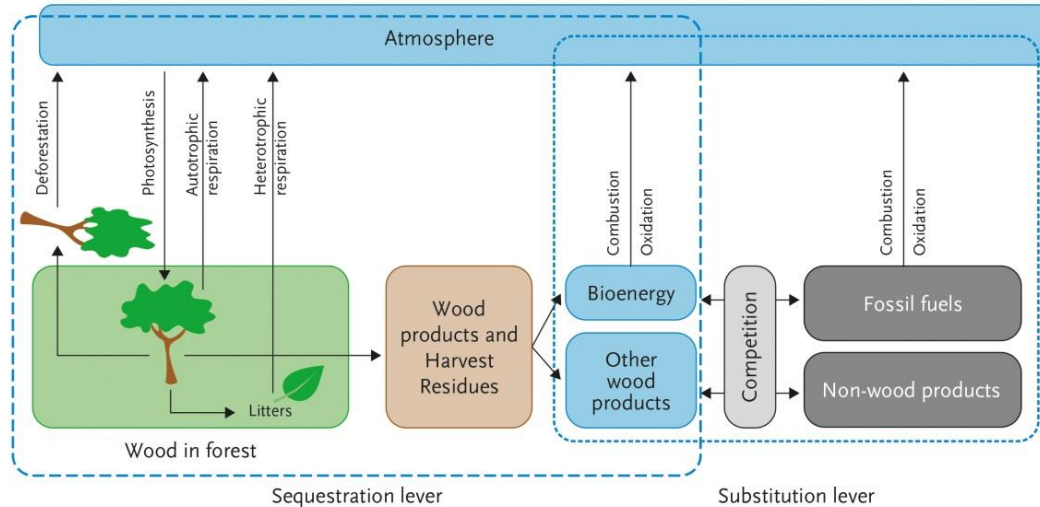


1599 map of arctic exploration by Willem Barentsz



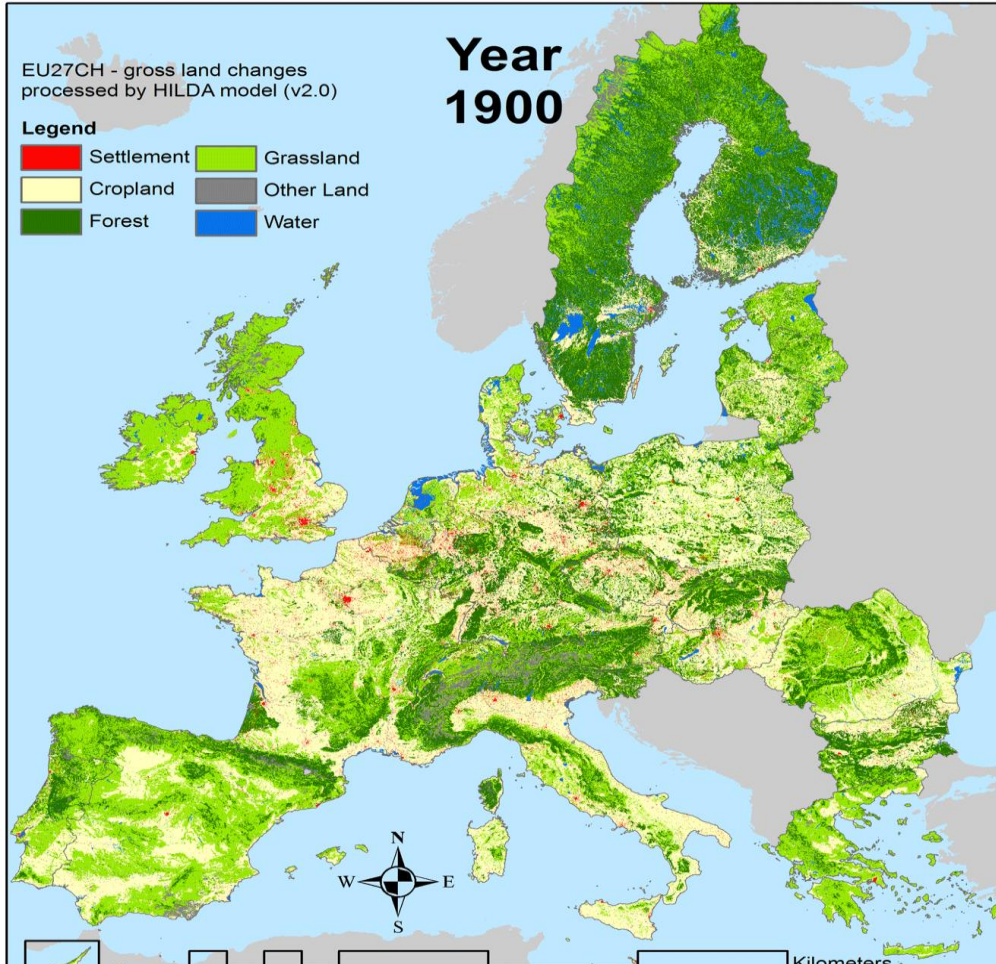
Current role of European forests

- Sink of 450 Mt CO₂, or **10%** of total EU emissions
- Harvested wood products: sink of 44 Mt CO₂
- Biomass for bioenergy producing 3% of total EU energy need
- Some signs of possible saturation





More forests than ever since early Medieval times

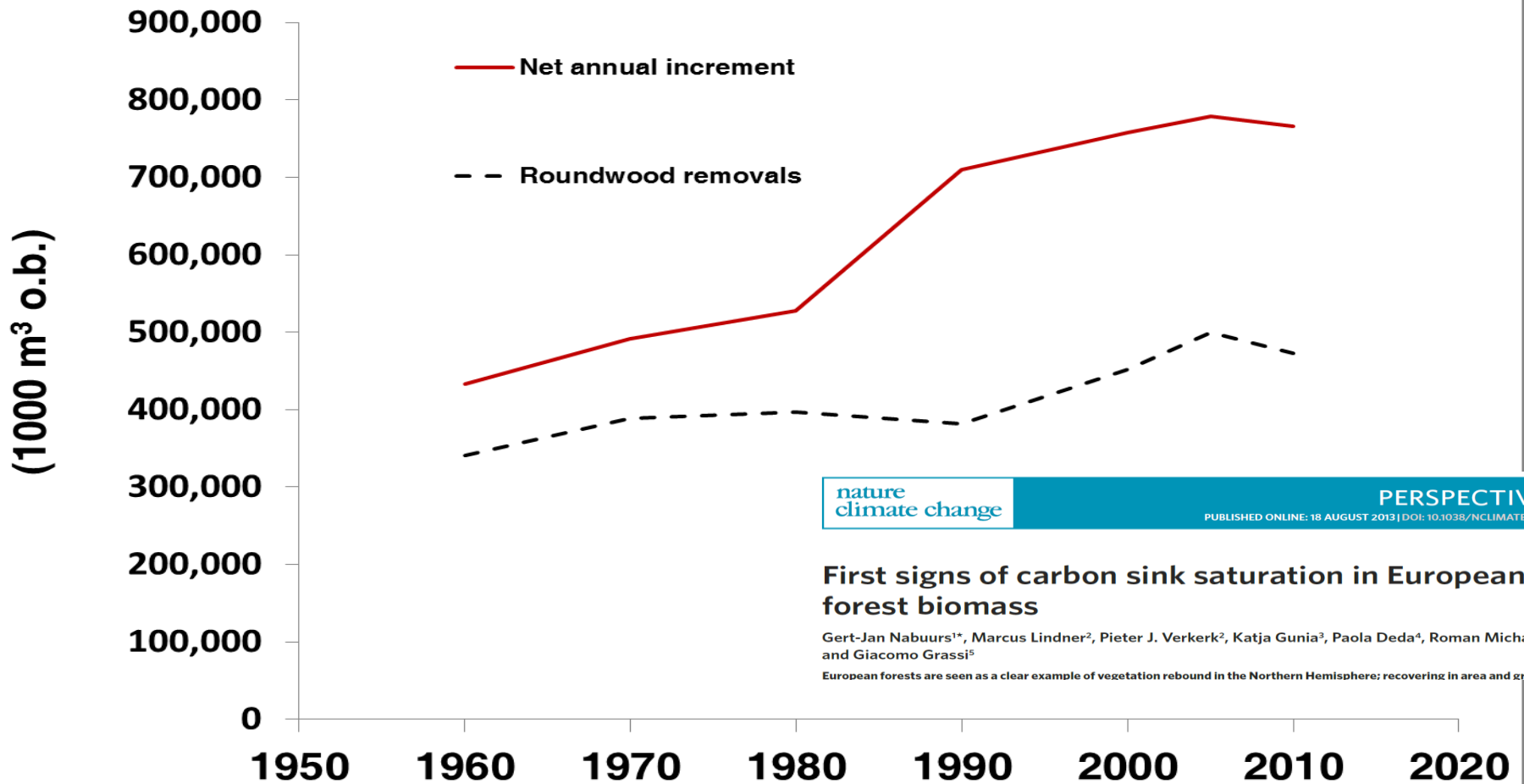


Land abandonment

Fuchs et al. 2014



Growth & harvest at European scale



nature
climate change

PERSPECTIVE

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First signs of carbon sink saturation in European forest biomass

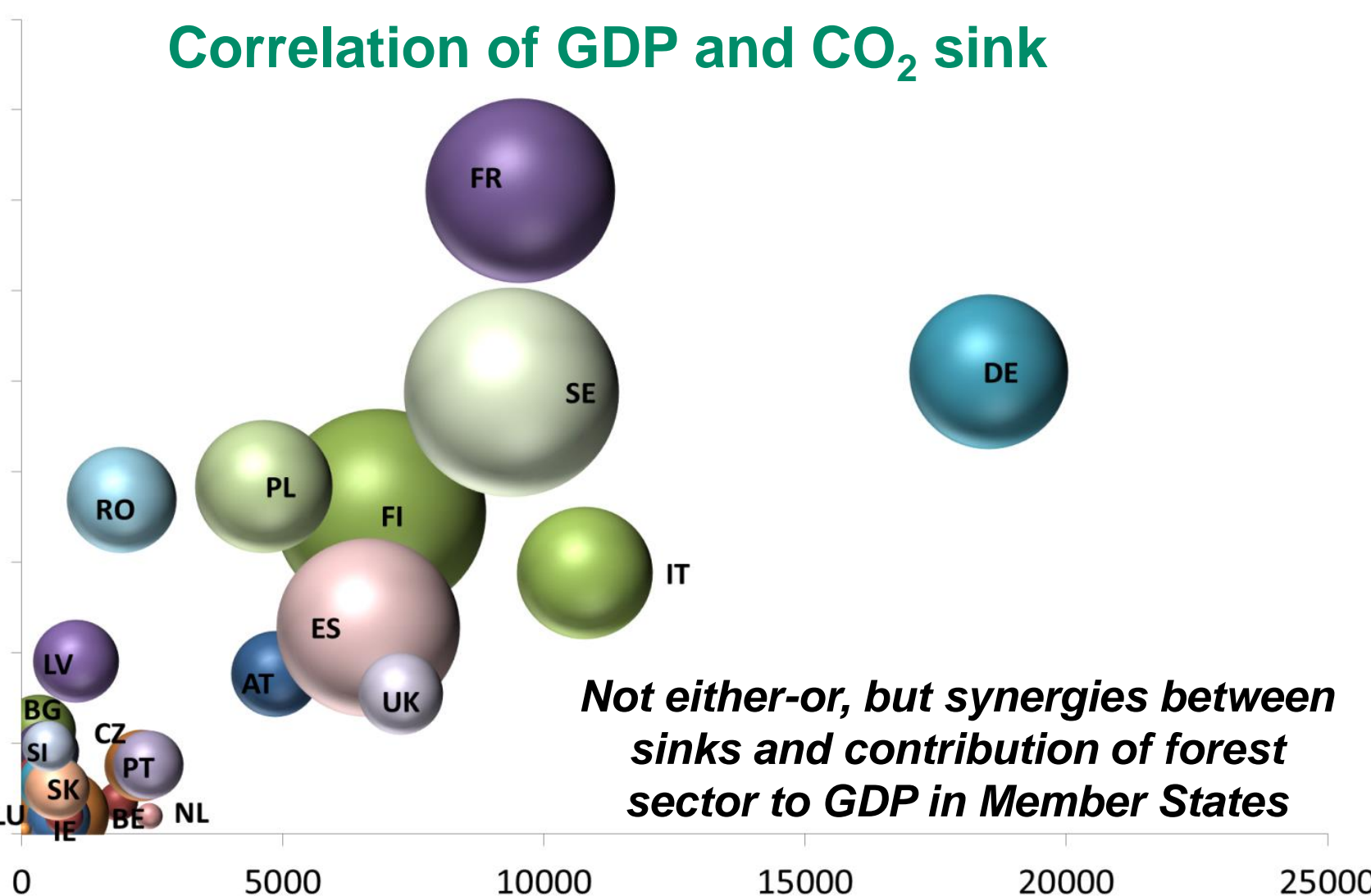
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European forests are seen as a clear example of vegetation rebound in the Northern Hemisphere; recovering in area and growing

Correlation of GDP and CO₂ sink

Biomass sink as reported to UNFCCC (2000-2006)

Mt CO₂/y



Not either-or, but synergies between sinks and contribution of forest sector to GDP in Member States

Contribution to GDP (M Euro/y)

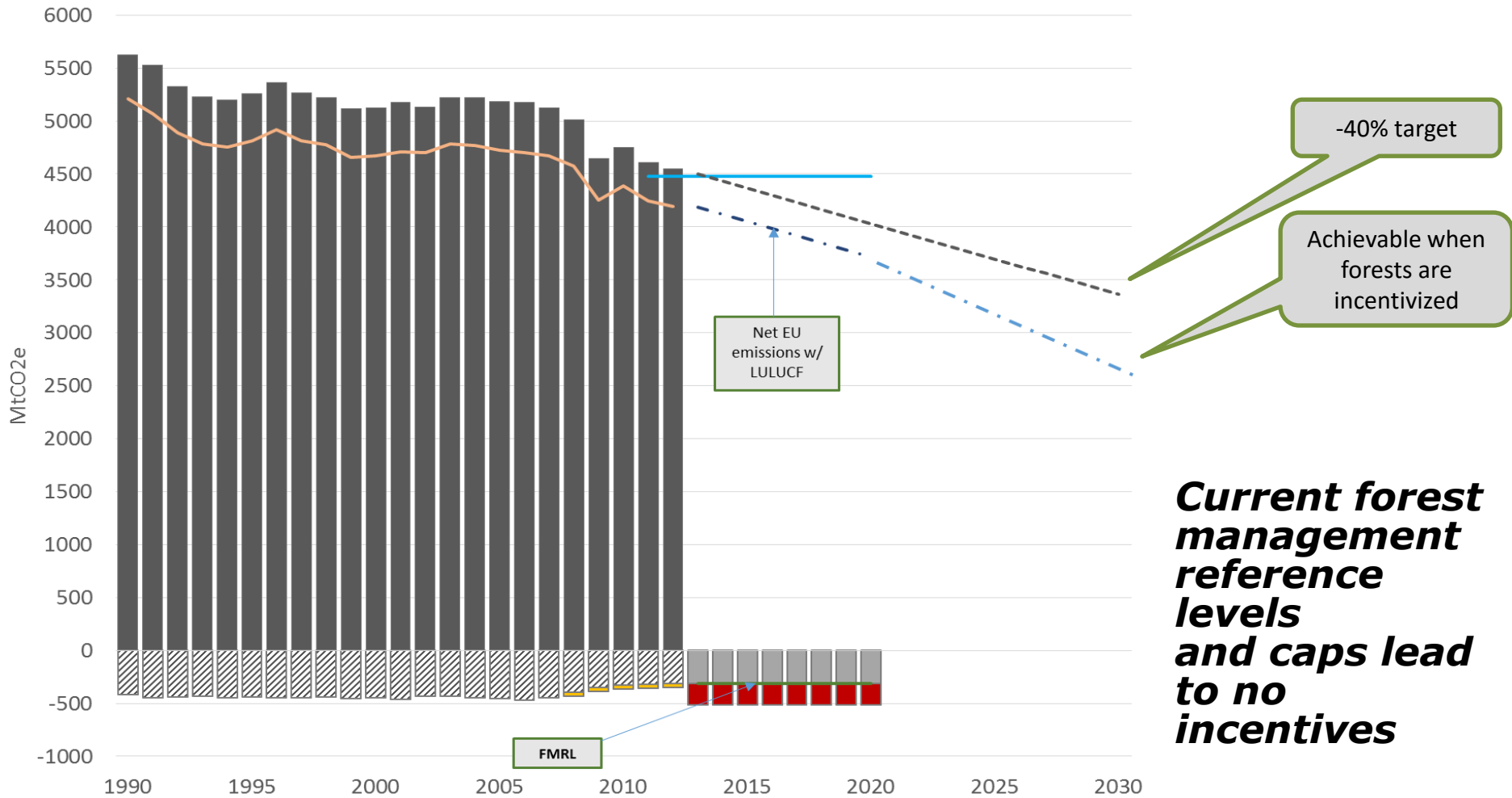


Why has nothing happened in the forest sector?

- Believed monitoring uncertain
- Perceived permanence risk
- Perceived that not much can be achieved
- Sink is already there and large. Taking up forest sink was perceived as just reducing targets

> Paris agreement provides opportunities: incentives need to be created

The challenge: how to take up forests?



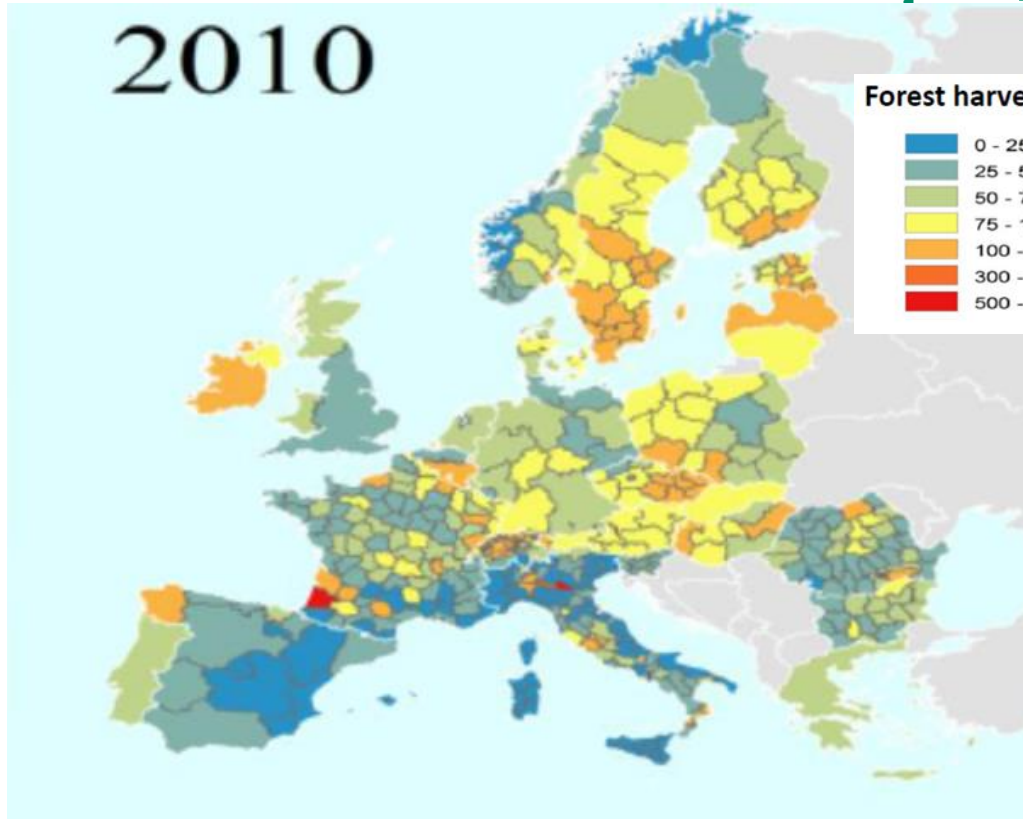
Where would that additional 9% mitigation potential come from?

Mitigation source / role	Measures needed	Estimated mitigation impact / year
Forests / <i>sink</i>	Forest management to increase carbon storage	170 Mt CO ₂
Abandoned farmland transferred to forest / <i>sink</i>	Afforestation of estimated 12–17 Mha of abandoned farmland	70 Mt CO ₂ (+ potential additional wood production of 100 Mm ³)
EU domestic woody biomass residues and low-quality thinning wood / <i>substitution</i>	Substitution of fossil based energy and materials	180 Mt CO ₂
Total potential additional mitigation impact		420 Mt CO₂



Variety amongst Member States offers opportunities

2010



Harvesting intensity as % of
increment (*Levers et al. 2014*)

EU has to decide now how to take up forests in its goals

Forests and forest sector can be taken up in overall target (phased-in), with own increasing role

Why?

- ✓ EU have rather stable sink, with a managed forest resource base
- ✓ New monitoring techniques available - incomparable to 1997
- ✓ Clear synergies; not an either-or!
- ✓ Policies, economic incentives and investments are needed to turn a saturating sink
- ✓ Synergies with bio-economy can be developed



No single sector can solve the whole problem, and no single sector can provide quick fixes

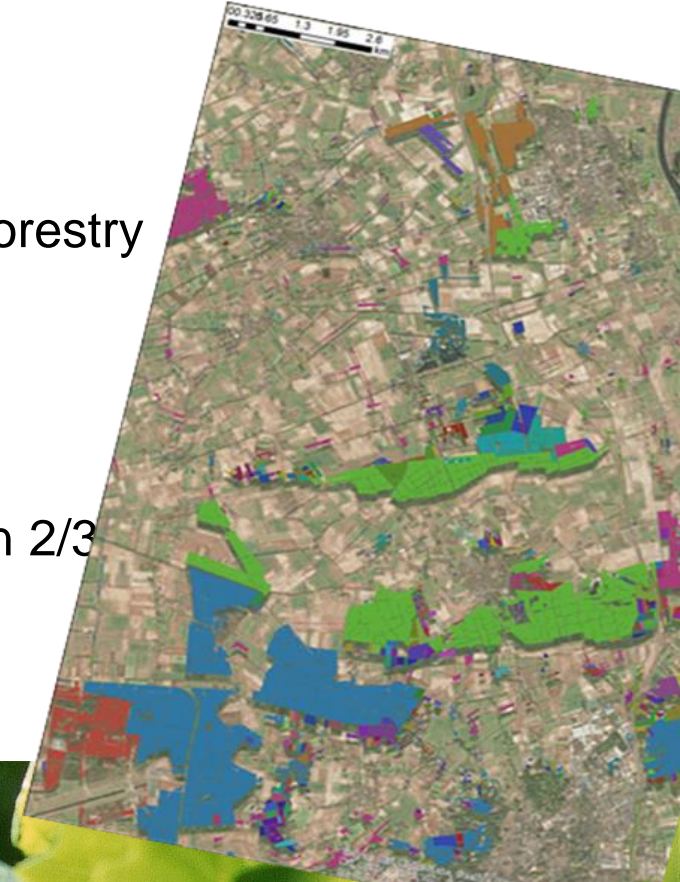
Climate smart forestry and forest sector takes into account local circumstances and creates win-win

Example of possible measures:

- ✓ Storm prone areas: bring down stock
- ✓ Drained peat areas: reduce drainage
- ✓ High stocked area: bring down stock and combine with innovation in products
- ✓ Remote areas: strict reserves
- ✓ Outgrown coppice: regenerate, stimulate local biomass innovation and plant adapted species

Role of State Forests

- ✓ Member states should update or create policies, economic programs and instruments. Locally specific measures can be stimulated in a **Climate Smart Forestry & Forest Sector**
- ✓ State Forests: closest to policy implementation
- ✓ Large areas: easy to diversify goals; climate smart forestry
- ✓ Initiator in a region
- ✓ Example function
- ✓ E.g. Netherlands: 30,000 owners, but 60 largest own 2/3 of total forest





There are no dragons....only opportunities!

Thank you!

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