THE SWEDISH WOOD AND BIOMASS MARKET

ROUNDWOOD MARKETS IN THE BALTIC SEA REGION – NOW AND TOMORROW

September 14, 2017

PÖYRY MANAGEMENT CONSULTING – FOREST AND BIOMASS

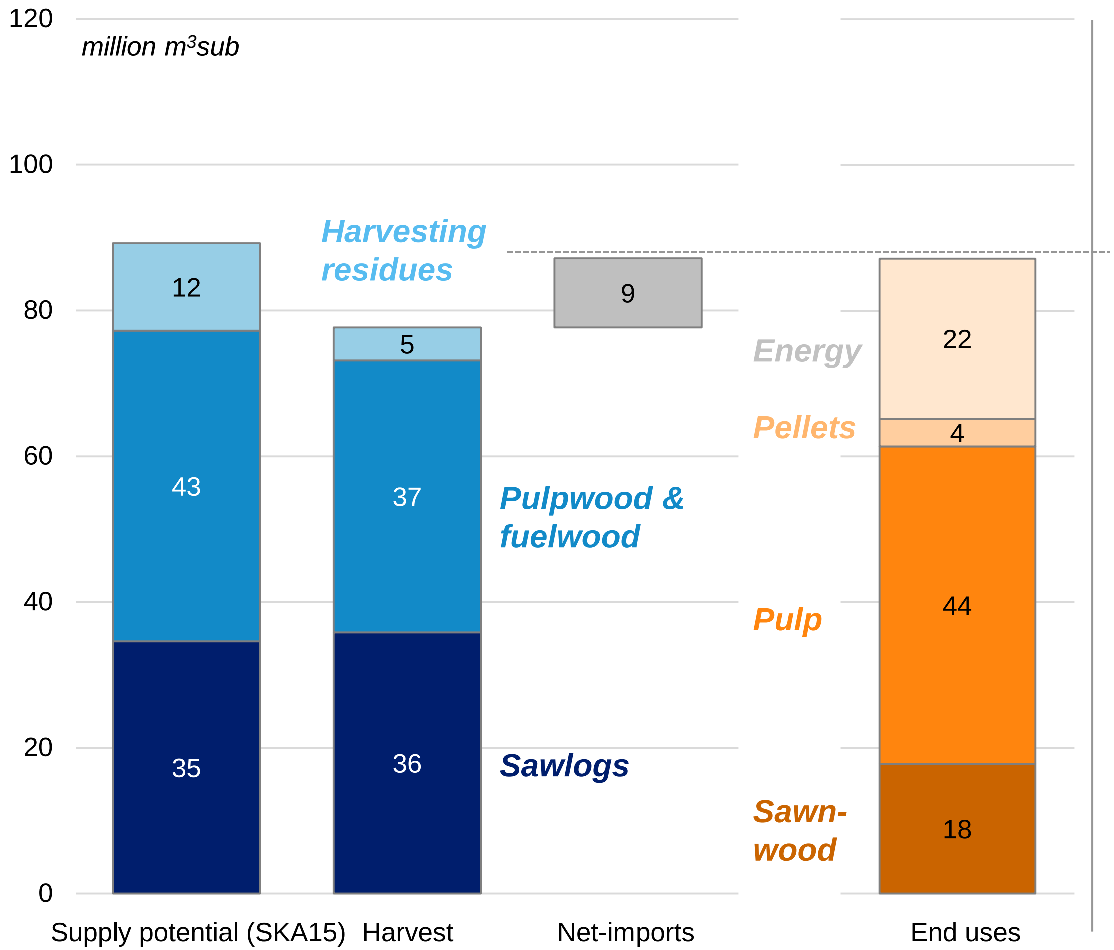
Pöyry Management Consulting has been working in the forest/biomass value chain for over 40 years and undertakes around 1000 consulting assignments per year throughout a global network

Forestry	Wood-based panels	Paper Products	Paper converting	Consumer and industrial business
Recovered Wood	Sawmilling	Hygiene	Wood processing	Publishers
Fibre	Pulp	Packaging	Logistics Providers	Outsource providers
Bio-energy	Machinery	Building Products	Printing	Financial clients
Waste & Recycling	Chemicals	Decorative Products	Distributors	

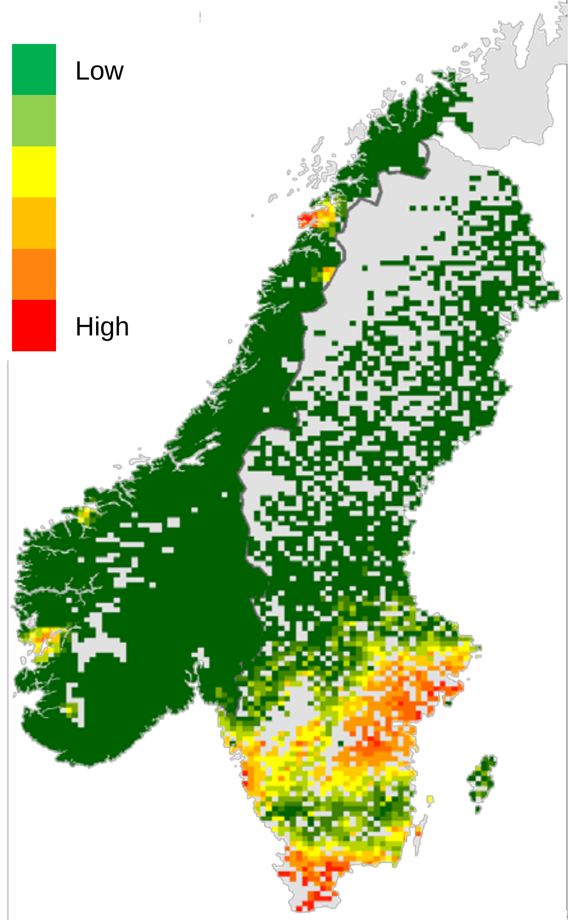
Clients include private and public companies/corporations, private equity, banking, government and institutions.

THERE IS LITTLE WOOD AND BIOMASS LEFT OUT THERE AND IT WILL BE CHALLENGING TO MEET INCREASES IN DEMAND

Supply and demand for wood and biomass in Sweden in 2016

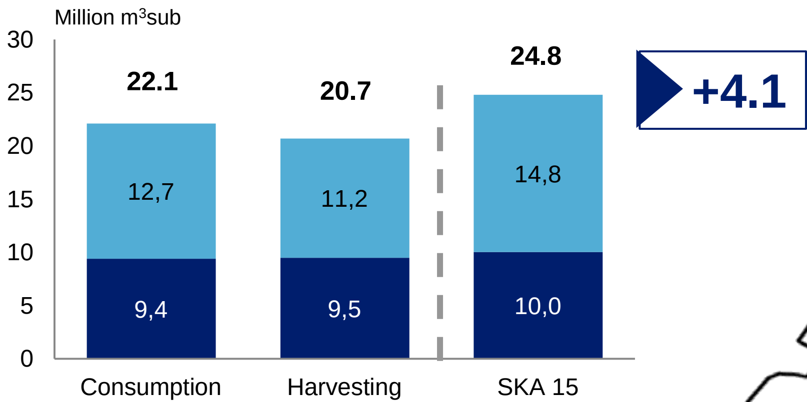


Price pressure – Harvesting residues

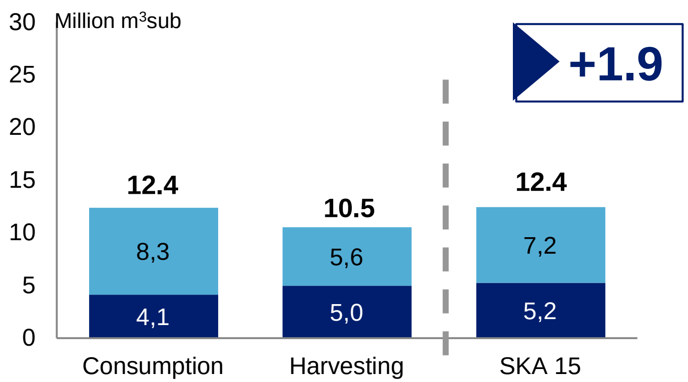


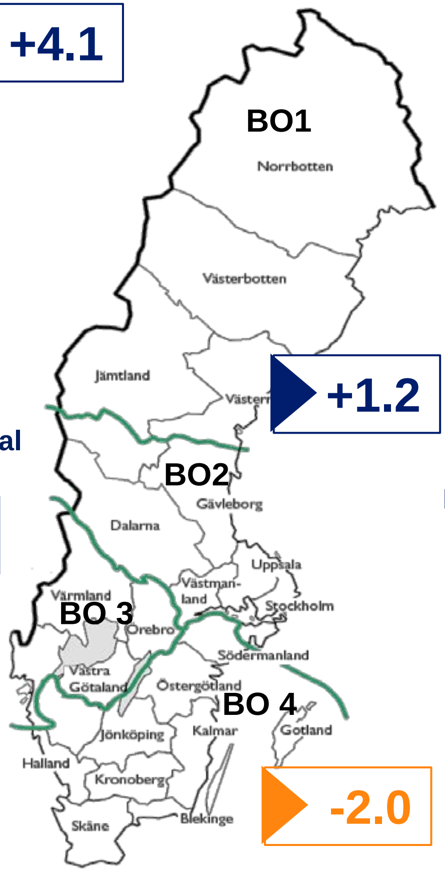
THERE ARE REGIONAL DIFFERENCES

Roundwood balance BO1 and harvesting potential

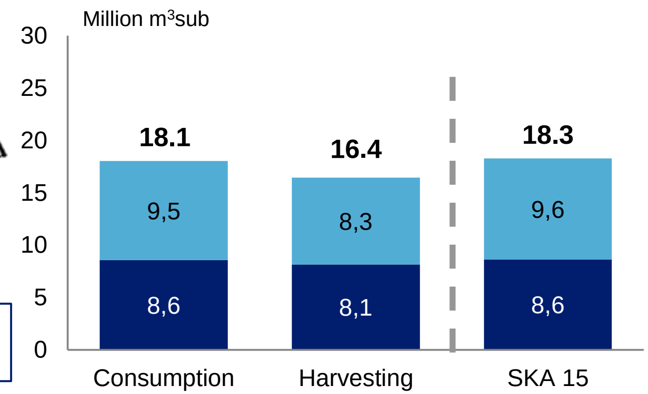


Roundwood balance BO3 and harvesting potential

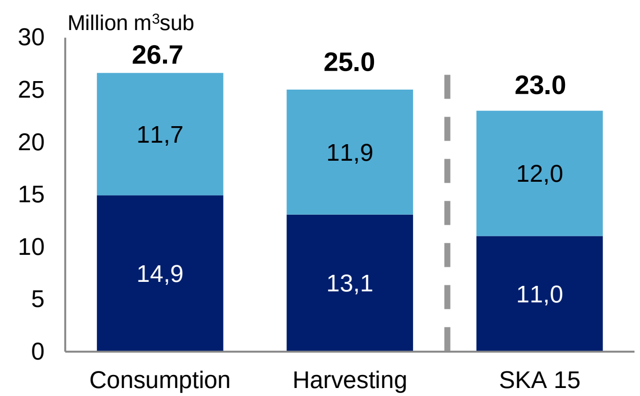




Roundwood balance BO2 and harvesting potential



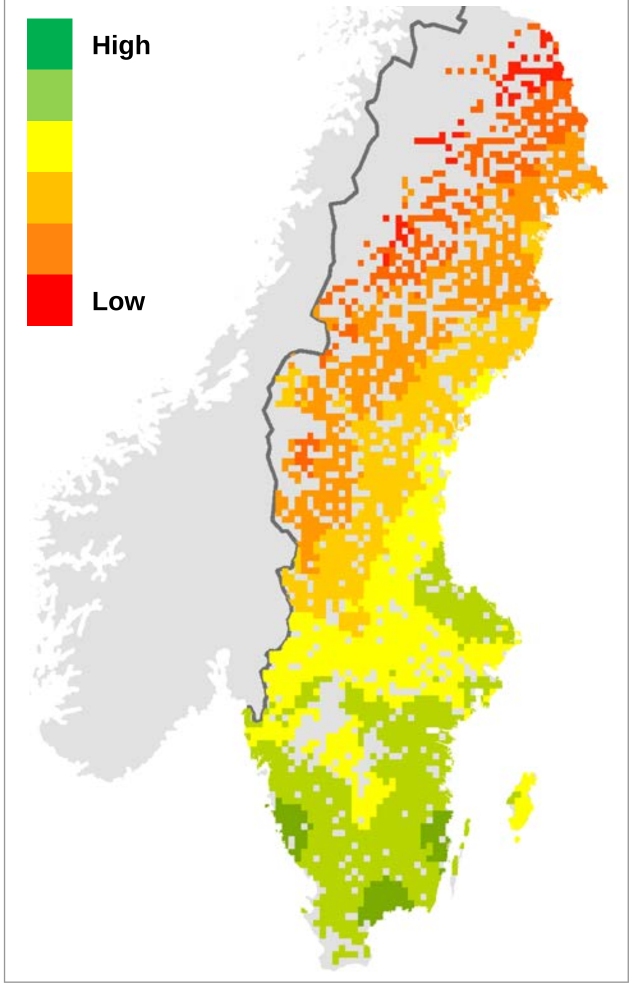
Roundwood balance BO4 and harvesting potential



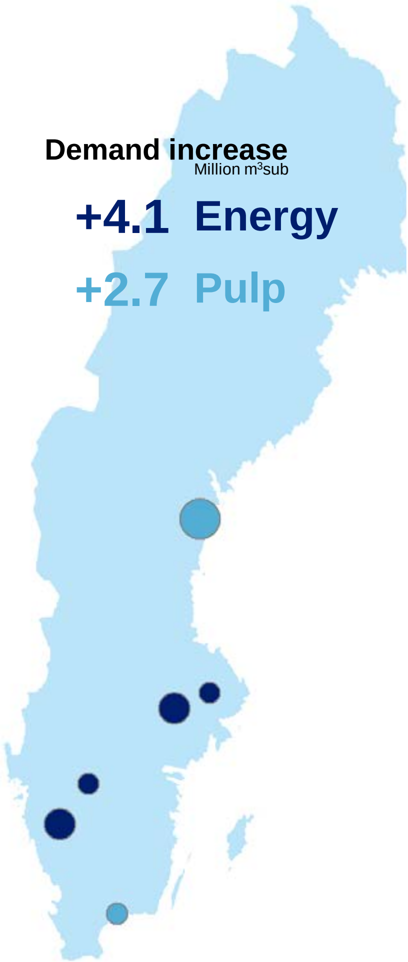
■ Logs ■ Pulpwood & other

…BUT THEY WILL DIMINISH AS DEMAND INCREASES

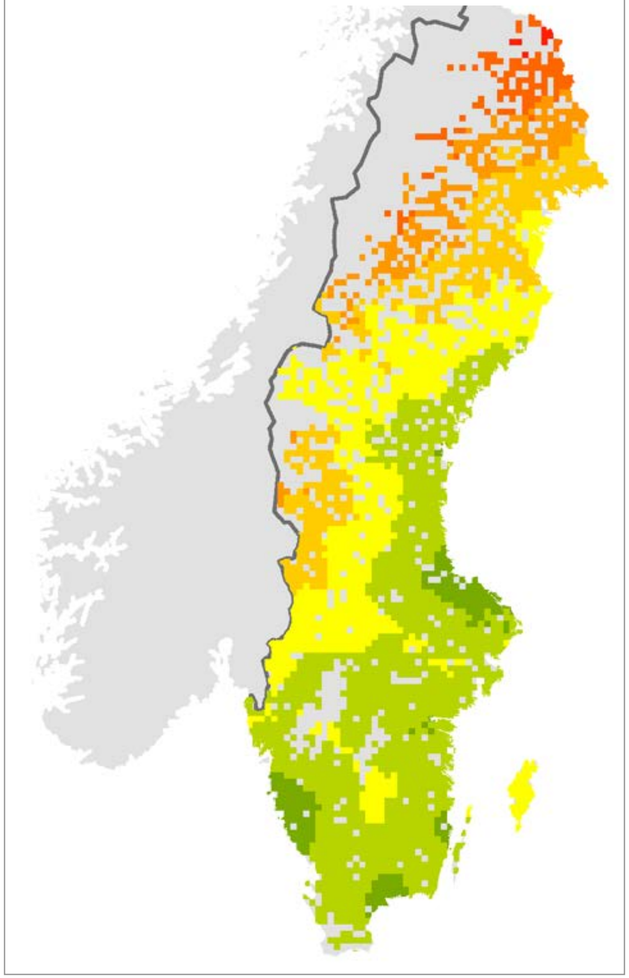
2016 - Softwood pulpwood price pressure



Coming investments



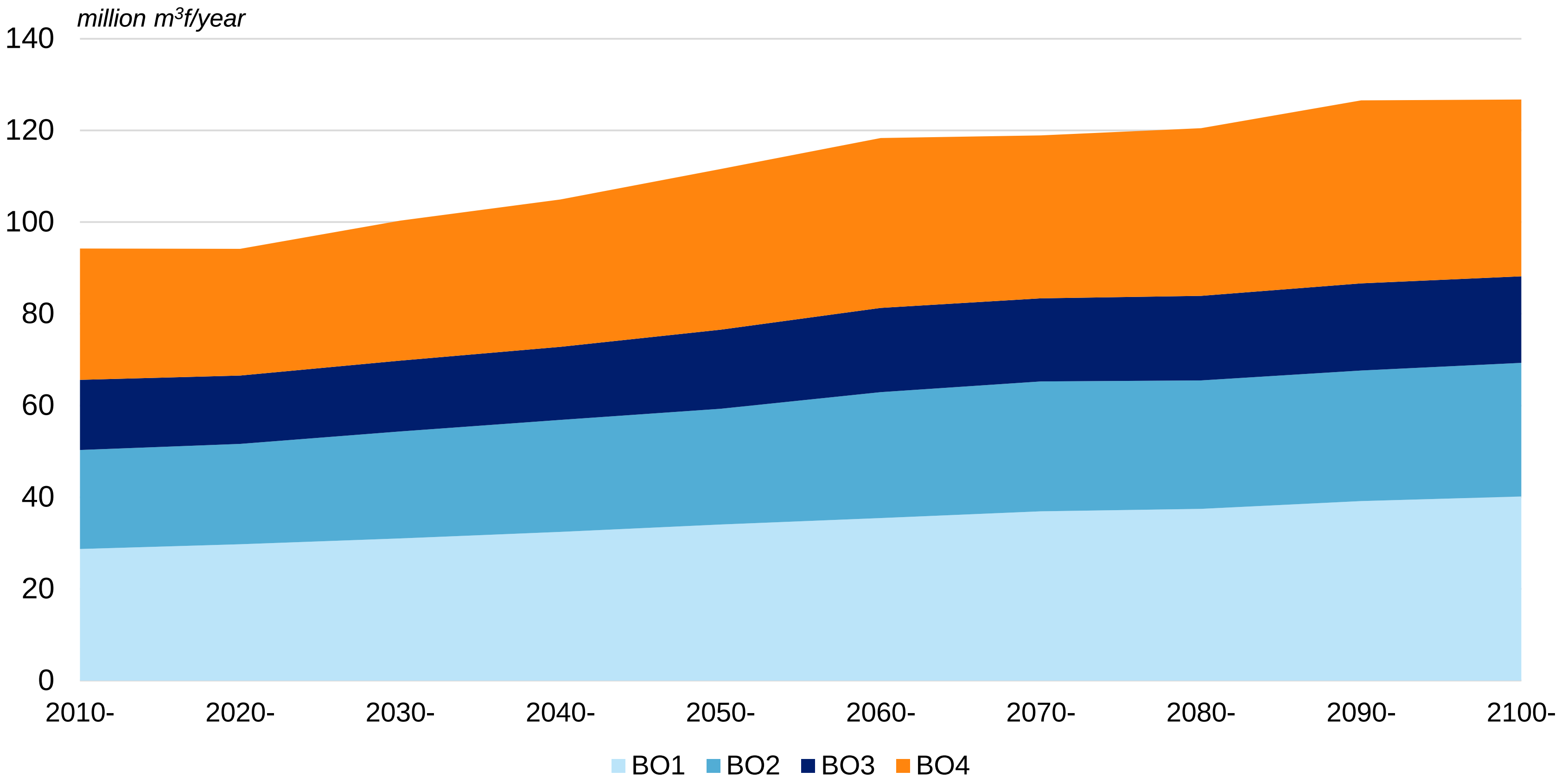
2025 - Softwood pulpwood price pressure



CAN'T WE INCREASE HARVESTING OVER TIME?

The annual sustainable supply potential from Swedish forests increases by 35% in the next 100 years, but only small increases are exptected in the next 10-20 years

Long term round wood supply potential from productive forest land in Sweden (SKA15)

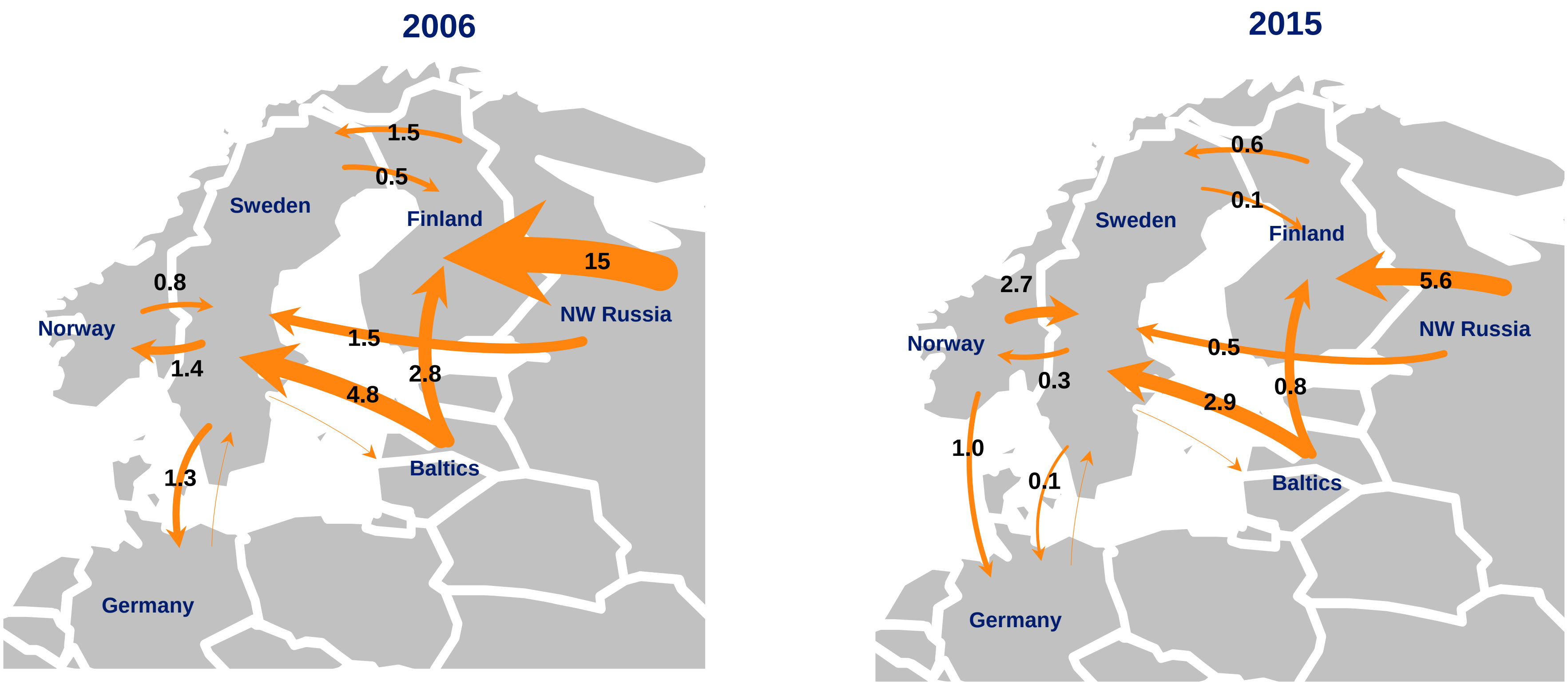


Källa: SKA15, Pöyry analys

OR INCREASE IMPORTS?

Trade development for roundwood in the Baltic Sea region , 2006 & 2015

Million m³sub



Source: SCB, Metla, Statistik Norge

BUT OTHERS ARE APPARENTLY THINKING ALONG THE SAME LINES…

Coming investments

Demand increase
Million m³sub

+18.1 Pulp
+10.4 Energy
+3.6 Biofuels
+1.2 Pellets

+33.3

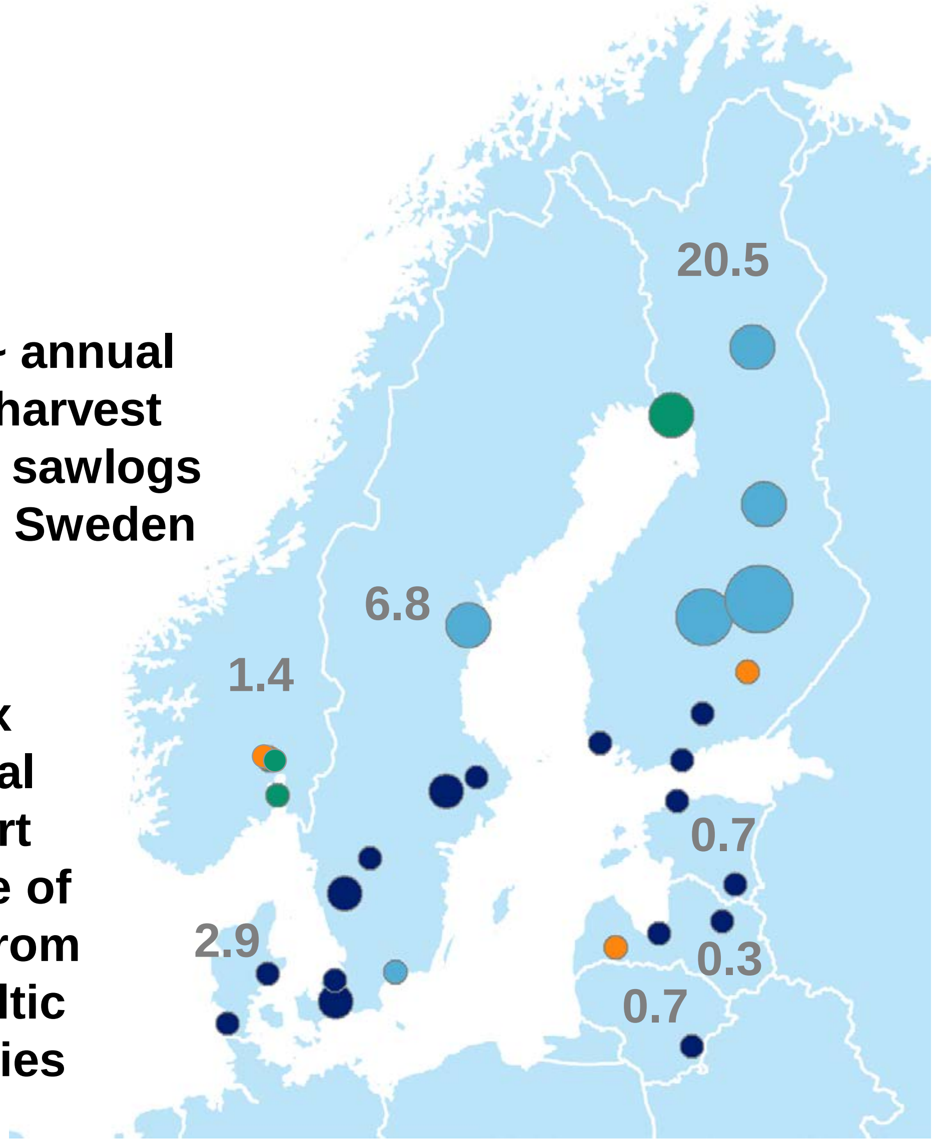
3 x annual harvest in Latvia

~ annual harvest of sawlogs in Sweden

3 x annual harvest in Norway

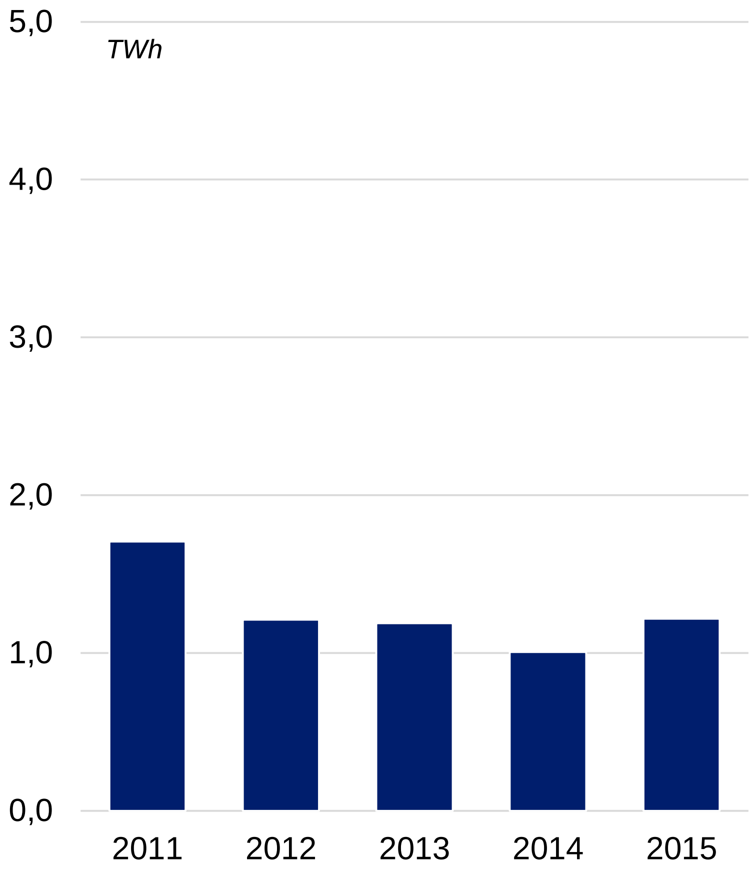
~ annual raw material consumption of all Finnish pulp production

~ 4 x annual export volume of wood from the Baltic countries

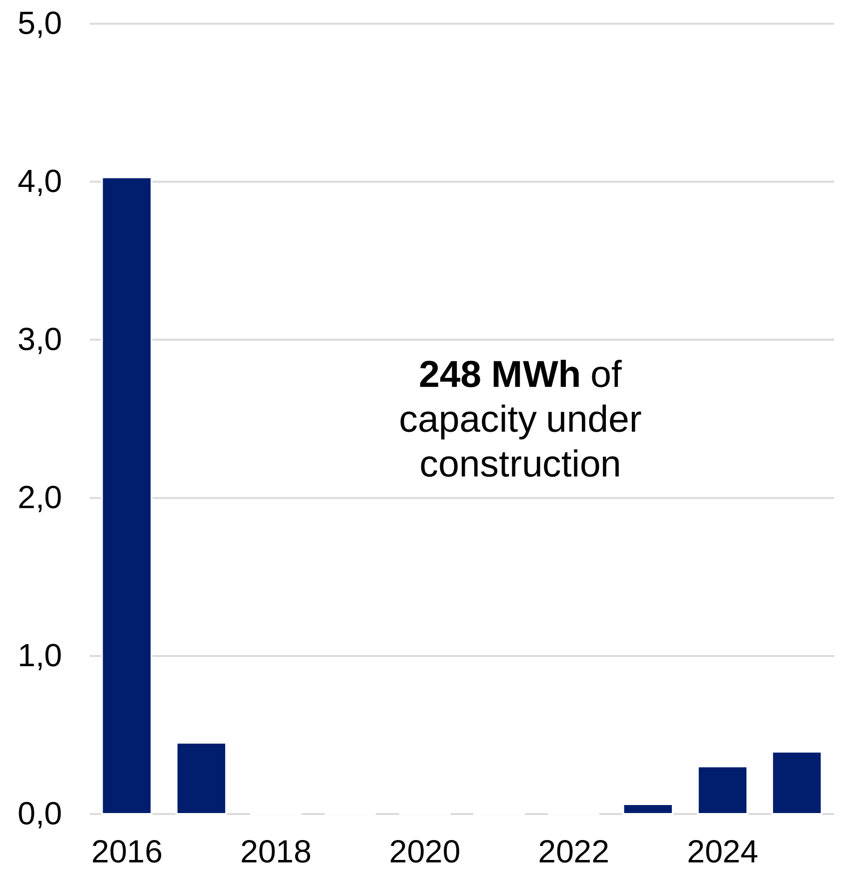


….AND NOT JUST AROUND THE BALTIC SEA

UK exports of waste wood to Sweden



Wood waste "surplus" in the UK



KEY MESSAGES

- The possibility to meet additional increases in demand for wood and biomass in Sweden is limited in the short to medium term
- We most likely need to import more wood and biomass to accommodate large scale industrial developments in the future
- But we are not alone…, which limits our options and might push us towards a more undesirable direction
- Or are there things we can change in the way we are managing our forests in order boost short term supply, ….without running in to political or public opinion issues? (rotation, technology, stumps…)

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