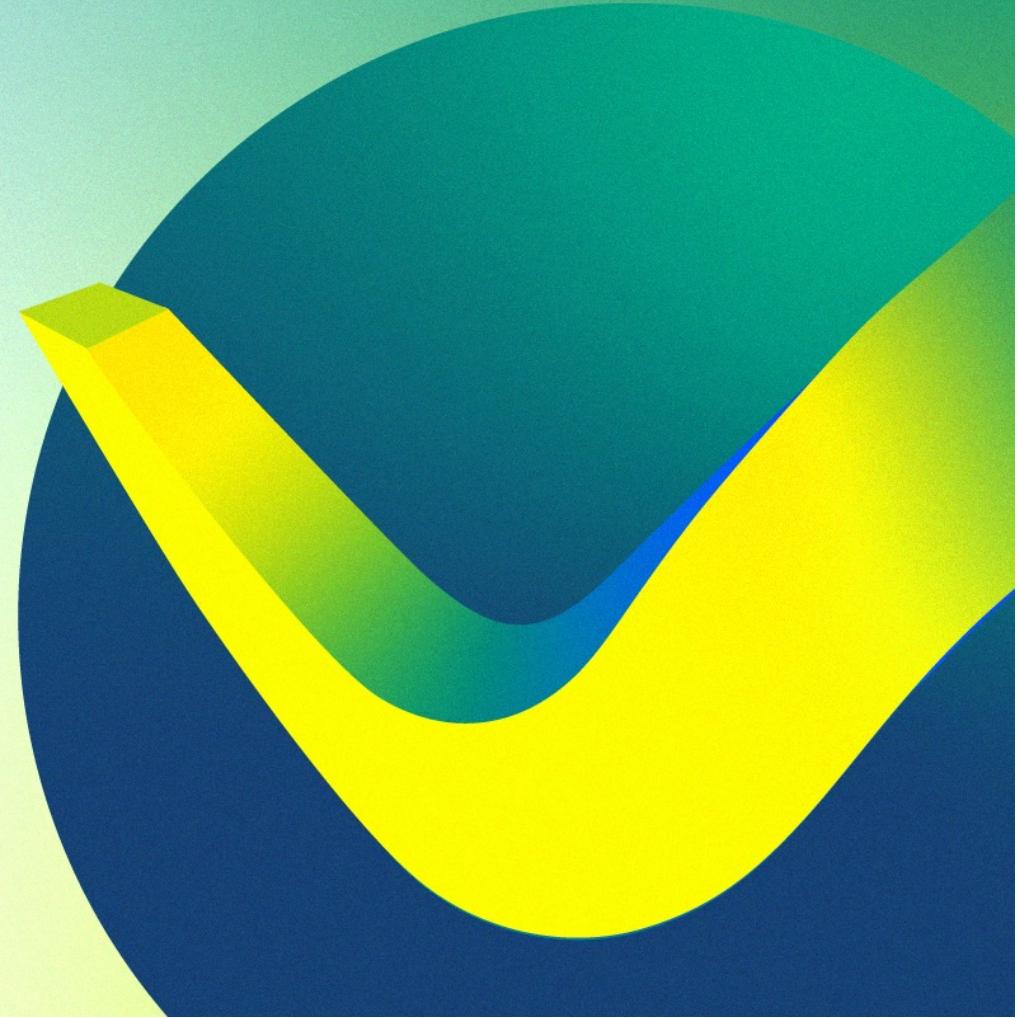


# Kaisa Ahvonen

Product Manager, Color coated steels  
SSAB Europe



# Kaisa Ahvonan

## Product Manager, Color coated products



### ► Education

- 1994-2000 Helsinki University of Technology
- 1998 Studies in Chalmers University of Technology, Gothenburg, Sweden

### ► Career in SSAB

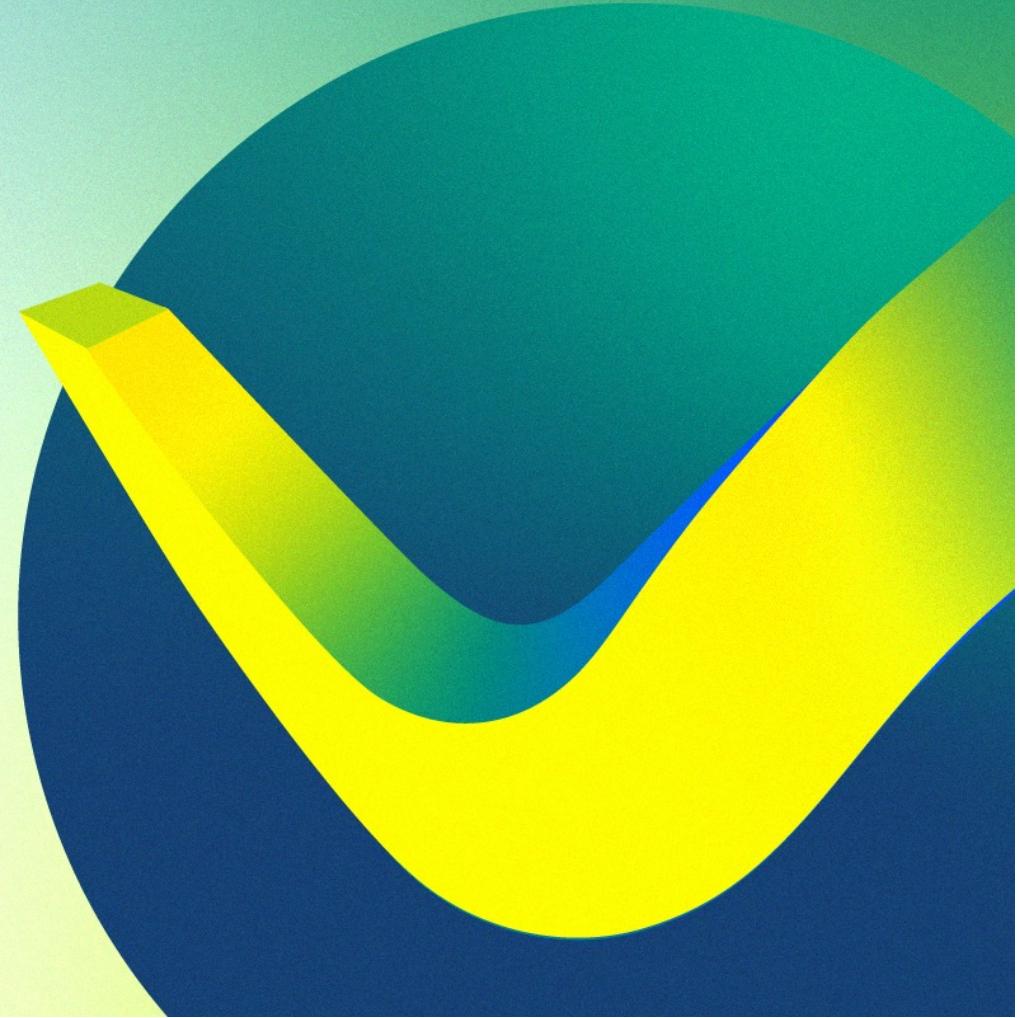
- 2000-07 Product development engineer, Color Coated products
- 2007-08 Development Manager, Color Coated products
- 2008-10 Product Development Manager, Color Coated products
- 2010-15 Portfolio Manager, Cold Rolled, Metal Coated and Color Coated products
- 2015-16 Product portfolio Manager, Color Coated products
- 2016-... Product Manager, Color coated steels



# Meeting the requirements of the building industry with GreenCoat®

Kaisa Ahvonen

Product Manager, Color coated steels  
SSAB Europe



# Content



- ▶ Sustainability in the building industry
- ▶ GreenCoat® portfolio for the building industry
- ▶ Towards fossil free GreenCoat® portfolio



# SUSTAINABILITY IN THE BUILDING INDUSTRY

# Sustainability - license to operate in the building industry

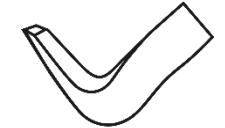


- ▶ Construction accounts 39%\* of global CO2 emissions.
- ▶ Major emission reductions are expected.
  - European Green Deal
- ▶ The buildings and construction sector is not on track to achieve targets.
- ▶ Decarbonisation needs to be accelerated.
- ▶ A whole-life cycle approach is needed.

\*Source: Global Alliance for Buildings and Construction



# Construction legislation in Nordics ahead of EU's goals



SWEDISH  
STEEL PRIZE

## ► Sweden

- climate declaration for the buildings 1<sup>st</sup> Jan 2022
- Zero net greenhouse gas emissions by 2045 at the latest

## ► Denmark

- new guidelines for new buildings 1<sup>st</sup> Jan 2023
- greenhouse gas emissions reduced 70% by 2030

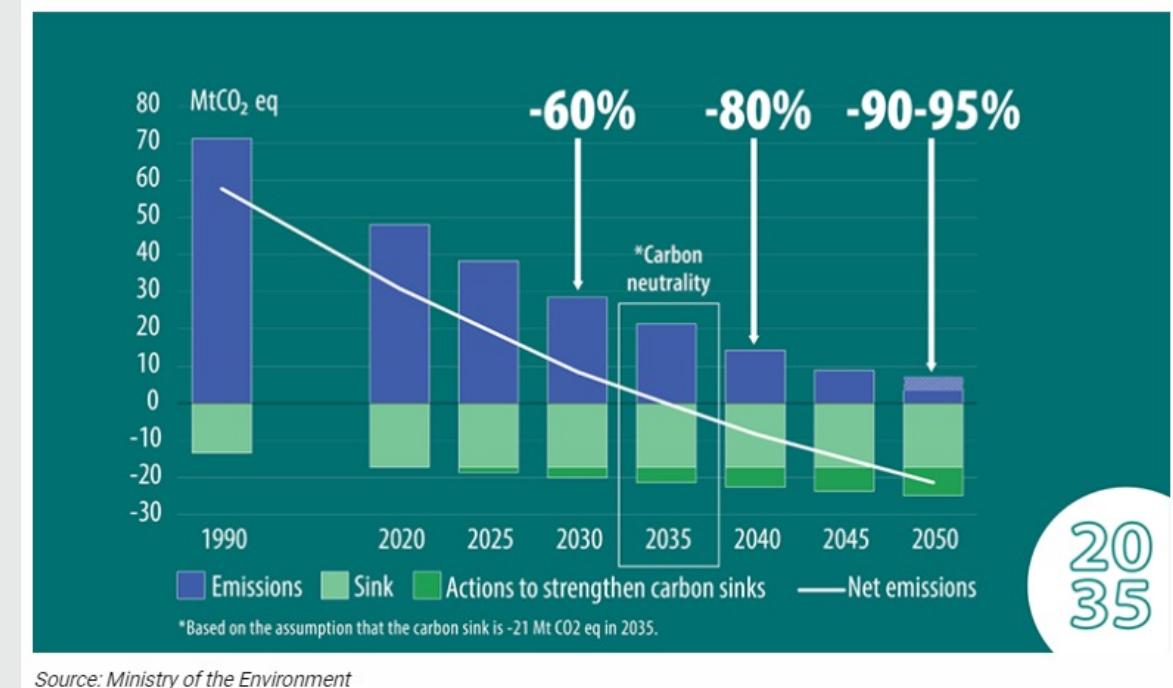
## ► Finland

- new building legislation approved, valid from 1<sup>st</sup> Jan 2025
- aims to be climate neutral in 2035

## ► Norway

- proposal of updating the legislation within 2024
- greenhouse gas emissions reduced 50% by 2030

Source: Boverket, Rakennustieto, Bolig- og Planstyrelsen & climate-laws.org

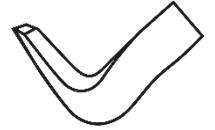


# What does this mean for GreenCoat® color coated steels?



- ▶ Demand will increase
- ▶ Continue with the sustainability targets
  - Reducing carbon emissions from the whole raw material chain.
  - Further developing the durability and lifetime.
  - Sustainable chemicals as alternatives.
- ▶ Further developed EPDs.





# GREENCOAT® PORTFOLIO FOR BUILDING INDUSTRY

# GreenCoat® product portfolio today



SWEDISH  
STEEL PRIZE



## Tinsmith products

Products with strict demands on formability, functionality and appearance.

**GreenCoat PLX/TSP Pural BT**  
**GreenCoat PLX Pro BT**  
**GreenCoat PLX/TSP Legacy**



## Profiled and standing seem sheets

Products which can be well roll formed and have long life cycle. Different appearances available.

**GreenCoat Pural BT**  
**GreenCoat Pro BT**  
**GreenCoat Mica BT**  
**GreenCoat Crown BT**  
**GreenCoat Cool**



## Modular roofing tiles

Product needing besides high durability, excellent batch-to-batch repeatability.

**GreenCoat Crown BT**



## Sandwich panels and cassettes

Products with excellent durability & large range of colors.

**GreenCoat Hiarc**  
**GreenCoat Hiarc Max**  
**GreenCoat Pural BT in limited colors**



## Rain water systems

Products suitable for roll forming and deep drawing, with excellent corrosion resistance in the end application.

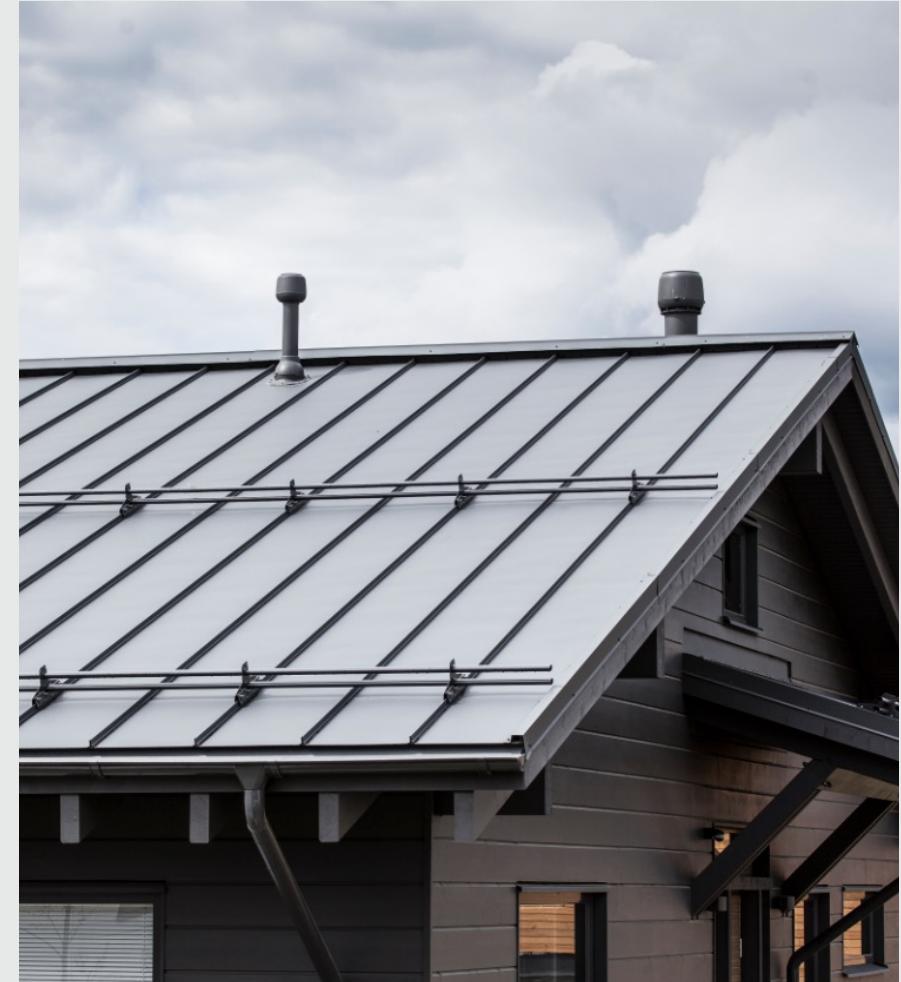
**GreenCoat RWS Pural BT**  
**GreenCoat RWS Pural**  
**GreenCoat RWS Pro BT**  
**GreenCoat RWS Pro**

GreenCoat FoodSafe BT and GreenCoat FoodSafe for food industry needs.

# Long experience & innovativeness



- Long experience
  - GreenCoat Pural 25 years
  - GreenCoat Hiarc 40 years
  - GreenCoat PLX Pro BT 10 years
  - Extensive outdoor testing since 40 years
- GreenCoat® guarantee up to 50 years
- Forerunner with many products
  - BT technology
  - Polyurethane technology
  - Matt appearance
  - Chromate free products



# Main short term targets



- ▶ GreenCoat Pural BT / Zero – limited volumes
- ▶ GreenCoat Pro BT / Zero – limited volumes
- ▶ GreenCoat Pural BT
  - Metallic colors for facades
  - Satin gloss level
- ▶ GreenCoat Sense BT





- Fossil-free electricity
- Fossil-free fuels
- Fossil-free internal transports
- Fossil-free sponge iron based on the HYBRIT® Technology
- Based on high-quality recycled steel



- Fossil-free electricity
- Fossil-free fuels
- Fossil-free internal transports
- Fossil-free sponge iron based on the HYBRIT® Technology
- Based on high-quality recycled steel



SWEDISH  
STEEL PRIZE

# TOWARDS FOSSIL FREE GREENCOAT® PORTFOLIO

# Change into SSAB Zero™ and SSAB Fossil-Free™ will reduce main part of carbon emissions from GreenCoat®



## Carbon emissions from color coated steel

1. Steel slab ~ 75%
2. Downstream operations including metal coating ~ 15%
3. Color coating operations ~ 5%
4. Paints and chemicals ~ 3-4%

} Metal coated steel > 90%



# Where does this 9% of color coated origin carbon emissions come from?



## ■ Energy

- ▶ Today natural gas or propane.
- ▶ With bio-based gas carbon emissions would not be fossil based.
- ▶ Investments to new curing technologies using electricity would remove carbon emissions.

## ■ Solvents

- ▶ Today needed to make the desired consistency for the application.
- ▶ Possibilities to change into bio-based under investigation in R&D.
- ▶ Long term target to get rid of solvents.

## ■ Other paint components

- ▶ Not emissions from our production, but bounded CO2 in the product.
- ▶ Binder, pigments, additives
- ▶ Part already today based on bio-based sources made from Swedish rapeseed oil (BT).

# Future fossil free GreenCoat® products...



- ▶ SSAB Zero™ and SSAB Fossil-Free™ steels gradually into use with selected GreenCoat® products.
- ▶ Energy in color coating process
  - Bio-based gas under evaluation
  - Long-term electricity and new curing technologies
- ▶ Targets with the coatings
  - Bio-based solvents with selected products
  - Long term products without solvents
  - Bio-based and recycled raw material strategy
  - Further increase product durability





SWEDISH  
STEEL PRIZE

# THANK YOU ANY QUESTIONS?

