

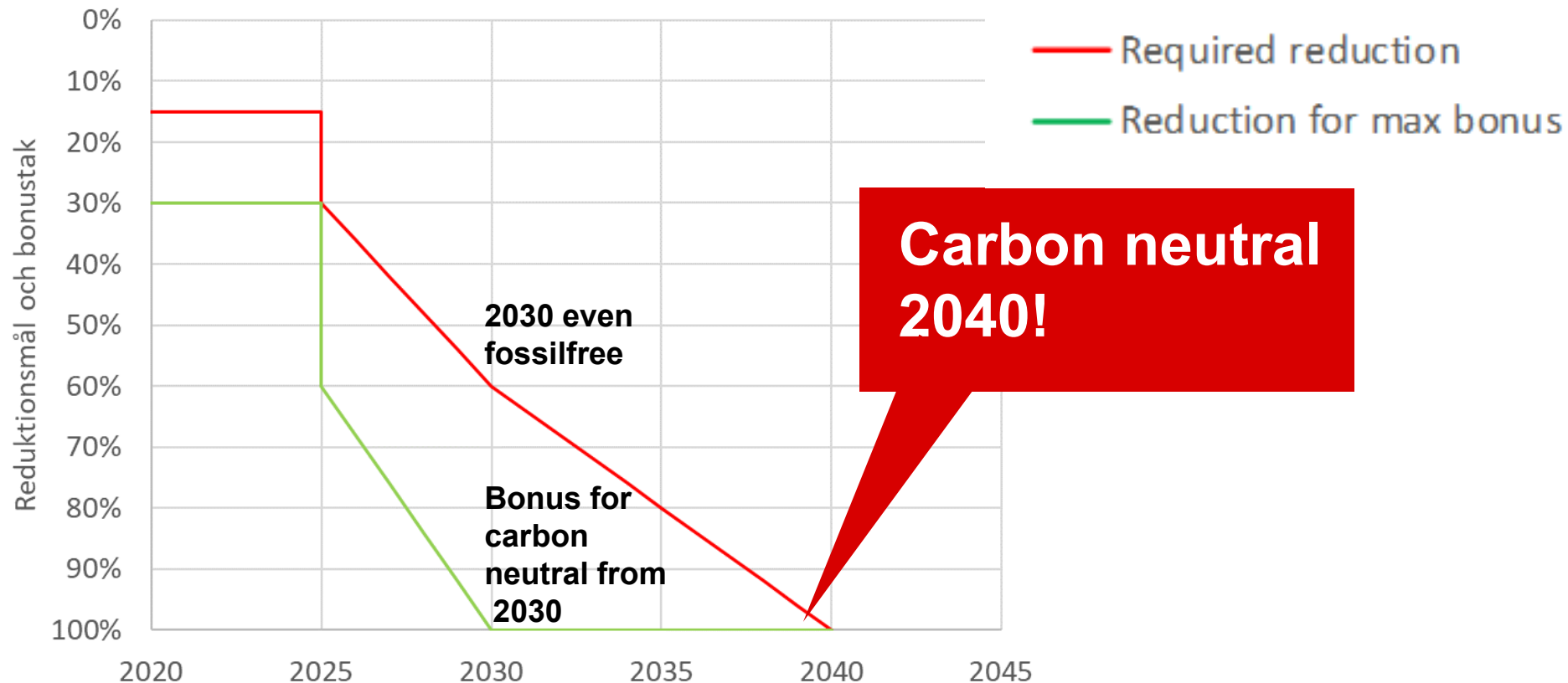
# Creating demand through public procurement, examples from Trafikverket

Susanna Toller

Swedish Transport Administration (Trafikverket)

# Sharper goals since April 2022

## – A climate neutral transport infrastructure 2040

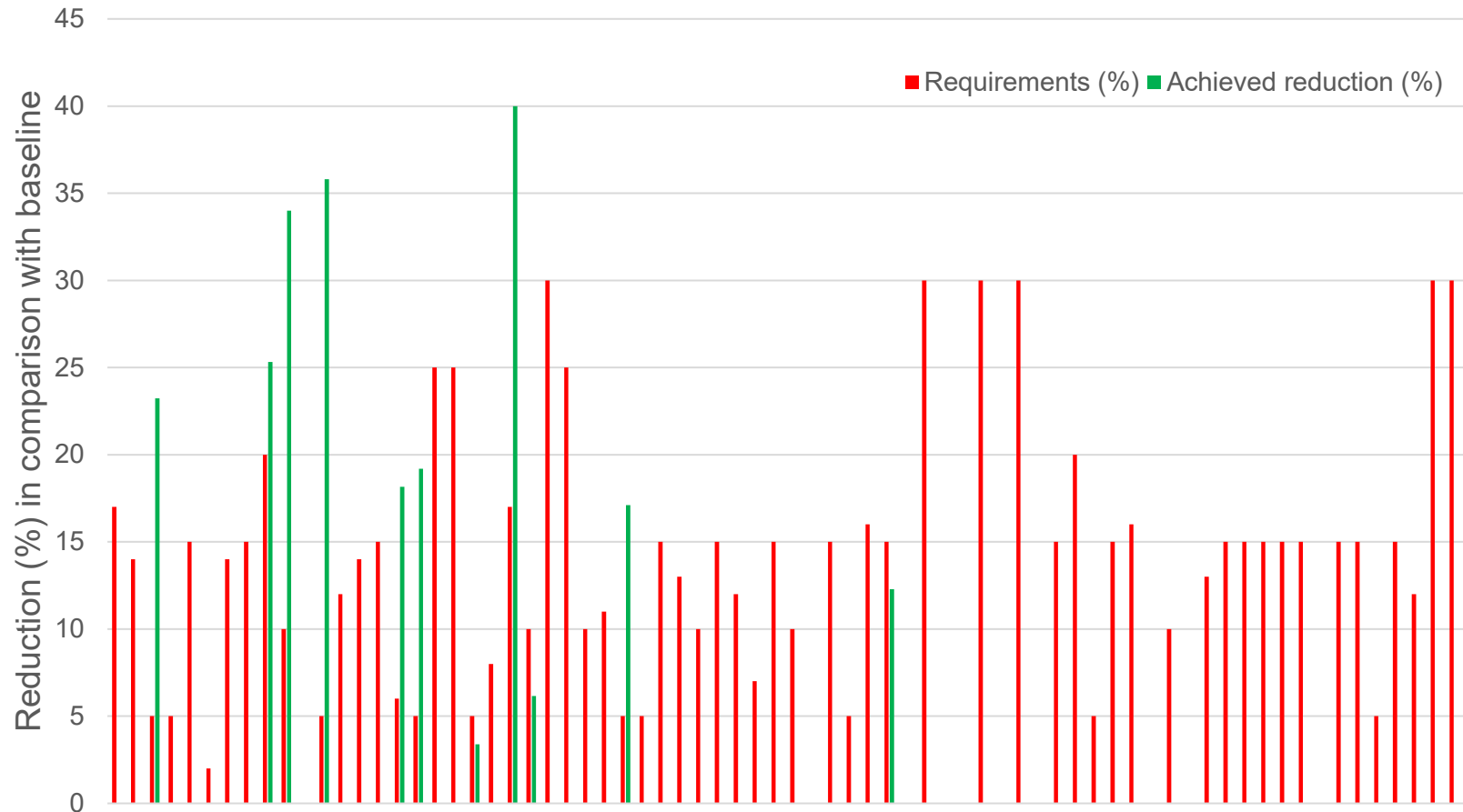


# From goals to action – climate requirements in procurements

- For larger projects, a decrease of greenhouse-gas emissions, compared to a baseline, is required (contract clause rather than evaluation criteria).
- Climate requirements on specific materials and on fuels, and requirements on the products purchased by Trafikverket as technically approved material



# Requirements and results for investments $\geq$ 50 MSEK



**Achieved 23 %**  
reduction in average

**Requirements 18%**  
reduction in average

Obs. The figure is  
incomplete, follow up is in  
progress

## Qualitative evaluations with involved stakeholders

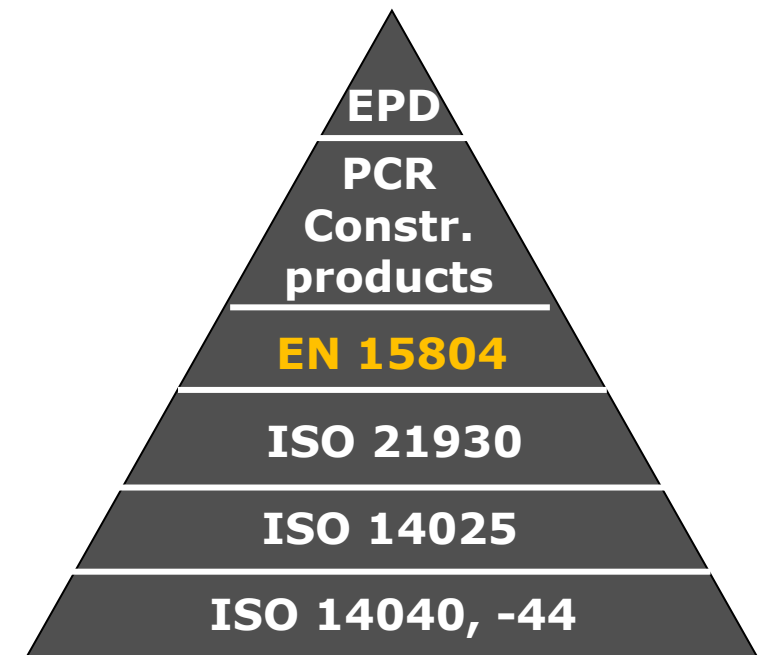
- The STA climate requirements are interpreted as a forceful signal of the importance of the climate issue to the industry
- Participation process and dialogue was found to be necessary for the requirements to be successfully implemented
- Anticipation that the requirements will further contribute to the contractors' future financial or competitive benefits

# Climate requirements on technically approved material

- Material that is procured, tested and scrutinised by Trafikverket
- Mostly railway material, for example sleepers, rail
- About 290 contracts, 230 suppliers
- Climate requirements are considered if volumes exceeds 25 tonnes per year
- EPDs are required and, if possible, combined with limit values

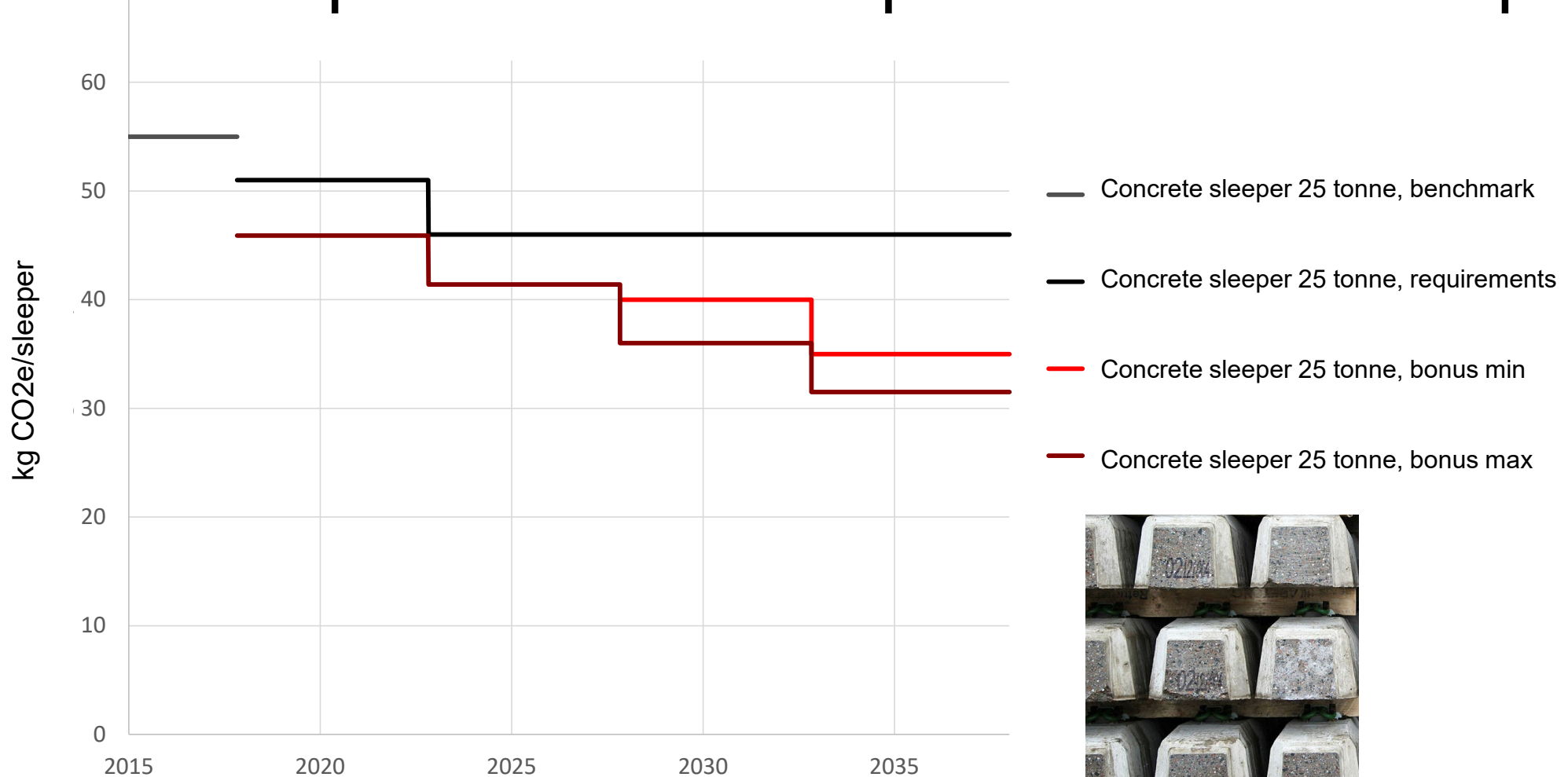
# EPDs are required as verification documents for the climate performance of material

- EN 15804 is required the "rules for calculations"
- Fair, feasible and predictable LCA based climate requirements, mostly positive response from contractors and suppliers
- EPDs are received and interpreted centrally at the Transport Administration – a service for the project leaders and important for updating default values



*(Erlandsson 2011, IVL report B2019)*

# Climate requirements example - concrete sleeper





# Example EPD: Slippers A30 from Abetong

epd-norge.no  
The Norwegian EPD Foundation

## ENVIRONMENTAL PRODUCT DECLARATION

in accordance with ISO 14025, ISO 21930 and EN 15804

Agare av deklarasjonen: Abetong  
Program operatør: Næringslivets Stiftelse for Miljødeklarasjoner  
Utgivare: Næringslivets Stiftelse for Miljødeklarasjoner  
Deklarations nummer: NEPD-1334-432-SE  
Publiserings nummer: NEPD-1334-432-SE  
ECO Platform registreringsnummer: -  
Godkänd datum: 13.06.2017  
Giltig till: 13.06.2022

Sliper A30

Abetong  
HEIDELBERGCEMENT Group

www.epd-norge.no

### Resultat

gränser (X = ingår, MID = ingår inte, MIR = inte relevant)

tskedet	Byggprocess-skedet	Användningsskedet										Slutskedet	Utanför system-gränserna
		is- och ins-en	sked	äll	ion	ing	ing	ing	ing	ing	ing		
X	X												

### Miljöpåverkan

Parameter	enhet/sliper	A1	A2	A3	A1- A3
GWP	kg CO <sub>2</sub> -ekv	43,71	0,829	1,337	45,87
ODP	kg CFC11-ekv	8,10E-07	2,01E-07	2,39E-07	1,25E-06
POCP	kg C <sub>2</sub> H <sub>4</sub> -ekv	9,37E-03	6,26E-05	1,79E-04	9,61E-03
AP	kg SO <sub>2</sub> -ekv	8,46E-02	3,26E-03	4,70E-03	9,26E-02
EP	kg PO <sub>4</sub> <sup>3-</sup> -ekv	2,49E-02	6,00E-04	1,27E-03	2,68E-02
ADPM	kg Sb-ekv	1,27E-04	2,76E-07	4,73E-09	1,28E-04
ADPE	MJ	2,68E+02	1,10E+01	2,21+01	3,01+02

GWP Global warming potential; ODP Depletion potential of the stratospheric ozone layer; POCP Formation potential of tropospheric photochemical oxidants; AP Acidification potential of land and water; EP Eutrophication potential; ADPM Abiotic depletion potential for non fossil resources; ADPE Abiotic depletion potential for fossil resources

### användnin

enhet	A1	A2	A3	A1- A3
MJ	22,0	0	0	22,0
MJ	30,2	0	0	30,2
m <sup>3</sup>	0,336	0	0,100	0,436

renewable primary energy resources used as energy carrier; RPEM Renewable primary energy resources used as raw materials; I use of renewable primary energy resources; NRPE Non renewable primary energy resources used as energy carrier; NRPM Non renewable primary energy resources used as materials; TRPE Total use of non renewable primary energy resources; SM Use of materials; RSF Use of renewable secondary fuels; NRSF Use of non renewable secondary fuels; W Use of net fresh water.

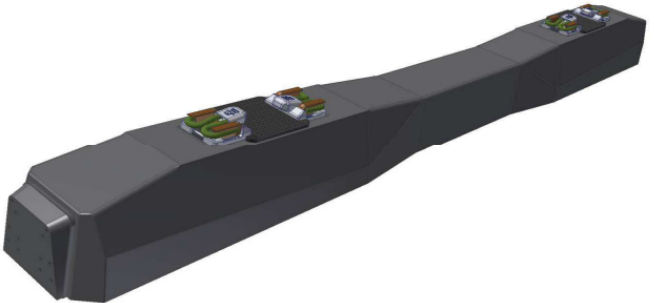
enhet/sliper	A1	A2	A3	A1- A3
kg	1,04E-03	0	2,80E-02	4,00E-02
kg	2,07E-01	0	6,95E+00	7,16E+00
kg	8,19E-03	0	0	8,19E-03

rdous waste disposed: NIHW Non hazardous waste disposed; RW Radioactive waste disposed

enhet/sliper	A1	A2	A3	A1- A3
kg	0	0	0	0
kg	3,29E-03	0	1,15E-01	1,18E-01
kg	0	0	7,86E-04	7,86E-04
MJ	0	0	0	0
MJ	0	0	0	0

ponents for reuse; MR Materials for recycling; MER Materials for energy recovery; EEE Exported electric energy; ETE Exported energy

Example: 9,0 E-03 = 9,0\*10<sup>-3</sup> = 0,009



# Challenges

- Improved follow up of the overall impact of using climate requirements
- Finding the right levels for each project/material, especially demanding in long contracts
- Upcoming question – resource efficiency and circular economy
- Strategies for consideration of compensation measures and negative emissions
- Life cycle assessment method for climate calculations that considers existing policy instruments (such as ETS), impact on the whole transport system and alternative use of resources (i.e. consequential LCA)

# Thank you for your attention!

Contact: [susanna.toller@trafikverket.se](mailto:susanna.toller@trafikverket.se)

Phone: + 46 70-724 61 75

Further information (mainly in Swedish):

<https://bransch.trafikverket.se/for-dig-i-branschen/miljo--for-dig-i-branschen/minskad-klimatpaverkan/klimatkrav/>

<https://bransch.trafikverket.se/klimatkalkyl>

