

# Potentials of energy efficiency

*Nils Borg, eceee and Borg & Co*

*Eufores Interparliamentary Meeting, 22 October 2022*



# Permanent weekend?

**Permanent weekend?**

**Efficiency gets us there**

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**Energy efficiency makes it  
possible to manage  
a future  
with 100% renewables**

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**Crisis prevention:**

**Energy security**

**Health**

**Climate**

**Energy prices (& volatility)**

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**“We have done what we can”**

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“We have done what we can”

**We can always use less energy, always!**

“We have done what we can”

**We can always use less energy, always!**

**“Nothing cost effective remains”**

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**New potentials are created all the time**

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**“It is too expensive”**

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“We have done what we can”

**We can always use less energy, always!**

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**New potentials are created all the time**

“It is too expensive”

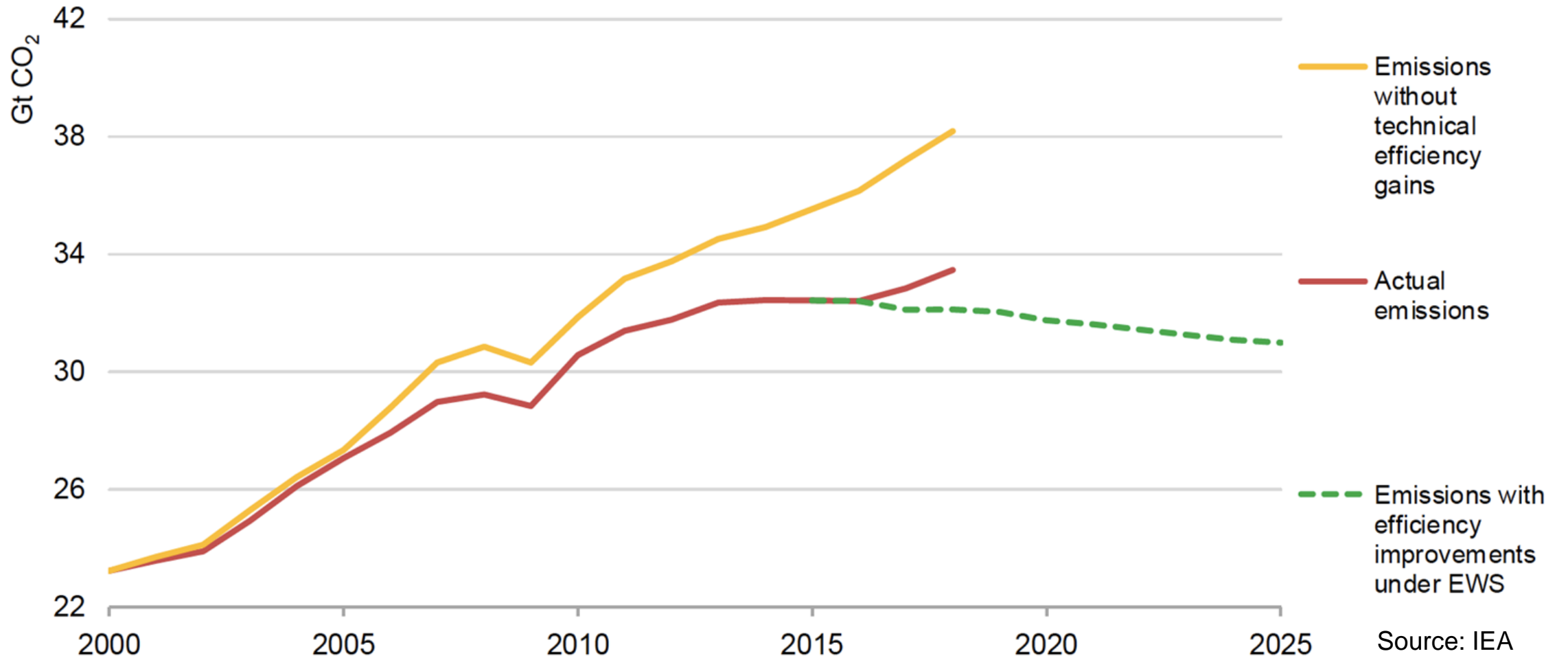
**Depends on values and perspective**

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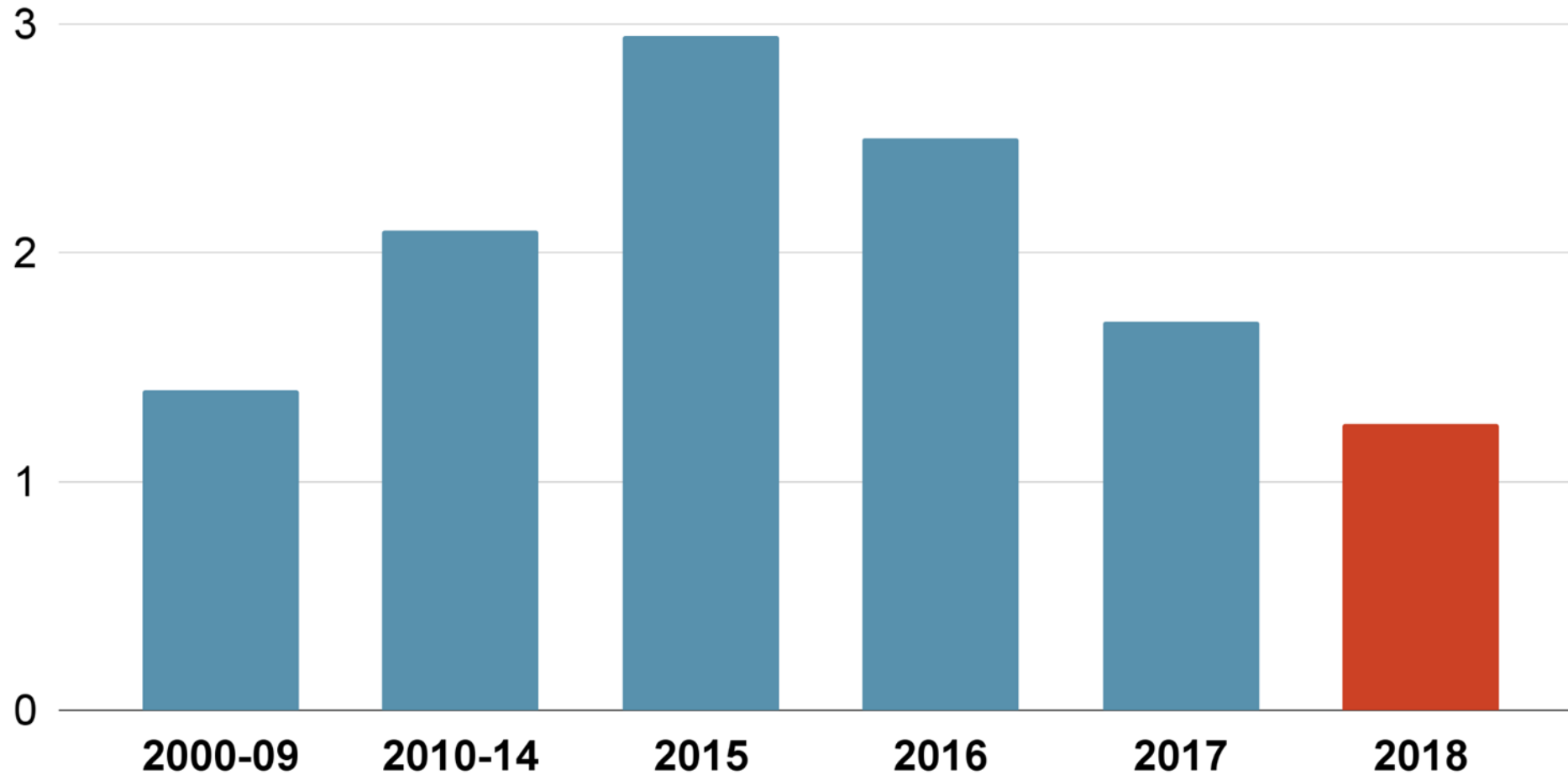
**Is it cost effective  
to save  
the world?**

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# Efficiency lowers emissions, could do more

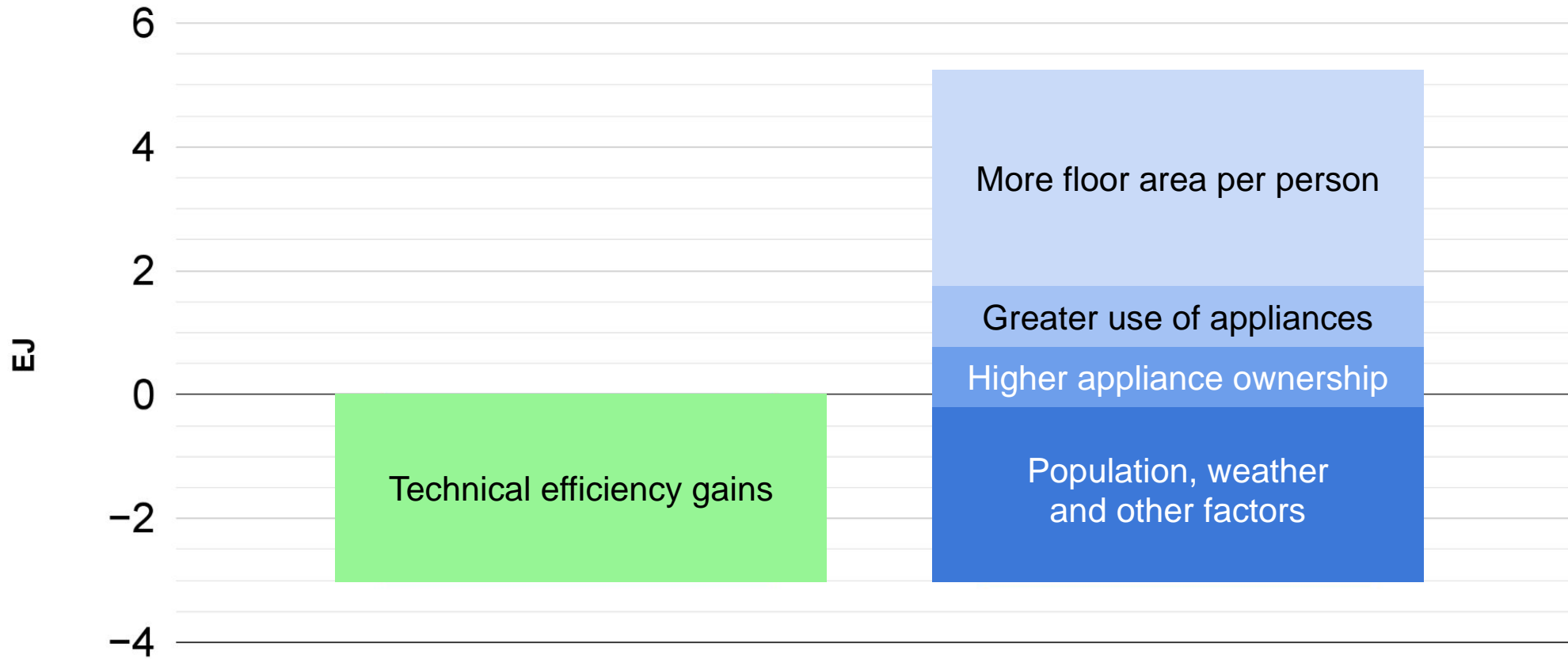


# Global efficiency improvements slowing down



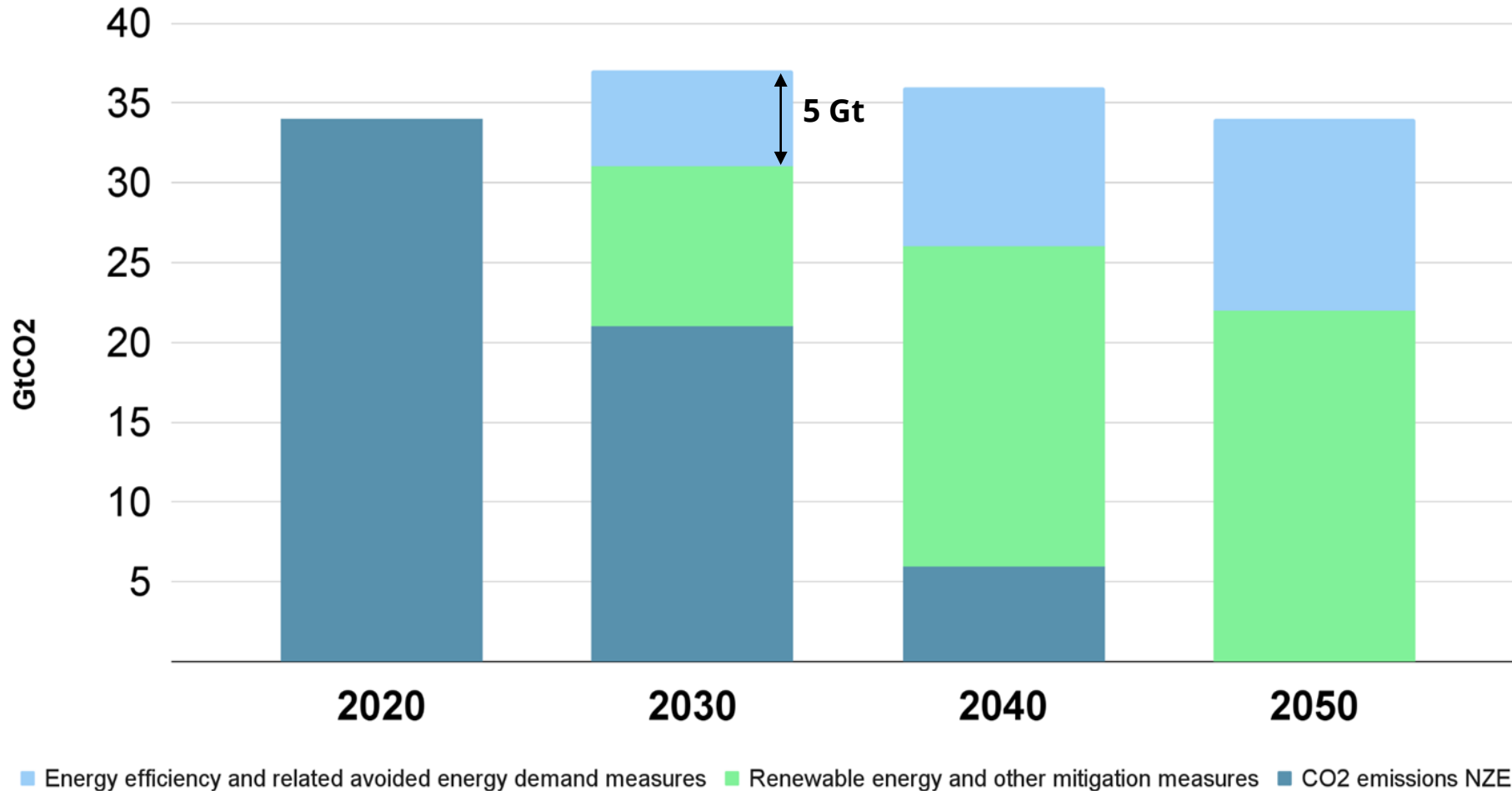
Annual rate of global energy intensity improvements, %/year.  
Source: IEA

# Technical improvements vs social trends



Factors influencing residential buildings energy use 2015–18. Source IEA.

# IEA: CO<sub>2</sub> emissions, main mitigation measures



Efficiency makes it possible to go from Stated policies to goals in Net Zero Scenario. Source IEA.



**And what about the EU?**

**-4,5% target (2030)**

**New increased proposal -9%?**

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# Current EU target

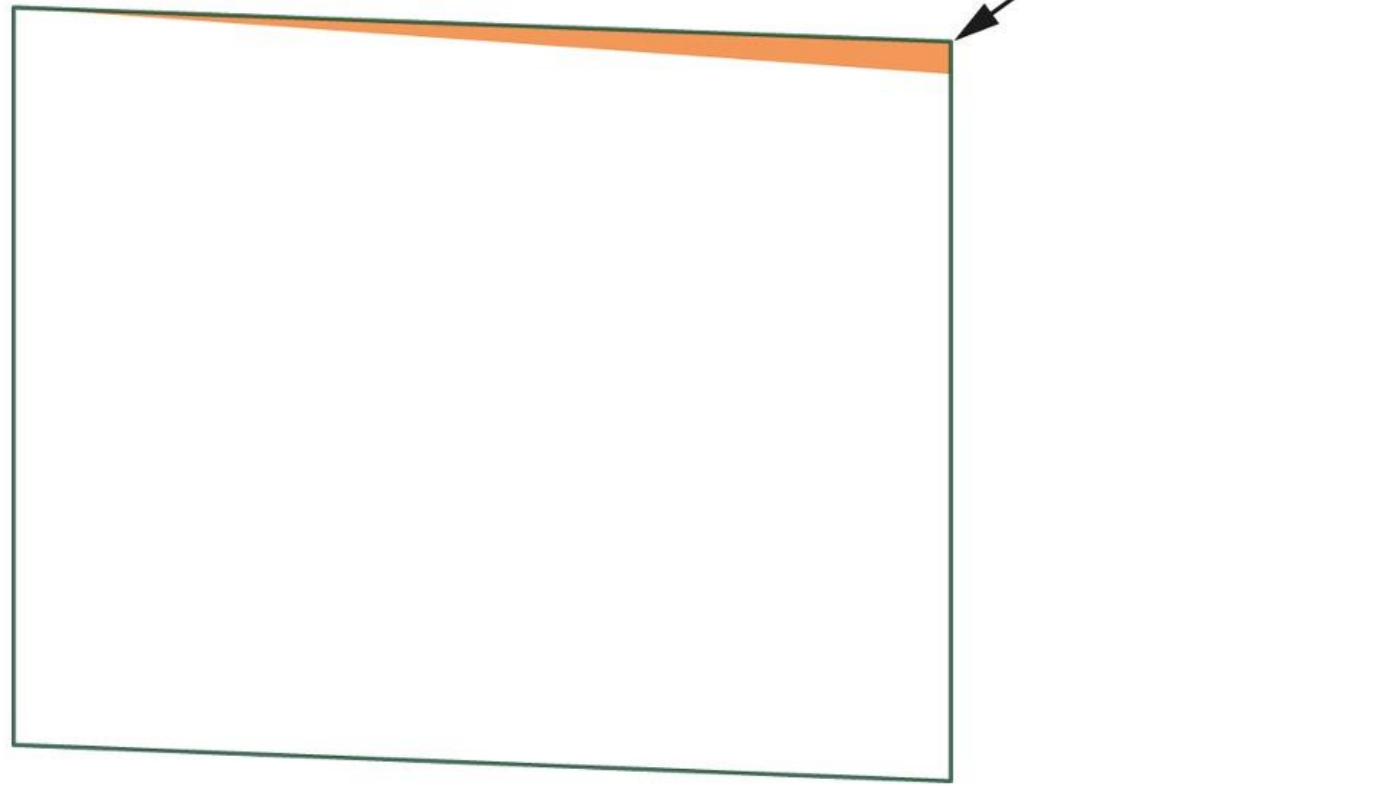
865 Mtoe

825 Mtoe -4,5 %  
Final energy use

2020

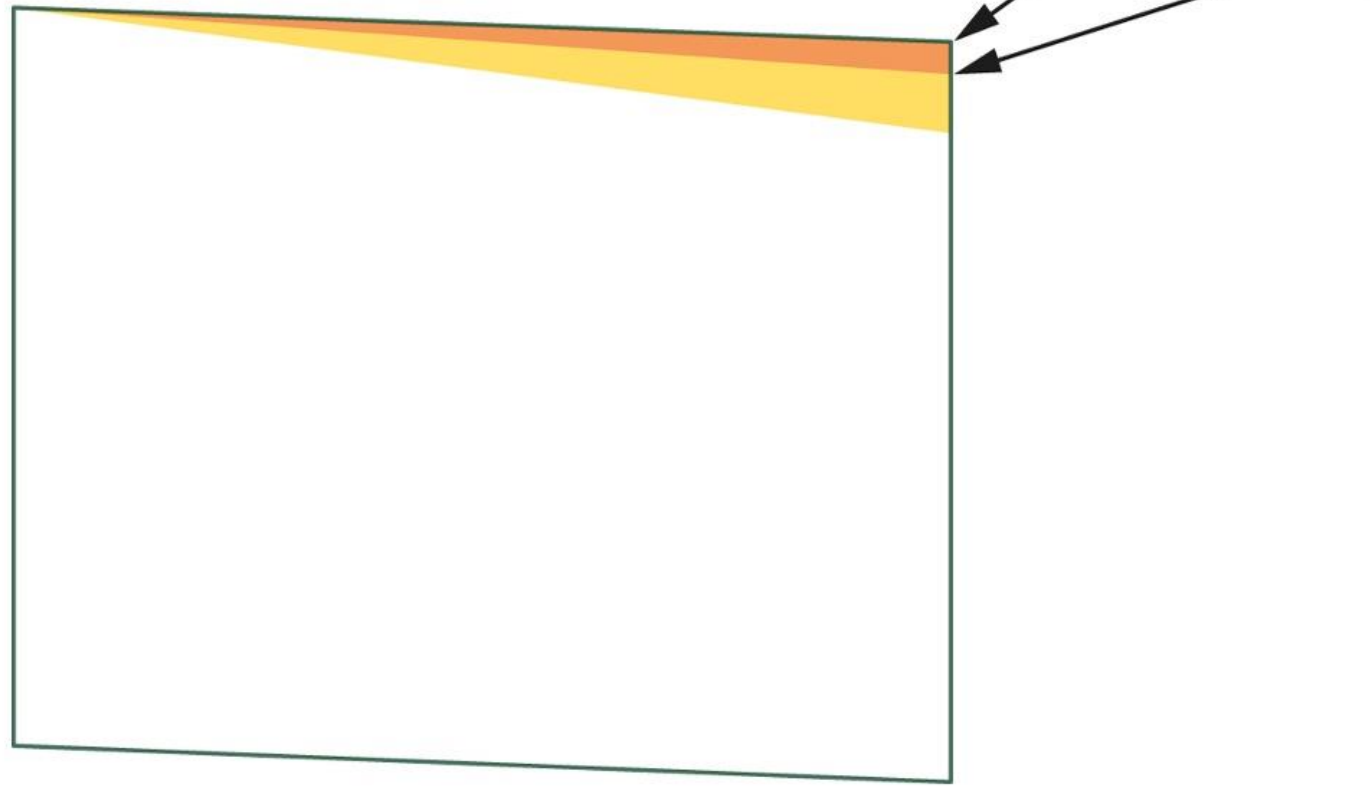
2030

Source: Fraunhofer ISI/Stefan Scheuer



# Increased EU target

865 Mtoe



825 Mtoe -4,5 %

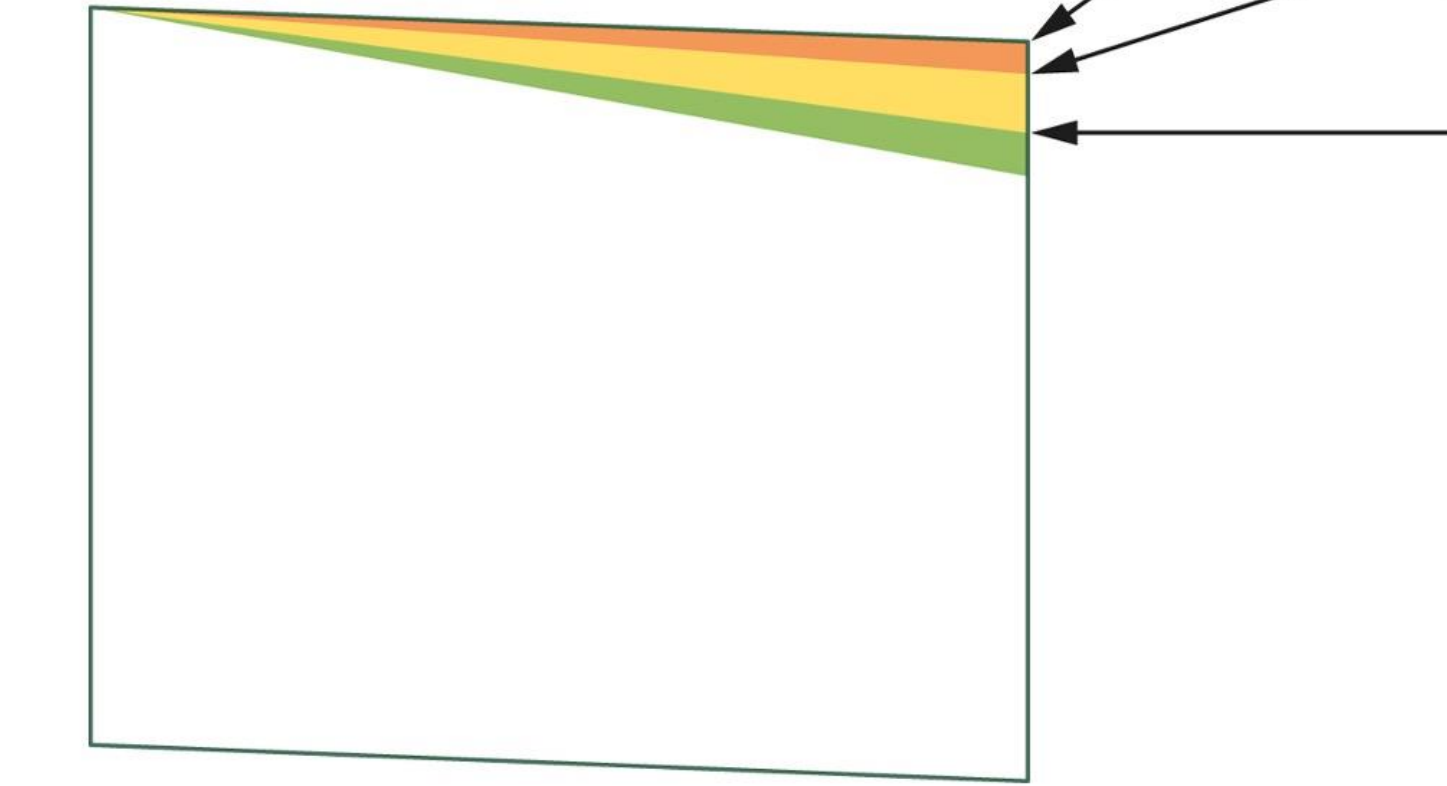
787 Mtoe -9 %  
Final energy use

2020

2030

# Economic potential

865 Mtoe



825 Mtoe -4,5 %

787 Mtoe -9 %

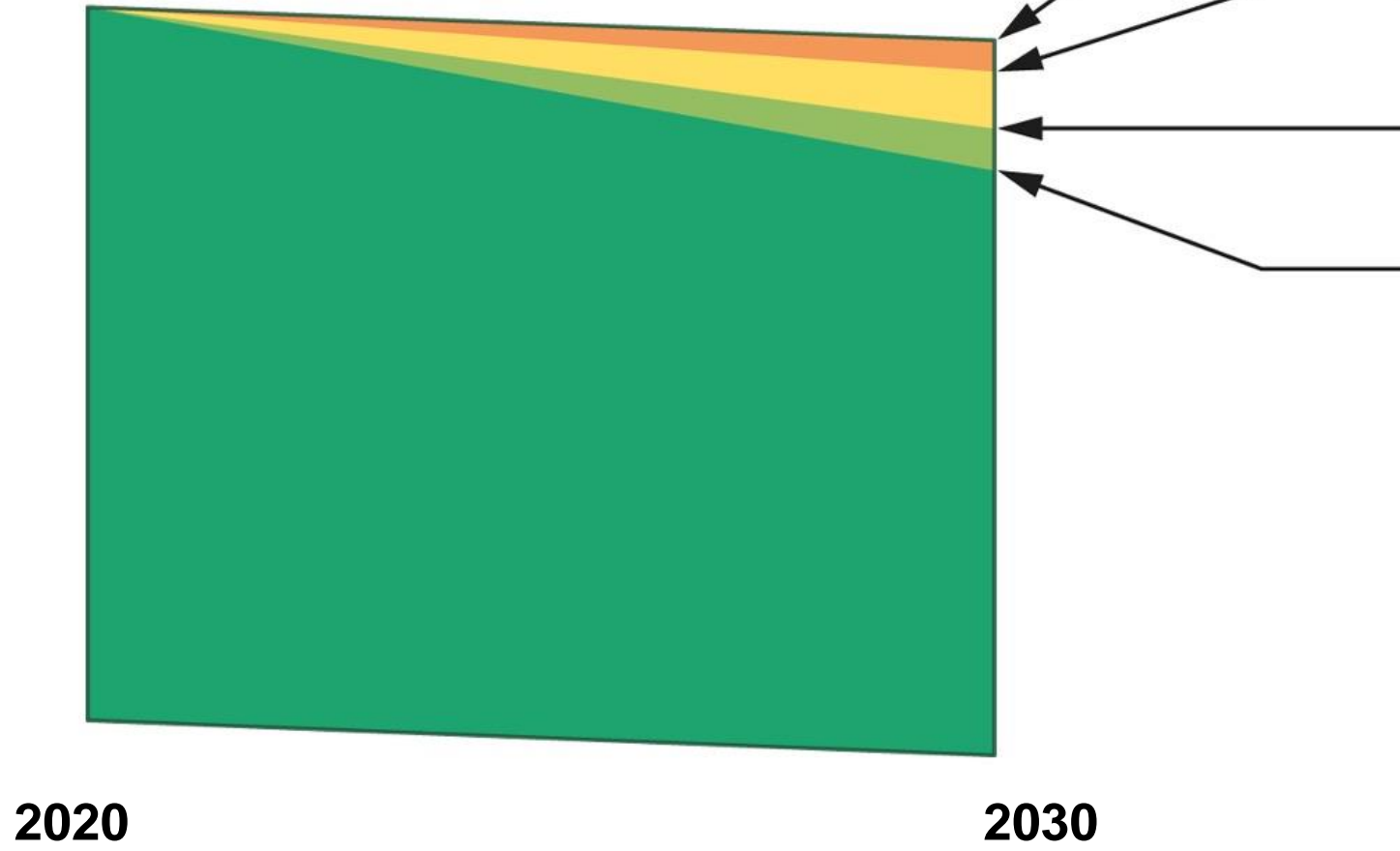
**718 Mtoe -17 %**  
**Final energy use**

2020

2030

# Technical potential

865 Mtoe



825 Mtoe -4,5 %

787 Mtoe -9 %

718 Mtoe -17 %

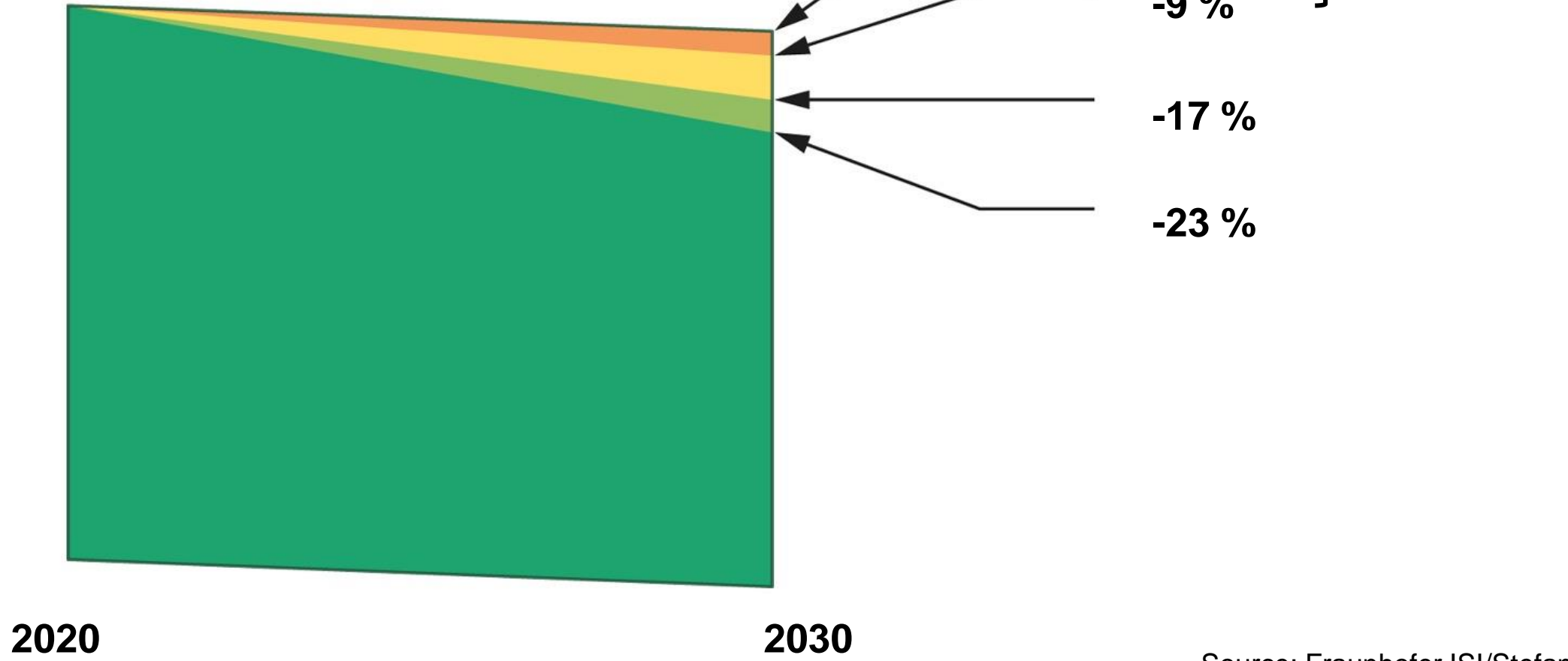
**667 Mtoe -23 %**  
**Final energy use**

2020

2030

# Increased EU target

865 Mtoe

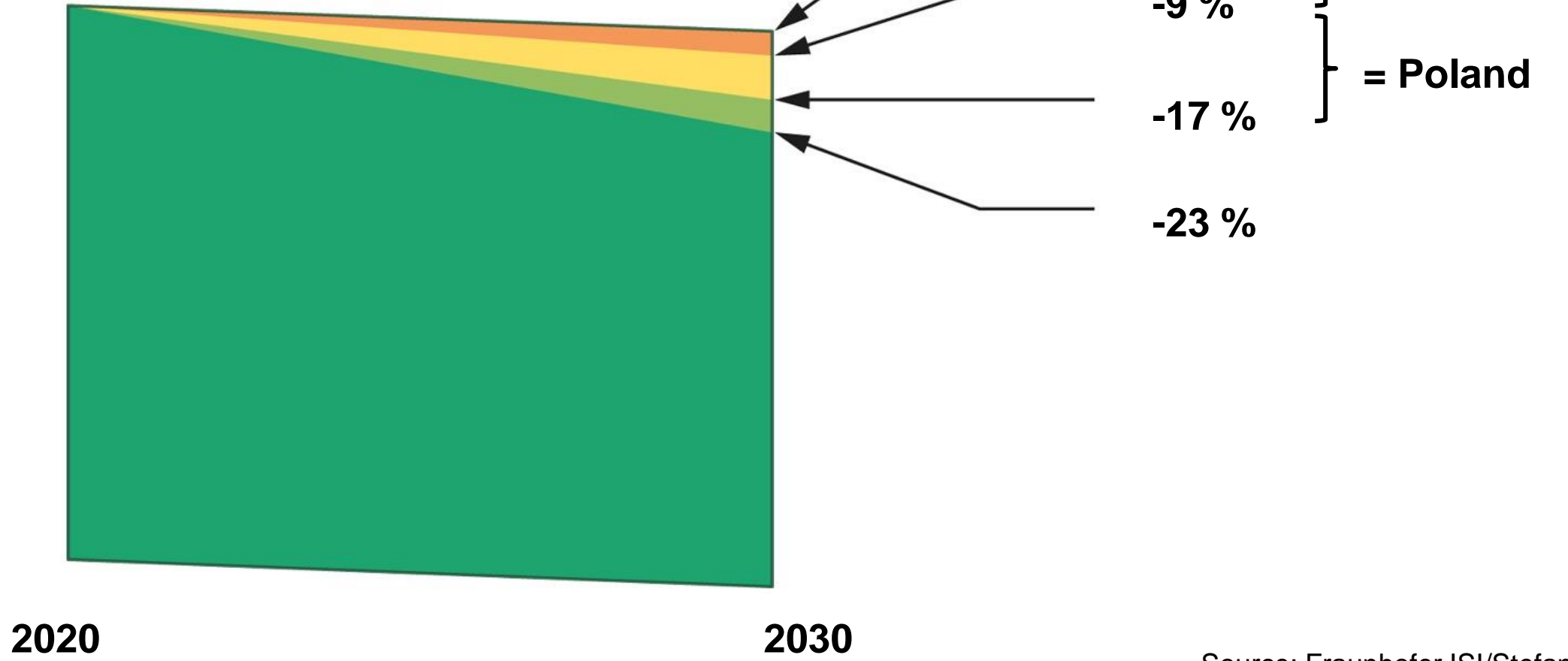


2020

2030

# Economic potential

865 Mtoe

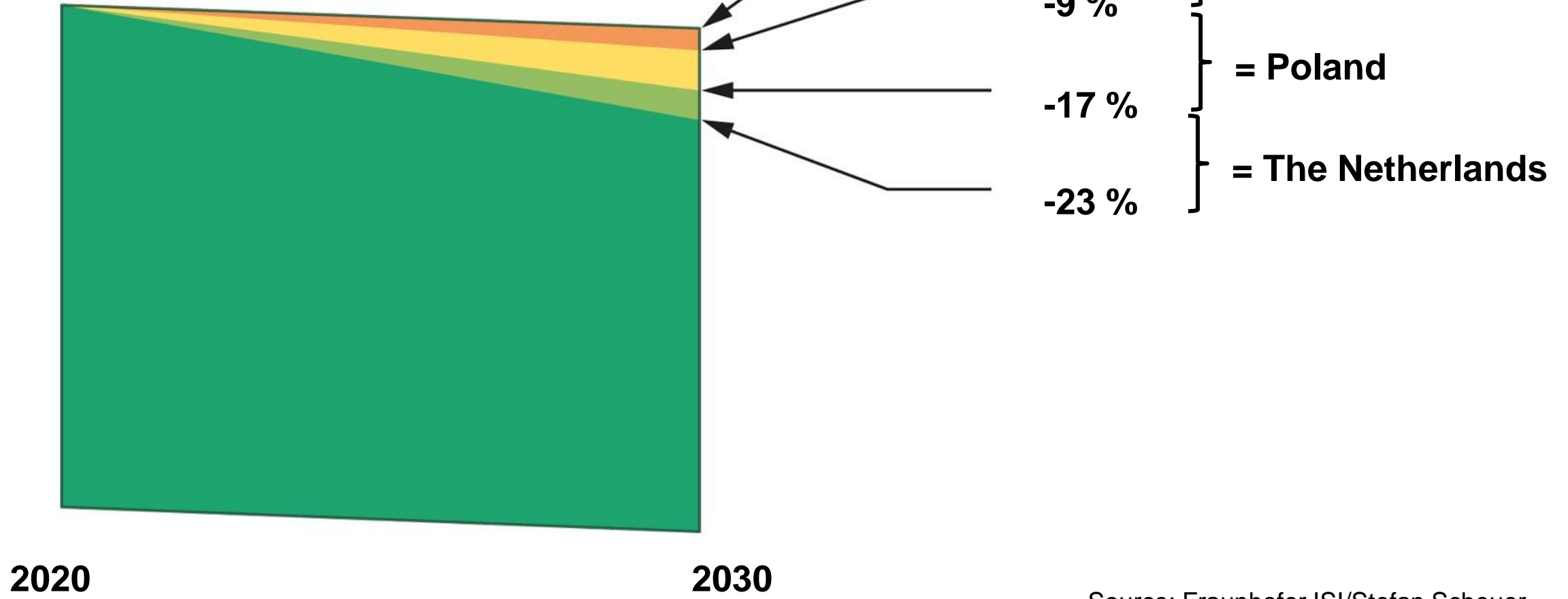


2020

2030

# Technical potential

865 Mtoe



2020

2030



# Conservation vs efficiency

# Discount rates vs energy prices



e c e e e e  
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# ZERO 2022

CARBON INDUSTRY

Antwerp  
22-23 November

#ZEROCARBON2022

# Contact

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