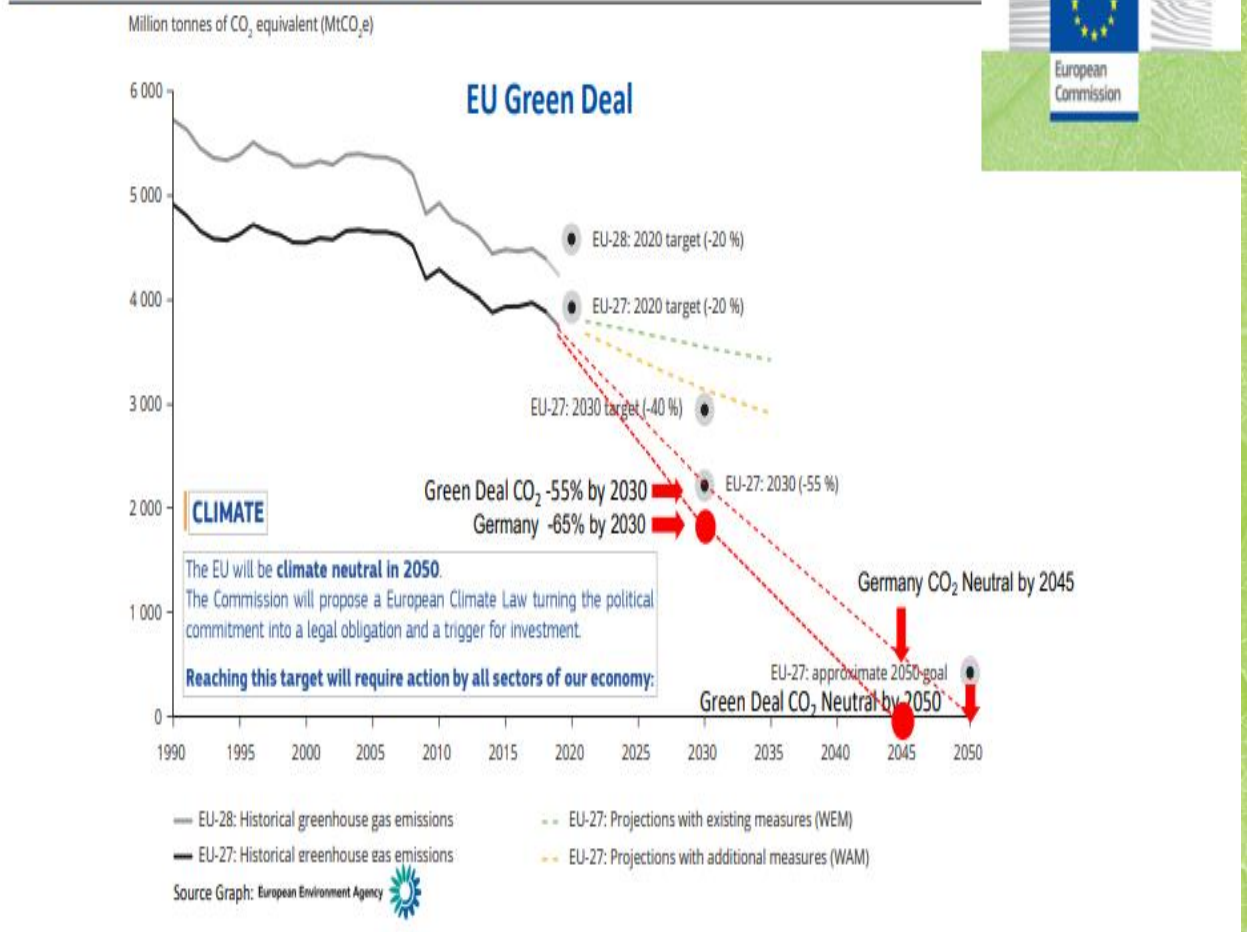
ECPE
European Center for
Power Electronics e.V.

ECPE:
Facilitating the European Green Deal

Presented by **Leo Lorenz**
ECPE European Center for Power Electronics e.V.

The European Green Deal

EU – Green Deal Climate Goals



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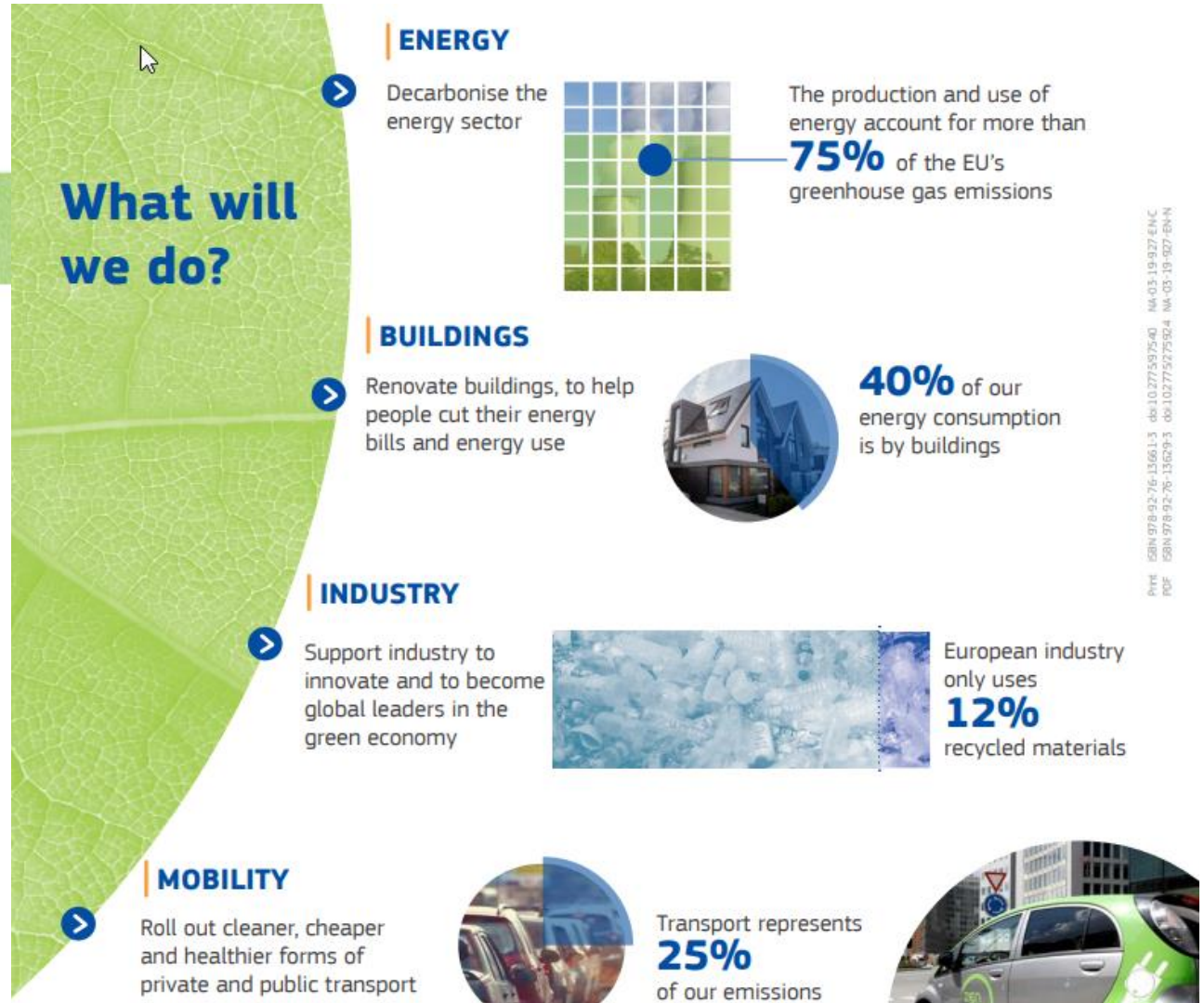
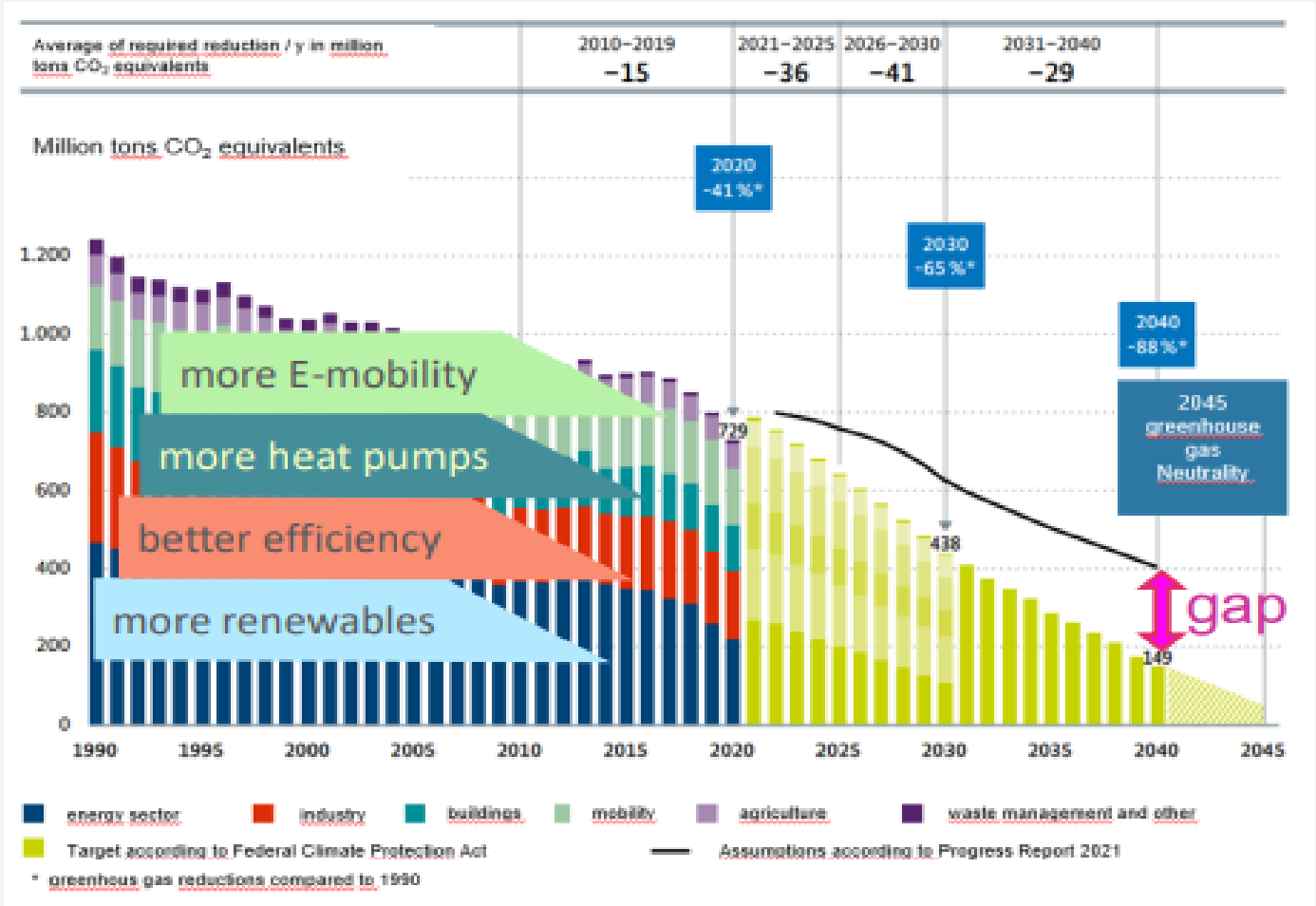


Source: https://ec.europa.eu/commission/presscorner/api/files/attachment/859152/What_is_the_European_Green_Deal_en.pdf.pdf

Development and Prognosis of German CO2-Emission

Energy Transition Demands from the Perspective of the Climate

How to fill the gap?



Prof. Dr. Frank Osterwald EKSH

Life-Cycle-Assessment

Symo GEN24 Plus 10.0

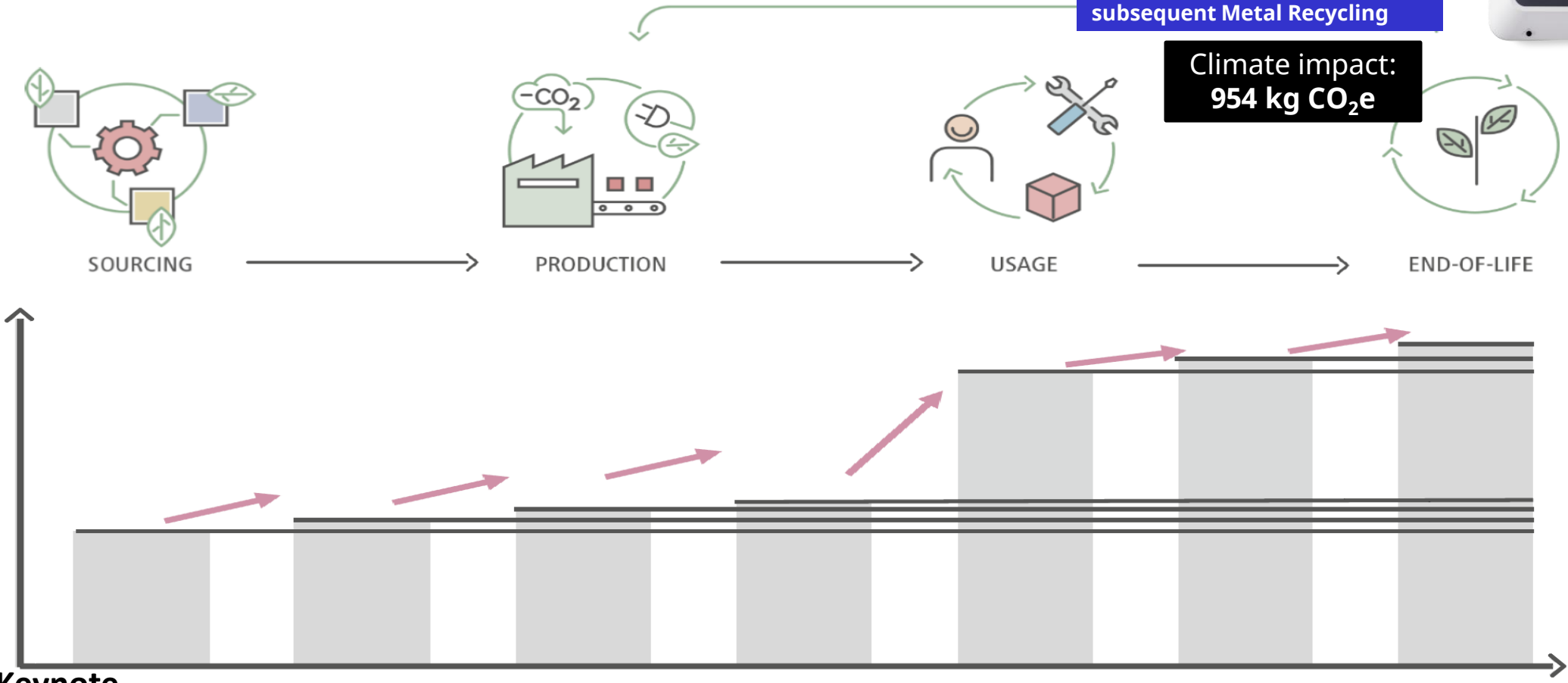
20 Years operation in Germany

Conventional Modules

Thermal Waste Treatment with subsequent Metal Recycling

Climate impact:
954 kg CO_2e

= Sustainability valuation of the ecological dimensions



Keynote

PCIM 2023
Franz Musil
Fronius International GmbH

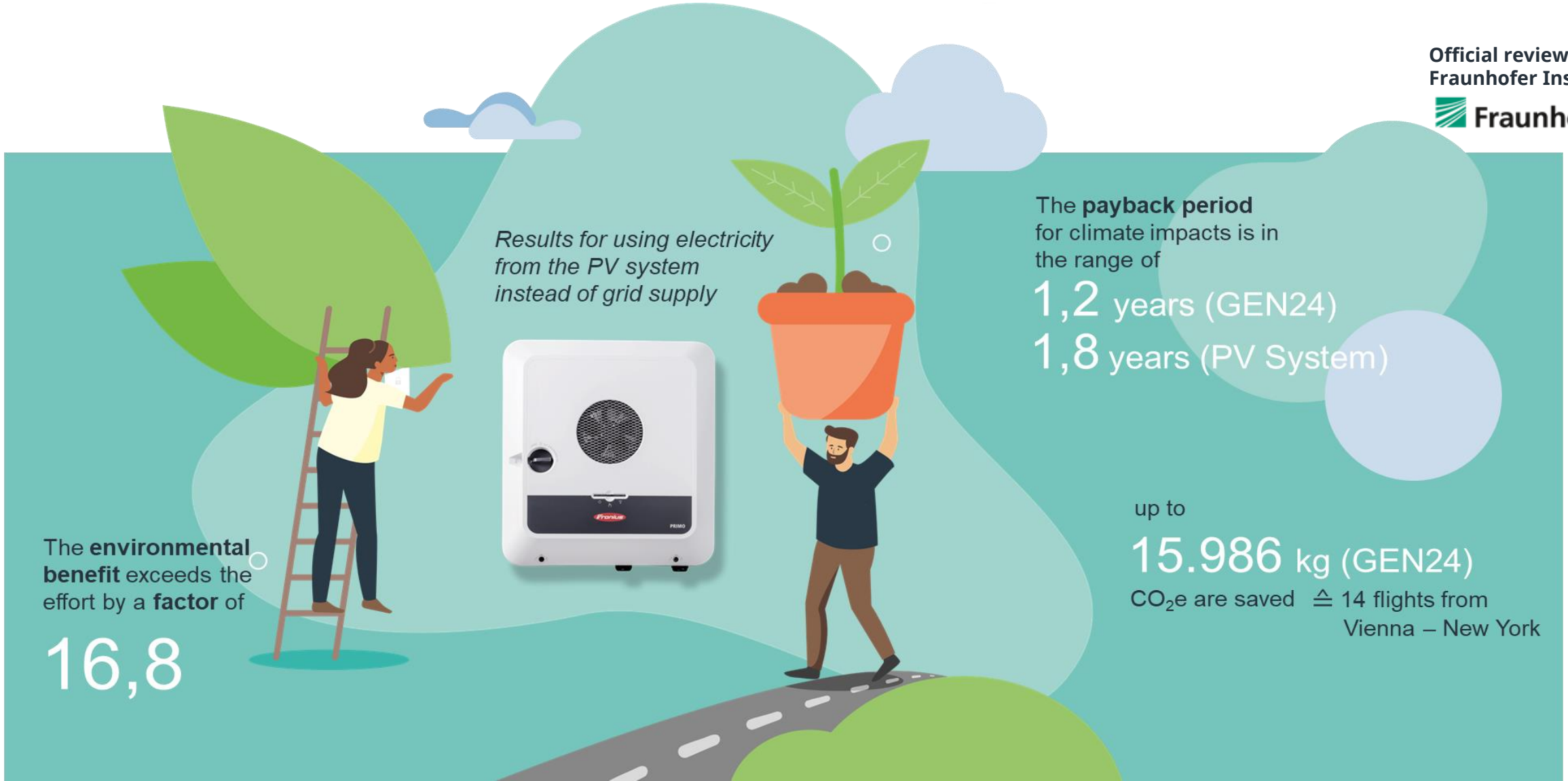
Life Cycle Assessment Results

Symo 10.0 Gen24

Keynote
PCIM 2023
Franz Musil
Fronius International GmbH

Official review by Fraunhofer Institute

Fraunhofer

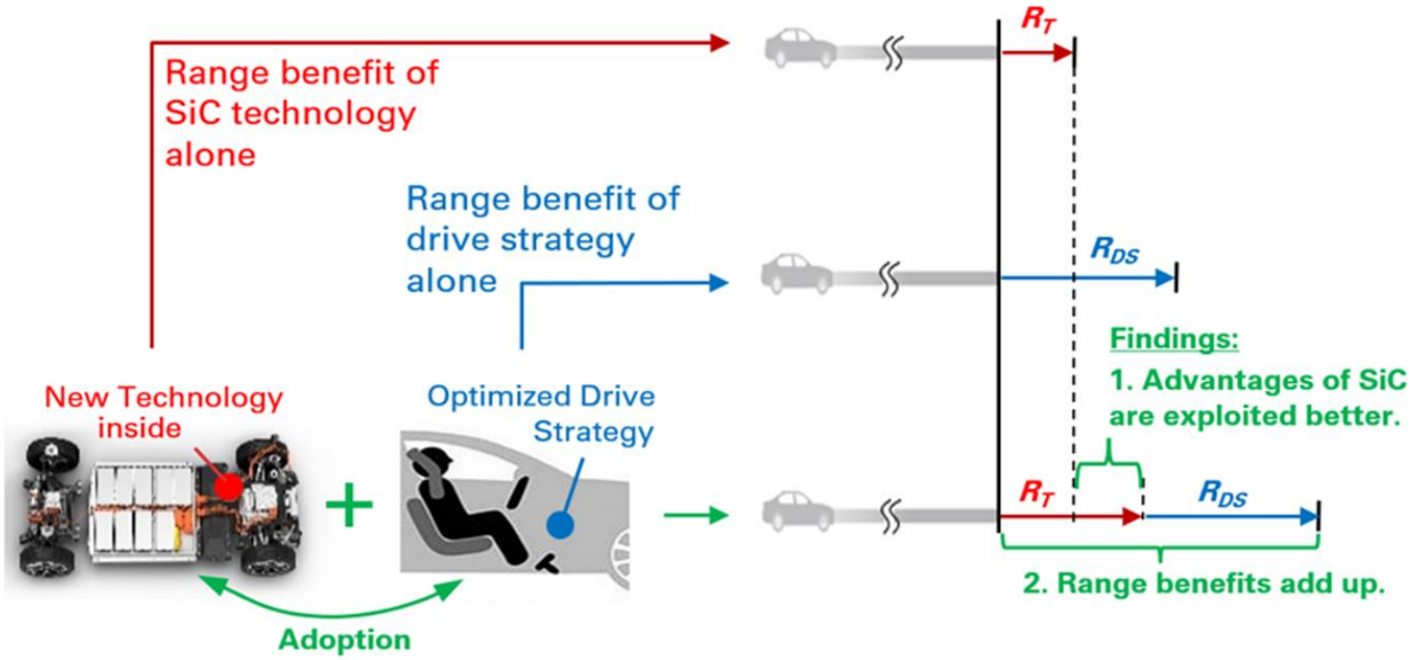


Results and Findings for Power Electronics including Autonomous driving

It appeared that:

1. The advantages of SiC can be exploited much better in an autonomous car (SAE level 4 or 5) than in a BEV with human driver and SAE level 2 assistance. Energy Saving: (8% SiC + 8% Level4 (predictive driving partial Load, etc. + Airflow (Resistance) by Level 4 doubling (28%.....35%)

2. The optimization levers of SiC and autonomous driving go in the same direction so range benefits of SiC and an optimized driving strategy add up.



COBURG UNIVERSITY of applied sciences and arts

Relevance and Range Benefit of Wide Bandgap Power Semiconductors in Autonomous Battery Electric Vehicles

Marco, Denk[1], Georg Arbeiter[1], Fabian Hohmann[2], Stefan Hain[2]

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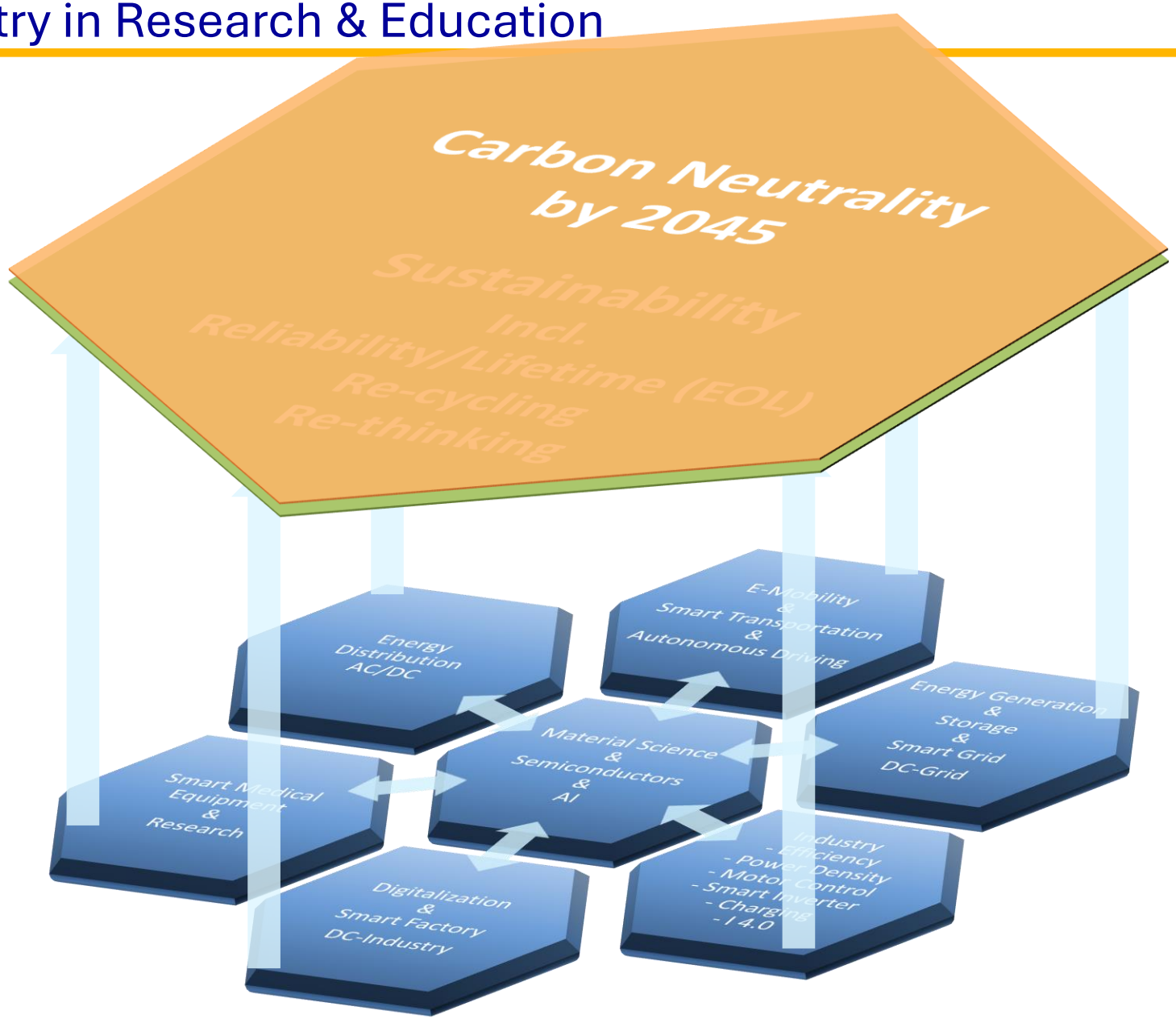
[2]ZF Friedrichshafen AG, Tech Hub Bayreuth, Germany

Facilitating European Power Electronics Industry in Research & Education



Facilitating the European Green Deal by:

Driving Pre-Competitive Research

Driving Tutorials , Workshops, Working Groups, etc.

Driving Public Rel. Management , Y. E. Needed