We Transport Success

The impact of environment and EU regulations on the LCV market.

Denmark | 9th & 10th September 2020

Nutzfahrzeuge

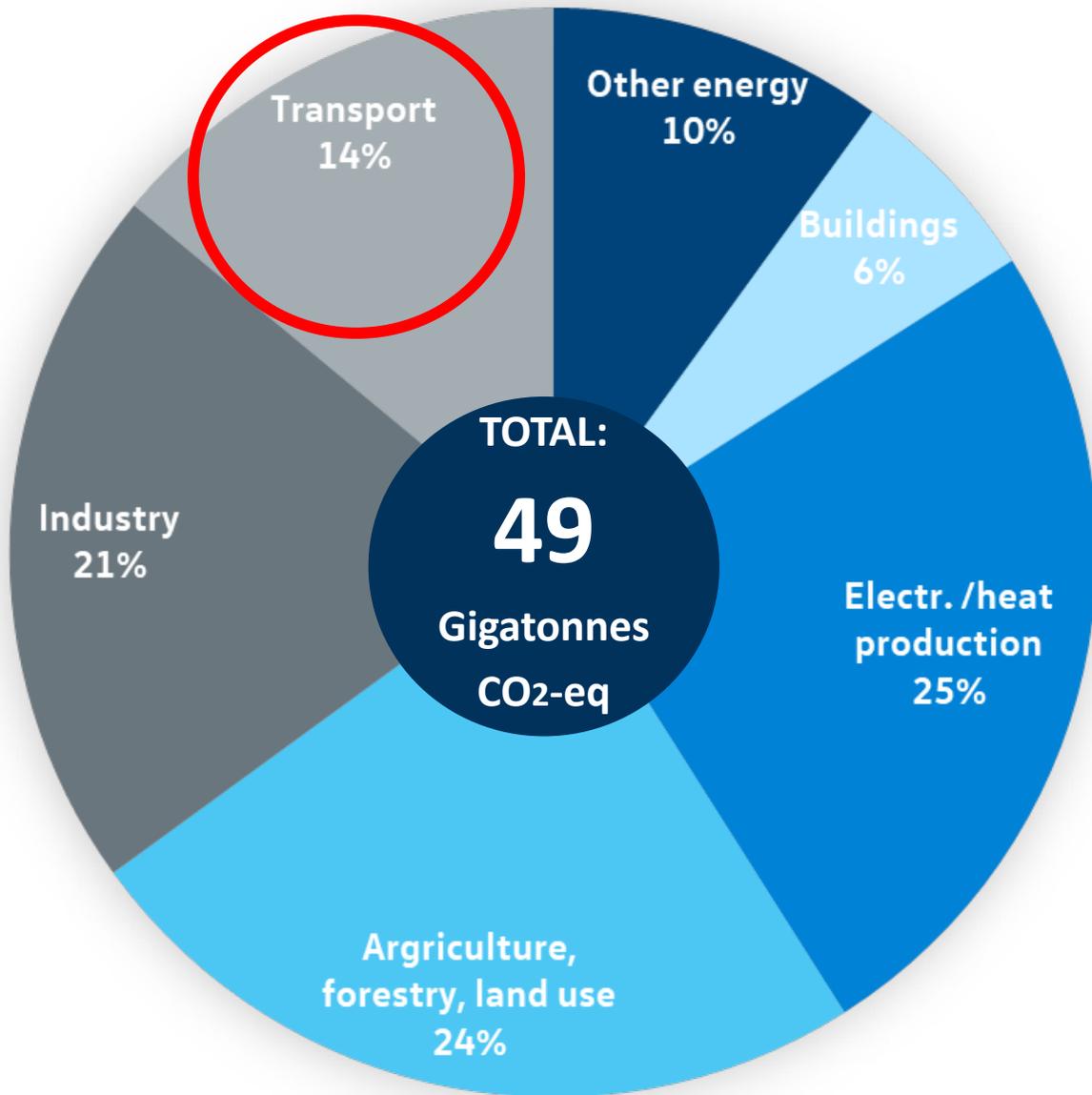Global challenge:
Climate change

Transport
14%

Other energy
10%

Buildings
6%

Electr. /heat
production
25%

Argriculture,
forestry, land use
24%

Industry
21%

TOTAL:
49
Gigatonnes
CO_2-eq

Source: IPCC 2014, EEA 2018

TRANSPORT accounts for about 1/7 of global CO_2 emissions
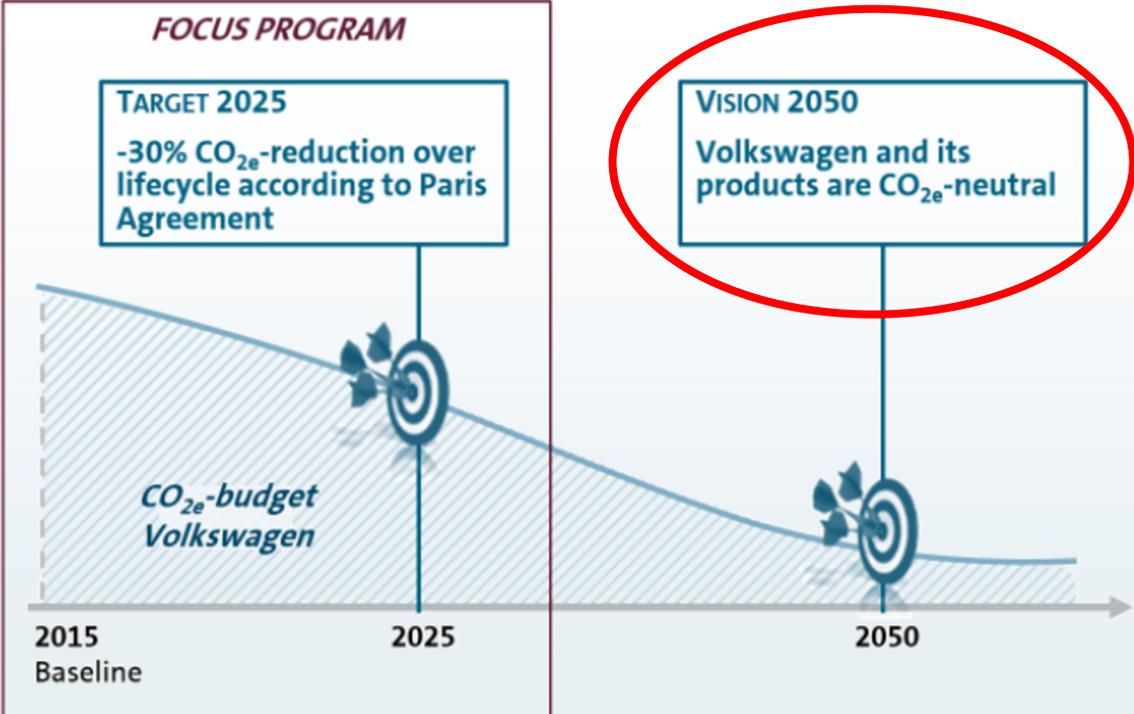
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VOLKSWAGEN IS RESPONSIBLE FOR 1% OF GLOBAL CO$_2$ EMISSIONS

Clean Decarbonization

Sources: VW AG sustainability report,
Greenhouse gas emissions on www.climatewatchdata.org

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FOCUS PROGRAM

TARGET 2025
-30% CO_{2e}-reduction over lifecycle according to Paris Agreement

VISION 2050
Volkswagen and its products are CO_{2e}-neutral

CO_{2e}-budget Volkswagen

2015 Baseline

2025

2050

Source: Volkswagen Group

Commitment to

PARIS2015
CONFÉRENCE DES NATIONS UNIES
SUR LES CHANGEMENTS CLIMATIQUES
COP21·CMP11

GROUP SUSTAINABILITY strategy and DECARBONIZATION program

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Political Impact I

647 Urban Entry Restrictions

18 City-Toll-Systems

304 **Exeptions for Vehicles with alternative Powertrains**
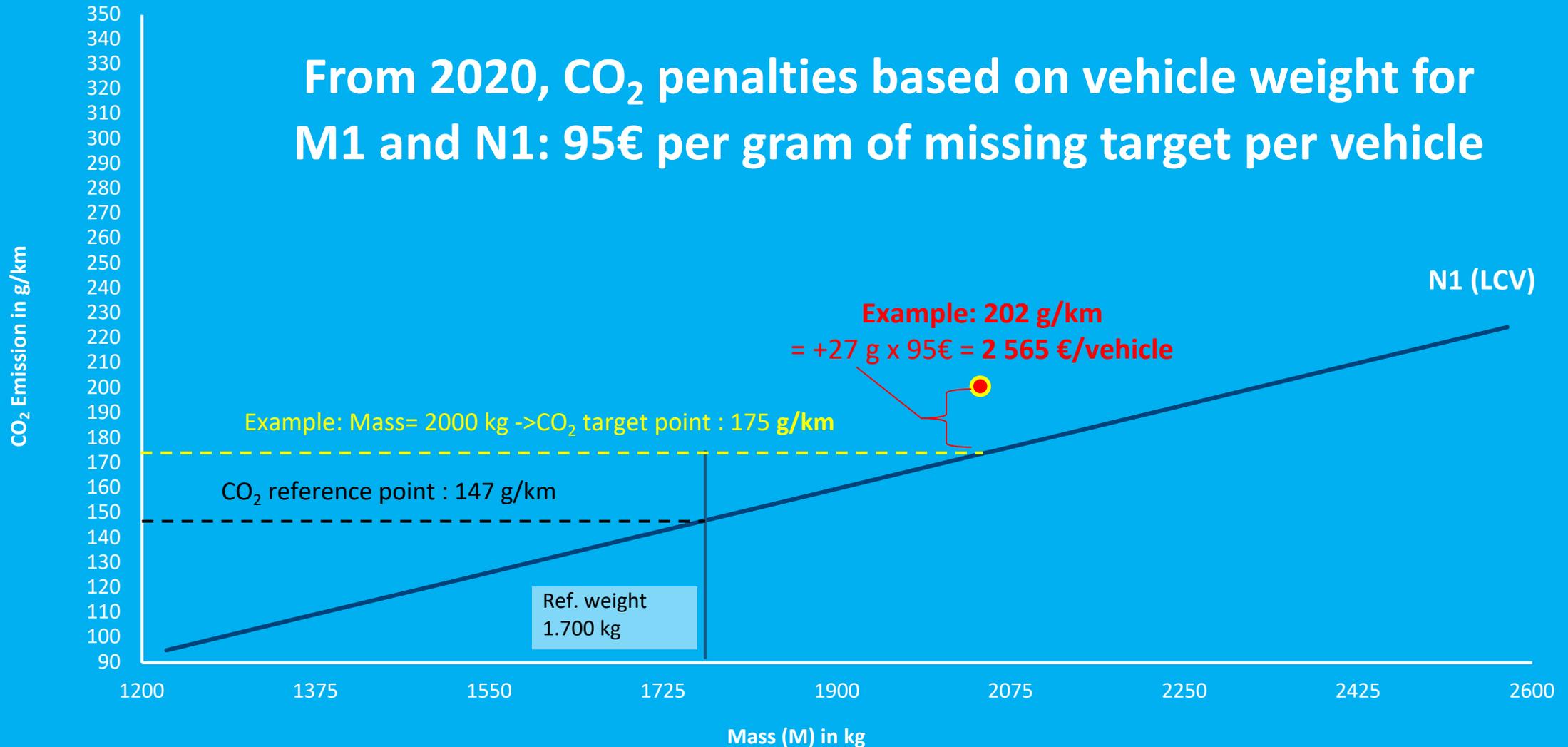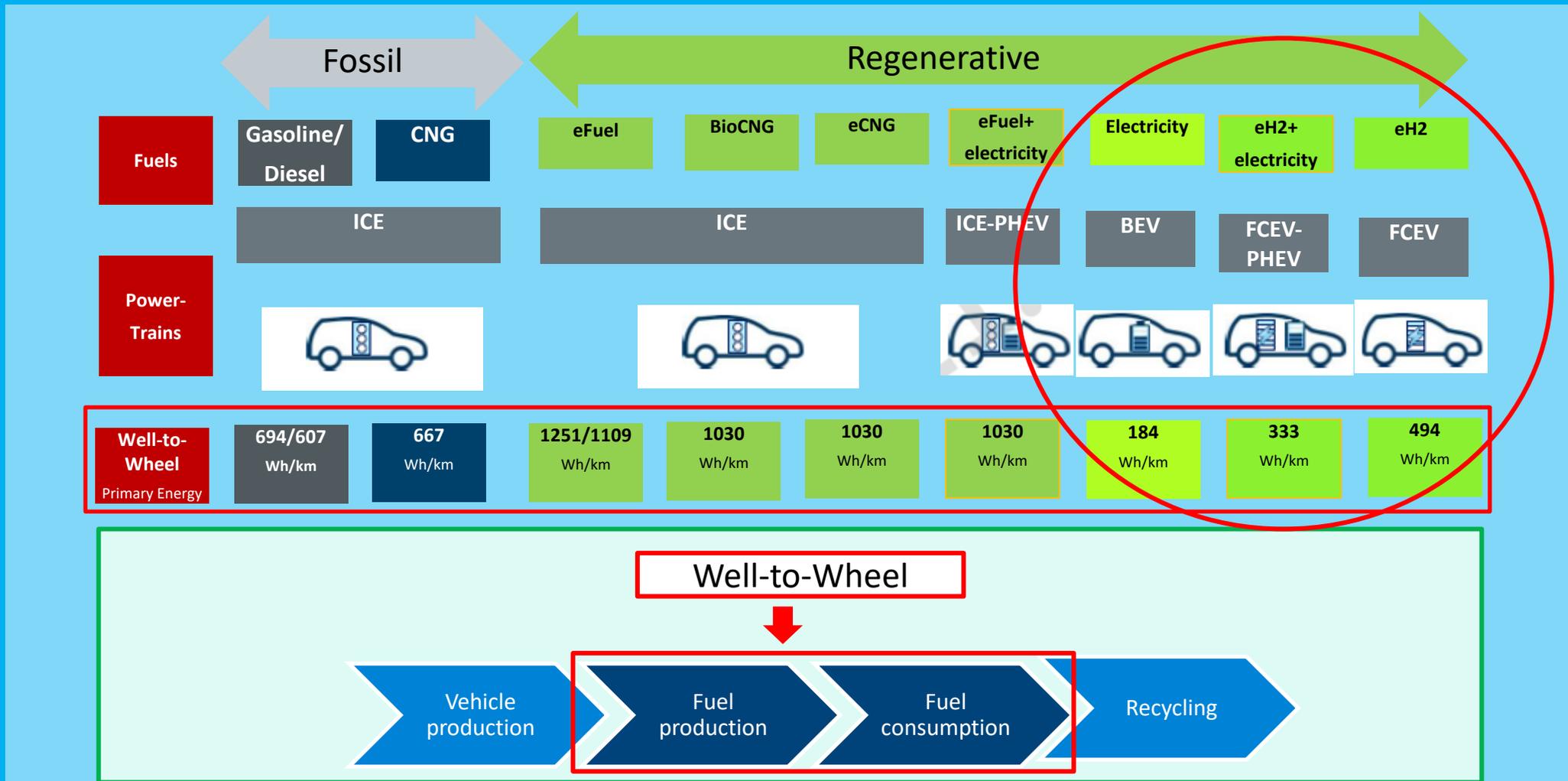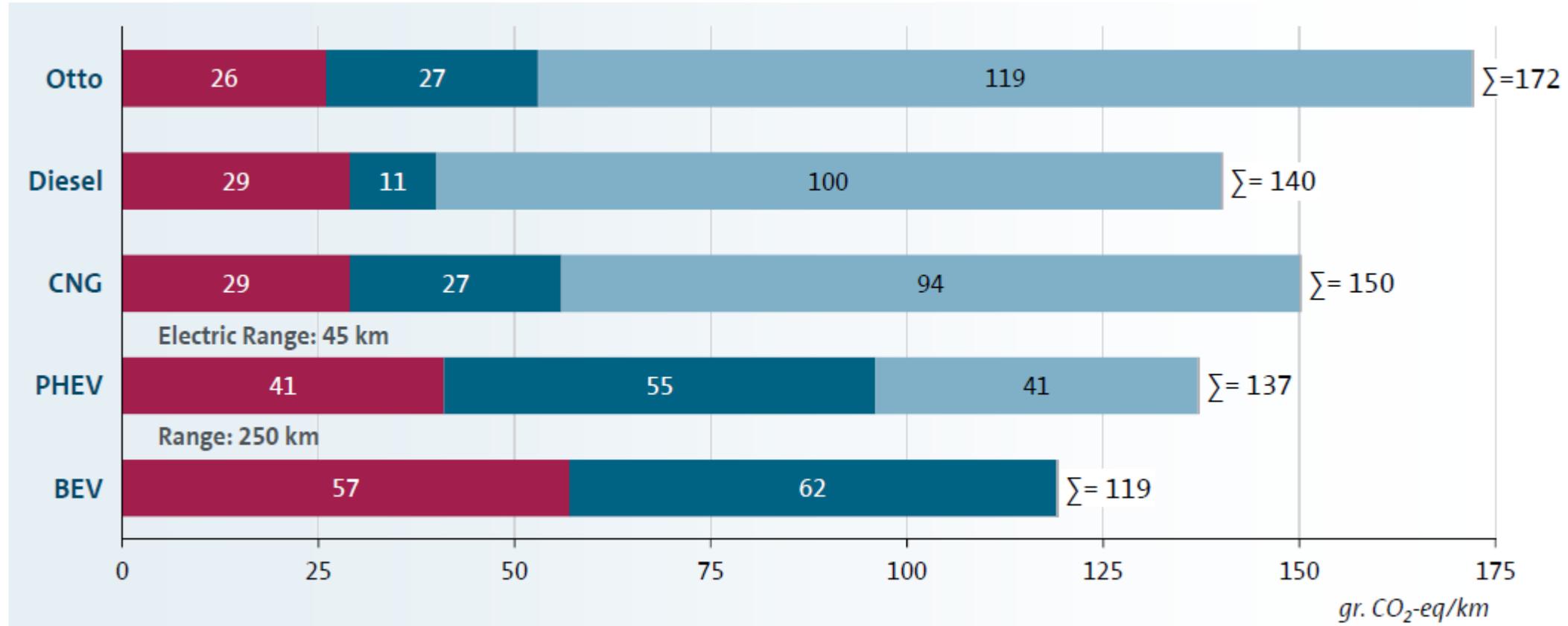
Status End of 2019

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Comparison between Different powertrains and fuels (PC)

	Fossil		Regenerative						
Fuels	Gasoline/ Diesel	CNG	eFuel	BioCNG	eCNG	eFuel+ electricity	Electricity	eH2+ electricity	eH2
	ICE		ICE			ICE-PHEV	BEV	FCEV-PHEV	FCEV
Power-Trains									
Well-to-Wheel Primary Energy	694/607 Wh/km	667 Wh/km	1251/1109 Wh/km	1030 Wh/km	1030 Wh/km	1030 Wh/km	184 Wh/km	333 Wh/km	494 Wh/km

Well-to-Wheel

Vehicle production → Fuel production → Fuel consumption → Recycling
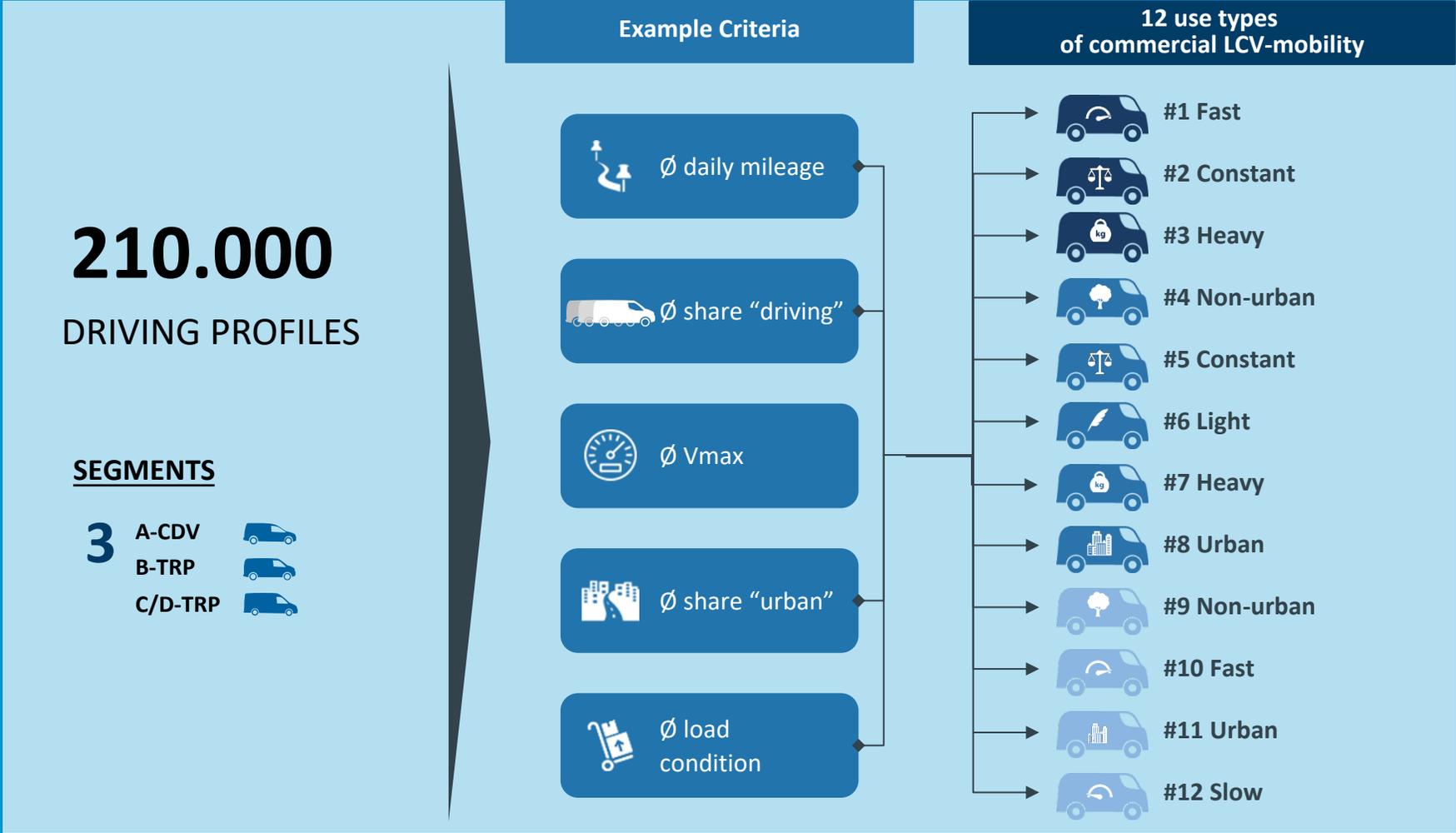
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From today's perspective, e-mobility is the best and most efficient way of achieving climate-neutral, clean mobility.

Quelle: Volkswagen 2019, Golf-Klasse, EU-28 Strom-Mix, WLTP, 200 Tkm

Legend: Production | Well to Tank | Tank to Wheel | Recycling

Chart data (gr. CO_2-eq/km):

Type	Production	Well to Tank	Tank to Wheel	Sum
Otto	26	27	119	∑=172
Diesel	29	11	100	∑= 140
CNG	29	27	94	∑= 150
PHEV (Electric Range: 45 km)	41	55	41	∑= 137
BEV (Range: 250 km)	57	62		∑= 119

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Key Findings of study

▶ Ø 30 %   > 175 km / day

▶ Ø 55%   70 – 175 km / day
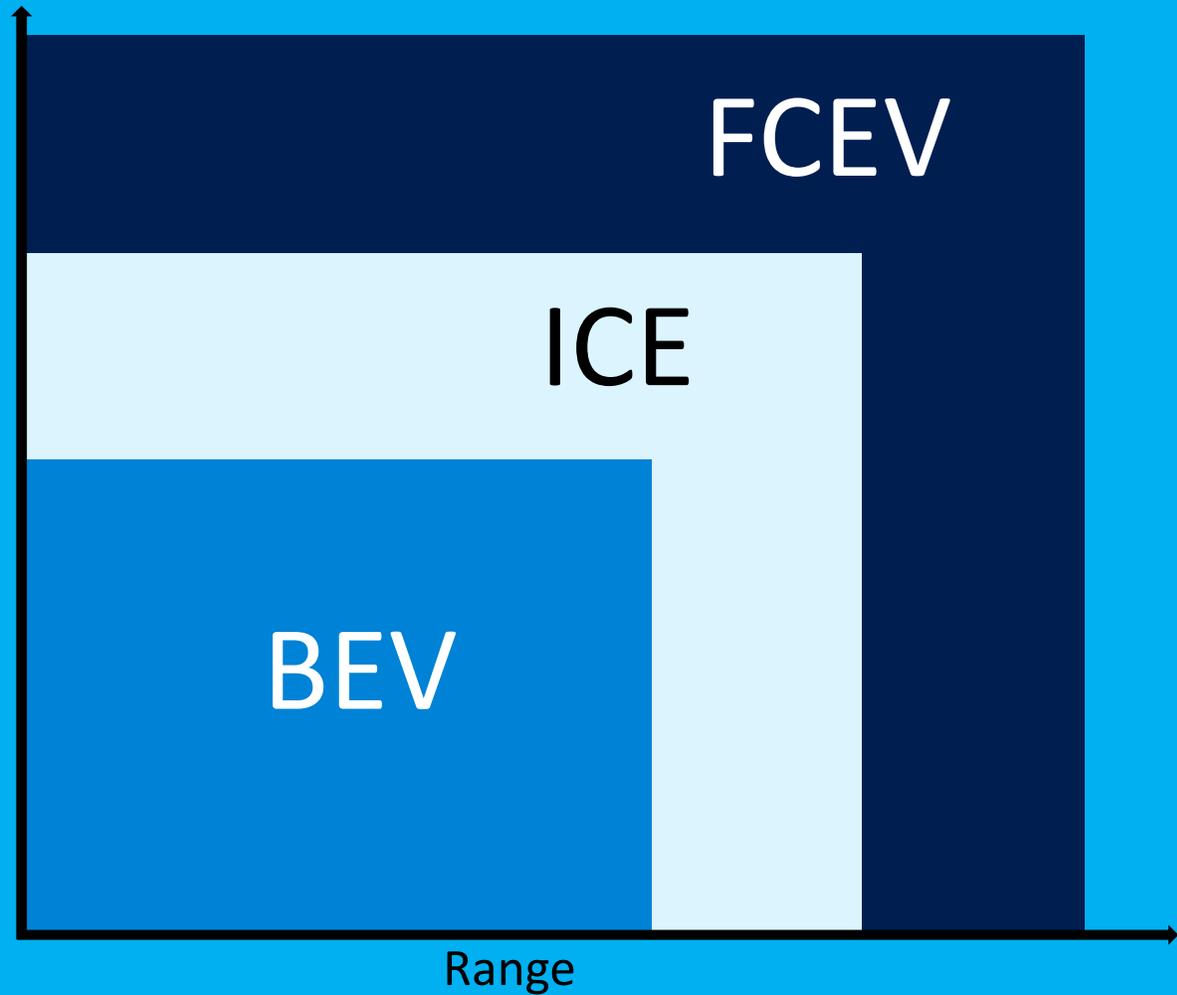
▶ Ø 15 %   Ø 70 km / day
(85% city, 40 – 100 stops, min. 900 kg)

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Driving Profiles and suitable powertrains for different use types.

12 use types of commercial LCV-mobility

- #1 Fast
- #2 Constant
- #3 Heavy
- #4 Non-urban
- #5 Constant
- #6 Light
- #7 Heavy
- #8 Urban
- #9 Non-urban
- #10 Fast
- #11 Urban
- #12 Slow

Payload

FCEV

ICE

BEV

Range

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The largest electric offensive in the automotive industry is gathering pace.

~75
New all-electric models

~33
Billion euros investement

~26
Million vehicles

3
Wordld regions: China, USA, Europe

Source: Volkswagen Group

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Battery production:
Volkswagen invest **900 Mio. €** in Northvolt

First e-Crafter
Ambulance in Germany

Thank you.