

***E20 R60 Petrol Fuel
Experience in
Competitive
Long Distance Racing***

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Max Kruse Racing



Agenda

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1

We Race To Win.

Vision: Sustainable Motorsport



Max Kruse
professional soccer player

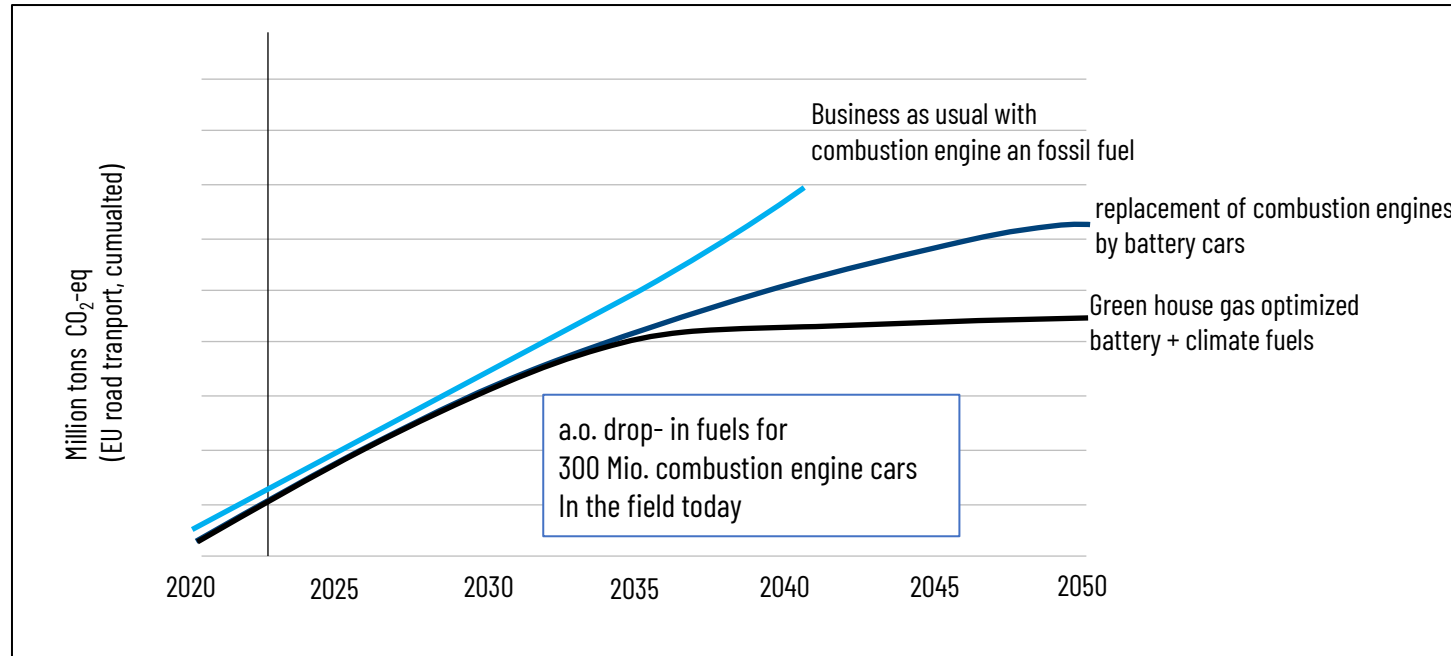
Benny Leuchter
professional race driver



1



Development of Green House Gas Emissions in different EU-scenarios



Source: Volkswagen AG based on FVV fuel Study 4b and others



Max Kruse Racing can become an important ambassador using regenerative fuels in motorsport



Criteria for fuel selection

- **Sustainability**
- **Quality, esp. antiknock behaviour**
- **Performance and consumption**
- **Availability on the race track**
- **Compatibility with existing vehicles**
- **Price**
- **Availability in future**

2

E20 defines a sweetspot



DIESEL

fast ramp up possible

visiable step for the customer

car range not significantly affected

high number of cars from the legacy fleet are compatible*

production technology has high technology rediness level

raw material capacity for the EU market \cong 20%



high RON is enabler for regenerative base fuels

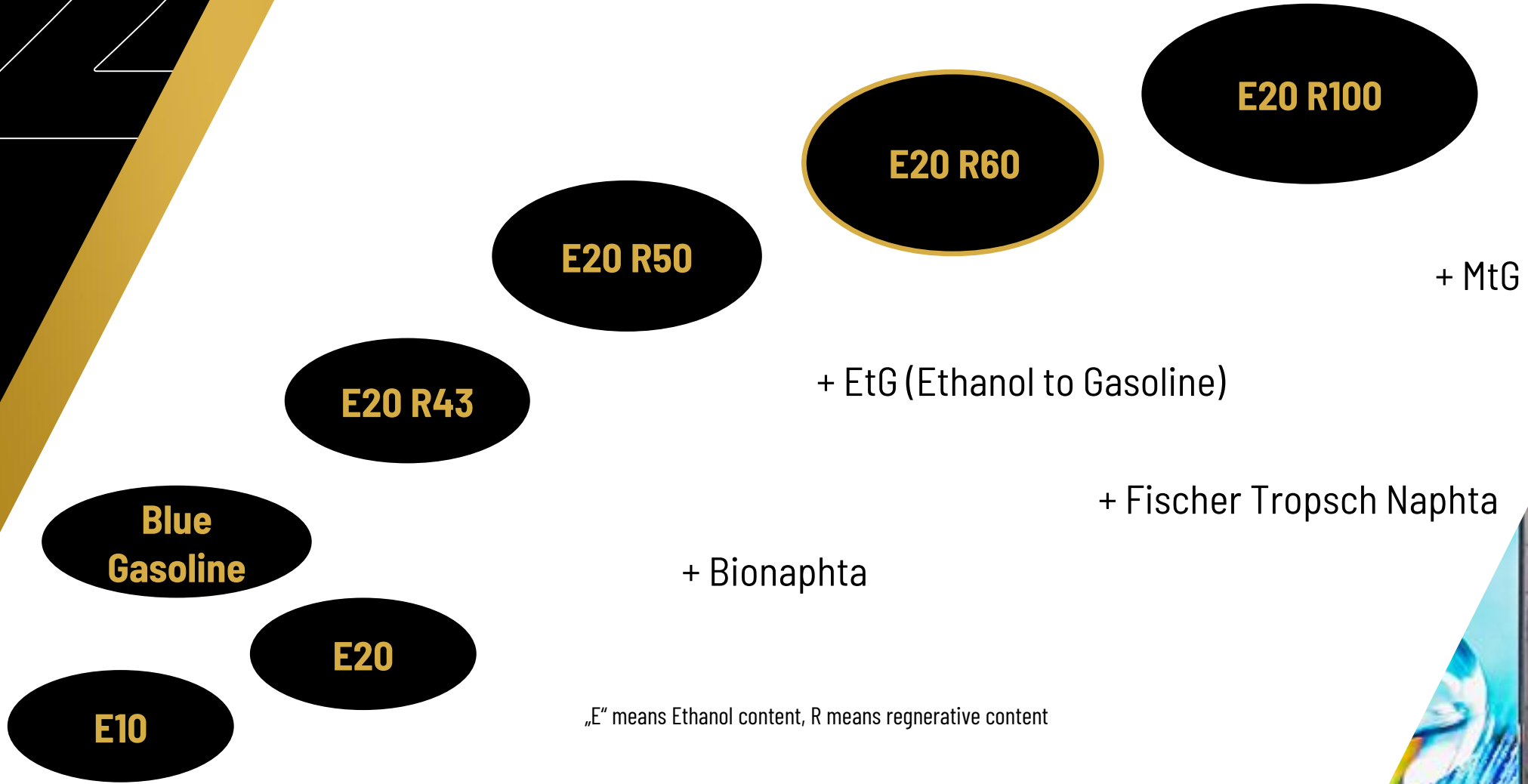
future cars could be operated more efficient thanks to RON and evaporation enthalpie

ethanol can be produced cost effective from waste and residues



E20 plays an important role in the Volkswagen Group Fuel Roadmap

2



„E“ means Ethanol content, R means regenerative content

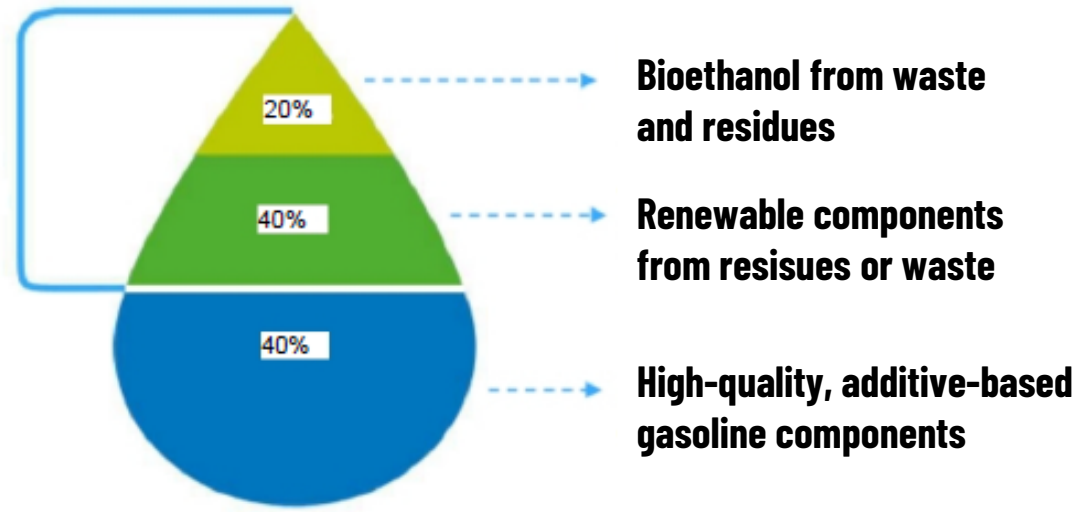


2

Available E20 R60 for Racing



60%
renewable
components



- E20 Gasoline contains 60 percent renewable components.
- The test gasoline used E20 Gasoline with approx. 60% vol. renewable content has the potential to bring a CO2 reduction of up to 35-40% (compared to E0) **
- The fuel has an octane number of over 100 and thus increased performance and excellent combustion properties
- The quality of the E20 complies with the DIN pre-standard draft
- The special racing fuel E20 Gasoline was developed together with Volkswagen at the Shell Technology Center in Hamburg.

*According to mass-balanced PoS/certified raw material

** Well to Wheel CO reduction based on the CO values of the sustainability certificates of the biofuels used with 93.3 g CO /MJ as a reference for fossil gasoline and calculation according to the 38th BimSchV

3

Getting the fuel to the race track



- **Application of the engine on the test bench:**
 - significant more torque at low engine speed
 - constant power at high temperatures
 - availability for more power (restricted by balance of performance)
- **Starting with 4 cars in the NLS including 1 Porsche 911 GT3**
- **Starting with 4 cars at the 24h race including 2x Golf 8 GTI in the AT Class**
- **Using a special refueling area, separate from the boxes**
- **Driving 100+ hours track tests**
- **Over 80 hours of competitive racing planned for 2025**



3

Impressions



Media data of 24h Nürburgring:

- > 240.000 visitors
- > 1.700 international TV broadcasts
- > 100 Mio. social media reach



33

Max Kruse Racing on Social Media



11,2 K
FOLLOWER

1200+
POSTS



BE PART OF
OUR JOURNEY



Results



Class win in the AT class in 24 h Race Nürburgring



**5 class wins overall in the AT Class by Max Kruse Racing
(3 of these with Benny Leuchter)**



**First time in Top 10 overall ranking of an AT class car
(Position 9 in 55th Adenauer ADAC Rundstrecken Trophy,
almost 30 seconds faster than second placed car in AT class)**



55. Adenauer

1. #3 Porsche 911

SP9 Pro: 1. BACHLER | PICARIE

2. #15 Audi R8 LMS C

SP9 Pro: 2. STIPLER | BASTIAN

3. #6 Mercedes-AMG C

SP9 Pro: 3. FETZER | BERETTA | OW

4. #148 Porsche 911 GT3 C

CUP2: 1. MÜLLER | NAGELSDIEK | |

5. #120 Porsche 911 GT3 Cup

CUP2: 2. BLICKLE | SCHEERBARTH | JA

6. #8 Audi R8 LMS GT3

SP9 Am: 1. VEREMENKO | 'SELV' | |

7. #54 Porsche 911 GT3 R

SP9 Pro: 4. DE LEENER | JAMINET | |

8. #121 Porsche 911 GT3 Cup

CUP2: 3. DI MARTINO | BRÜCK | |

9. #105 Porsche 911 GT3 Cup

AT: 1. FUGEL | FUGEL | LEUCHTER |

10. #103 Porsche 911 GT3 Cup

CUP2: 4. CHRISTODOULOU | KAYA | STURSBURG |

Gear Up: Future Plans

The new Season:

- Start again with E20 R60
- Fuel available in the box
- 5-6 cars in the AT class per race
- Complete Championship NLS
- 24h Race at the Nürburgring
- Results: WE RACE TO WIN.

On the medium run:

- Increase of regenerative share up to 100%
- Sustainable fuel as standard
- Also race taxis, logistics, tire heating and visitors use sustainable fuels
- Mixture of biofuels and eFuels

On the long term:

- All teams use climate friendly sustainable fuels



Conclusion

- **E20 R60 racing fuels** were used on the race track during a **successful season**
- Future mobility needs both: **battery vehicles with green electricity and combustion engine powered cars with regenerative fuels**
- Max Kruse Racing is aware of responsibility due to **lighthouse character** and steps forward with **strong partners** to make racing fuels more sustainable
- Max Kruse Racing **will proceed using sustainable fuels** and expand these activities in future
- **Separate refueling area** is still hindering the use and overall result performance and should be removed in future
- Race organizations should **reward race teams** that use alternative fuels **with benefit(s)**, resulting in attracting more race teams to compete with alternative fuels



50 years of Golf
Made by life. Made for life.



MAX
KRUSE
RACING

#50
#PHÖNIX



Max Kruse Racing Onboard #50



0000	RPM	0	GEAR	125	KM/H
TP	BRK	STEERING			
LAP	LAST LAP	BEST LAP	CURRENT LAP		
3	10:17,00	10:17,00	03:38,85		

VBOX