



E-Mobility im Lichte grosser Herausforderungen

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ABB



Mobility

Deeply anchored in our lives



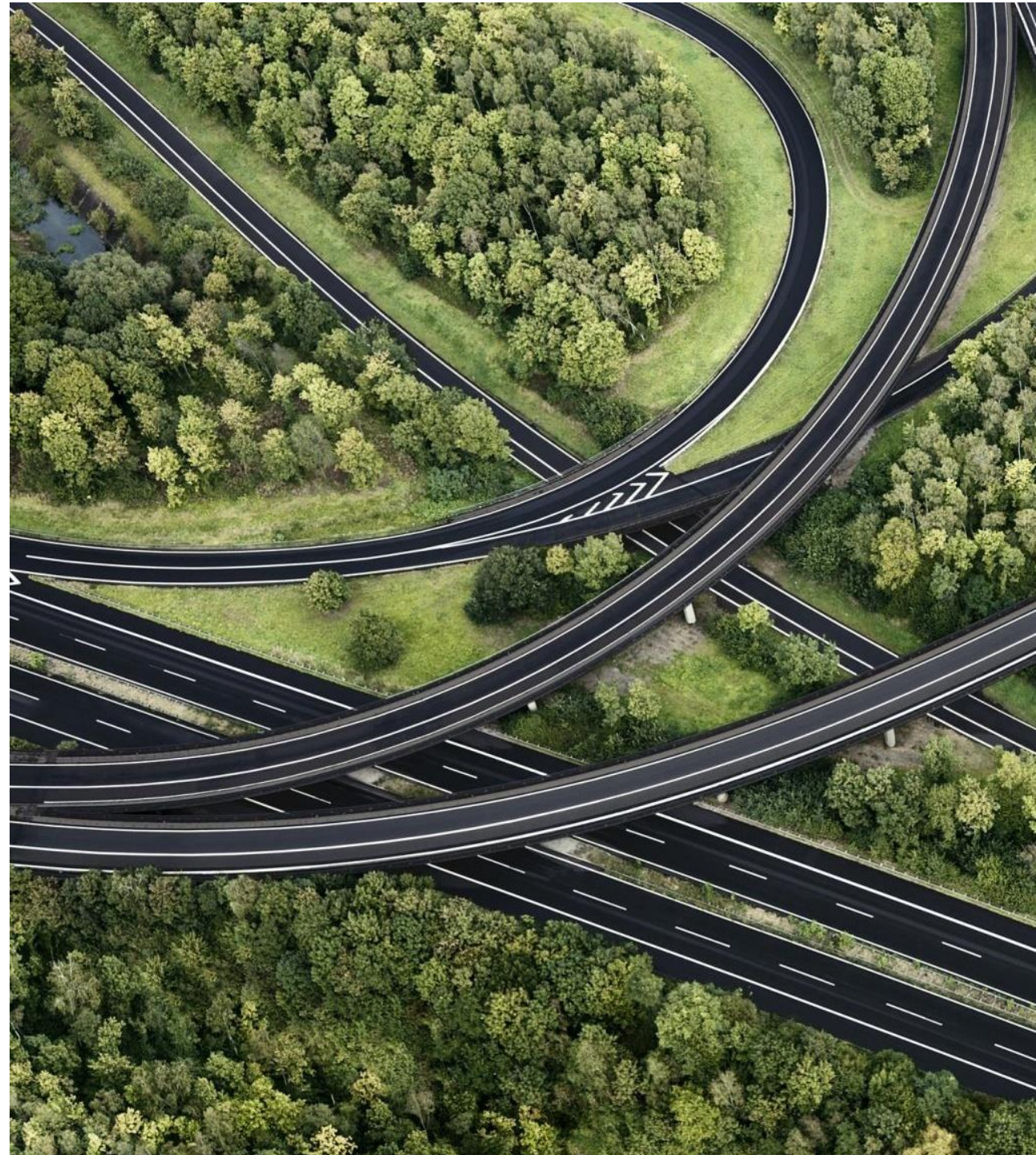
Enables what creates value for our **Society**. Has contributed a large share of our wealth.



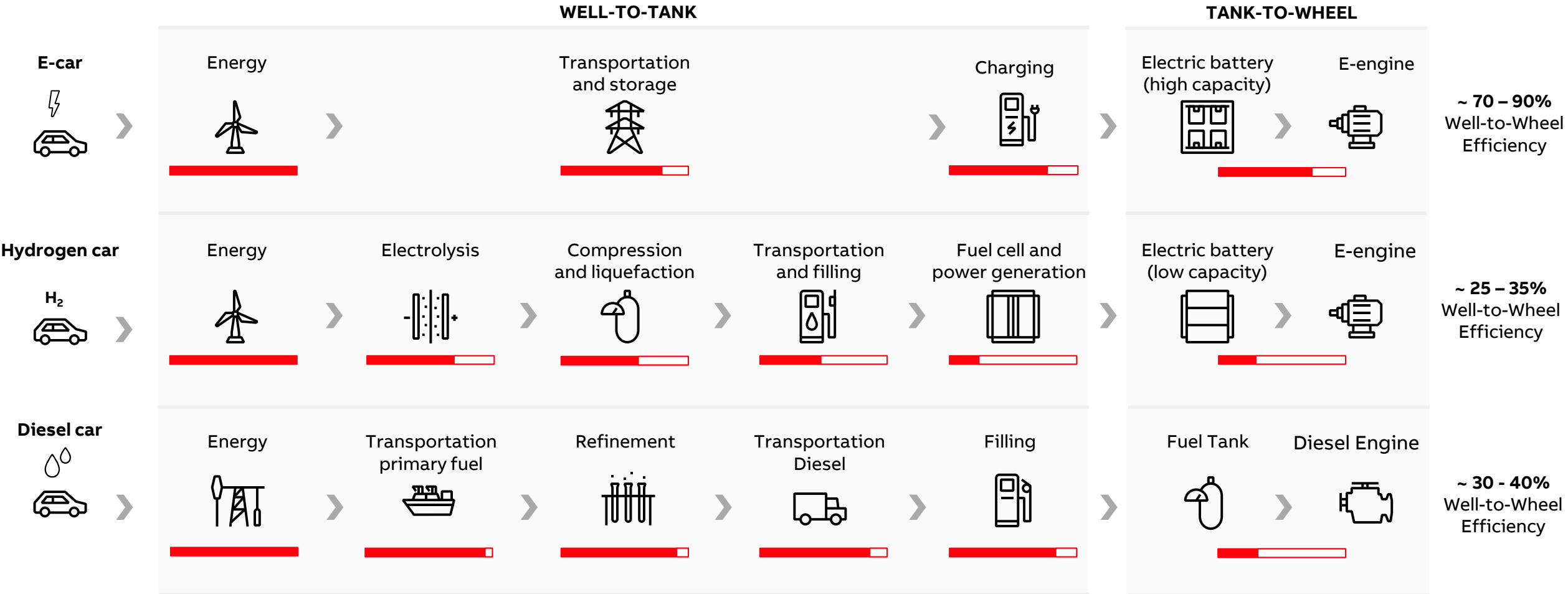
Is enabled by **Technology**, seamlessly integrated in our daily schedules. Makes moving about effortless.



Mobility takes its toll on **Environment**. From space needed for the infrastructure, to emissions from making energy accessible



Energy efficiency comparison per propulsion type



Technology as Driver of Change

Charging Power



Load Management



Ease of use



Digitalization



“Electric cars will work for the planet while you keep on rocking your everyday life.”

Technology as Driver of Change

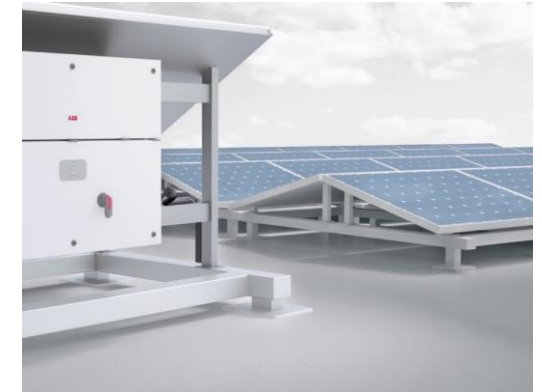
Network expansion



Gridfriendly Solutions

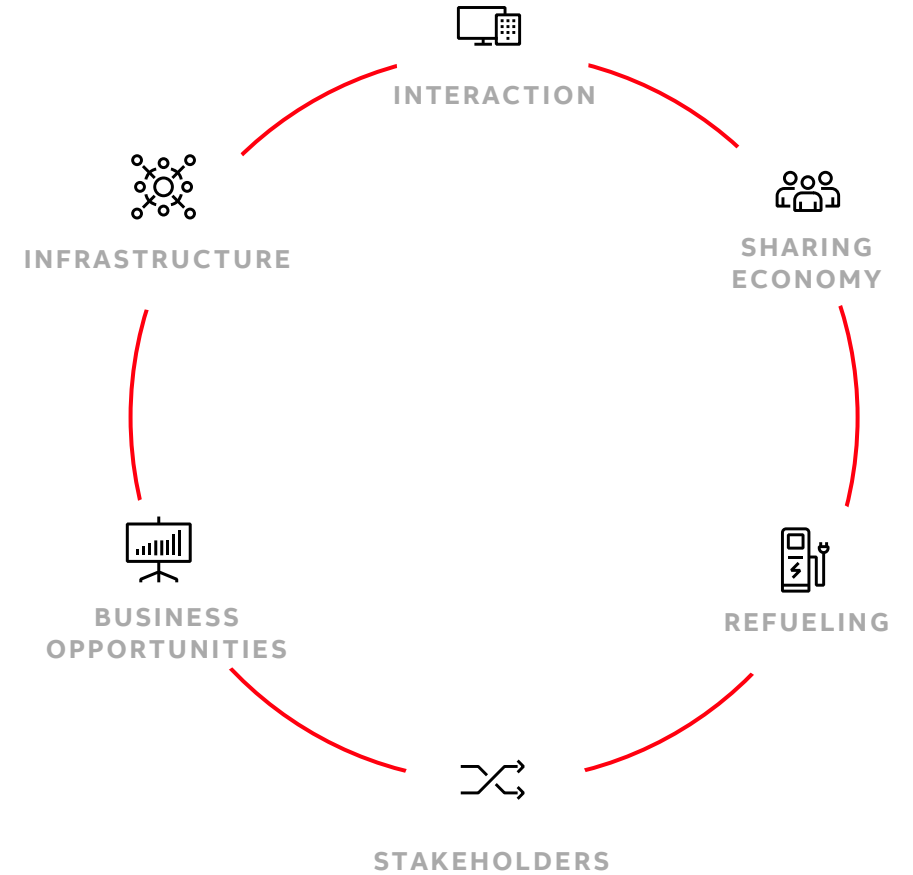


Integration of renewable energy



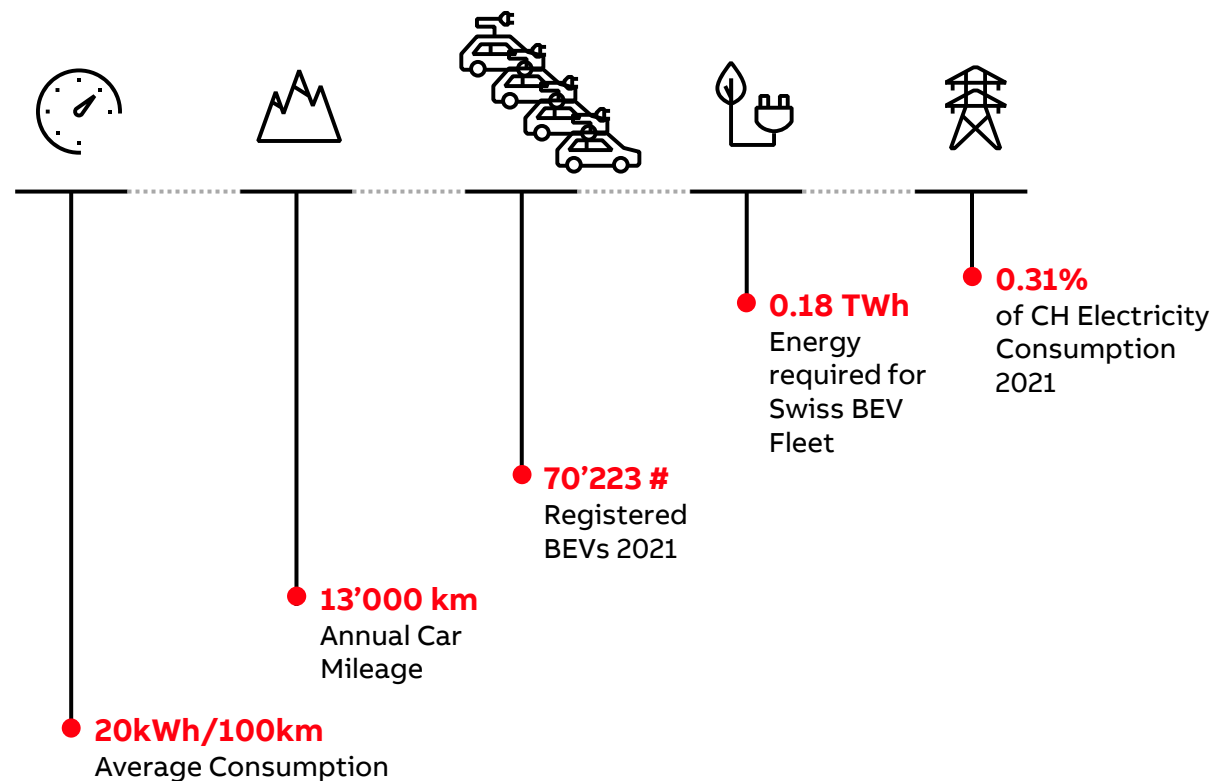
Transitioning from ICE to BEV

There is more to it than changing the drivetrain of a vehicle



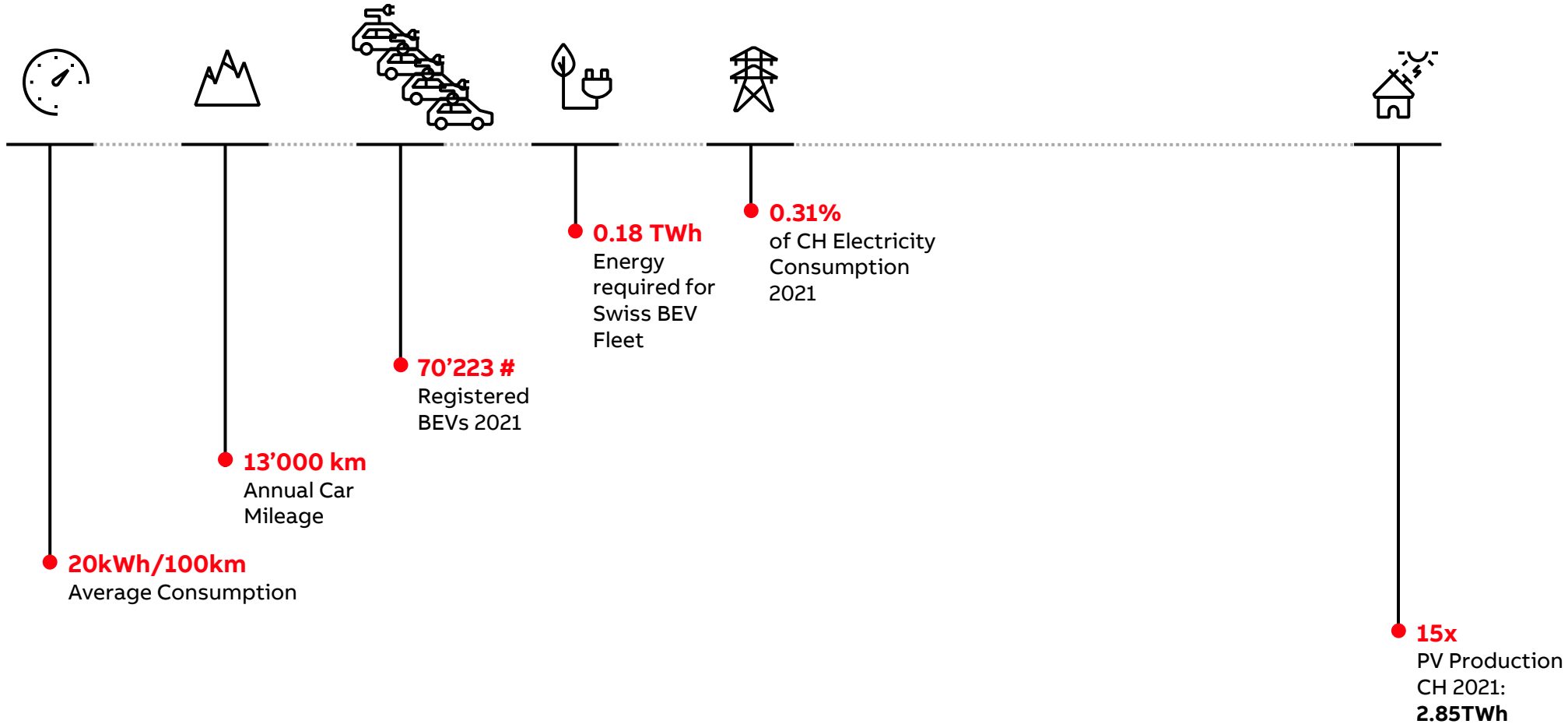
Is there enough power?

Scenario with 2021 Data



Is there enough power?

Scenario with 2021 Data



Energy Concept of the future?

Neighbourhood Männedorf

Built by the **Umwelt Arena Schweiz** in collaboration with **Empa**, the University of Applied Sciences in **Rapperswil**, and the **Klimastiftung Schweiz**.

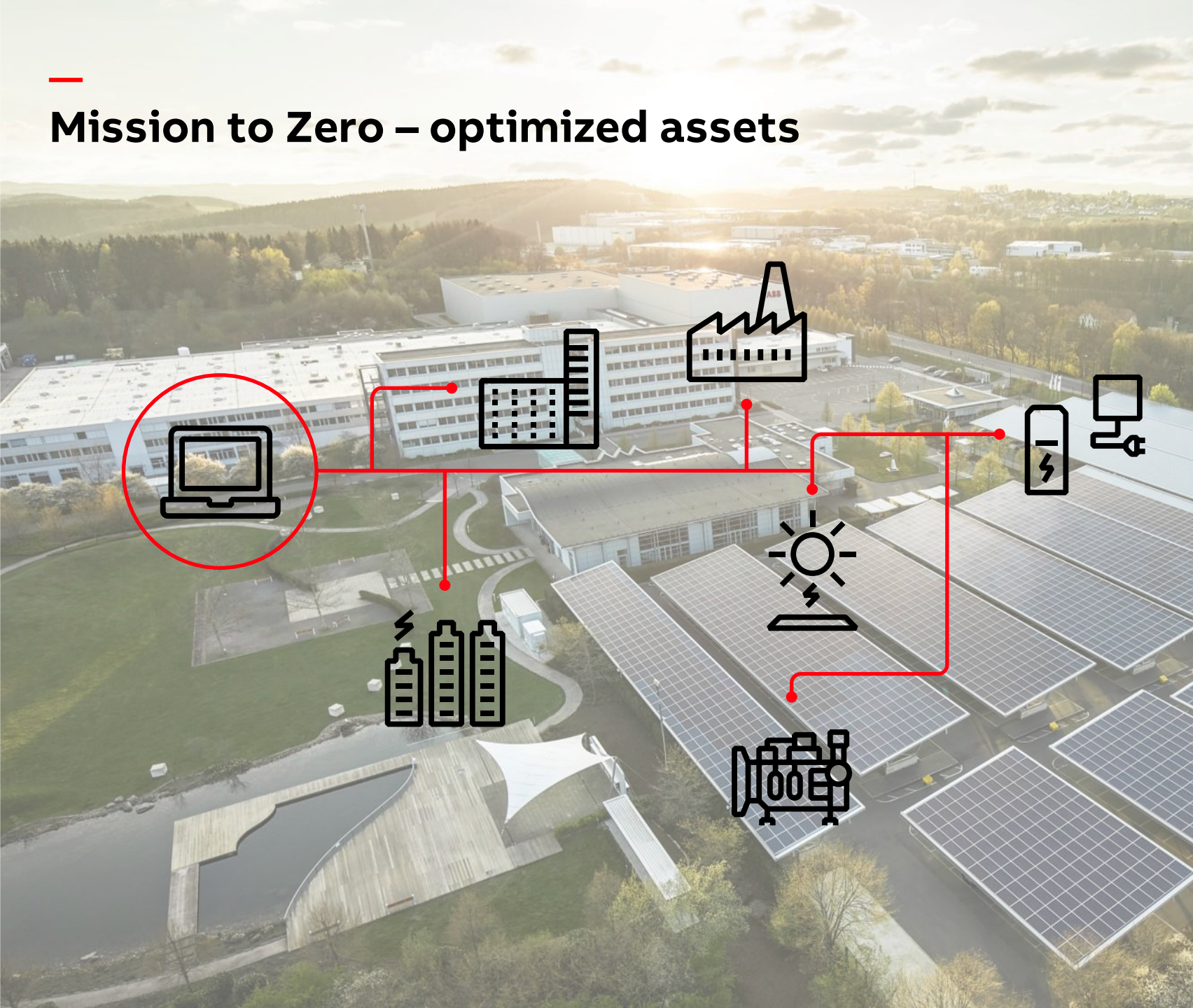
Carbon-neutral living for **16 families**

With **photovoltaic modules** and **two wind turbines**, renewable electricity is produced locally.

Supported by **ABB Smart Home Technology**.



Mission to Zero – optimized assets



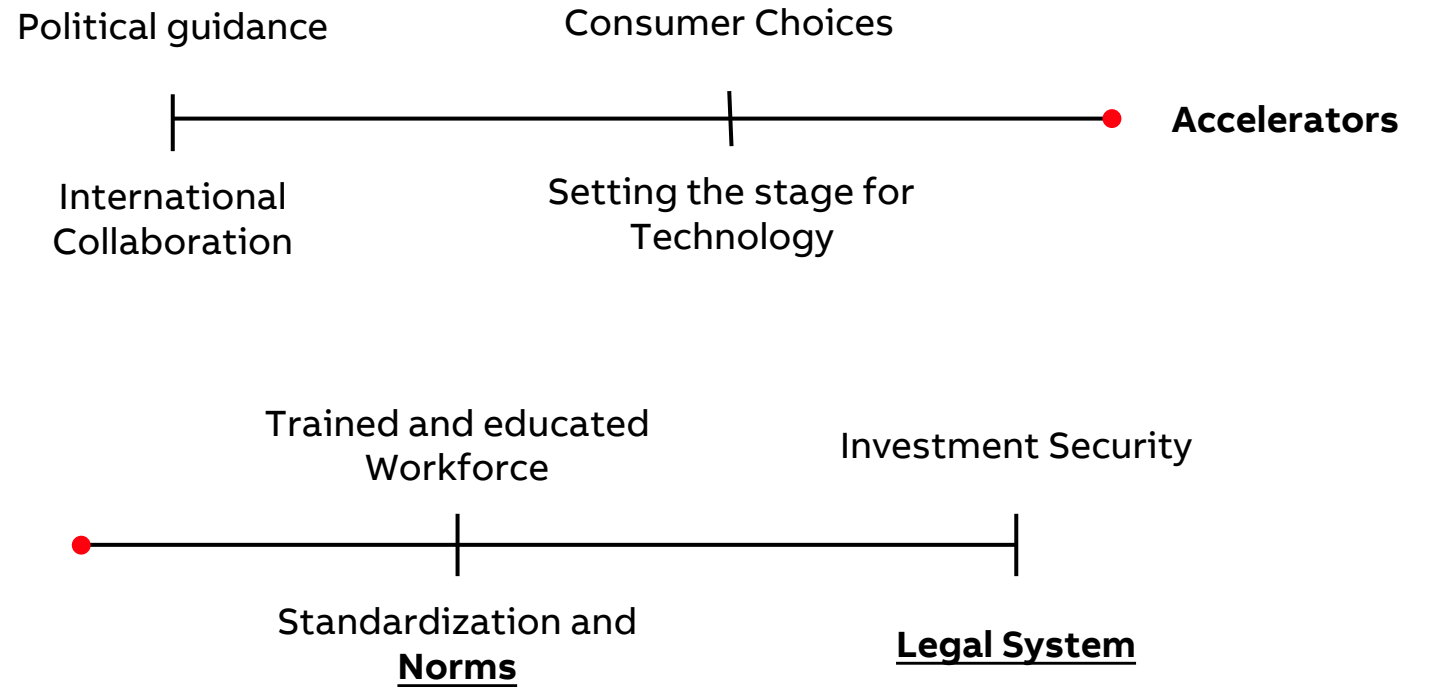
About the site

- **630 tons/year**
CO2 reduction
- **about 1 100 MWh/year**
Power generation
- **5.75 GWh/year**
Energy requirements for
administration and production
- **200 kW**
Cogeneration of heat and power
- **1 250 kWp**
PV system
- **200kW/275 kWh**
Battery storage: power/capacity
- **up to 50 kW**
Charging infrastructure for
Electric vehicles

Preconditions and accelerators for a successful endeavor



**Location
Factors**



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