



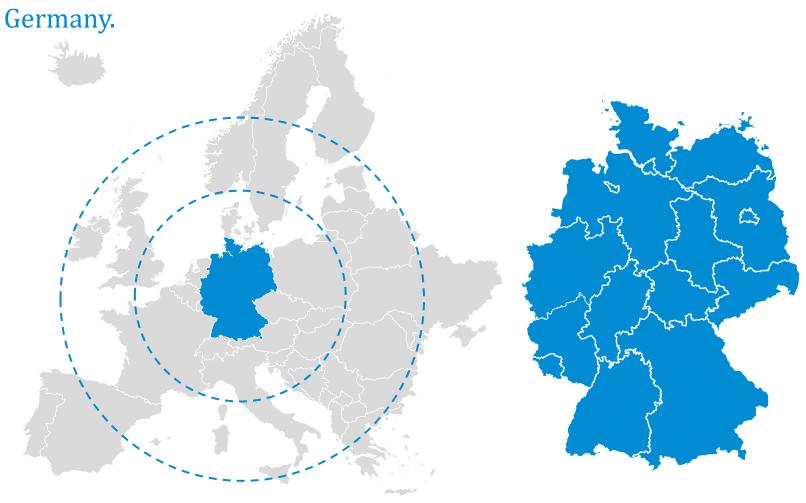


Promote Germany as business and technology location



Provide investment consultancy services for foreign companies

GTAI supports Japanese companies at every stage on their way to



GTAI's free of charge investor consulting services cover both industry and business related topics.



# Tax & Legal Framework

Overview- Frequently Asked Questions

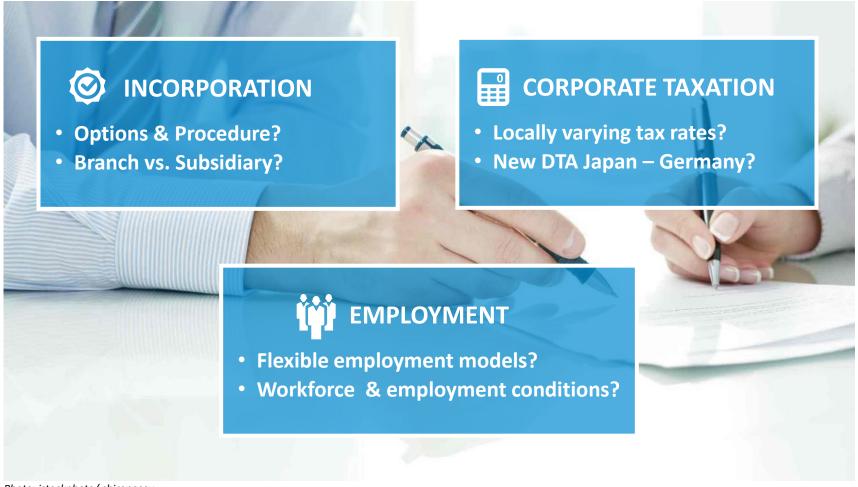


Photo: istockphoto/ shironosov

## **Incorporation**

A German market presence can be established in different ways.

## **JAPANESE COMPANY**

#### **BRANCH OFFICE**

- Registration of German branch sufficient
- No new legal entity necessary

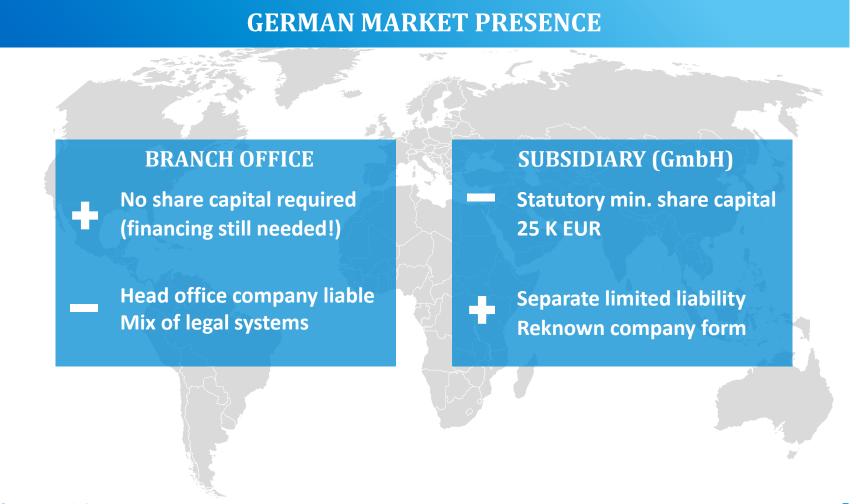
#### **SUBSIDIARY**

- Establishment of a new legal entity
- Various legal forms available (e.g. GmbH)

### **GERMAN MARKET PRESENCE**

# **Incorporation**

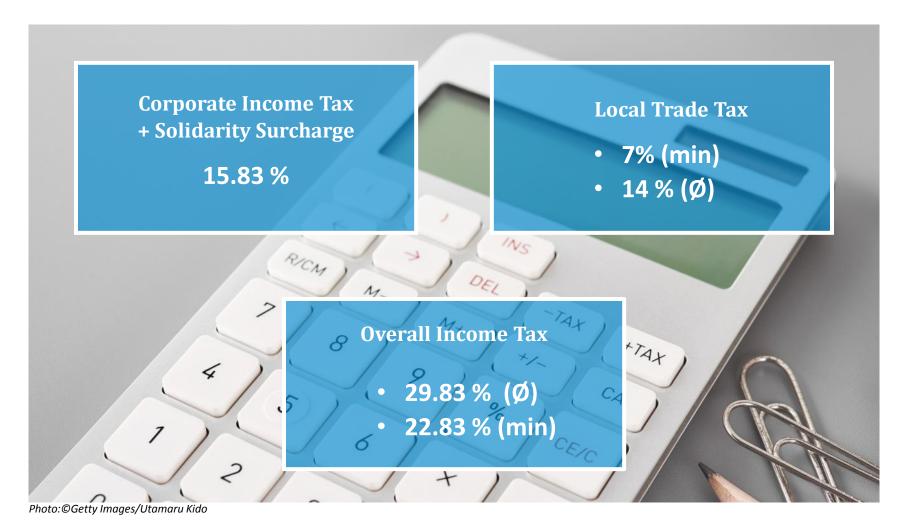
In practice most foreign companies chose a subsidiary structure for their German market presence.



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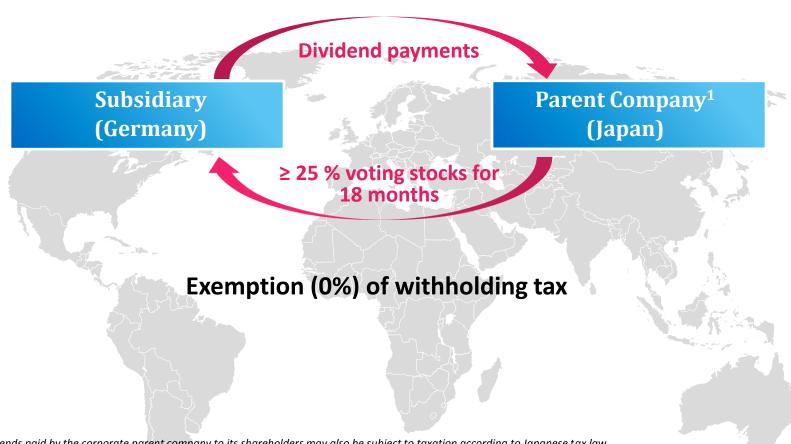
## **Corporate Taxation**

Any profitable permanent establishment in Germany is subject to corporate income taxation.



## **Corporate Taxation**

January 2017 the new DTA between Japan and Germany became applicable.



<sup>1)</sup> Dividends paid by the corporate parent company to its shareholders may also be subject to taxation according to Japanese tax law.

<sup>2)</sup> Notwithstanding the taxation rate stipulated under the applicable DTA, a flat-rate 25% Withholding Tax (+ 1.375% solidarity surcharge) is levied directly from the dividend paying German subsidiary company, at the time of payout. Any difference between the Withholding Tax and the dividend tax rate effectively applicable under the DTA can be refunded, alternatively shareholders can apply for an advance exemption from excess Withholding Tax.

# **Employment**

German employment models provide entrepreneurs flexibility in different degrees.



Photo ©kokouu/Getty Images,

# **Employment**

In addition to flexible employment forms Germany offers a highly educated and motivated workforce.

#### Workforce

- Highly educated & motivated
- Low job fluctuation

## **Labor Cost/ Climate**

- Stable and moderate costs
- Stable labor relations

#### **Innovation Power**

- EU's largest Researchers' Pool
- Unique Cluster Landscape

## **Productivity**

- Top productivity rate
- Sophisticated production process location

## **Incentives & Market Intelligence**

Our information on available incentives and market intelligence complete the picture.



Photo: © shapecharge/istock.com

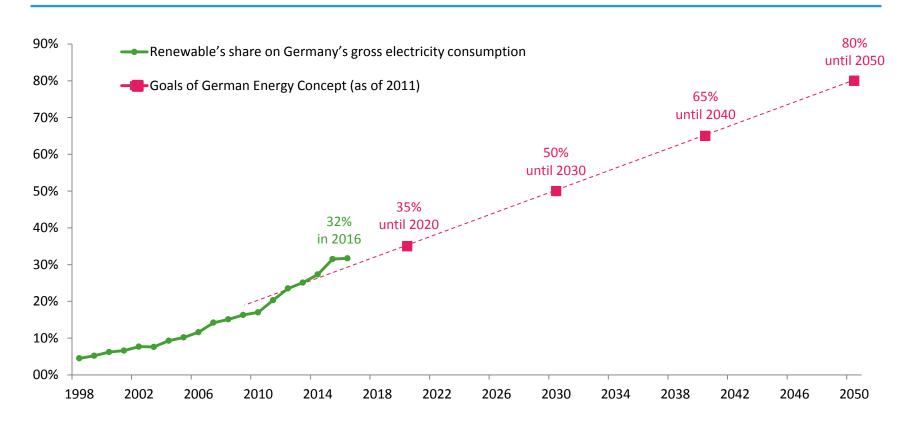
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## **Goals of Renewable Consumption**

## Developments on target

#### Renewable's share on Germany's gross electricity consumption vs. goals of German Energiewende



Sources: BMWi, 2017

## **Auction System**

Expansion of large-capacity renewable energies under a tender scheme

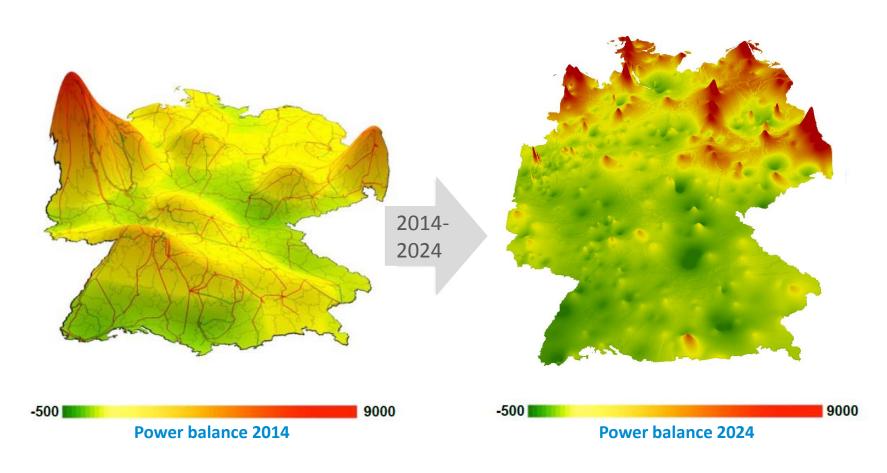
	Onshore	Offshore	Solar	Biomass
Tender conditions	> 750 kW	> 750 kW	> 750 kW	> 150 kW
	2017-2019	2021-2030	2017-ongoing	2017-2019
Quantities that will get tendered yearly	2.8 GW	0.7 - 0.8 GW	0.6 GW	0.15 GW
	2020-ongoing			2020-2022
	2.9 GW			0.2 GW
Targeted amount	82 GW	15 GW	50 GW	10 GW**
of total generation (in 2030)			(54GW)*	

Source: BMWi, 2016; Deutsche WindGuard, 2016; Fraunhofer ISE, 2013, \*2016

\*Including solar plants < 750 kW \*\*By 2022

## The Smart Grid Market Overview

New power structures will lead to bottle necks in Germany as the new generation centers will be far from load centers

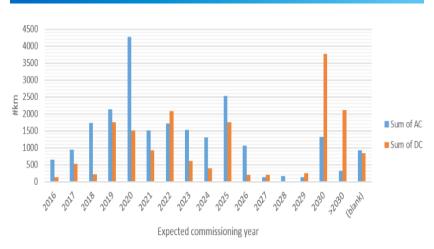


Source: Bundesnetzagentur 2016

# **European Grid Extension projects**

## Ten-Year Network Development Plan 2016

# TYNDP 2016 investment portfolio – breakdown per year of commissioning



- € 150 billion grid expansion proposed by the TYNDP 2016
- Enhanced market integration will reduce bulk power prices by 1.5 to 5 €/MWh

**Pan-European Significance investments** - mid- and long-term horizon Iceland Sweden Finland Norway Belarus Ukraine Turkey Greece Tunisia Morocco

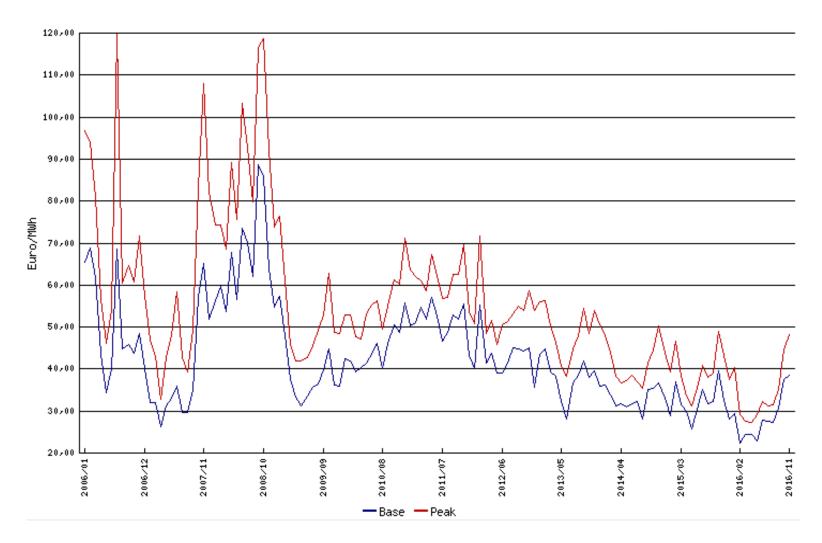
Source: TYNDP 2016 Ten-year network development plan ENTSO-E

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Source: ENTSO-E 2016

# **Base and Peak Price Development EEX Spot Market**

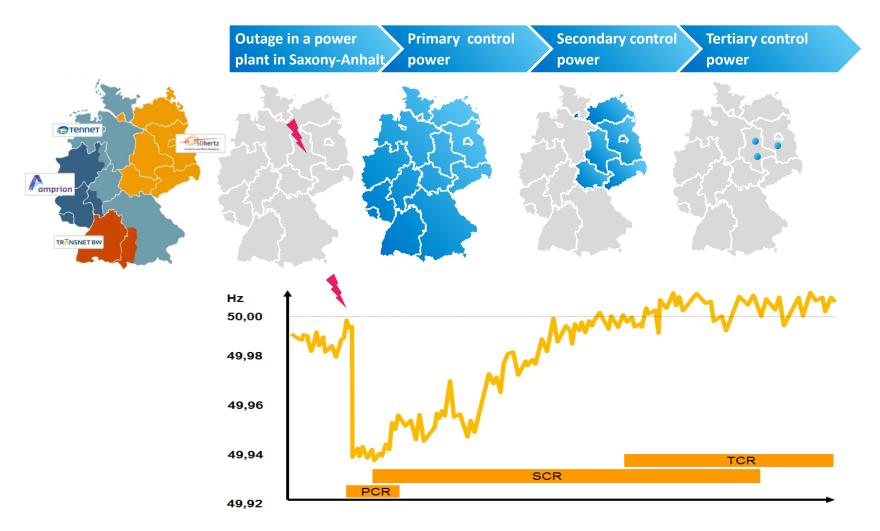
Former business model for energy storage



Source: European Power Exchange, bricklebrit.de

## The German Control Power Market

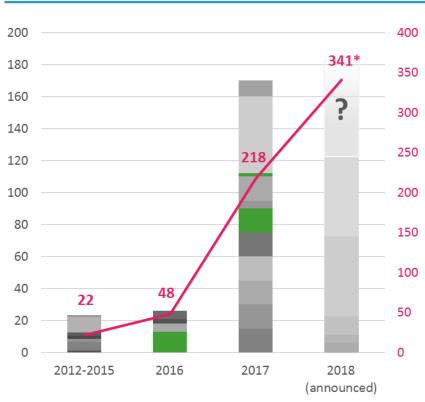
Interaction between primary, secondary and tertiary control power



# **Installed Primary Control Power Capacity**

Growing market with increasing fluctuating renewables







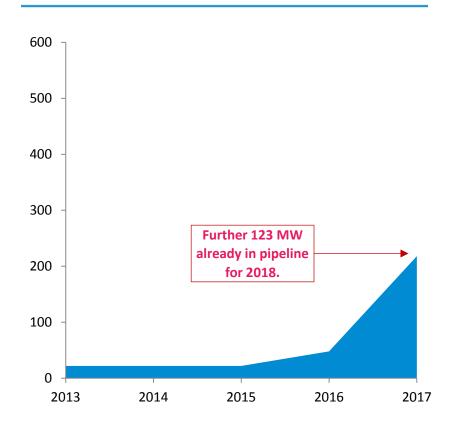
\*preliminary figures; Note: no claim for completeness

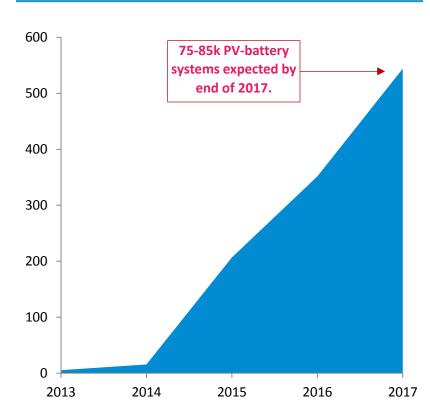
## Market explosion for stationary batteries

Strong growth for private PV-batteries and large-scale grid batteries

#### **Battery capacity for Primary Control Power** (MWh\*\*)

#### **Installed capacity of PV-battery systems** (MWh\*)





Note: \* average system size: 6.8 kWh; \*\* anticipating 1C (1 MW = 1 MWh)

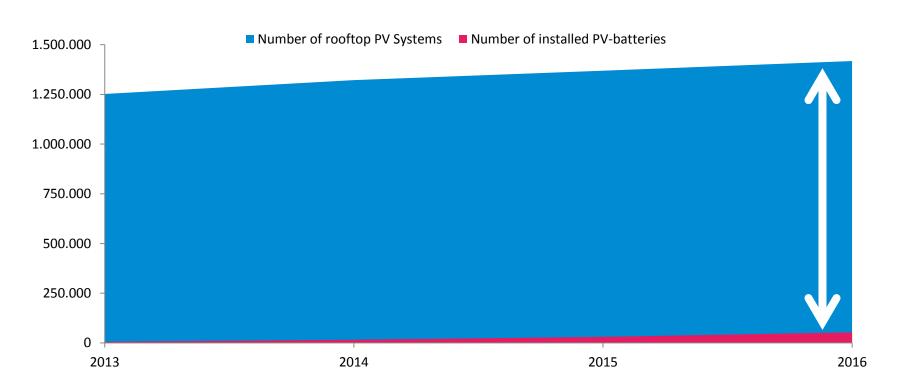
Source: RWTH 2017, BSW 2017

# Still: Enormous potential for further growth

Only 3.7% of rooftop PV systems in Germany are equipped with a battery today – by 2030 it could be well over 80%.

#### **Rooftop PV Systems vs. PV-battery systems**

(Number of systems, 2013 – 2016)



Note: "rooftop PV" is referring to PV systems < 30 kWp

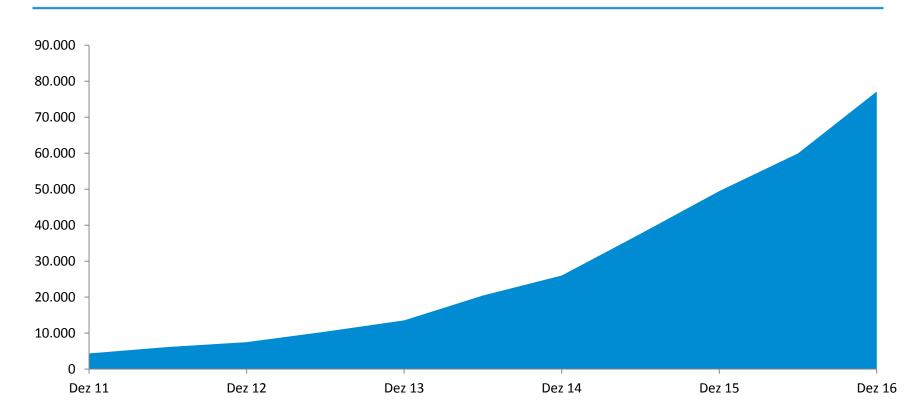
Sources: Federal Network Agency 2017, BSW 2017, RWTH Aachen 2017

## Strong growth potential also for Electric Vehicles

Only 0.73% of newly registered vehicles were Plug-in Hybrids or Battery Electric Vehicles in 2016. Plan for 1 million EVs by 2020.

#### **Electric Vehicles (PHEV + BEV) in Germany**

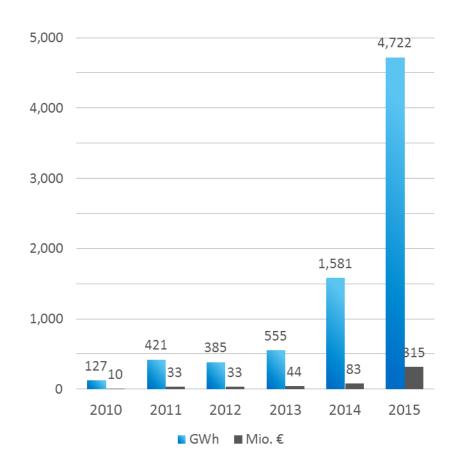
(Number of vehicles, 2011 – 2016)

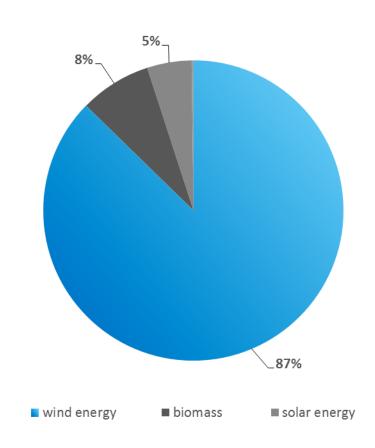


Sources: IEA 2017, BDEW 2017

## **Development of Renewable Energy Curtailment**

## Long term energy storage technologies are needed





Source: German Federal Network Agency, Monitoring report 2011-2016

Source: German Federal Network Agency, Monitoring report 2016

## Power to Gas: Audi e-gas plant in Werlte

Example for sector coupling between electricity and mobility sector

#### **Key Parameters**

Project name: Audi e-gas Projekt

Input power: 6 MWel

Hydrogen production: 1.300 m<sup>3</sup>/h

Start of operation: 25.06.2013

Owner: Audi AG

Carbon dioxide source: a biogas plant

# Methanation unit heat management system

#### Goals

- Demonstration of the process chain
- Optimize operational concept (fluctuating power from wind vs. changing gas feed)
- Gain experience in technology, costs and consenting

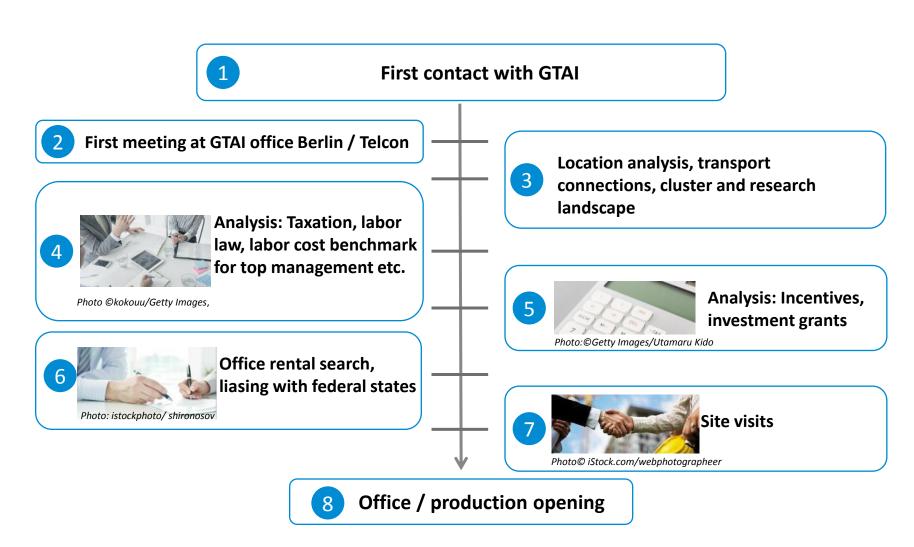
#### **Partner**

- SolarFuel GmbH
- Zentrum für Sonnenenergie und Wasserstoff-Forschung
- Frauenhofer Institut für Windenergie und Energiesystemtechnik
- **EWE Energie AG**

Source: Audi AG

# How Germany Trade & Invest Can Help You

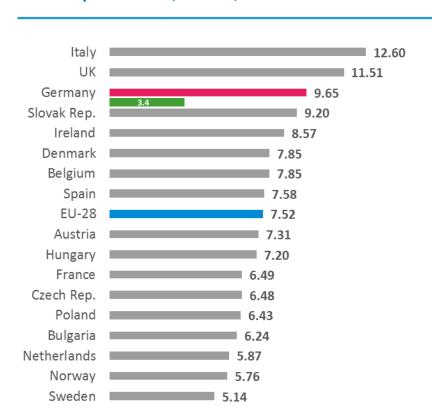
Typical project case – GTAI delivers valuable services



# **Industrial Electricity Prices**

Industrial consumer costs in Germany among the highest and lowest in EU

Average annual industrial electricity prices with a consumption of 20,000-70,000 MWh<sup>1</sup>

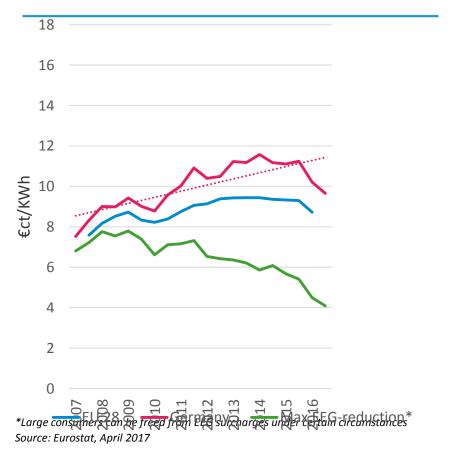


Note: <sup>1</sup>excluding VAT and other recoverable taxes and levies.

All data in EUR-cent per kilowatt hour. Source: Eurostat 2017

20,000 MWh < Consumption < 70,000 MWh

Ex. VAT and other recoverable taxes and levies



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