Consumption transparency and energy savings in multi-unit buildings

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ista provides transparency

- 24 Countries
- 5.397 Employees
- 134,3 Mio. € investment p.a.
- > 1.5 million tons CO2 reduction (in D)
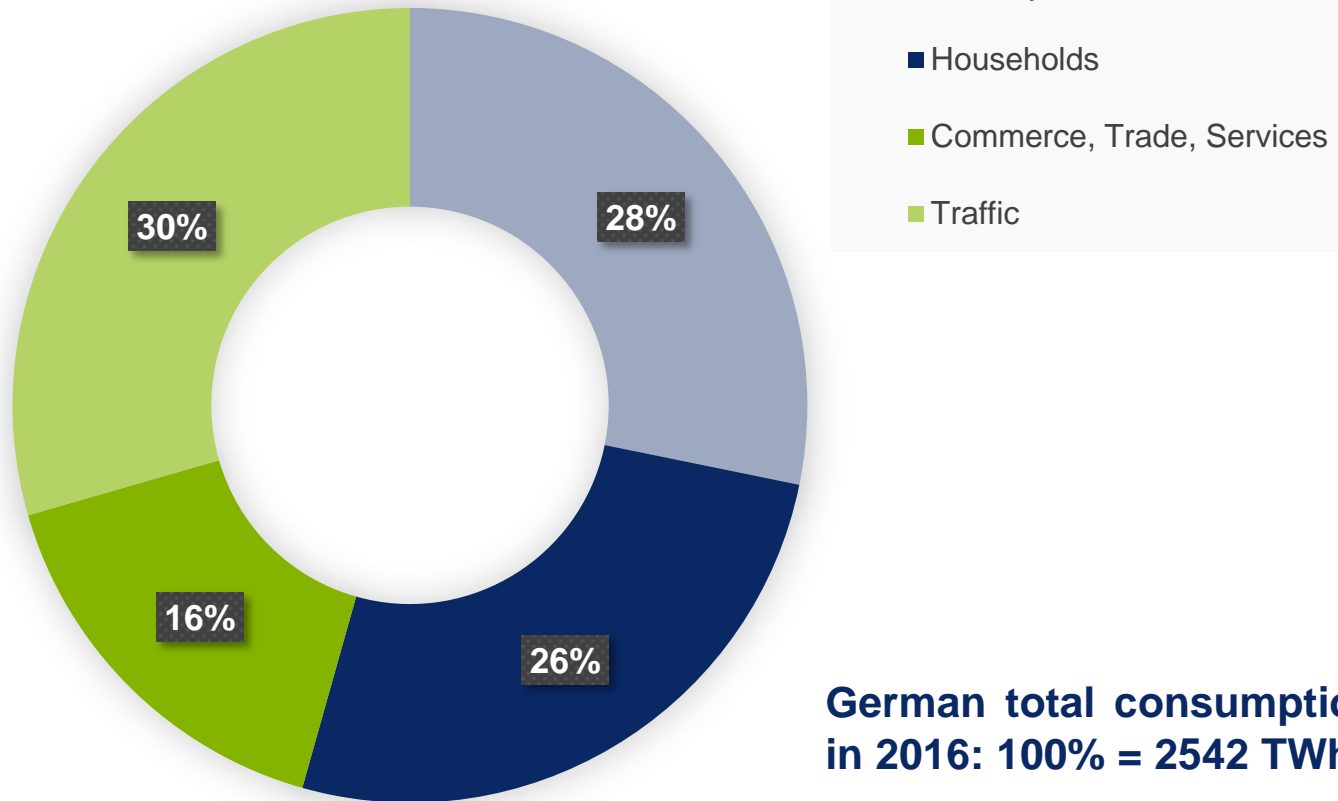- 850,4 Mio. € revenue
- 53 Mio. deployed devices
- 12 million dwellings
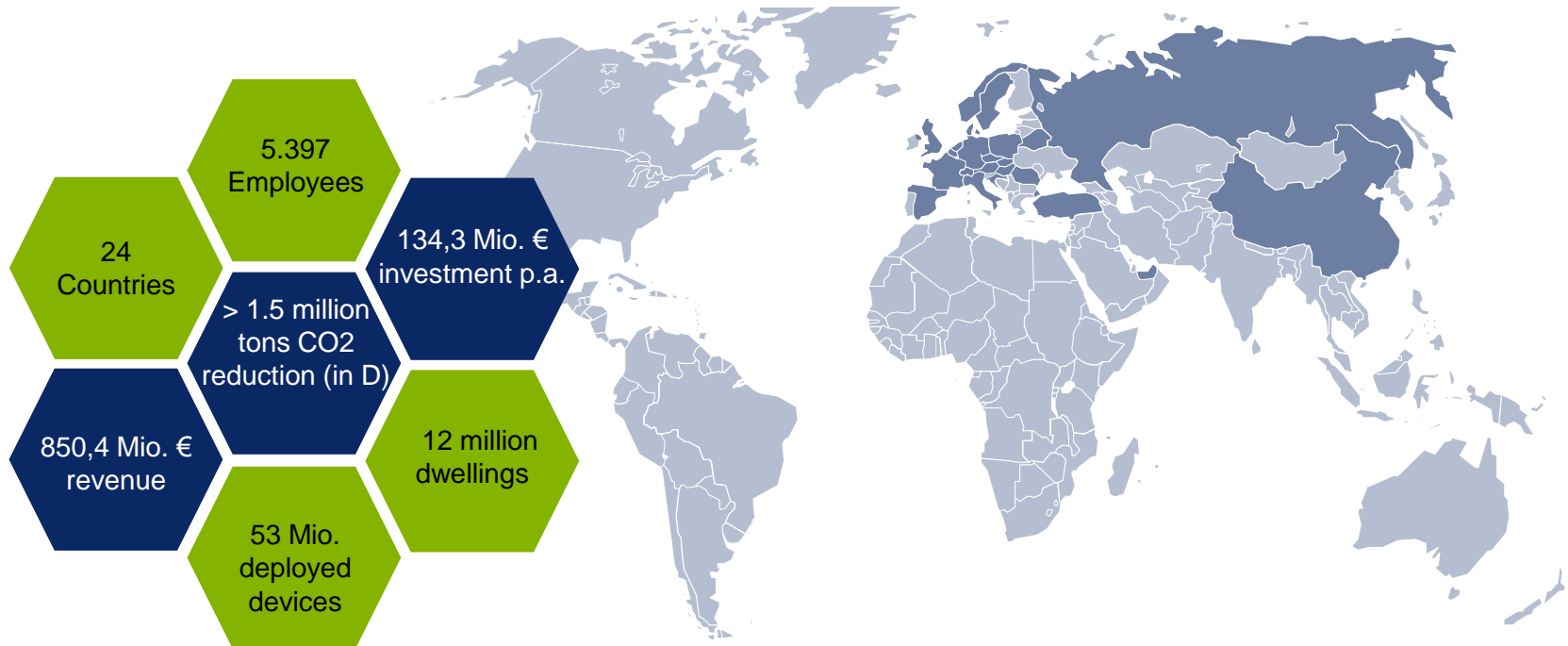
- ista is one of the leading companies in improving energy efficiency in the building sector. With our products and services, we help to sustainably save energy, CO_2 and costs. ista has specialised in submetering, in other words the individual metering, billing and transparent visualisation of consumption data for multi-family buildings and commercial properties
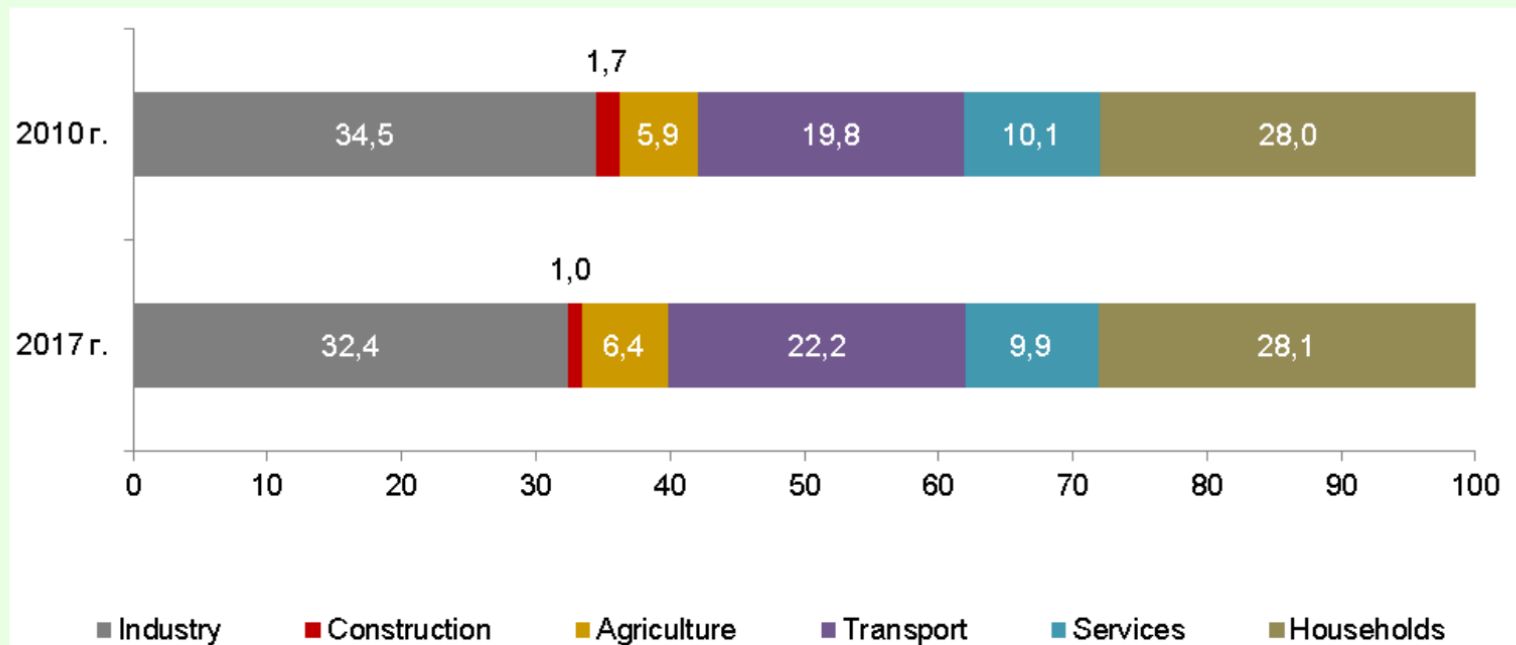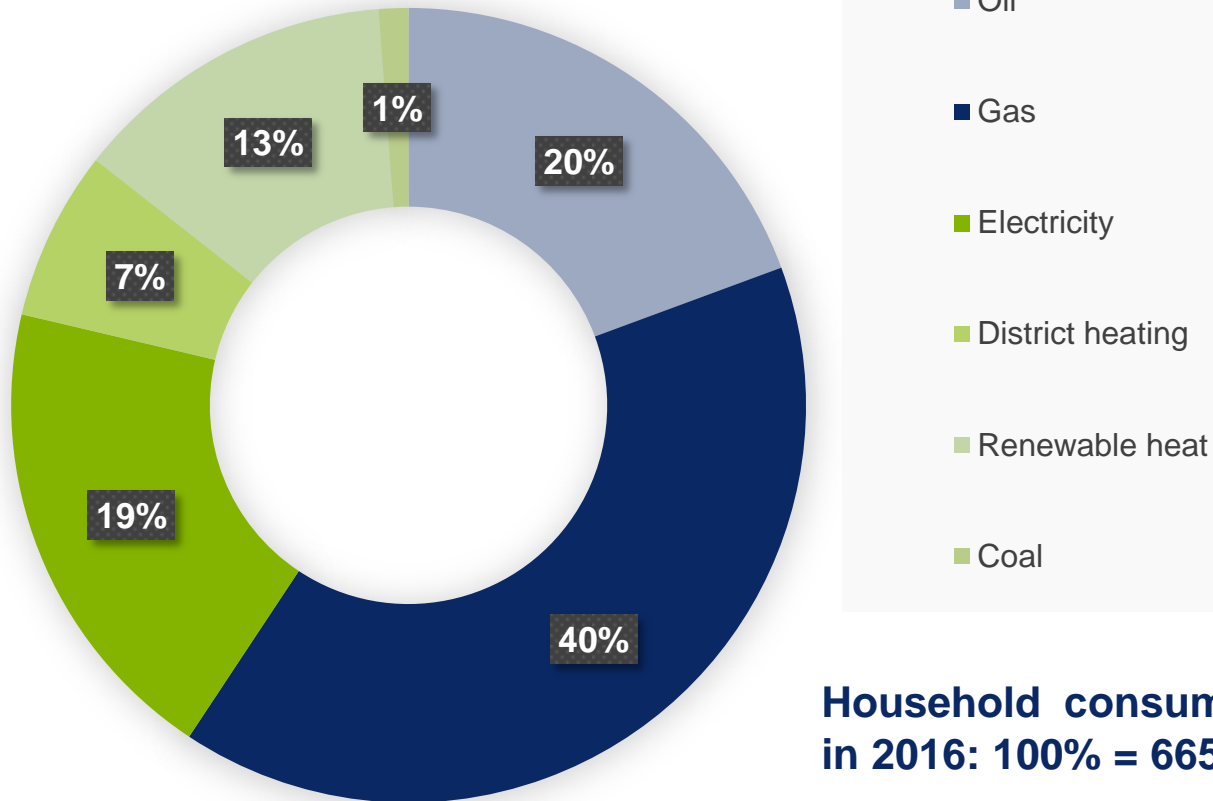
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Energy Consumption (DE)

Legend:
- Industry
- Households
- Commerce, Trade, Services
- Traffic

30%
28%
16%
26%

German total consumption in 2016: 100% = 2542 TWh

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Energy Consumption (BY)

Final energy consumption by sector in 2010 and 2017

(as percentage of total)

Year	Industry	Construction	Agriculture	Transport	Services	Households
2010 г.	34,5	1,7	5,9	19,8	10,1	28,0
2017 г.	32,4	1,0	6,4	22,2	9,9	28,1

■ Industry ■ Construction ■ Agriculture ■ Transport ■ Services ■ Households

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Energy Consumption in Households (DE)

Legend:
- Oil
- Gas
- Electricity
- District heating
- Renewable heat
- Coal

Pie chart values:
- 20%
- 40%
- 19%
- 7%
- 13%
- 1%

Household consumption in 2016: 100% = 665 TWh

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Households consumption in detail

6 % Electricity   3 % Coal

48 % Gas

31 % Oil

12 % District Heating

68,8% Heat

70 % central heating

30 % local

25 % Households

13,8 % Hot water

75 %

17,4 % Sonstiges

Energy consumption EU 27
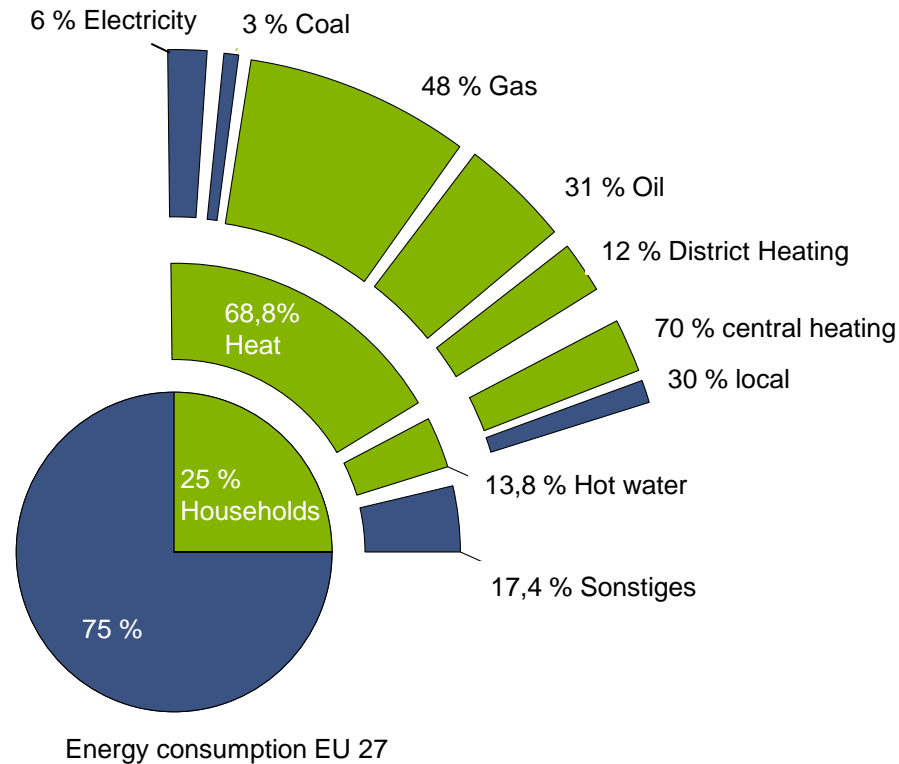
Submetering:

- Around 85% of energy consumed in households is used to generate heat and warm water.[1]

- Submetering covers 72% of the total energy consumption in households

- Through Submetering a tenant saves approximately 15% – 25% on energy requirements for heat.
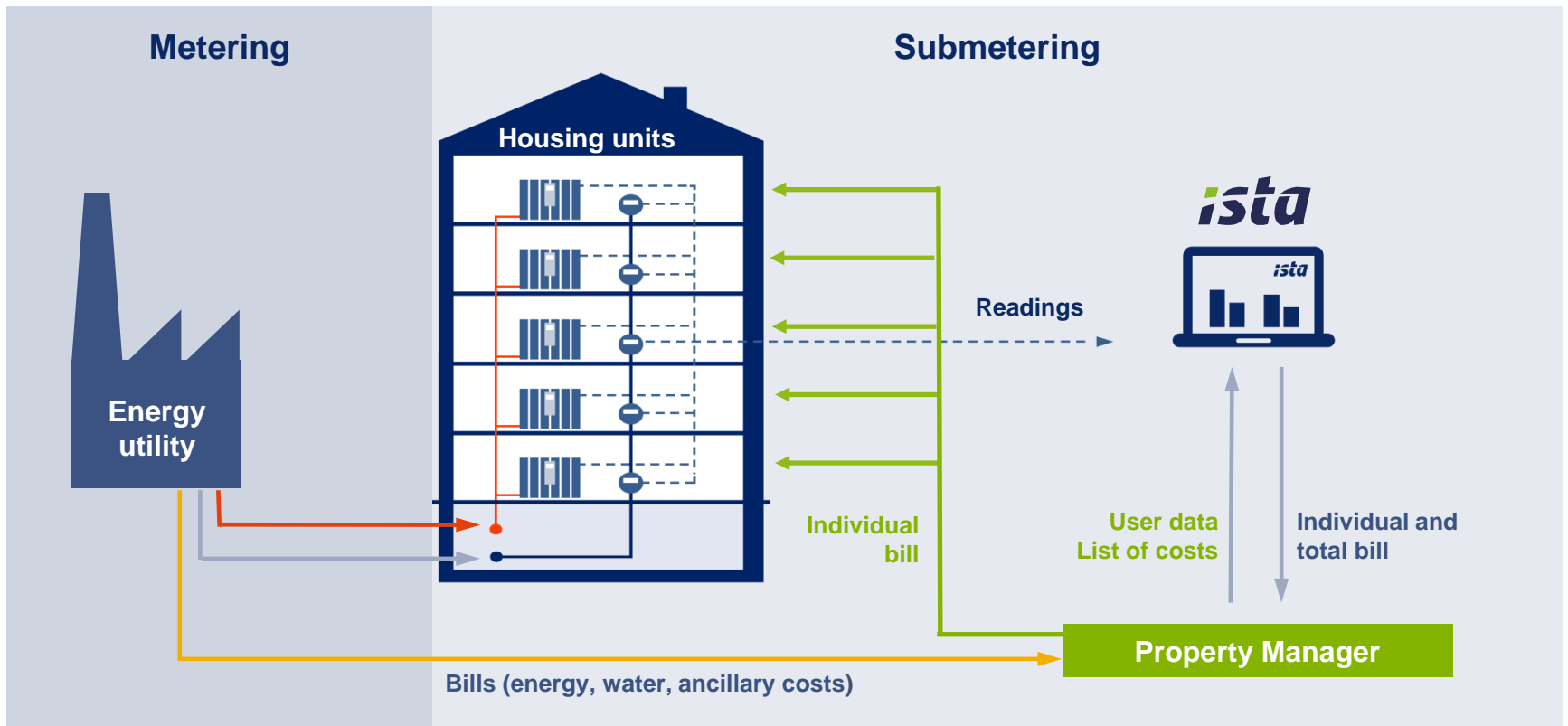
[1] UK Department for Business, Innovation and Skills

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Heating costs (DE)
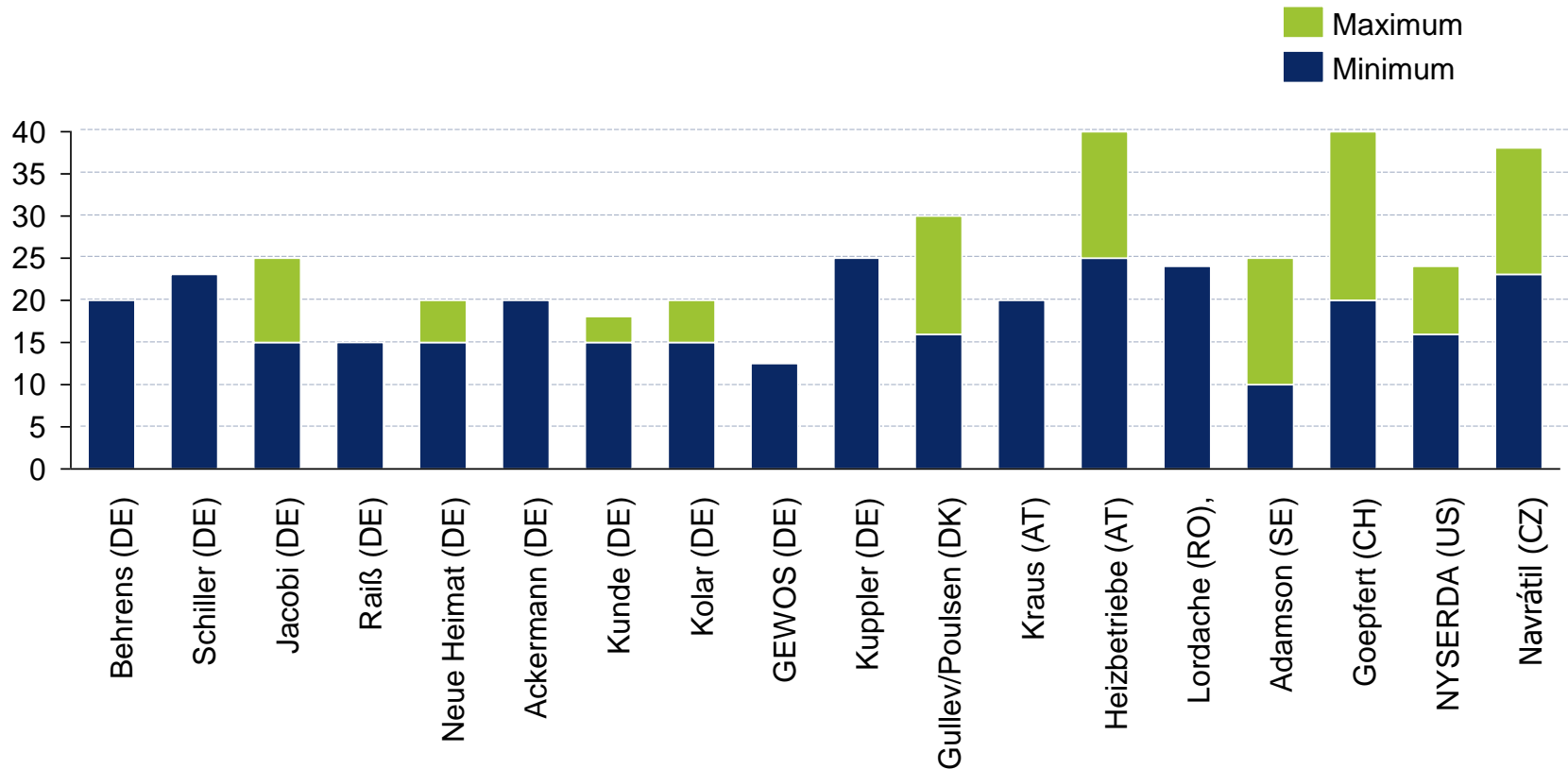
Average heating costs per m² p.a.
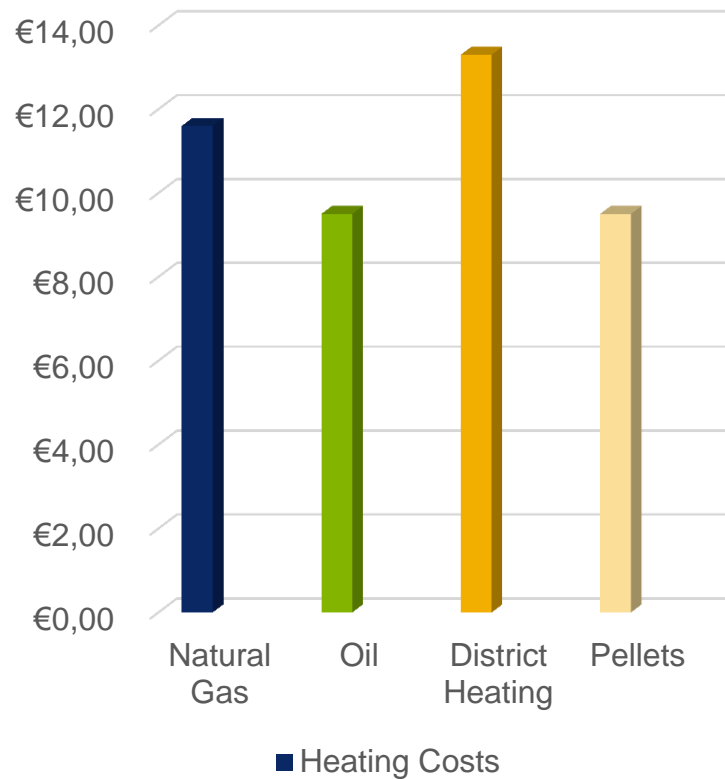
- **On average in Germany the heating costs for a 70m² flat is between 550 and 1200€.**
- **The large discrepancy is mainly related to the building efficiency standard.**

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Definition of Metering and Submetering

Metering

Submetering

Housing units

Readings

Individual bill

**User data
List of costs**

Individual and total bill

Energy utility

Bills (energy, water, ancillary costs)

Property Manager
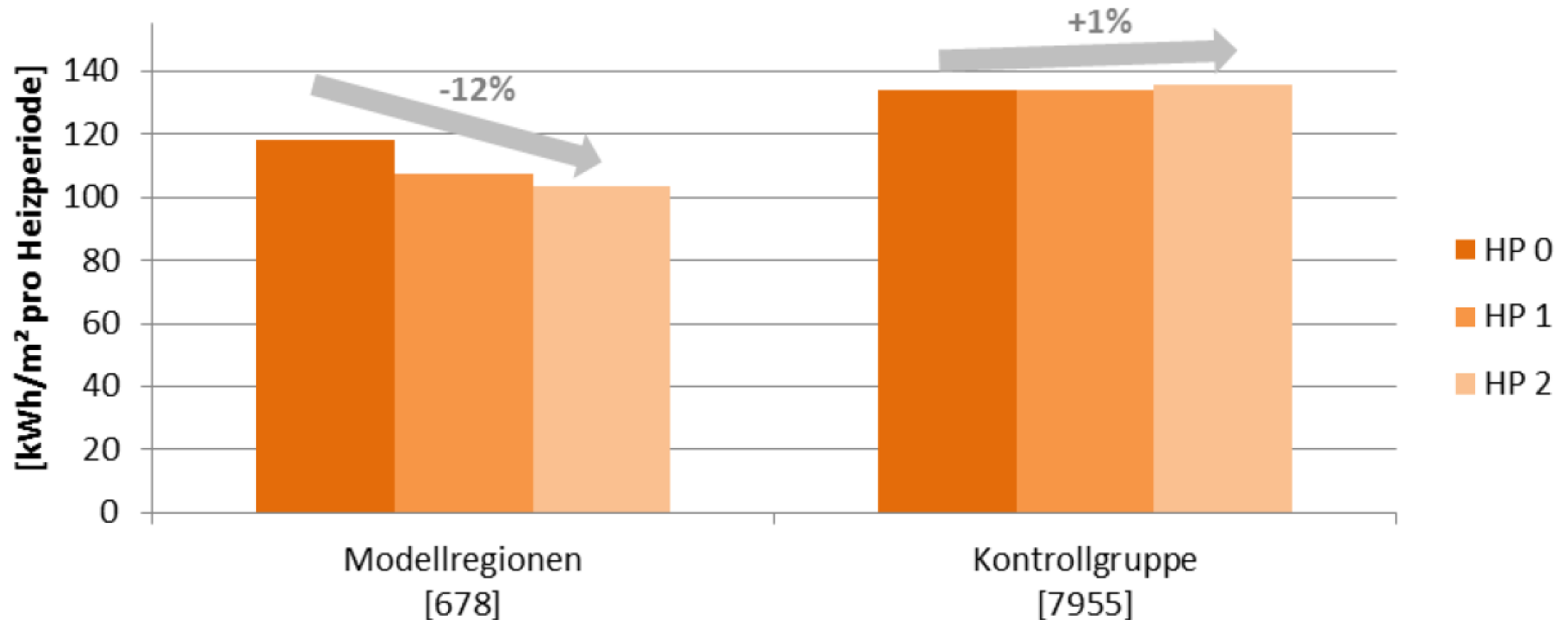
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Submetering – a proven concept

Numerous Studies show the energy saving potential of submetering!

Sub-Annual consumption information

Heizungsverbrauch (klimabereinigt) der Mieterhaushalte in den Modellregionen im Vergleich zu Mieterhaushalten in Kontrollgruppe

The Sub-Annual information can further induce savings – but it depends on the household-structure and the building-efficiency!

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All stakeholders profit from this

Tenants

Tenants have transparency of their consumption.

They therefore save energy, CO_2 and costs (proven to be 15% to 25%).

Owners

Owners are saved the trouble of metering and billing energy consumption.

The attraction of the property increases due to greater energy efficiency.

Commercial properties

Tenants of commercial properties receive transparent documentation on their consumption.

Billing is based on a metering concept specially tailored to commercial properties.

Society and environment

In Germany alone, every year 4.5 million tonnes of CO_2 emissions are avoided through submetering.

1.5 million tonnes alone by ista's customers.

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Submetering can be the key to the digital smart building
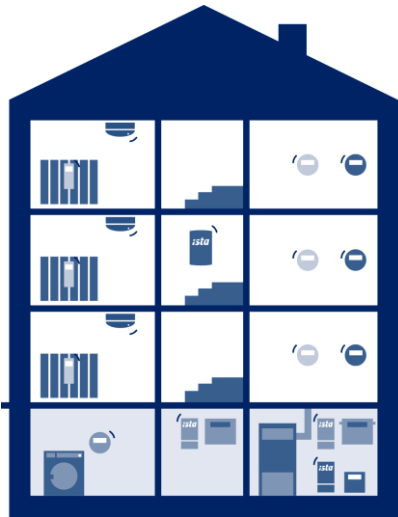
Hardware

Heat

Water
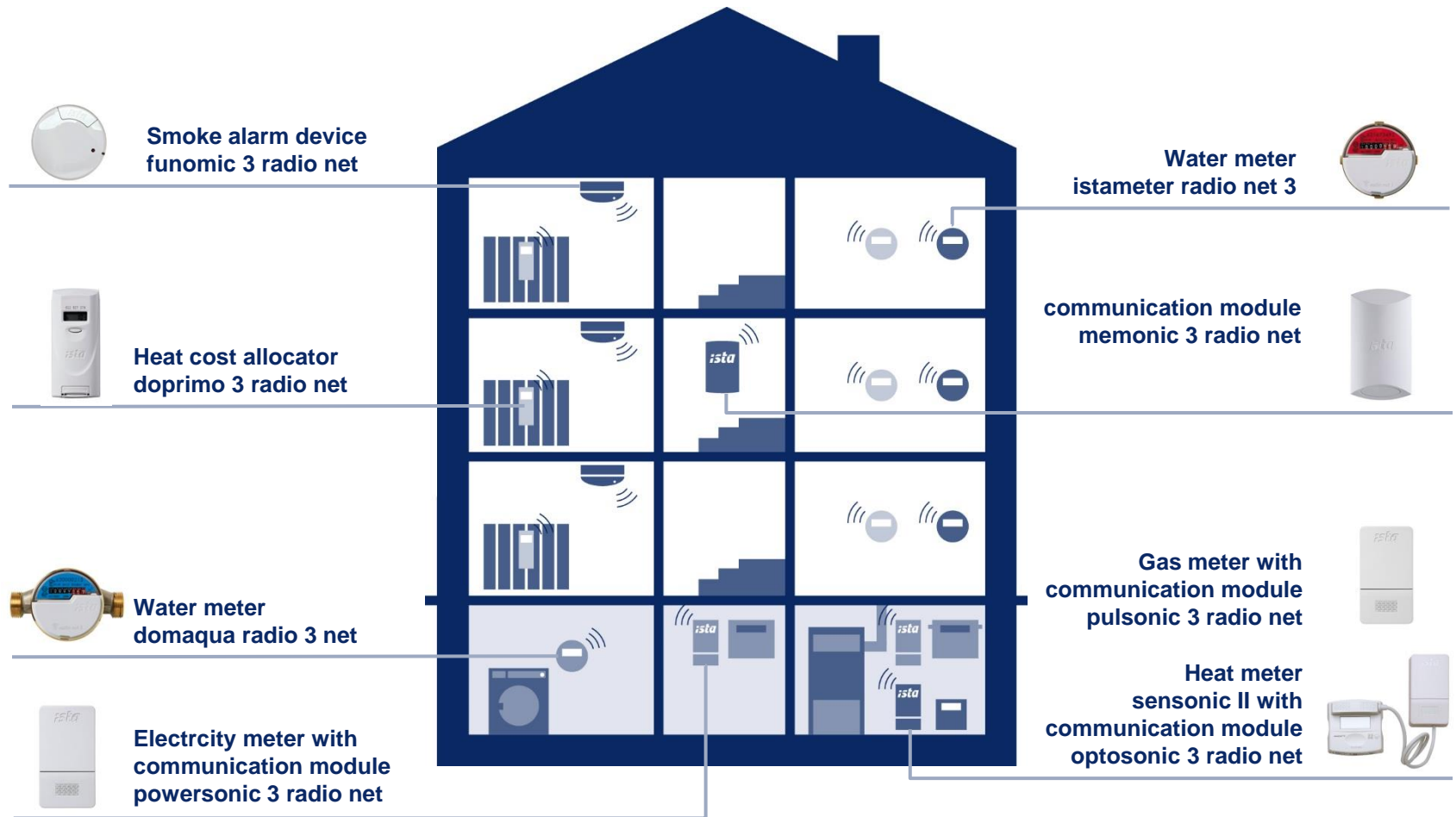
Smoke alarms

Global infrastructure

Services

As a partner of the housing industry, we optimise the technical infrastructure in buildings and establish trendsetting business models and services.

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Radio system symphonic sensor net

Smoke alarm device funomic 3 radio net

Heat cost allocator doprimo 3 radio net

Water meter domaqua radio 3 net

Electrcity meter with communication module powersonic 3 radio net

Water meter istameter radio net 3

communication module memonic 3 radio net

Gas meter with communication module pulsonic 3 radio net

Heat meter sensonic II with communication module optosonic 3 radio net

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Efficiency and Innovation in Submetering infrastructure

2000   **today**   **2020**

Manual Reading   **Remote Reading (AMM)**   **Internet based reading (IoT)**
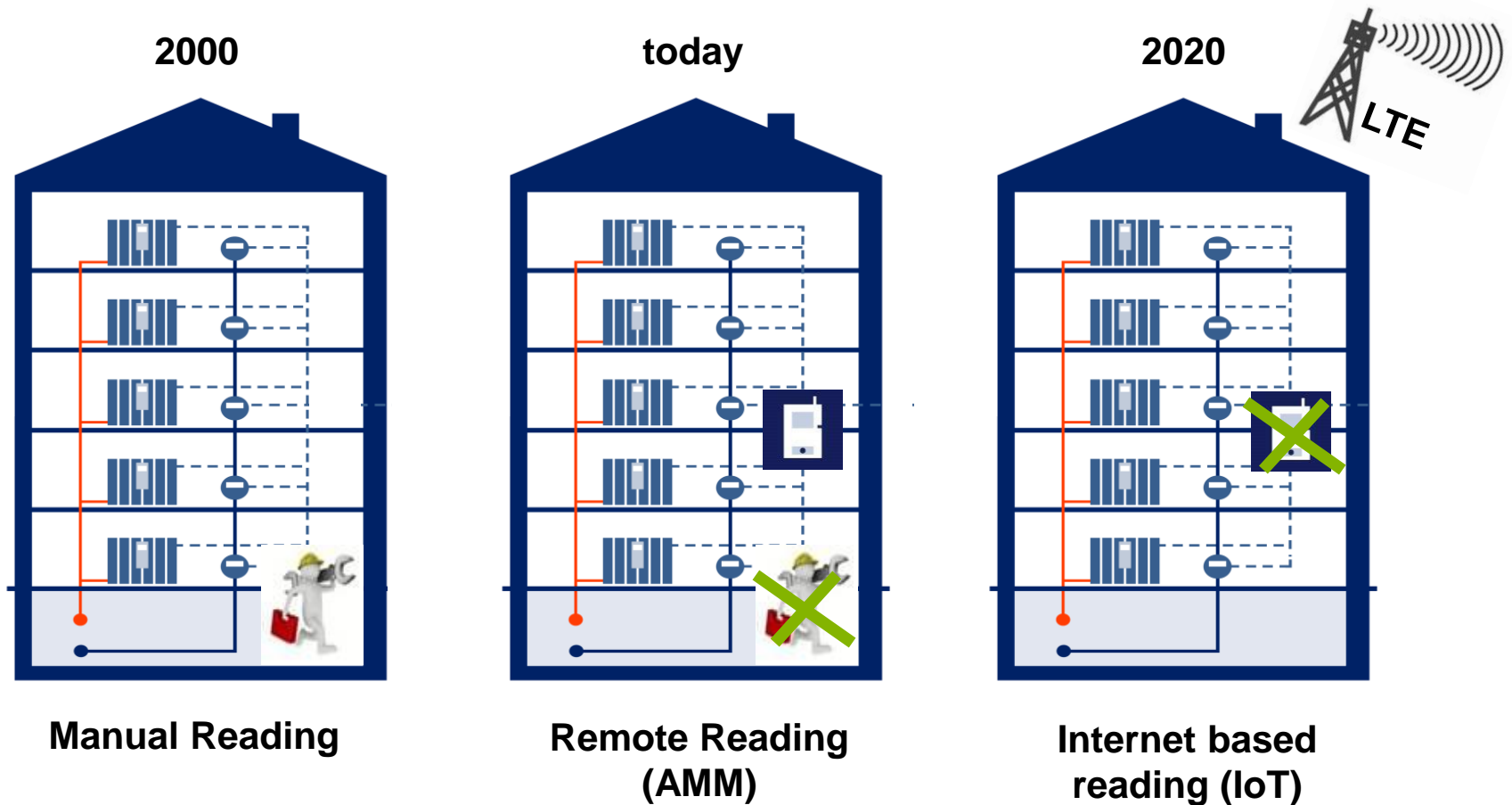
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ista cooperates with startups offering future services for smart buildings and cities

Smart Building System
Building Connected Homes for intelligent communication between tenant and landlord

Weather optimized heating
Intelligent boiler control systems in multi-family buildings, based on weather forecasts and consumption profiles

Pay for use
Prepaid-solution for heat supply

Boiler check
Efficiency analysis with online results for heating system

istaDES
Housing industry's independent partner and service provider for Heating system management

Energy Data Management
Online visualization of Water and heat consumption

In Germany alone there are estimated 400 startups focused on improving the living and management of buildings incl. mobility. ista positions itself today as technology transfer partner between real estate industry, utilities and tech companies.

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Our infrastructure is the basis for further fields of business and services

Energy management in buildings

- Heat and water billing
- Energy data management
- Energy certificate
- Energy supply — GENEK
- Metering

Protection of people and property

- Smoke alarm device
- Leakage detection
- Drinking water analysis
- Humidity sensor
- Temperature Logger

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- Radio System
- M-Bus System
- Heat and cold meters
- Heat cost allocator
- Water meter

Our infrastructure & technology

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