

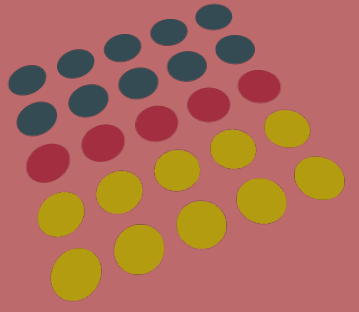
GERMAN DATACENTER
ASSOCIATION

1



GERMAN DATACENTER ASSOCIATION

CHARAKTERISTICS



Foundation Members Partners

2018 in Frankfurt am Main

Operators and owners of data centers of all sizes

Consulting companies, energy suppliers, technical equipment suppliers, service providers, research institutes & municipalities

116 in total

Targets 2023

Perception of the association as a representative in politics, society & media

Expansion of cooperation with international associations

Networking of members & partners

Development of current core topics in the Think Tank's competence groups / positioning on the market

International visibility of the German data center market

MEMBERS & PARTNERS

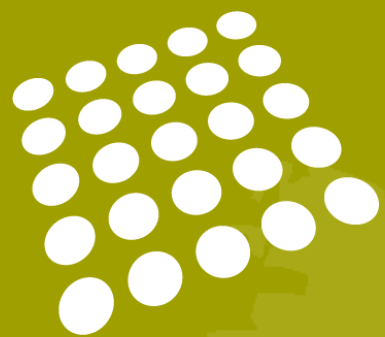


The image displays a grid of logos for various members and partners. The logos are arranged in approximately 10 rows and 10 columns. The logos include:

- EQUINIX, WISAG, STULZ, ICT Facilities, TTSP/HWP/, CyrusOne, DIGITAL REALTY, AWS, Carrier, CBRE, 中国移动 China Mobile International, SEGRO
- CMS law-tax-future, Danfoss, AtlasEdge, GLOBAL SWITCH, Bloomenergy, Green Mountain, KMW, Eaton, NOYA, BENNBROOKE, SAB
- ALFA LATA, ABB, BOSCH, Riello ups, contagi, GRASS MERKUR, Data Center Group, HT GROUP, P.O.C. POINT OF CONSTRUCTION, colt Data Centre Services, PLANEN & BAUEN
- DLA PIPER, Goodman, NTC NOTSTROM TECHNICAL, NODE POLE, DATACENTER ONE, LEFDAL MINE DATACENTER, HUAWEI, RITTAL, CISCO, BUREAU VERITAS, Informations Technik Zentrum Bund, HK HARMSEN KOMTEC
- Rosenberger, rockenstein AG Internet-Service-Provider, Life Is On, Schneider Electric, exyte, SIMS LIFECYCLE SERVICES, kyndryl, NTT, COOLtec systems, DEIF, HS Gebäudedienstleistungen Mit reinem Gewissen, bulk
- SGB-SMIT Group, Universität Stuttgart, IT-INFRASTRUKTUR stengel, nvent SCHROFF, socomec Innovative Power Solutions, TSL, IRON MOUNTAIN DATA CENTERS, atnorth, DATWYLER, PARK PLACE TECHNOLOGIES
- CloudHQ, KUA, HATTERSHEIM Stadt am Main, ZALNER, NDCGARBE, RK-PLAN, mainova WebHouse, maincubes SECURE DATACENTERS, DATA CASTLE, hugengineering. A PALFAC A COMPANY, plusserver
- BRANDES, NEWTELCO, yondr, Syna, Wirtschaftsförderung Nordfriesland, TELEHOUSE, WORKRATE, DREES & SOMMER, VERTIV, Rentaload Load bank rental leader, VANTAGE DATA CENTERS
- HUBER+SUHNER, DPR CONSTRUCTION, CDM Smith, TUVIT TUVNORDGROUP, ONNEC ONNEC, GT GreenbergTraurig, e-shelter security, GP CON, BCS., STACK INFRASTRUCTURE, VIRTUS Data Centres Europe
- LIPP, WAGNER, CRESTCHIC, DC INTELLIGENCE, convergint, HAUCK AUFHÄUSER LAMPE, IB-IT DATACENTER GMBH, legrand, EVERSHEDES SUTHERLAND, NOKIA, Nlyte Software

2





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5 international
internet
exchange points

2nd rank

for Frankfurt am Main,
directly after London

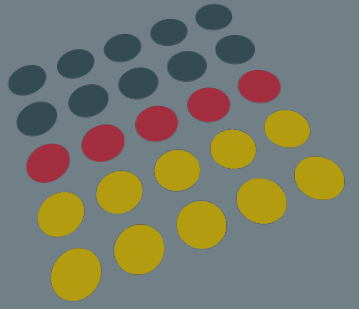
HIGH DC DENSITY

- approx. 50,000 DC, server rooms and individual server cabinets
- 3,000 DC of a minimum of 40 kW
- 90 DC with more than 5 MW



GERMAN DATACENTER INDUSTRY

KEYFACTS



1

Largest economy in the EU and fourth largest in the world

2

High density of data DC

- Approximately 50,000 DC, server rooms and individual server cabinets
- 3,000 DC of a minimum of 40 kW
- 90 DC with more than 5 MW

3

One of the **largest exchange** points: DECIX in Frankfurt am Main (highest rate of transmitted data in the world of recently 14 Tbit/s)

4

Five international Internet exchange points (Frankfurt am Main, Hamburg, Berlin, Munich, Ruhr district with growing relevance) & highest density backbone network

5

Highest standards applied to the construction and operation of data centers (fire protection, data security)

Data protection & legal certainty as a location advantage

6

Germany is one of the **world's largest employers** in data centers, offering a dual vocational training system and great potential for skilled professionals.

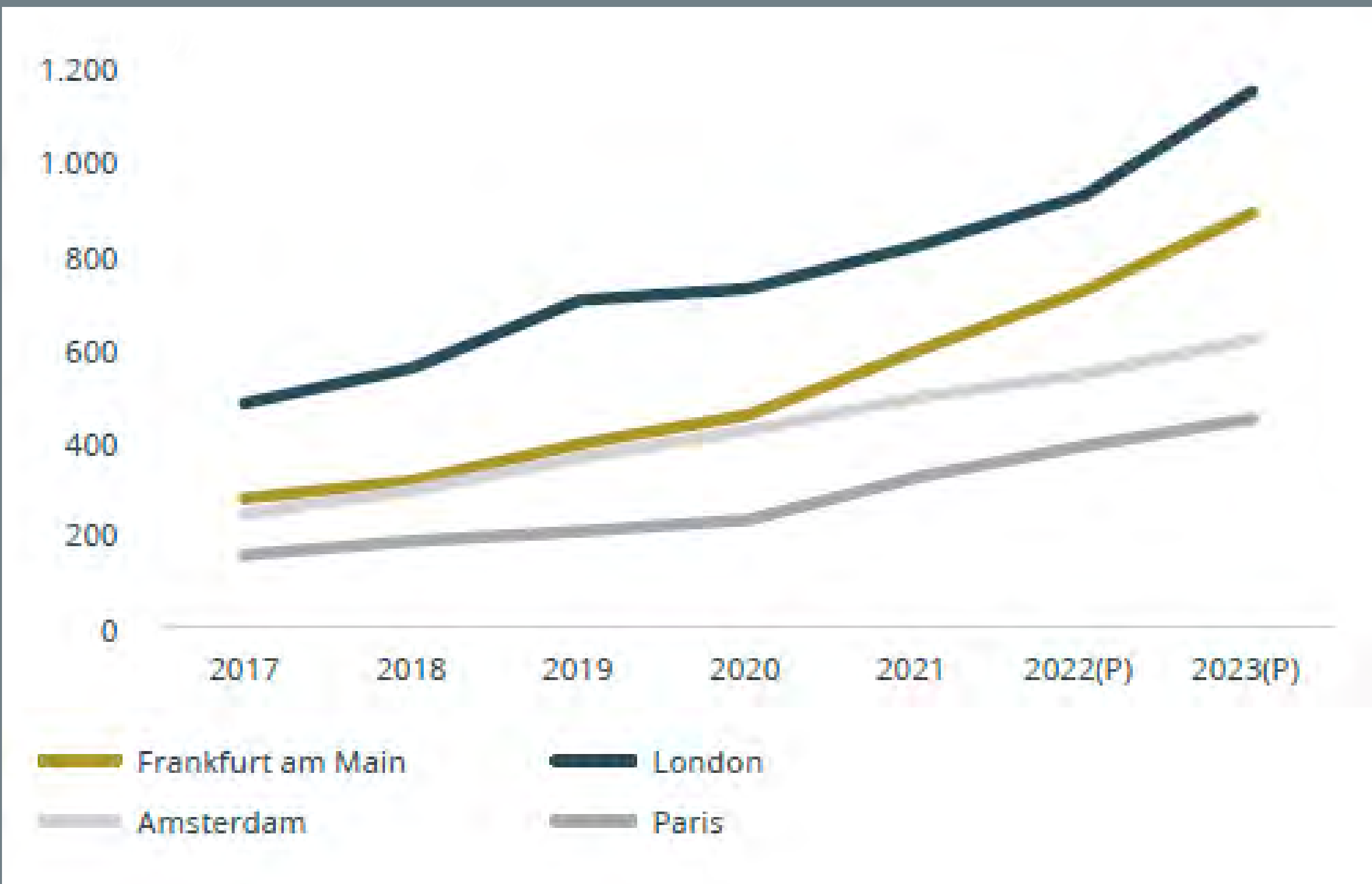
Approximately 130,000 jobs plus 80,000 indirect jobs

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FLAP-D Market



CAPACITY (IN MW)

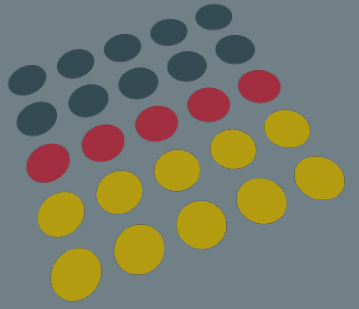


Market	2023 - Q1
London	956 MW
Frankfurt	707 MW
Amsterdam	507 MW
Paris	372 MW
Dublin	190 MW

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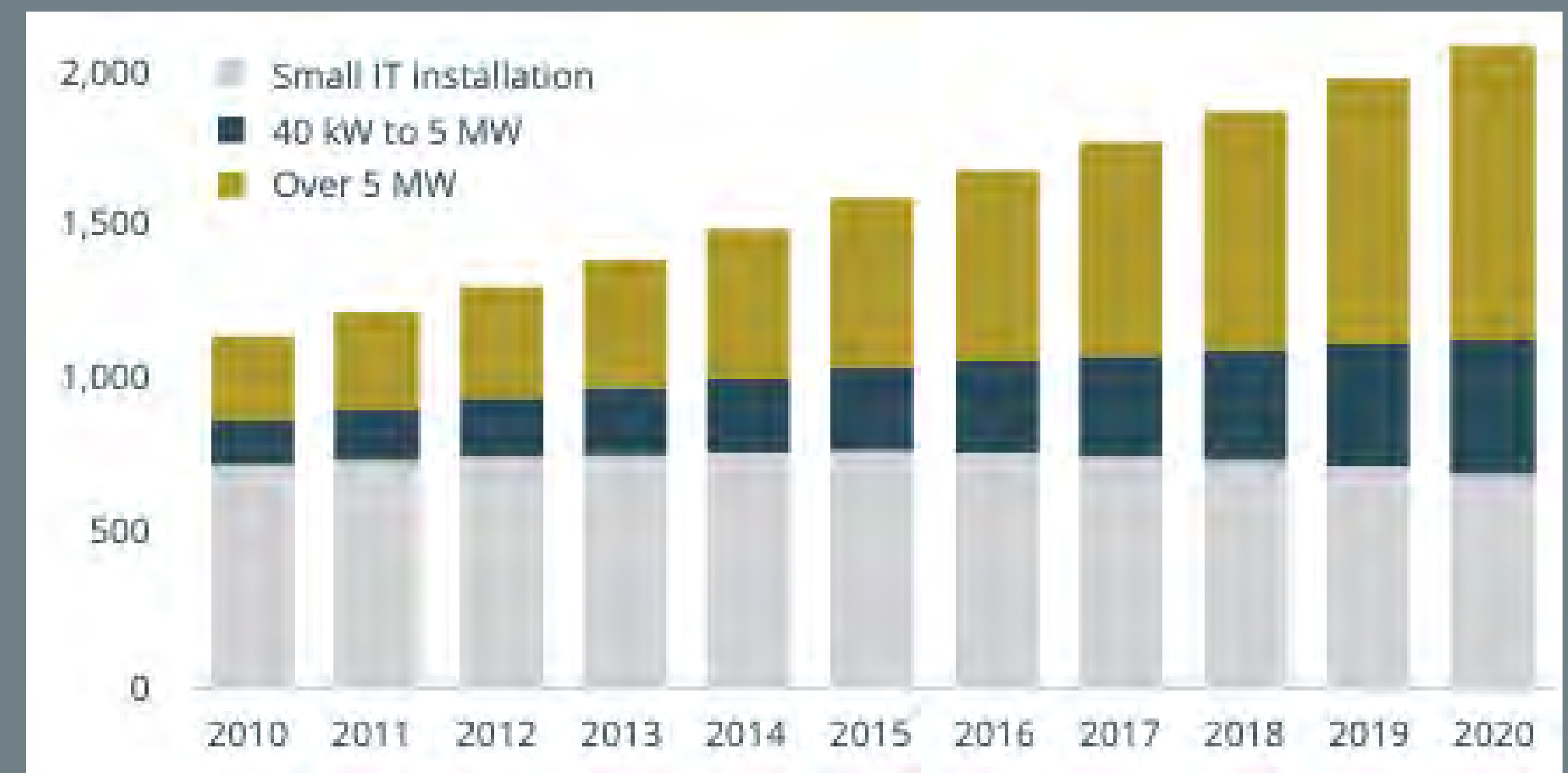
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Data Center Location Germany



- Germany remains a strong position for data centers in Europe, no weakening of demand discernible
- New investors enter the market
- Site prices with power connection on the rise
- Annual data center industry revenue of €13.36 billion¹ Rising to €16 billion by 2027
- Annual investment of around €2.5 billion in buildings and technical building equipment
- **Frankfurt am Main** has Europe's highest data center density, with capacity increasing by 40% annually from 2011 to now.
- Capacity increased from 120 MW to 707 MW. A further 50% increase in current capacity is expected by the end of 2023.

INSTALLED DATA CENTERS – CAPACITY (IN MW)

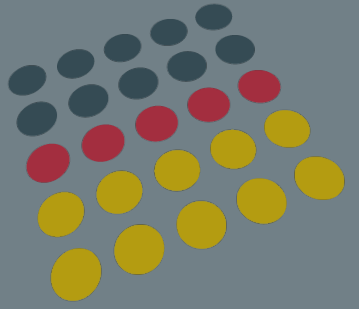


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3



GERMAN DATACENTER INDUSTRY MAIN INDUSTRY TOPICS



ENERGY CAPACITY / PRICES



ENERGY EFFICIENCY ACT



SHORTAGE OF SKILLED
WORKERS



CLIMATE NEUTRALITY
HEAT REUSE RECOVERY



BUILDING PERMIT
PROCESSES



IMAGE / PERCEPTION

GERMAN DATACENTER INDUSTRY ENERGY EFFICIENCY ACT – DC OBLIGATIONS

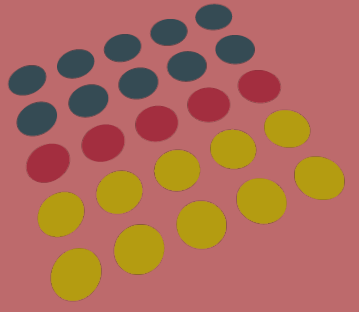


Start of operation of the DC	Before 7/2026	From 7/2026	From 7/2027	From 7/2028
PUE	≤ 1,5 from 7/2027 ≤ 1,3 from 2030	≤ 1,3	≤ 1,3	≤ 1,3
Waste heat utilisation	-	At least 10%	At least 15%	At least 20%
		From 1/2027		
Electricity consumption from renewable energies „bilanziell“ *	50%	100%	100%	100%

* this also includes the purchase of green electricity according to the certificate of origin

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EVENTS & INITIATIVES IN 2023



14 – 16 June 2023

GDA goes Sweden

18 / 19 September 2023

**German Datacenter Conference,
Bad Vilbel**

19 September 2023

Presentation of the
GDA Young Talent Award, Bad Vilbel

29 September 2023

**Open Data Center Day,
all over Germany**



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THANK YOU FOR YOUR
ATTENTION.