

THE PROPTech CONNECTION



THE GROWTH OF DATA A NEW WORLD FOR DIGITAL ADOPTION

DATA GROWTH: DRIVEN TO NEW LEVELS

95%+

INTERNET ADOPTION
RATES (EUROPE +
NORTH AMERICA)

10X

GROWTH IN DIGITAL
UNIVERSE OF DATA
(2013-2020)

65bn

MESSAGES SENT
OVER WHATSAPP
EVERYDAY

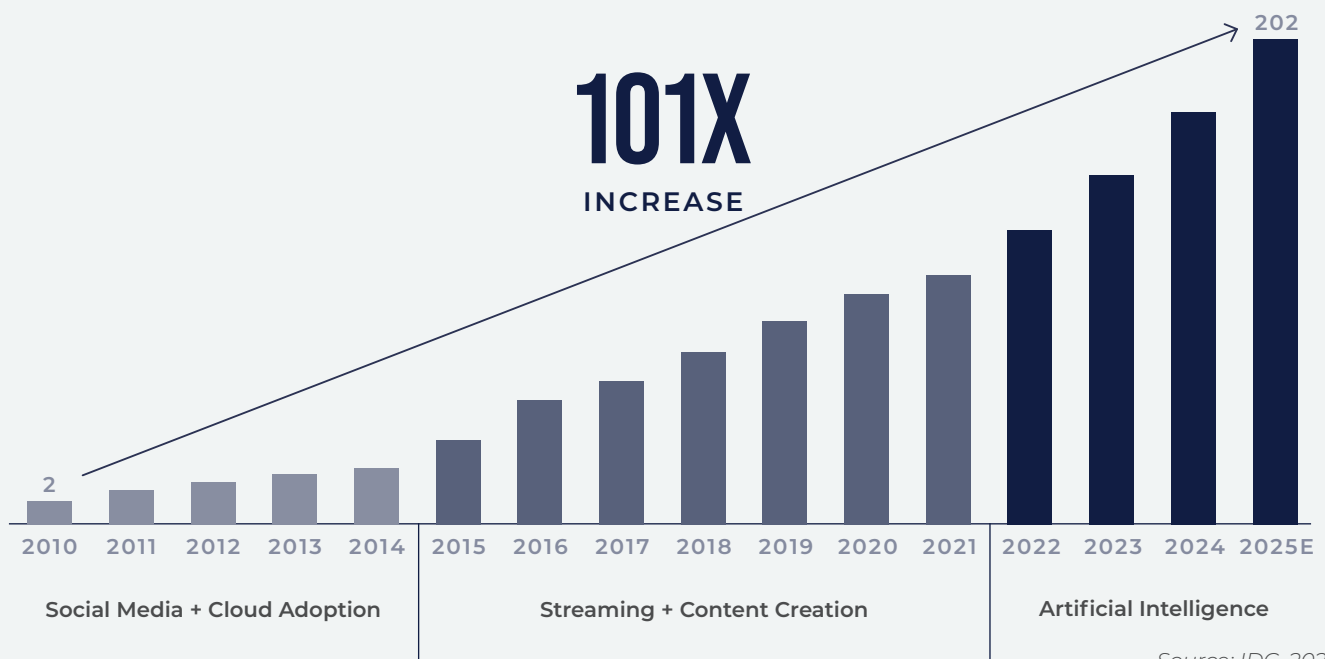
The growth of data and consumption of that data has been the biggest societal and technological change in the last 20-30 years. This pace of change has been driven by both consumer and business use and has created new sectors, business models and accelerated the consolidation of new behemoths of tech.

For consumers, the growth of mobile phone usage via 4G, 5G and Wi-Fi networks has been the primary driver. Whilst we are reaching a plateau of new users in the developed market, we are still seeing an increase in consumer data volume following the growth of connected devices (such as wearables, IoT, and AVs) and the continues growth of internet adoption in the developing world.

For business users, data is one of the most important building blocks for delivering strategy. 90% of businesses define their data as a critical business asset. The race to move data to the cloud was ubiquitous and 98% of businesses use cloud storage in some capacity.

From this background we can add in the rapid emergence of AI models, more nuanced IoT and global interconnectivity creating a perfect storm of demand ahead of supply. In this report we cover the different drivers operator, models, and examine some opportunities within the data market and adjuncts.

EXPLOSIVE GROWTH IN DATA



DATA DRIVERS

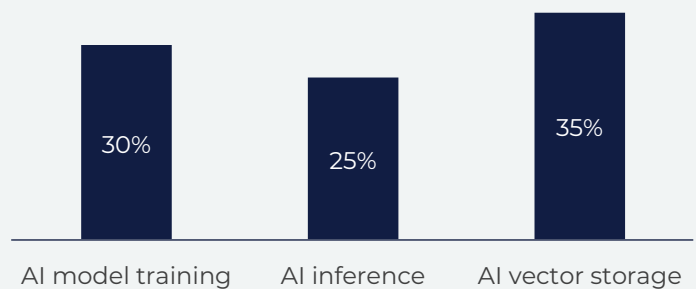
AI, IOT, AND NETWORK

The growth of AI has undoubtedly attracted the most attention but there are other key drivers that will impact data supply, storage and management. In isolation these are powerful drivers but, in combination, point to a defining period in how technology can adapt and meet a now-established necessity for society.

ARTIFICIAL INTELLIGENCE

The growth of AI specific capacity (up to 70% projected rises) was unforeseen even 2-3 years ago. Whilst the public are predominantly concerned with AI inference and queries the industry has had to grapple with the heavy usage of AI model training which is slowing as pre-trained models are consolidating.

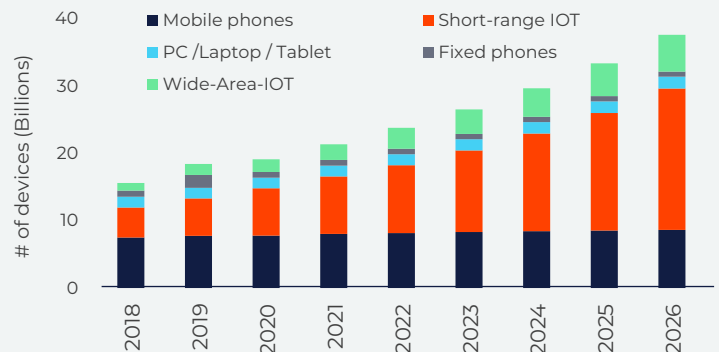
AI Workload Growth Rate (2024-2027)



AUTOMATED VEHICLE (AV)

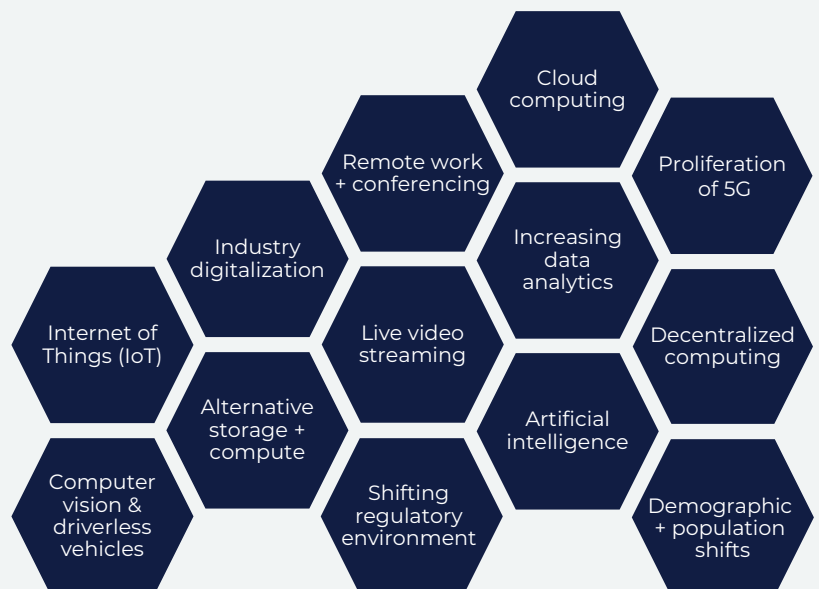
The history of AVs has parallels with data consumption. Operators have moved away from the “store everything” concept and now deem less than 1% of data produced as “useful” (Cruise Cars). Whilst AVs will not generate the same heavy processing demands as AI they do need more immediate (low latency) networks which will drive the growth of interconnected networks in metropolitan areas.

Number of Active Device Connected



DATA CENTRALISATION

Big tech has driven the need to have core data processing and storage offsite in centralised locations. This has led to corridors of connectivity near established markets and reduced footprints within enterprises necessitating smooth and accessible data transfer and back up.



Sources: McKinsey, The PTC intelligence

ALTERNATIVE VIEW

GROWTH UNLIKELY TO BE LINEAR

ALTERNATIVE
STORAGE
+ COMPUTING

AI
COMPUTING
EFFICIENCIES

MOVE AWAY
FROM
CLOUD STORAGE

Where demand outweighs supply, industry and technology usually combine to address the challenges. The overly simplistic model would say that growth continues infinitum, but we see some push back for three main reasons: Cost, security and efficiency.

The growth of data processing could be slow due in part to a shift away from cloud computing as companies prioritize cost efficiency. This business case is also supported by increased awareness of business risk in data leakages (there have been many examples in recent years where business or customer data has become exposed). Many businesses are moving workloads back on-premises or adopting hybrid cloud models to reduce their reliance on expensive cloud storage and processing power.

At the same time, AI and machine learning models are becoming more efficient, requiring less raw data and computational power to achieve similar or even superior results. Advances in AI such as smaller and more optimized models (See DeepSeek), improved training modules and hardware accelerators are starting to reduce the need for excessive data processing. As AI continues to evolve in this direction, the growth of raw data processing is naturally tapering off, shifting the focus from sheer volume to smarter, more efficient computation.

These challenges highlight the need for a nuanced strategy to support market evolution.

KEY NETWORK CHALLENGES

TELCOS + DATA PROVIDERS: WRESTLING WITH NUMEROUS CHALLENGES



SMARTER BUILDS

- Massive data growth from IoT, AI, and edge computing requires telecoms to scale their networks rapidly
- Handling real-time processing for 5G devices without overwhelming core networks.



LATENCY + PROCESSING

- Many applications such as AI processing or IoT need to be ultra quick therefore close to the device (low latency)
- Building interconnected networks within a cost-efficient manner



DATA MANAGEMENT

- Handling storage of data from multiple new data needs- AI, IOT, 5G growth.
- Building new networks such as Edge to support divergent customer needs



ENERGY + SUSTAINABILITY

- Huge power usage due to growing AI workloads and the need for hyperscale data centers
- Starting to optimize energy usage through technology to meet renewable energy targets and target costs



SECURITY

- Increased security threats around data and enterprise concerns
- Ensuring end-to-end encryption + compliance with global regulations (GDPR, CCPA)
- Ensuring security over different data models including cloud and models



BUSINESS CHALLENGES

- Due to the dependency on network and data processing the market has seen entrants such as the Big Techs including AWS, Google Cloud, Microsoft which creates a race for innovation
- Many network providers are having to transition to different business models including providing wider network services to their customer base to meet their needs

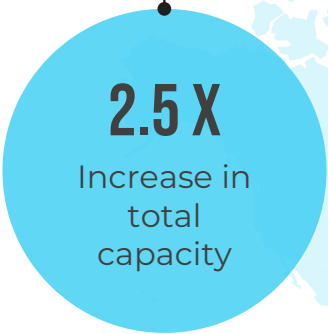
DATA CENTER AS A UTILITY NEED

The challenges affecting network to meet demand show the issues that are behind the explosive growth in data centers.

By 2030 data center capacity demand is potentially triple the current utilization. This is truly a global phenomenon, but each market has subtle differences.

AMERICAS

Colocation	8,909 MW	20,963 MW
Cloud	6,835 MW	3,431 MW
Others	1,076 MW	400 MW
Total	16,820 MW	24,794 MW



EMEA

Colocation	4,659 MW	5,468 MW
Cloud	1,286 MW	1,008 MW
Others	273 MW	51 MW
Total	6,218 MW	6,528 MW



ASIA PACIFIC

Colocation	8,819 MW	10,707 MW
Cloud	1,514 MW	2,486 MW
Others	252 MW	87 MW
Total	10,584 MW	13,281 MW



Source: The PTC intelligence

Indicator Current Pipeline

Whilst some challenges are being addressed globally such as the heavy investment in GPU and cloud storage to support generative AI models, other challenges are dictated by market, geographic and regulatory demands.

Americas:
Power Availability is Key

Reliable power access is essential for site selection, shifting demand from established markets like Virginia to Northern Indiana, Iowa, and Wyoming.

Europe:
Slow But FLAP Leading Charge

Frankfurt, London, Amsterdam and Paris (FLAP) are experiencing significant growth, which is leading to increased competition for land, power and skilled labor.

APAC:
Rapidly Closing Gaps

APAC is seeing substantial growth in demand fueled by increasing digitization and a rapidly growing middle class. Increased 5G + cloud adoption in laggards, will amplify growth.

WHEN THERE'S UNTAPPED DEMAND: INVESTORS FOLLOW



\$215bn

SIZE OF DATA CENTER
MARKET- 2022

\$70bn

SIZE OF BLACKSTONE DC
PORTFOLIO (2024)

\$24bn

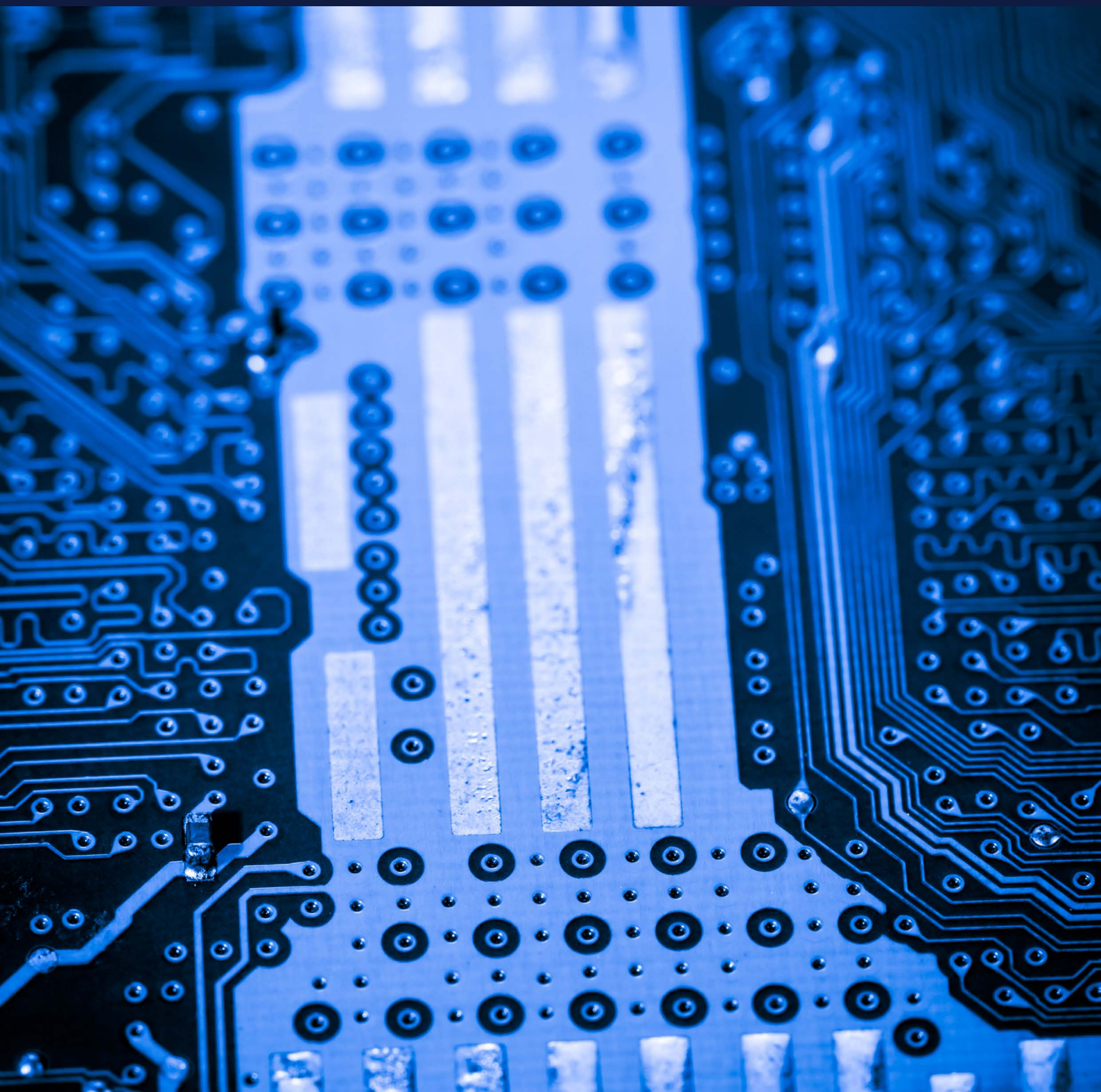
ACQUISITION PRICE OF
AIR TRUNK (DEC 2024)

Due to the huge demand trends we have covered earlier in this report many different actors have identified data processing, storage and adjuncts as attractive areas for growth and therefore investment returns.

This can be seen in the pivot from traditional real estate investors from CRE into financing and owning data centers. These were previously deemed as alternative investments from real estate professionals but are increasingly core to portfolio due to the expected returns.

We have seen the emergence of long-term investors accessing the market through different routes. From Private Equity firms buying legacy data center operators for turnaround, CVCs looking at the technology to operate leading data centers (such as battery storage or network management tools), and Big Tech firms taking majority stakes in revolutionary tech options such as nuclear fusion.

We will explore the different models, tech solutions and how we work with those interested in the space in the coming weeks.



DISCLAIMER

This document has been prepared for information purposes only. To the maximum extent permitted by law, The Proptech Connection ("the PTC"), nor any related party or any of their respective officers, directors, employees, advisers and agents, nor any other person, accepts any responsibility or liability for, and makes no recommendation, representation or warrant concerning, the content of this presentation, any liability arising from fault or negligence, for any loss arising from the use of or reliance on any of the information contained in this presentation or otherwise arising in connection with it.

The PTC and any of its affiliates do not guarantee the accuracy or completeness of information contained in this document, including information that is stated to have been obtained from or is based upon trade and statistical sources or third party sources. Any modelling or financial analysis contained in this document is no indication as to future performance. No representation or warranty is made as to the reasonableness of assumptions made within or the accuracy or completeness of any modelling or financial analysis. All opinions and estimates given are as at the date hereof and are subject to change. The information in this document is not intended to predict actual results and no assurances are given with respect to future results.