

# Artificial intelligence: a game changer for your own portfolio

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# What is artificial intelligence?

AI is the simulation of human intelligence by machines



## Sense

Cognitive systems are able to actively perceive images or speech and collect data.



## Comprehend

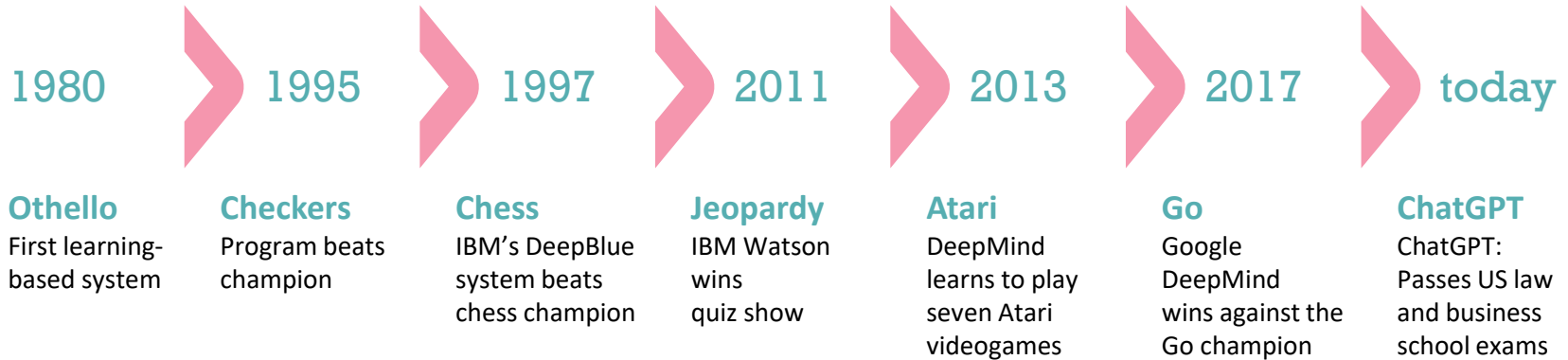
AI systems can analyse and understand the information collected.



## Act

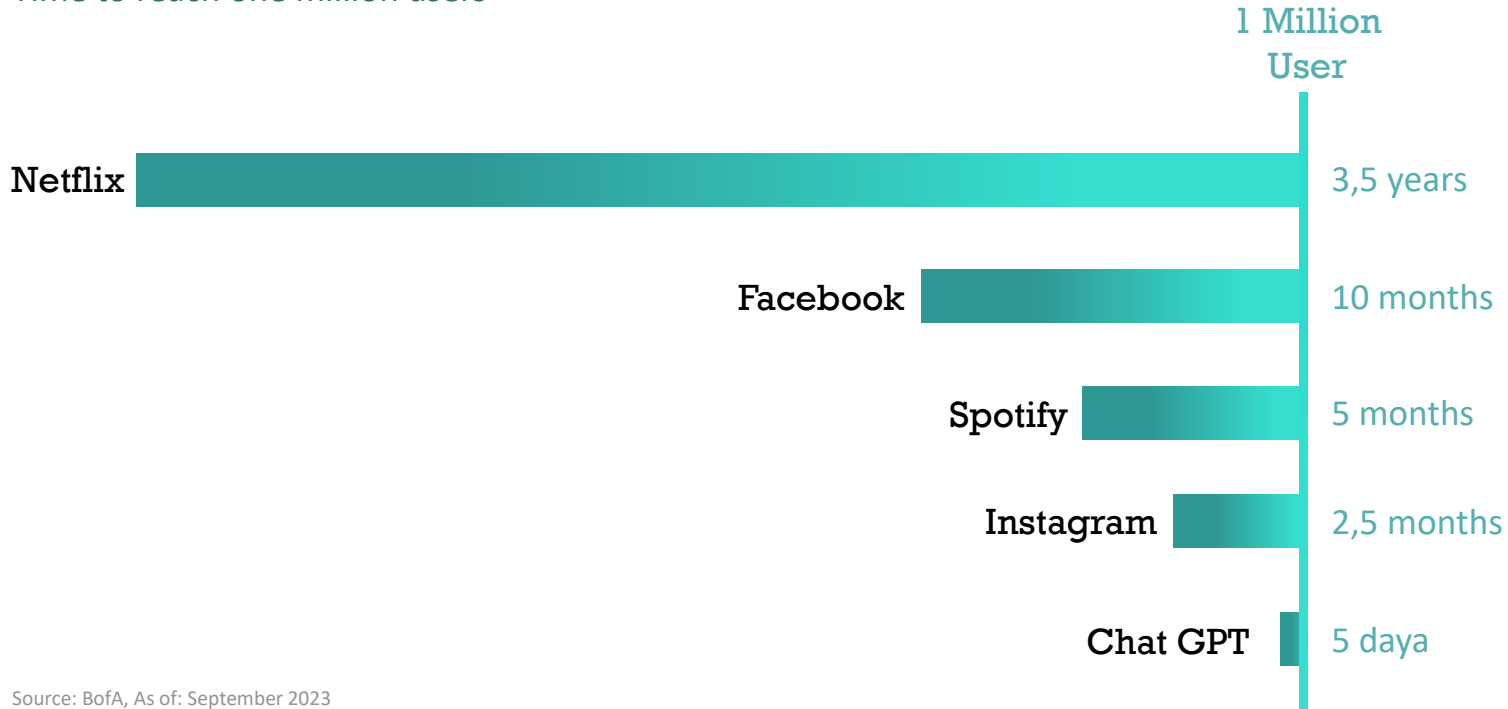
With expert systems or inference engines, an AI system can operate in the physical world.

# The road to artificial intelligence



# The next AI revolution or just hype?

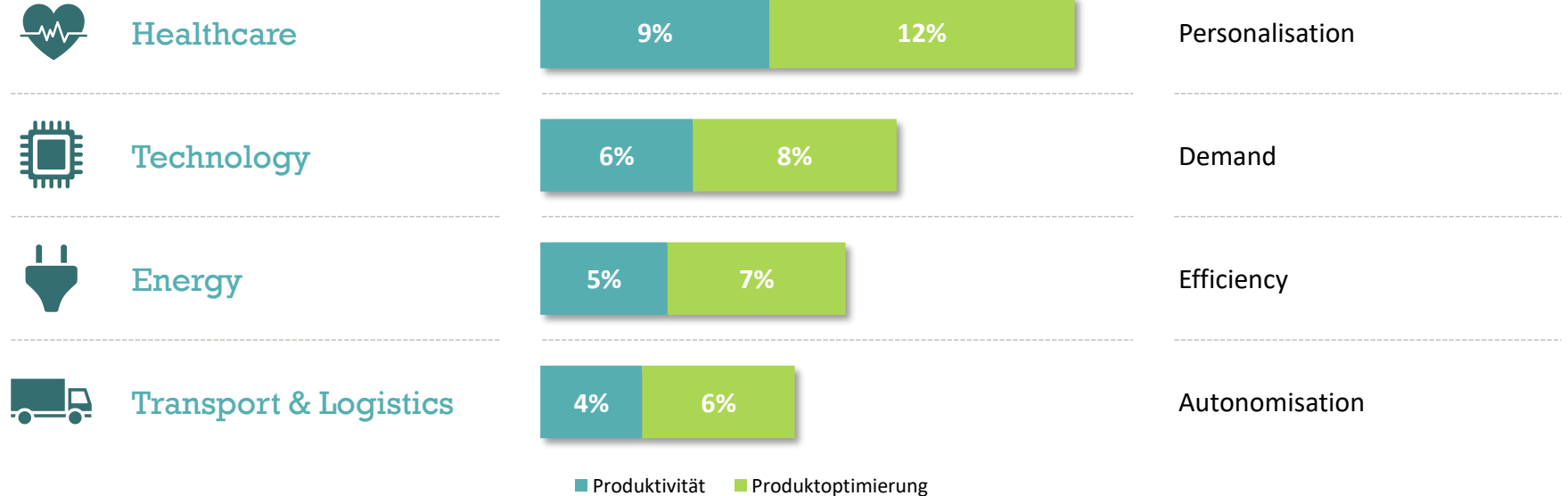
Time to reach one million users



Source: BofA, As of: September 2023

# AI impacts all industries

## GDP growth in 2030 due to AI

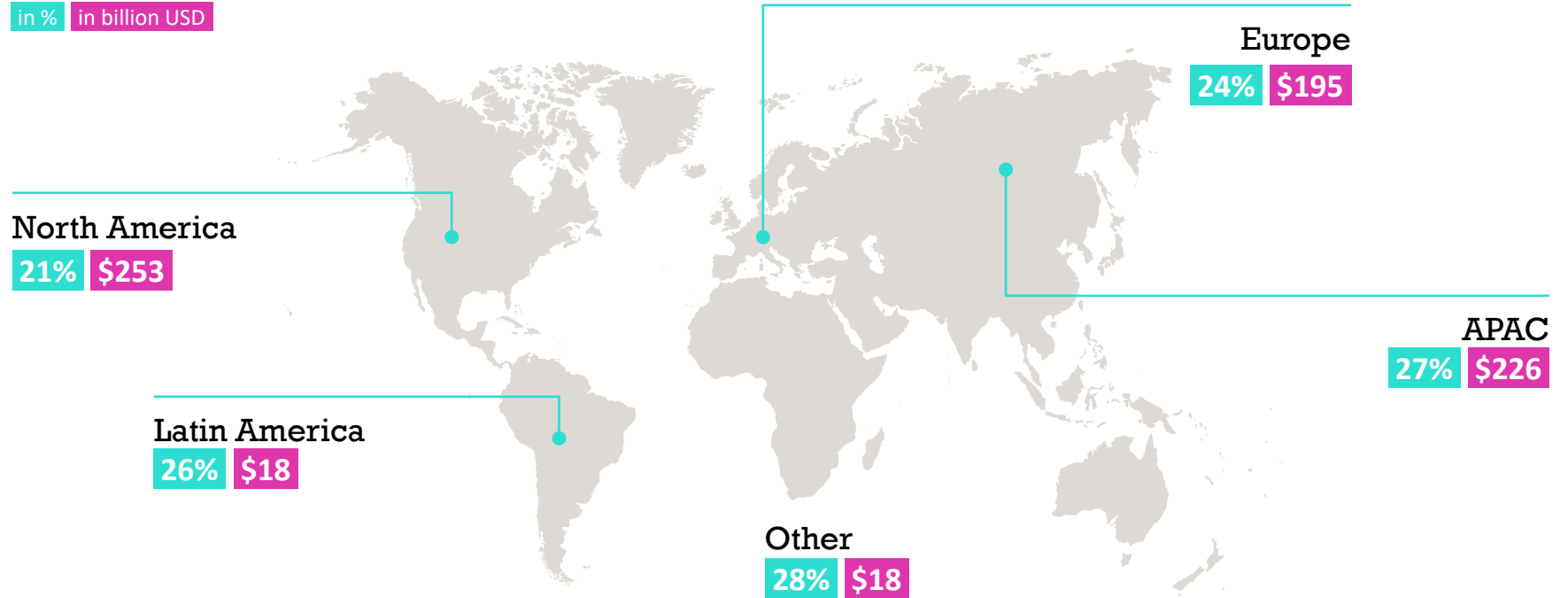


Forecasts are not a reliable indicator of future performance. Forecasts are based on assumptions, estimates, opinions and hypothetical performance analysis, therefore actual results may vary.

Source: BofA; PWC; DWS Investment GmbH; As of: December 2023

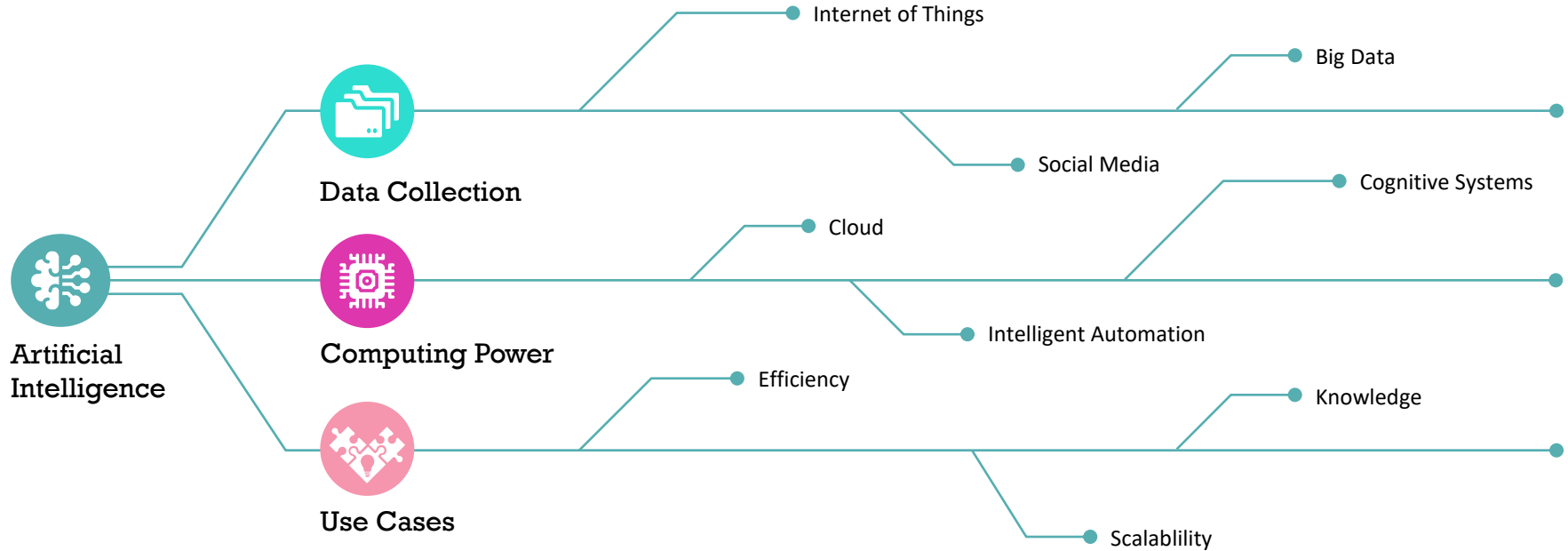
# AI becomes more relevant worldwide

## Growth rate of the AI market until 2030



Forecasts are not a reliable indicator of future performance. Forecasts are based on assumptions, estimates, opinions and hypothetical performance analysis, therefore actual results may vary.  
Source: Statista Market Insights, As of: September 2023

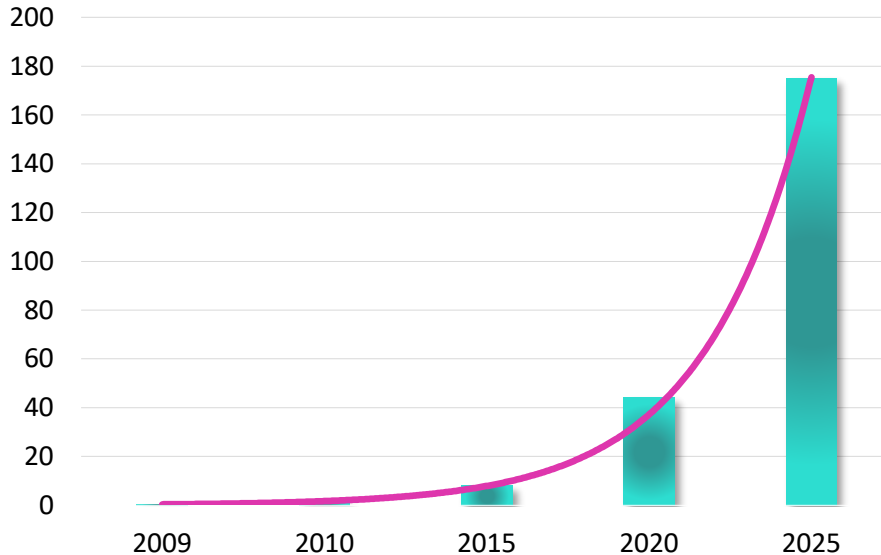
# Diverse and broad investment universe





# Increasing data supply drives AI

## Annual data volume worldwide in Zettabyte<sup>1</sup>



1) Zettabyte is a multiple of the unit byte for digital information. A zettabyte is one sextillion bytes. Forecasts are not a reliable indicator of future performance. Forecasts are based on assumptions, estimates, opinions and hypothetical performance analysis, therefore actual results may vary.

Source: EMC, IDC, DOMO; As of: February 2024

## What happens in the world of data in one minute?

**500 hours**

Videos uploaded to Youtube

**1 Mio. hours**

usage of streaming services

**5,9 Mio.**

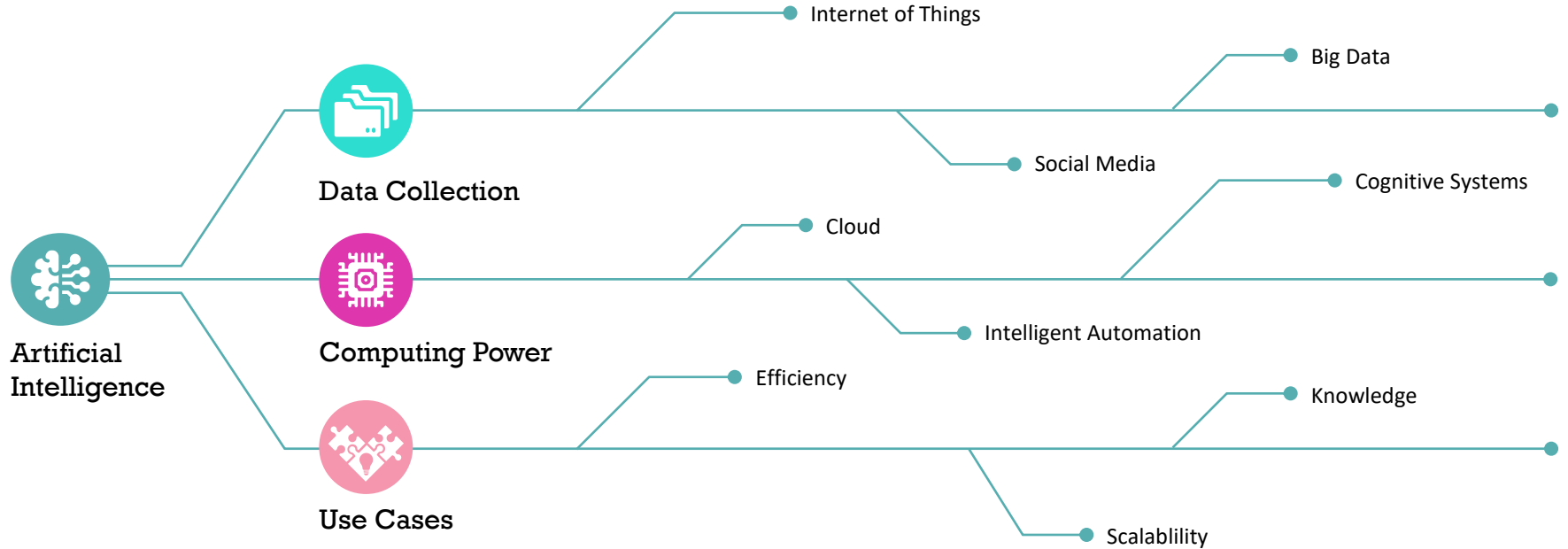
Google search queries

**234 Mio.**

Emails sent



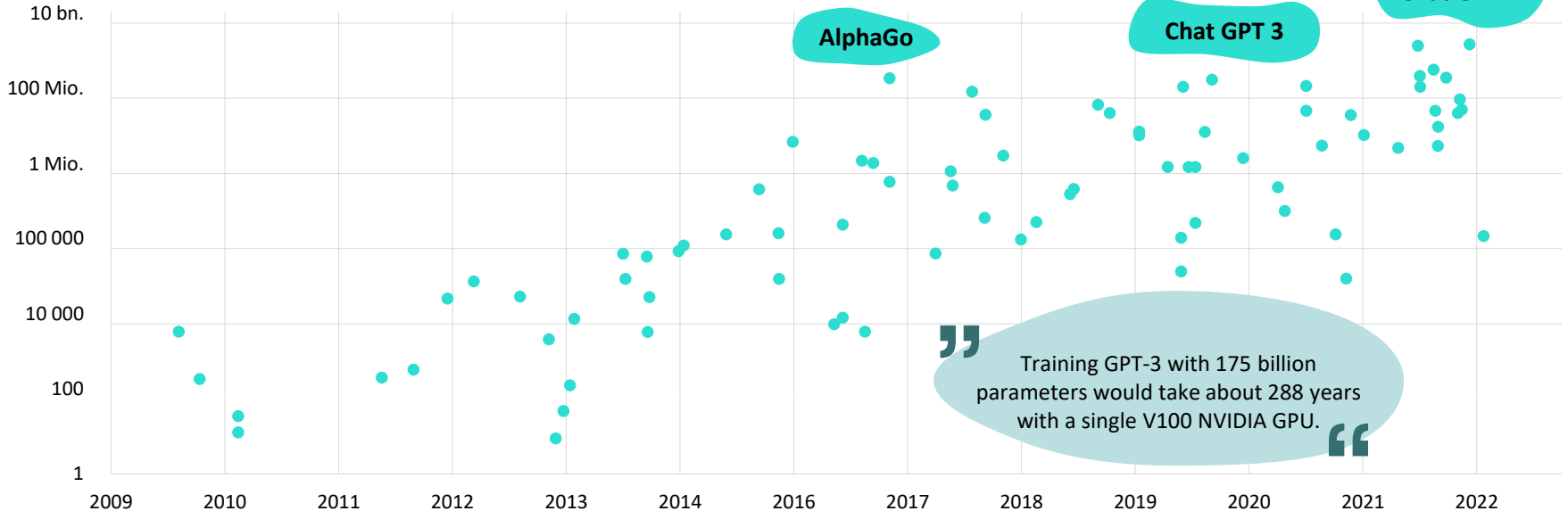
# Diverse and broad investment universe





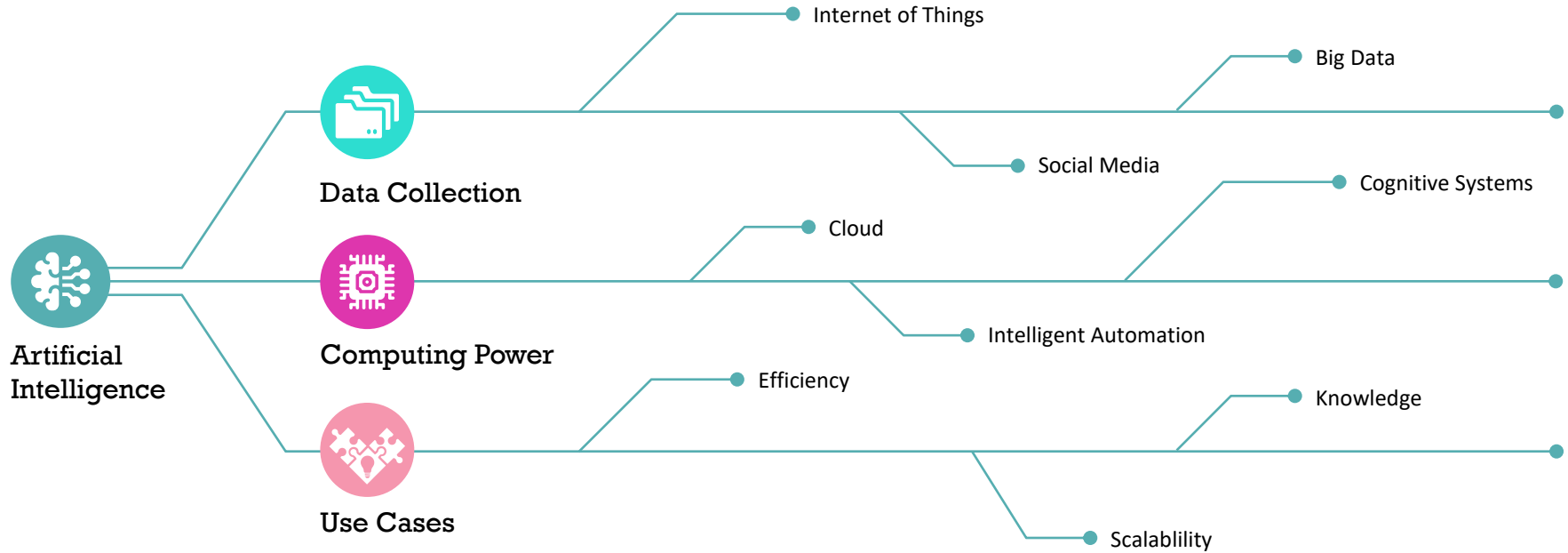
# AI requires ever greater computing power

275 times more computing power is required every two years  
in Petaflops



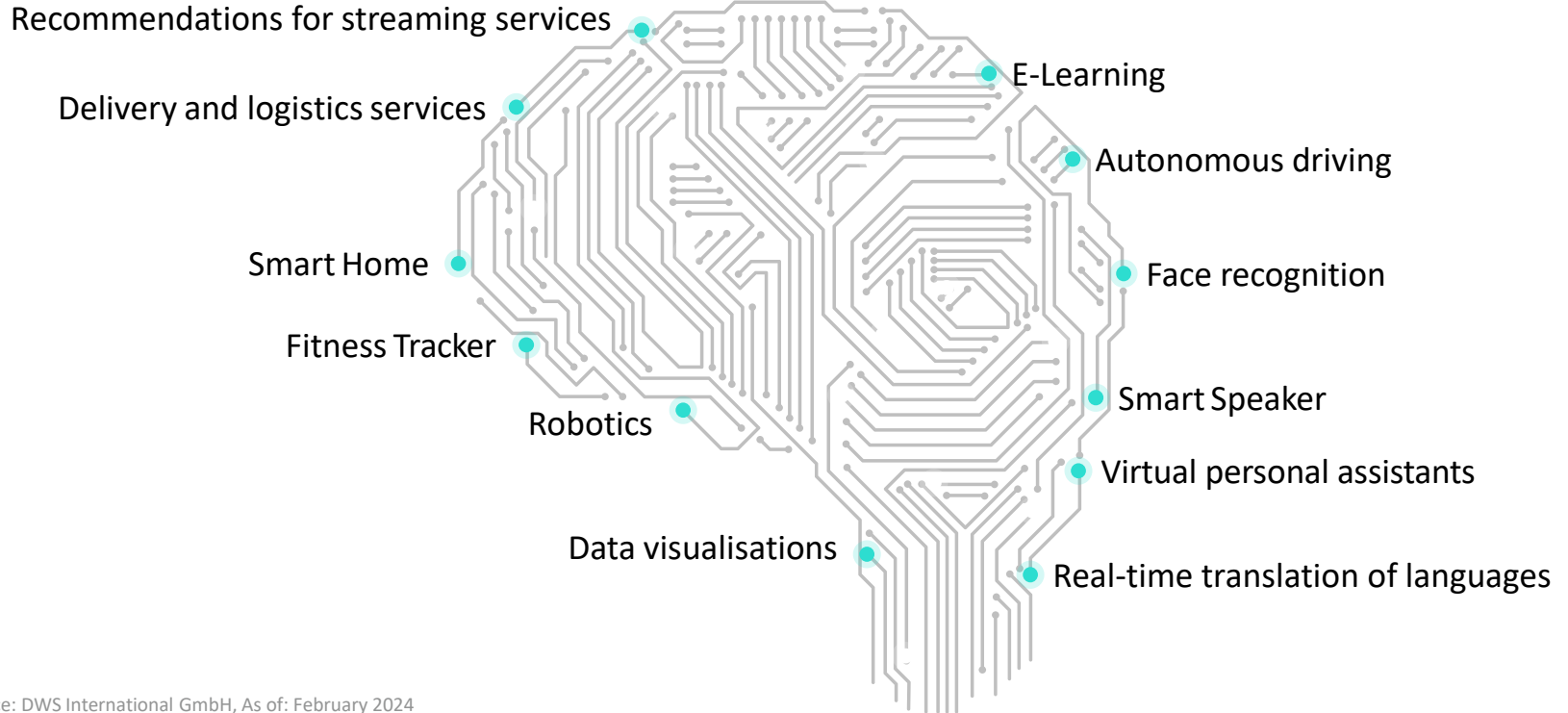
Source: Ourworldindata, BofA, DWS International GmbH, As of: April 2023

# Diverse and broad investment universe



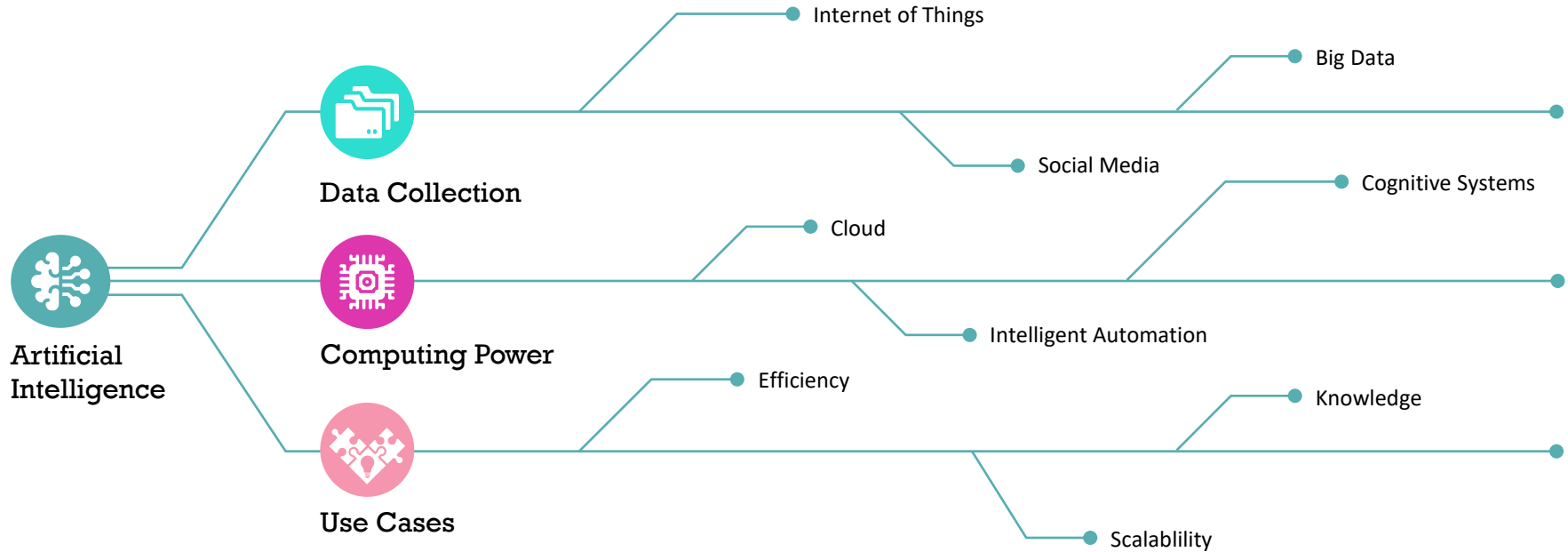


# AI has long been part of our everyday lives



Source: DWS International GmbH, As of: February 2024

# Diverse and broad investment universe

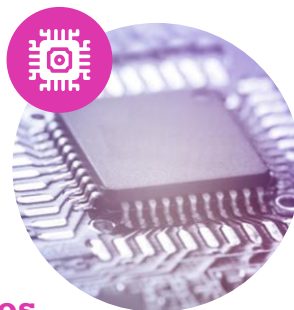


# Companies from the AI universe



## Keyence Corp

- Develops and manufactures industrial automation and inspection devices
- Data generation with measuring systems, laser markers, microscopes and image processing systems



## Alchip Technologies

- Circuit design and manufacturing services
- System-on-chip design, production and internet protocol solutions



## Deere & Co.

- US company that offers agricultural, construction and forestry equipment
- Develops autonomous and electric agricultural machinery based on AI

The following examples are indicative and illustrative only. The examples presented do not constitute investment advice and we do not necessarily hold these issuers in our portfolio.

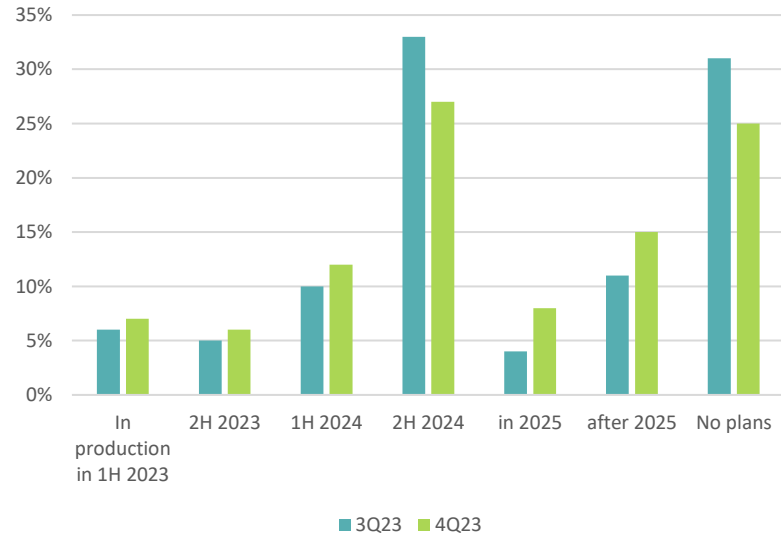
Source: Factset (2023), DWS International GmbH, As of: February 2024

# Is it too late to invest in AI?

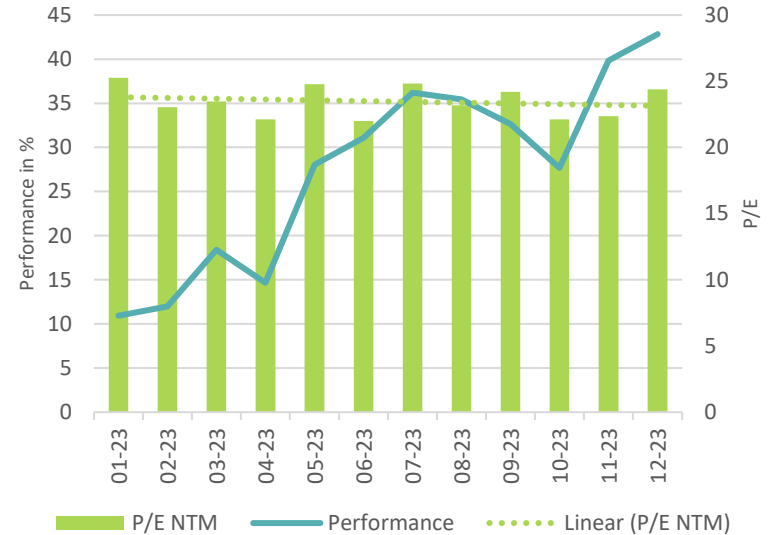
## Continued potential for AI

### Increasing AI adoption rate could boost companies growth

Expected development of AI in companies



### Strong earnings growth helps businesses to grow into valuations



As of: Jan. 2024; source: Bloomberg 2024 (left chart), Morgan Stanley Research, AlphaWise (n=100) 2023 (right chart). Forecasts are not a reliable indicator of future returns. Forecasts are based on assumptions, estimates, views and hypothetical models or analyses, which might prove inaccurate or incorrect.



## Why is AI important for investors?

- Disruptive technology
- Improves efficiency, quality and innovation
- Creates new sources of revenue and business models



## How to invest?

- Across sectors
- Along the AI value chain
- Companies with an actual connection to AI



## What is the focus?

- Global orientation with focus on USA & Asia
- Companies with high expected earnings growth
- Solid balance sheet quality



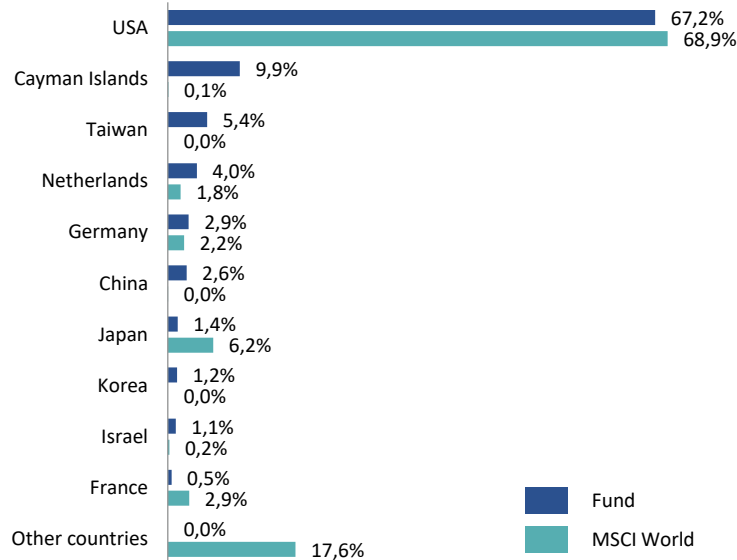
# DWS Invest Artificial Intelligence

## Country allocation – absolute and relative to MSCI World index



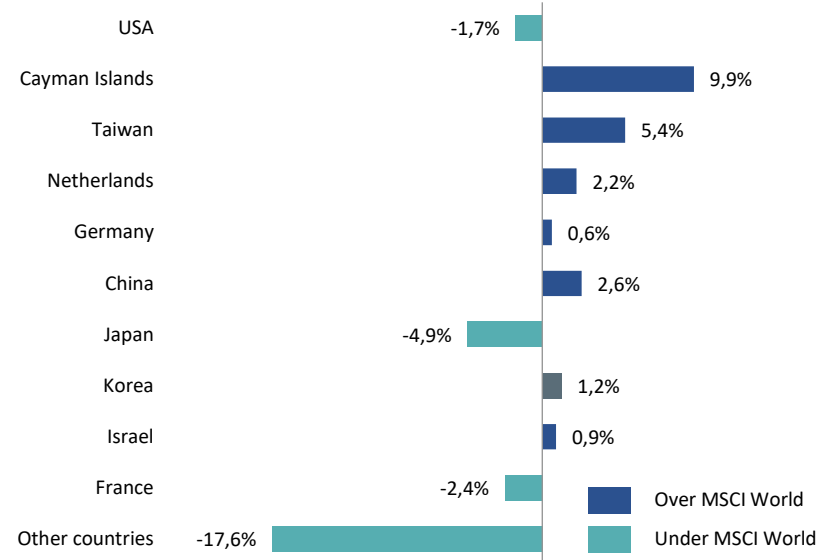
### Country allocation – absolute to MSCI World Index

(in % of fund volume)



### Country allocation – relative to MSCI World Index

(in % of fund volume)



Note: Allocations are subject to change without notice

As of: End of January 2024; source: DWS International GmbH, ReportFinder

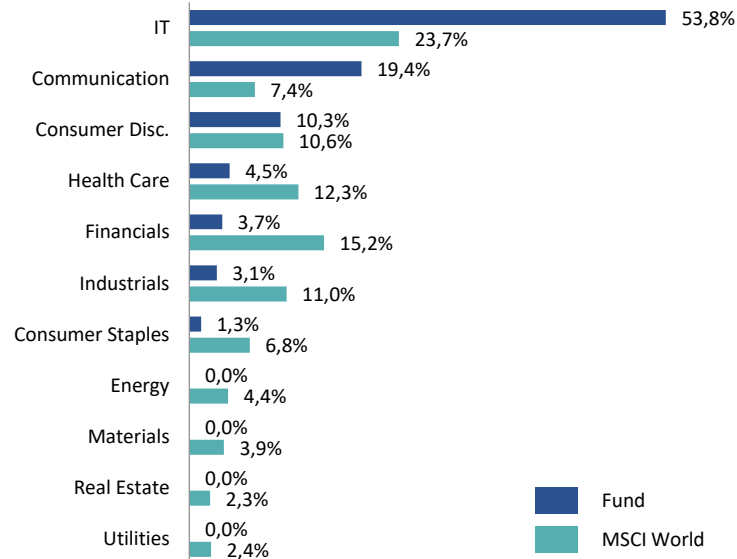
# DWS Invest Artificial Intelligence

## Sector allocation – absolute and relative to MSCI World Index



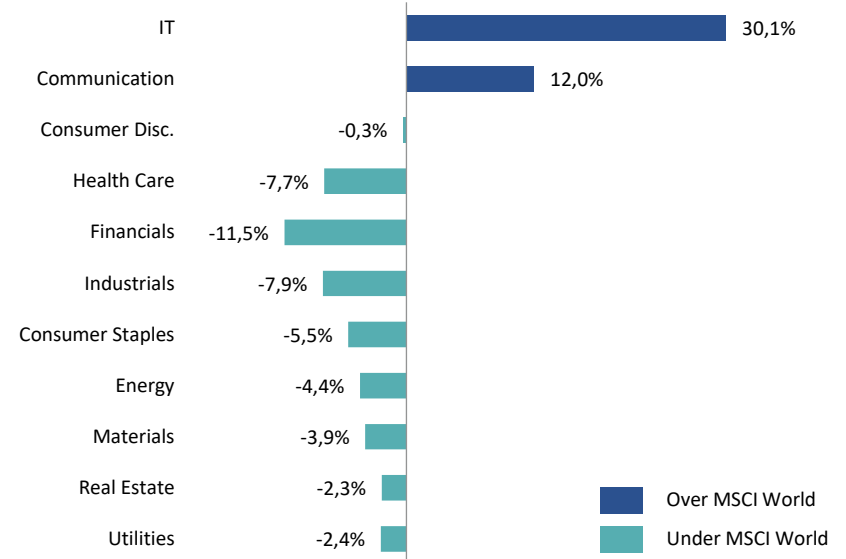
### Sector allocation – absolute to MSCI World Index

(in % of fund volume)



### Sector allocation – relative to MSCI World Index

(in % of fund volume)



Note: Allocations are subject to change without notice

As of: End of January 2024; source: DWS International GmbH, ReportFinder

# DWS Invest Artificial Intelligence

## Top 10 positions und Investment ratio



### Top 10 positions

Microsoft Corp	7.2%
Alphabet Inc	7.1%
Nvidia Corp	5.9%
Taiwan Semiconductor Manufacturing Co Ltd	5.4%
Amazon.com Inc	4.2%
Meta Platforms Inc	4.1%
Synopsys Inc	3.0%
Arista Networks Inc	2.9%
Adobe Inc	2.8%
Applied Materials Inc	2.4%
Sum	45.1%

### Investment ratio

Equities	96.1%
Cash and other assets	3.9%

In % of fund volume

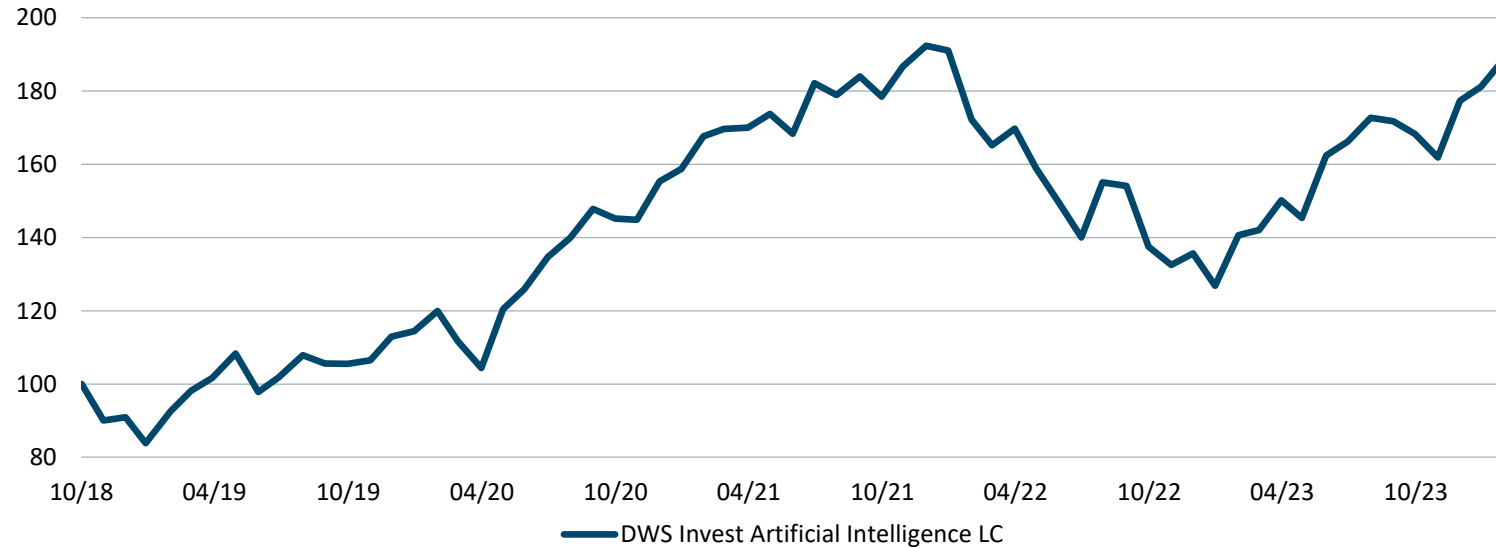
This information is intended for informational purposes only and does not constitute investment advice, a recommendation, an offer or solicitation.

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As of: End of January 2024; source: DWS International GmbH, ReportFinder

## Performance since inception

(01.10.2018 = 100 points)

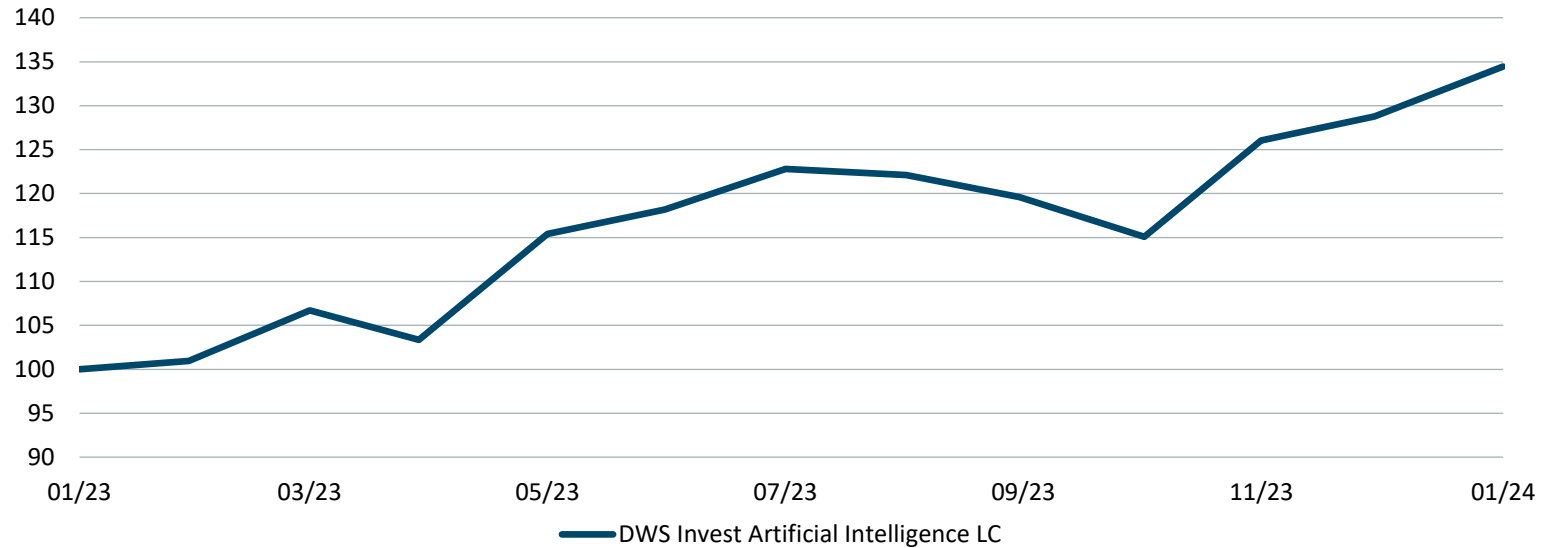


Calculation of performance is based on the time-weighted return and excludes front-end fees. Individual costs such as fees, commissions and other charges have not been included in this presentation and would have an adverse impact on returns if they were included. Past performance is not a reliable indicator of future returns.

As of: end of January 2024; source: DWS Investment GmbH

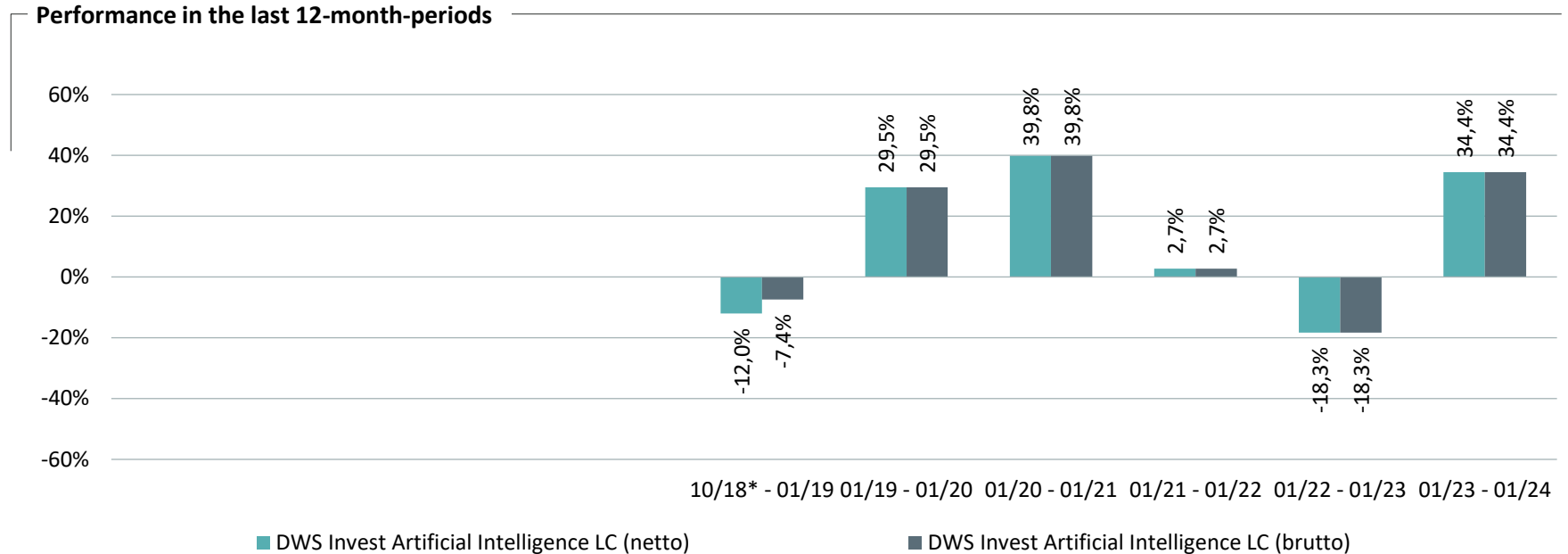
## Performance 1 Year

31.01.2023 = 100 points



Calculation of performance is based on the time-weighted return and excludes front-end fees. Individual costs such as fees, commissions and other charges have not been included in this presentation and would have an adverse impact on returns if they were included. Past performance is not a reliable indicator of future returns.

As of: end of January 2024; source: DWS Investment GmbH



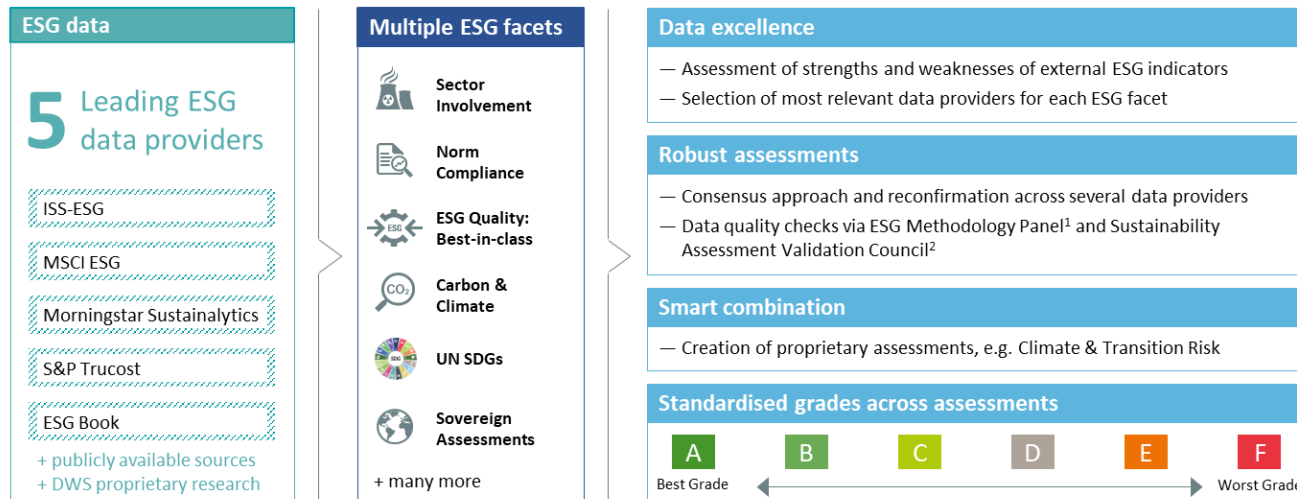
\*Inception date: 01.10.2018

Calculation of performance is based on the time-weighted return and excludes front-end fees. Individual costs such as fees, commissions and other charges have not been included in this presentation and would have an adverse impact on returns if they were included. Past performance is not a reliable indicator of future returns.

As of: end of January 2024; source: DWS Investment GmbH

# The DWS ESG Engine

## How we create robust ESG assessments



Flexibility in ESG criteria and data providers applied

Broad coverage of diverse ESG facets

Client-specific ESG screens

Dedicated and thematic ESG investment strategies

(1) The ESG Methodology Panel (EMP) consists of several ESG experts within DWS across asset classes and divisions. The EMP meets weekly to discuss the design of new or adjustment of existing assessments or the selection of new data providers, among others. (2) The Sustainability Assessment Validation Council (SAVC), chaired by the Global Head of Research, consists of ESG specialists from DWS's research department and reviews ESG Engine assessments before they become effective. The council applies corrective adjustments in case a result is found materially incorrect, especially as a result of current insights gained from engagements and company disclosure reviews.

Source: DWS International GmbH as of January 2024. For illustrative purposes only.

# DWS Basic Exclusions

Overview of DWS Basic Exclusions which is applied by DWS funds



		<b>DWS Basic Exclusions</b> [transparent pursuant to Article 8 of the Regulation (EU) 2019/2088]
	DWS ESG Assessment methodology / exclusion criteria	Assessment <sup>1</sup> or revenue threshold <sup>2</sup>
<b>DWS Group policies</b>	DWS Coal Policy (coal mining and power generation from coal $\geq$ 25% revenue; coal expansion plans) <sup>3</sup>	Non-compliant
	DWS Controversial Weapons Policy (cluster munition, anti-personnel mines, biological and chemical weapons, depleted uranium weapons, nuclear weapons) <sup>4</sup>	Non-compliant
<b>Controversial sectors (excl. climate)</b>	Manufacturing of products and/or provision of services in the defense industry	$\geq$ 10%
	Manufacturing and/or distribution of civil handguns or ammunition	$\geq$ 5%
	Manufacturing of tobacco products	$\geq$ 5%
<b>Climate-related assessments</b>	Mining of oil sand	$\geq$ 5%
	DWS Climate and Transition Risk Assessment (corporates & sovereigns)	No F
<b>General ESG assessments</b>	Freedom House Status (sovereigns)	No "Not free"
<b>Regulatory metrics</b>	Good Governance Assessment measured by DWS Norm Assessment (corporates)	No F / M
	<b>Principal adverse impact indicators (PAII)</b> <sup>5</sup>	PAII #4 / #10 / #14 / #16 <sup>8</sup>
	<b>Share of sustainable investments (SFDR)</b> <sup>6</sup>	Individual per fund
	<b>Share of sustainable investments (EU Tax)</b> <sup>7</sup>	0%

For illustrative purposes only. Please refer to the explanation of ESG filter terminologies regarding the footnote 1) – 8).

Source: DWS Investment GmbH; as of January 2024.



# DWS Basic Exclusions

## Explanation of ESG filter terminologies

### 1) DWS Assessment scheme

The ESG database derives "A" to "F" letter coded assessments within different categories. Within each category, issuers receive one of six possible scores, with "A" being the highest score and "F" being the lowest score. If an issuer's score in one category is not considered eligible, the portfolio management is prohibited from investing in that issuer, even if it is eligible according to the other categories. For exclusion purposes, each letter score is considered individually and may result in exclusion of an issuer.

### 2) Revenue threshold

Shown is the %-revenue threshold which, when it is greater or equal to, triggers an exclusion. The focus is usually on manufacturing or production, for example, in the case of oil sands, the extraction of oil.

### 3) Coal

The filter excludes companies with coal expansion plans, such as additional coal extraction, production or use, based on an internal identification methodology. The aforementioned coal-related exclusions refer exclusively to so-called thermal coal, i.e. coal used in power plants for power generation.

**4) DWS Controversial Weapons Policy<sup>1</sup> (DWS CW Policy) predominantly covers Controversial Conventional Weapons (CCW). Other controversial weapons (CW) do not constitute controversial conventional weapons in the sense of this policy, however DWS deems these weapons controversial and excludes manufacturers with a nexus to those weapons from financial products applying certain ESG Filters.**

**Controversial weapons in DWS Basic Exclusion filter** include CCW (cluster munition, anti-personnel mines as well as biological and chemical weapons), as well as depleted uranium weapons and nuclear weapons. Controversial weapons are any ownership interest, regardless of revenue. An ownership is identified as a weapons manufacturer (F), component manufacturer (E) or a relevant ownership structure with an "E" or "F" graded company (D).

### 5) Principles adverse impact indicators (PAIs)

Depending on the asset class of the fund and its product strategy, actively managed Article 8 or 9 funds can consider different PAIs. For example, PAI 16 is only taken into account by funds investing in sovereign issuers.

### 6) Share of sustainable investments according to SFDR Art. 2(17)

The methodology for determining the share of sustainable investments follows four steps. In order to identify sustainable investments, the first step is to examine whether a company has a positive contribution to the UN SDGs through its business activities. The measurement of business activities is usually based on a company's revenues, partly also based on a company's capital expenses (capex) or operating expenses (opex). The second step is to proof that the company does not have a negative impact on any social or environmental objective when carrying out its business activities (DNSH assessment). If this is the case, the third step is to examine whether the company meets principles of good governance: It will exemplarily be considered whether the company has the worst norm assessment (so-called "minimum safeguards"). One example is the fight against corruption. If this is also the case, the positive contribution of the company identified in the first step can ultimately be taken into account. Thus, the company's share of sustainable investments would contribute to the share of sustainable investments in the portfolio.

### 7) Share of sustainable investments according to EU Taxonomy

The EU taxonomy aims to provide clarity on which economic activities are to be considered environmentally sustainable. For this purpose, a list of criteria for companies is used to define which economic activities or revenues contribute to the one of the six EU environmental goals. Due to a lack of data availability, DWS currently does not set a minimum percentage for environmentally sustainable investments according to EU Taxonomy in its actively managed funds.

### 8) Investee countries subject to social violations (no. 16).

1. <https://www.dws.com/en-dk/solutions/esg/information-on-sustainability/>

Source: DWS International GmbH as of January 2024

## Opportunities



## Risks



- Market, sector and company-specific price gains
- Possible exchange-rate chances

- Market-, sector- and company-specific price volatility
- Possible exchange-rate risk
- Because of its composition or the techniques used by its managers, the fund is subject to heightened volatility. Consequently, unit prices may fluctuate sharply in either direction within short periods of time
- The value of the fund's shares may fall below the price at which the client originally bought them

# Facts and figures



Share Classes*:	LC	LD	FC***	TFC	XC****
Share Class Currency:	EUR	EUR	EUR	EUR	EUR
ISIN:	LU1863263346	LU1863263429	LU1863263262	LU1863263858	LU1863263932
Germany Sec. Code:	DWS2W9	DWS2XA	DWS2XB	DWS2XD	DWS2XC
Front-end load**:	up to 5.0%	up to 5.0%	0.0%	0.0%	0.0%
Management fee p.a.****:	1.500%	1.500%	0.750%	0.750%	0.350%
Running costs (31/12/2023) plus performance-related fee for earnings from securities lending:	1.620%	1.610%	0.860%	0.870%	0.450%
	0.000%	0.000%	0.000%	0.000%	0.000%
Allocation of Income:	Reinvestment	Distribution	Reinvestment	Reinvestment	Reinvestment
Legal Form:	Luxembourg SICAV Umbrella				
Fund Volume:	1 bn EUR				
Fiscal Year:	1/1 – 31/12				

\*) This document contains details of the share classes LC, LD, FC, TFC, XC only. Please refer to the latest full or simplified sales prospectus for information on possible other share classes; \*\*) Based on the gross investment correspond approx. to 5.26% based on the net investment; \*\*\*) Minimum investment for initial subscriptions is 2,000,000 Euros; \*\*\*\*) Minimum investment for initial subscriptions is 2,000,000 EUR; (Seeding share class up to a total fund volume of EUR 100 mn).

As of: end of January 2024; source: DWS International GmbH

# DWS Invest Artificial Intelligence

## Investment strategy



The objective of the investment policy is to achieve long term capital appreciation. In order to achieve this, the fund invests primarily in companies of the global equity markets whose business will benefit from or is currently related to the evolution of artificial intelligence. In addition, equities of all market capitalizations, stock certificates, participation and dividend right certificates, convertible bonds and equity warrants issued by foreign and domestic companies may be included. When selecting investments, environmental and social aspects and the principles of good corporate governance (ESG aspects) are taken into consideration alongside the financial performance. The selection of individual investments is at the discretion of the fund management

# Important Information



**This marketing communication is intended for professional clients only. Please read the fund prospectus and KID before making a final investment decision**

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Complete information on the Funds/Sub-Funds, including all risks and costs, can be found in the relevant current prospectus. Together with the relevant key information document[s], these constitute the only binding sales documents for the [Fund[s] / Sub-Fund[s]]. Investors can obtain these documents, together with regulatory information, as well as the latest constitutional documents for the [Fund[s] / Sub-Fund[s]] [in German] from DWS Investment GmbH, Mainzer Landstraße 11-17, 60329 Frankfurt am Main and, in case of Luxembourg domiciled Sub-Funds, from DWS Investment S.A., 2, Boulevard Konrad Adenauer, L-1115 Luxembourg, in printed form free of charge, or available in respective languages from Germany: [www.dws.de](http://www.dws.de) [www.etf.dws.com](http://www.etf.dws.com) Austria: <https://funds.dws.com/at> Belgium: <https://funds.dws.com/be/NL> France: <https://funds.dws.com/fr-fr/> Luxembourg: [www.dws.lu](http://www.dws.lu) Spain: [www.dws.es](http://www.dws.es) Netherlands: [www.dws.nl](http://www.dws.nl) Ireland: <https://funds.dws.com/ie> and Sweden: <https://funds.dws.com/se>. In Italy: <https://funds.dws.com/it-it>, the prospectus is available to investors in English and the KID in Italian.

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