

SURA INVESTMENT

**Forum**

2022



# BIG DATA THE NEW OIL OF THE 21st

**Edmond de Rothschild** Asset Manager



EDMOND  
DE ROTHSCHILD

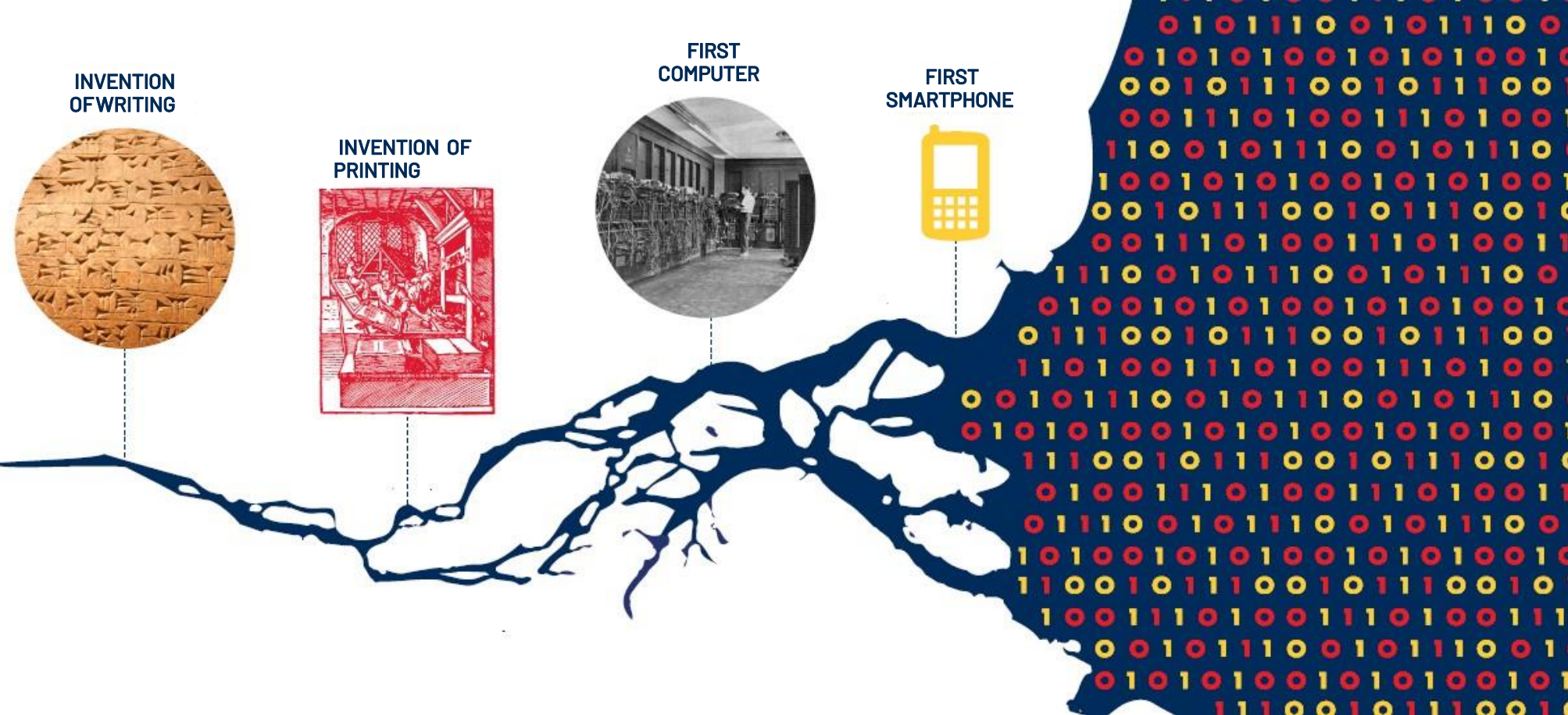


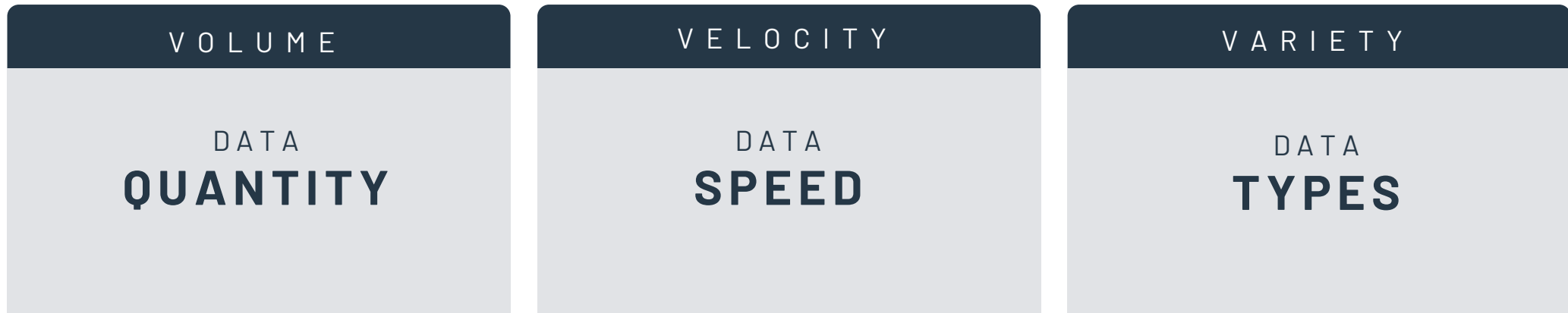
# AGENDA :

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- Pioneers, with the very first global equity fund on the theme, launched in 2015
- A multi-year opportunity still largely untapped
- Opportunities are wide and growing
- ...But risks cannot be ignored
- Our perspective
- EDR Big Data Strategy

# KNOWLEDGE USED TO BE SCARCE...





**Big Data refers to** the mapping of multiple data sets generally too large or complex for traditional data processing

# LONG TERM FACTORS SUPPORTING THE TREND



NETWORK  
MATURITY



SHIFTS IN  
COMPONENT  
PRICES



ALGORITHMS

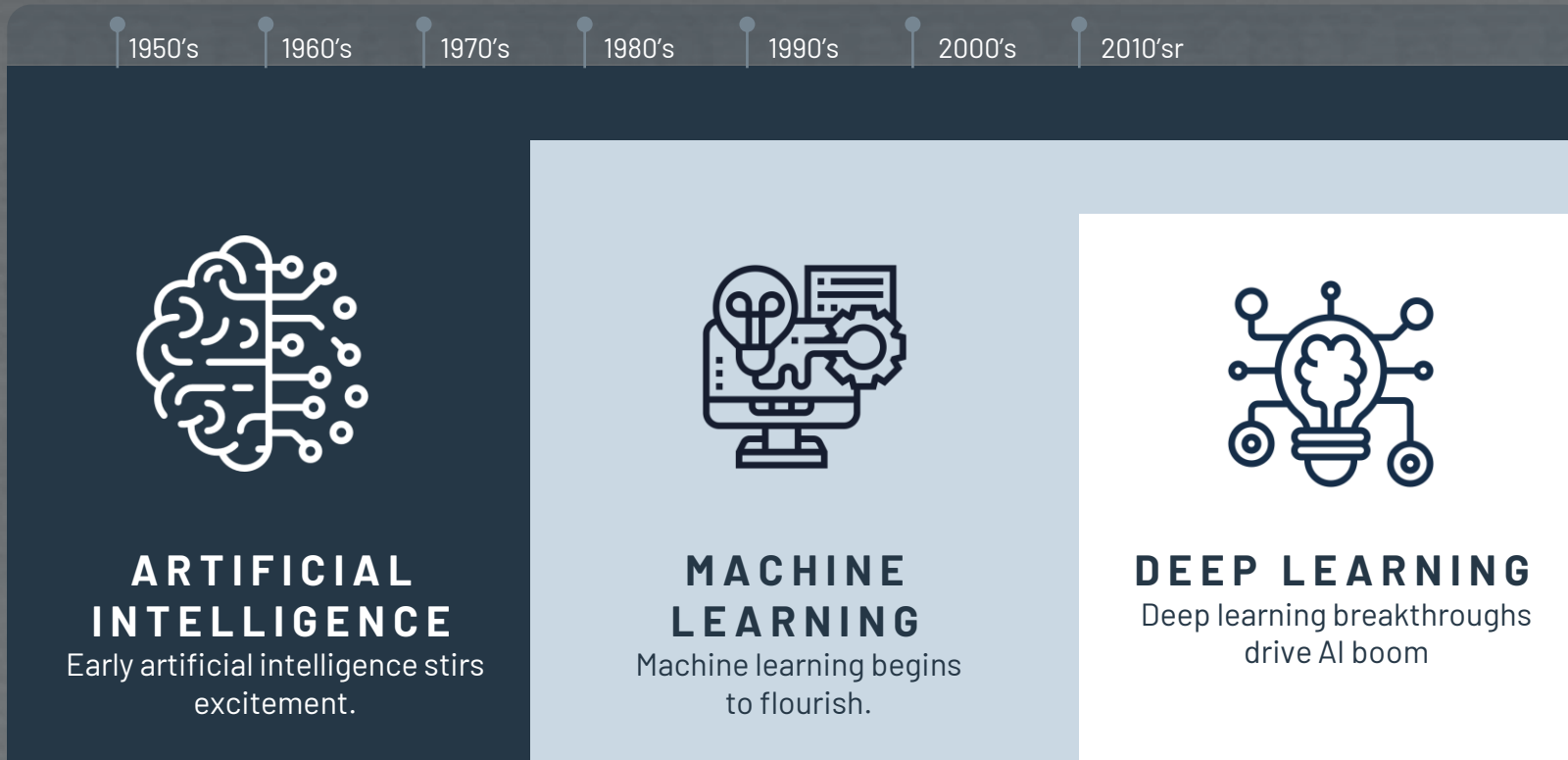
# ARTIFICIAL INTELLIGENCE

PUSHING NEW LIMITS

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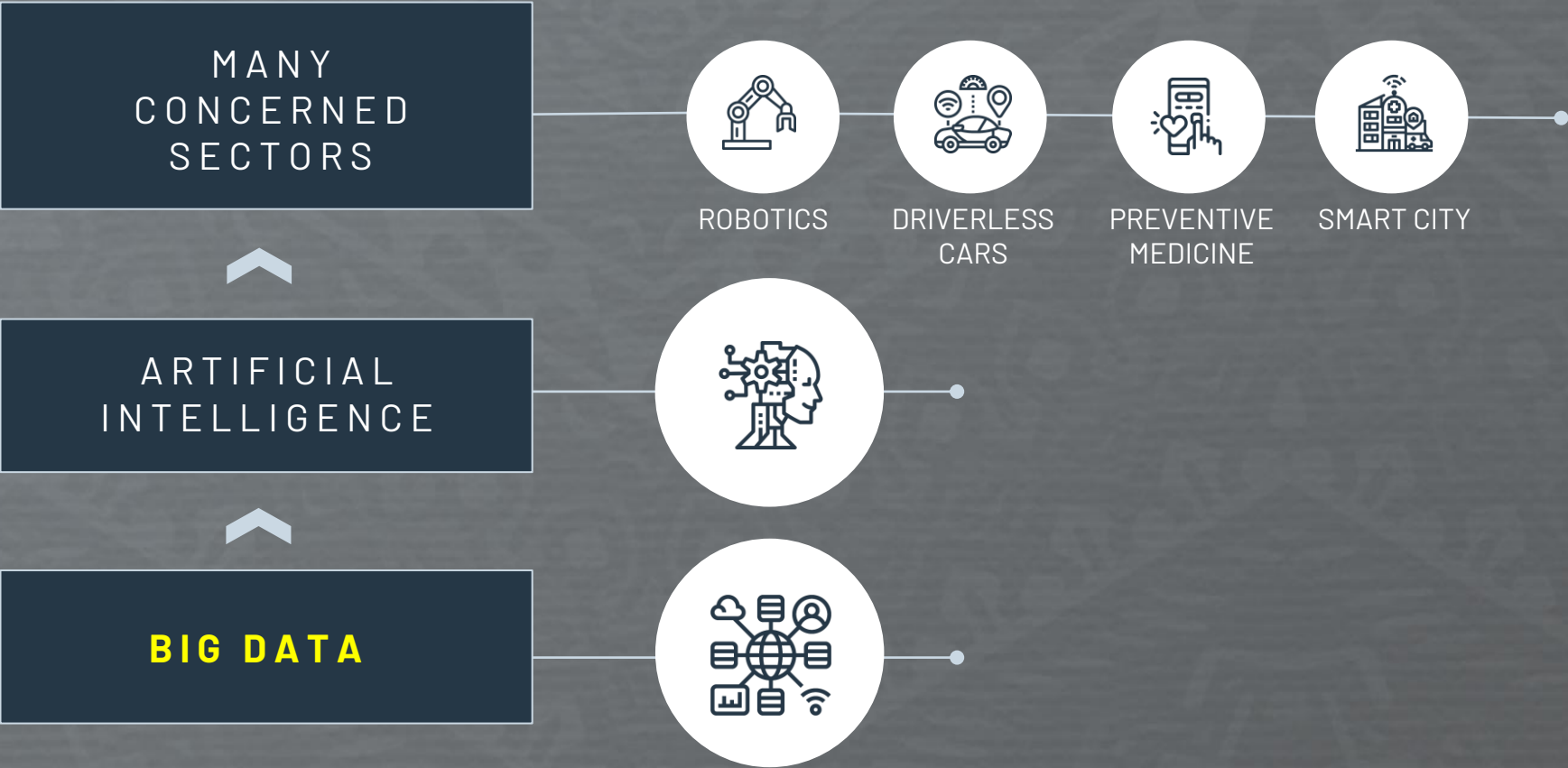
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Source: BofA ML - Nov 2017

# BIG DATA: A PERVASIVE THEME



# FAANG ARE NATURAL PLAYS...

	GOOGLE	FACEBOOK (META)	AMAZON
Market capitalization	\$1.8 TRILLION	\$0.92 TRILLION	\$1.65 TRILLION
Algorithm example	Multiple cross-checks of disparate information	Sorting / Selection of displayed information	Purchase suggestions
Function	Bring the most appropriate advertising	Increase time spent on website	Increase sales

\*FAANG is an acronym for Facebook, Apple, Amazon Netflix Google.

Data as of 31/12/2021. The information about the companies cannot be assimilated to an opinion of Edmond de Rothschild Group on the expected evolution of the securities and on the foreseeable evolution of the price of the financial instruments they issue. This information cannot be interpreted as a recommendation to buy or sell such securities.

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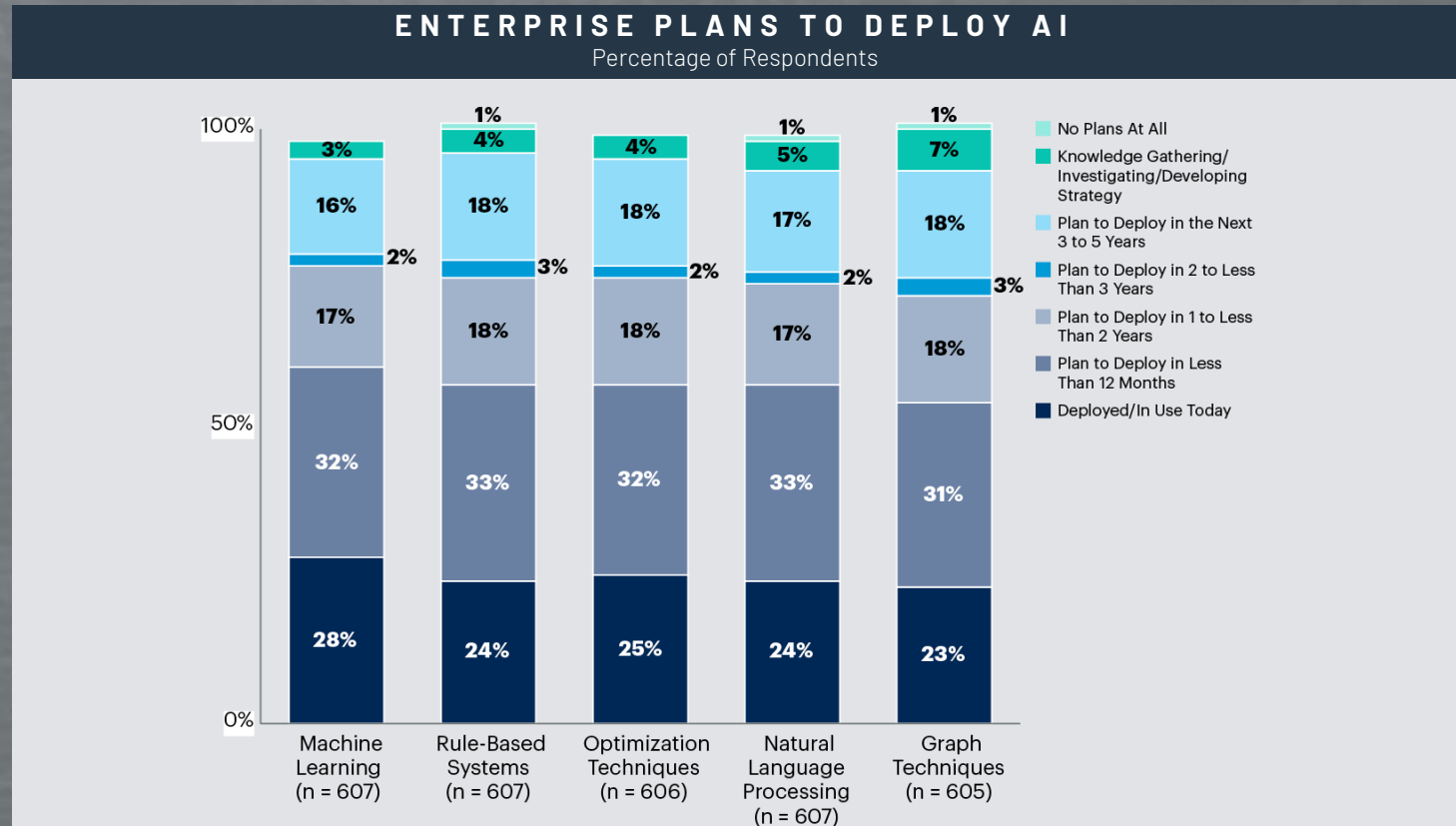




...BUT THERE ARE  
SO MANY OTHERS



# ¿WHERE ARE WE IN THE ADOPTION CYCLE ?



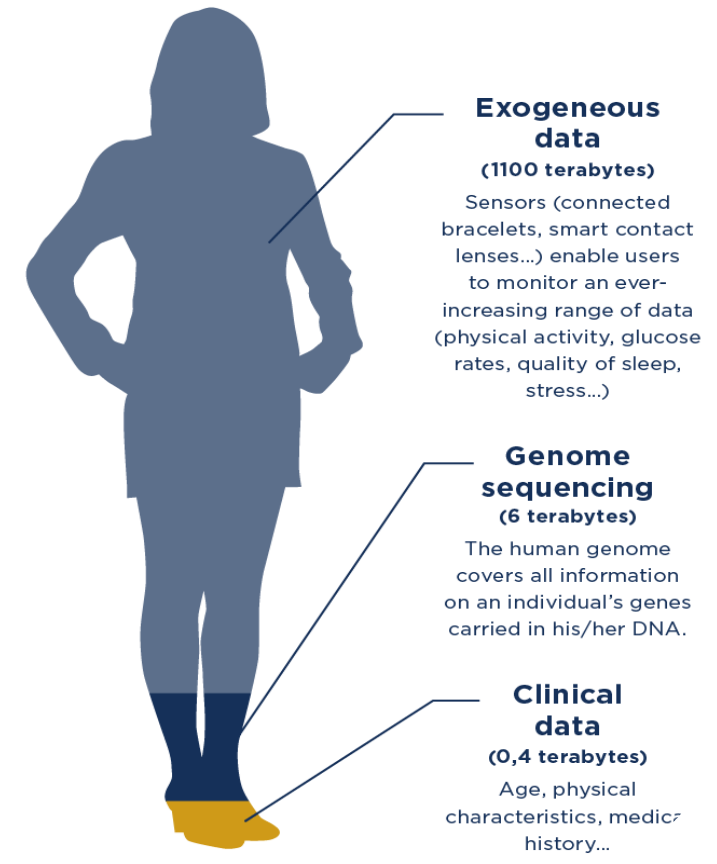
Source: Gartner, 2020 CIO Survey: CIOs have awakened to the importance of AI,

# HEALTHCARE AS A MEGATREND

¿THE POTENTIAL TO LEVERAGE BIG DATA IS GREATER THAN IN ANY OTHER INDUSTRY?

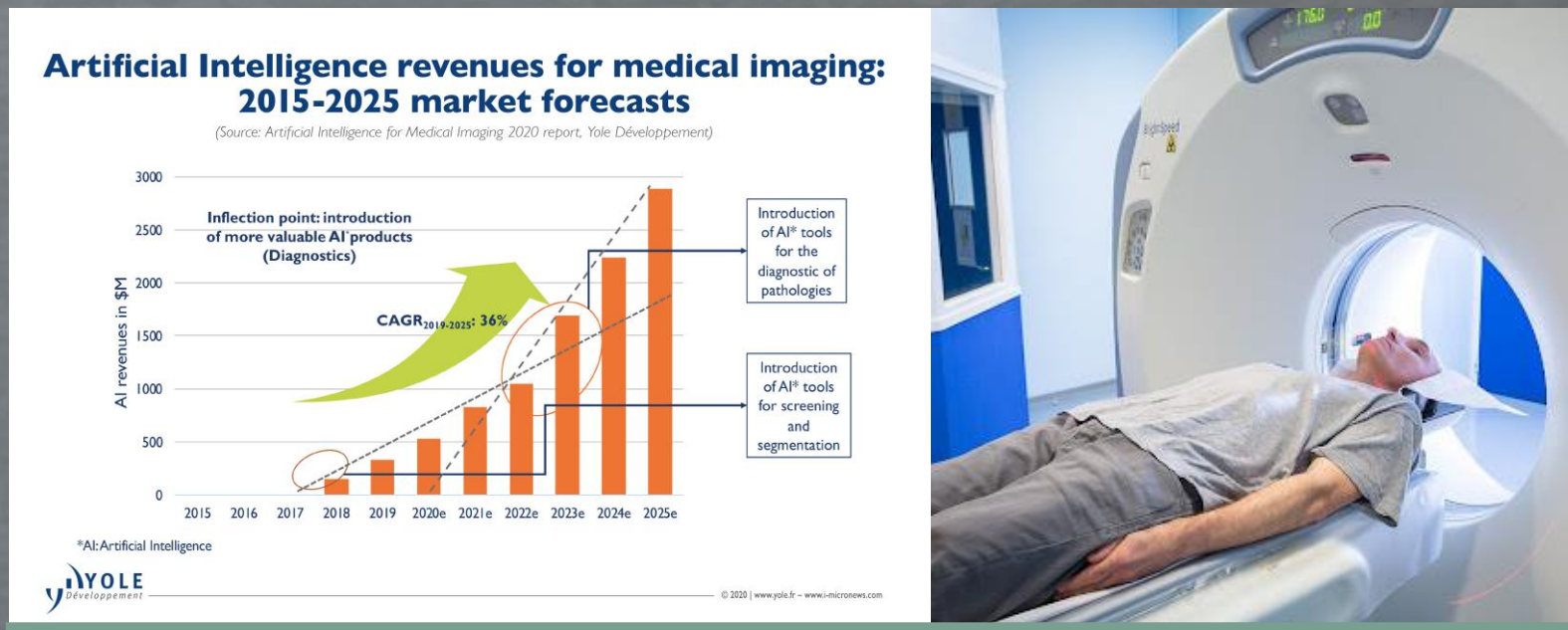
- Personalized medicine
- Predictive medicine
- Participative
- Preventive
- ....
- Bioengineering

## VOLUME OF HEALTH-RELATED DATA GENERATED BY A SINGLE PERSON DURING THEIR LIFETIME



# HEALTHCARE APPLICATIONS

## AI AND MEDICAL IMAGING



AI-based medical Imaging allows earlier detection of pathologies such as cancer, Alzheimer's disease, pneumonia

Source: Yole.fr - 2020

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INVESTMENT MANAGEMENT

# RADNET: A LEADER IN AI/MEDICAL IMAGING

## EARLY DIAGNOSIS FOR LIFE THREATENING CONDITIONS



Sources: Radnet publications and website - 2021

# BIG DATA AND GENOMICS

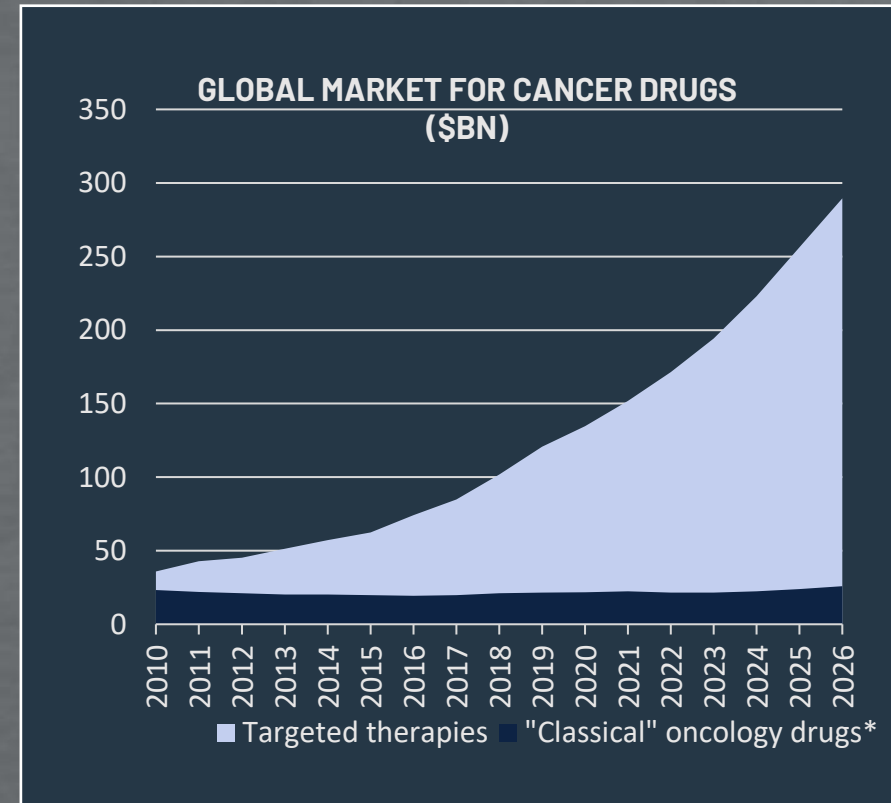
## A PATH TOWARDS PERSONALISED MEDICINE IN ONCOLOGY

Genomics are set of data which cannot be analysed with simple data processing methods due to their size

Genomics using big data technology revealed that patients affected by the same cancer could have different types of tumors.

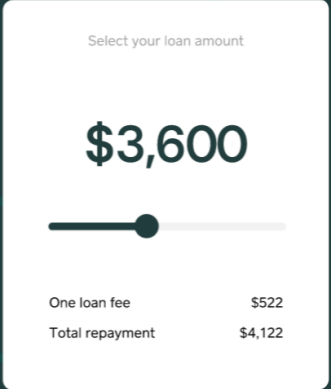
Genetics and Big data revolutionized patients outcome with the use of Targeted Therapies

As researchers learn more about the DNA changes and proteins that drive cancer, they are better able to design treatments that target these proteins.



# FINTECH APPLICATIONS

## SQUARE DISRUPTION IN SME LOANS



Select your loan amount

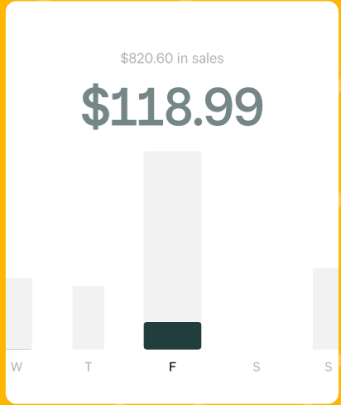
**\$3,600**

One loan fee \$522  
Total repayment \$4,122

Just an example.

Get a customized offer based on your card sales through Square, and then choose your loan size.

There's no ongoing interest. Just a simple flat fee.



\$820.60 in sales

**\$118.99**

W T F S S

Just an example.

Repay it automatically with a percentage of your daily card sales through Square.

Pay less on slow days. And a little more when sales are strong.

Sources : Square/Block\* 2020

# SCHLUMBERGER

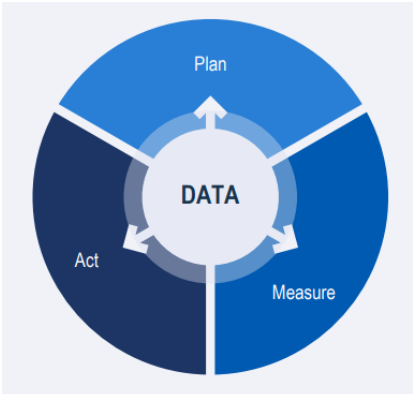
## TECHNOLOGY TO ENHANCE DECARBONIZATION PROCESS

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Offering a Complete End-to-End Service



Address Methane Emissions



Reduce or Eliminate Flaring



Full Field Development Solutions



Electrification of Infrastructure



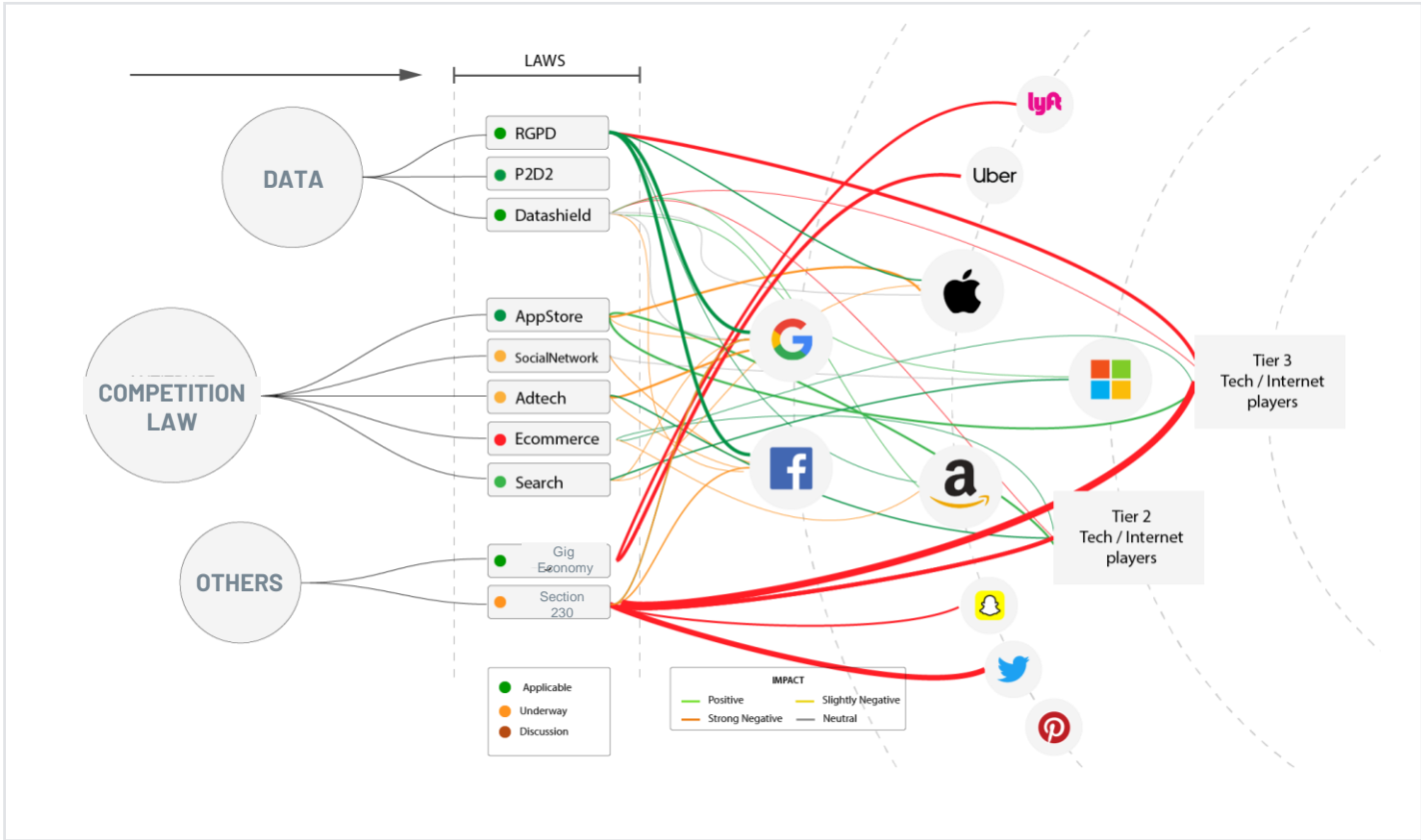
Minimize Well Construction CO<sub>2</sub> Footprint



Carbon Capture and Storage



# REGULATION RISK ASSESSMENT



Source: Edmond de Rothschild Asset Management and Bloomberg as at 31/08/2021. The information about the companies cannot be assimilated to an opinion of Edmond de Rothschild Group on the expected evolution of the securities and on the foreseeable evolution of the price of the financial instruments they issue. This information cannot be interpreted as a recommendation to buy or sell such securities.

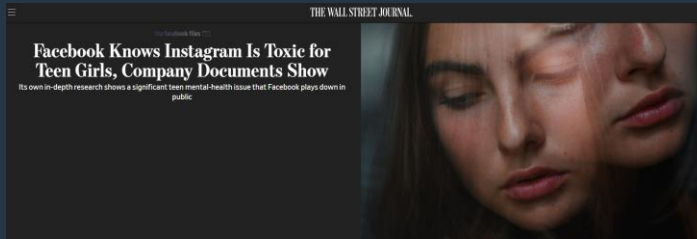
WITH BIG DATA ...

...COMES BIG RESPONSIBILITY

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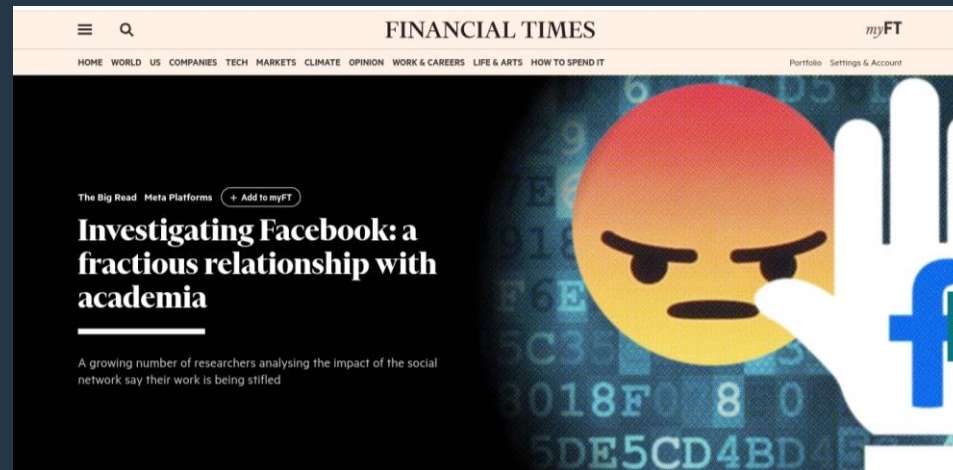
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## Facebook Employees Flag Drug Cartels and Human Traffickers. The Company's Response Is Weak, Documents Show.

Employees raised alarms about how the site is used in developing countries, where its user base is already huge and expanding



Sources : WSJ/Financial Times 2021

# DATA SECURITY

## THE RISING CYBER-THREAT LANDSCAPE...

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Digitalisation **creating greater cyber vulnerabilities** for companies = more avenues for cyber criminals to launch attacks.

**The global cost of cyber-crime** is expected to be **\$6trn annually in 2021** vs \$3trn in 2015 and \$10.5trn by 2025.

**Cyber-crime goes under-reported and undetected:** the likelihood of detecting and prosecuting the perpetrators of cyber-attacks in the US is a dismal **0.05%**

An opportunity for  
**AI DRIVEN  
CYBERSECURITY**  
as digital identities will deter  
unauthorized access

# OUR INVESTMENT ROADMAP

## IN A COMPLEX AND UNCERTAIN WORLD

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THE OPPORTUNITY	THE RISKS	OUR STANCE
<ul style="list-style-type: none"> <li>Technology stocks will spearhead the digital economy adoption</li> </ul>	<ul style="list-style-type: none"> <li><b>Technology substitution</b> risk and some businesses have low barriers to entry</li> <li><b>Sector concentration</b> expose the portfolio to volatility and factor risks</li> </ul>	<ul style="list-style-type: none"> <li><b>An active and stock specific approach</b> based on a thorough assessment of business model and technology</li> <li>A <b>balanced exposure</b> across sectors to capture the breadth and diversify the risk</li> </ul>
<ul style="list-style-type: none"> <li>Big Data growth is rapid and transformative</li> </ul>	<ul style="list-style-type: none"> <li><b>Regulation risks</b> still prevail with the coexistence of different frameworks (Europe/US/China)</li> </ul>	<ul style="list-style-type: none"> <li>Strong awareness of the fragmented set of rules</li> <li><b>Limit FAANG investments</b></li> <li>Reduce China awaiting more clarity</li> </ul>
<ul style="list-style-type: none"> <li>Companies with exposure to the theme will deliver superior financial returns</li> </ul>	<ul style="list-style-type: none"> <li><b>Poor governance and ESG risk</b> management in tech can have material impact</li> </ul>	<ul style="list-style-type: none"> <li><b>ESG Integration</b> to ensure strong alignment with sustainability objectives and the broader society</li> </ul>
<ul style="list-style-type: none"> <li>Big data innovative and disruptive trend</li> </ul>	<ul style="list-style-type: none"> <li>Innovation and New Era rhetoric can lead to <b>hype and overvaluation</b> (Covid 19 "New Normal")</li> </ul>	<ul style="list-style-type: none"> <li><b>Remain strict on valuation</b> (in software align with PE take out multiples)</li> </ul>
<ul style="list-style-type: none"> <li>A secular multi year opportunity</li> </ul>	<ul style="list-style-type: none"> <li><b>Inflation and rising rates</b> can still derail growth trajectory of many companies and influence investment returns</li> </ul>	<ul style="list-style-type: none"> <li>Focus on companies with <b>high free cash flow and pricing power</b></li> </ul>
<ul style="list-style-type: none"> <li>A global theme with many regional opportunities (Europe ecosystem, India Digital billion)</li> </ul>	<ul style="list-style-type: none"> <li>Geopolitical risk has become front and centre</li> </ul>	<ul style="list-style-type: none"> <li>Awareness of a divided world (Tech War) Russia/Ukraine</li> <li><b>Strategic nature of tech investing in Europe</b></li> </ul>

# BIG DATA STRATEGY

## KEY POINTS

### OUR CONVICTION ON BIG DATA:

- Big Data is a secular megatrend, fueling opportunities in the long term growth prospects of companies in traditional infrastructure and data analytics industries as well as Data Users and Non-Tech companies.

### KEY DIFFERENTIATORS:

- An innovation strategy Investing across three sub-themes (Infrastructure/Analytics/Data Users)
- A focus on quality of technology, sustainability of the business model, and disciplined valuation
- Unconstrained and flexible approach where stock selection is the largest contributor to the portfolio return
- A highly experienced investment team, combining technological and financial knowledge with input from thematic specialists (Human Capital, TMT, Healthcare)

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▶ **JACQUES-AURÉLIEN MARCIREAU**  
Lead Portfolio-Manager



▶ **XIADONG BAO**  
Co-Manager



▶ **KEVIN NET**  
Co-Manager



**\$ 1.41Bn AUM**



Strategy Inception  
date

**31/08/2015**

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Past performance and volatility is no guarantee of future performance and volatility which may change over time, and can be separately affected by fluctuating exchange rates. Performance data is net of management and performance fees but does not include the annual costs or fees and charges when issuing or redeeming units. Source: Edmond de Rothschild Asset Management (France). Data as of 29/04/2022 - I-EUR share.



INVESTMENT MANAGEMENT

# EDMOND DE ROTHSCHILD BIG DATA STRATEGY

## INVESTING IN COMPANIES SPEARHEADING CHANGE

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### DATA COLLECTION



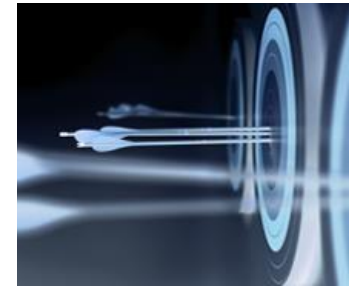
Infrastructure,  
Sensors, Storage

### DATA INTERPRETATION



Software &  
Analytics

### USING DATA TO ACT



Data Users

Massive increases in connected objects and exponential data flows are transforming our world and multiplying opportunities to create value

## REPRESENTATIVE PORTFOLIO INSTITUTIONAL SHARE CLASS (USD)



- Big Data Thematic Flagship Fund (I-USD)
- MSCI World (NR)(USD)

Past performance is not an indication of future performance. It may vary over time. Reported performance does not take into account costs and fees on issues and redemptions of units, but does include ongoing charges and intermediary fees as well as any performance fees charged.

FINANCIAL DATA 3 YEARS	VOLATILITY	TRACKING ERROR (%)	SHARPE RATIO
<b>CLASS</b>	20.85%	5.69%	0.61
<b>I N D E X</b>	18.33%	-	0.53

ROLLING PERFORMANCE	1 MONTH	YTD	1 YEAR	3 YEARS	5 YEARS	SINCE INCEPTION
<b>CLASS</b>	-7.35%	-10.24%	-2.40%	45.82%	79.11%	137.73%
<b>I N D E X</b>	-8.31%	-13.03%	-3.52%	34.60%	62.26%	91.35%

ANNUAL PERFORMANCES	2017	2018	2019	2020	2021	ANNUALIZED SINCE INCEPTION
<b>CLASS</b>	26.35%	-7.94%	28.30%	23.11%	21.61%	13.87%
<b>I N D E X</b>	22.40%	-8.71%	27.67%	15.90%	21.82%	10.22%

THIS IS ONLY THE BEGINNING...

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Société anonyme governed by an executive board  
and a supervisory board with capital of 11,033,769 euros  
AMF Registration No. GP 04000015 - 332.652.536 R.C.S. Paris

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