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BIG DATA + BIG IDEAS = BIG IMPACT

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**CHANGING
WORLD**

**THINK
DIFFERENT**

**POTENTIAL OF
BIG DATA**

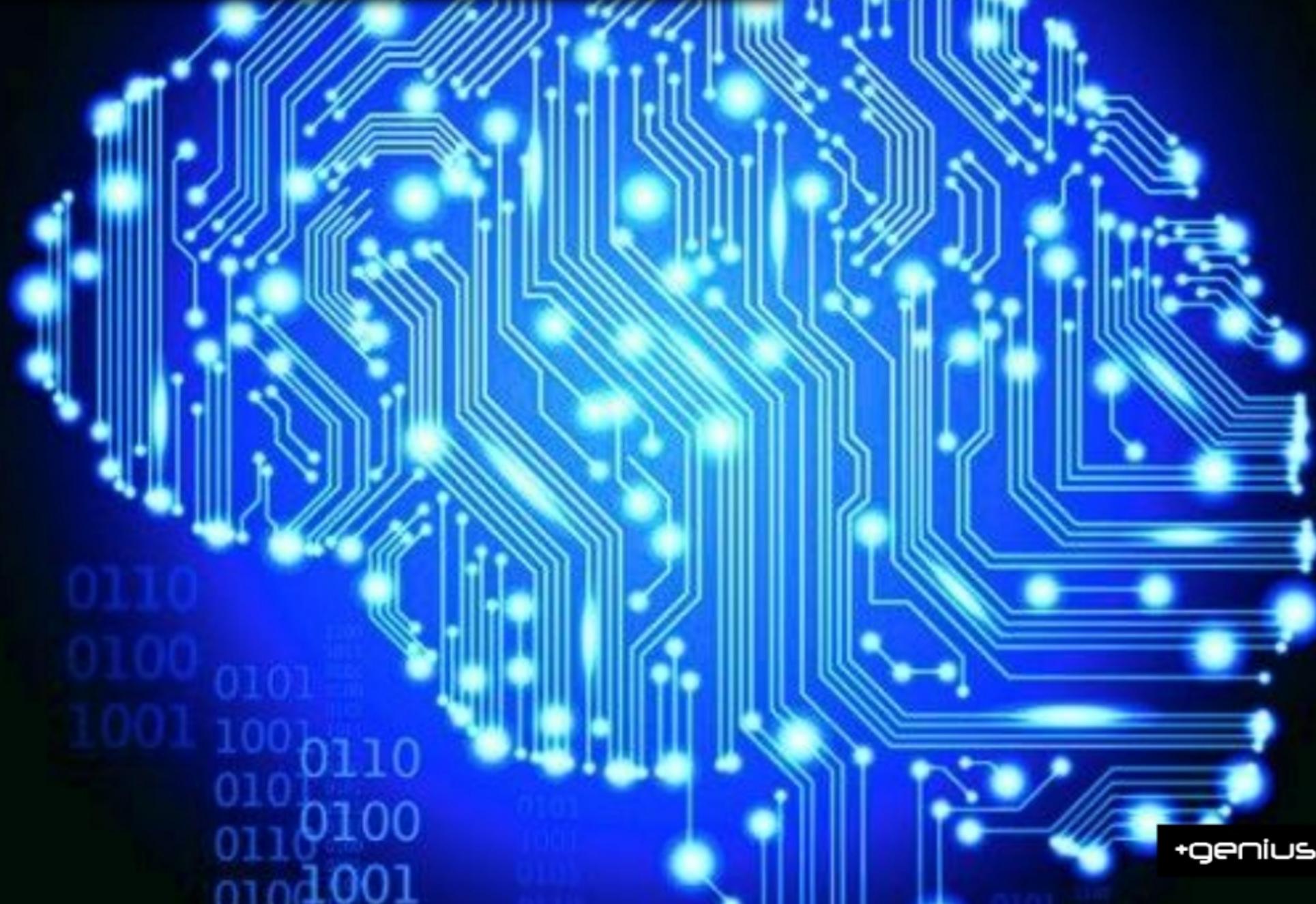
**POWER OF
BIG IDEAS**

**FUTURE OF
TELECOMS**

Data is the new oil



Mobile is the new brain



0110
0100 0101
1001 1001 0110
0101 0100
0110
0101 0100
0110
0101 0100 1001

+genius

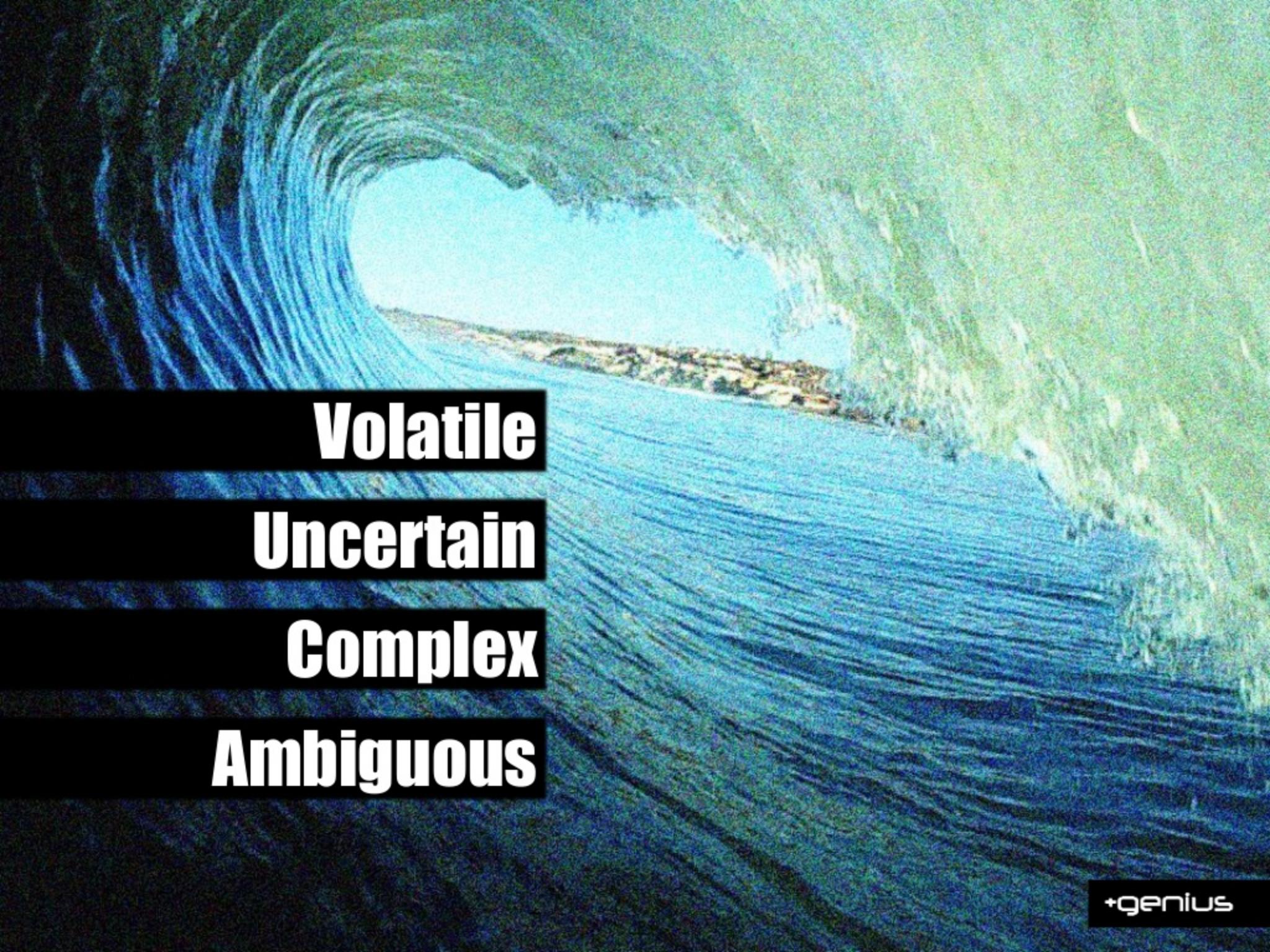
**CHANGING
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A dramatic photograph of a massive ocean wave crashing down towards a small, densely forested island. The wave's face is a bright, foaming white, contrasting sharply with the deep blue and green of the surrounding water and sky. The island is a dark, irregular shape in the center of the frame, partially obscured by spray from the wave.

Volatile
Uncertain
Complex
Ambiguous



Vibrant
Unreal
Crazy
Astounding

Worldchanging decade



2010
Pop 6.9Bn
GDP \$63T
G7



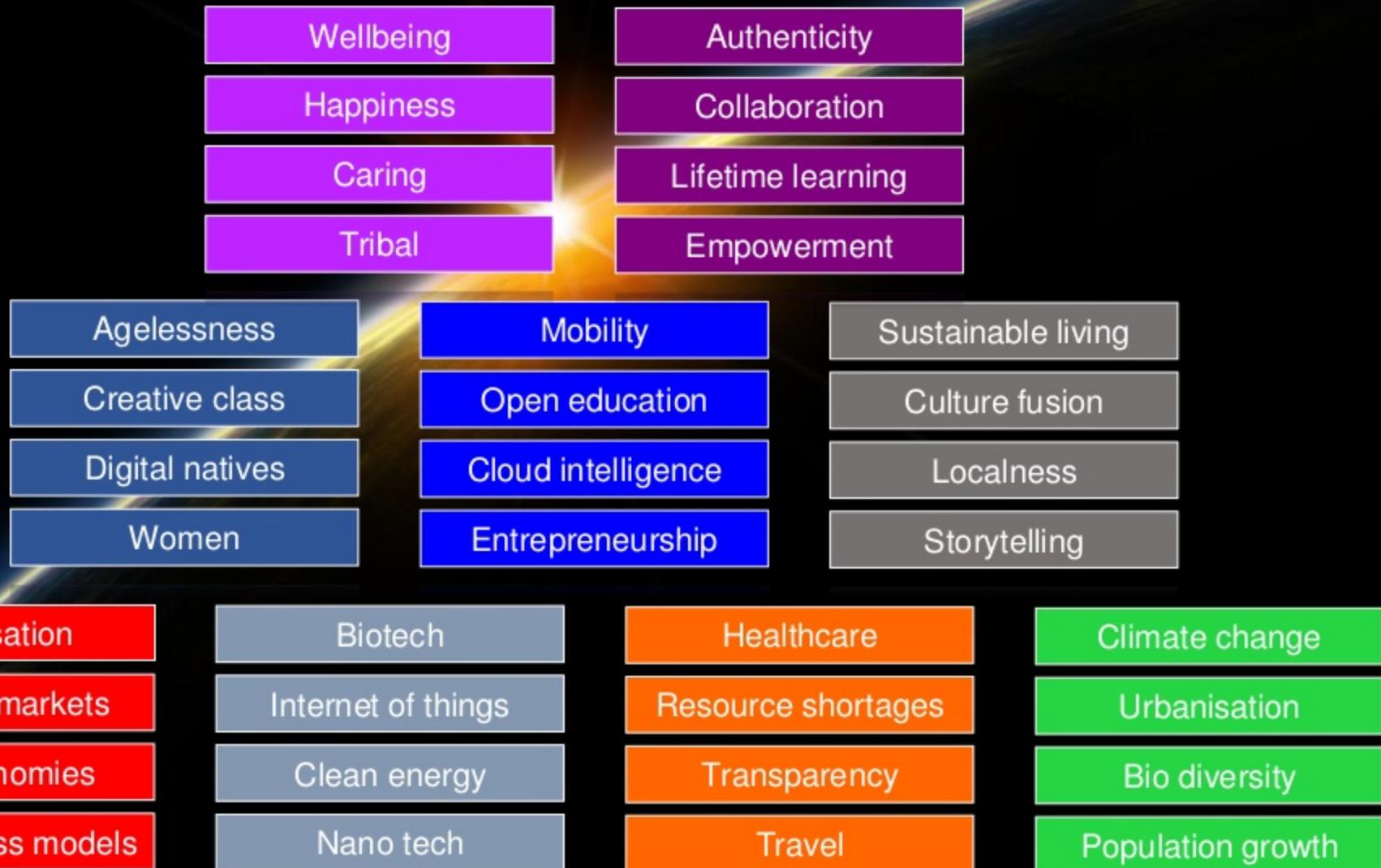
2020
Pop 7.7Bn
GDP \$90T
E7



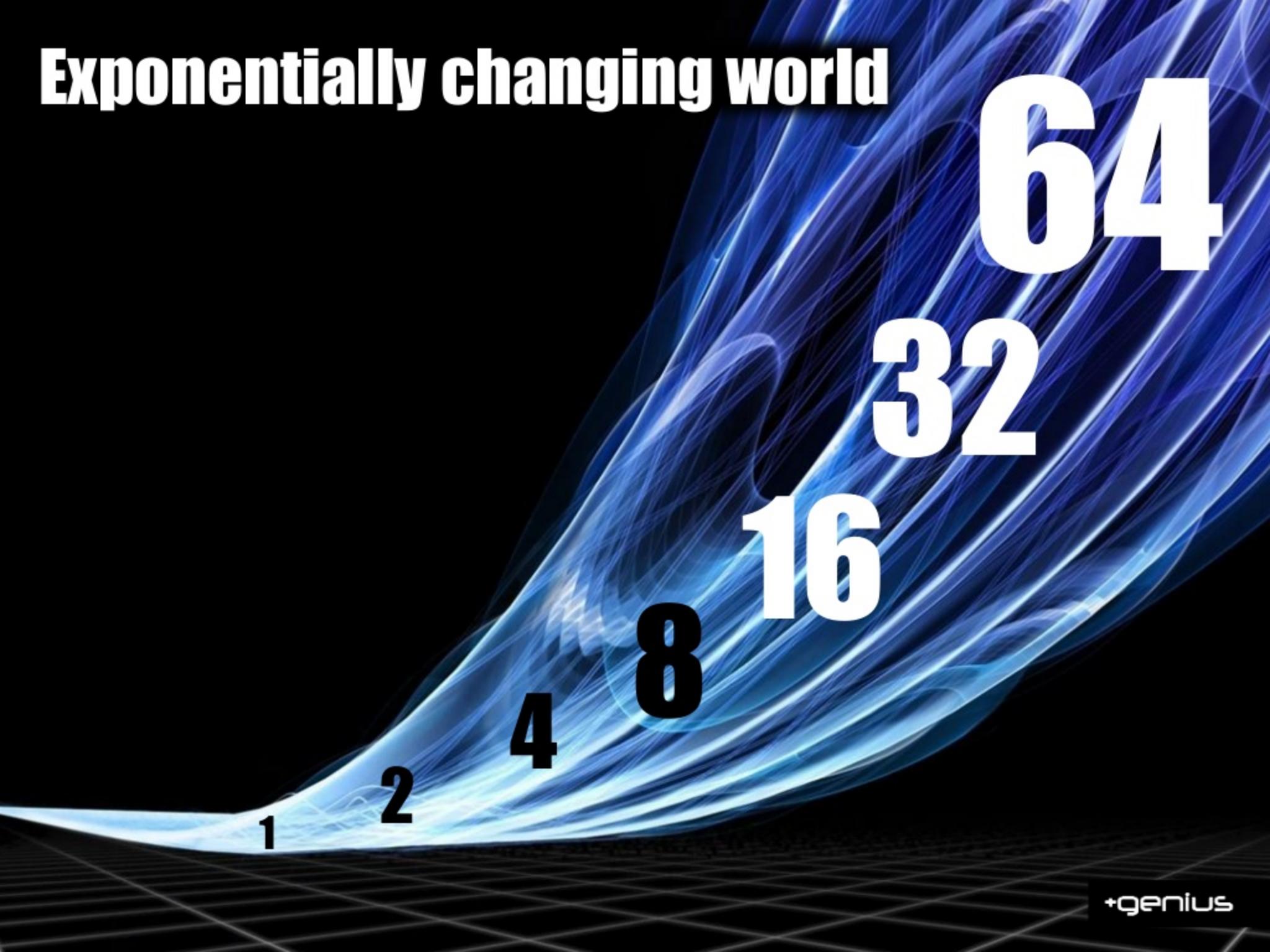
Worldchanging decade



Building blocks to the future

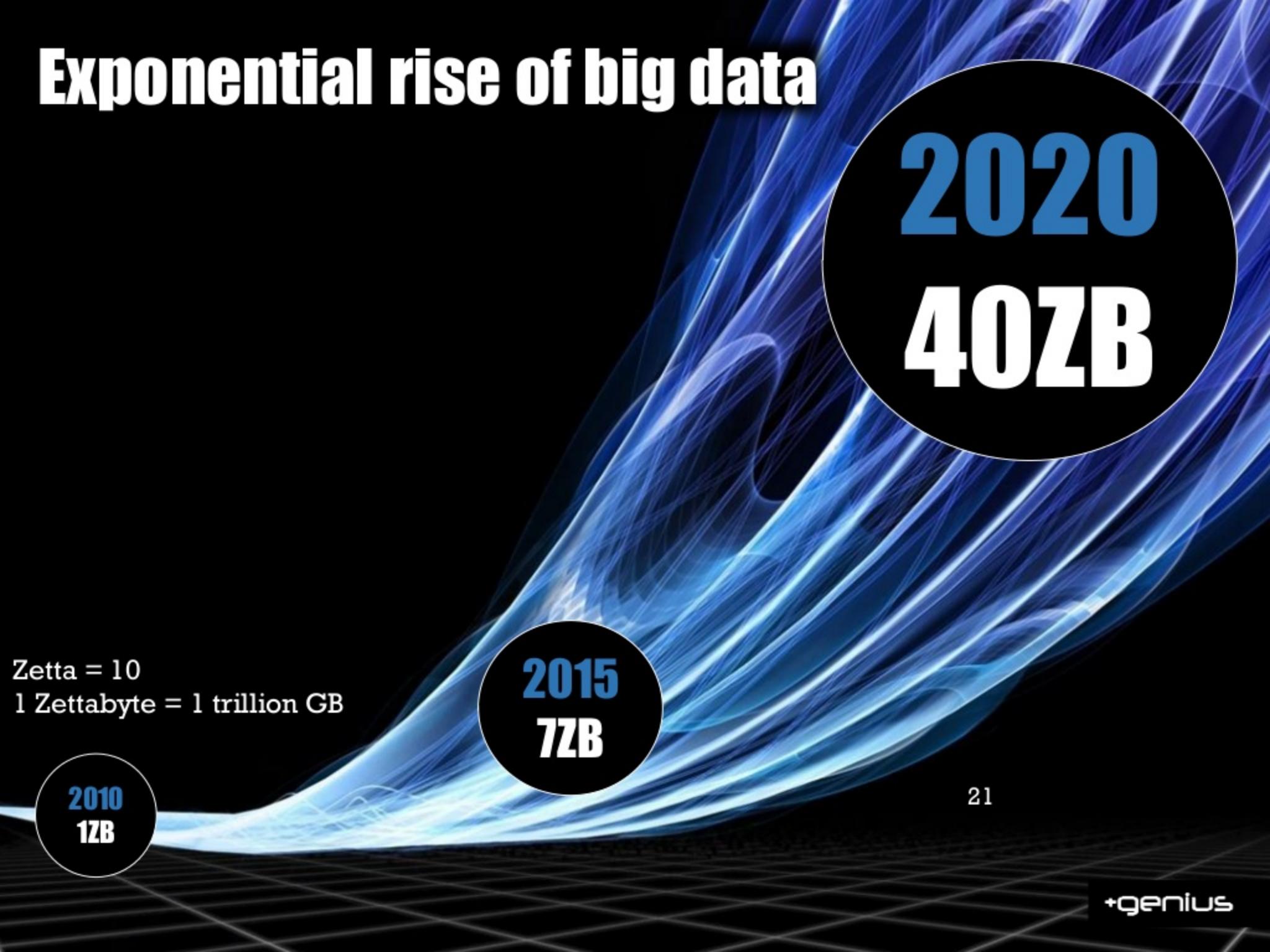


Exponentially changing world



1 2 4 8 16 32 64

Exponential rise of big data



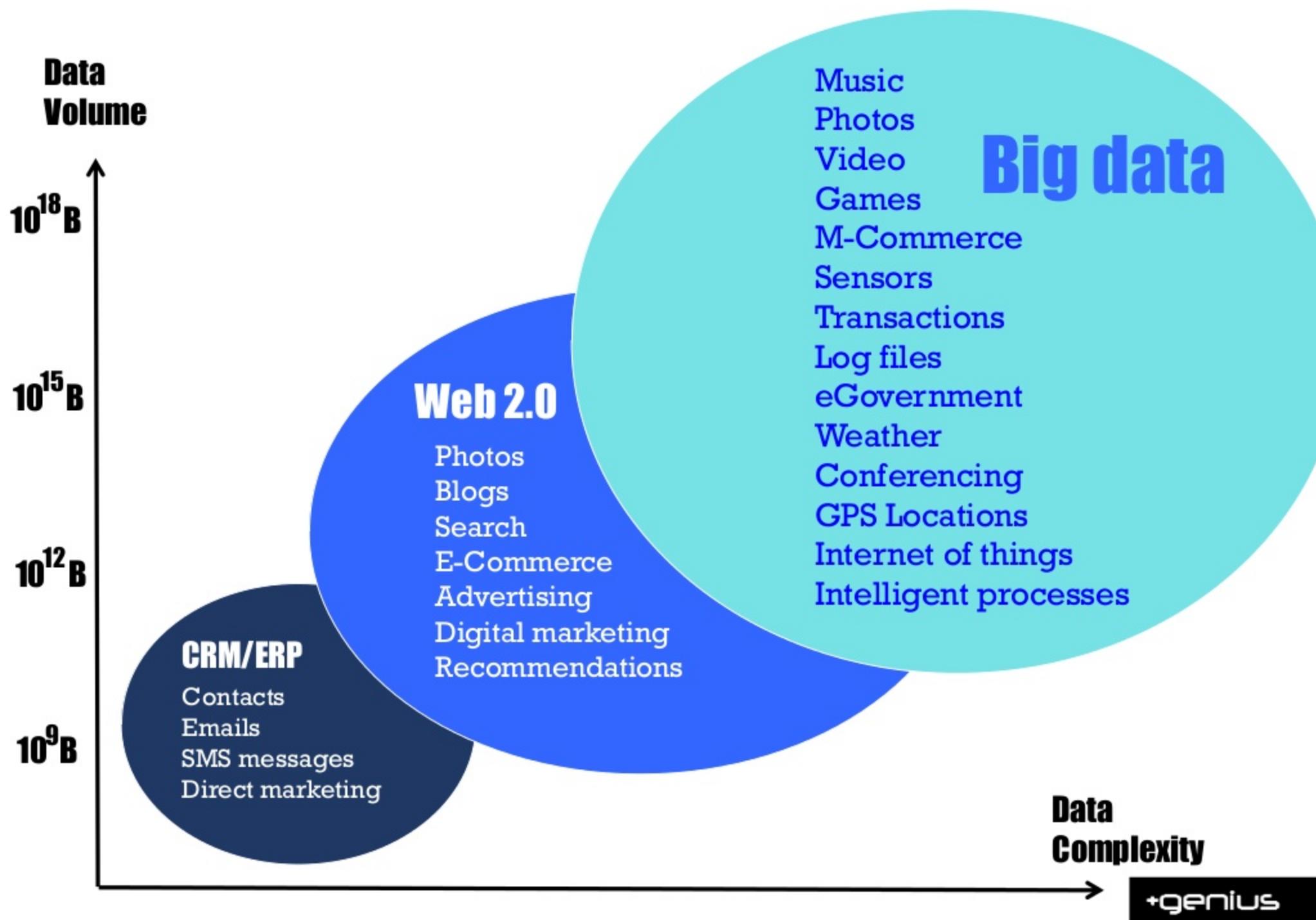
2020
40ZB

2015
7ZB

Zetta = 10¹⁸
1 Zettabyte = 1 trillion GB

2010
1ZB

21



40 ZETTABYTES

[43 TRILLION GIGABYTES]
of data will be created by
2020, an increase of 300
times from 2005

6 BILLION
PEOPLE have cell phones



WORLD POPULATION: 7 BILLION

Volume SCALE OF DATA



The New York Stock Exchange captures

1 TB OF TRADE INFORMATION
during each trading session



Velocity ANALYSIS OF STREAMING DATA

By 2016, it is projected
there will be

18.9 BILLION
NETWORK CONNECTIONS

– almost 2.5 connections
per person on earth



Modern cars have close to
100 SENSORS
that monitor items such as
fuel level and tire pressure



The FOUR V's of Big Data

From traffic patterns and music downloads to web history and medical records, data is recorded, stored, and analyzed to enable the technology and services that the world relies on every day. But what exactly is big data, and how can these massive amounts of data be used?

As a leader in the sector, IBM data scientists break big data into four dimensions: **Volume**, **Velocity**, **Variety** and **Veracity**.

Depending on the industry and organization, big data encompasses information from multiple internal and external sources such as transactions, social media, enterprise content, sensors and mobile devices. Companies can leverage data to adapt their products and services to better meet customer needs, optimize operations and infrastructure, and find new sources of revenue.

By 2015
4.4 MILLION IT JOBS
will be created globally to support big data,
with 1.9 million in the United States



As of 2011, the global size of data in healthcare was estimated to be

150 EXABYTES

[181 BILLION GIGABYTES]



Variety DIFFERENT FORMS OF DATA

30 BILLION
Pieces of Content

are shared on Facebook
every month



By 2014, it's anticipated
there will be
420 MILLION
WEARABLE, WIRELESS
HEALTH MONITORS

4 BILLION+
HOURS OF VIDEO
are watched on
YouTube each month



400 MILLION
TWEETS
are sent per day by about 200
million monthly active users

1 IN 3 BUSINESS LEADERS

don't trust the information
they use to make decisions



Poor data quality costs the US
economy around

\$3.1 TRILLION A YEAR



Veracity UNCERTAINTY OF DATA

27% OF
RESPONDENTS

in one survey were unsure of
how much of their data was
inaccurate

Exponential impact of mobile



Exponential impact of video



2010
1ZB

2020
40ZB

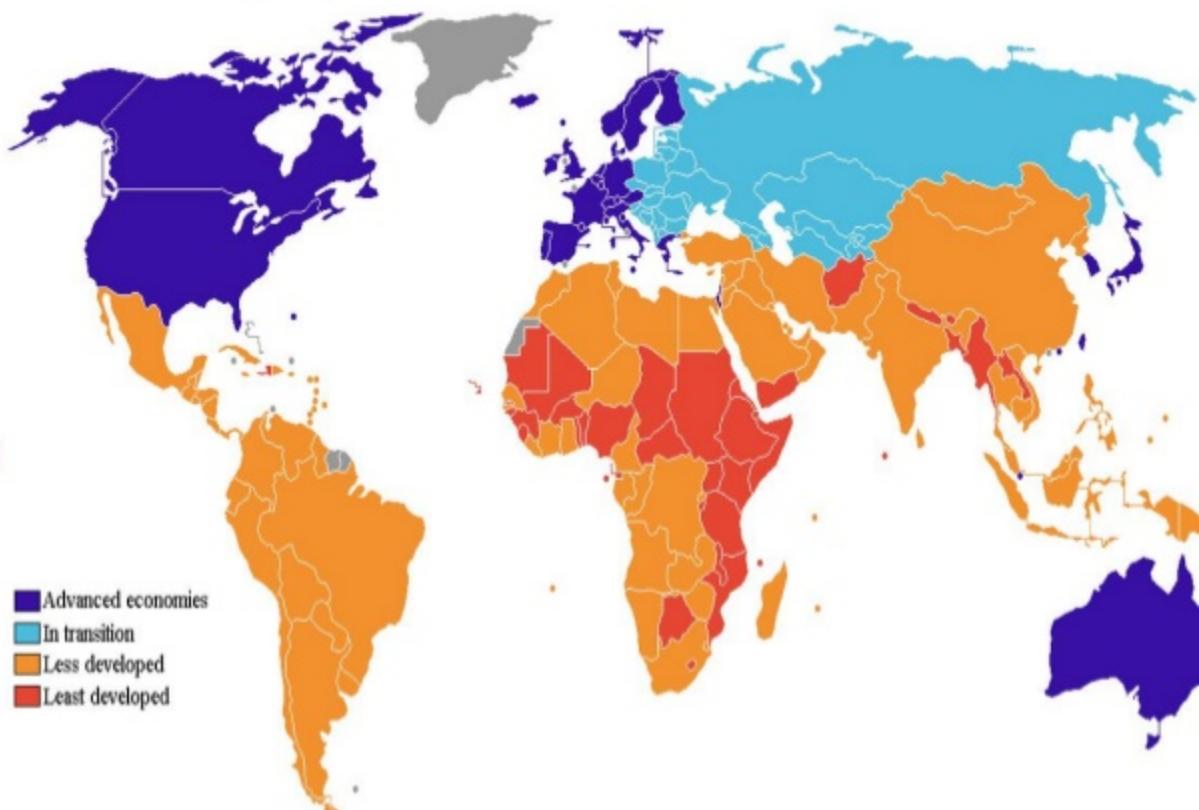
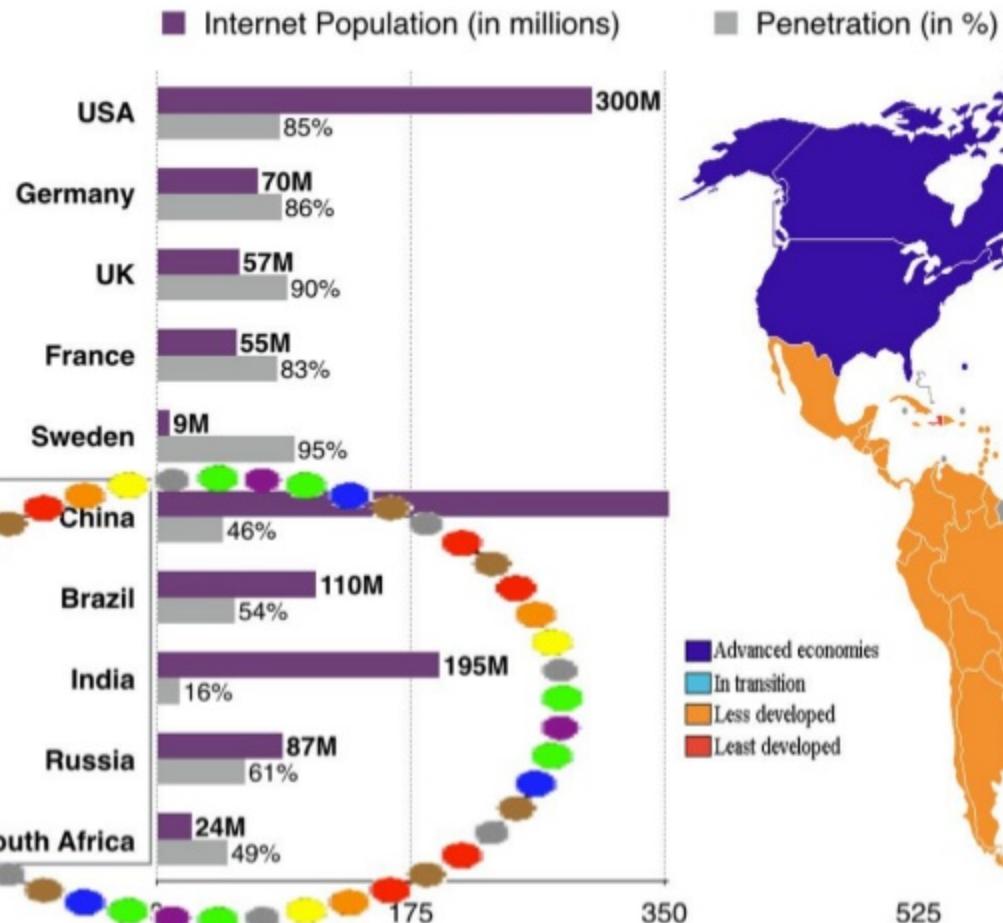
Exponential impact of Asia



2010
1ZB

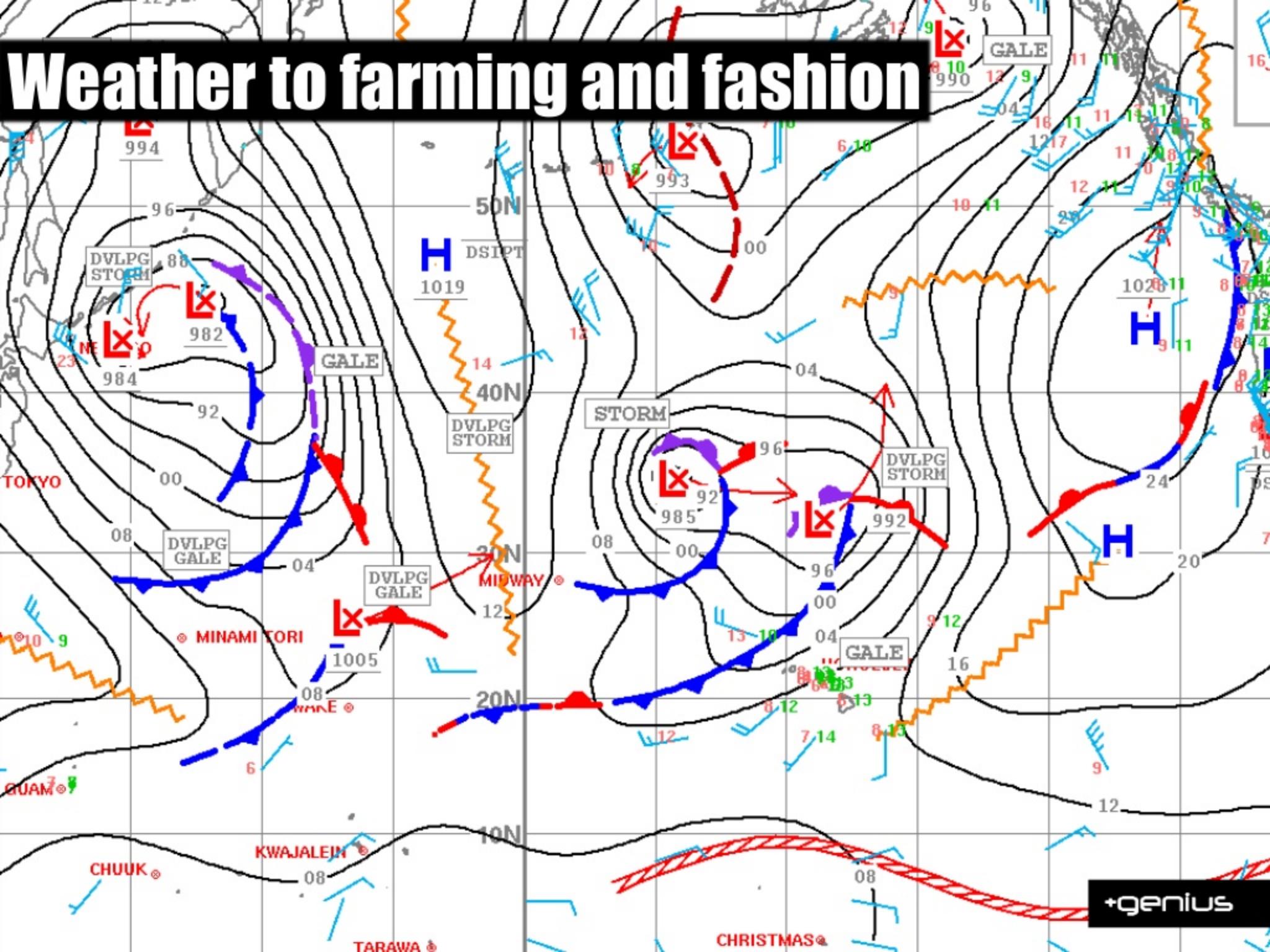
2020
40ZB

3 Billion new consumers



<http://www.mondaynote.com/2014/11/09/europe-the-digital-squeeze-is-coming/>

Weather to farming and fashion



Exponential impact of cloud



2020
40ZB

2010
1ZB