



CONNECTIVITY AND THE STATE OF PLAY

Aid for Trade – Services Dimension

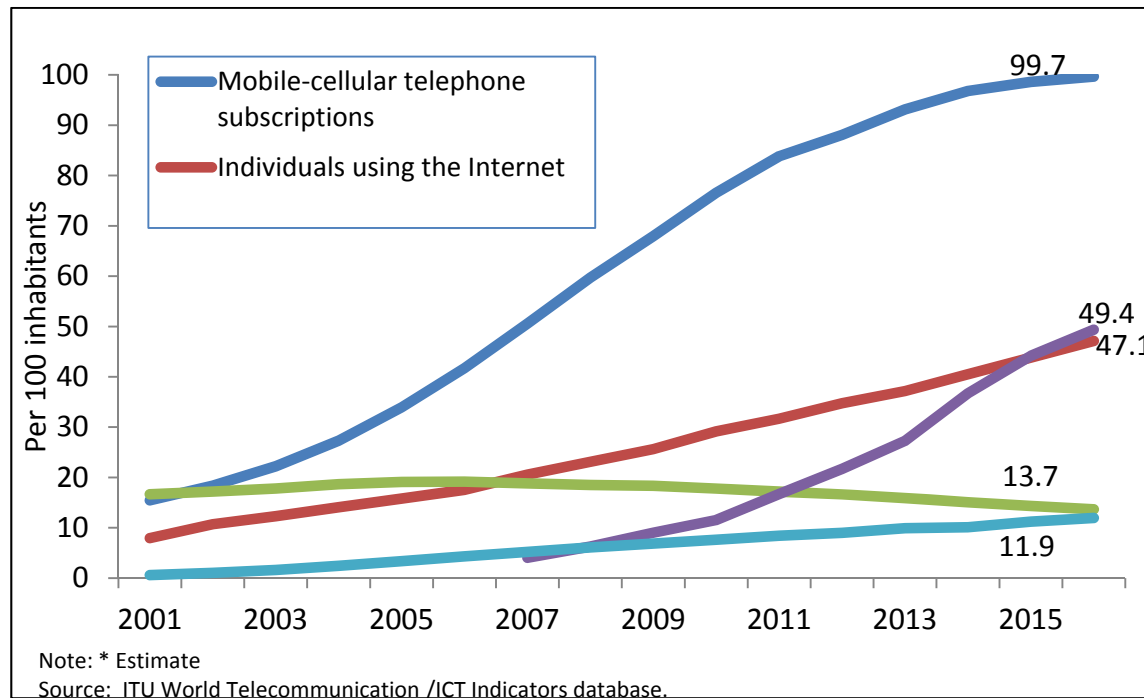
WTO (17 October 2016)

Dr. Cosmas ZAVAZAVA
Chief of Department,
Projects and Knowledge
Management, ITU

ITU HEADQUARTERS, GENEVA



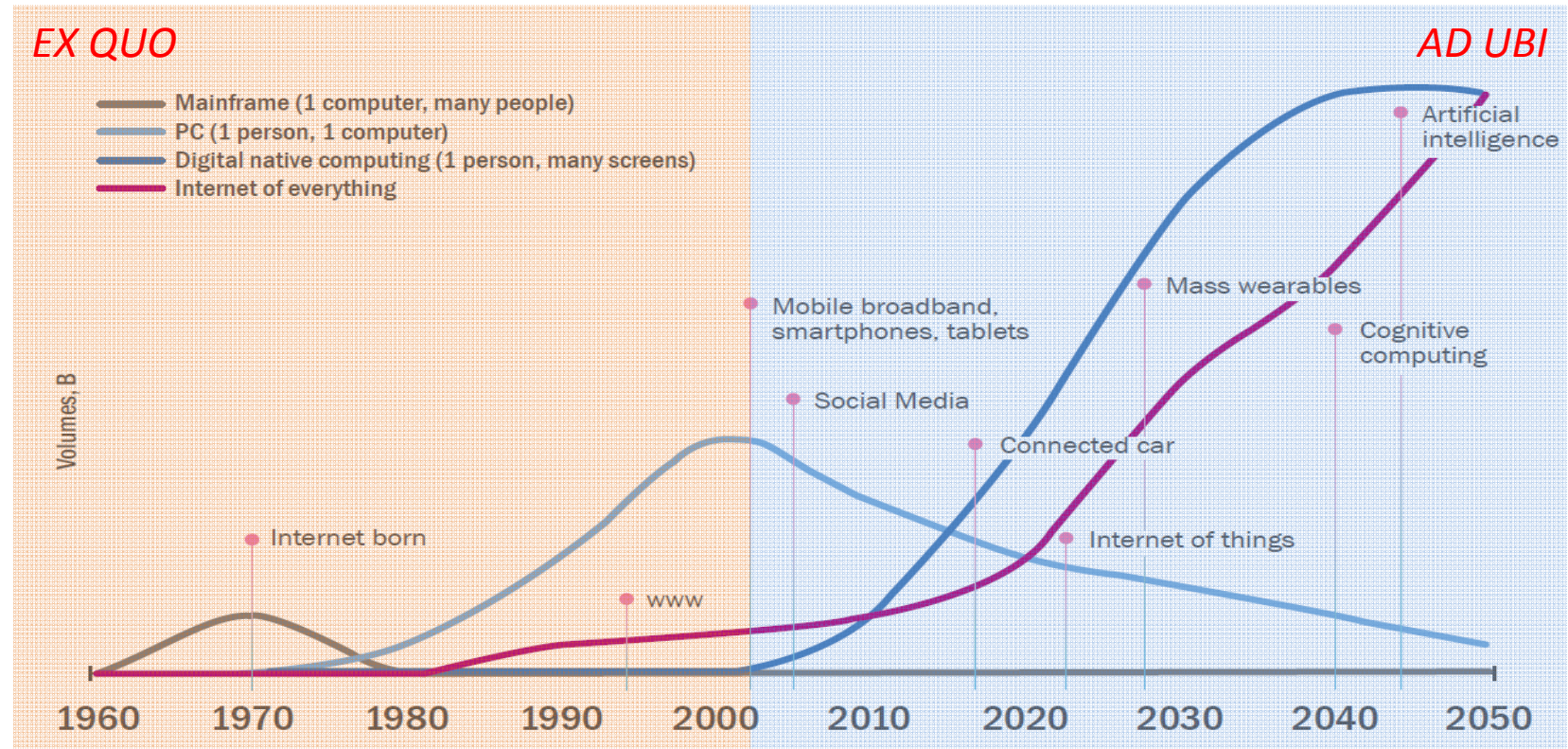
Global ICT developments, 2001-2016



- 7.4 billion mobile cellular subscriptions
- 3.6 billion mobile-broadband subscriptions
- 3.5 billion people using the Internet



TRENDS

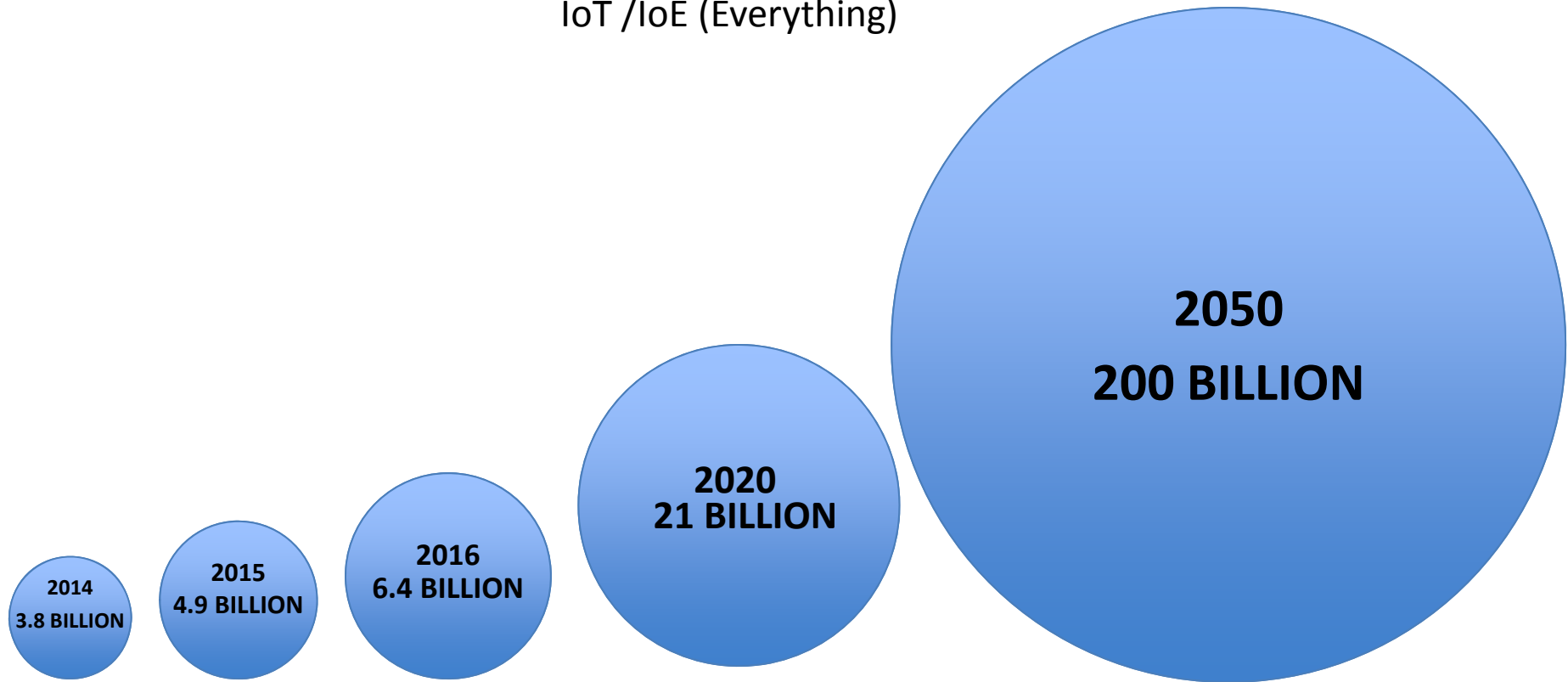


Source: ITU



HERE COMES M2M

IoT /IoE (Everything)



Source: GARTNER, IDC

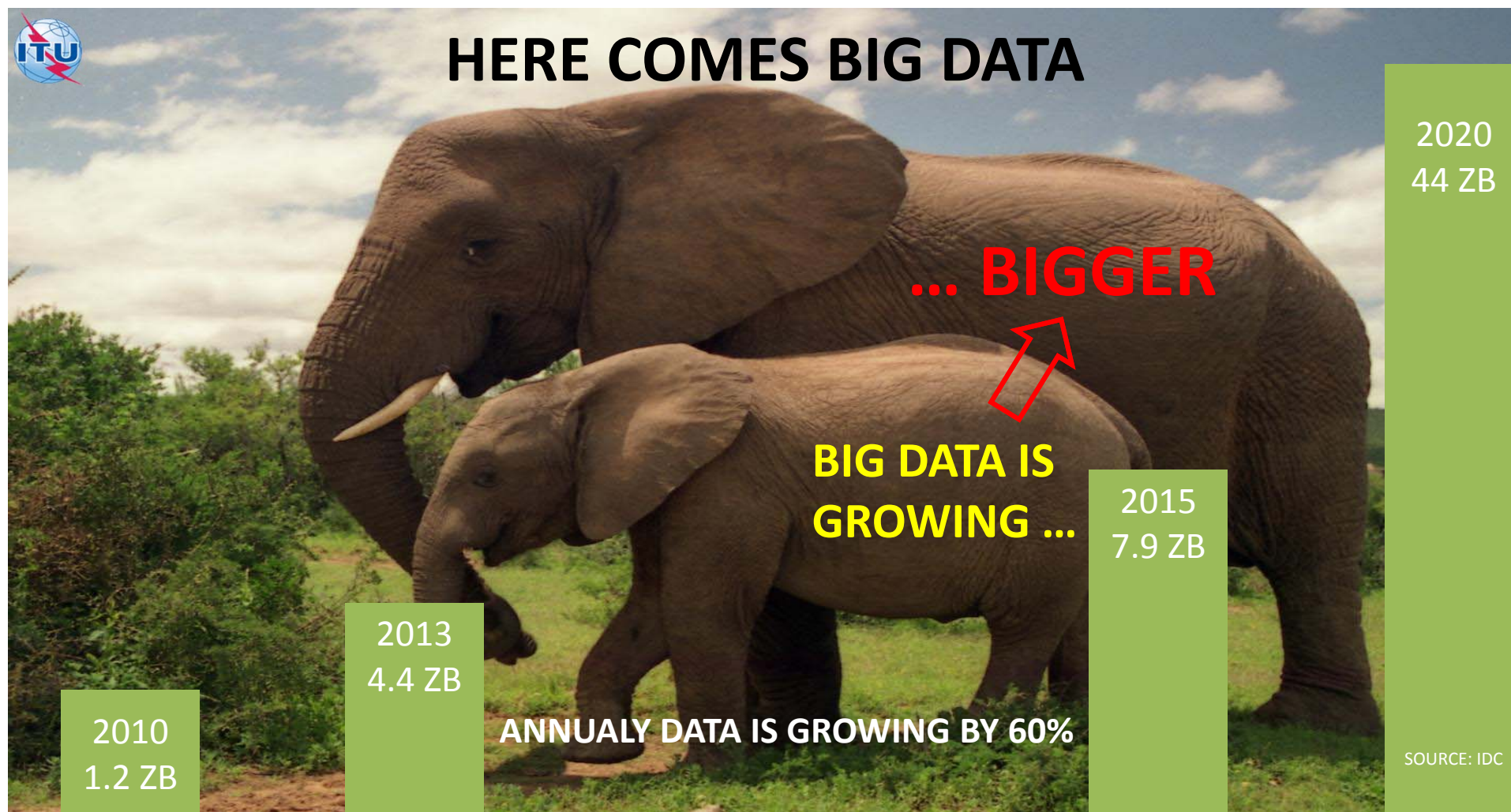
INTERNET OF EVERYTHING



DATA DATA DATA DATA DATA DATA DATA DATA



HERE COMES BIG DATA

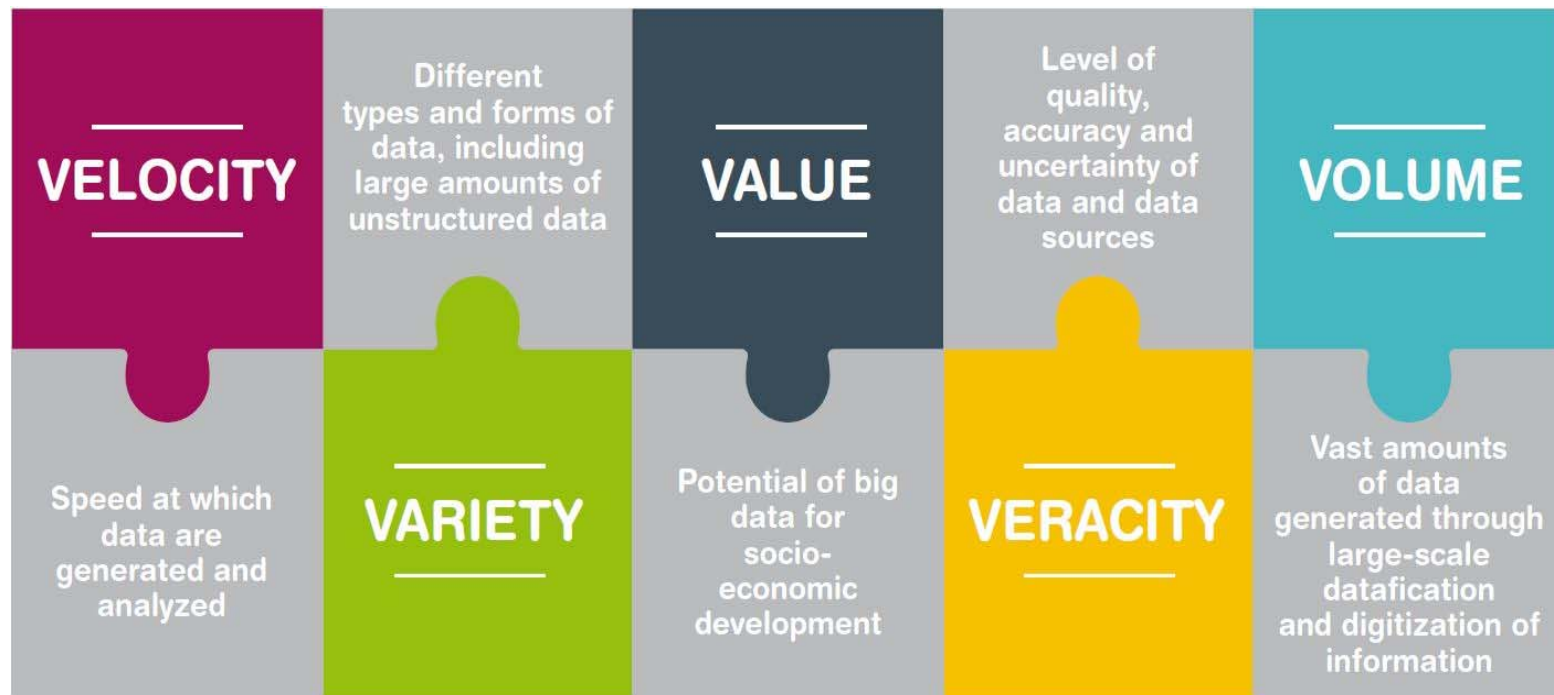


1 ZetaByte = 1000^7 bytes = 10^{21} bytes = 1000000000000000000000 bytes = 1000 exa bytes = 1 million peta bytes = 1 billion tera bytes = 1 trillion giga bytes.



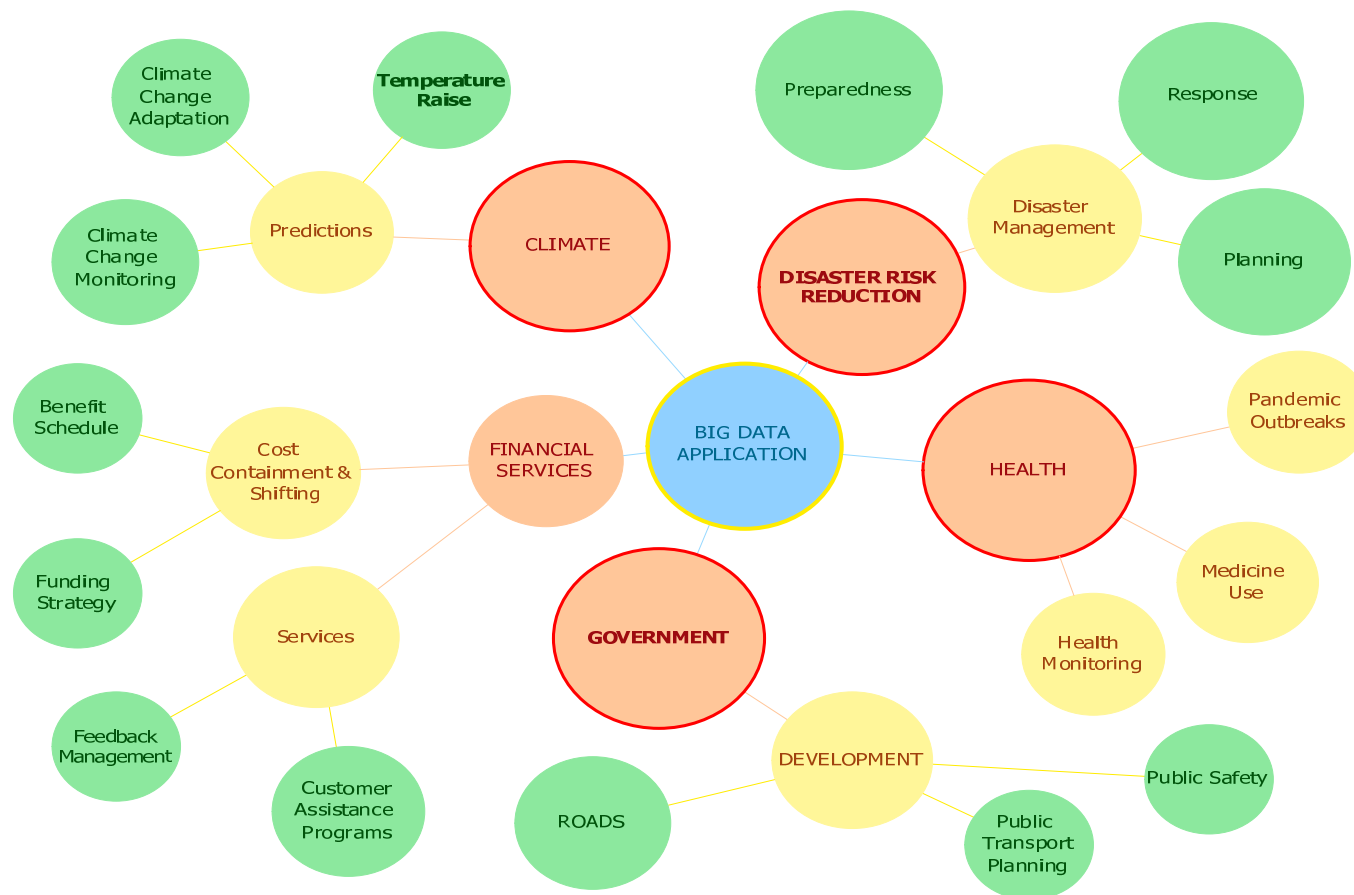
WHAT IS BIG DATA?

BIG DATA





BIG DATA APPLICATIONS



- **TRADE**
- Agriculture
- Infrastructure
- Water
- Sanitation
- Pharmaceutical Industry
- Education
- Statistics
- Development
- National Security
- Risk Management,
- Etc ...



NOT ALL DATA HAS VALUE

SMART
DATA

2013
22%

2020
37%

Source: IDC 2014



DEMONSTRATION OF BIG DATA USE

- HEALTH
- CLIMATE CHANGE
- TRADE IN SERVICES





BIG DATA FROM M2M – CLIMATE CHANGE

2015 Was Hottest Year in Historical Record

Source: NASA & NOAA, January 2016



BUT THERE ARE CHALLENGES

- **EROSION OF INDIVIDUAL PRIVACY**
- **DATA THEFT AND MIS-USE (DATA LAUNDERING)**
- **AMBIGUITY IN LAW**
- **PROFITIERING BY DATA BROKERS (WITHOUT OWNERS' CONSENT)**
- **DATA MINING AND USE THAT UNDERMINE SECURITY**
- **IDENTITY THEFT AND FRAUD IN THE BIG DATA WORLD**





BIG DATA BENEFITS

PROVIDE NEW
DATA SOURCES
FOR OFFICIAL
STATISTICS

FOSTER
INNOVATION BY
INCORPORATING
NON-TRADITIONAL
DATA SOURCES

MONITORING THE ENVIRONMENT
(CLIMATE CHANGE)

IMPROVING HEALTHCARE
(TRACKING DISEASES AND
MONITORING USERS
THROUGH WEARABLES)

BRINGS COMMERCIAL
COMPETITIVENESS (**DATA
IS THE NEW OIL**)

CONTRIBUTE TO A
FLEXIBLE, EFFECTIVE
AND EFFICIENT WAY OF
MEASURING SDG
INDICATORS





LEGAL INTERVENTION

NEED FOR SIMPLE AND CLEAR LAWS AND REGULATIONS ON THE USE OF DATA

NEED TO SPECIFY NUMBER OF USE OF DATA (SINGLE, MULTIPLE OR OPEN-ENDED USE – **A NEW VISA REGIME**)

CLARIFY LEGAL STANDING OF DATA HELD BY 3RD PARTIES AND NOT OWNERS

ENSURE MANDATORY RIGHT TO OPT-IN AND OPT-OUT

NEED FOR SHORTER AND SIMPLER LEGAL PRIVACY POLICIES (EU e-Privacy Directive on cookies)

NEED TO BALANCE PRIVACY AND SECURITY





CONCLUDING REMARKS

FROM MY SPACE TO PUBLIC SPACE: PEOPLE VOLUNTEER INFORMATION EVEN OF THEIR CHILDREN AND POST ON SOCIAL MEDIA

PEOPLE VOLUNTARILY TRANSMIT PRIVATE INFORMATION IN PUBLIC OR OPEN AIR VIA WIFI-SIGNALS, GPS, DRONES, NETWORK CONNECTIONS, META-DATA, ETC.

FROM GOLD SCRAMBLE OF 160 YEARS AGO TO A **DATA SCRAMBLE**

CONSUMER **PROFILING** AND COMMERCIAL **SURVEILLANCE** IS SUBLIMINAL



CONCLUDING REMARKS

THERE ARE **SENSORS EVERYWHERE**
DELIVERING CONTENT, CONTEXT AND
COGNITION ABOUT THINGS

BIG DATA IS GOOD BUT IT MUST BE HANDLED
RESPONSIBLY

TIME TO CHANGE BUSINESS MODELS AND
CULTURE TO ACCOMMODATE “THINGS – IoT”

FUTURE WILL SEE **GROWTH IN COGNITIVE
ANALYTICS (AI) AND INTELLIGENCE
AUGMENTATION (IA) AS BIG DATA, IoT AND
ARTIFICIAL INTELLIGENCE CONVERGE.**





**THERE IS VALUE OUT OF THIS
MESSY WORLD OF DATA**

