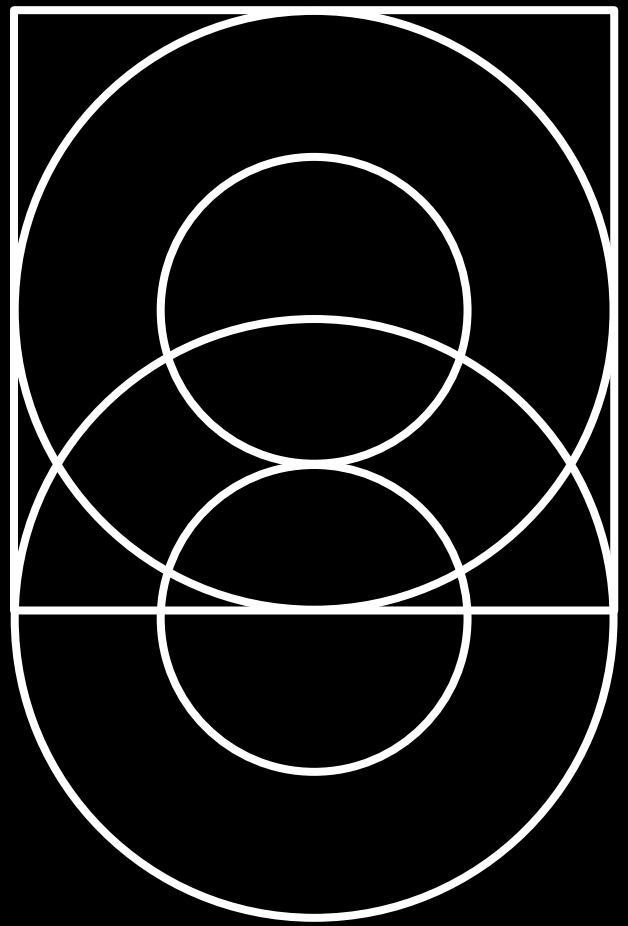
Unit8™



AI & Data: Managing the Marriage

Dr Marcin Pietrzyk

What do they have in common?

Analytics & AI used in isolated cases only

R&D

product

manufacturing

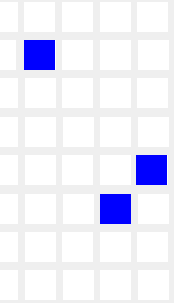
supply chain

finance

legal & compliance

point of sales

IT

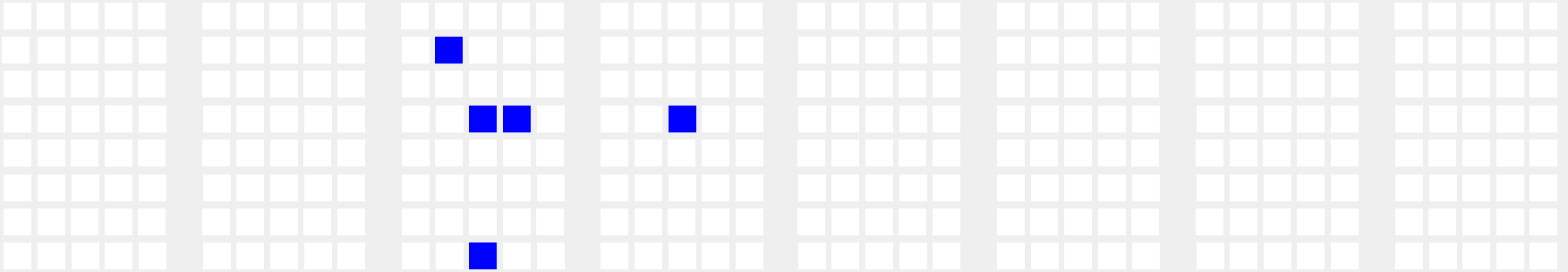


Analytics & AI used in isolated cases only

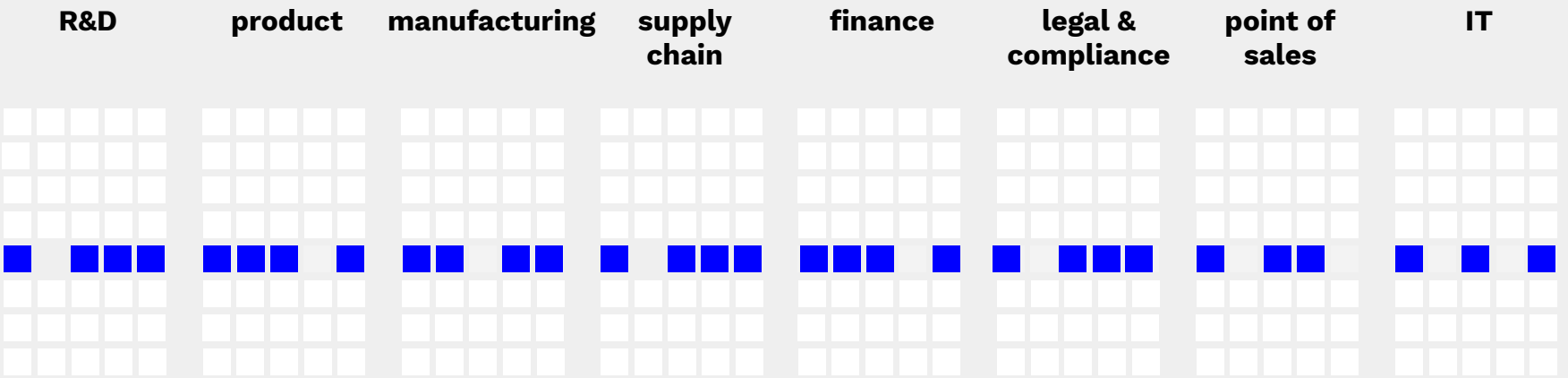
R&D | product | manufacturing | supply chain | finance | legal & compliance | point of sales | IT

Analytics & AI used in isolated cases only

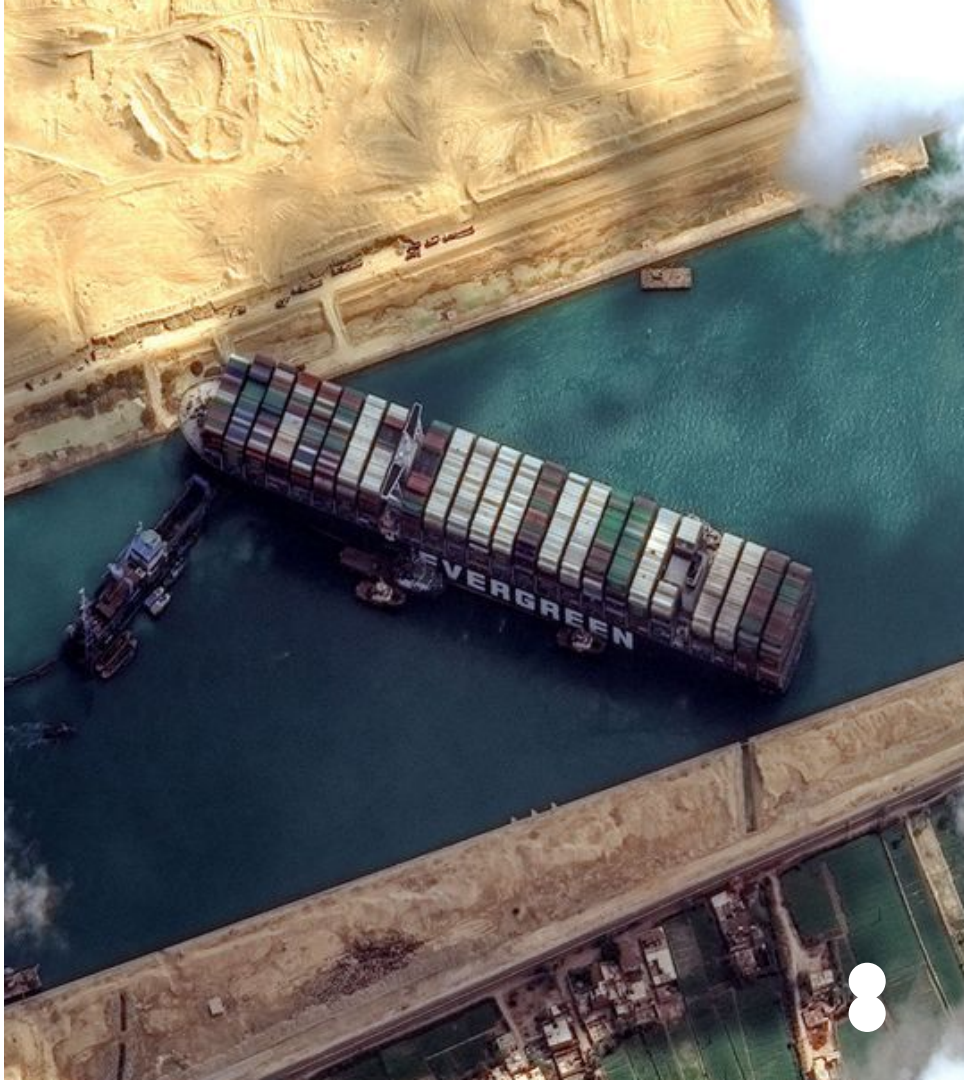
R&D | product | manufacturing | supply chain | finance | legal & compliance | point of sales | IT



What if applied analytics end to end?



Companies get stuck in this journey

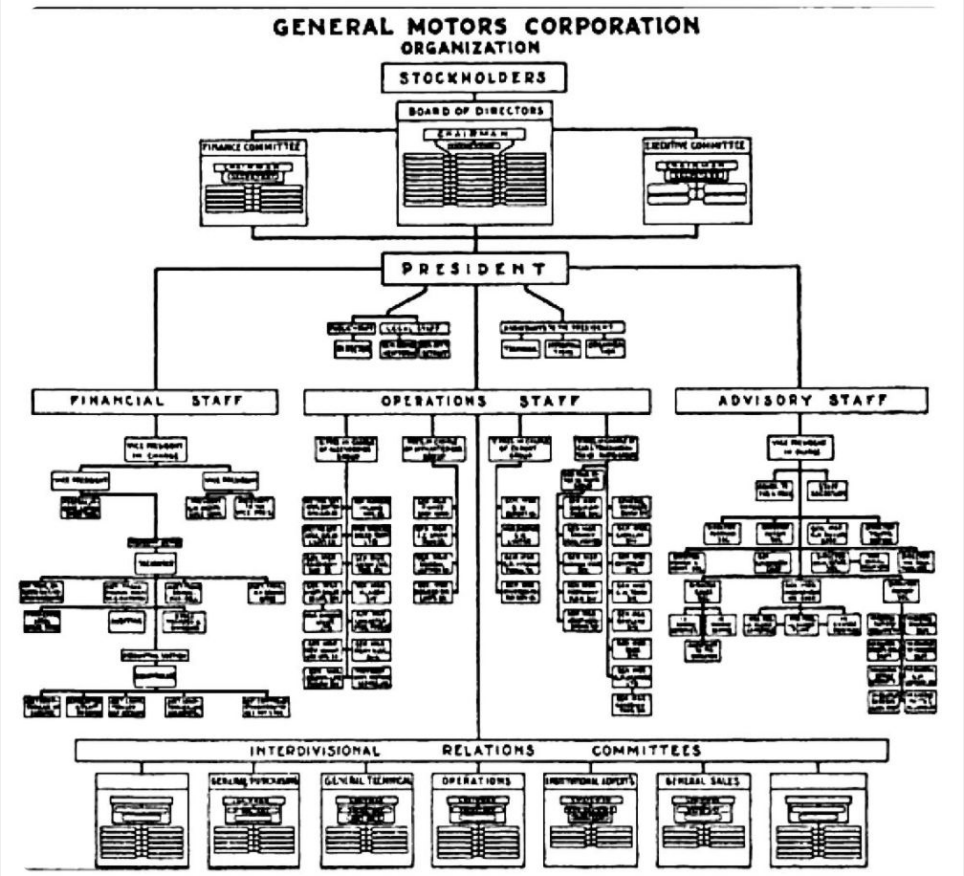


Unit8

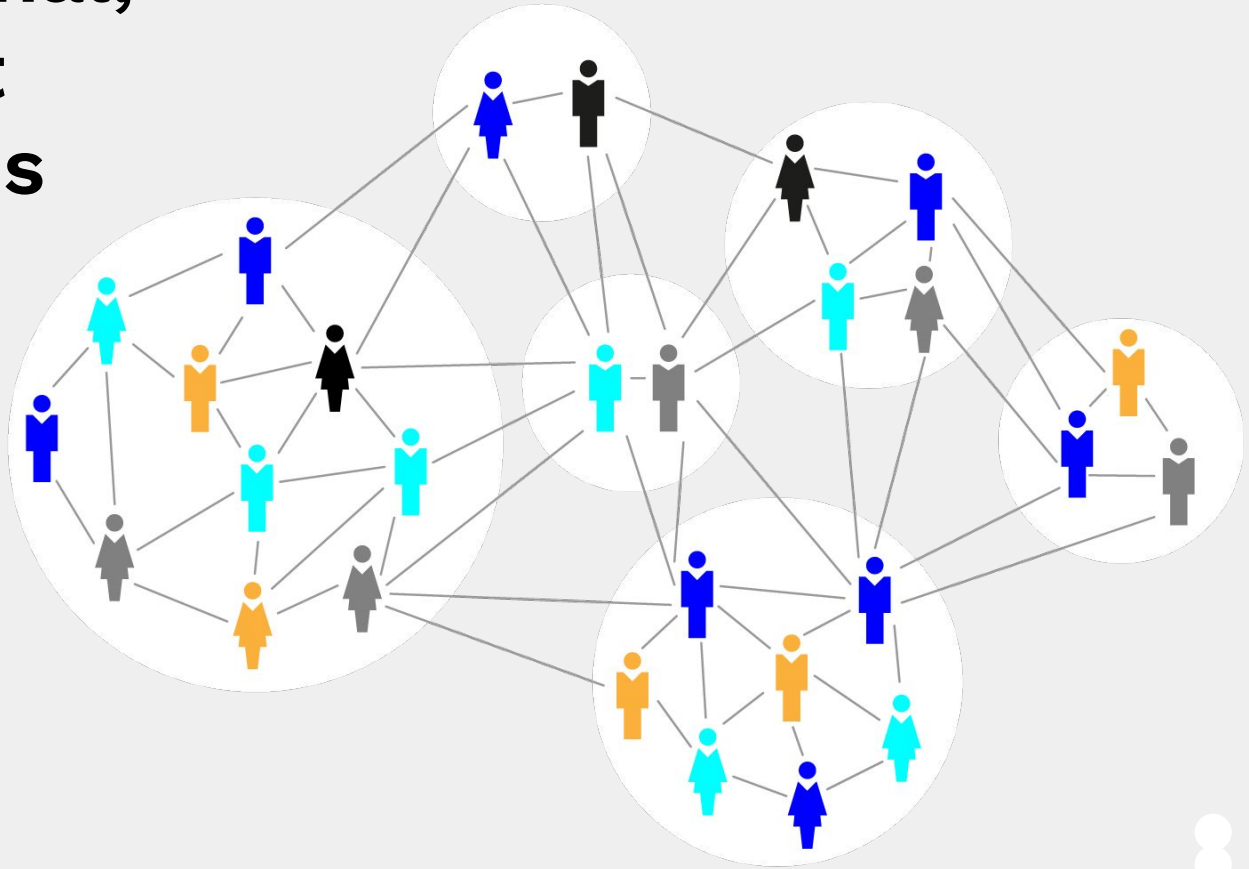
Why is scaling analytics so hard?

Challenge No. 1

Organisations need to change



Cross functional, agile, product focused teams

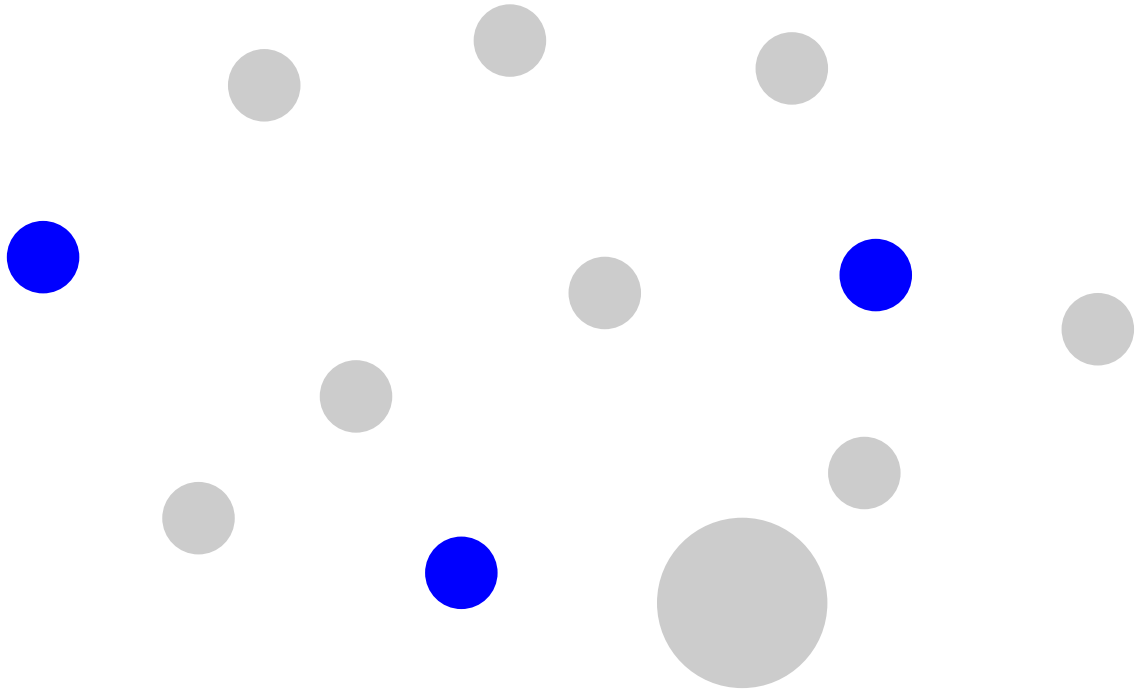


Challenge No. 2

The analytics infrastructure has to evolve

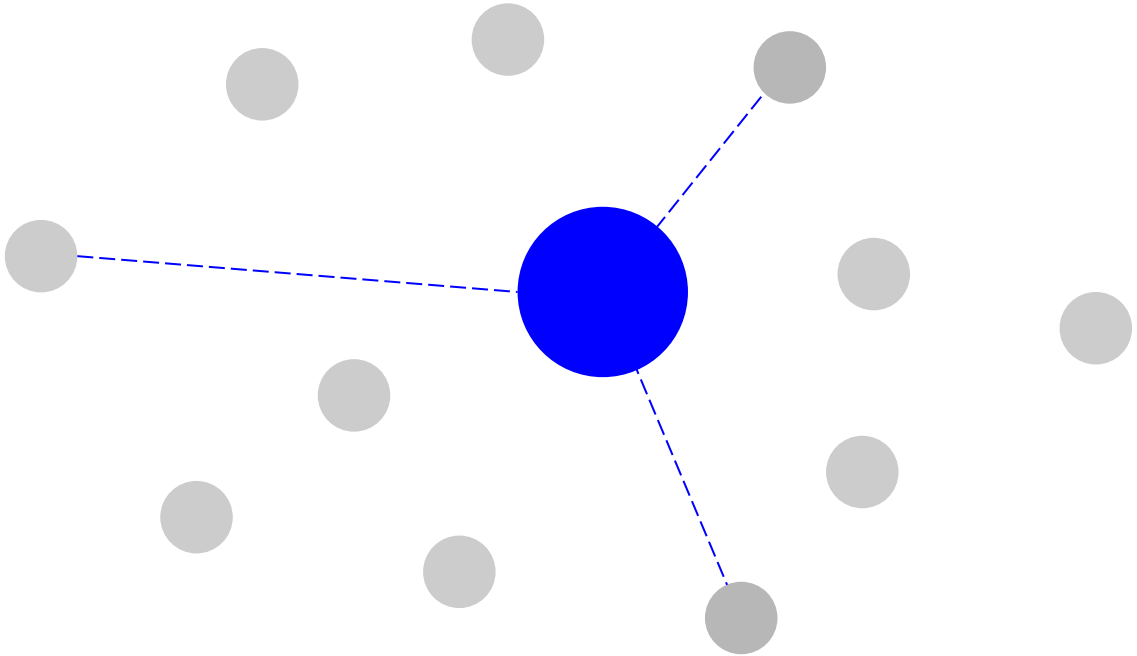
Unit8

Analytics pre- Data warehousing/ Data Lakes



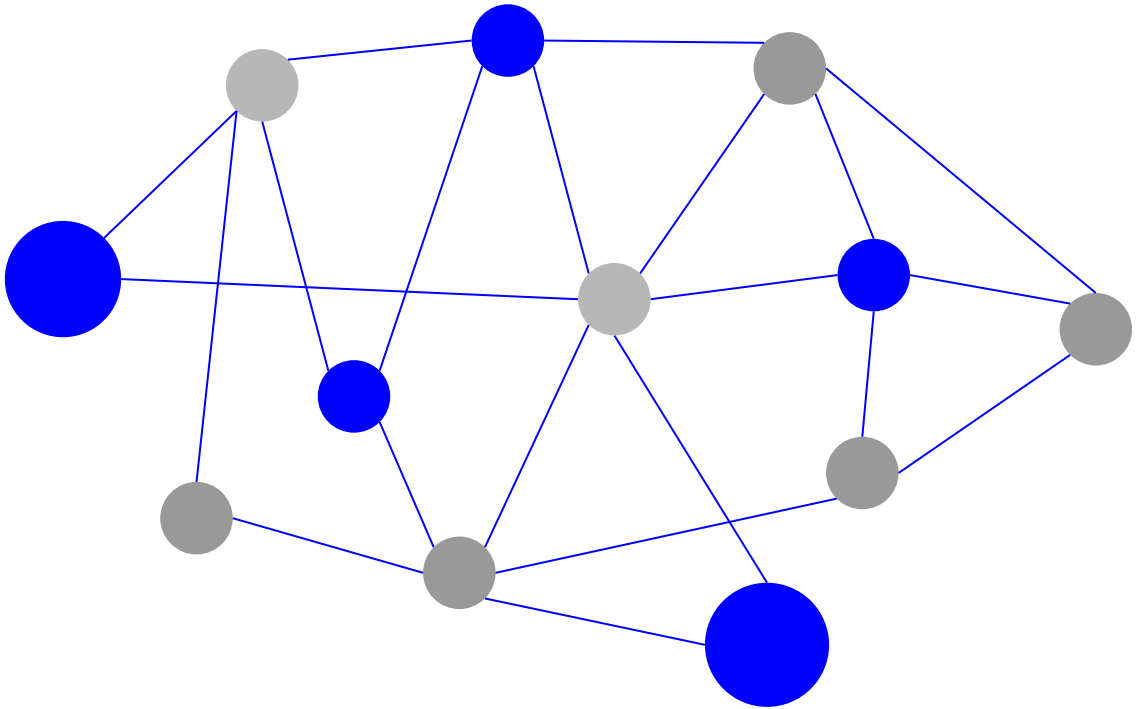
Analytics

DWH / Data lake paradigm



Analytics

New trend - data mesh



Analytics

Amazon's API Mandate: Pioneer of a decentralized, flexible data architecture

1) All teams will henceforth expose their data and functionality through service interfaces.
2) Teams must communicate with each other through these interfaces.
3) There will be no other form of interprocess communication allowed: no direct linking, [...] no shared-memory model, [...]. The only communication allowed is via service interface calls over the network.
4) It doesn't matter what technology is used. HTTP, Corba, Pubsub, custom protocols - doesn't matter.
5) All service interfaces, without exception, must be designed from the ground up to be externalizable. That is to say, the team must plan and design to be able to expose the interface to developers in the outside world. [...]
6) Anyone who doesn't do this will be fired.

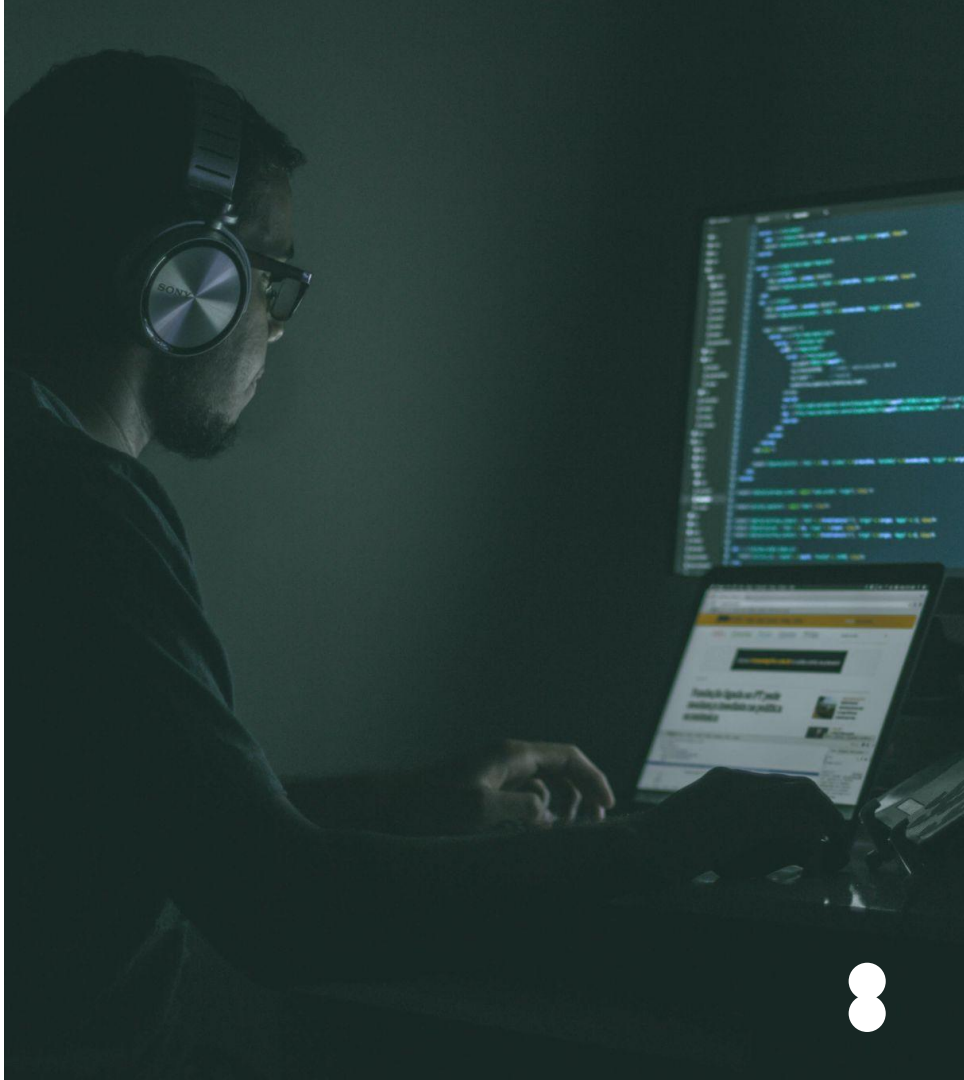
- JEFF BEZOS, 2002

Challenge No. 3

Data Science is easy...
just pick the right platform
LIGHTYEAR

ANALYTICS
DATA ANALYST PLATFORMS
Microsoft
pentaho
alteryx
Digital Reasoning
guavus
AYASDI
ATTIVIO
Datameer
Quid
Incorta
interana
ClearStory
Origami logic
ENDOR
MODE
Bottlenose
switchboard
DATA SCIENCE PLATFORMS
IBM
KNIME
data iku
DOMINO
rapidminer
CONTINUUM ANALYTICS
ALGORITHMIA
DATAWATCH ANGOSS
sas
BI PLATFORMS
Microsoft
aws
DOMO
Wave Analytics
looker
ATSCALE
ARCADIA DATA
Information Builders
GoodData
MicroStrategy
birst
VISUALIZATION
+ableau
SAP Lumira
Google Cloud
celonis
Qlik
Periscope Data
ZEPL
KOMODA
plotly
CHARTIO
TOUCAN TOCO
MACHINE LEARNING
Azure Machine Learning Studio
aws
Google Cloud
H2O.ai
DataRobot
gamalon
ELEMENT AI
VISENZE
VERSIVE
deepsense.io
bonsai
COMPUTER VISION
Microsoft Azure
Amazon Rekognition
Cloud Vision API
clarifai
EVER AI
deepomatic
twenty bn
HORIZONTAL AI
IBM Watson
Cortana
Facebook AI
sentient technologies
Voyager Labs
viavious
Affectiva
PROPHESEE
CognitiveScale
Numenta
PETUUM
SI Analytics
narrative logics
CURIOUS AI
OSARO
BLUE VISION
SPEECH & NLP
Google Cloud
twilio
amazon alexa
narrative science
semantic machines
Mobvoi
Eigen Technologies
SoundHound Inc.
PRIMER
MindMeld
voicera
NUANCE
cortical.io
snips
Sensory
SEARCH
elasticsearch
ORACLE ENDECA
EXALEAD
coveo
Lucidworks
ATTIVIO
swiftype
algolia
alphasense
MAANA
omni:us
SINEQUA
LOG ANALYTICS
splunk>
sumologic
LOGGLY
TIMBER
kibana
logz.io
SOCIAL ANALYTICS
Hootsuite
sprinklr
NETBASE
synthesio
tracx
simplereach
bitly
predata
SimilarWeb
WEB / MOBILE / COMMERCE ANALYTICS
Google Analytics
mixpanel
AMPLITUDE
sumall
Airtable
RESCI
SIGOPT
granify
custora

We need a new type of talent



Unit8

Meeting these challenges

New ways of working
Keywords: Agile, Lean, SAFe, ML Ops

New analytics infrastructure
Keyword: data mesh, cloud & multi cloud, ML Ops

New talent & partners needed
Keywords: digital natives, data science, data engineering

Is it worth the effort?

Largest US Companies

2008

RANK	COMPANY	FOUNDED	USBN
1.	Exxon	1870	890
2.	General Electric	1892	768
3.	Microsoft	1975	680
4.	AT&T	1885	592
5.	Proctor&Gamble	1837	545
6.	Berkshire	1955	496
7.	Google	1998	380
8.	Chevron	1879	375
9.	J&J	1886	367
10.	Walmart	1962	316

● Tech companies

Largest US Companies

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2018

RANK	COMPANY	FOUNDED	USBN
1.	Apple	1976	890
2.	Google	1998	768
3.	Microsoft	1975	680
4.	Amazon	1994	592
5.	Facebook	2004	545
6.	Berkshire	1955	496
7.	J&J	1886	380
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2028

RANK	COMPANY

● Tech companies

Unit8

Thank you very much!

Q&A and Discussion

Lausanne

Zurich