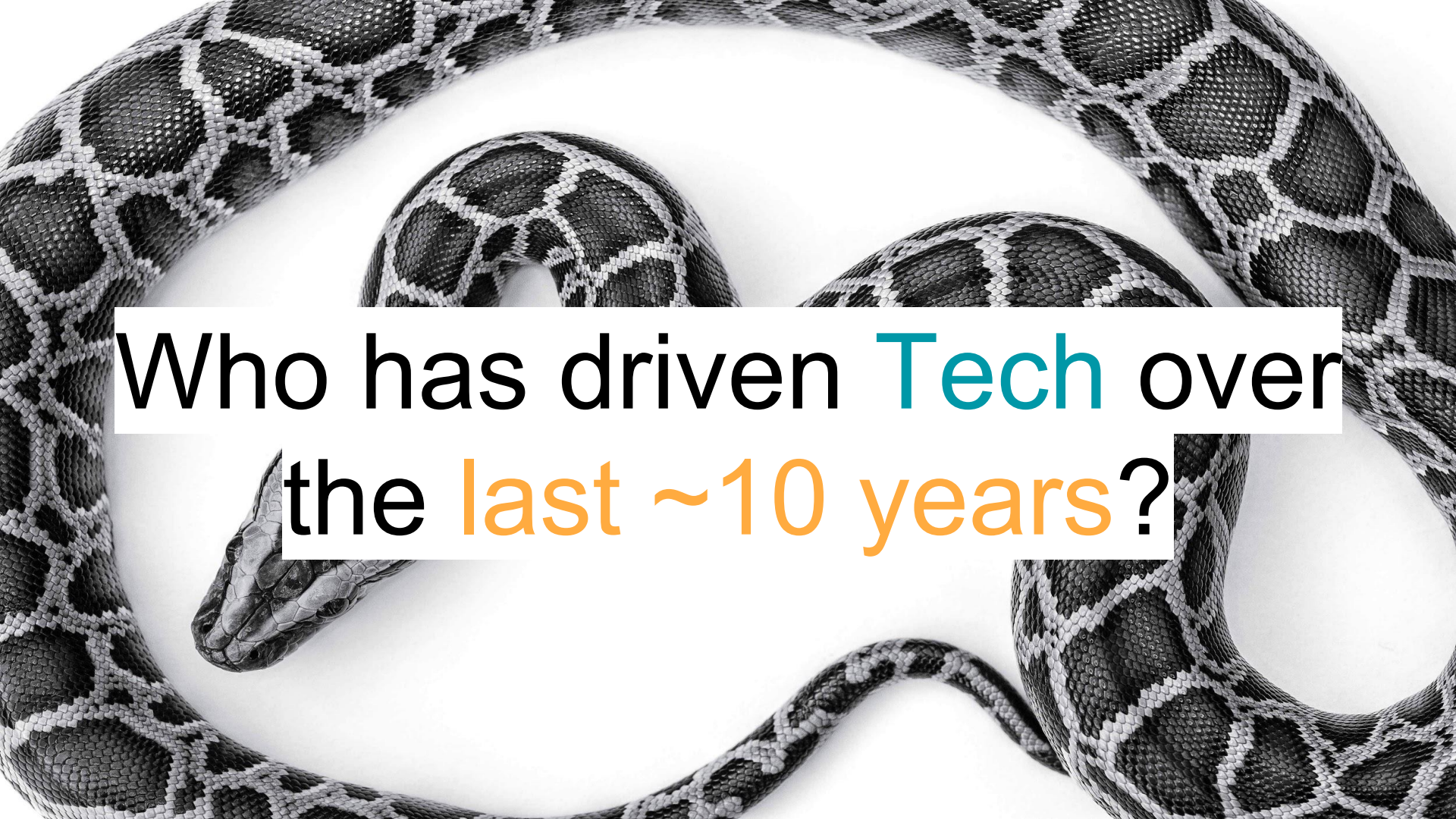

EuroPython 2018


#!/usr/bin/env
def numberly():
print("1000mercis")
if __name__ == "__main__":
8
(Python MMM K
-UUU:**--F1 millemerci
@ultrabug
Gentoo Linux developer
CTO at Numberly


The rise of Python
in the Data communities


Who has driven Tech over the last ~10 years?


Google


twitter


LinkedIn


YAHOO!

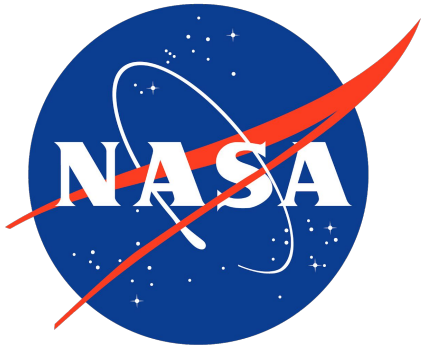

airbnb

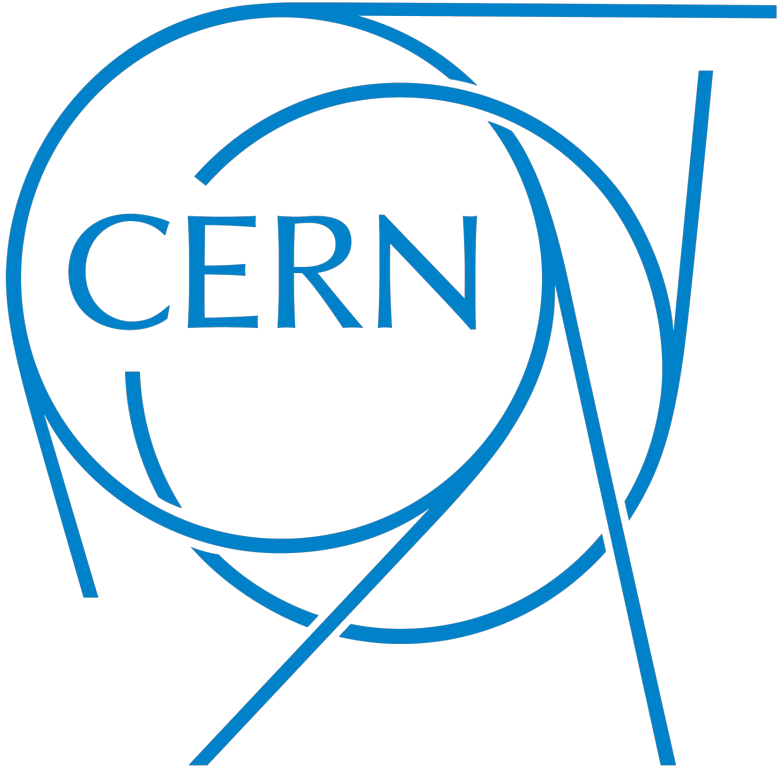

amazon

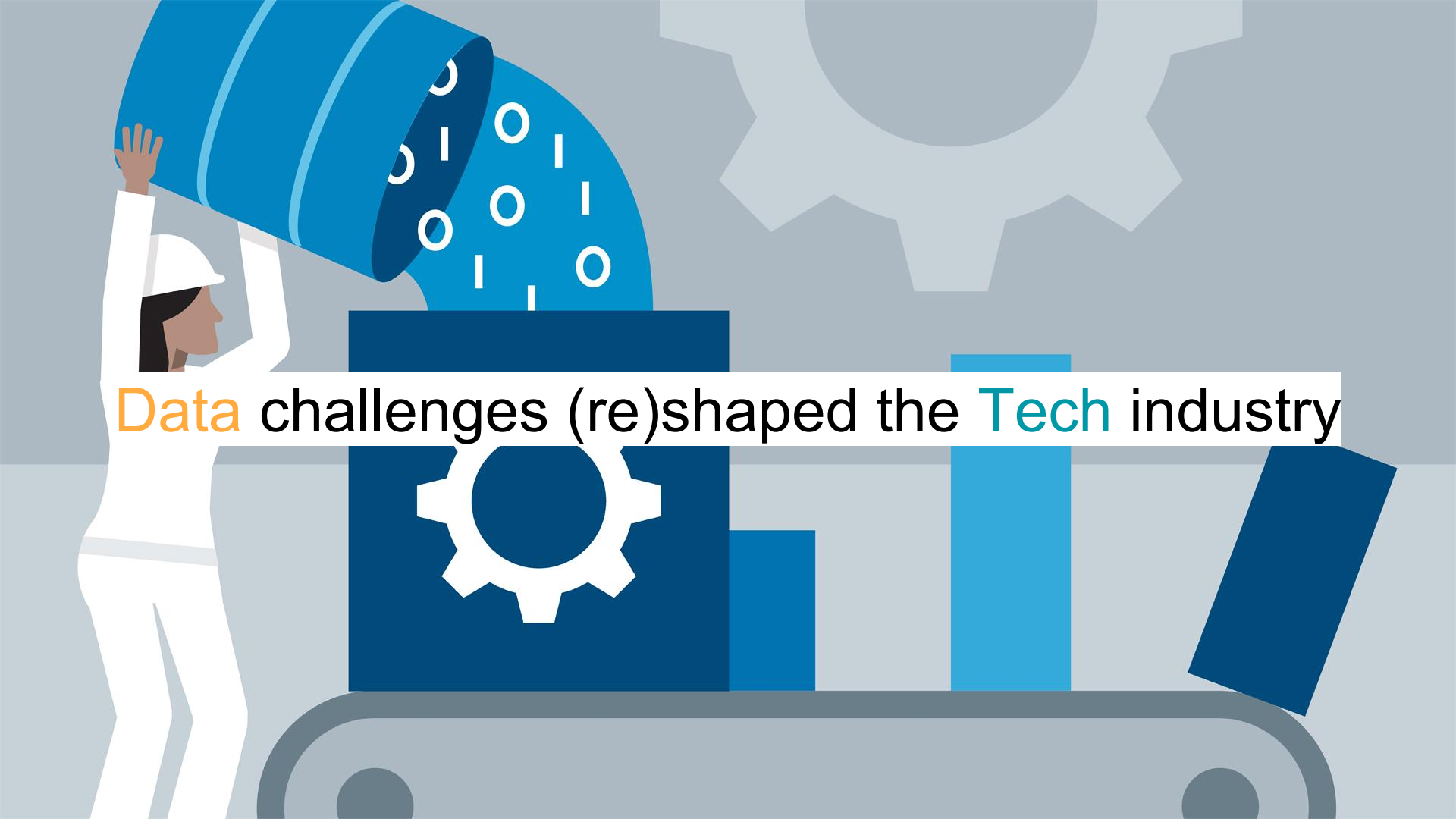

facebook


DATA

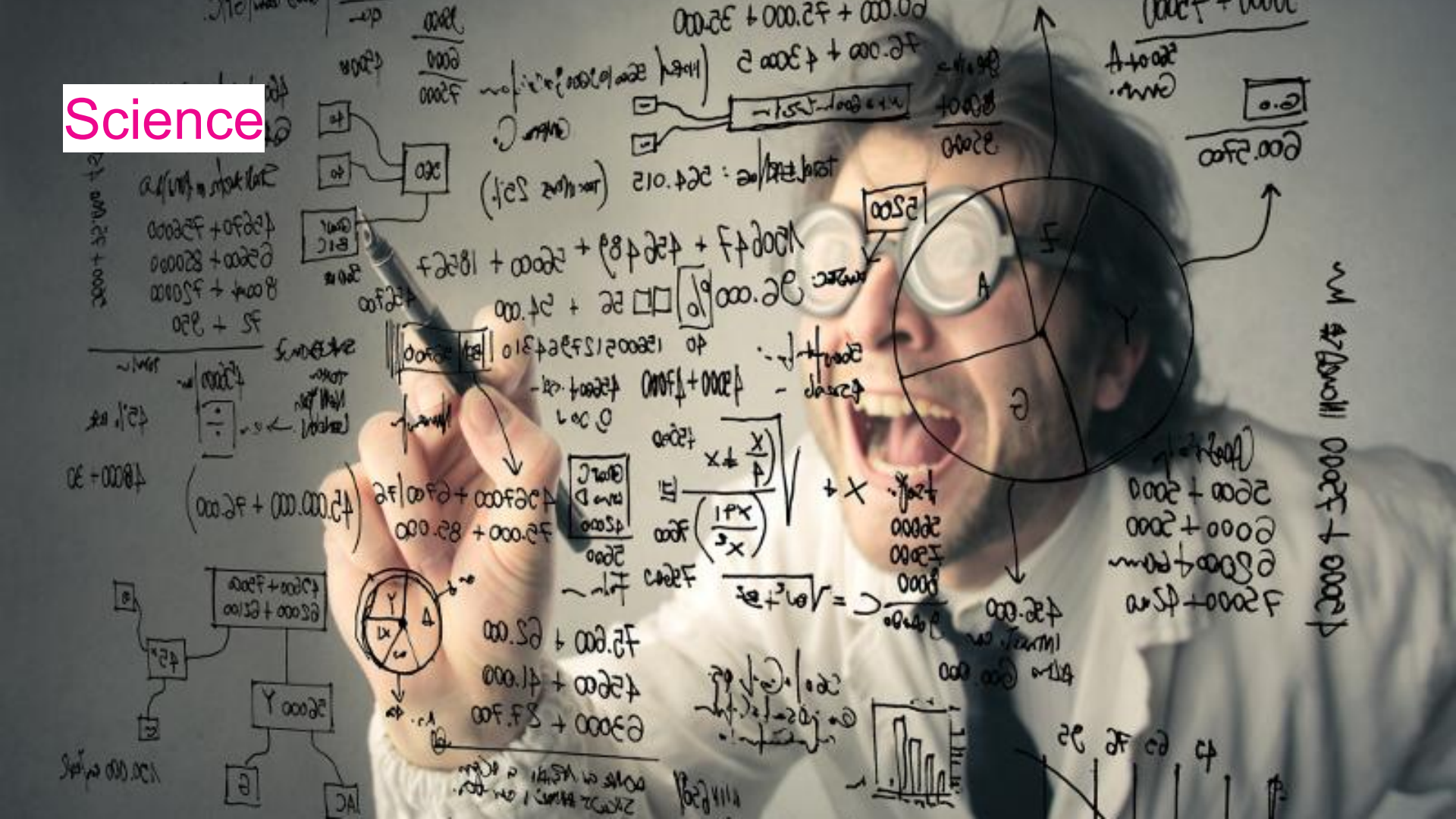
European Space Agency





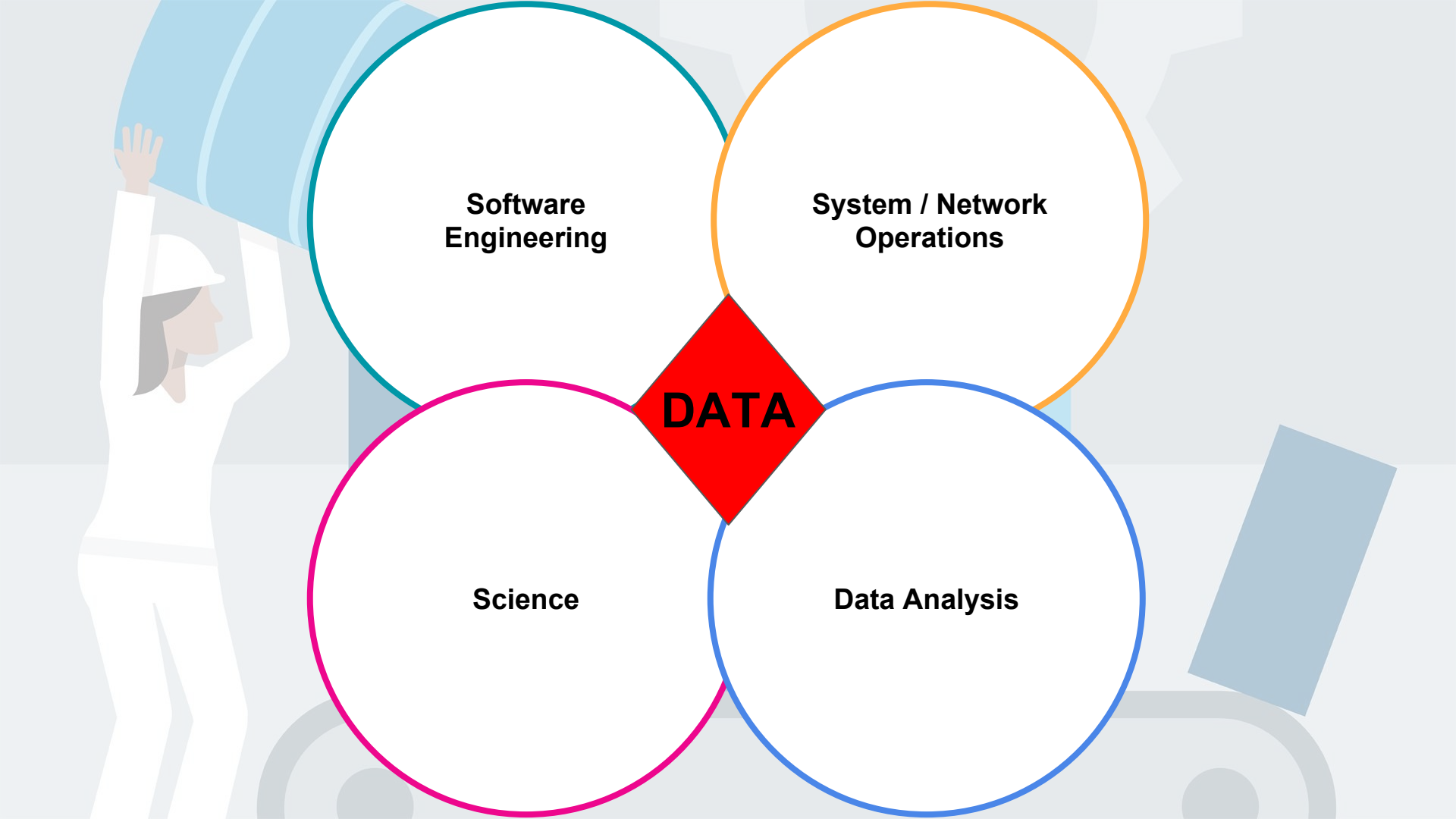

Data challenges (re)shaped the Tech industry

Software Engineering


Science


System / Network Operations

Data Analysis


Software Engineering
System / Network Operations
DATA
Science
Data Analysis

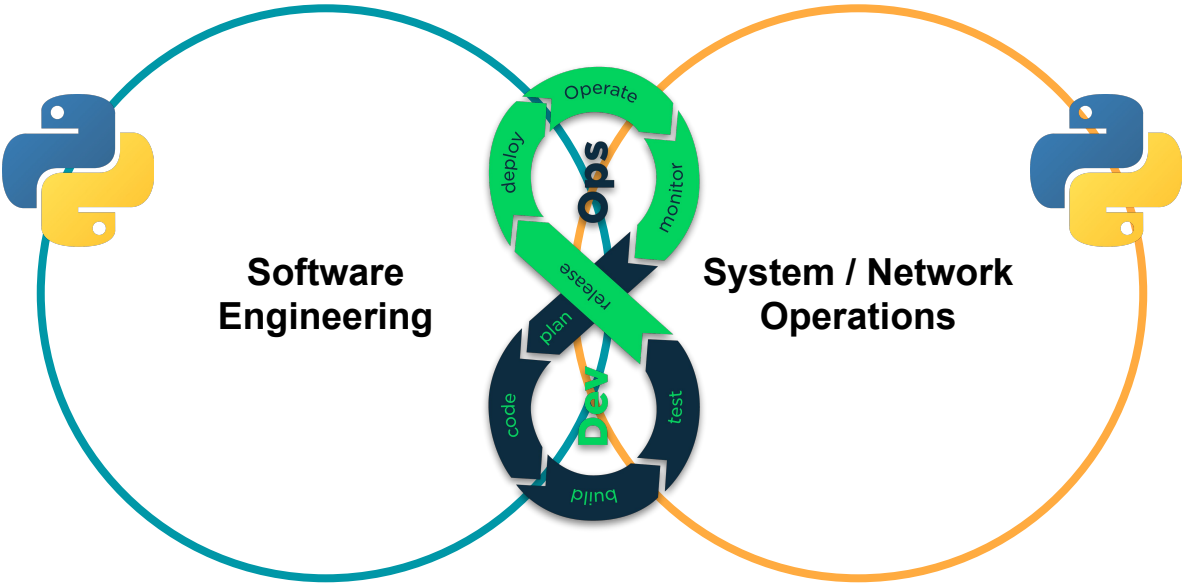
“a general purpose programming language”

Software Engineering

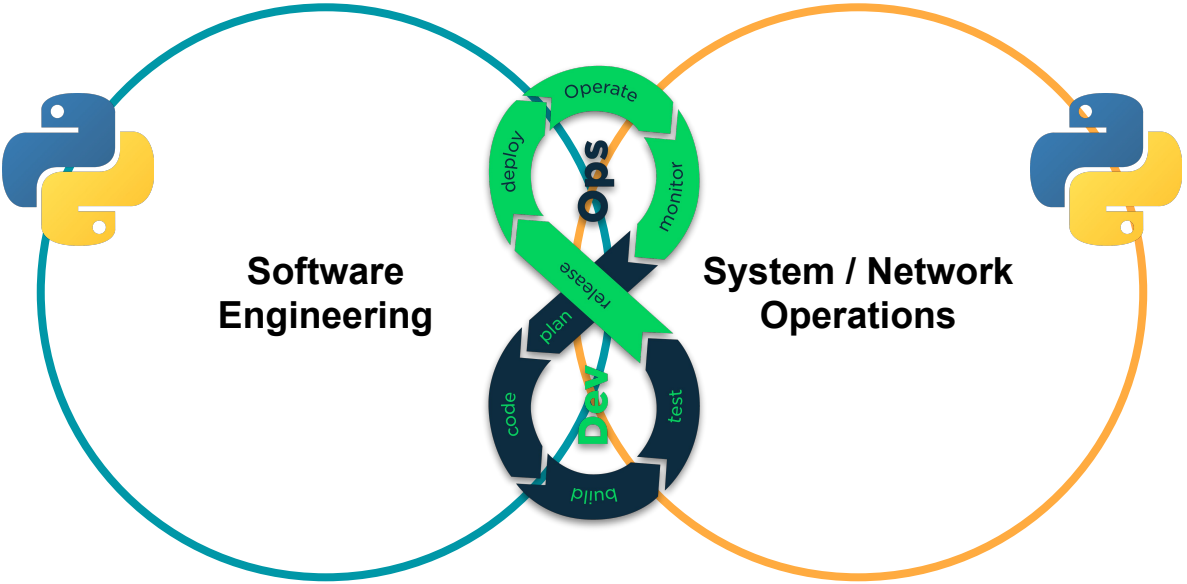
System / Network Operations

Perl

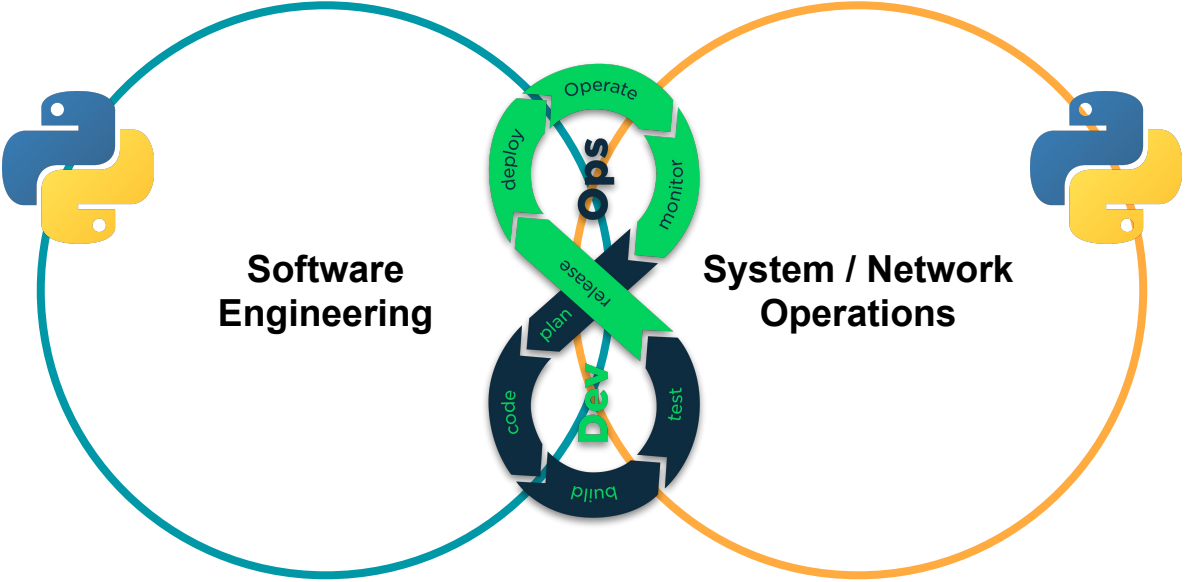
2009: DevOps culture and SOA design emerge

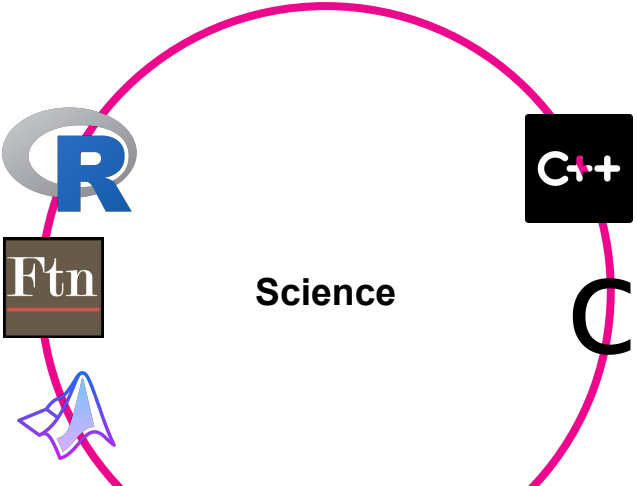


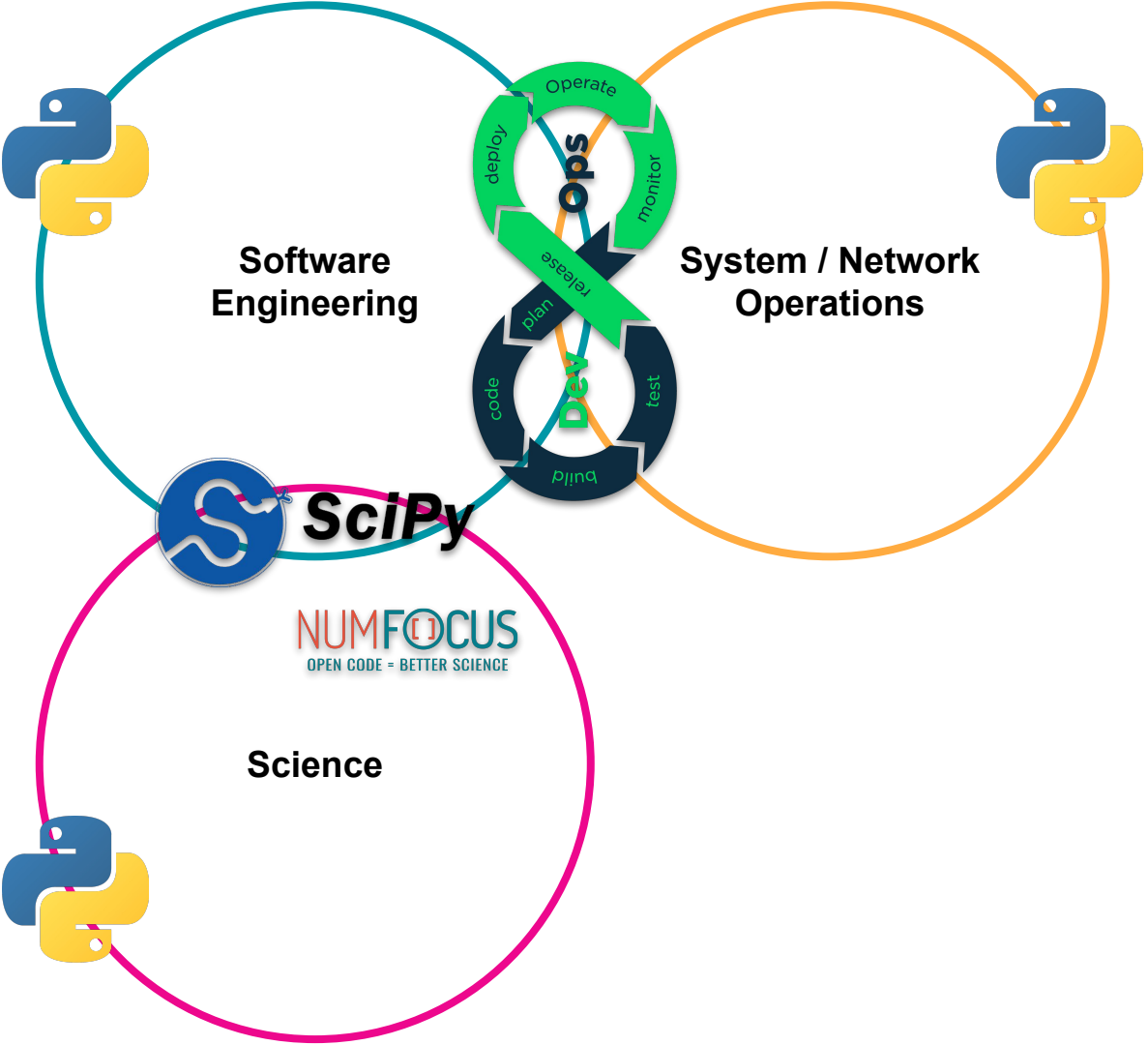
DevOps fosters Python's adoption by Ops



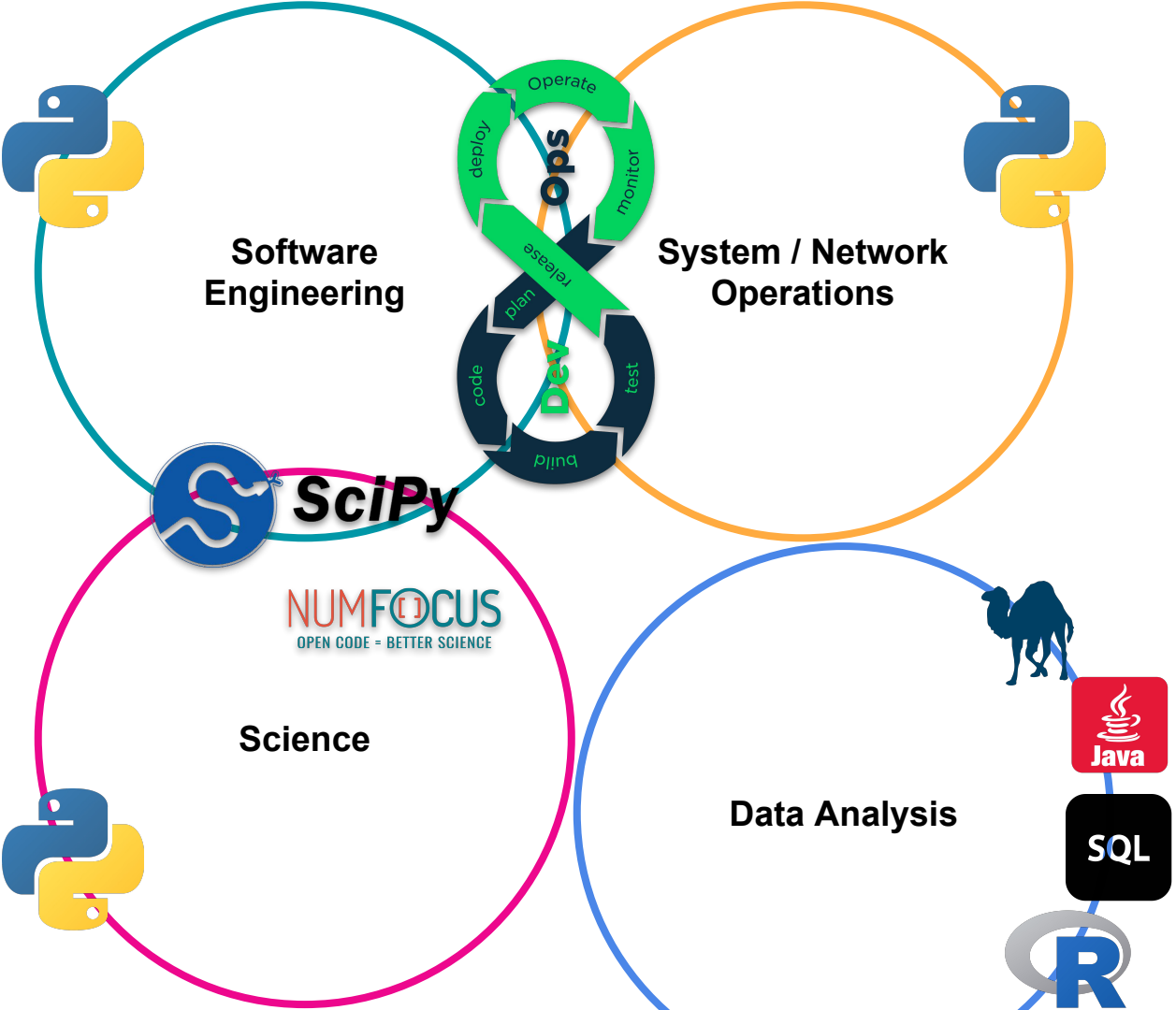
- **2009**
  DevOps culture
  SOA architectures
- **2010**
  WSGI 1.0.1 (PEP 3333)
  Flask
  uWSGI
  Gunicorn
  Fabric
- **2011-2012**
  Ansible
  SaltStack

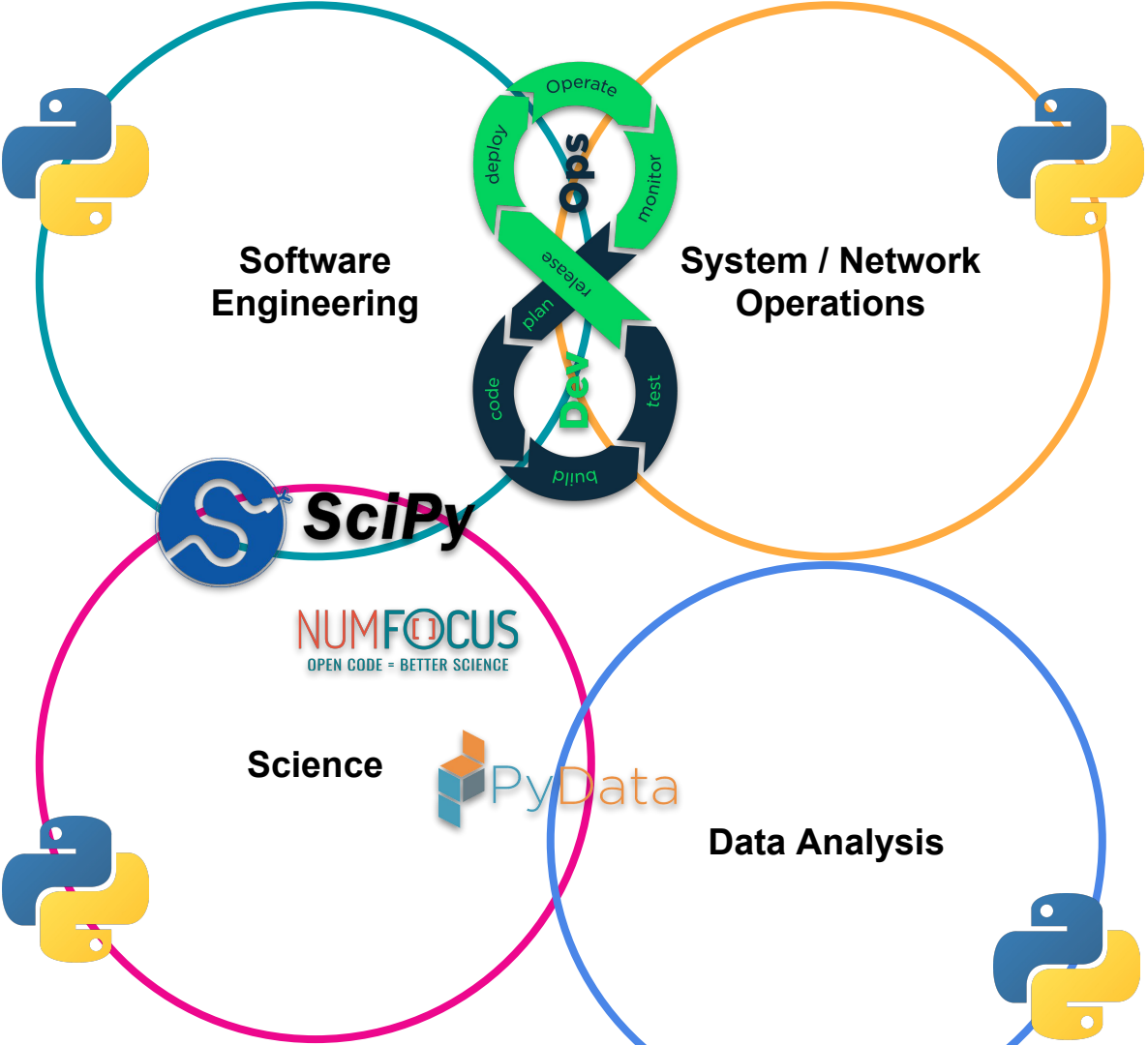

Software
Engineering
Operate
deploy
monitor
release
plan
code
test
build
Ops
Dev
System / Network
Operations


R
C++
Ftn
C
Science



- **2001**
  iPython
- **2006**
  numpy
- **2007**
  creation of scikits in scipy
- **2009**
  pandas
  scikit-learn
- **2012**
  numFOCUS
- **2014**
  Jupyter
- **2016**
  PyTorch


Software Engineering
System / Network Operations
Science
Data Analysis
Operate
deploy
monitor
release
plan
code
test
build
Ops
Dev
SciPy
NUMFOCUS
OPEN CODE = BETTER SCIENCE
Java
SQL
R



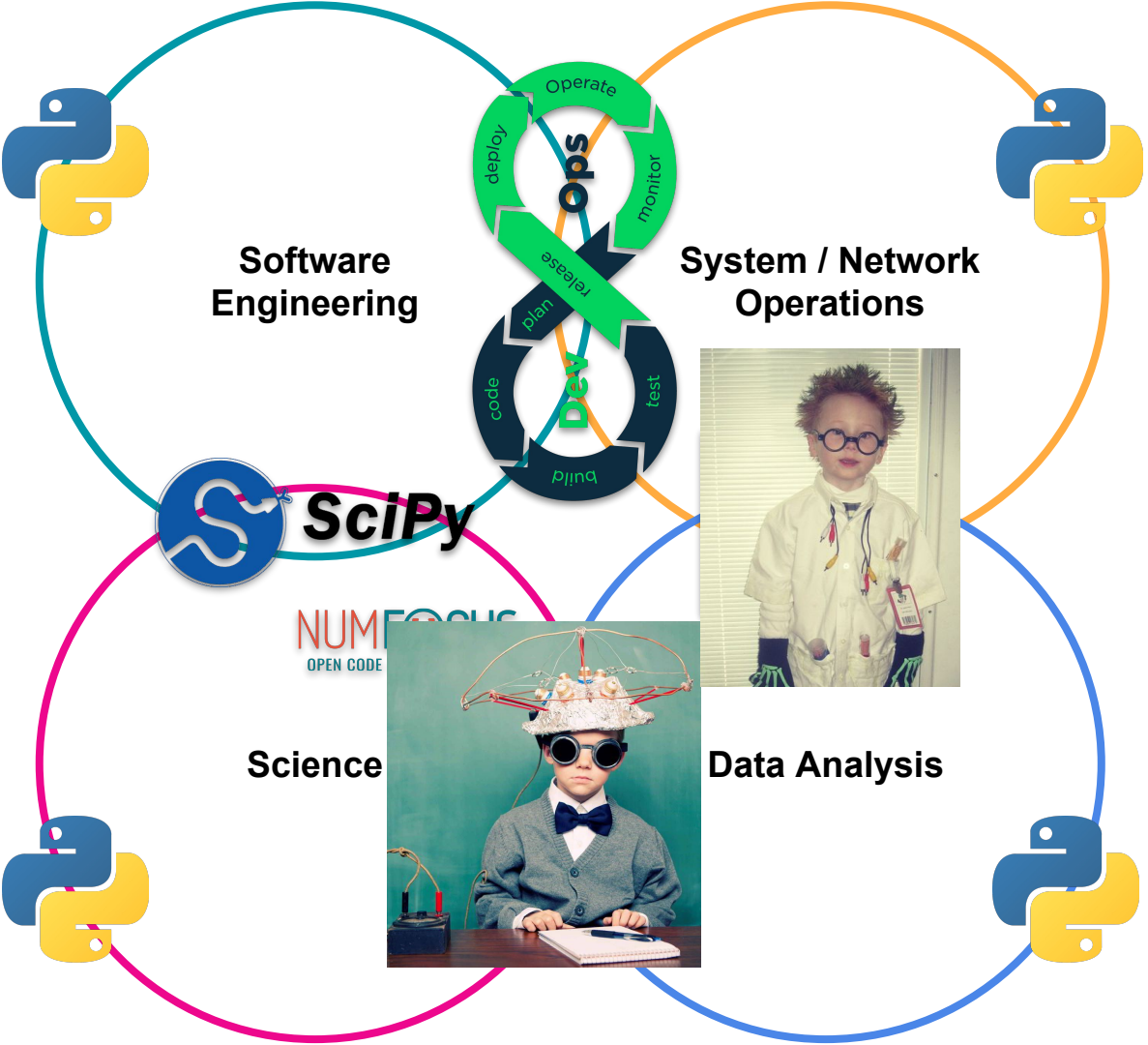
2009
pandas
scikit-learn

2012
PyDATA

2014
Jupyter

2015
dask

2017
pyarrow
ray project



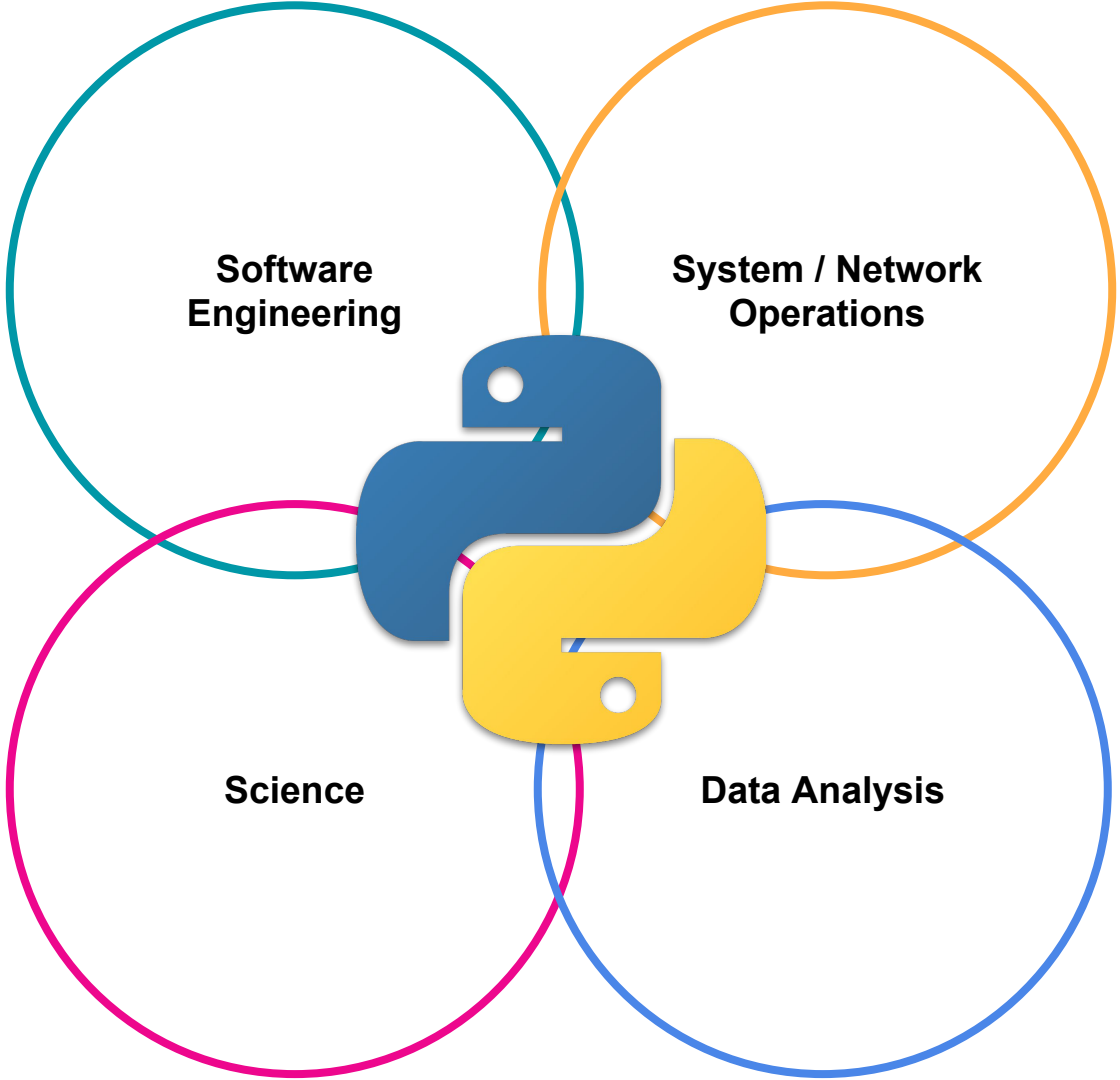
2008
Cassandra

2009
MongoDB
NoSQL influence

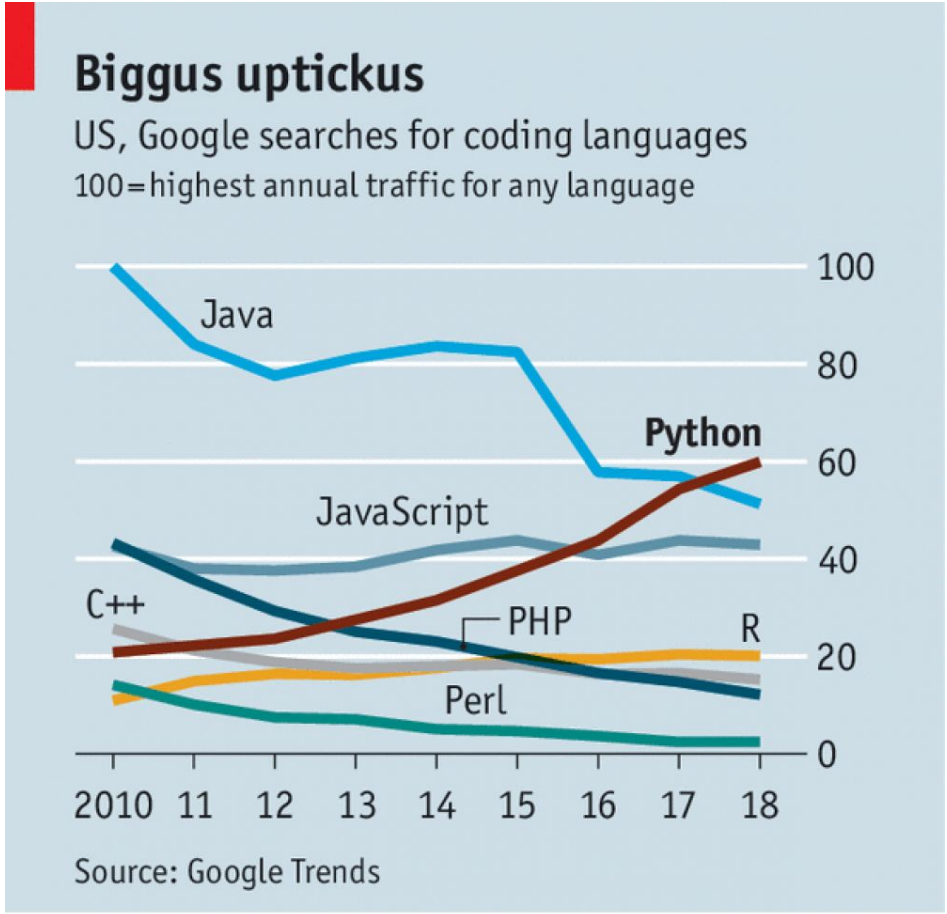
2011
Apache Hadoop
Apache Kafka

2015
DataOps culture
Event-Driven Architecture

2009



was cool



Source:
https://www.economist.com/science-and-technology/2018/07/21/python-has-brought-computer-programming-to-a-vast-new-audience

Guido van Rossum en 2014, au

S ATTRIBUTION-SHARE ALIKE 4.0

GUIDO APPROVED

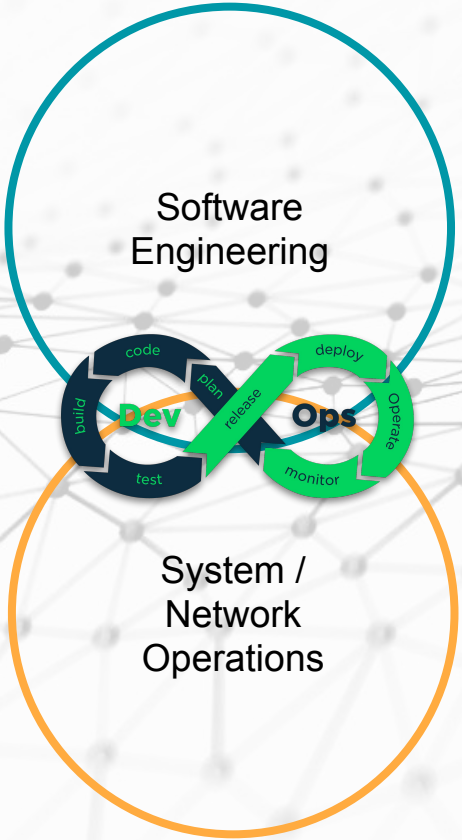
Source:
https://www.lemonde.fr/pixels/article/2018/07/25/je-n-imaginais-pas-que-python-connaitrait-un-tel-succes_5335917_4408996.html


The rise of Python
in the Data communities


The rise of Data
in the Python communities


Data-Driven is (finally) coming

The way we build & deploy apps/platforms changes



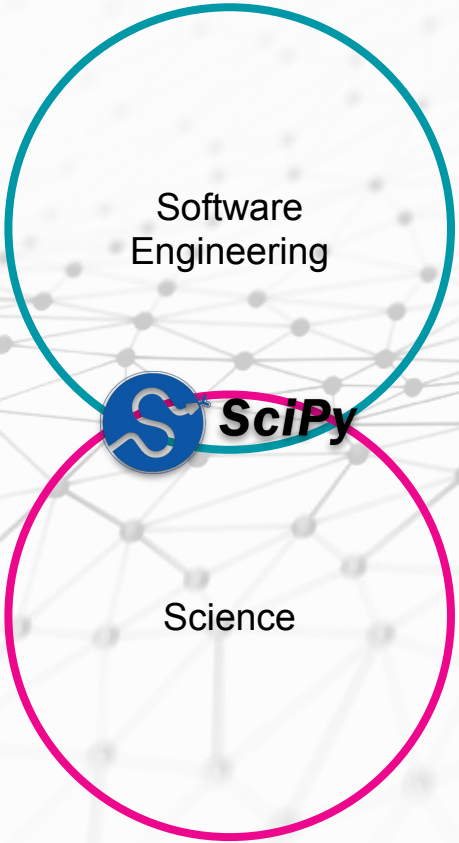
kubernetes

AWS

Challenges

- Packaging
- Standalone build and runtime
- Performance
- Distributed applications

Operating Data Science at scale is still not solved



DASK

jupyter

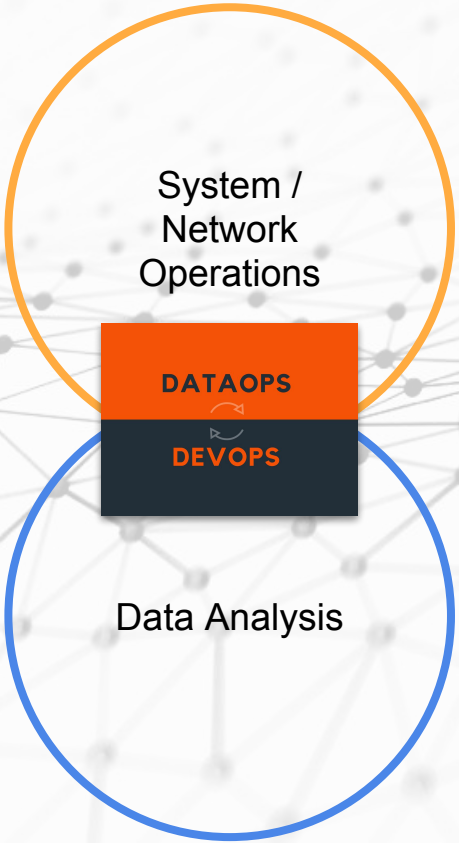
Challenges

- Production deployment
- Runtime integration

- Performance
- Scale

- Graph computation

Data paradigm is shifting to Event-Driven / Streams



kafka

Challenges

- Runtime integration
- Production deployment

Java Scala

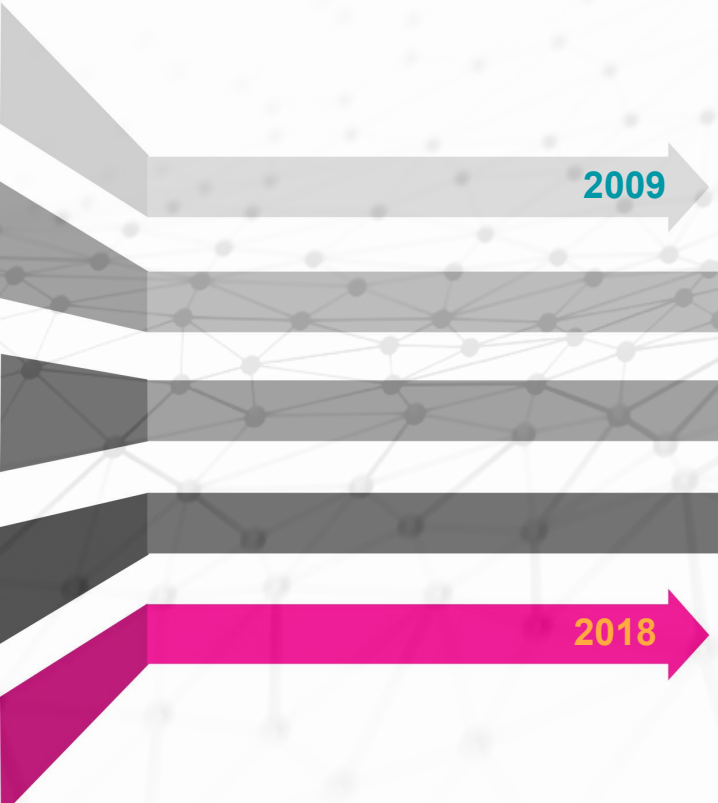
- Performance
- Scale

APACHE Spark Java Scala GO

- Distributed databases

Java GO

Take away



2009 **DevOps**, **Scientists** and **Data Analysts** start to adopt Python

2010 Python for the **Web** is becoming mature

2012 **numFOCUS** & **PyData** structurate Data in Python

2015 **DataOps**, **Event-Driven** Architecture and **AI** emerge

2018 Python is influenced by the **Data** challenges faced by **Data Science**, **AI** and the rest of its **wide range** of communities

Keep on rising, Python community!

numberly
1000mercis group

Thanks

@ultrabug

The rise of Python in the Data communities

communities

The rise of Data in the Python

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iooomercis group