OVHcloud

CLOUD EXPO EUROPE

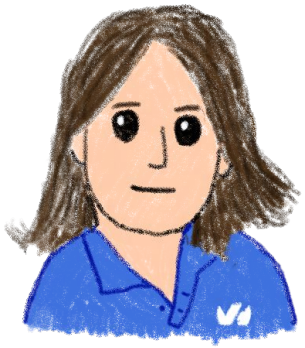
Cloud and Artificial Intelligence industrialization

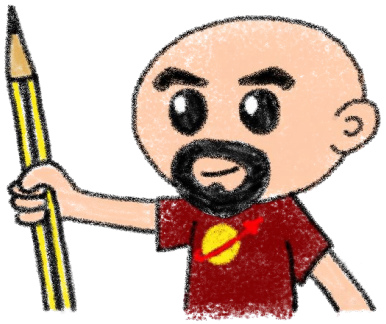
Matías Sosa & Horacio González

2021-10-27

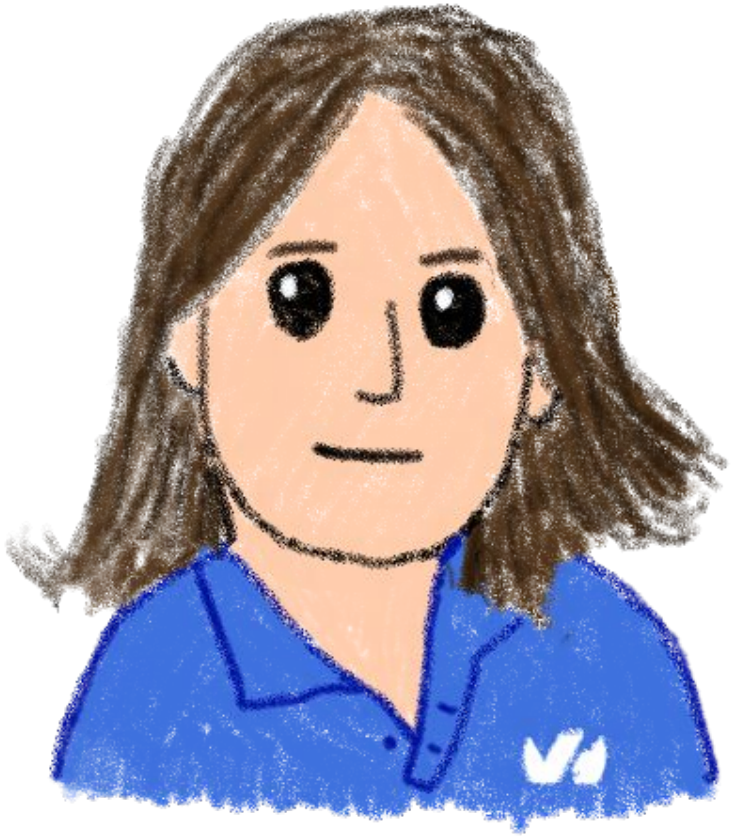
Who are we?

Introducing ourselves and introducing ~~OVH~~ OVHcloud





Matías Sosa



Marketing Product Manager

OVHcloud

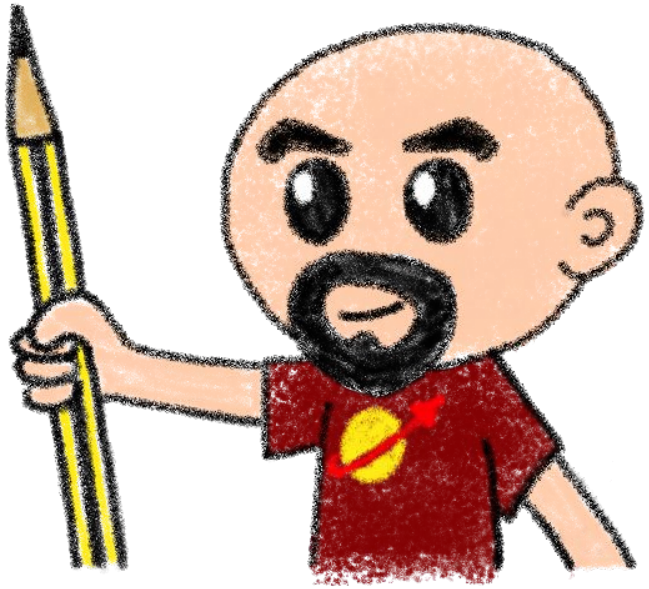
Horacio Gonzalez

@LostInBrittany

Spaniard lost in Brittany, developer, dreamer and all-around geek

OVHcloud

Head of DevRel



LES BRIQUES DU WEB

Finist Devs

DevFest du Bout du Monde

Google Developers Experts 2019

Web Technologies GDE

Flutter

OVHcloud: A global leader

- **Web Cloud & Telcom**
- **Private Cloud**
- **Public Cloud**
- **Storage**
- **Network & Security**

30 Data Centers
in 12 locations

1 Million+ Servers
produced since 1999

34 Points of Presence
on a 20 TBPS Bandwidth Network

1.5 Million Customers
across 132 countries

2200 Employees
worldwide

3.8 Million Websites
hosting

115K Private Cloud
VMS running

1.5 Billion Euros Invested
since 2016

300K Public Cloud
instances running

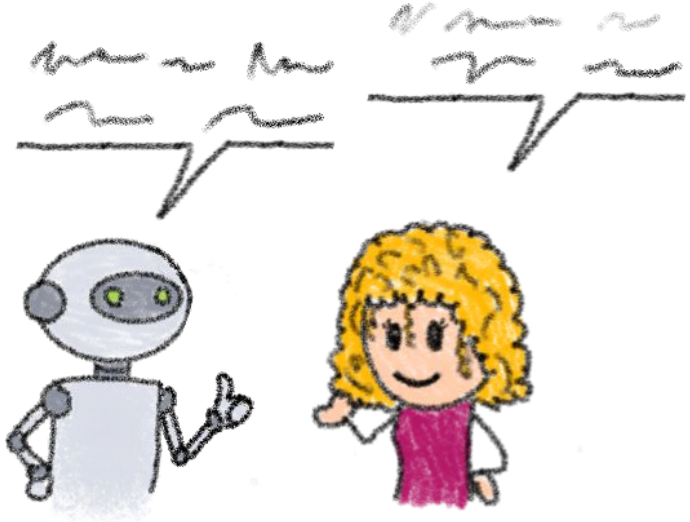
P.U.E. 1.09
Energy efficiency indicator

380K Physical Servers
running in our data centers

20+ Years in Business
Disrupting since 1999

The many faces of AI

And the people who work on it



We often identify two kinds of AI users

A

Doing AI

Startups, Tech companies
Public sector, governments
Services providers

I have data scientists in my company.

I need an **AI toolbox** to develop my projects

B

Using tools
« powered by AI »
Mid-Large companies
Public sector

I'm looking for **Out-of-the box data products powered by AI** ! A Chatbot, Fraud analyzer, a search engine, …

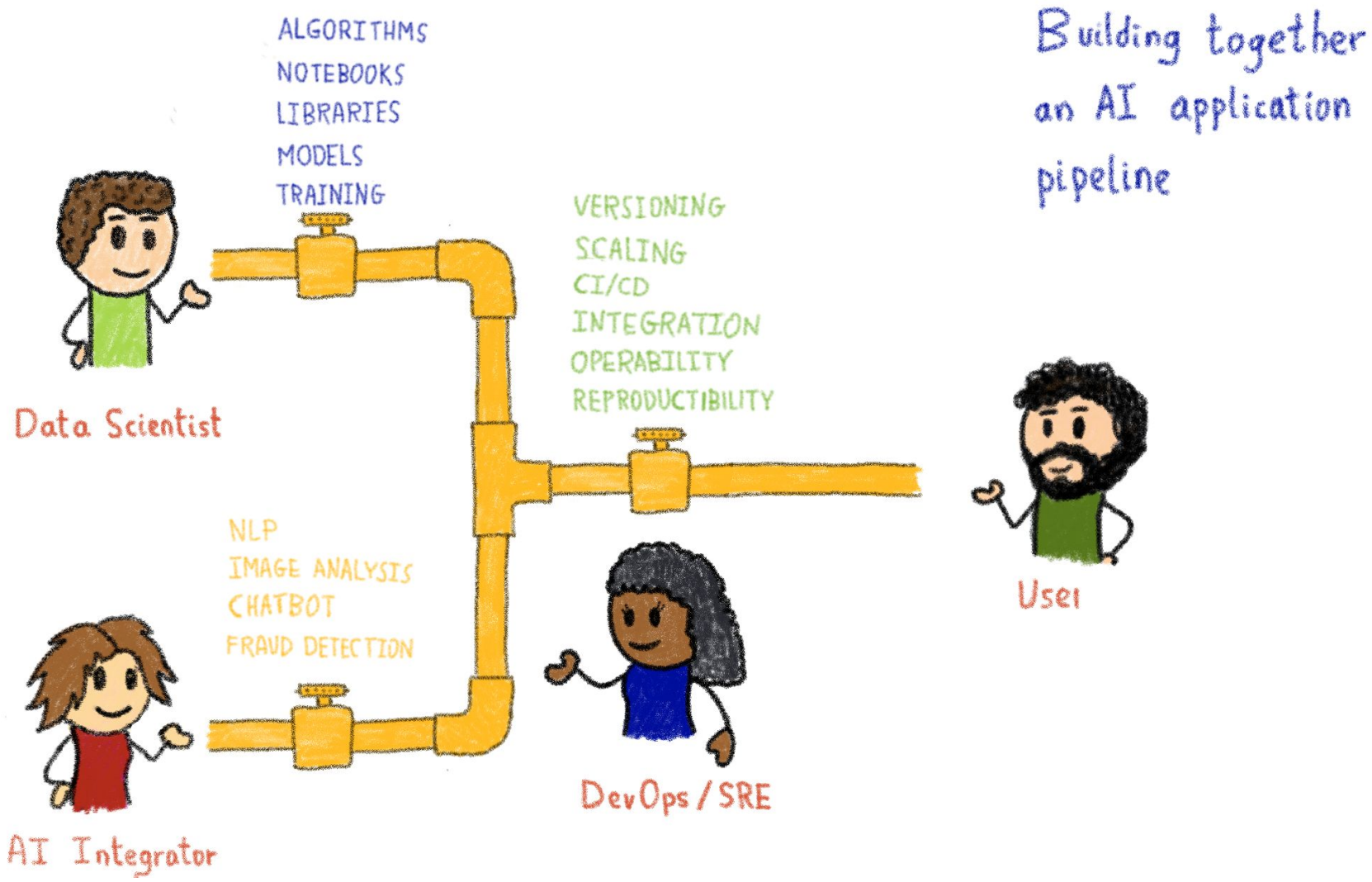
And, of course

- Simple
- Secured
- With privacy
- With cost control

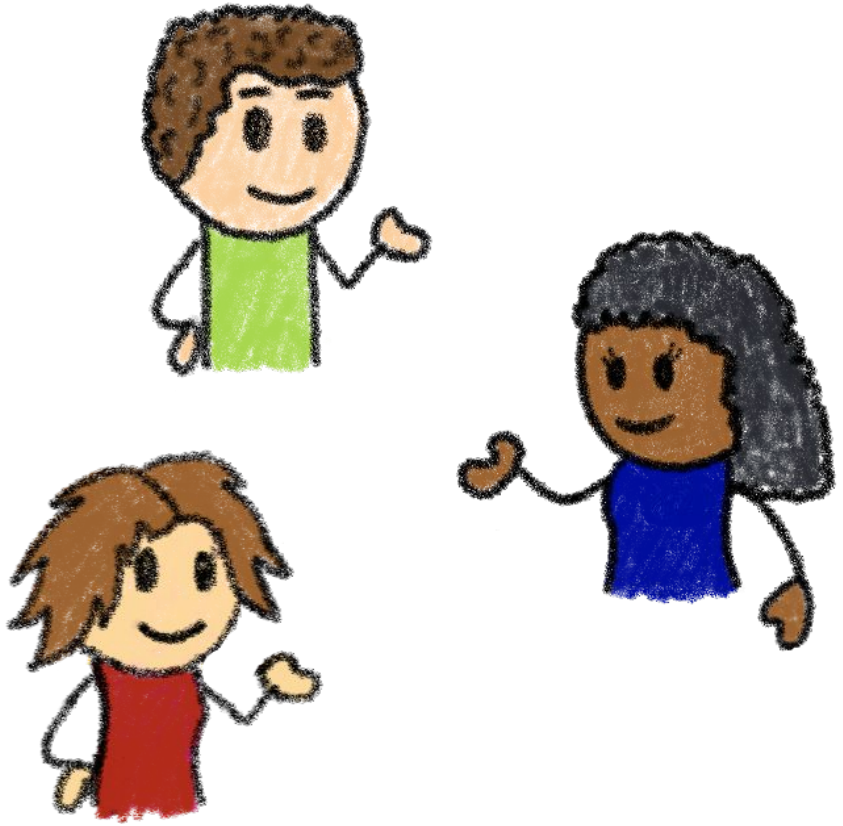
But there is a third one: DevOps/SRE

They speak different languages

But they need to work together



The challenge of integration



Integrating AI/ML & DevOps/SRE teams, process, and tools

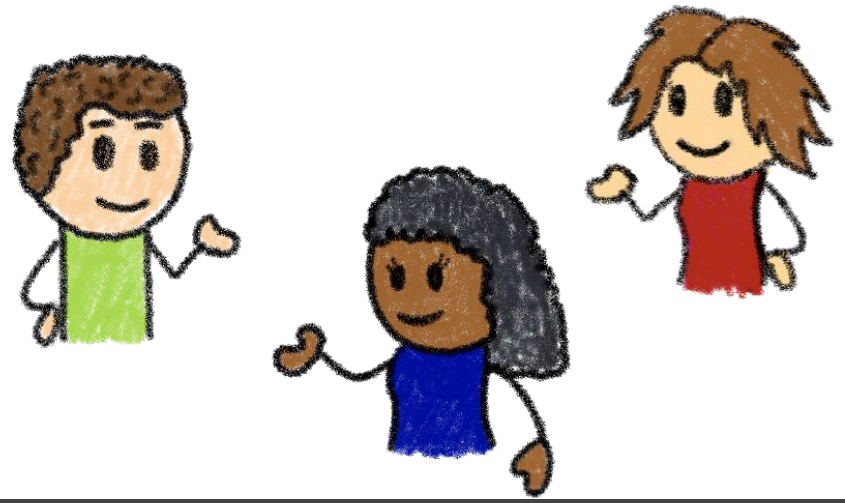
Many questions to answer...

We need to setup / use AI environments easily & quickly. Infrastructure? Not our job.

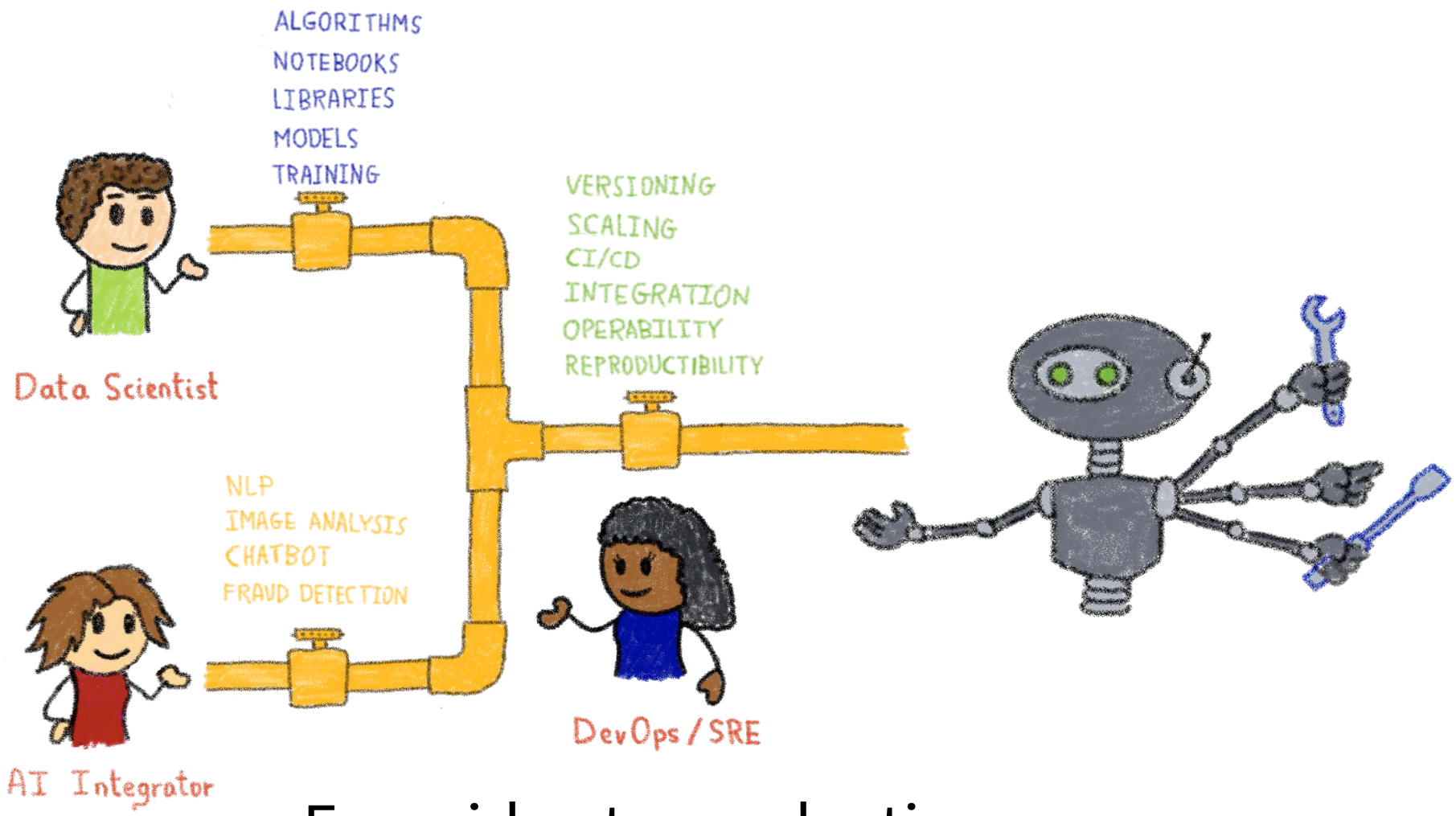
Our team needs to collaborate and have guaranteed access to resources.

Our needs for resources are evolving. We need scalability and pay as we grow.

How do we guarantee the security and compliance required for critical or sensitive data?



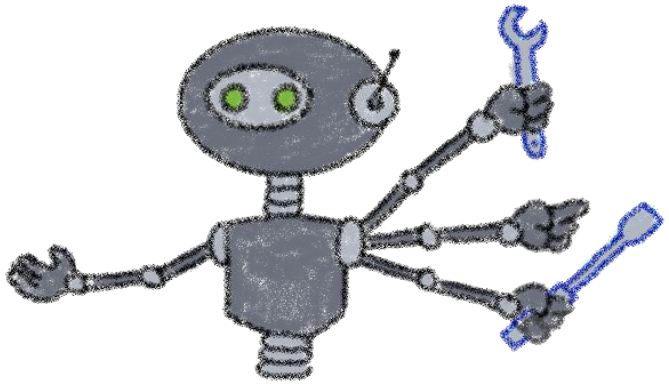
Automate the end-to-end pipeline



From idea to production

OVHcloud & AI

Our answer to AI pipeline automation



Our approach to tackle the problem

AI Solutions

AI hub ambition

Built with an ecosystem, our aim is to provide AI services (SaaS) out of the box: computer vision, NLP, …

B

AI platform

All the PaaS tools you need to build and host your AI projects

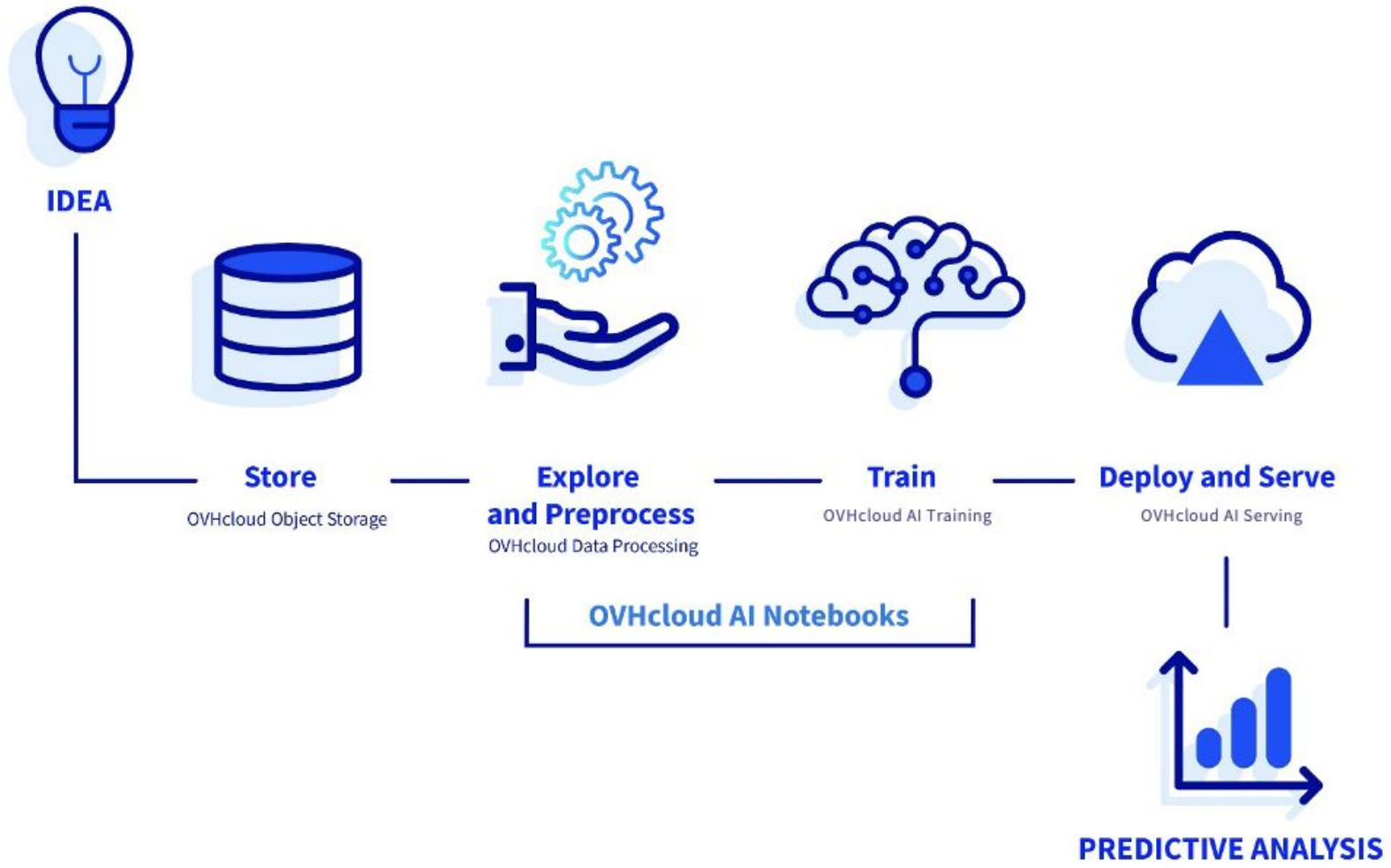
A

Our alternative Public Cloud

Based on European values, with European law and powered by Openstack open source cloud.

GDPR - RGPD ISO/IEC 27701 HIPAA

AI Platform



Managed services
from idea to production

- AI Notebooks
- AI Training
- ML Serving

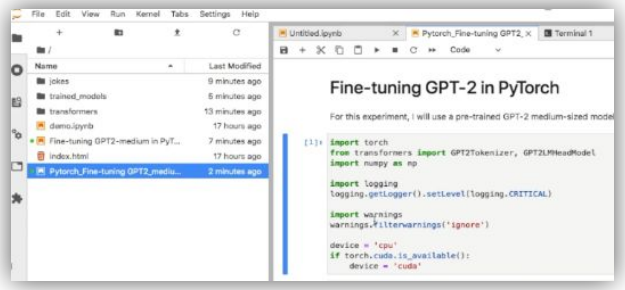
OVHcloud AI Platform

Store

OVHcloud Object Storage

Explore and preprocess

OVHcloud Data Processing



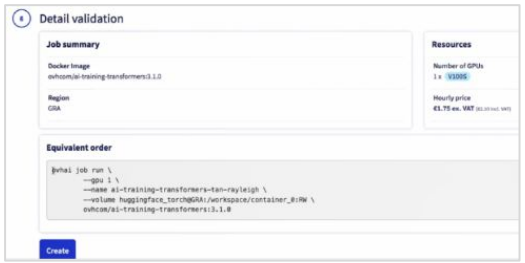
Each project step can be managed with **user-friendly AI Notebooks**

Visual Studio Code

jupyter

Train

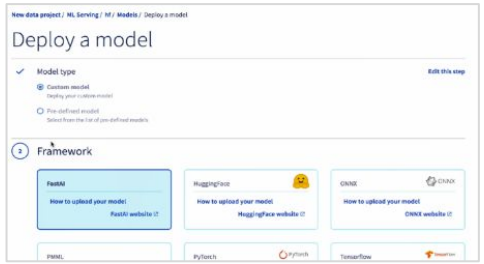
OVHcloud AI Training



Quickly train your model without complex setup configuration, allowing **CPU/GPU parallelization**

Deploy and Serve

OVHcloud AI Serving



Deploy your model with **industry-leading AI frameworks**

PyTorch TensorFlow fast.ai

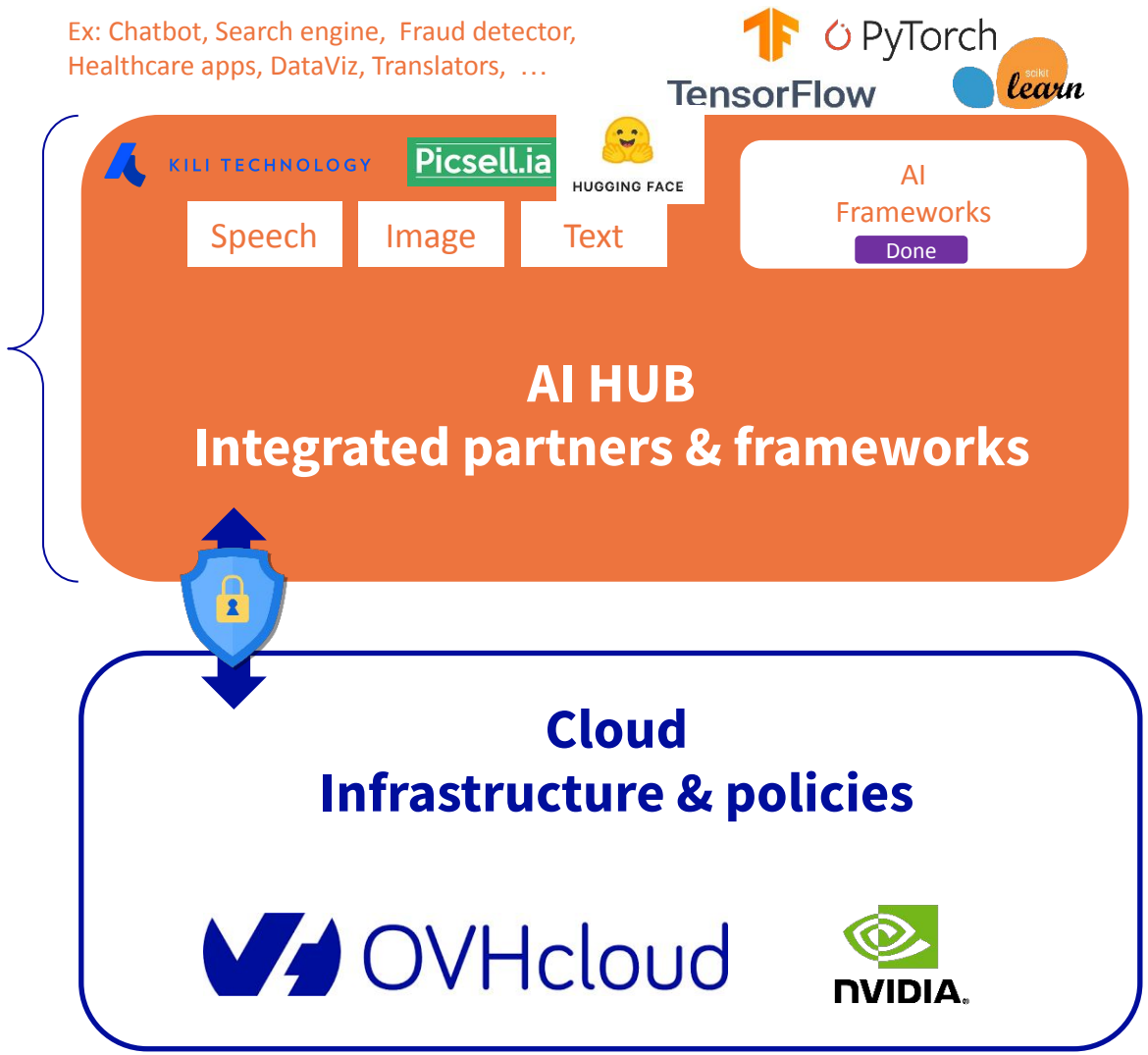
- Built on OVHcloud **trusted** and **secured cloud,** designed for **large dataset** (leveraging Object Storage scalability)
- Working with third parties to propose **out-of-the-box AI services** and **ready-to-use ML models** adapted to specific use cases (e.g., Healthcare, Transport)

OVHcloud AI Hub

AI hub

- ✔ Hosted on OVHcloud
- ✔ Fully integrated
- ✔ Easy to use (as a service)

More partners to come
(ETA Nov. 2021) Ongoing



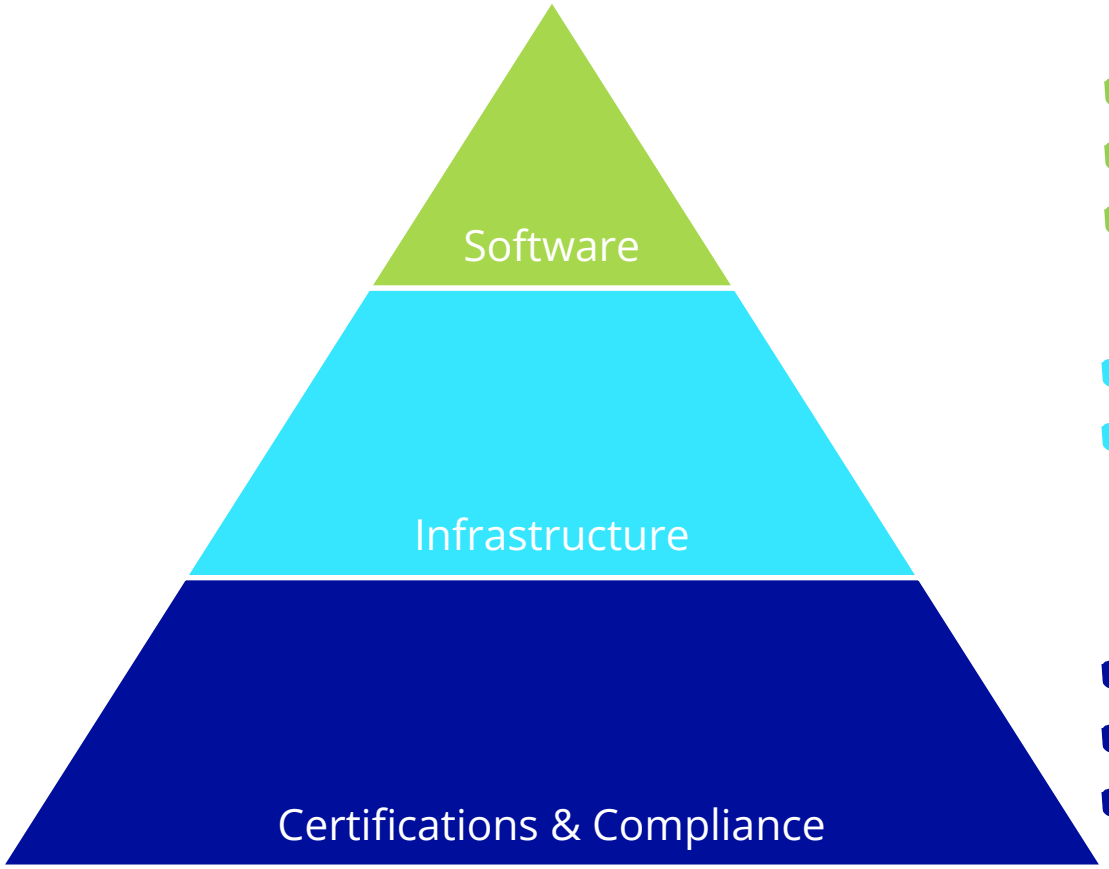
AI Services

Consulting
MCO
…

sopra steria · Capgemini · serco · HCL · THALES · Atos · devoteam

And more..

Secured by design



- ✔ Openstack-based public cloud platform
- ✔ Strong authentications mechanisms (Keystone)
- ✔ Fully managed by OVHcloud (no root access)

- ✔ Availability in multiple regions
- ✔ Clustered and resilient AI services by default

- ✔ ISO27001
- ✔ HDS/HIPAA
- ✔ GDPR

Pay as you go, simple, and aggressive pricing

GRA +
BHS

Object storage

Pay per GB, starting at:

0,01 € HT /month /GB to store
+ 0,01€ HT /GB traffic OUT

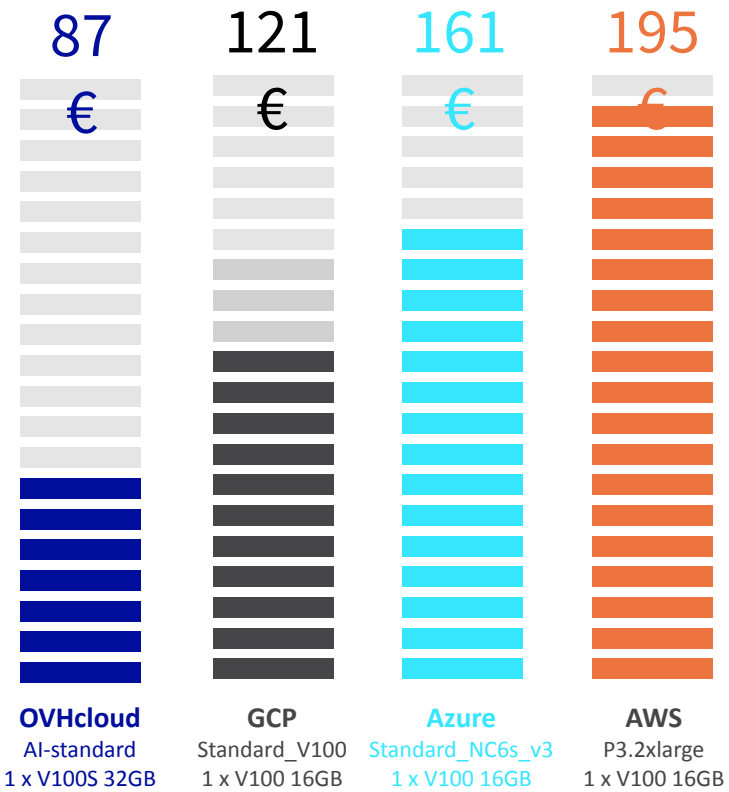
(example: 10TB = 100€ HT/month)

AI Notebooks / AI Training

Pay per GPU per minute, starting at:
1,75€ /hour /gpu (NVIDIA V100s 32GB)

Pay per CPU per minute, starting at:
0,03€ /hour /cpu (Intel Xeon 1vCPU + 4GB)

what's the cost of 50 hours of notebook with 1 x NVIDIA V100 GPU?



Prices in EU datacenters, without storage attached, no period commitment.

An answer to many AI questions...

We need to setup / use AI environments easily & quickly. Infrastructure? Not our job.

Managed services, no setup cost, no sysadmin skills required

Our team needs to collaborate and have guaranteed access to resources.

Object storage sync & linked to GPUs or CPUs

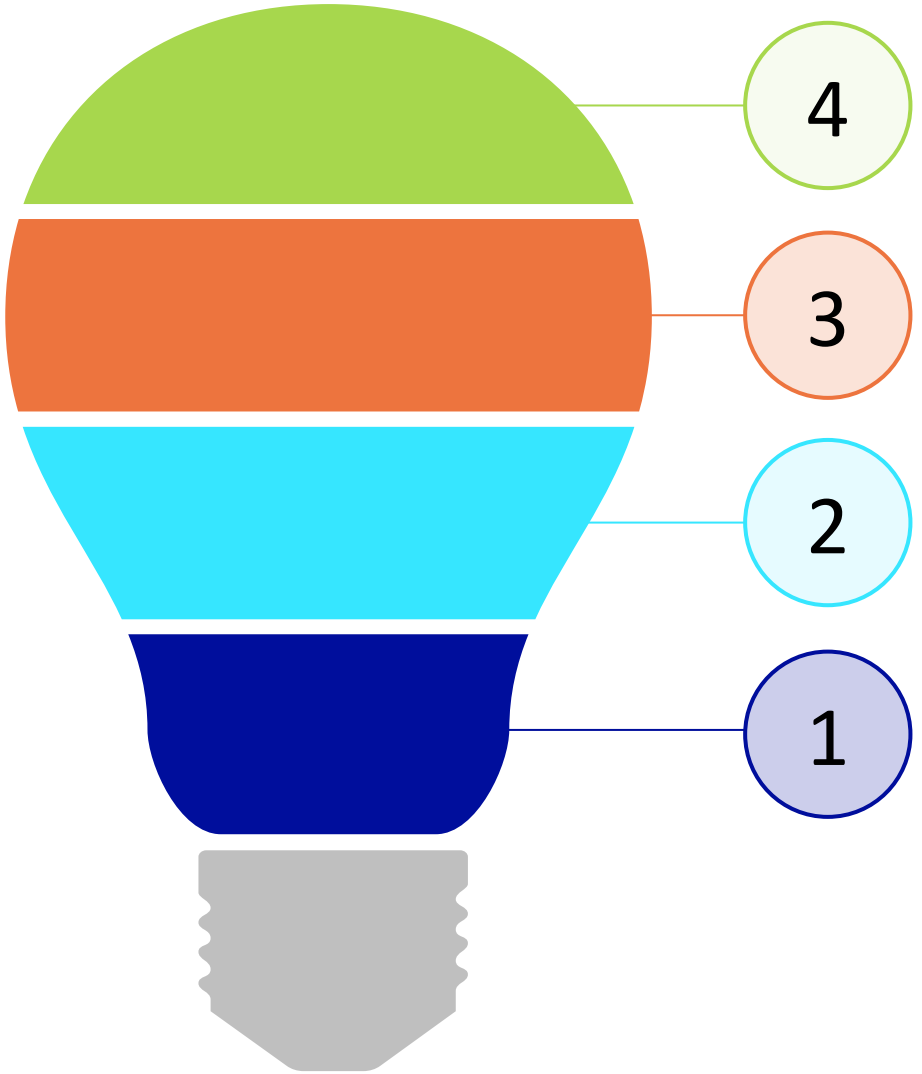
Our needs for resources are evolving. We need scalability and pay as we grow.

Simple & predictive Pay as you Go Per minute

How do we guarantee the privacy, security and compliance of our data and models in the Cloud?

GDPR compliant, ISO 27K1, HDS certifications

OVHcloud & AI: sum-up



For everyone, everywhere
Available anywhere in the world.
Can be launched by anyone in self-service

Made with communities
Working closely with worldwide AI communities and partners.

European sovereignty
European legislation, powered by open source

End-to-end AI offering
Built on 20 years of cloud experience.
With an open-source mindset

Some use-cases

Building AI together

Use-case#1: AI for Health Challenge 2020

OVHcloud infrastructure has been leveraged for
two projects in the **AI for Health Challenge 2020**

ASSISTANCE PUBLIQUE HÔPITAUX DE PARIS

Identify and **forecast** live cancer diagnosis with **AI algorithms**

institut Curie

Develop **AI algorithms** to help **therapeutic decision** to detect **lung cancer**

Partners

Région îledeFrance · OVHcloud · medicen PARIS REGION innovation for health · startupinside

- **16 startups** working on the projects
- **Isolated/secured** data and compute environment and **additional audit by APHP**
- Certified **ISO 27k** and **GDPR compliant** and **HDS**, **HIPAA**
- In line with **limited budget** leveraging **high-end AI infrastructure**
- **1m€** of reward for the **2 winner startups**

Use-case#2: Zaion

Context
Challenges

Context : Zaion is the European expert on customer relationships tools : callbot, welcomebot, Chatbot, ….

Their main differentiator: Strong accuracy, enhanced feature (detect emotions)

Challenges : lot of data (audio) to play with. Need a lot of GPU power and low latency with their datasets.

Products

Hello, I may have the covid ! What should I do ?

Hello ! First can you describe the symptoms ?

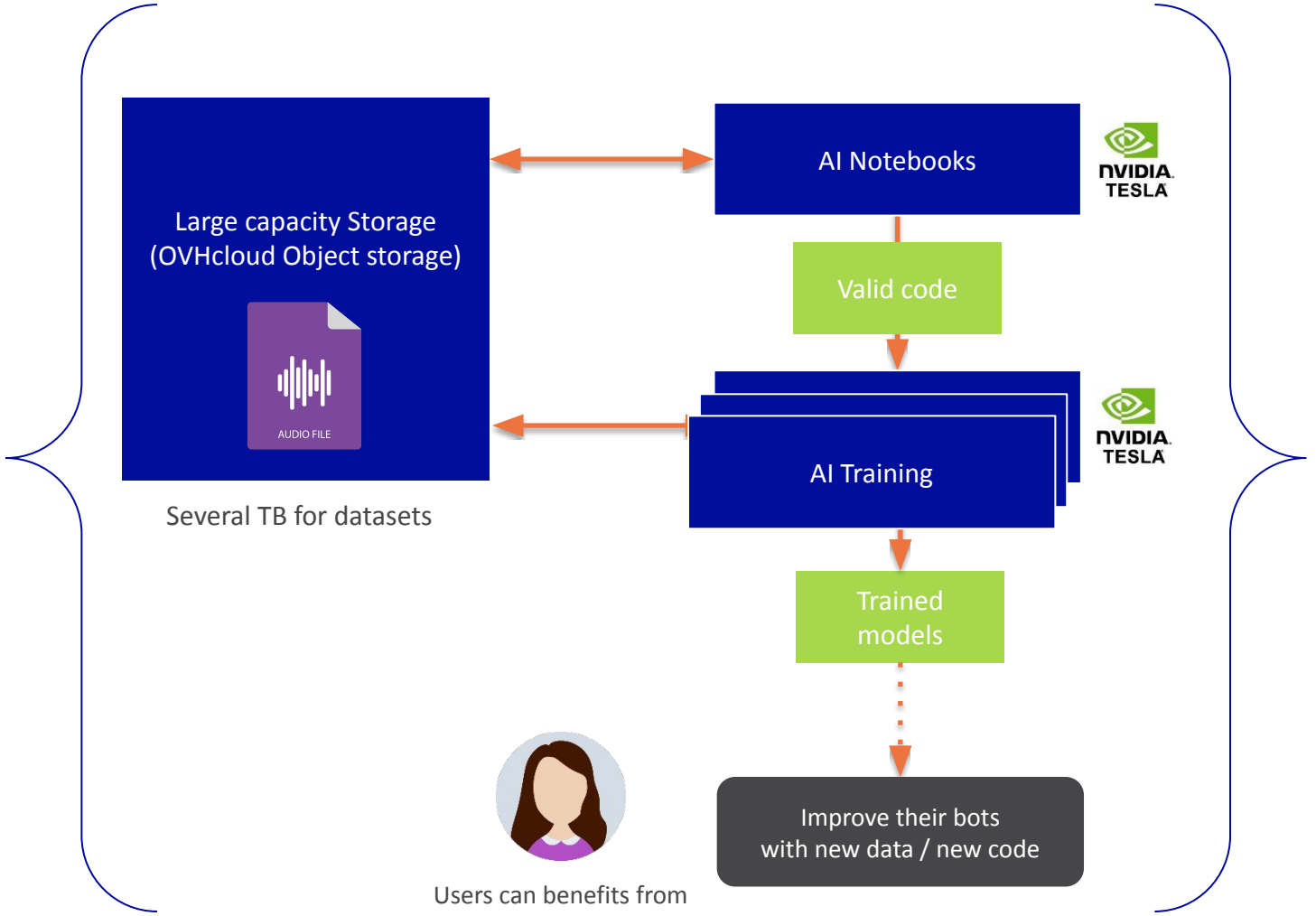
Zaion bots

- Voice recognition (Speech to text)
- Emotions detection
- Answers generation

Use-case#2: Zaion

Infra used

- 7 GPUs in parallel
- 20 TB of data



Challenges solved

- ✔ Ability to work on huge datasets
- ✔ Lots of GPU in parallel
- ✔ Low Latency between data/GPUs
- ✔ No more infra to maintain
- ✔ They gain time

Do you want to know more?

16-17 November 2021

That's all, folks!

Thank you all!