

OVHCloud K8s DevOps & Agility in a Product Team

Horacio Gonzalez 2020-07-09





Who are we?

Introducing myself and introducing OVH OVHcloud









Horacio Gonzalez



@LostInBrittany

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

















OVHcloud: A Global Leader



200k Private cloud VMs running

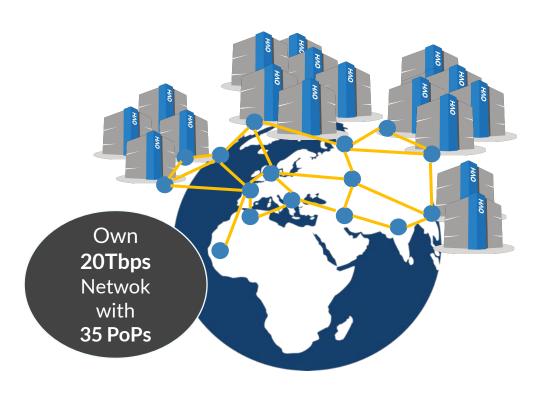


Dedicated IaaS Europe

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Hosting capacity: **1.3M** Physical
Servers

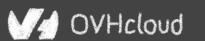
360kServers already deployed



30 Datacenters

> 1.3M Customers in 138 Countries







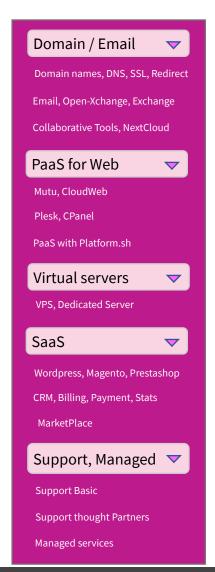




OVHcloud: 4 Universes of Products



WebCloud



Baremetal Cloud



Public Cloud



Hosted Private Cloud







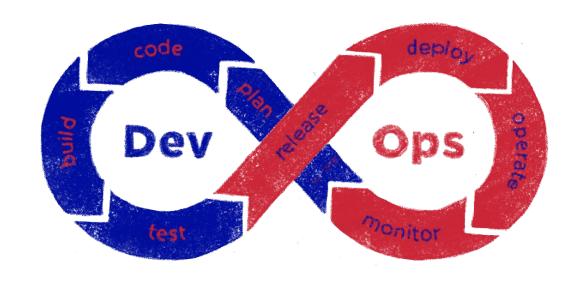






DevOps at OVHcloud

You build it, you run it









A small fish in a big pond







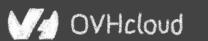






Needs to be adaptable, flexible, quick





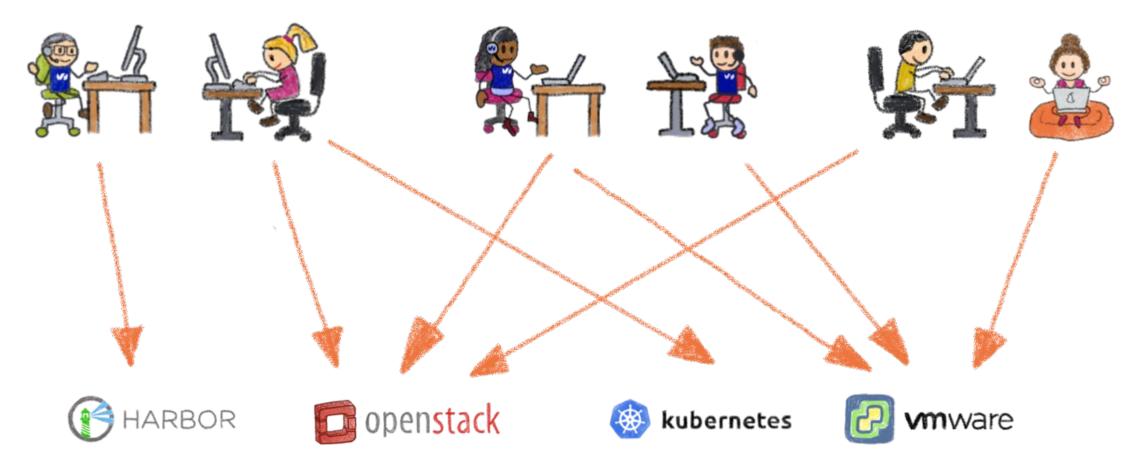






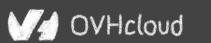
Huge range of products





For a comparatively small technical staff







With a wide variety of technology









































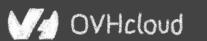






Open source, non open source and self built 🖊











Only a way to keep up





You build it, you run it

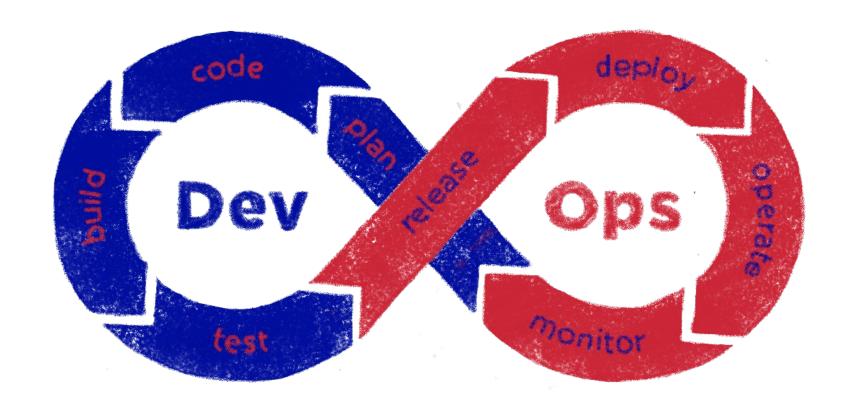






The DevOps approach was natural





Even if not always fully structured









Let's create a new product

OVHcloud Managed Kubernetes



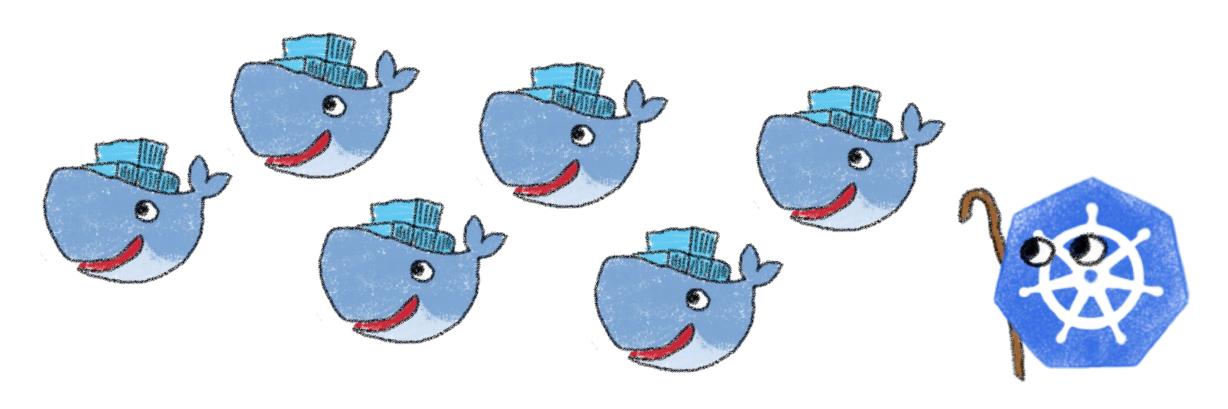






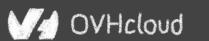
In 2018 we decided to build a product





OVHcloud Managed Kubernetes

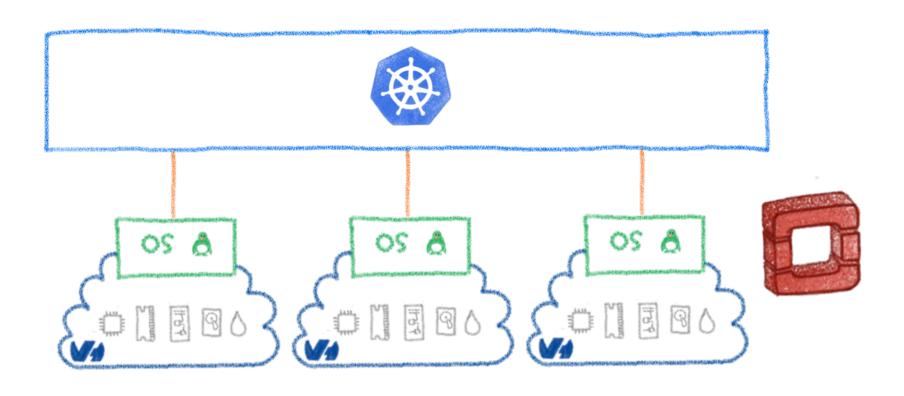






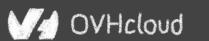
Build over our Public Cloud





We leverage on our OpenStack expertise





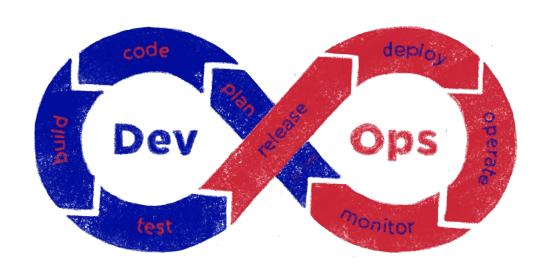


Building a team for the project



A small DevOps team to:

- Bootstrap the project
- Build the product
- Operate it









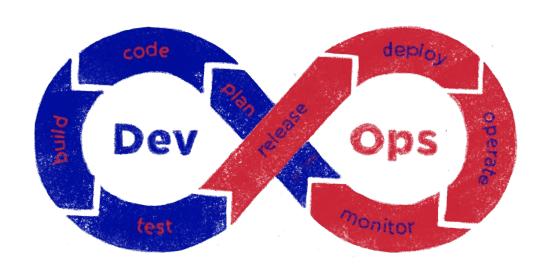


A balanced mix of skill needed



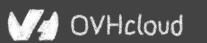
At the beginning of the project:

- Architects
- Developers
- Sysadmins/Ops







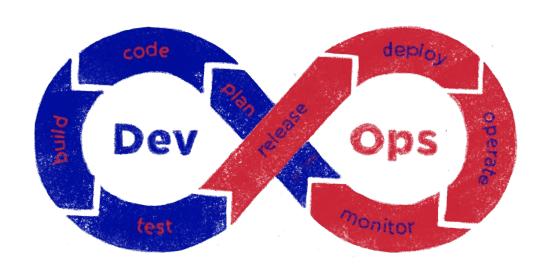




But a clear objective

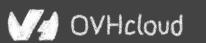


By the end of the projects, having DevOps











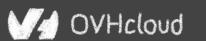


Everybody on call

The most direct road from Dev to DevOps









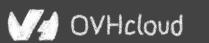
Developers need to be on call





- Engineering is about building and maintaining services
- On call should not be life-impacting
- Services are better when feedback loops are short







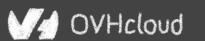
On-call duty needs to be humane





- Paid on-call duty
 - Flat rate per rotation period
 - Call out fee for responding to an alert.
- Enough people in rotation
 - Between 5-10 people
- Flexibility
 - Allowing people to swap on call time
- Curated alerts
 - Not all systems or errors deserve an on-call alert
- A clear escalation policy
 - And level 2/3 on-call duties





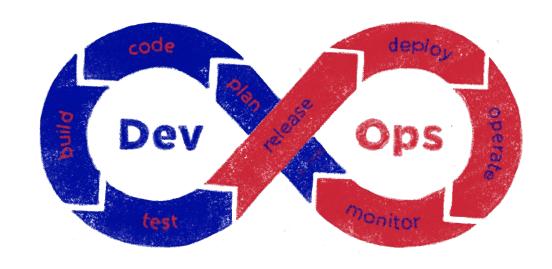






Building it for efficiency

Because we need to facilitate operations



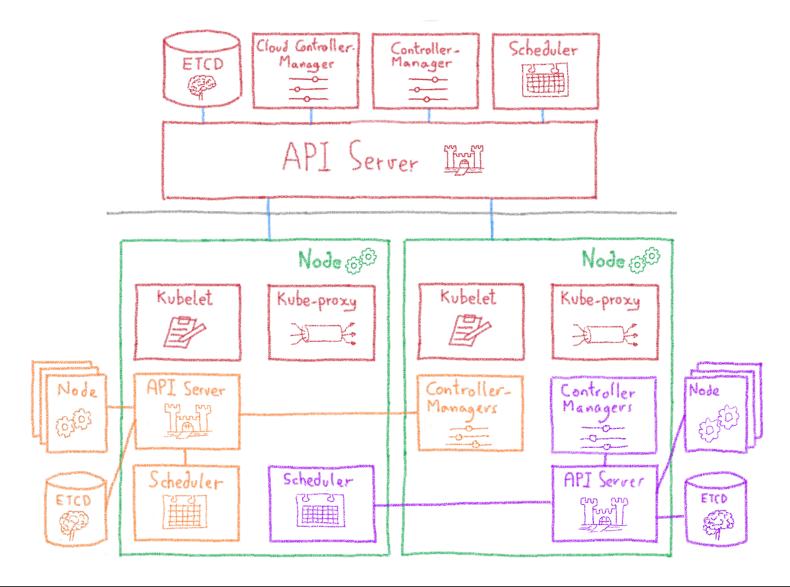






Kubinception: running K8s on K8s





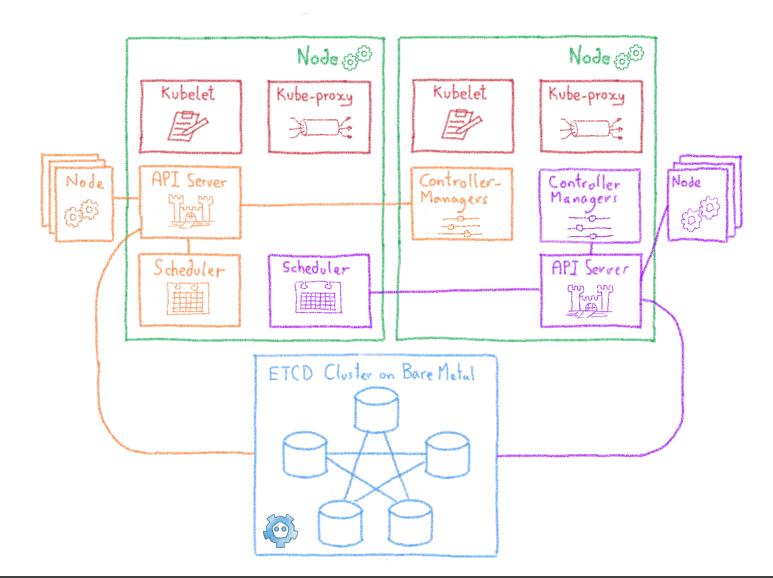






And the ETCD







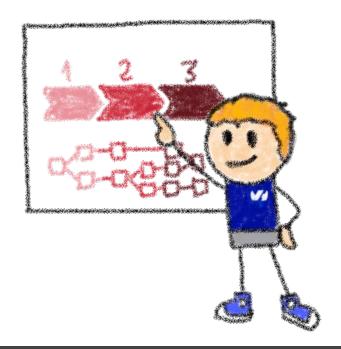






And the agility in all that?

The keystone of the whole project and DevOps approach







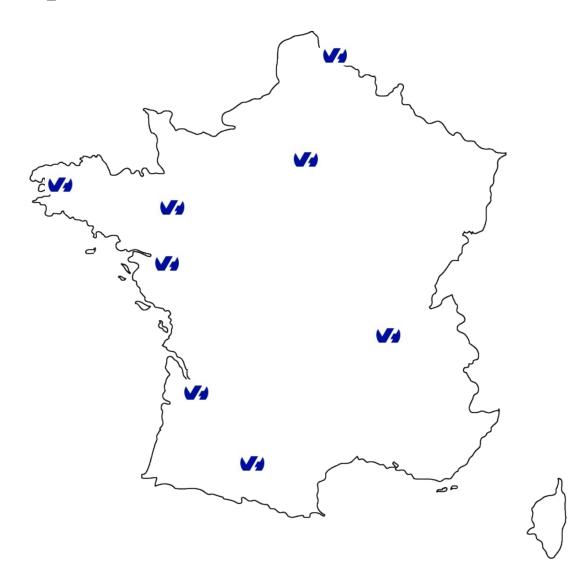






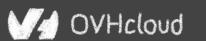
DevOps teams all around the country





- Roubaix
- Paris
- Rennes
- Bordeaux
- Toulouse
- Lyon
- Nantes
- Brest







Tools & Methodology







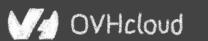


« SCRUM »

« Farmer's Wisdom »

« KINTSUGI* »







What do we mean by agility?











A team with prejudices about Agility





"Being Agile? This is a trick to justify a failure in project management."

"The Scrum does not work for development teams, it is for managers"

"Scrum is only useful to watch and control us"

"Scrum? We tested 3 years ago, we quickly understood that it was not for us..."







1st step: building trust

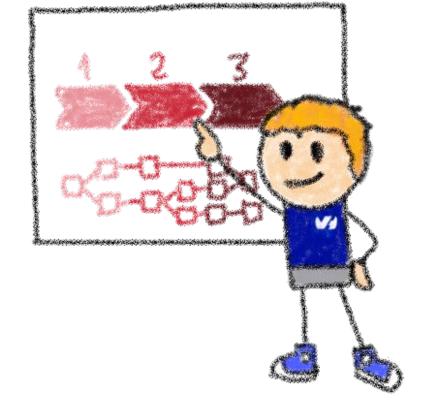


"I'm here to give you visibility"

"We will create value together"

"Your rhythm will be respected"

"We will keep our commitments"









2nd step: team engagements



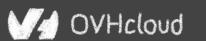
"We respect the rules of Scrum"

"We track our Impediments"

"We respect our tickets' lifecycle"



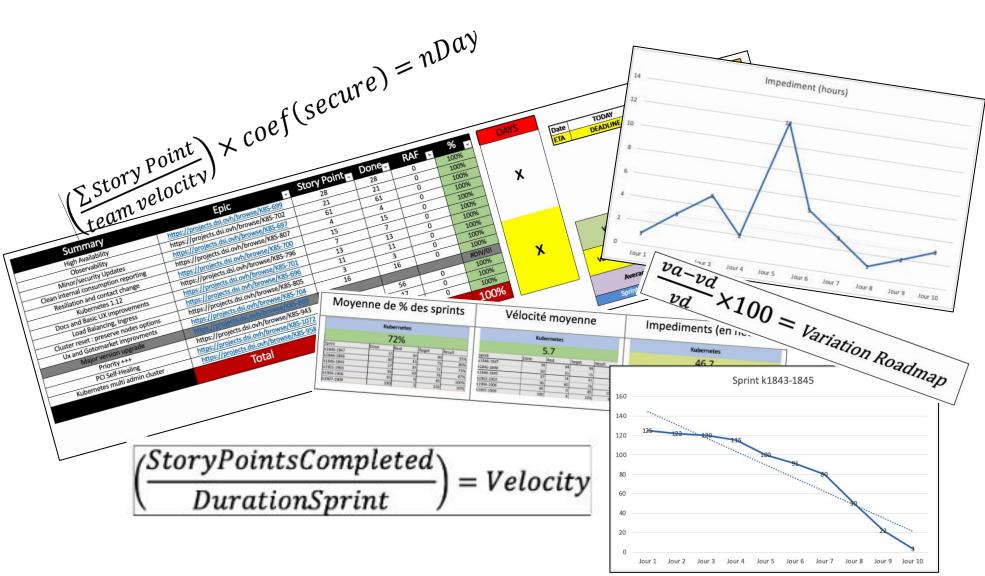






3rd step: convince with numbers and metrics!











Agility and real life of a DevOps team



"I have a customer who came to ask me to solve a problem"

"I am too often disturbed to fix bugs!"

"I didn't have time to finish the ticket, I had to deal with an emergency"









Impediments

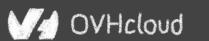






Unexpected tasks asking for immediate attention and diverting time from scheduled tasks

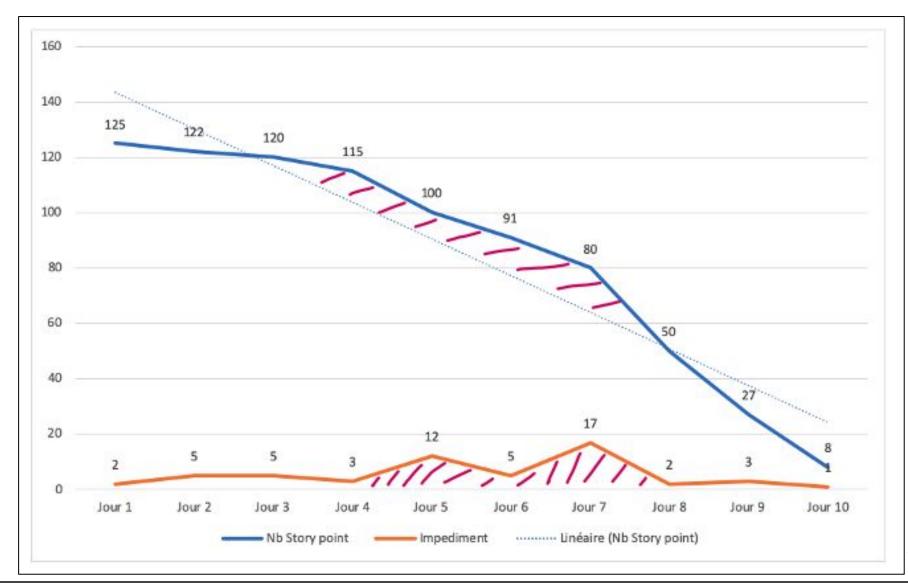






Tracking burndown and impediments













- ✓ Decision making
- ✓ Vision
- Creation of value
- Respect for the rhythm of the team







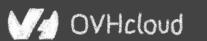


4th step: agile telemetry







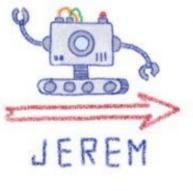


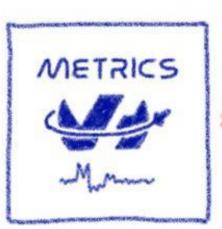


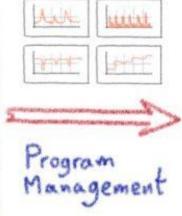
Agile telemetry workflow



















Extracting metrics from Jira

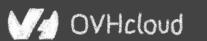




bot.jerem

Language	Golang	
JIRA	API Scrapping	
Metrics	HTTP POST	
DataBase	Warp10	

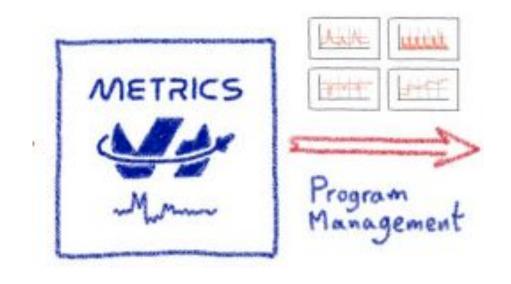






From metrics to visualisation





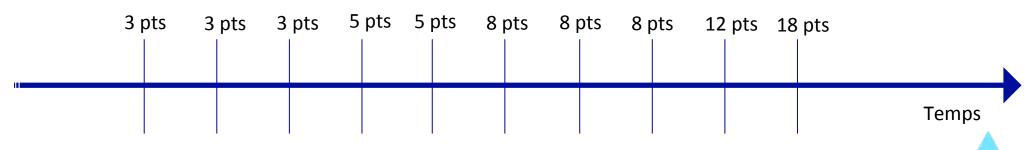
Example :

Objet OB

1 Objet

Epic : Alpha

Information: taches DONE



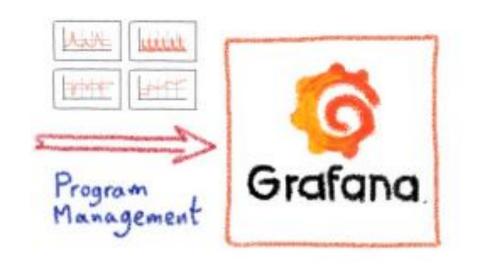
Interval régulier envir : 20min

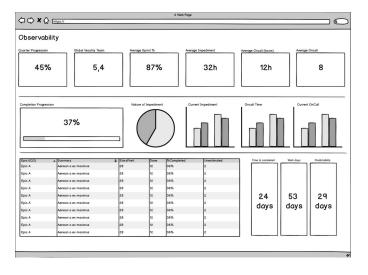




And then to the dashboard









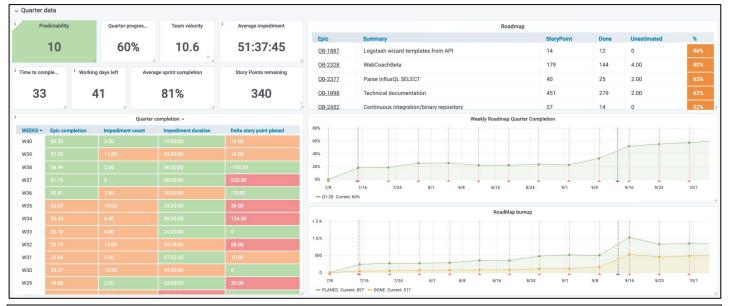






OVHcloud agile telemetry







MACRO

- Top management
- Product Marketing
- Program Manager

MICRO

- Equipe de dev
- Scrum Master
- Technical leader











Last but not least...





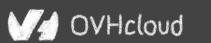
"We have kept our promises, with a fairly good level of quality" - Developer

"We don't apply the method mindlessly, we adapt it" Developer

"Product release with good visibility and accuracy" - Manager

A convinced product team











That's all, folks!

Thank you all!





