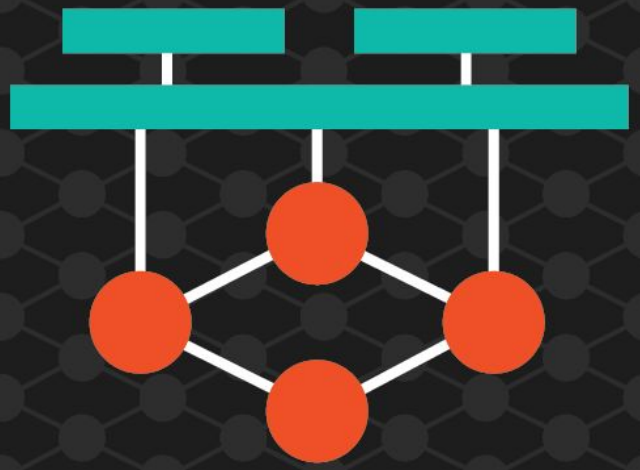
September 25 - 27, 2018
Amsterdam, The Netherlands



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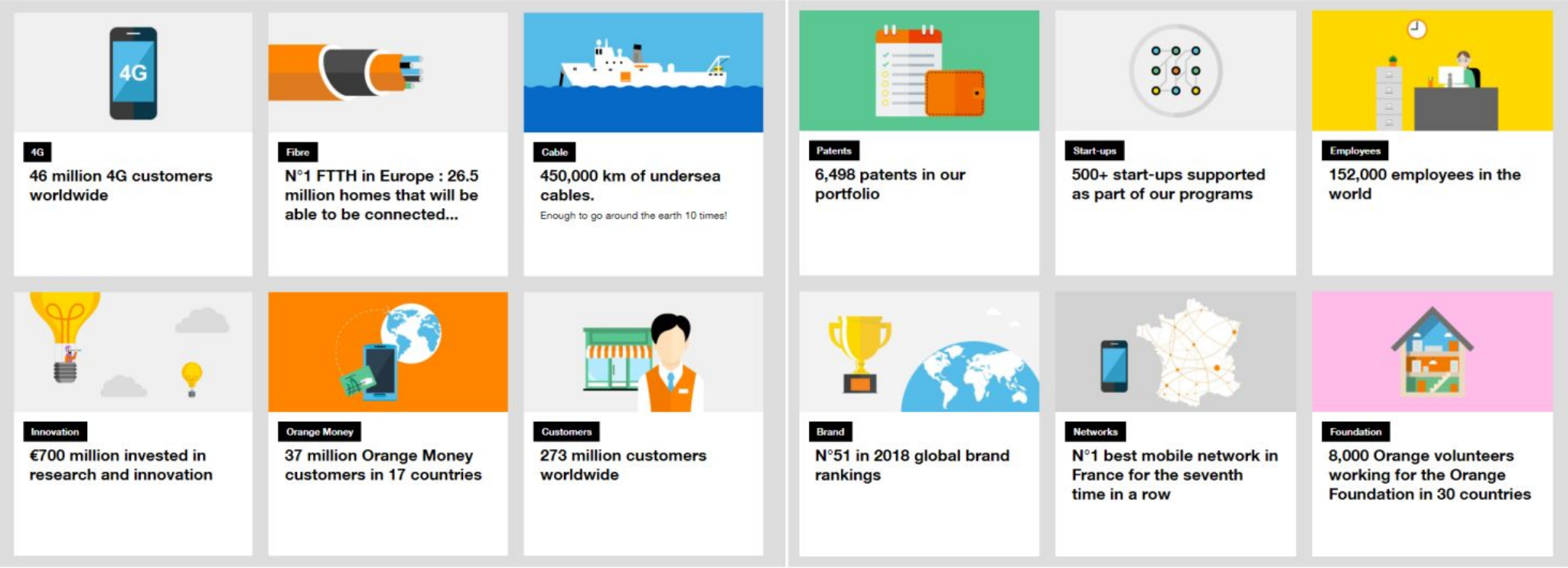
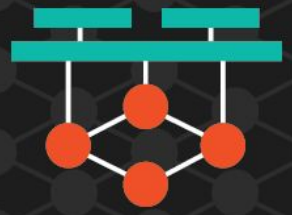
Orange Openlab: A Full Automated Telco Stack for the Community

David Blaisonneau & Nicolas Edel, Orange

Introduction





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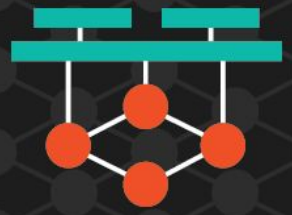
"**At Orange**, we are using **open source** to **speed up** the **industrialisation** (hardening) of technology and ensuring open APIs — to help us partner and create new opportunities to deliver a better customer experience. **LFN projects** help solve some of the challenges that come with SDN/NFV by **reducing the time and effort required for network transformation**, specifically in the areas of simplified and **automated operations**, **NFV Infrastructure/VNF validation and onboarding**, **network service design/onboarding and interoperability**."

Jehanne Savi, Executive Leader of the All-IP and On-demand Networks Programmes. May 2018



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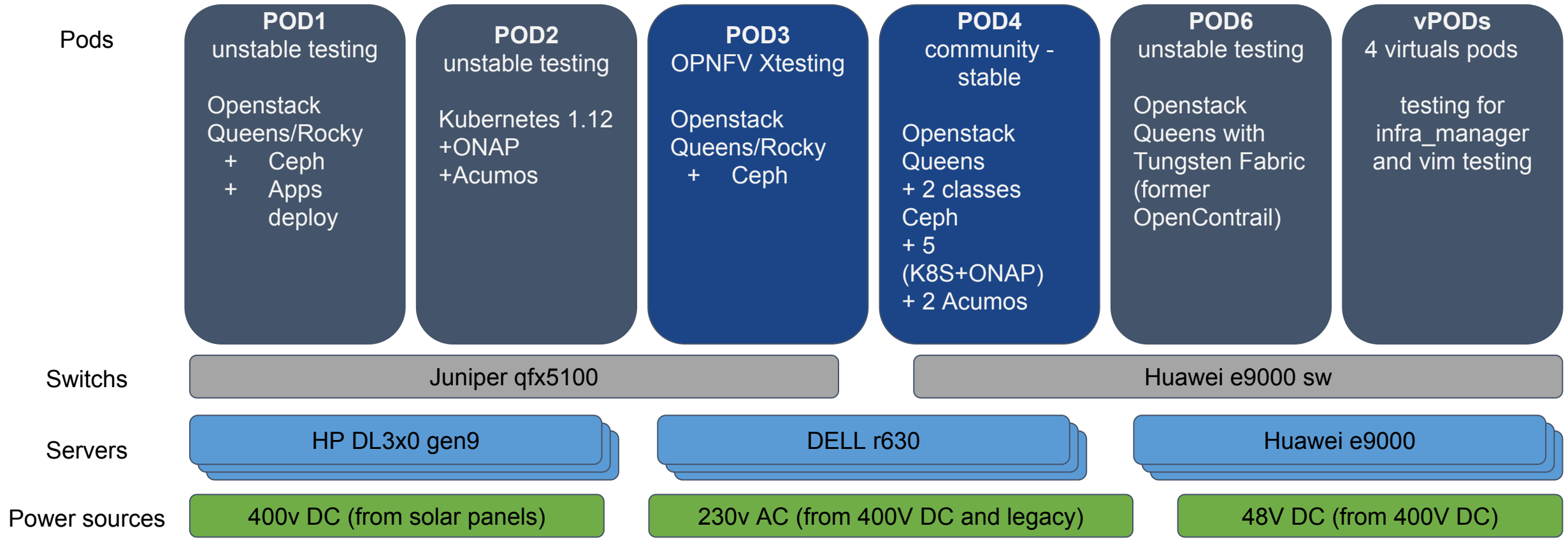
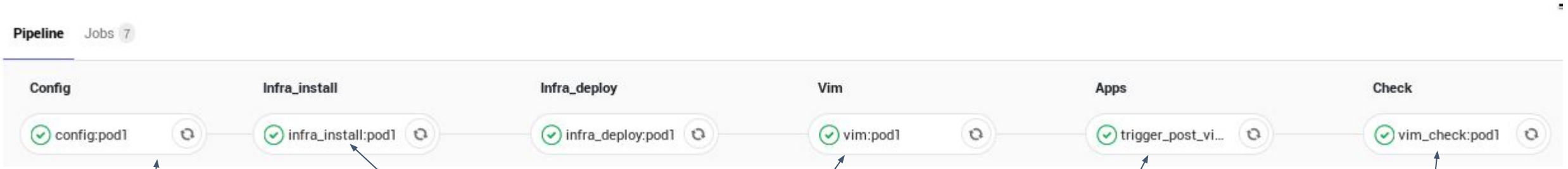
Why creating an Openlab?

- to Learn (infrastructure, automation, methodology)
- to Control and stay master of our infrastructure
- to Save interoperability testing time by opening the lab to partners
- to Be actor of the ecosystem
- to Face real operational issues as soon as possible

Openlab overview



Automate, of course



We start from 2 files describing the infrastructures (Infrastructure description file and platform description file) on a preconfigured network topology

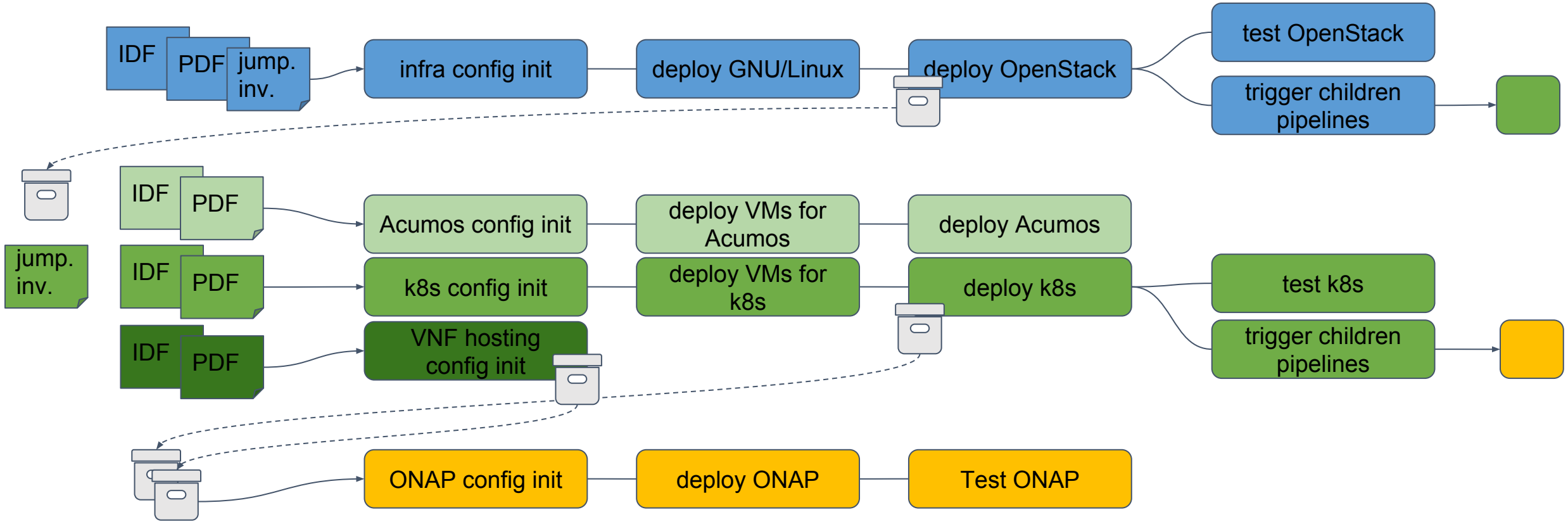
We configure the Bare Metal servers (OS, Network,..)

We deploy Openstack (Thanks Kolla!)

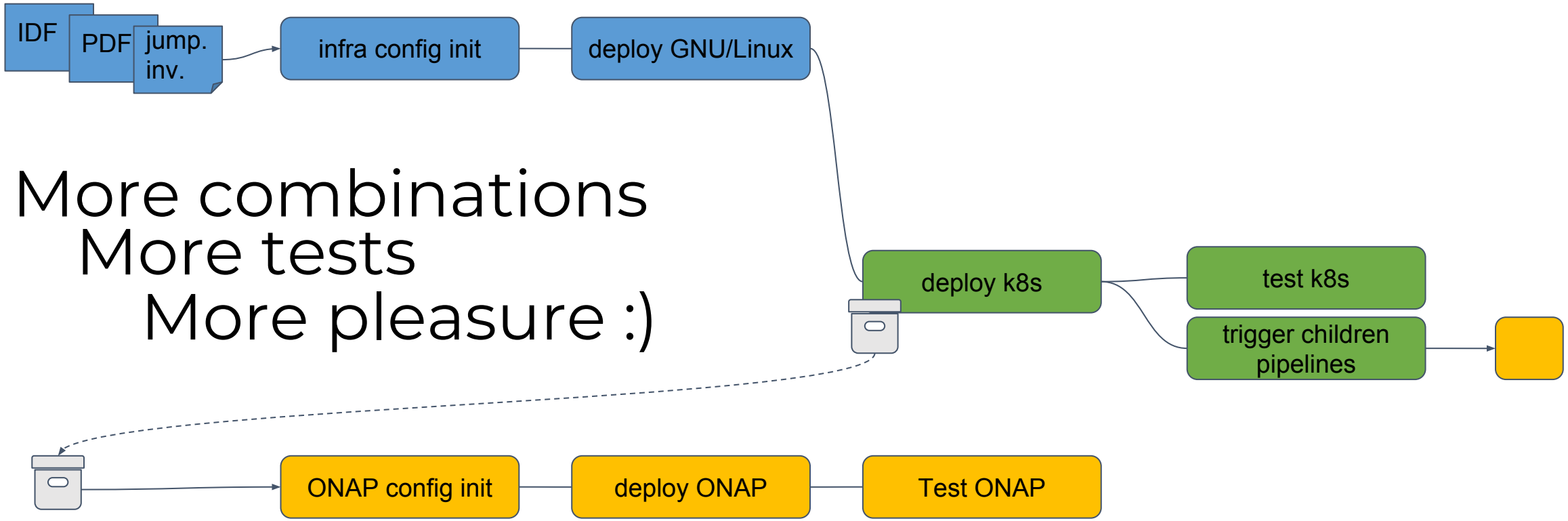
We trigger post vim install applications pipelines

We run OPNFV test suites (Functest) to check that the VIM is working as expected

Automate, and chain pipelines

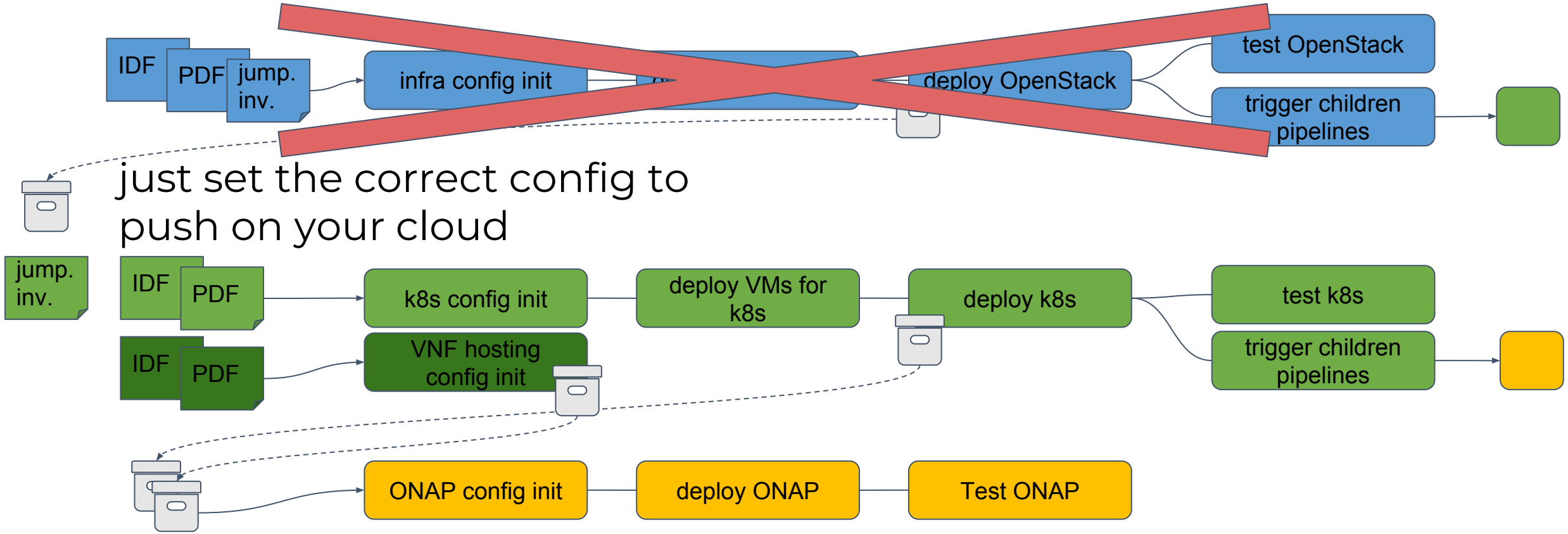


Automate, and un-chained pipelines



More combinations
More tests
More pleasure :)

Automate, and just deploy the part we need



And deploy the needed version

ONAP 2.0.0

ONAP Beijing

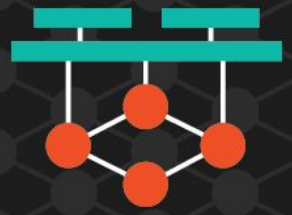
ONAP master

planned

Acumos master

Acumos Athena

planned



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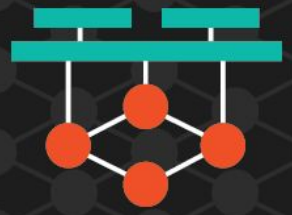
Openlab

- 1 ONAP community lab: Orange Openlab
- 1 POD for Functest PTL (no resource from LF)
- 1 planned Acumos community instance

+ Internal ONAP instances (daily, tests)
+ Tooling



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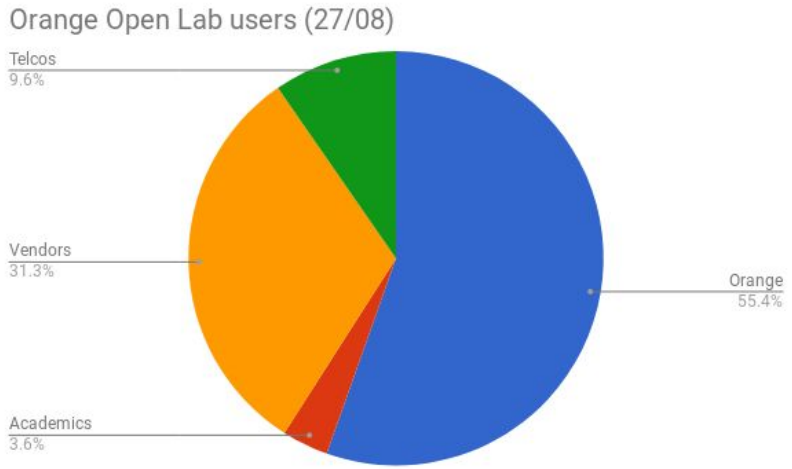
Openlab Facts & Figures

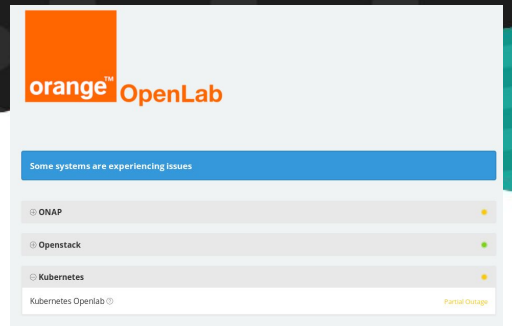
- 5 PODs
- 35 servers
- 1684 threads

+ 6200 Go Ram
+ 112 To of disks

Openlab Facts & Figures

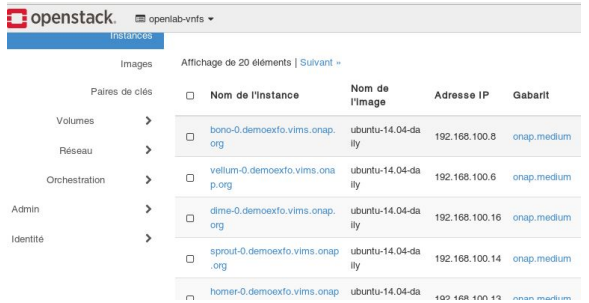
- 75 users
- 55% Orange (including affiliates, operations)
- 31% Vendors
- 10% Telcos
- 4% Academics

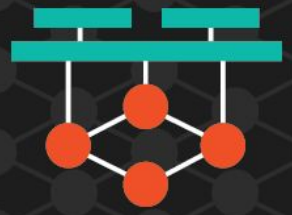




What does Openlab access mean?

- Access to a stable ONAP instance
- Access to an OpenStack tenant to test onboarding/instantiation
- Access to tools (e.g. VVP portal for ONAP VNF checks prior to onboarding)





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Who can access?

- Any ONAP contributor: test, integration, VNF onboarding
- Orange can revoke the access if resources are used in an unappropriate way
- No SLA (Best Effort)
- Open IRC chan: #onap-orange
- Mailing list: onap-openlab AT list.orange.com

How to access?

Send a mail to onap-openlab@list.orange.com with:

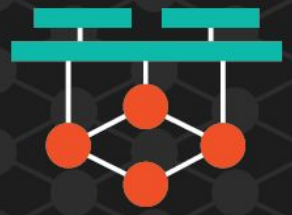
- Name
- Company/university
- Nature of the work you want to do on ONAP
- Public ssh key
- Start and end date

cf *https://wiki.onap.org/display/DW/Orange+OpenLab*

After a quick check, the creation of the user is … automated

Perspectives

- More PoCs and activity on the OpenLab
- Provide more VIM configurations (E.g. Openstack + Tungsten Fabric)
- Focus on use cases and not on deployment
- More ONAP CI chains & better feedback to the community
- Open source internal projects
- Keep on integrating and automating simple E2E tests
- Play with Acumos



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Thank you

Visit our booths during ONS

- OpenLab on LFN booth
- NBI/TMF API for ONAP on Orange booth

orange™ OpenLab

Other presentations during ONS

26/9 13:50: Lightning Talk: Artificial Intelligence the Next Digital Wave for Telcos - Jamil Chawki, Orange

26/9 14:30 Accelerate the VNF Integration - Jehanne SAVI, Orange

27/9: 11h15 LFN Xcommunities Testing - Morgan Richomme & Cedric Ollivier, Orange

27/9 14:30: Be Active in Networking Open Source when you are a Service Provider - Eric Debeau & Morgan Richomme, Orange

27/9 16:05: SDO + Open Source: When TMF APIs Meet ONAP - René Robert & Matthieu Geerebaert