



## Yardstick

NFV Infrastructure verification  
from VNF perspective

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# Agenda

- Introduction
- Yardstick Framework
- Methodology
- Yardstick Test Cases
- Yardstick and T-NOVA

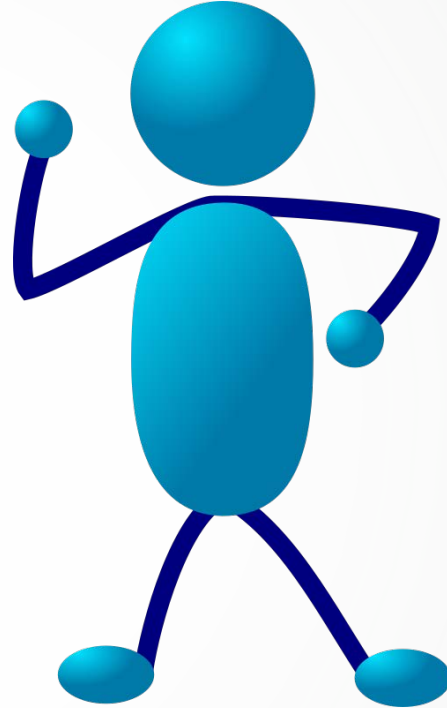


Hello ! 

Let me start ...

by asking something ...

... about **you**



Are you interested in ... ?

**Methodology**

**VNF APPLICATIONS**

**Testing**

**Code Quality**

**SW Development**

**Big Data**

**Analytics**

**NFV infrastructure**

Good !!!

So, now back to business:

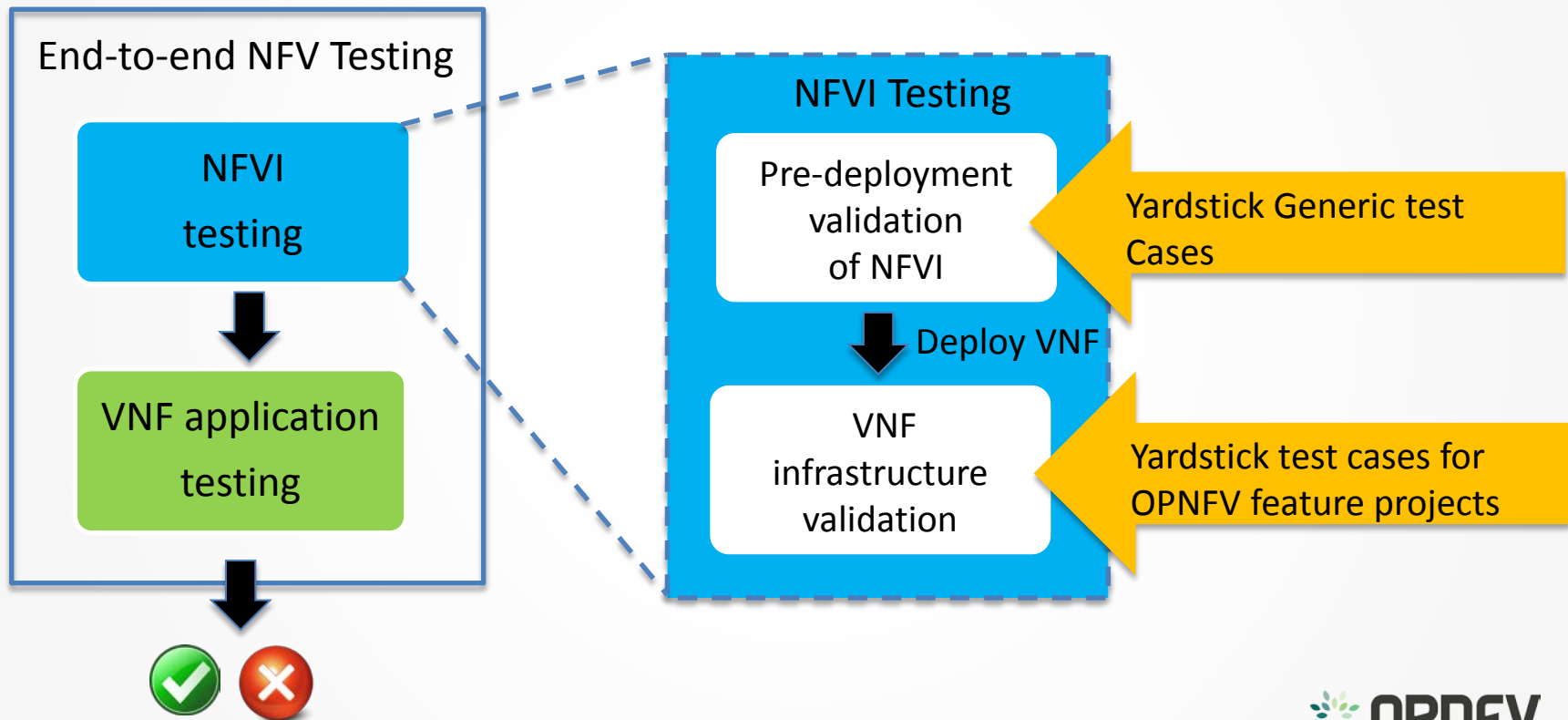
YARDSTICK is:

A framework, yes...

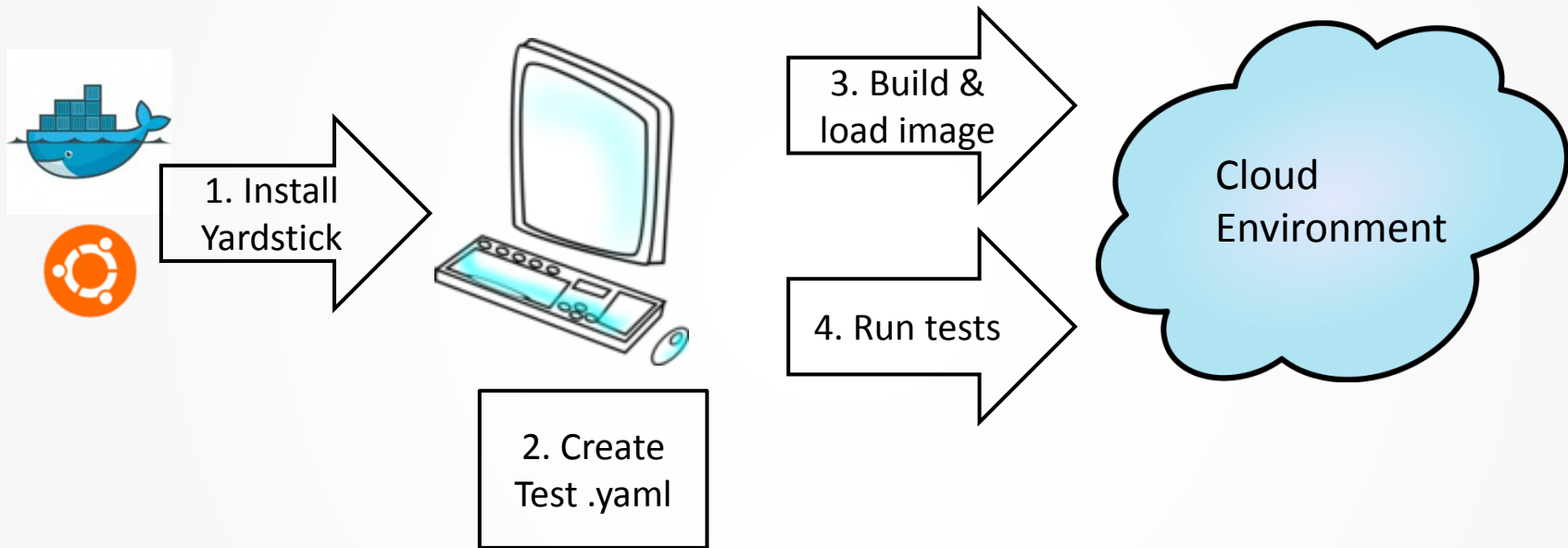
... but more than a framework !

- ✓ Generic test cases for NFVI testing
- ✓ SLA verification
- ✓ Methodology aligned ETSI-NFV TST001
- ✓ VNF vTC

# Where do we fit ???

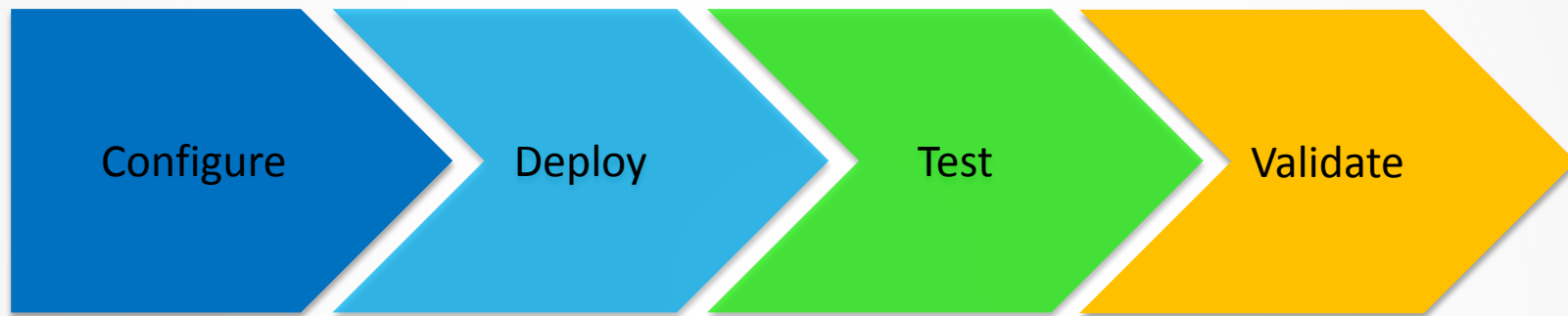


# Get started with Yardstick !



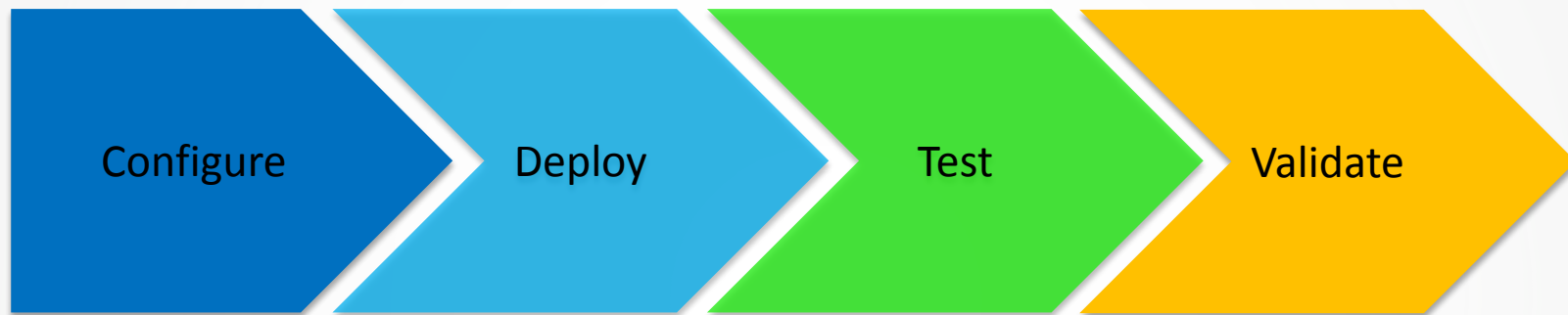
[Yardstick installation video](#)

# The Yardstick framework





# The Yardstick framework



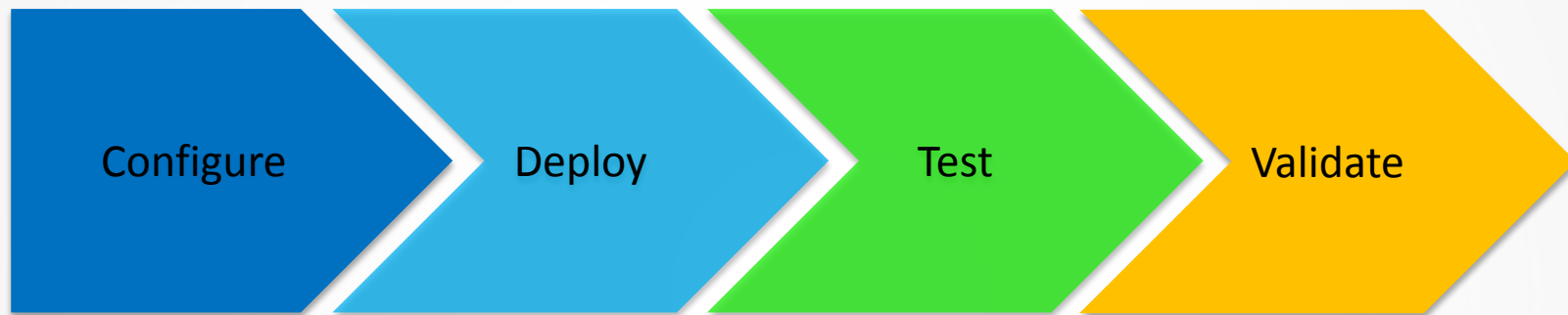
## **SUT configuration**

Specify context(s), scenario(s), runner(s)

Yardstick Task File .yaml

Supports Jinja2 syntax

# The Yardstick framework



## Deploy context(s)

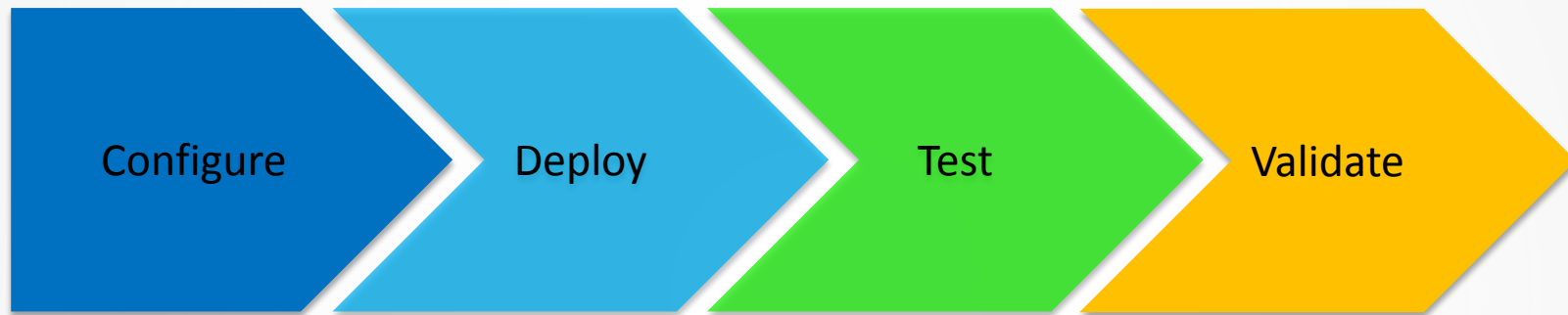
Cloud:

- OpenStack Heat, OVF, LXC
- Feature: SFC, VPN

Node:

- Baremetal
- Controller
- Compute

# The Yardstick framework



**Execute scenarios (benchmarks) for a duration (runners)**

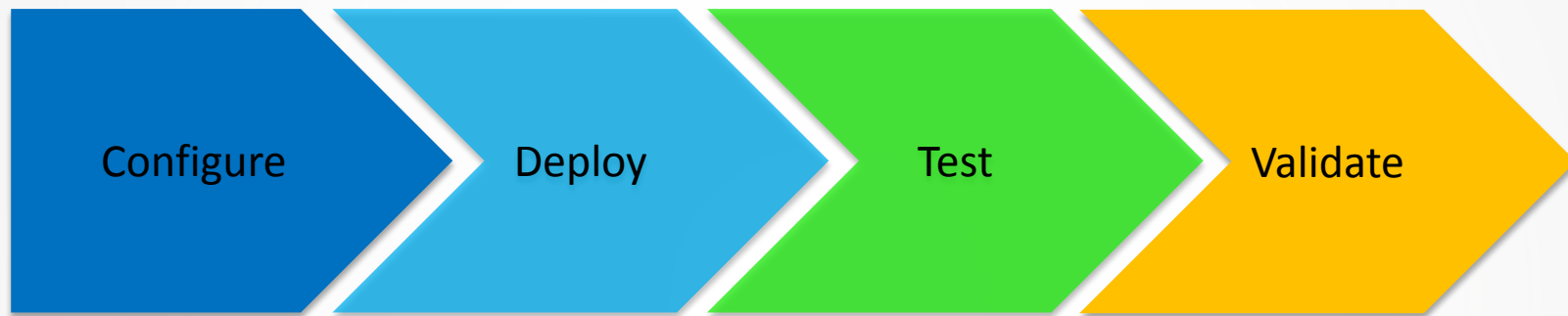
Runners:

- Arithmetic, Iteration, Duration, Sequence

Scenarios:

- Compute, Network, Storage

# The Yardstick framework



**Results: monitor or verify SLA**

Common Result API

Verify SLA and/or monitor

# Yardstick and Code Quality

Flake8

Unittest

Functional test

Code coverage

# Yardstick and [OPNFV CI](#)

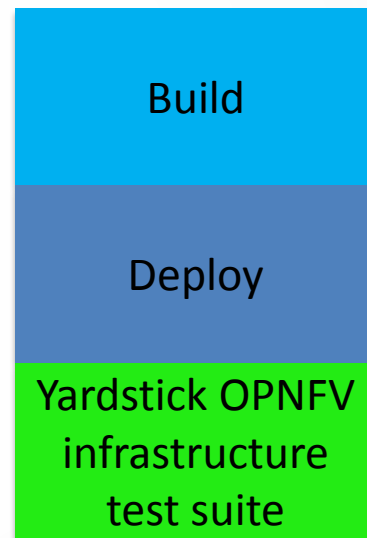
Yardstick-Verify



Yardstick-Merge



Yardstick-Daily/Weekly



# Methodology

Aligned with ETSI GS [NFV-TST001](#)

Decompose the workload in metrics

Metrics represented by test cases

Combine test cases for complex scenario verification

YARDSTICK

## Yardstick Test Cases

- ☑ Generic Test Cases for NFVI verification (compute, storage, network)
- ☑ Test cases for OPNFV Projects: HA, SFC, SDNVPN, IPVSIX, VNFFG, KVM
- ☑ Execute Yardstick Generic Test cases for OVS4NFV, ARMBAND
- ☑ **Your need ?**



# Yardstick and [T-NOVA](#) contributions

A VNF, the Virtual Traffic Classifier



- VNF sample with two components
  - Traffic Inspection (DPI module)
  - Traffic Forwarding (Traffic Classifier)

An experimental framework, ApexLake



VNF Performance characterization



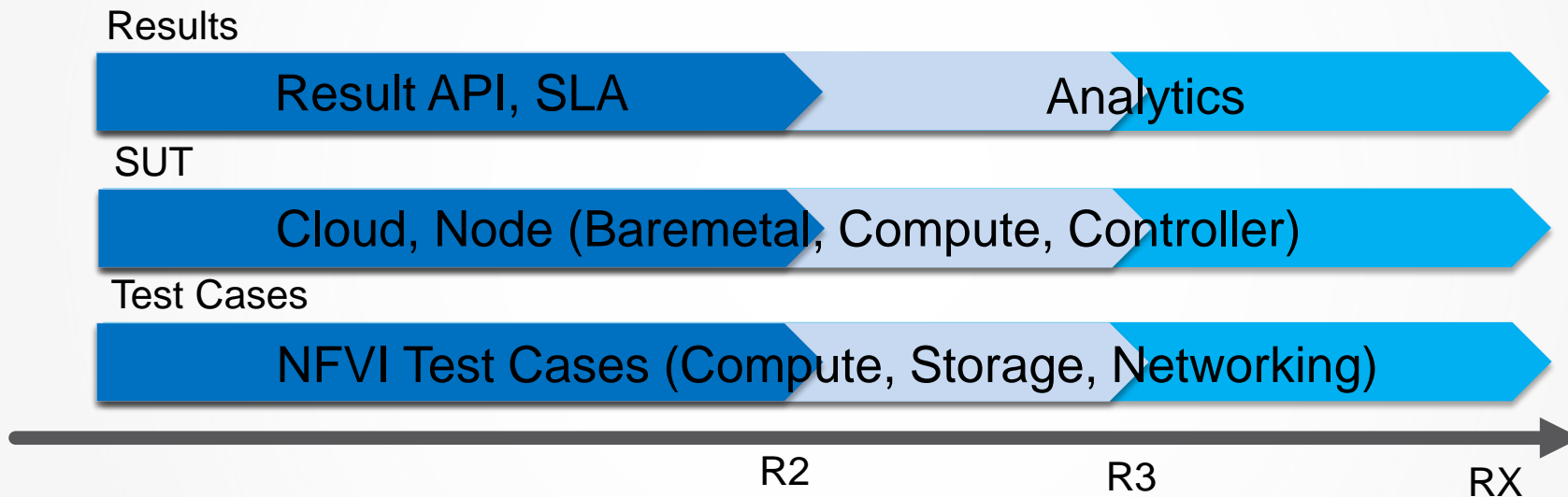
Integrated with Yardstick framework



[T-NOVA presentations](#)

[vTC demo video](#)

# Yardstick Evolution - Framework Capabilities



Interested ?

**Join us!**

[Yardstick](#)

Thank you