ANA GELEZ
DORIAN MOUNIER
MATHIS GRANGE
ELISE DUPONT

INFRASTRUCTURE TESTS WITH NIXOS

WHO ?

LABORATOIRE D'INFORMATIQUE DE GRENOBLE (LIG)

Tutor: Olivier Richard

WHY ?

REPRODUCTIBILITY

NixOS starts with a configuration file which allows it to always have the same behavior on any machine

TRANSPARENCY

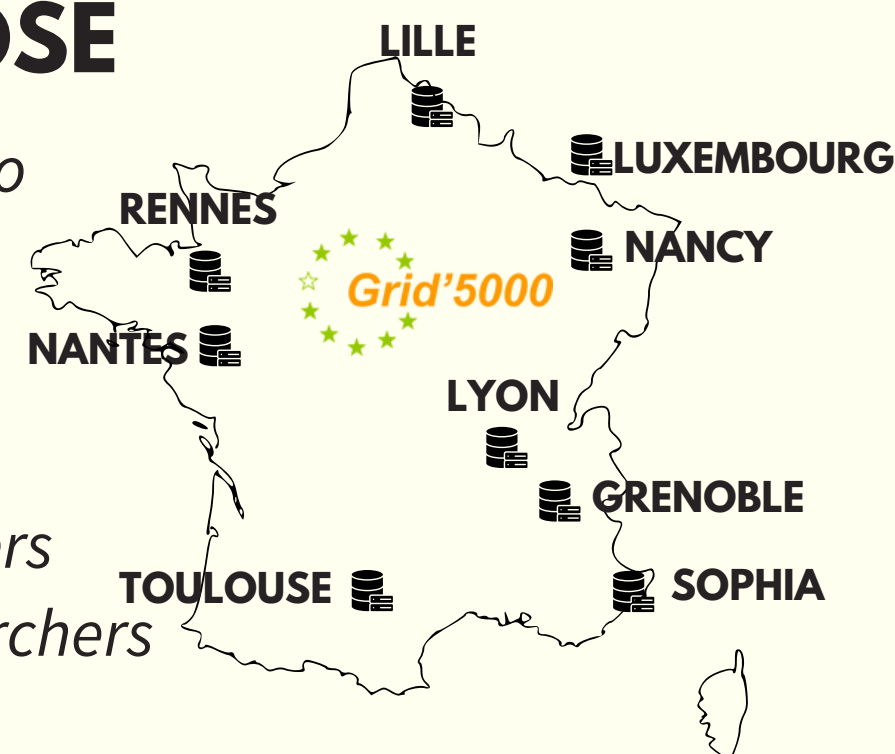*The configuration file makes it possible to explicitly know what is installed on the system*

WHAT ?

NIX

A programming language to install and configure softwares

NIXOS

An operating system based on GNU/Linux and Nix

HOW ?
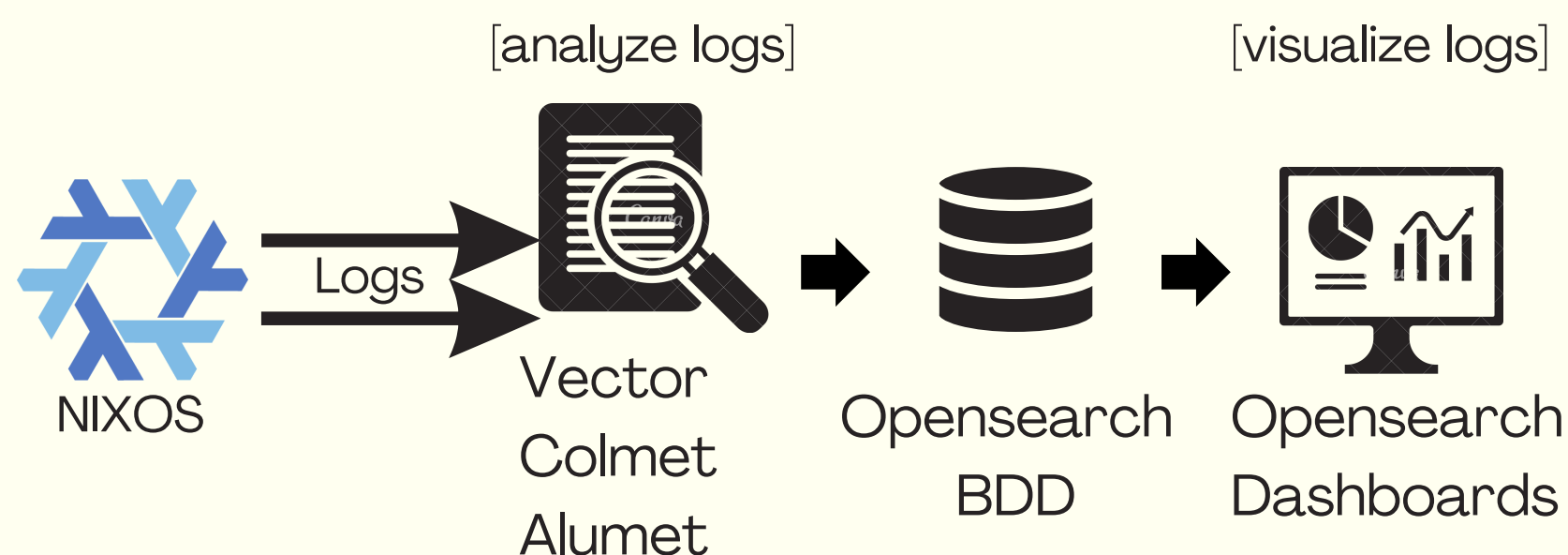
NIXOS-COMPOSE

A tool developed at LIG to create NixOS systems

GRID'5000

Multiple clusters of servers used by European researchers for large-scale testing

LILLE
LUXEMBOURG
RENNES
NANCY
Grid'5000
NANTES
LYON
GRENOBLE
TOULOUSE
SOPHIA

GOALS

OPENSEARCH

[analyze logs]   [visualize logs]

NIXOS → Logs → Vector Colmet Alumet → Opensearch BDD → Opensearch Dashboards

K3S

K3S USER → K3S SERVER → AGENT NODES ← LOAD BALANCER ← EXTERNAL TRAFFIC

GRENOBLE INP UGA   POLYTECH GRENOBLE   LIG