

# **PIACERE Project Overview**



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### **PIACERE OVERVIEW**













## **PIACERE Context**



# € 4,4 Million Euros

# 8 partners from 4 European countries

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MEMBER OF BASQUE RESEARCH & TECHNOLOGY ALLIANCE





ERICSSON 🔰 🖸 prodevelop



Hewlett Packard Enterprise







## **Context and motivation**



#### Infrastructure as Code (IaC)

Enables the automation of several deployment, configuration and management tasks that otherwise would have to be performed manually by an operator

WHY?

PIACERE



## **Context and motivation: general challenges**

Market fragmentation of the IaC tools: infrastructure provisioning, configuration, deployment, and orchestration

Requirement of wide IaC skills

WHY?





## **Context and motivation: general challenges**

Large variety of competing tools

Focused on a **single set** of automation steps

(Only) Cloud Computing oriented

Partial coverage of the whole DevOps process

Deficient Trustworthiness and security coverage

WHY?







## **PIACERE** Mission



The main objective of the PIACERE project is thus to provide means (tools, methods and techniques) to enable most organizations to **fully embrace the Infrastructure-as-Code approach, through the DevSecOps philosophy** 













To enable most organizations to fully embrace the Infrastructureas-Code (IaC) approach, through the DevSecOps philosophy, by making the creation of such code more accessible to designers, developers and operators (DevSecOps teams), increasing the quality, security, trustworthiness and evolvability of infrastructural code while ensuring its business continuity by providing self-healing mechanisms anticipating to failures and violations, and self-learning from the conditions that triggered such re-adaptations.

DevSecOps Engineers deserve the same kind of tools and development environment as any other software developer











## Main research challenges

Large variety of infrastructures (and increasing!!)

Large variety of IaC tools with limited focus

laC manual process

Lack of unified IaC lifecycle management

Security and trustworthiness









### **PIACERE DevSecOps approach**

















## **PIACERE's Key Results (KRs)**



HOW?

PIACERE







## **PIACERE Value Chain**









## **PIACERE stakeholders**

#### Main PIACERE USERS

- DevSecOps teams
- Application architects
- Platform architects

#### Other PIACERE beneficiaries:

- IT intensive companies
- IoT solution's vendors
- Cloud vendors
- Companies using the software from the IT intensive companies









## **PIACERE Expected impact**



Increase the productivity of the DevSecOps teams, increasin g the speed of re-deployment cycles



Decrease the effort to create, verify and operate trustworthy laC.

Ensure the laC quality, reliability and trustability



Improve the ability of DevSecOps teams to model, provision, configure and deploy complex execution environments







WP8 Sustainability and dissemination





GA 101000162

01/03/2023







## **Main achievements P1**



01/03/2023





First version of the functional requirements of all Key Results Defined overall architecture the PIACERE design time and runtime

First working version of all individual components

First integrated version of the PIACERE SecDevOps framework



Continuous market watch. Definition of PIACERE Value proposition



Definition of **use cases** and definition of **validation methodology** 



Definition and implementation of the outreach strategy



# Thank you!

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