SmartIDE

Modelling & IDE
SODALITE Stack 1

www.sodalite.eu

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 825480

SODALITE SmartIDE is solving

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The Problem

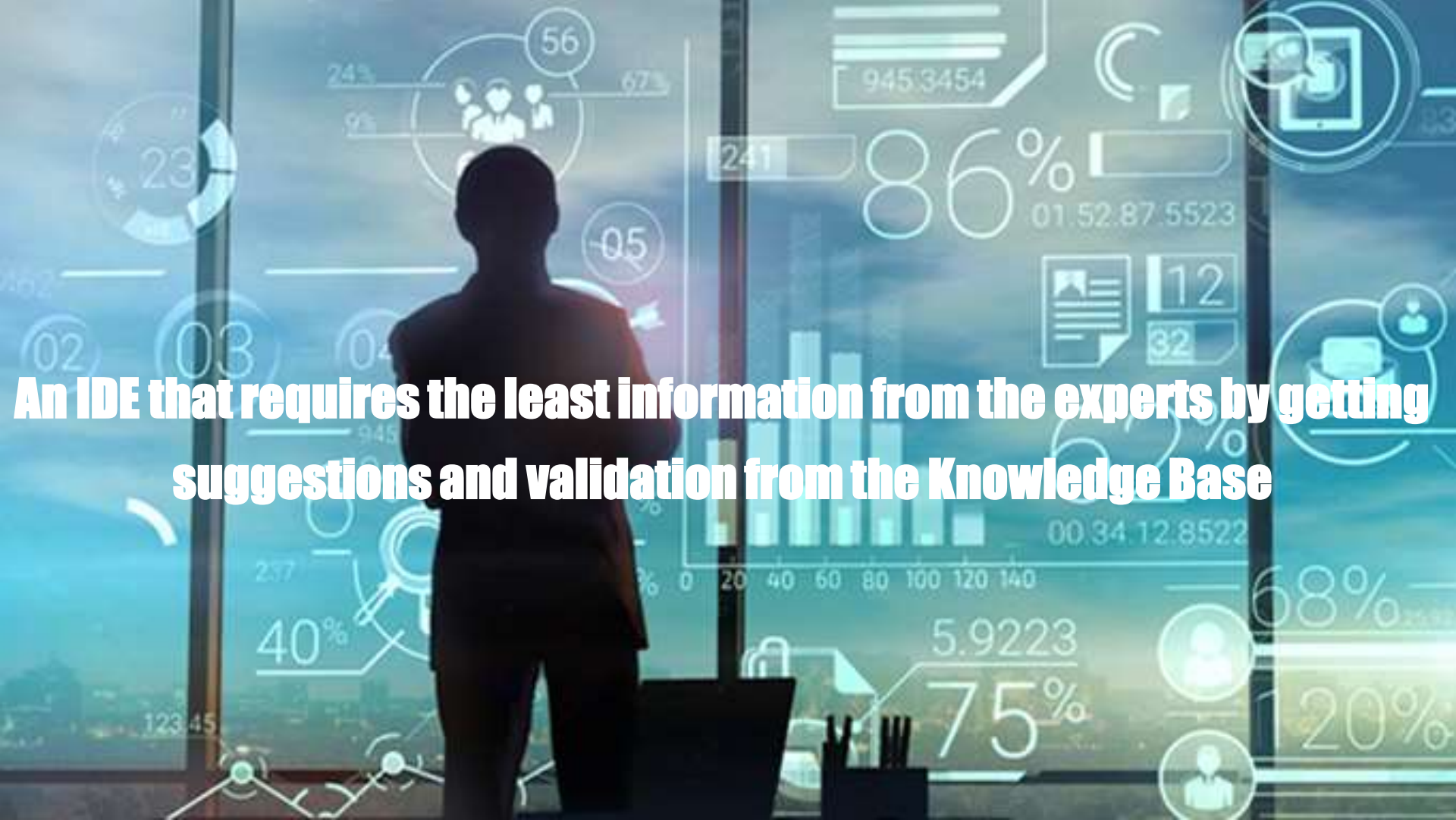
Complex deployment model on heterogeneous infrastructures (too many considerations to be taken into account) without further assistance based on previous experiences

The Solution

DSL editor to develop a complex application deployment model, Reasoner to provide recommendations/validations, TOSCA application deployment model

The Value

Intellisense integrated process to develop complex deployment schemas taking into account different considerations such as performance and security


An IDE that requires the least information from the experts by getting suggestions and validation from the Knowledge Base

SODALITE SmartIDE Benefits

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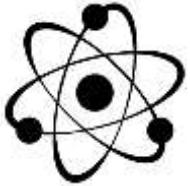
Smart

It requires the least information from the experts by getting suggestions and validation from the Knowledge Base



Comprehensive

Based on a wide range of knowledge-base semantic reasoning-driven results

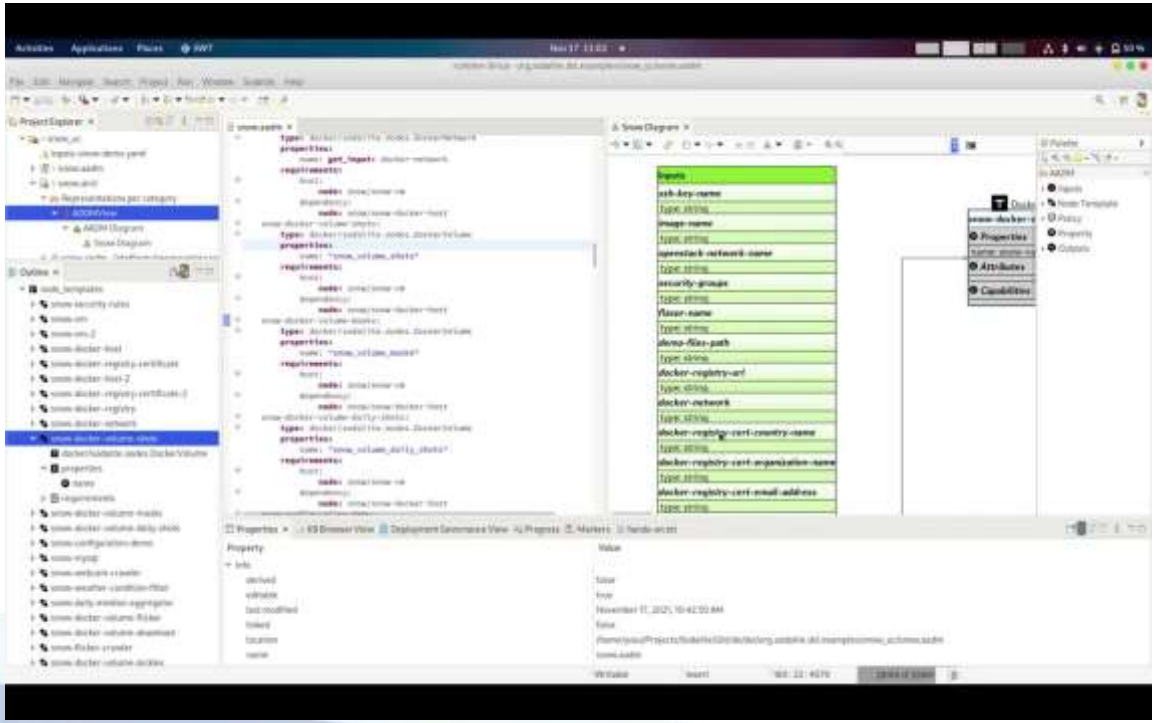
Configurable

The corresponding Experts can author AADMs, RMs, by getting validation and intelligent recommendations during design time

Meaningful

Provides inferred knowledge for application modelling possibilities, performance models, security policy, deployment policies, monitoring and refactoring

SmartIDE Demonstration



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LIVE

See Full Demo at

@SODALITE_H2020

Context on SODALITE solution

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Innovation

- ★ SODALITE IDE
- ★ Knowledge Graphs and Semantic Reasoning
- ★ Platform Discovery Service
- ★ IaC Blueprint Builder

IDE AND REASONER API BASED ON SOPHISTICATED KNOWLEDGE GRAPHS AND SEMANTIC REASONING

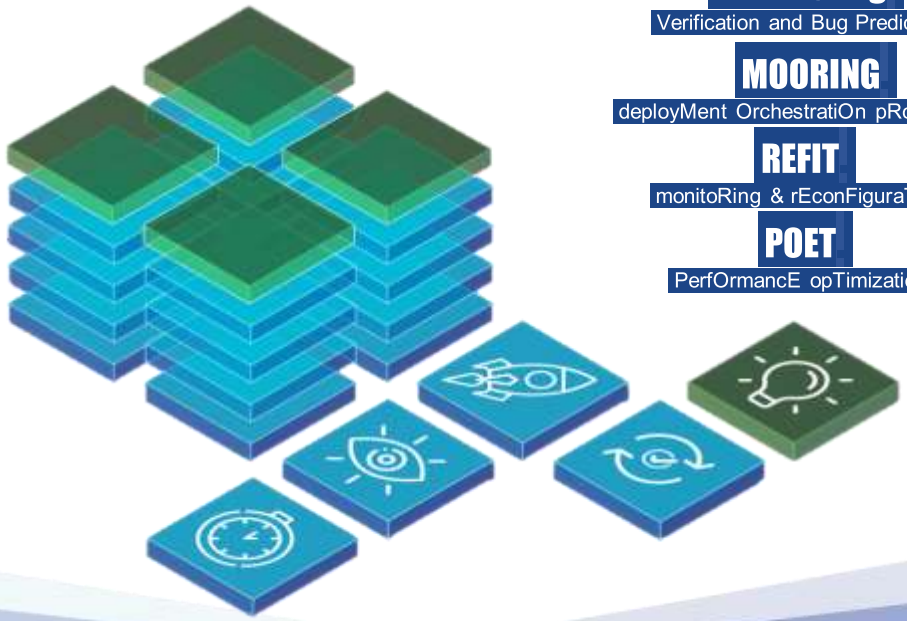
SMART IDE
Application Deployment Modelling & IaC Modelling

FindIaCBug
Verification and Bug Prediction

MOORING
deployMent OrchestratiOn pRovisIoniNG.

REFIT
monitoRing & rEconFiguraTion

POET
PerfOrmancE opTimization



SODALITE Business Plan

	Trial	Basic	High-End
	Testbed Access	Light SODALITE	Advanced SODALITE
	FREE	€	€€
Optimisation & Reconfiguration	✓	✓	✓
Own Infrastructure Access	x	✓	✓
Configuration	✓	✓	✓
Maintenance	x	€	✓
Support & Training	x	€	✓
Customisation	x	€	✓
	Premium Services €		

SmartIDE Early Adopters

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Environmental

Problem: Complexity of the pipeline deployment into on-premise data centers or external cloud; inexperience of PA domain experts in DevOps practices and data management.

Solution: Abstract modeling hides the underlying technical complexity and code generation simplifies the creation of deployment artifacts and supports high level pipeline design and one-click activation.

Digital Health

Problem: Complexity in the clinical case deployment into various infrastructures, on-prem data centers or even public or private cloud; inexperience of medical domain experts and DevOps practices.

Solution: A tool or a service that greatly simplifies the process of development of deployment code, such that the use case workflow will be efficiently executed on selected resources.

IoT Automotive

Problem: Application developers targeting multiple vehicles with different hardware configurations, heterogeneous computing resources.

Solution: Vehicle-agnostic application deployment modelling via a targeted application developer dashboard, using information from the platform discovery service and semantic knowledge graphs to dynamically derive Kubernetes deployment manifests.

The SODALITE Team

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SINTEF

SODALITE has the potential to deliver solid innovations, validated in large pilots, towards the deployment and operation of the next generation of applications that will run on heterogeneous HPC and Cloud resources.

Nicolas Ferry

The SODALITE outcomes are an impressive next step to facilitate efficiently deploying and operating complex, adaptive software across the whole compute continuum.

Andreas Metzger

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SODALITE-EU

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Shaping the Infrastructure Management and Application Deployment of Tomorrow!

TALK TO US

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