



# The ENTICE Project: dEcentralized repositories for traNsparent and efficienT vlrtual maChine opErations

**Radu Prodan**

**Institute of Computer Science  
University of Innsbruck, Austria**



This project has received funding from  
the European Union's Horizon 2020  
research and innovation programme  
under grant agreement No 644179



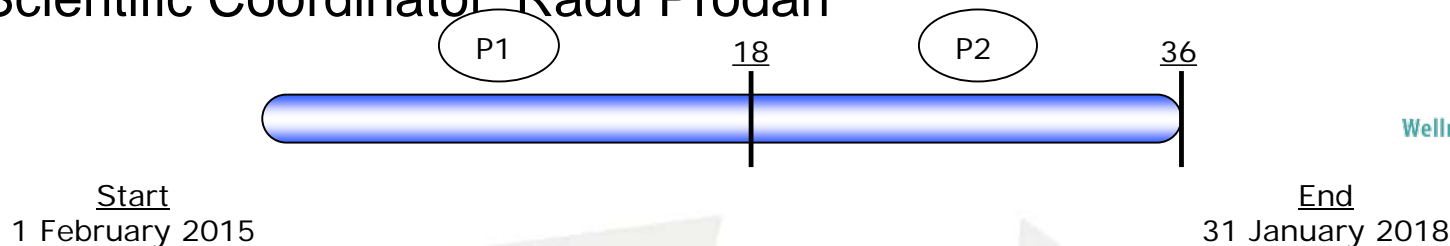
# ENTICE Project



Univerza v Ljubljani



- Call: H2020-ICT-2014-1
- Type of action: RIA
- Topic: ICT-07-2014
- 6 partners from 5 countries
  - AT, HU, SL, SP, UK
- Maximum EU contribution: €2.276.563,-
- Coordinator: Thomas Fahringer
- Scientific Coordinator: Radu Prodan



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# Research Problems

- Manual VM image creation
- Monolithic (non-decomposable) VM images
- Proprietary unoptimised VM repositories
- Inelastic resource provisioning
- Lack of information to support automated preparation and optimised deployment



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# ENTICE in a Nutshell

- Research and create a novel VM repository and operational environment named **ENTICE** for federated Cloud infrastructures aiming to:
  - Simplify the creation of lightweight and highly optimised VM images tuned for functional descriptions of applications
  - Automatically decompose and distribute VM images based on multi-objective optimisation (performance, economic costs, storage size, and QoS needs)
  - Knowledge base and reasoning infrastructure to meet application runtime requirements
  - Elastic auto-scale applications on Cloud resources based on their fluctuating load with optimised VM interoperability across Cloud infrastructures and without provider lock-in

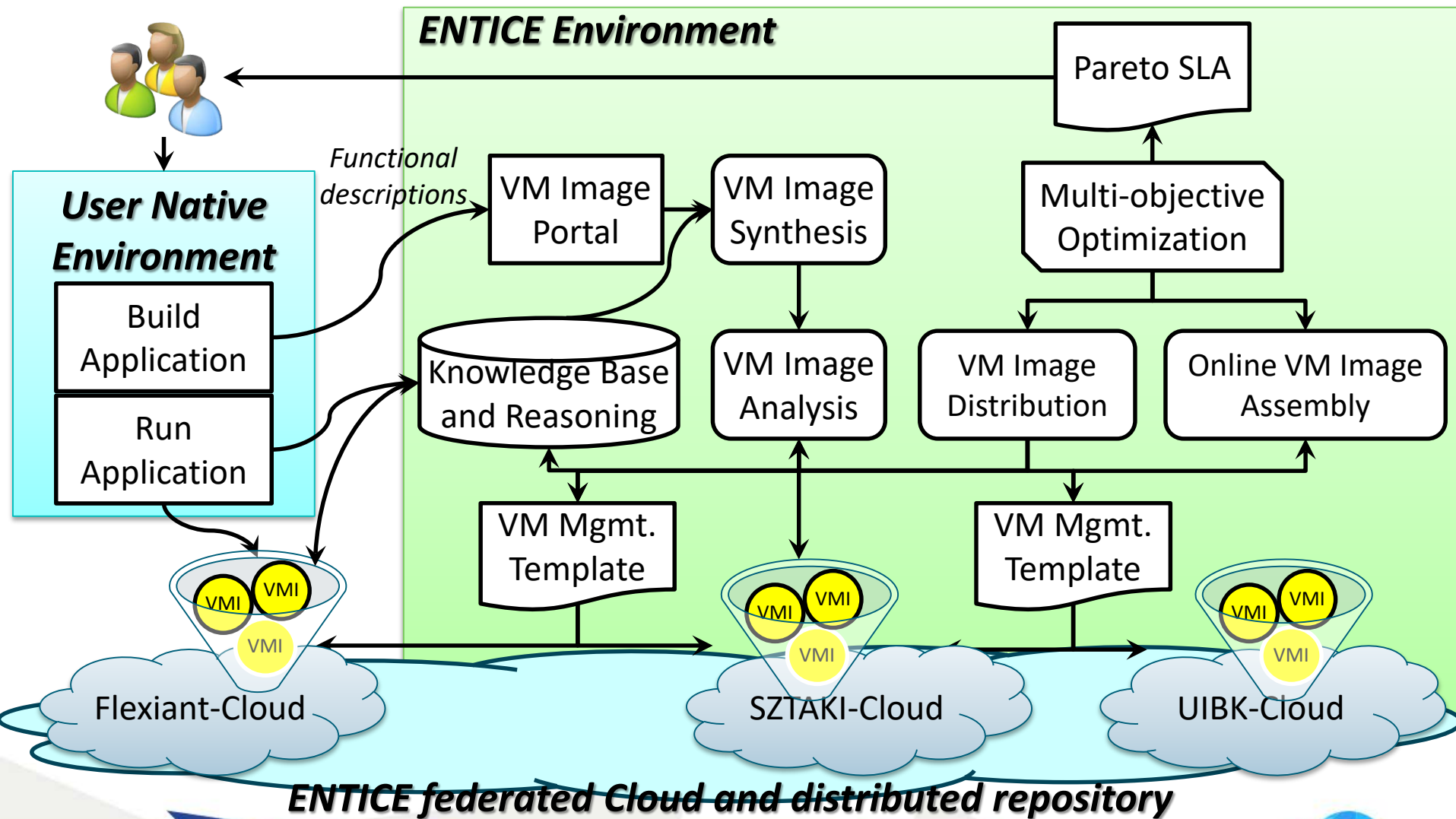


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# ENTICE Architecture



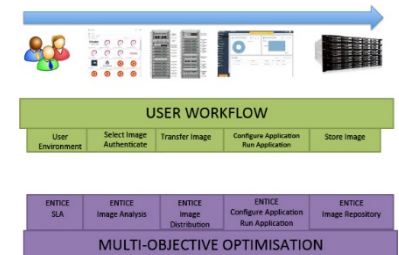
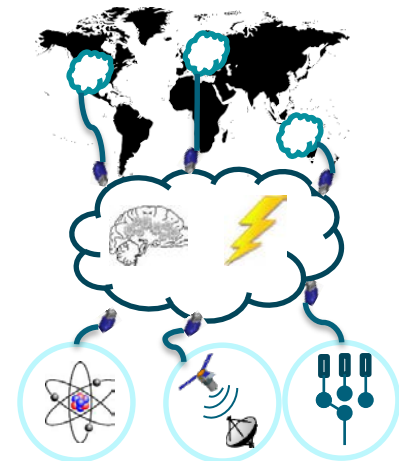
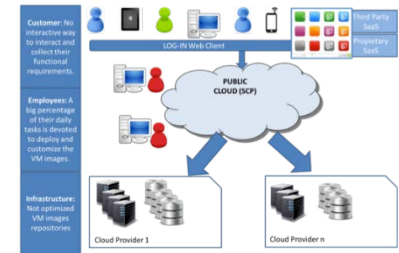
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# Pilot Applications

- Wellness Telecom, Spain
  - Unified Communications open source framework for enterprises
  - Redmine
  - Alfresco
- DEIMOS, Spain
  - Earth Observation Data (EOD)
- FlexiOps, UK
  - Flexiant Cloud Orchestrator

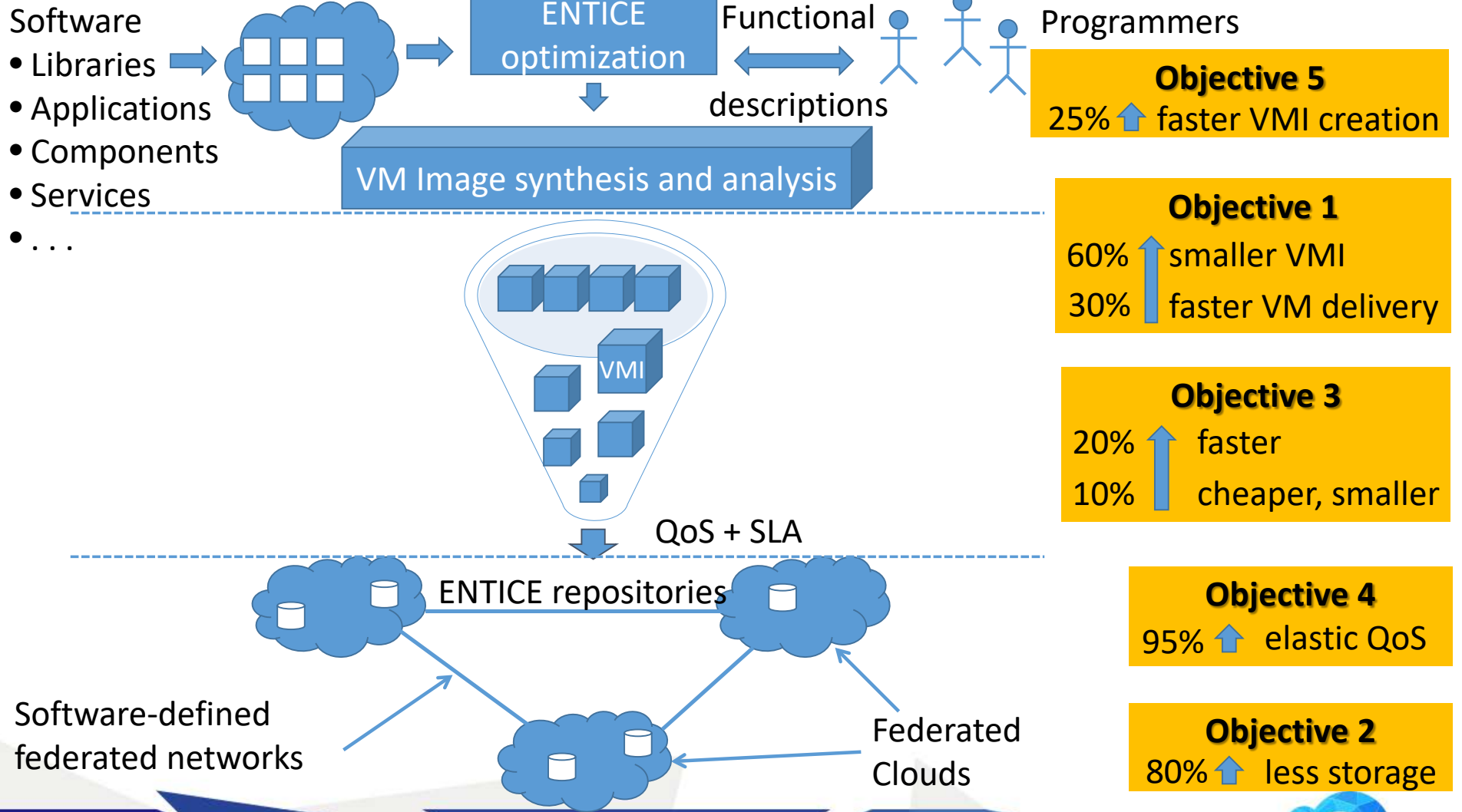


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# Metrics of Success



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# Agenda

- **David González**, Payload Data Ground Segment in Cloud for Earth Observation Satellites with the Entice Middleware
- **Guadalupe Flores Salado**, ENTICE business benefits to a Cloud Soft Provider Company
- **Nishant Saurabh**, Optimized VMI Storage and Distribution in Federated Cloud Environment
- **Sandi Gec**, Semantics for the Cloud: The ENTICE integrated environment and opportunities with smart contracts



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