Platform for Opportunistic Behaviour in Incompletely Specified, Heterogeneous Object Communities

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Markus Taumberger, VTT, Finland

SEVENTH FRAMEWORK PROGRAMME

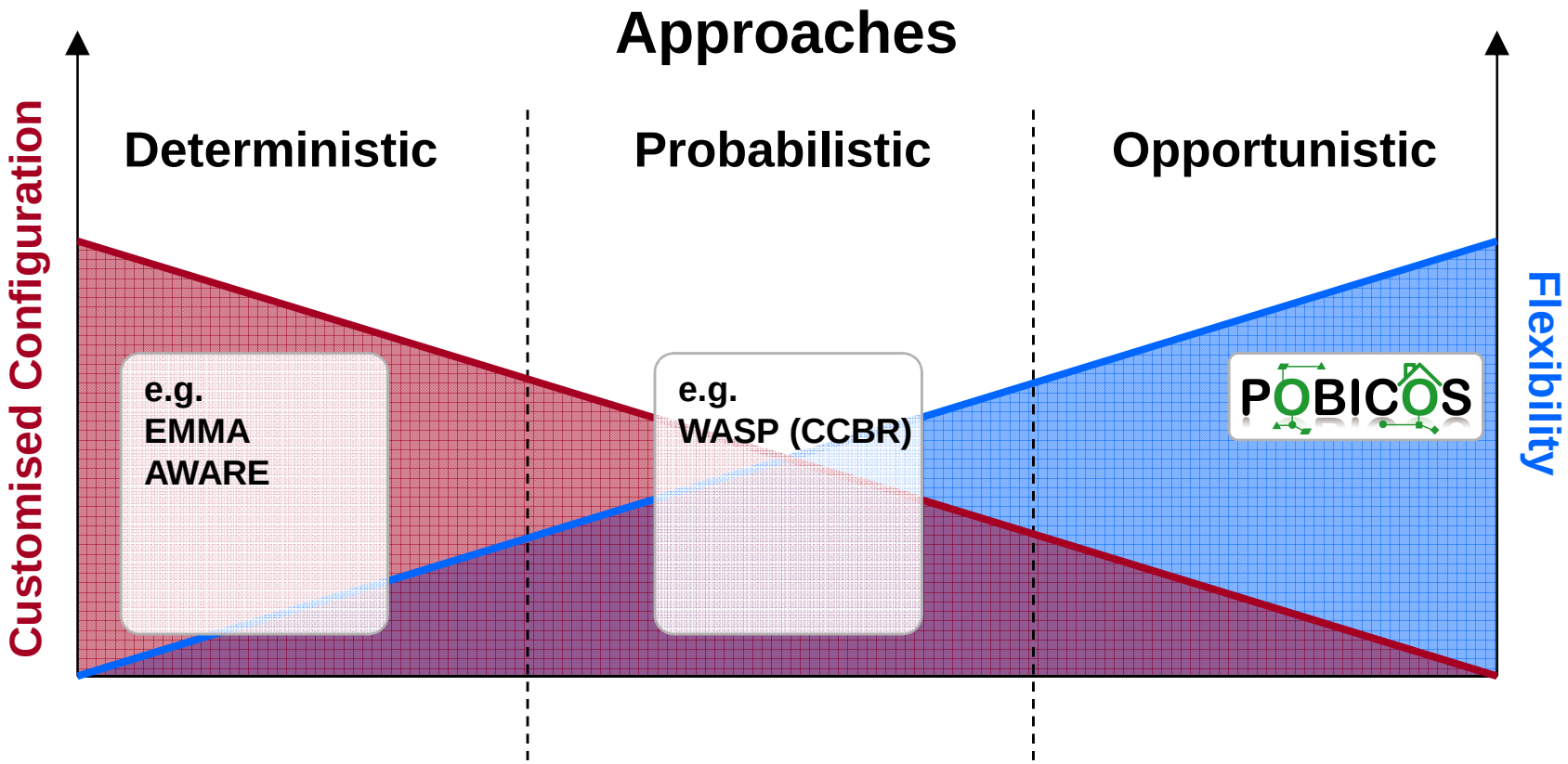
Motivation

- Regular objects are more and more equipped with WSAN
- Environment is heterogeneous
- Number and type of objects unknown

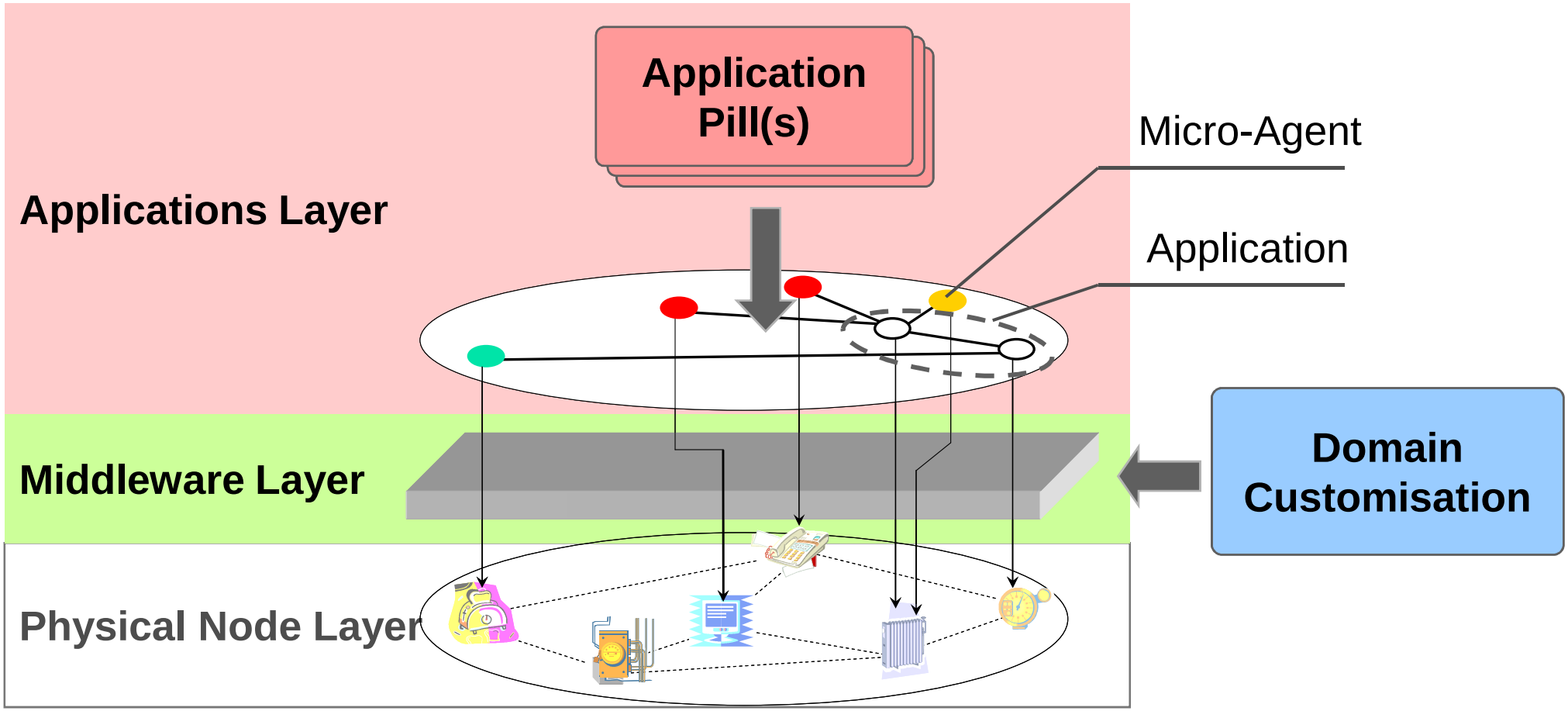
- ✘ Application development is complex and time consuming
- ✘ Current systems are fairly customised

It is not attractive to develop an application just for a specific device configuration. What is needed is a way to design and write applications once, in a straightforward way, and yet be able to deploy/use them in a large number of (different) settings.

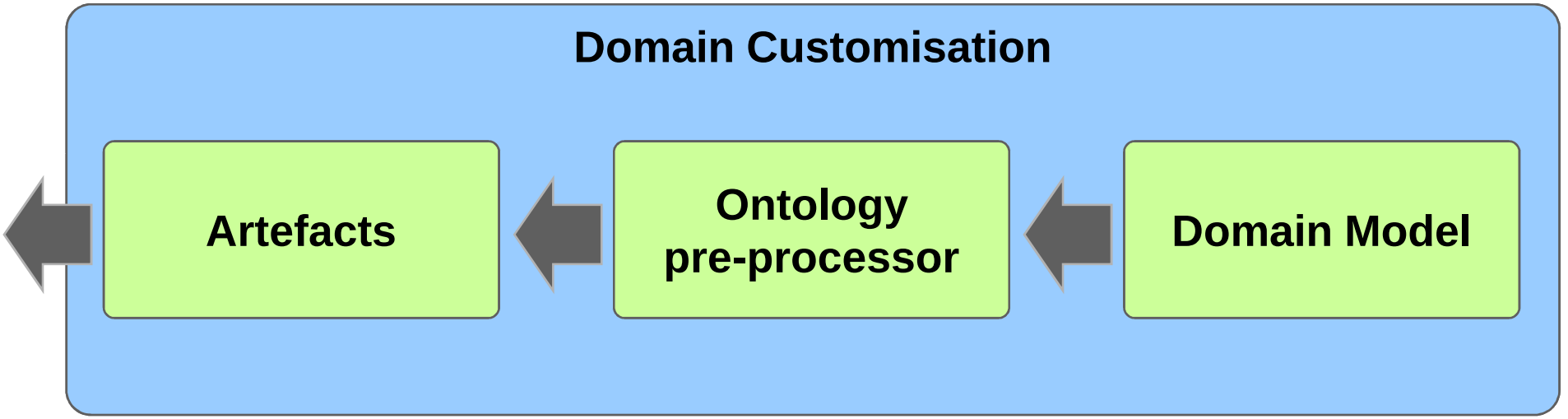
Project Background



Architecture



Architecture – Domain Customisation



Energy Efficient Buildings

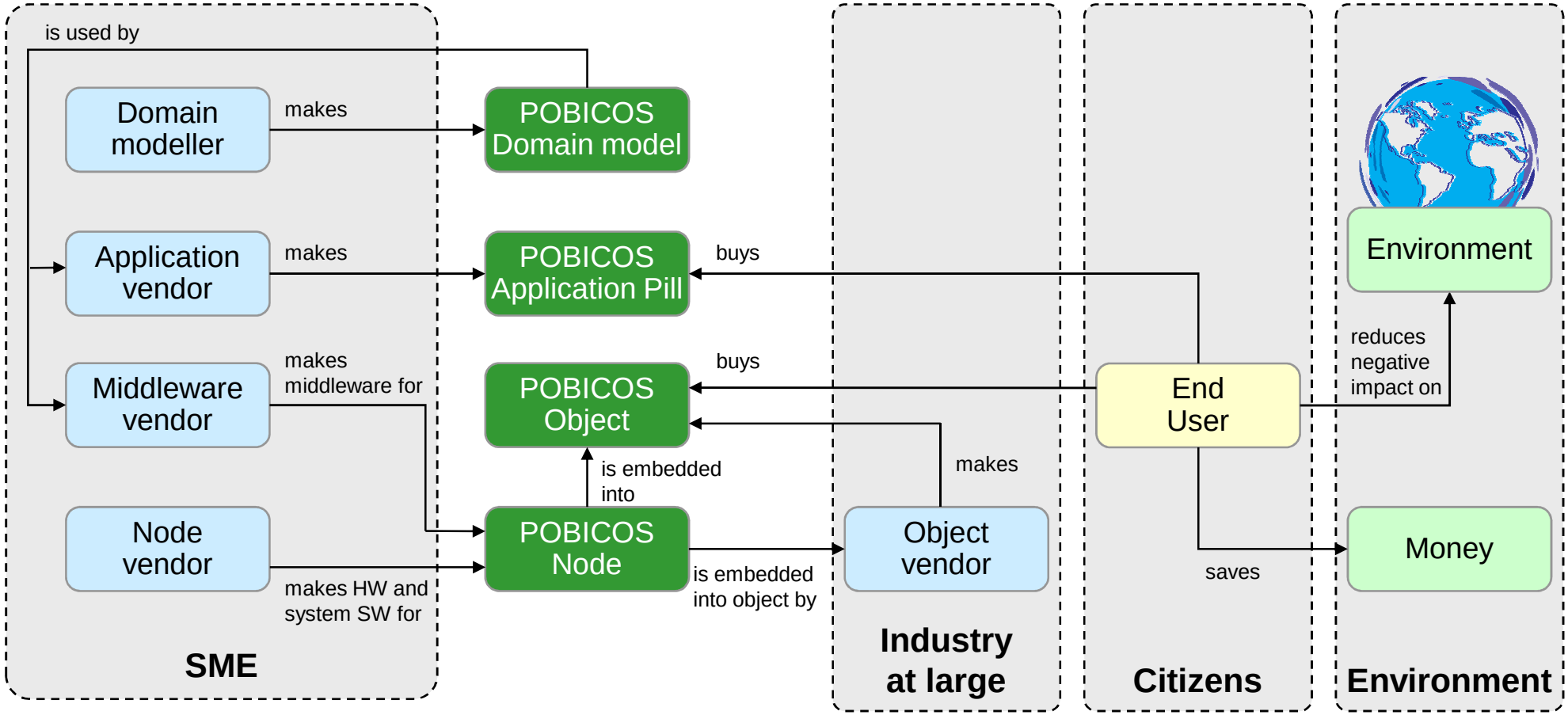
Building Energy Management Systems (BEMS)

- Cost as much as 7-10% of the total cost of the building construction
- Complexity in programming and setting up for both, the engineer as well as the end-user
- The need for technical staff to be managing BEMS make them inaccessible to the housing sector
- Implemented in a fairly customised way mostly working with a priori known devices and configurations

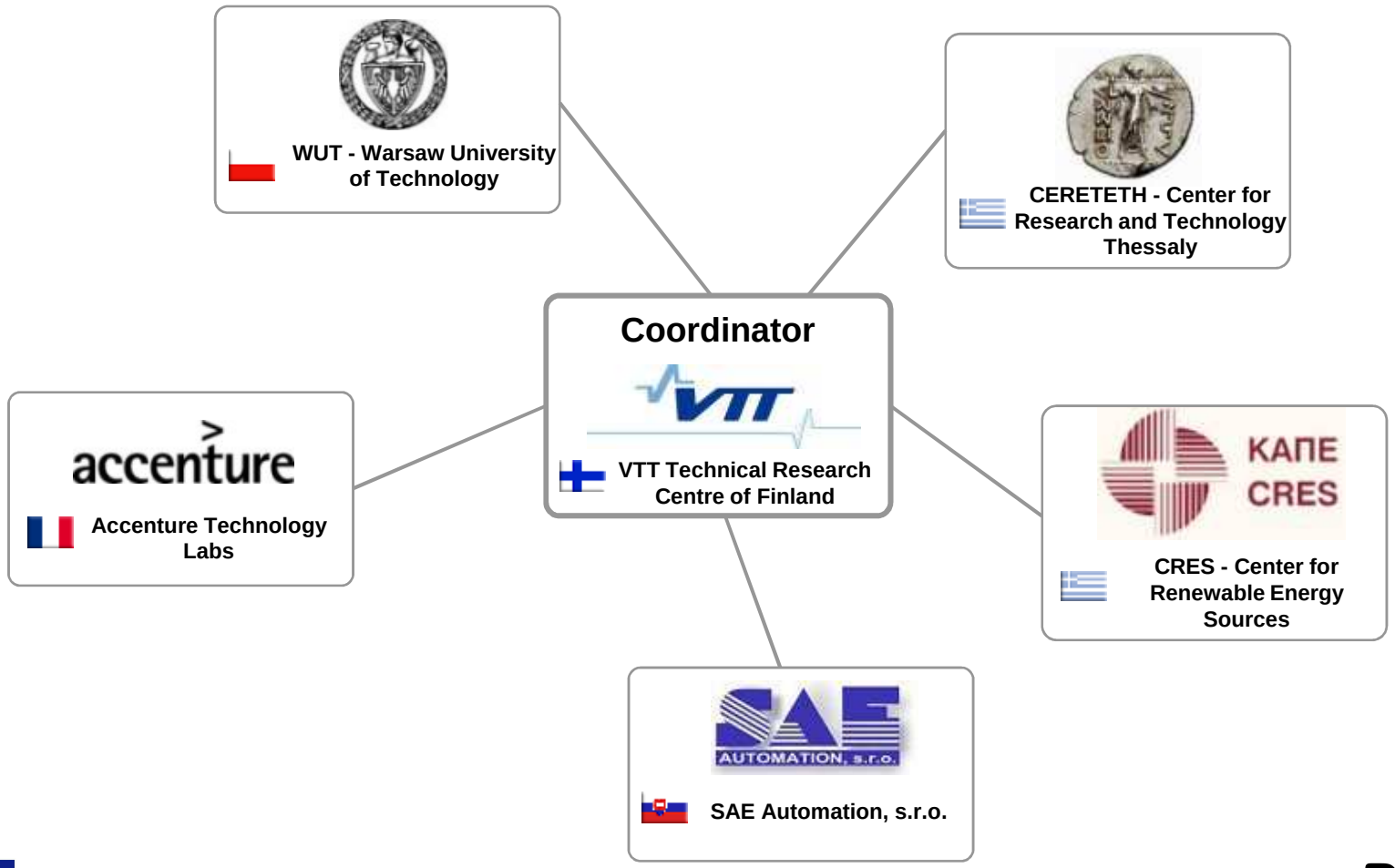
POBICOS

- No major dedicated infrastructure is needed as POBICOS-ready regular home items are gradually acquired and installed in the house/apartment
- Monitoring the energy efficiency and providing information to the dwelling users
- In the instance of bioclimatic elements, such as Trombe walls, POBICOS applications could successfully lower the building's energy needs
- POBICOS makes BEMS available for home applications

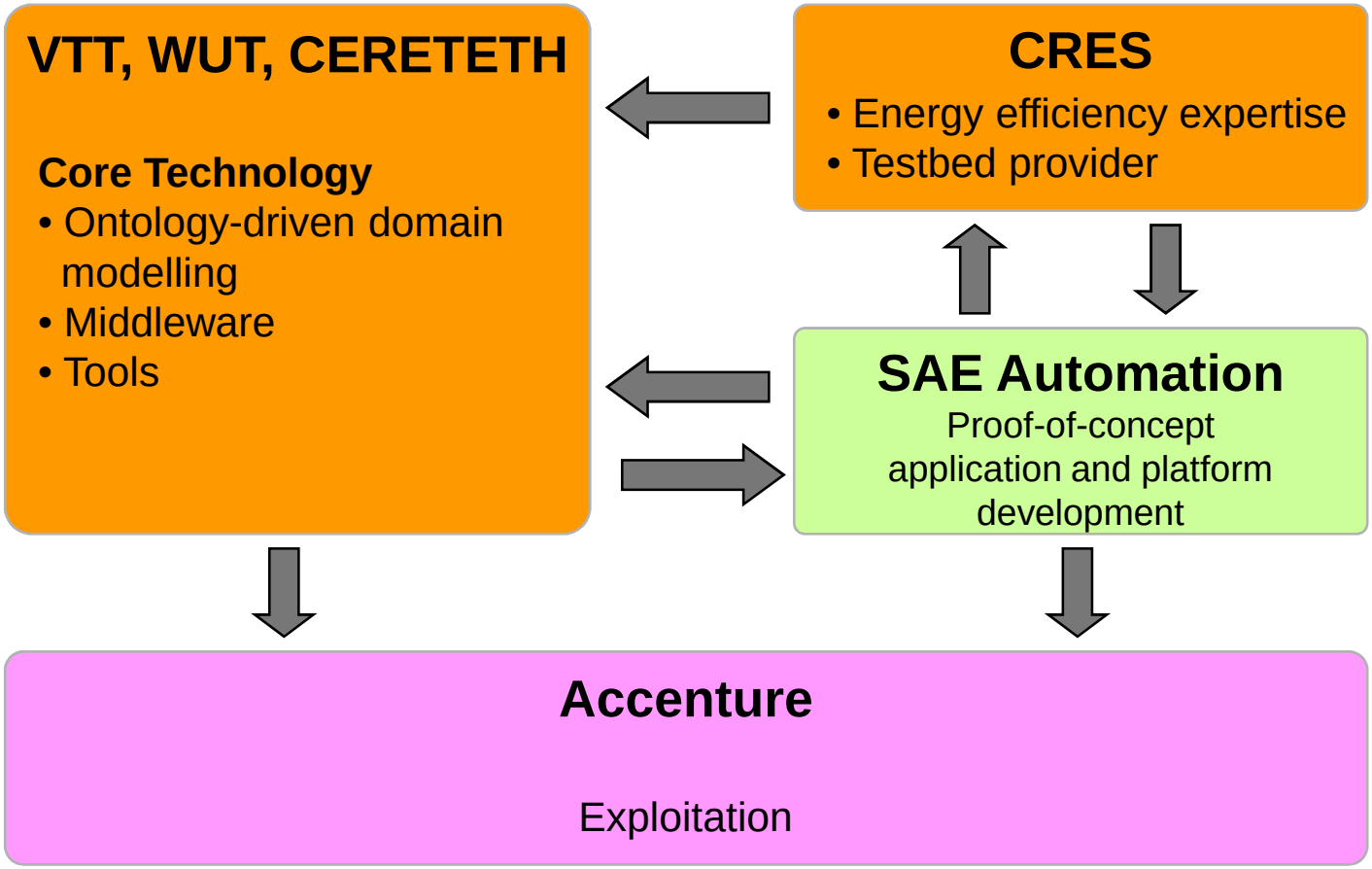
Meta-model


is used by
Domain modeller
makes
POBICOS Domain model
Application vendor
makes
POBICOS Application Pill
buys
Middleware vendor
makes middleware for
POBICOS Object
buys
is embedded into
makes
Node vendor
POBICOS Node
is embedded into object by
Object vendor
makes HW and system SW for
SME
Industry at large
End User
Citizens
Environment
reduces negative impact on
saves
Money
Environment

Consortium


WUT - Warsaw University of Technology
CERETETH - Center for Research and Technology Thessaly
Coordinator
VTT Technical Research Centre of Finland
accenture
Accenture Technology Labs
ΚΑΠΕ CRES
CRES - Center for Renewable Energy Sources
SAE AUTOMATION, s.r.o.
SAE Automation, s.r.o.

Partners' main roles



Additional Information

Project Website

www.ICT-POBICOS.eu

Project Manager

Markus Taumberger
VTT – Technical Research Centre of Finland
markus.taumberger@vtt.fi