ITEA Office
High Tech Campus 69 - 3
5656 AG Eindhoven
The Netherlands

T + 31 88 003 6136
E info@itea3.org
W www.itea3.org

ITEA 3 is a EUREKA strategic ICT cluster programme

Exploitable Results by Third Parties

17022 COSIBAS

Project details

Project leader:	Diego Fuentes
Email:	dfuentes@hi-iberia.es
Website:	http://cosibas.hi-iberia.es

Name: FIWARE-based COSIBAS platform		
Input(s):	Main feature(s)	Output(s):
▪ Any AI-based solution willing to be integrated into FIWARE platform	▪ Extended FIWARE-based platform able to enable interoperability and integration for existing (and new) AI-based solutions into FIWARE without need to start from scratch	▪ AI-based solution integrated as a cognitive service with the FIWARE-based COSIBAS platform

Unique Selling Proposition(s):	▪ Interoperability and integration for existing (and new) AI-based solutions into an IoT platform like FIWARE-based without need to perform extraordinary investments or replace well-functioning systems.
Integration constraint(s):	▪ Use of FIWARE Orion Context Broker ▪ AI-based solution to be integrated must follow FIWARE NGSIv2 standard
Intended user(s):	▪ Mainly SMEs with existing AI-based solutions in any of the following segments: smart energy, smart cities, smart industry.
Provider:	▪ COSIBAS Consortium
Contact point:	▪ Project Coordinator: Diego Fuentes - dfuentes@hi-iberia.es
Condition(s) for reuse:	▪ Powered-by-FIWARE platform installed as a platform instance with existing (or new) AI-based solutions in the customers' premises under a deployment and maintenance fees.
	Latest update: 16-November-2021

Name: FIWARE-based cognitive enabler		
Input(s):	Main feature(s)	Output(s):
▪ FIWARE RestAPI NGSIv2 entities	▪ A FIWARE compliant component that contains the logic of information exchange between an Orion Context Broker and a Cognitive service. ▪ Provides an API to allow the exchange of information, so that decoupling both components for a distributed architecture.	▪ FIWARE RestAPI NGSIv2 entities

Unique Selling Proposition(s):	▪ Allows the combination of IoT and AI concepts in an open and standardized solution. ▪ Is a key element for providing cognitive capabilities over the legacy FIWARE platform. ▪ Also supports security capabilities by making use of the FIWARE Rest API NGSIv2 standard
Integration constraint(s):	▪ Curated dataset in csv format for ML training ▪ FIWARE Orion Context Broker ▪ Docker v3 ▪ Flask API v2.0.2 ▪ Certifi v08.10.2021; geopy v2.2.0; idna v3.3; joblib v1.1.0; numpy v1.21.4; pandas v1.3.4; python-dateutil v2.8.2; python-dotenv v0.19.1; scikit-learn v1.0.1; scipy v1.7.2;
Intended user(s):	▪ Programmer and data analysists that using need to perform cognitive studies from FIWARE systems
Provider:	▪ PRODEVELOP (POLYTECHNIC UNIVERSITY OF VALENCIA)
Contact point:	▪ Enrique Ivancos – eivancos@prodevelop.es
Condition(s) for reuse:	▪ Yearly commercial license to be negotiated. A free license can be provided for research purposes.

Latest update: 16-November-2021

Name: Posidonia PortCDM - COSIBAS enhancement

Input(s):	Main feature(s)	Output(s):
▪ JSON/XML files with AIS/Marine weather data obtained via RestAPI service	▪ Accurate predictive algorithms to calculate the Estimated Time Arrival (ETA) for a ship arriving at any port with major precision, ▪ Use of different data sources like AIS devices/online services, and oceanographic buoys/online services. ▪ Compliant with FIWARE platform specifications.	▪ JSON files with updated vessel ETA values in distances below 60 nautical miles ▪ Alerting messages to Port stakeholders due to unexpected deviations from original planned ETA

Unique Selling Proposition(s):	▪ Automatic planning and optimal resource allocation tool without the need for extensive experience in the maritime sector. ▪ IoT platform for real-time information on machines and assets being monitored in real time, which can directly influence planning. ▪ The platform components are implemented in a decoupled way, so that they can be independently deployed, reducing the complexity of commissioning. ▪ Provide valuable metrics and KPIs to enable proper interpretation of results.
Integration constraint(s):	▪ On-premises and Cloud deployment possibilities (AWS requirements: 1x EC2 t3a.large – 2vCPUs AMD EPYC 7000, 8 GB RAM; 1xRDS db.t3.small – 2 vCPUs Intel Xeon, 2 GB RAM) ▪ Compatible with any web browser, although needs of a secure access to Internet ▪ Rest API capabilities for communicating with Terminal Operating System, Port Community Systems, Automatic Identification System, and/or Berth Planning Software tools.
Intended user(s):	▪ Port Authorities ▪ Terminal Operators ▪ Freight forwarders ▪ Shipping Lines ▪ Consigners
Provider:	▪ PRODEVELOP
Contact point:	▪ Prodevelop Commercial Department – info@prodevelop.es
Condition(s) for reuse:	▪ Monthly/Yearly commercial license to be negotiated depending on the vessel volume at port area ▪ A 30-day free trial can be arranged

Latest update: 16-November-2021

Name: Smart Data Visualization System for a P2P Smart Grid solution

Input(s):	Main feature(s)	Output(s):
▪ Energy consumption data ▪ Weather information data ▪ Daily electric price data	▪ Consumed energy predictions for a long term based on DL algorithms ▪ Energy cost predictions for a long term based on DL algorithms ▪ Rule engine providing valuable recommendations based on the above-mentioned predictions to help consumers to make decisions. ▪ Dashboard to visualize all kind of data related to the energy consumption.	▪ Consumed energy predictions for a long term ▪ Energy cost predictions for a long term ▪ Recommendations to help consumers to make decisions ▪ Data visualization

Unique Selling Proposition(s):	▪ End-user application focused on helping consumers to make decisions and optimize the energy consumption and cost for a long term in a P2P scenario.
Integration constraint(s):	▪ Energy consumption data need to be updated along the time. ▪ Access to internet
Intended user(s):	▪ Maintenance managers in public buildings, house-hold communities, private companies.
Provider:	▪ HI-IBERIA
Contact point:	▪ Diego Fuentes - dfuentes@hi-iberia.es
Condition(s) for reuse:	▪ Commercial licensing according to the number of users.

Latest update: 16-November-2021

Name: Energy Trading Platform for a P2P Smart Grid solution

Input(s):	Main feature(s)	Output(s):
▪ Demand and production data ▪ Configuration information	▪ Negotiation algorithm ▪ Transaction support ▪ Demand and offer prediction	▪ Offer and demand matching according to users' profile

Unique Selling Proposition(s):	▪ Prosumers boosting, based on consumption optimization and compensation support.
Integration constraint(s):	▪ Data acquisition and algorithms training with the new databases.
Intended user(s):	▪ Infrastructure owners, business association (industrial parks), private house-holds communities (with both, consumer and production facilities and infrastructure management capability).
Provider:	▪ EXPERIS
Contact point:	▪ Gema Maestro - gema.maestro@experis.es
Condition(s) for reuse:	▪ Platform instance on customers premises ▪ Or as a service (licensing depending on the targeted number of users

Latest update: 16-November-2021

Name: Prediction and negotiation algorithms a P2P Smart Grid solution

Input(s):	Main feature(s)	Output(s):
▪ API Key of the weather API ▪ IDs of the Orion entities	▪ Predict the energy which will be produced or consumed by the producers, consumers or prosumers	▪ The predicted value of how much energy will be consume or produce the next day by the consumers, producers or prosumers.

Unique Selling Proposition(s):	▪ Generate predictions about the energy which will be consumed by consumers or prosumers ▪ Generate predictions about the energy which will be produced by producers or prosumers
Integration constraint(s):	▪ Docker (all the dependencies will be installed automatically with docker) ▪ Access to internet
Intended user(s):	▪ End user ▪ Performance evaluation expert ▪ Researcher ▪ Programmer who wants to create another cognitive service
Provider:	▪ EXPERIS (UNIVERSITY OF SALAMANCA)
Contact point:	▪ Alfonso González Briones – alfonsogb@usal.es ▪ Diego Gutiérrez Martín – diegogutierrezmartin@usal.es
Condition(s) for reuse:	▪ Licensing

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