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ITEA 3 is a EUREKA strategic ICT cluster programme

Exploitable Results by Third Parties

15008 ESTABLISH

Project details

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Name: Smart City Platform - Mobile app for citizen		
Input(s):	Main feature(s)	Output(s):
▪ Municipal open data	▪ Data fusion and data analysis over municipal open data to provide valuable information about mobility and pollution in the city to the citizens ▪ Multimodal route planner optimized in pollution	▪ Real-time recommendations about levels of pollution and mobility (traffic status, parking, public transport) ▪ Traffic accident risk prediction ▪ Most ecological route
Unique Selling Proposition(s):	▪ Real-time city-specific recommendations about levels of pollution and mobility (traffic status, parking, public transport) from municipal open data applying a common data modelling and data fusion techniques. ▪ Traffic accident risk prediction from municipal open data applying deep learning techniques. ▪ Multimodal route planner optimized in pollution to calculate the most ecological route.	
Integration constraint(s):	▪ Municipal open data are defined in a different way for each city, so data modelling could have to be modified.	
Intended user(s):	▪ Citizens living in any city providing municipal open data	
Provider:	▪ HI-Iberia	
Contact point:	▪ Diego Fuentes (Hi-iberia): dfuentes@hi-iberia.es	
Condition(s) for reuse:	▪ Commercial / Licensing	
	Latest update: 20.11.2019	

Name: Smart City Platform - Web App for Pollution Simulation and Prediction		
Input(s):	Main feature(s)	Output(s):
▪ Municipal open data	▪ Analysis and processing over local open data and a traffic simulation platform for helping city authorities to make their decisions.	▪ Seven-day predictions about levels of pollution and traffic status based on historical open data. ▪ Simulation of pollution scenarios such as speed limitation, vehicle access limitation according to their emissions.

Unique Selling Proposition(s):	▪ City-specific seven-day predictions about levels of pollution and traffic status based on modelling of historical open data. ▪ Simulation of pollution scenarios in a city such as speed limitation, vehicle access limitation according to their emissions using historical open data and a traffic simulation platform.
Integration constraint(s):	▪ Municipal open data are defined in a different way for each city, so data modelling could have to be modified. ▪ Simulations requires medium/high computational and some time.
Intended user(s):	▪ City authorities responsible for the urban mobility planning in any city
Provider:	▪ HI-Iberia
Contact point:	▪ Diego Fuentes (Hi-iberia): dfuentes@hi-iberia.es
Condition(s) for reuse:	▪ Commercial / Licensing

Latest update: 20.11.2019

Name: Smart City Platform - Web App for Real Time Data Visualization		
Input(s):	Main feature(s)	Output(s):
▪ Municipal open data ▪ Municipal IT solutions ▪ Public dada sources / web services	▪ Smart city platform based on Big Data technologies. ▪ Capable of processing and analyzing thousands of data per second in real time. ▪ Advanced smart services included in the platform (dashboards, GIS, CEP, Alerts,..).	▪ Dynamic dashboards for public authorities, administrators and Cytizens. ▪ Smart route planner based on user preferences. ▪ Notification and alerting system.

Unique Selling Proposition(s):	▪ Complex Event Processor and data analytics included in the platform to provide real time information for decision making. ▪ Geographical Information System (Maps 2d/3D and BIM) with real time information and notification/alerting system integrated in the platform. ▪ Easy third party integration (API, open source, Modular solution with interchangeable components). ▪ Device and asset smart manager that facilitates the integration of different data sources.
Integration constraint(s):	▪ Municipal data sources ara different for each city, ETL process should be customized for each one. ▪ External/public web services should be identified and integrated (For example: public transport, weather platforms, satellite images, google transit, …). ▪ Simulations requires medium/high computational and some time.
Intended user(s):	▪ City authorities and Citizens
Provider:	▪ Prodevelop
Contact point:	▪ Ismael Torres (Prodevelop): itorres@prodevelop.es
Condition(s) for reuse:	▪ Commercial / Licensing

Latest update: 20.11.2019

Name: IAQ/OAQ devices and Indoor Air Quality Management System		
Input(s):	Main feature(s)	Output(s):
▪ Indoor environment structure	▪ Monitoring of indoor (Temp./Hum., PM2.5, PM10, VOCs, CO2, Ilumination, Formaldehyde) and outdoor (Temp./Hum., PM2.5, PM10) environmental parameters ▪ Collection, management and analysis of indoor/outdoor environmental data	▪ Information of indoor/outdoor environmental data ▪ Protocols provided by the program ▪ Guide for maintaining air quality (on going)

Unique Selling Proposition(s):	▪ High precision detection of various indoor/outdoor environmental data ▪ Management and monitoring of IAQ devices based on an indoor map ▪ Providing the spatial interpolation for the sensor data with heatmap GUI
Integration constraint(s):	▪ 100~240V AC for each IAQ device ▪ WiFi for the communication between IAQ devices and the indoor air quality management system ▪ The indoor air quality management system requires the following softwares: · Java 1.8 (or newer) · Tomcat 8.0 (or newer) · PostgreSql 9.3 (or newer) · Python 3.0 (or newer)
Intended user(s):	▪ Household owners ▪ Facility managers
Provider:	▪ Coway: IAQ/OAQ devices ▪ ETRI: Indoor air quality management system
Contact point:	▪ Jongwan Kim, jwkim@coway.co.kr ▪ Seungwoog Jung, swjung@etri.re.kr
Condition(s) for reuse:	▪ Hardware for fixed price per piece

Latest update: 20.11.2019

Name: IoT LORAWAN and sensor network platform		
Input(s):	Main feature(s)	Output(s):
▪ Data form indoor air quality sensors, most LPWAN sensors supported	▪ Management of stakeholders, sensors and actuators ▪ API provision to support external applications ▪ Flexible data interpretation ▪ The most LPWAN standards support ▪ AES128 sensor data encryption, GDPR compliance ▪ Real time event messaging	▪ Visulalization of collected data ▪ Actionable data for HVAC systems ▪ Actuation of appliances ▪ API providing for the interagration within user's ICT
Unique Selling Proposition(s):	▪ Cloud services for the HVAC network entities management ▪ Controls the indoor air control loop over the actuator ▪ Integrated Visualization framework EViF	
Integration constraint(s):	▪ Wireless sensos with standard protocols operated by local network providers ▪ Internet connection ▪ Optionally sensor gateway AC powered ▪ Controllable HVAC appliances	
Intended user(s):	▪ Household owners ▪ Facility managers	
Provider:	▪ IMA: LPWAN application ▪ DEKPROJEKT: Buiding models, window contol ▪ CUNI: visualization framework	
Contact point:	▪ Jiri Havlik, jiri.havlik@ima.cz ▪ Petr Kocian, petr.kocian@dek-cz.com ▪ Tomas Bures, bures@d3s.mff.cuni.cz	
Condition(s) for reuse:	▪ Commercial / Licensing	
	Latest update: 20.11.2019	

Name: Android self-reporting app		
Input(s):	Main feature(s)	Output(s):
▪ Questionnaire answer data from end-users	▪ Time- and/or self-triggered questionnaires (Android notifications) ▪ Remote configuration of timing and content (update from application server once a day)	▪ Real-time questionnaire data via REST API
Unique Selling Proposition(s):	▪ Remote configuration of timing and content ▪ Can be tailored for variety of purposes	
Integration constraint(s):	▪ Requires Android v7.1.1 or later ▪ Application server runs on a virtual machine. It consists of a remote procedure call server (gRPC) for client communications; (HTTP/REST) server for Google Sheets requests and service monitoring requests; and a MongoDB document database for storing the assets, the users' reports, and questionnaire answers.	
Intended user(s):	▪ Projects collecting longitudinal and continuous questionnaire data from end-users	
Provider:	▪ VTT Technical Research Centre of Finland Ltd.	
Contact points:	▪ Johanna Kallio (johanna.kallio@vtt.fi) ▪ Kaisa Vehmas (kaisa.vehmas@vtt.fi)	
Condition(s) for reuse:	▪ Collaboration in research projects ▪ Commercial / subcontracting	
	Latest update: 20.11.2019	

Name: EViF – ESTABLISH Visualization Framework		
Input(s):	Main feature(s)	Output(s):
▪ Primarily time-series based data from sensors ▪ Other data required for visualization of sensor data (e.g., building models)	▪ Web-based framework for creating IoT dashboards ▪ Allows for definition and running of custom data processing jobs	▪ Highly customizable visualizations and IoT dashboards

Unique Selling Proposition(s):	▪ Secure multi-user access with granular permissions ▪ Easy integration of different data sources + their UI-based configuration ▪ Possibility of integration of visualization and data in domain-specific portals of different vendors
Integration constraint(s):	▪ Web-based framework (based on Javascript, ReactJS, MySQL, ElasticSearch
Intended user(s):	▪ Developers of IoT dashbords
Provider:	▪ Charles University, Czech Republic
Contact point:	▪ Tomas Bures, bures@d3s.mff.cuni.cz ▪ Petr Hnetynka, hnetynka@d3s.mff.cuni.cz
Condition(s) for reuse:	▪ Core of the framework is open-source (MIT license)
	Latest update: 22.11.2019

Name: Window opener		
Input(s):	Main feature(s)	Output(s):
▪ Sensor data	▪ Automatic control of windows	▪ Fresh air

Unique Selling Proposition(s):	▪ Automatic control of ventinalation using window opener on tilt-turn windows
Integration constraint(s):	▪ Tilt-turn windows ▪ Wifi ▪ Electricity 230V AC
Intended user(s):	▪ Household owners, facility managers
Provider:	▪ DEK, IMA
Contact point:	▪ Petr Kocián, petr.kocian@dek-cz.com ▪ Jiri Havlik, jiri.havlik@ima.cz
Condition(s) for reuse:	▪ Hardware for fixed price per piece
	Latest update: 6.11.2019

Name: DEKSOFT - Energy management		
Input(s):	Main feature(s)	Output(s):
▪ Indoor air quality and consumption sensor data	▪ Monitoring of the media (energy, water etc.) consumption and indoor air parameters monitoring and in future version (mid 2020) also management of building services, windows ▪ Cloud application	▪ Protocols provided by the program
Unique Selling Proposition(s):	▪ Automatic control of ventinalation using window opener on tilt-turn windows	
Integration constraint(s):	▪ Internet connection ▪ Opera, Apple Safari, Google Chrome, Mozilla Firefox (from version 4.0) web browser	
Intended user(s):	▪ Household owners, facility managers	
Provider:	▪ DEKPROJEKT – DEKSOFT division	
Contact point:	▪ Petr Kocián, petr.kocian@dek-cz.com ▪ Tomáš Kupsa, tomas.kupsa@dek-cz.com	
Condition(s) for reuse:	▪ DEKSOFT user account with valid license	
	Latest update: 13.11.2019	

Name: Purifier control app		
Input(s):	Main feature(s)	Output(s):
▪ User actions ▪ In the future IAQ/OAQ sensor parameters	▪ Purifier speed control ▪ Timer functions ▪ Multiple purifiers can be added, named and controlled remotely by mobile device ▪ App theme can be changed according to user preferences	▪ Purifier speed settings ▪ Timer-based operation
Unique Selling Proposition(s):	▪ Remote control of UniqAir purifiers	
Integration constraint(s):	▪ WLAN router ▪ Mobile device, Android or iOS	
Intended user(s):	▪ UniqAir purifier users (facility managers, households, office personnel etc., healthcare professionals)	
Provider:	▪ UniqAir Oy	
Contact point:	▪ Kimmo Häyrinen, kimmo.hayrinen@uniqair.fi	
Condition(s) for reuse:	▪ Purchase or renting of UniqAir purifier ▪ App is downlodable free of charge	
	Latest update: 20.11.2019	

Name: Open API		
Input(s):	Main feature(s)	Output(s):
▪ Simplicity ▪ Reliability ▪ Scalability ▪ Device independence	▪ Coordinator (WEB SOA enabled Application) ▪ Kernel services (REST services) ▪ Data storage (Big Data, time series) ▪ Data analysis services ▪ Data presentation services	Am ecosystem where ▪ Device producers can plug-in their devices ▪ Data captures is stored and processed ▪ Consumers can subscribe to processed data, analysis, specific functionalities

Unique Selling Proposition(s):	▪ Ecosystem where different actors can plug their devices, store & process data in order to use specific functionalities customized for each actor needs.
Integration constraint(s):	▪ REST Services using Basic Authentication or Oauth2.0 ▪ JSON Request, JSON Response
Intended user(s):	▪ Device producers, in order to plug-in the device in the framework ▪ BigData analysis systems, to get real time data (continous data series) ▪ Data consumers, which checks particular samples of data
Provider:	▪ ESTABLISH Consortium (OpenAPI is part of the global framework).
Contact point:	▪ Alexandra.Rosca@siveco.ro
Condition(s) for reuse:	▪ Secured internet connection (SSL)

Latest update: 2.12.2019

Name: Accurate AQI (Air Quality Instruments) tools easily interpreted		
Input(s):	Main feature(s)	Output(s):
▪ Simplicity ▪ Reliability ▪ Scalability ▪ Device independence	▪ Data collection from sensors ▪ Data presentation tools	▪ Data presentation of data collected
Unique Selling Proposition(s):	▪ Ecosystem where different actors can plug their devices, store & process data in order to use specific functionalities customized for each actor needs.	
Integration constraint(s):	▪ REST Services using Basic Authentication or Oauth2.0 ▪ JSON Request, JSON Response	
Intended user(s):	▪ Device producers, in order to plug-in the device in the framework	
Provider:	▪ ESTABLISH Consortium	
Contact point:	▪ Alexandra.Rosca@siveco.ro	
Condition(s) for reuse:	▪ Secured internet connection (SSL)	
	Latest update: 2.12.2019	

Name: Customized visual instruments for decision support		
Input(s):	Main feature(s)	Output(s):
▪ Simplicity	▪ Data presentation tools	▪ Data presentation of data collected

Unique Selling Proposition(s):	▪ Visual tool to present data and data analysis.
Integration constraint(s):	▪ HTTP and HTTPS protocols used
Intended user(s):	▪ Final users interested in the usage of data
Provider:	▪ ESTABLISH Consortium
Contact point:	▪ Alexandra.Rosca@siveco.ro
Condition(s) for reuse:	▪ Secured internet connection (SSL)

Latest update: 2.12.2019

Name: Web-based platform for patient management		
Input(s):	Main feature(s)	Output(s):
▪ User friendly	▪ Calendars ▪ Activities management ▪ Patient management	▪ Schedules of activities ▪ Health data displayed
Unique Selling Proposition(s):	▪ System used for patient management. Calendars, Activities, Results, Health data.	
Integration constraint(s):	▪ HTTP, HTTPS protocols enabled	
Intended user(s):	▪ Carergivers, trainers, patients, athletes	
Provider:	▪ ESTABLISH Consortium	
Contact point:	▪ Alexandra.Rosca@siveco.ro	
Condition(s) for reuse:	▪ Secured internet connection (SSL)	
	Latest update: 2.12.2019	