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

ITEA2 Call 8 – 13016 C³PO: Collaborative City Co-design PlatfOrm

Project details

Project leader:	Andy De Mets
Email:	andy.demets@barco.com
Website:	https://c3poprojectblog.wordpress.com/

Name: Querying on core ontology and domain ontologies of city-co-design		
Input(s):	Main feature(s)	Output(s):
▪ RDF query ▪	▪ Semantic modeling of a set of domain ontologies of city co-design (transport, GIS, traffic, planet) and semantic linkage between them (core ontology) ▪ Semantic data storage using W3C linked open data standard	▪ RDF result ▪

Unique Selling Proposition(s):	▪ Semantic and standardized representation of core ontologies for city-co-design ▪ Compliant with the W3C linked data approach (linked open data) ▪ Easy to integrate with other ontologies (domains)
Integration constraint(s):	▪ W3C Linked (open) data (RDF(S) & OWL standardized) ▪ RDF-based data storage ▪ Cloud infrastructure platform
Intended user(s):	▪ Application developers of points solutions in city co-design
Provider:	▪ Open source
Contact point:	▪ Philippe Thiran & Alper Kanak
Condition(s) for reuse:	▪ None (open source) ▪

Latest update: 9 November 2017

Name: AROnSite		
Input(s):	Main feature(s)	Output(s):
▪ 3D model of planned building, and possible existing buldings ▪ Map of building site	▪ The AROnSite application augments the 3D building model in live video image on mobile device's screen ▪ Accurate augmentation based on interactive initialization and markerless tracking ▪ Fully automatic operation, based on previously stored environment features ▪ Visualization features, including comparing of alternative designs, masking by existing buildings, different lighting models ▪ Implemented on Android mobile devices ▪ Content creation using separate MapStudio application on Windows	▪ Real time AR view of planned building shown on real word site ▪ Videos and still images of AR view

Unique Selling Proposition(s):	▪ Most easy-to-use and accurate outdoor augmenting application for architectural AR visualization ▪ Simply place the 3D building models on map, and step outside to see them augmented in real time view on mobile device
Integration constraint(s):	▪ Supported 3D model formats: Collada, 3DS, OBJ, FBX, IFC ▪ Supported map formats: Google Maps, GeoTIFF
Intended user(s):	▪ Land use consultants, architects, city officials, other interest groups
Provider:	▪ VTT Technical Research Centre of Finland Ltd.
Contact point:	▪ charles.woodward@vtt.fi
Condition(s) for reuse:	▪ Software licensing per company, per year, or per model ▪ Also, integration with existing 3D content authoring systems

Latest update: November 8, 2017

Name: VR 4 Urban Transformation		
Input(s):	Main feature(s)	Output(s):
▪ 3D design of new urban area plans ▪ 3D design of infra- and super-structure ▪ Any city data (static or dynamic) ▪ Map ▪ Preferences	▪ The application enables virtual tours in a 3D urban area ▪ 3D design of infra- and super-structure can be shown as layers of data ▪ Static or dynamic city like existing roads and vehicle traffic can be visualized as an additional layer ▪ Map information can be shown ▪ New urban design choices can be virtually presented and users can vote for the options. ▪ Can be shown by smart VR glasses like Oculus Rift or HTC Vive	▪ A game-like VR environment ▪

Unique Selling Proposition(s):	▪ Suitable for both hand use and interaction booths ▪ Layered information with live sensory data can be shown ▪ Can be integrated with any semantic framework
Integration constraint(s):	▪ Supported 3D model formats: Collada, 3DS, OBJ, FBX ▪ Supported map formats: Google Map ▪ (if requested) integration with a cloud platform
Intended user(s):	▪ Land use consultants, architects, city officials, citizens other interest groups
Provider:	▪ ERARGE
Contact point:	▪ alper.kanak@erarge.com.tr
Condition(s) for reuse:	▪ Software licensing per company, per year, or per model ▪

Latest update: November 9, 2017

Name: CHAOS™ for city challenges		
Input(s):	Main feature(s)	Output(s):
▪ Any streaming city data (traffic, processes, movements) ▪ Maps	▪ Modelling big data with statistical analytics to identify confidence intervals ▪ Chaotic predictions	▪ Inferenced analysis results ▪ Recommendations
Unique Selling Proposition(s):	▪ Statistical analytics generate a confidence interval which can be used for planning urban services (i.e. traffic intensity will realize in an interval of [30% - 70%] ▪ Chaotic prediction generates recommendations (like traffic signaling duration) for grid-like urban transportation network ▪ For non-grid networks, the chaotic analysis generates a recommendation for providing predictability (add a detour in a specific location for chaotic predictability)	
Integration constraint(s):	▪ The tool should be sourced with streaming numerous data ▪ Operates on homogeneous data (i.e only for city traffic or only for CO2 measurements)	
Intended user(s):	▪ Land use consultants, municipalities, city officials	
Provider:	▪ ERARGE	
Contact point:	▪ alper.kanak@erarge.com.tr	
Condition(s) for reuse:	▪ Software licensing per company, per year, or per model ▪ selling recommendations or inference knowledge for each case study	
	Latest update: November 9, 2017	

Name: AR 4 Urban Transformation		
Input(s):	Main feature(s)	Output(s):
▪ 3D design of new urban area plans ▪ 3D design of infra- and super-structure ▪ Any city data (static or dynamic) ▪ Map	▪ The application enables augmentation of new urban plans in live video image on mobile device's screen ▪ 3D design of infra- and super-structure can be shown as layers of data ▪ Static or dynamic city like existing roads and vehicle traffic can be visualised as an additional layer ▪ Map information can be shown ▪ Can be shown by smart AR glasses like Hololens ▪ Operates on mobile devices as well	▪ Real time AR view of planned building shown on real word site ▪ Videos and still images of AR view

Unique Selling Proposition(s):	▪ Markerless AR can be generically adjusted to any environment ▪ Marker-based AR can be used for table-top planning ▪ Layered information with live video data can be shown ▪ Can be integrated with any semantic framework
Integration constraint(s):	▪ Supported 3D model formats: Collada, 3DS, OBJ, FBX ▪ Supported map formats: Google Map ▪ (if requested) integration with a cloud platform
Intended user(s):	▪ Land use consultants, architects, city officials, citizens other interest groups
Provider:	▪ ERARGE
Contact point:	▪ alper.kanak@erarge.com.tr
Condition(s) for reuse:	▪ Software licensing per company, per year, or per model

Latest update: November 9, 2017

Name: Urban Traffic Semantic and Computer Vision Framework and ERARGE Traffic Ontology		
Input(s):	Main feature(s)	Output(s):
▪ Traffic data (open data like YANDEX traffic intensity or instant traffic intensity values extracted by the online visual urban surveillance system) ▪ API calls and RDF queries	▪ Standardized access to linked (semantic) data ▪ Service that can be integrated with any web utility ▪ Computer vision techniques to extract vehicle and pedestrian intensity from surveillance camera recordings	▪ RDF results ▪

Unique Selling Proposition(s):	▪ ETO is specially designed for traffic challenges covering the pre-, post-, and current status urban transformation ▪ It provides a good taxonomy of city roads ▪ Urban and traffic events are well-categorized ▪ Cost of any urban service or any related recommendation for urban or traffic events can be modeled ▪ Capable of extracting vehicle and pedestrian intensity from surveillance camera recordings and feed the system by the extracted data ▪ Semantic and standardized access to linked data ▪ Compliant with the W3C linked data approach (linked open data) ▪ Easy to upload/download (new) ontologies
Integration constraint(s):	▪ OWL standardized ▪ Any cloud platform that enables the streaming of traffic data
Intended user(s):	▪ Land use consultants, municipalities, city officials
Provider:	▪ ERARGE
Contact point:	▪ alper.kanak@erarge.com.tr
Condition(s) for reuse:	▪ Software licensing per company, per year, or specified urban area ▪ opening ontology for research purposes

Latest update: 9 November 2017

Name: iSocialWall		
Input(s):	Main feature(s)	Output(s):
▪ All posts from Twitter based on keywords, #hashtags and @mentions ▪ All Municipality Facebook, Instagram, Youtube, Flickr account's ▪ Maps	▪ Social Wall for Outdoor Screens at Municipality Area ▪ Social interaction tools ▪ Social city platforms ▪	▪ A social media platform over WEB ▪
Unique Selling Proposition(s):	▪ showcasing what people are saying by utilizing the power of social media platforms ▪ adding social news and information, administration, etc at public places ▪ live stream puts the on-line conversations in front of more people and encourages others to join in and have their say too ▪ opinion mining in social city platforms, which will integrate widely used social networking services and the data gathered from different sources of the C3PO platform ▪ social media-based co-design tools that support both asynchronous and synchronous collaboration	
Integration constraint(s):	▪ IsocialWall needs an Internet connection (wired or wi-fi) to function. However if the connection fails, it will still cycle based on the content already received and cached via the browser. ▪ A virtual server that hosts iSocialWall	
Intended user(s):	▪ city officials, citizens other interest groups	
Provider:	▪ MANTIS	
Contact point:	▪ guven.kose@mantis.com.tr	
Condition(s) for reuse:	▪ Software licensing per company, per year, ▪	
	Latest update: 9 November 2017	

Name: Participation Pavilion		
Input(s):	Main feature(s)	Output(s):
▪ City/municipality policy topics ▪ Visualisations of future urban developments ▪ Citizen opinions	▪ Physical booth (hardware) to be placed temporarily in the urban environment ▪ Open questions can be answered using voice ▪ Voice responses are recorded ▪ Recordings are analyzed using language analysis	▪ Transcribed opinions ▪ Generalized insights

Unique Selling Proposition(s):	▪ A digital urban participation method using non-digital elements as dominant interactions ▪ Reaching out to a broad, age or background independent, slice of citizens
Integration constraint(s):	▪ Close interaction between the provider and the user is required
Intended user(s):	▪ City council ▪ Municipalities ▪ Policy makers ▪ Citizens & citizen representatives
Provider:	▪ Studio Dott.
Contact point:	▪ Dries De Roeck (dries@studiodott.be)
Condition(s) for reuse:	▪ Software: single cost licensing (per project) ▪ Hardware: renting or service licensing

Latest update: 9/11/2017

Name: Netigma		
Input(s):	Main feature(s)	Output(s):
▪ Any data based on location (tweet, traffic, etc.) ▪ Digitized city plan drawings ▪ Maps	▪ Rule engine and action capability ▪ Dynamically created reports and queries ▪ Document archive capability ▪ User and authentication management	▪ Map based platform over WEB ▪ Spatial and statistical analysis
Unique Selling Proposition(s):	▪ Location based social media analysis ▪ Location based public opinion vote analysis ▪ Visualization of urban transformation plans ▪ Reports on location based datas (hourly traffic intensity) ▪ Queries over map ▪ Big data analysis	
Integration constraint(s):	▪ Netigma needs an Internet connection (wired or wi-fi) to function. ▪ A server that hosts Netigma ▪ Connection with a specified database for base tables ▪ Spatial tables for mapping functions	
Intended user(s):	▪ Citizens ▪ Stakeholders of city co-design ▪ Municipalities	
Provider:	▪ NETCAD	
Contact point:	▪ hakan.yildirir@netcad.com.tr	
Condition(s) for reuse:	▪ Software licensing per company, per year,	
	Latest update: 9 November 2017	