ENERGIC OPEN DATA

European NEtwork for Redistributing Geospatial Information to user Communities - Open Data

ENERGIC OD Newsletter 5th Issue, March 2017

This project is funded by the European Union

ENERGIC OD Newsletter

Project Details

Project reference:
620400

Funded under:
CIP

Duration:
36 months
01/10/2014 - 30/09/2017

www.energic-od.eu

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EDITORIAL

by Stefano Nativi - CNR - IIA (Italy)

We are well into the third year of our project aimed at the implementation of an innovative architectural approach based on the Virtual Hub concept.

A significant next coming milestone is March 2017 with the final release of the Virtual Hub software package, which includes the discovery of and access to heterogeneous open data sources, and their transformations (subsetting, interpolation, reprojection, encoding) enabled by the ENERGIC -OD Virtual Hub ecosystem. In particular, specific extensions will be available to broker data from previously unsupported source types, and to interact with ENERGIC OD apps.

An important result has been reached by the NoiseCapture app. The Federal Polytechnic School of Lausanne (EPFL) is asking Android users who visit or live in Canton of Geneva to record the sounds around them with the French app. The scope is to create a sound map, which will provide researchers with information on the quality of life. This collaboration is a good example of participation in the interaction between citizens and the academic world and illustrates that data can be reused for different purposes (health, urban planning, etc).

GeoPan APP PRO/LIGHT is a newly conceived service of ENERGIC OD project, supporting a more informed planning process by using multi-temporal Open Data. This could contribute to a more sustainable use of land and to a better management of the Built Environment, including risk prevention objectives.

In this newsletter, we will be reporting on the successful experience of the EODAppathon and on other past and future events such as the BARCAMP ENERGIC OD held in Toulouse in March and our International Contest organized by our partner TRILATERAL for awarding the best idea for an innovative geospatial open-data app. The internal project meeting held in Toulouse gave the opportunity to check progress towards the objectives set by the Project, to focus on exploitation and dissemination issues and to plan future activities. Then, the open discussion focused on planning the Final Conference, which will outline the main outcomes of the project and their impact on the different target groups and stakeholders. The event will be organized in synergy with a significant event for the Community.

For more updated news, please visit our website:

https://www.energic-od.eu/

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HIGHLIGHTS

- **New horizons for the NoiseCapture App**
- **GEOPAN Pro/Light**

This project is partially funded under the ICT Policy Support Programme (ICT PSP) as part of the Competitiveness and Innovation Framework Programme by the European Community

Highlights

NEW HORIZONS FOR THE NOISECAPTURE APP

by Gwendall Petit - CNRS (FR)

EPFL is asking Android users who visit or live in Geneva Canton to record the sounds around them with the ENERGIC OD app **NoiseCapture**...

The NoiseCapture app is currently used by the EPFL (Federal Polytechnic School of Lausanne) to measure the noise environment in Geneva Canton.

The scope is to collect as many sound recordings made all over Geneva Canton as possible – both pleasant and unpleasant sounds, including nature sounds, which are helpful for learning if there is a relationship between noise pollution and public health.

When the app is installed, users are invited to calibrates their microphone so that recordings from all smartphones are comparable regardless of the brand. The app's recording function geolocates the sound and logs the number of decibels, frequencies, date and time of the recording. Users can also take a picture of the location, evaluate the sound's 'pleasantness' and add a comment.

The data are processed by an artificial-intelligence. The more data people send in from all over Geneva Canton, the more accurate and meaningful the sound map will be.

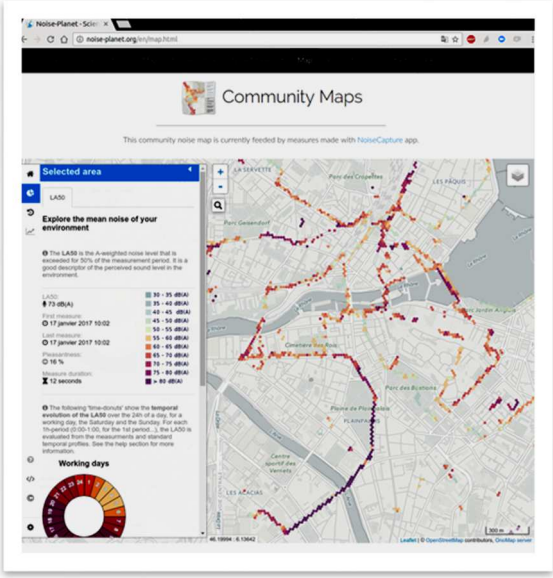
Once measures are made, noise data are automaticaly collected into a Spatial Data Infrastructure developed and maintained by CNRS and IFSTTAR teams, involved in the ENERGIC-OD project. Those data are then delivered in two ways:

- through an interactive web map : http://noise-planet.org/en/map.html (see illustration zoomed on Geneva)

- as raw data (.zip files) in the dedicated web page http://data.noise-planet.org/noisecapture/

Right now, it appears that the challenge has been met since more than 300 users have experienced NoiseCapture app in Switzerland from the beginning of the campaign.

This collaboration is a good example of participation in the interaction between citizens and the academic world and illustrates that data can be reused for different purposes (health, urban planning, etc).



Reference:
EPFL News, Crowd Mapping Geneva Canton's Soundscape, http://actu.epfl.ch/news/crowd-mapping-geneva-canton-s-soundscape/

GEOPAN PRO/LIGHT

by Miguel A. LATRE - UNIZAR (ES) & Branka CUCA, Mattia PREVITALI, Raffaella BRUMANA – POLIMI (IT)

A newly conceived service supporting a more informed planning process by using multi-temporal Open Data ...

GeoPan APP is a newly conceived service of ENERGIC OD project, based on the thought that a more informed planning process using multi-temporal Open Data could contribute to a more sustainable use of land and to a better management of the Built Environment, including risk prevention objectives. The application has a focus on valorisation of historic cartographic documentation for landscape and built environment mapping, monitoring and management.

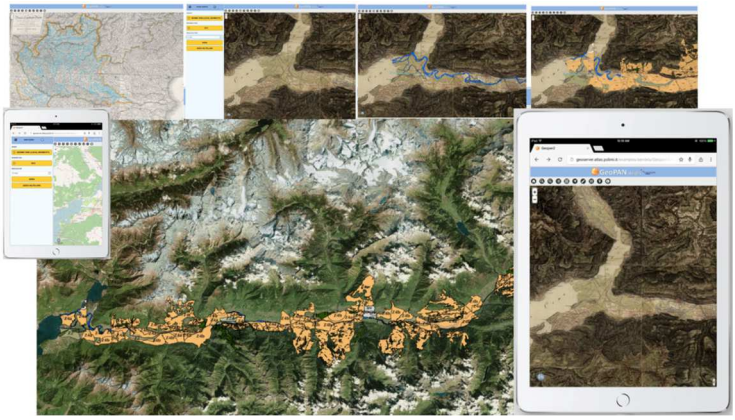


Figure 1 GeoPan Light – River Adda: example of available datasets

GeoPan APP emphasises on the value of digital historical cartography as a meeting point of two worlds – the humanistic component involving learned and literate historians and the scientists, professionals, architects, planners and engineers of cartography concerned with everyday practice and cartographic technologies (Livieratos, E., 2006). Hence, historical cartography made available as Open Data (OD) and more easily accessible via sophisticated technological solution such as Virtual Hubs (VH), can significantly support awareness rising on historical heritage and cultural landscapes when it comes to territorial and urban planning and their fruition (EC, 2000).

The application service provides the entire chain of features starting from the digitalisation, geo-referencing, creation of metadata, potential further processing of historic cartography and finally the publication of such information in machine readable OD formats. APP also proposes possibilities for further integration of such information with other currently available open raster and vector spatial datasets.

GeoPan APP proposes two different versions:

GeoPan Pro (http://www.atlas.polimi.it/it/energic-od/geopan-atls-app/): that allows the access to multi-temporal geographical data (including historical maps, satellite output, and current cartography) and additional thematic layers (i.e. local seismicity, flooding-prone areas, active landslides, etc.) and enhanced functionalities to be used in professional environments, such as a better knowledge of the state of the art of the occurred transformations across the centuries, to support decision making and risk mitigation and environmental monitoring. The service allows to perform advanced search, temporal and spatial subsetting, and semantic based search exploiting the VH potentials. The application allows also geolocation of photos and itineraries as well as generation and download of new datasets.

GeoPan Light: that allows an easy visualization of historical maps by end users with basic IT skills. This product can be customized for different clients to fit their particular needs and corporate image. Multiple, customize instances and interfaces of GeoPan Light can be delivered including national customization according to the needs of local users.

GeoPan Light Zaragoza instance: http://idezar.zaragoza.es/visorHistorico/?locale=en

GeoPan Light Milano instance: http://www.atlas.polimi.it/it/energic-od/geopan-milano/

Customers of the GeoPan service are mainly Public Administration, while each application version of GeoPan will target different market segments: GeoPan Pro targets at Public Administrations in charge of risk mitigation and environmental monitoring, and professionals (such as geologists, planners, engineers and architects) that can benefit from the information regarding the environmental risks, deriving from the analysis using multi-temporal data, including historical cartography, but also the professional users, which are provided with features for searching, discovering, accessing and browsing historical cartography; GeoPan Light targets Public Administrations that is in charge of various historical cartography collections, with a need and/or mandate to make their archives widely available and open (e.g. National Archives, Municipalities, Regional bodies, or other Pas). GeoPan Light requires no particular IT skills so it is also appealing to general public, offering visualisation and easy-to-use functionalities.

Figure 2 GeoPan Light – City of Zaragoza

The APP is being provided Politecnico di Milano (POLIMI) and Universidad de Zaragoza (UNIZAR).

References:

Livieratos, E. (2006). ICT in Heritage Research, GIM International, 20 (5), at: http://www.gim-international.com/issues/articles/id661-ICT_in_Heritage_Research.html.

European Council (2000), European Landscape Convention (Florence Convention), accessed via http://www.coe.int/en/web/conventions/ull-list/-/conventions/treaty/176

WORK PACKAGES & OUTCOMES

WP5 : VIRTUAL HUB SOFTWARE PACKAGE FINAL RELEASE

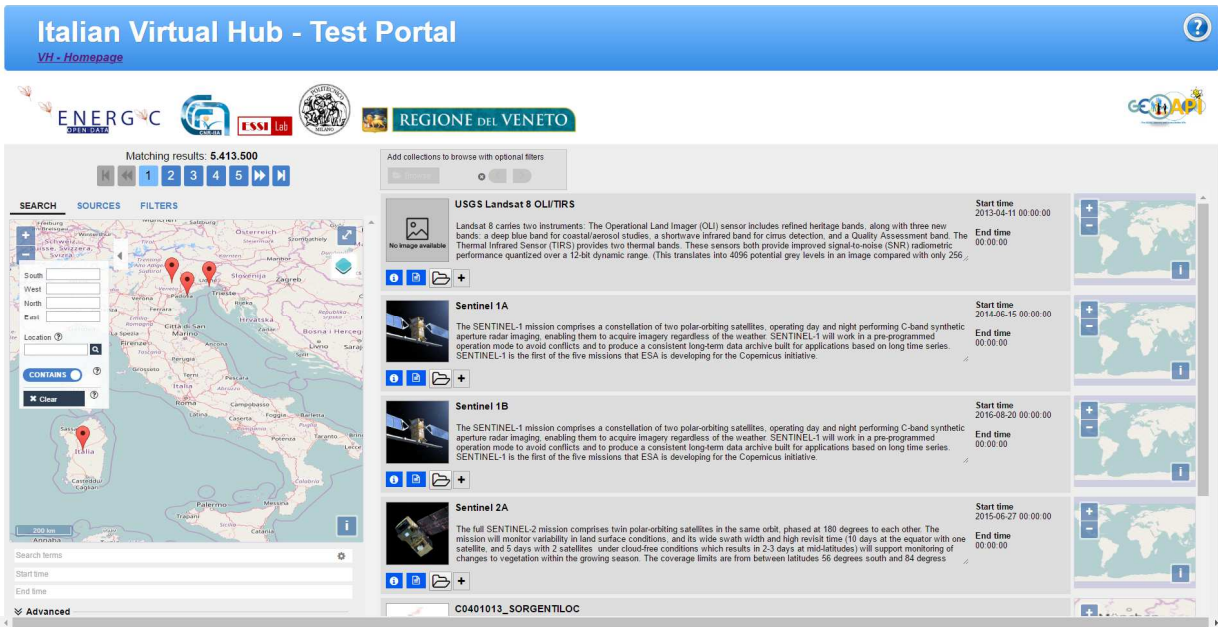
by Paolo Mazzetti - CNR - IIA (IT)

An important milestone is Project Month 30 with the final release of the Virtual Hub software package.

The final release of the Virtual Hub software package includes the discovery of and access to heterogeneous data sources, and their transformations (subsetting, interpolation, reprojection, encoding) enabled by the GI-Suite Brokering Framework with specific extensions to broker data from previously unsupported sources, and to interact with ENERGIC OD applications.

The software package has been delivered as Amazon Machine Image (AMI) and in Open Virtualization Format (OVF), to support the deployment choices made by responsible parties of the national-level and local-level Virtual Hubs. In particular CNR-IIA for the Italian Virtual Hub, and AED-SICAD for the national-level German Virtual Hub decided to deploy their Hubs on the Amazon cloud.

SRP implemented a second instance of the Virtual Hub in Germany for a local-level hub in Berlin on a virtualized local infrastructure integrating it with their own component (GIS Broker). BRGM deployed the French Virtual Hub on their own infrastructure. UNIZAR for the Spanish Virtual Hub and IGIK for the Polish Virtual Hub decided to deploy the VH on a virtualized local infrastructure.



WP8 : D8.3 REVISION OF THE BUSINESS PLAN

by Jedrzej Czarnota - Trilateral Research Ltd. (UK)

Following on the Year 2 Review, the PO asked the partners to produce a more practice-focused version of the ENERGIC-OD exploitation and business plan. During the meeting in Orleans on the 7th of March 2017, that document was completed and delivered.

Its highlights include the plans for consortium coordination and the division of partner responsibilities for the post-funding phase of the project (continuity plan). It describes the marketing efforts for Virtual Hubs (VHs) – with the sales efforts focusing on local governments/authorities, universities, and research institutions. It also analyses competition to the VHs from already existing technological solutions (such as catalogue services), and how to position VHs in its context. The document also articulates the VH value propositions and unique selling points. The new D8.3 also includes financial projections for VH maintenance and upkeep, as well as plans for VH expansion (to neighbouring countries of the existing project partners, to the pan-European level, as well as towards the development of data-themed VHs).

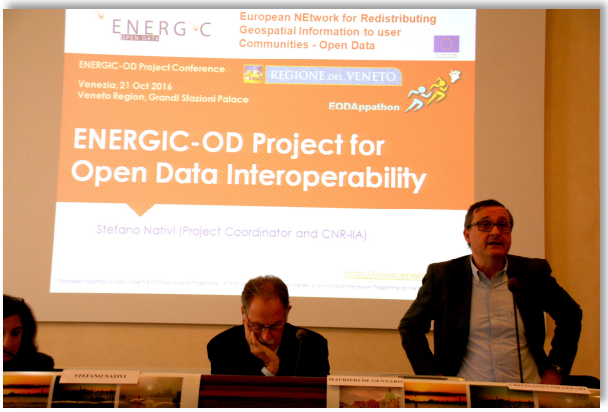
The D8.3 will be further enhanced and revised before the end of the project in September 2017, providing more details and actions.

Events

EODAPPATHON : THE ITALIAN HACKATHON FOR DEVELOPING NEW APPLICATIONS TO INTERFACE WITH VIRTUAL HUB

by Mariella Liberti- CNR-IIA (Italy)

EODAppathon Conference



Veneto Region, together with the Florence Division of the Institute of Atmospheric Pollution Research (IIA) of the National Research Council of Italy (CNR) and the Politecnico of Milan, promoted, within the European project ENERGIC-OD project (http://www.energic-od.eu), the hackathon "EODAppathon", a national competition for app development using the Italian VH instance, which was held in Venice on October 21 and 22, 2016.

The contest was targeted at achieving the objectives of the ENERGIC-OD project demonstrating the VH platform effectiveness and facilitating new applications development as well as serving Public Administrations, enterprises and private citizens with Open data.

The EODAppathon was introduced by a public conference on Open Data access and re-use in the morning of October 21st at the Grandi Stazioni Palace, Headquarters of the Veneto Region.

This event was attended by qualified speakers coming from different organizations, public administrations, research institutes and universities as well as from different European Countries who shared their experience in the field of spatial data processing and design, as well as experts in data management and GIS.

Among the different topics addressed during the Conference (spatial data, European initiatives, quality system, ...) a particular emphasis has been given to the use and dissemination of geospatial Open Data, and to the ENERGIC OD Project and the development of a set of innovative applications through the VHs deployment.

EODAppathon Contest

The Hackathon entitled "EODAppathon, a national competition for app development" was held on Oct. 22nd.

The 24 hour non-stop event (open to public and private companies, entrepreneurs, and students) was meant to demonstrae the VH platform effectivenes, to facilitate new applications development and serve Public Administrations with Open data.

It was attended by 32 participants, all with different backgrounds, which were grouped in 7 Teams. They had to developed new applications, or prototypes for smartphones or tablets, concept of web application, or a mashup using the data stored and catalogued in a specific Virtual Hub.

The Hackathon was held in the Veneto Region headquarters of Palazzo Linetti. Each team had a workstation and the ability

to use a dedicated Wi-Fi connection, as well as the support and ongoing collaborators of the three partners' organizers.

THE TEAMS

The 32 participants came from different realities, from the world of University and Research, experts in the IT sector in the field of knowledge of the spatial data and GIS, grouped in the following 7 Team:

Team BrainFour	consisting of software developers all with different experiences in different sectors, mainly in the field P.A.
Team Gavia Stellata	consisting of software developers, experts in spatial planning and a communication designer
Team GisUp	It composed of developer GIS, environmental engineers and planners carefully to concepts related to smart cities and sustainability
Team Kiss	mainly young computer science students at the University Ca 'Foscari of Venice with interest in Open Data
Team Lappateam	mainly composed of students of the Politecnico di Milano (Computer Science and Engineering and Architecture)
Team Mr Robot	composed mainly of programming experts and Open Data, computer science students at the University Ca 'Foscari of Venice
Team Savino	consisting of heterogeneous figures, including software engineers, experts in geographic information systems and spatial planning and landscaping

THE APPS

BrainFour	Mobile App	Application aimed at the selection and visualization of information concerning the reference points of the geodetic/altimetric network.
Gavia Stellata	Quicka	Application for facilitating environmental decision-making.
GisUp	Easy Nadir	Application for identifying and mapping cultural and heritage resources
Kiss	TypeTour	Travel itinerary application for exploring places of touristic and cultural interest through bike sharing
Lappateam	HeaLife Healthy is Wealthy	Healthy is Wealthy - Travel itinerary application for ecological journeys
Mr. Robot	Safe Route	Mapping tool for identifying landslide and fire risk areas on national hiking pathways of the Italian Alpine Club
Savino	Open Parks	Mapping tool for the valorisation of natural parks integrating data crowdsourced by users

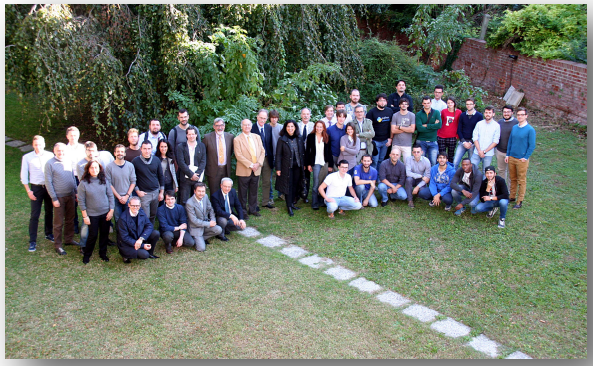
THE WINNERS

The Jury monitored the progress of the Teams during the entire event and offered guidance and assistance strictly relevant to the development of apps and linked to their area of expertise.
Each team at the end of the contest had 10 minutes presentation of the application developed.

1st Prize : **Team Gavia Stellata for "Quicka"**

2nd Prize : **Team GisUp for "Easy Nadir"**

3rd Prize: **Team Mr. Robot for "Safe Route"**



OPEN CONTEST ON BUSINESS PLANS FOR GEOSPATIAL DATA

by Jedrzej Czarnota - TRILATERAL (UK)

The ENERGIC-OD project is currently running a contest for undergraduate and postgraduate students to provide a business plan and software application mock-up, for the use of open, geospatial data. Contestants will compete for the opportunity to win 1,500 EUR (first prize), 1,000 EUR (second) or 500 EUR (third), as well as other prizes (i.e., consulting sessions with GI business experts).

Students, postgraduates, start-ups, SMEs, academics, coders, developers, digital entrepreneurs from all countries of the world are welcome to participate.

Entries will be reviewed by a panel of judges consisting of ENERGIC-OD experts. Winners will be announced on the 14th of April 2017 on the contest website (winners will be also informed by email).

For detailed information about the contest procedure click here: https://media.wix.com/ugd/4f5bdd_706c0b088a48426b935a22ffcf072a7d.pdf

For more information about the contest see: www.energic-od.eu/contest

Project Dissemination

ENERGIC OD at the Panel "Reusing Digital Cultural Heritage: Boosting Education, Audience Engagement, Business Creation", organized by Europeana Space (E-Space) at Euromed 2016

A **panel** was organized by **the Europeana Space project** in Nicosia (Cyprus) on October 31st, 2016. The event involved the most notable EU projects and initiatives dealing with digitized cultural heritage, intended to showcase different approaches, examples and best practice of reuse for digital cultural data, and to assess their impact in terms of enlarging citizen participation, developing advanced tools and resources for educational purposes, and for creating new businesses and job opportunities.

Relevant speakers from the key institutions in Europe, which are involved in the scenario of digital cultural heritage, illustrated experiences of content reuse that exploit digital technologies to foster societal progress and also economic rewards. The panel was a great occasion for sharing knowledge and networking with cultural managers, ICT experts, researchers, creative industries, service providers and other EU projects. Among them, the **ENERGIC OD project** was represented by **Prof. Raffaella Brumana** from **POLIMI**, who gave a speach on "**ENERGIC OD GeoPAN Atl@s APP: Open geo Data meet Built Heritage and Cultural Landscapes**".

"THE CHANGING LITTORAL. ANTICIPATION AND ADAPTATION TO CLIMATE CHANGE", LITTORAL 2016, BIARRITZ 25-29, 2016

by Frédérique MOJON LUMIER - BRGM (France)

BRGM presented ENERGIC OD activities and its app "Coastline" at the LITTORAL 2016 ...

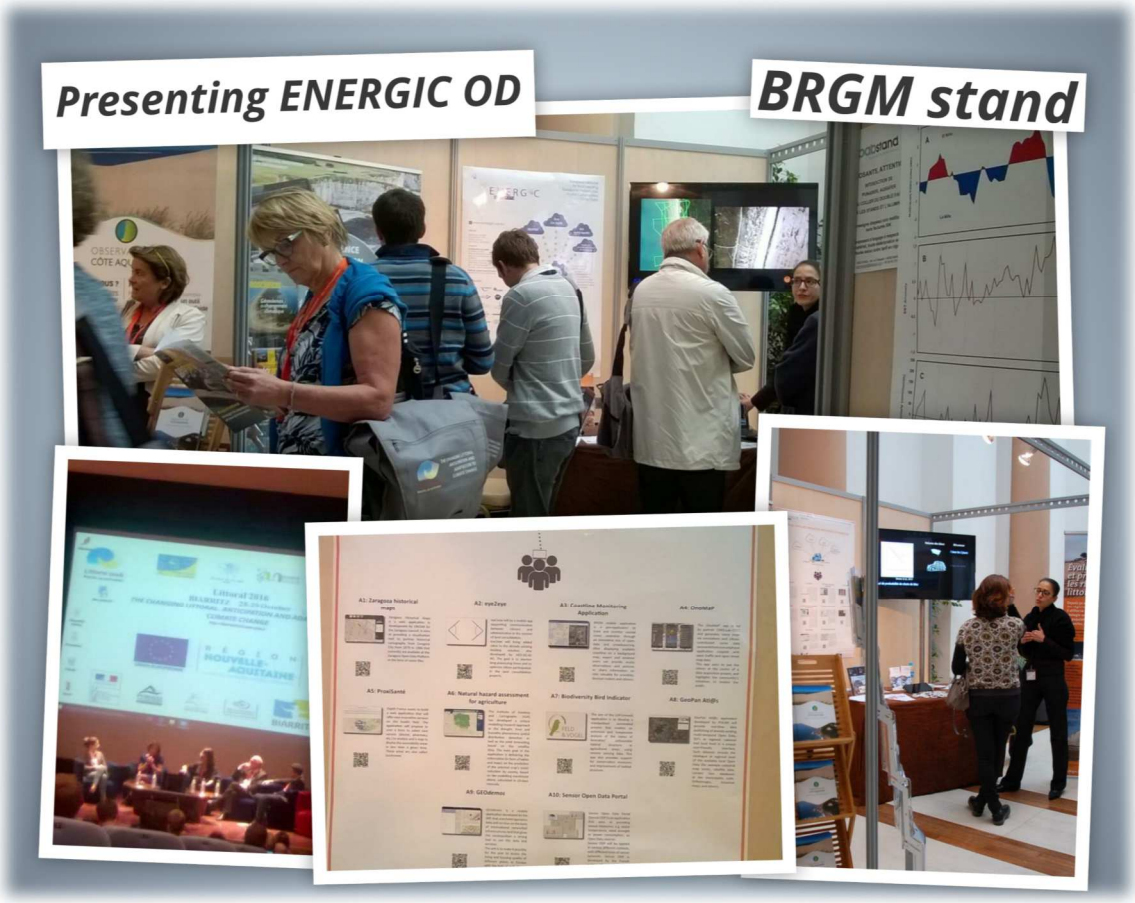
BRGM was present at the Scientific conference "Littoral 2016" organised by the EUCC (European network Coastal & Marine Union) in Biarritz (France). The conference theme was about "**The changing littoral. Anticipation and Adaptation to climate change"** .

These themes were largely covered and thoroughly discussed during the week. The participants, experts from Universities, research centers, but also local authorities , state and private agencies, insurances, … came from all over Europe to meet, exchange on topics like "coastal zone management", "sea-level rise consequences and adaptation", "knowledge and tools" , "coastal environment protection and sustainable development".

Conferences, round-tables, workshops and poster presentations ….

An opportunity to discuss and share on these issues, present posters, network with peers.

For BRGM, it was the occasion to present activities on coastal management and risks in various littoral regions with focus on the ENERGIC OD project, as well as to favour networking with visitors. Collaborations with the "Observatoire de la Côte Aquitaine" (OCA), the Languedoc Roussillon or Provence Côte d'Azur (PACA) regions in the field of changing littoral risk management or coastal erosion were also put in light. The new version of BRGM "Coastline" application prototype, featuring the new crowdsourcing functionality was in display and demonstrated to a targeted and interested public.



BARCAMP : WHICH DATA, WHICH FUNCTIONALITIES, WHICH USERS BASED ON ENERGIC OD?

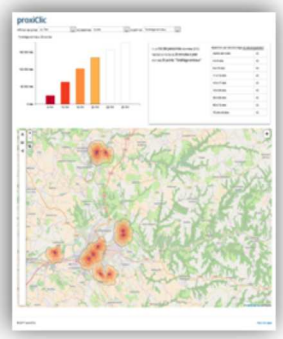
by Blandine DEWYNTER - AFIGEO (France) & Thomas PORTIER - Datakode (France)

An event designed to identify new practices and users for applications developed within ENERGIC OD ...

Developing applications around a virtual hub is one thing, but how can we try and identify new uses (practices) and users around these applications?

Starting from an application developed within the framework of ENERGIC OD (ProxiSanté / ProxiClic, developed by Datakode), how can new users be addressed? Such was the crucial question raised by the AFIGEO and Datakode (the new name of the company Depth France) when they designed the BARCAMP event based on both ENERGIC OD and ProxiClic.

On March 20th, 2017, at the Espace Vestreprain in Toulouse, about fifteen participants were invited to brainstorm together, about the data, the functionalities and potential users of ProxiClic.



After the first part dedicated to the presentation of ENERGIC-OD in plenary session by Yves RIALLANT (AFIGEO) and ProxiClic by Thomas PORTIER (Datakode), in the second session, the participants were invited to work in 3 subgroups.

Representatives of local authorities, consular chambers, departmental fire and emergency services, territorial GI animation platforms and companies were thus able to exchange on their practices and concrete problems around ProxiClic and, more generally, on the exploitation of open geospatial data.

A first group wondered about the way to better exploit ProxiClic application to manage fire risk. How to integrate data on watering places, on the localisation of this or that address? What are the features to be developed to enable fire brigades to reach fire hydrants in the shortest possible time, to put out a starting fire in this or that building? The question is indeed not simple when the basic datum, the "Address datum ", is not yet a mutualized datum nor shared at national scale..., nor when every department defines its own strategy of external fire defense.

Similarly, starting from a current question for local

authorities - the implementation of departmental plans for service accessibility -, the second group was concerned with the data released free by the INSEE (National Institute for Statistics and Economic Studies). in particular, the permanent equipment database. This database can "easily" be coded geographically only on condition it is regularly updated ... So how can we insure data are up-to-date to guarantee a true representation of the services? How do we process heterogeneous quality data for cross-border territories? The ProxiClic tool is a first and essential answer, but getting finer data than presently available in Open Data is definitively crucial.

As for the third group, they focused exchanges on the analysis of the customer catchment areas. Of course, as is, ProxciClic allows to visualize zones of companies establishment or the economic activity expansion areas. Of course, the opening of the SIREN database (National System of Identification and Company Directory) is a wonderful step ahead. However, before settling down, a company also needs to know the extent of the buildable area, the home-to-work transport time, the access level to broadband ...

Eventually, the crucial question may not be about users or geoservices, but indeed the issue of data diversity, disparity, recentness , quality in « Open Data ».

To go further :

AFIGEO : www.afigeo.asso.fr

Datakode : www.datakode.fr

ProxiClic : http://demo.proxiclic.fr

Internal meetings

PROJECT MEETING, ORLÉANS (FRANCE) 7 - 8 March 2017

by Frédérique Mojon Lumier - BRGM (FR)

Aim of the meeting was to check progress towards the objectives set by the ENERGIC OD Project. During the meeting the overall status of the activities started in the 3rd year was reviewed. Comments and recommendations made by the two reviewers and the PO in the 2nd review were also checked.

The main focus was on exploitation issues and discussions on post project funding, for both VH and apps, to plan the future and take necessary corrective actions. A review of the final revised version of deliverable D8.3 was carried out and the planning of dissemination and VH sales activities in various events in 2017 and 2018 discussed further. Suggestions were made to VH exploitation by partners, and several types of business model for the VH were debated as well as the various possible options to bring the ENOD VH at European level.

A session was also dedicated to the ENERGIC-OD contest. Instructions were given on how the judging panel should review the submissions, and they would perform their tasks referring to the selection criteria provided and the tight schedule before announcing the contest winners.

The project meeting was meant to allow the monitoring of the execution of activities within the different Work packages in the light of the business plans for the Virtual hubs and the 6 selected applications. Application developers were given the opportunity to expose the status of their apps with demos as well discussion and collecting feedbacks, in particular regarding their European dimension.

A full afternoon session was dedicated to dissemination activities. Special attention was in particular paid to the need for stakeholders' engagement actions at all levels in support of VH and Apps exploitation and the best way to enhance involvement at European level. A thorough review of dissemination activities and relevant communication actions was carried out with the Consortium, focusing on the CNRS noise mapping Parties and protocol or the upcoming "Barcamp" organised in Toulouse by Datakode (prev Depth) and Afigeo.

Finally the organisation of the final conference (FC) was debated. A rough agenda was drafted for the whole day, with a plenary session in the morning and workshops or hands-on sessions to be proposed by partners on the VH and the apps. The organisation was further looked in, with a frame agenda and an action plan for immediate implementation. Regular conference calls would be held to handle the FC organisation in the coming period.

The meeting was then concluded, and the ENOD Consortium parted with a set of actions and activities to perform in the coming months, until the next project meeting to be scheduled in June.

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