BE-GOOD CAPITALISATION BOOKLET

Pushing our results one step further

Interreg
North-West Europe
BE-GOOD
European Regional Development Fund
EUROPEAN UNION

INTRODUCTION & BACKGROUND

Data is a major asset of the EU knowledge economy. In this context, the Interreg NWE VB project BE-GOOD (Building an Ecosystem to Generate Opportunities in Open Data) has been developed to generate value from and stimulate sustainable ecosystems for open data in regions in North–West Europe. BE-GOOD is a pioneering project having aimed and succeeded in the processes to unlock, re-use and extract value from Public Sector Information (PSI) to develop data-driven services in the area of infrastructure and the environment.

BE-GOOD 1.0 delivered 11 new data-centered services (See figure below) to extract commercial value from PSI. The project used a novel demand-driven approach. By unlocking datasets and improved engagement with the marketplace, the development of applications, software or algorithms was made possible. The services that have been developed are based on business cases which in turn enable market uptake for Small and Medium Enterprises (SMEs) and job creation. The invested funding has improved citizen interaction and created new digital public services that allow for greater productivity and efficiencies.

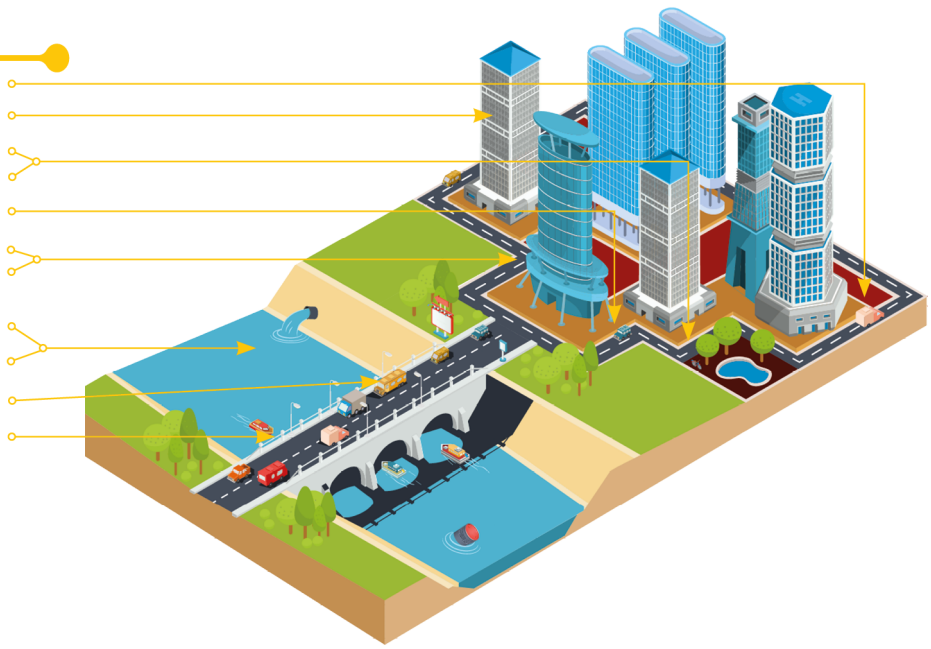
We decided to push our results to the next step in the capitalisation phase of the BE-GOOD project (BE-GOOD 2.0). We selected 6 challenges and expanded them to new stakeholders, new geographical areas or new economic sectors.

In this booklet we want to inform you about the capitalisation activities. We hope you enjoy the read!

THE ORIGINAL BE-GOOD SOLUTIONS

CHALLENGES

- HGV Permit Checker
- Data 4 Organisational Change
- Discovery of Natural Heritage
- Cleanest Air Route
- Continuity of traffic flow
- Safer Roads
- Predictive Maintenance of Roads
- Smart Waste Water Information Management (SWWIM)
- Waste Water Tracing
- Rate My Transport Service
- Energy Efficient Infrastructures



NEW ECONOMICAL SECTORS

- Waste Water Tracing (Sediment Tracer)
- Rate My Transport Service (Rate My Signals)

Want to know more?
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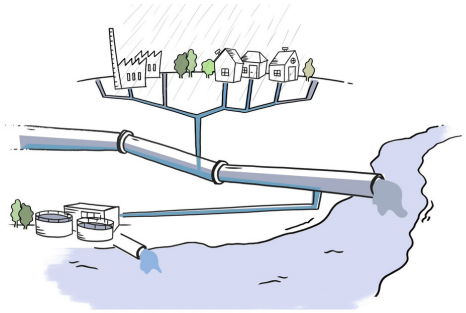
SEDIMENT TRACER

THE ORIGINAL SOLUTION

Flanders Environment Agency (VMM) worked together with Geosparc to develop an algorithm that allows to, as soon as any spill in the sewer system is detected, identify overflow structures that need to be closed.



THE CAPITALISATION

The tracing algorithm has been integrated in the sediment explorer to trace sediment and their loads through the sewer system. The sediment tracing solution is implemented as part of the Sediment Explorer which is hosted by DOV, a collaboration within the Flemish Government to gather, distribute and communicate data on the (sub)soil of Flanders.

The Sediment Explorer brings together all relevant data layers and functionalities related to sediment use cases. Furthermore, some data layers and functionalities are available for certain users or organizations only. As the Sediment Explorer has a growing number of users, this tracing functionality will become available for more and more users and organizations with different core activities: agriculture (erosion), pollution in water courses or soil, waste water, dredging, etc.

The sediment tracing allows to trace up- or downstream on water courses and the sewer system from multiple starting points. Buffers around the tracing route and overlapping catchment areas can be added to the output of the tracing and assist in analyses for specific use cases. Once calculated, the tracing network can be consulted directly on the map in the Sediment Explorer. Adding additional data layers to the map, e.g. erosion maps, water levels,... allows for an integrated view in the analyses. The tracing network can be used as search area for the other data layers.

For each tracing analysis, the expected total amounts of numerous parameters like sediment load, phosphorus, lead, etc. will be calculated. This information can be consulted in an online tracing sheet. The tracing sheet includes the departure point(s), settings (up- or downstream, weather conditions, buffer, etc), the traced network visible on a map and a table with calculated parameters within the traced network. The parameter table is interactive and allows to visualise different sectors (e.g. households, industries,...) and filtering to narrow down on more detailed areas, e.g. catchment areas. For more advanced geospatial analyses, the outcoming tracing geometries can be downloaded.

The sediment tracing will be introduced in operational processes within VMM, the Department of Environment and Spatial Development and within the agricultural sector.

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RATE MY SIGNALS

THE ORIGINAL SOLUTION

The Rate My Service cloud based system is comprised of a native mobile app and a data analytics portal. The mobile app allows public transport customers to provide feedback about their journey and user experience. While the data analytics portal presents public transport providers bespoke dashboards to analyse the feedback that enables a level of service to be measured.

THE CAPITALISATION

Dublin City Council's Environment & Transportation Department were seeking a deeper understanding of road user interaction and their level of satisfaction with the departments traffic signal assets in Dublin. Knowledge of road interaction and level of satisfaction may be used to better calibrate traffic signals for a better experience by all road users.

The **Rate My Signals System** has two core components:

Component 1: A dedicated web based mapping tool to engage with citizens. The web map tool presents citizens with traffic signal information and an opportunity to provide feedback on their experience.

Component 2: A private portal for Dublin City Council staff from the Traffic Signals Team. The private portal will present staff with data analytic dashboards of the feedback and ratings submitted by citizens.

These dashboards will provide **insights on traffic signals infrastructure such as citizen satisfaction and calibration performance** thus providing valuable information to assist staff with re-calibration where necessary.

NEW GEOGRAPHICAL AREAS

- Cleanest Air Route
- Predictive Maintenance of Roads

Rijkswaterstaat
Ministry of Infrastructure and Water Management

Flanders
State of the art

Want to know more?
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CLEANEST AIR ROUTE

THE ORIGINAL SOLUTION

Flanders Environment Agency (VMM) and IRCEL-CELINE worked together with Umotional - a promising start-up company - to create an API that can be implemented in routing applications to show alternative routes, based on the air quality of each route. The API was implemented in Umotionals routing planner in Flanders.

THE CAPITALISATION

The capitalisation of the original solution consisted of an expansion of the original geographical area and updates to make the application more user friendly.

The **coverage of the clean-air cycle route planner was extended to locations anywhere in Belgium**.

The air quality data in the route has been updated with the latest data provided by IRCEL. The web app is updated to offer more functionality and a sleeker design. Additionally, The web application now allows the routes planned on the web to be sent into the Cyclers mobile application for navigation.

You can download the app with this link: https://cyclers.app/

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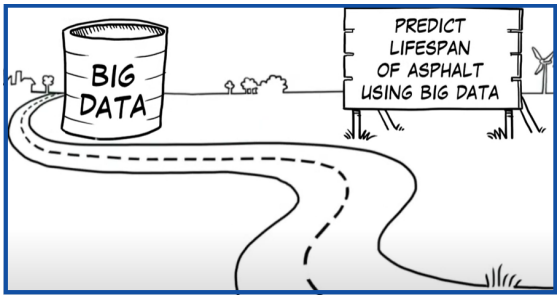
PREDICTIVE MAINTENANCE OF ROADS

THE ORIGINAL SOLUTION

An asphalt dashboard developed and used by Rijkswaterstaats (RWS) asphalt maintenance planners.



THE CAPITALISATION

The capitalisation of the original solution started already in January 2020, before the ending of the original BE-GOOD project. The Province of Gelderland joined a presentation of our solution. During this first meeting 'the spark must have flown' of what is now a very much appreciated **cooperation of two road maintenance governments within the Netherlands.**

Because we have so much in common regarding our methods of maintaining our asphalt roads, we decided to cooperate based on the solution that RWS had developed. Although there is a difference in the geographical areas that we cover (see image), we have much more in common: asphalt types of roads, road intervals (100 m.), legal maintenance necessities, safety, traffic flow etc.

These similarities showed themselves profoundly during the cooperation. After the first meeting we agreed on elaborating the eventual "**Joint asphalt dashboard**", which production was financed by RWS and supported by BE-GOOD.

A quote request for SME's was published and we received an offer which has resulted in an asphalt dashboard for both parties. The main features of this dashboard are four sub screens with connected maps, graphs and pictures and an import & export 'button' for datasets.

The lessons learned during this whole process of procurement, development and evaluation of the new dashboard are:

- Think ahead, i.e. make up very clear (pre)conditions and requirements for your end product. In which we focused on using so-called standard building blocks (software), which make it easier to maintain software products.

- We now have two separate dashboards although all features are exactly the same. This is caused by the usage of different data filters in relation to the different datasets and the fact that there are different user groups because of software license matters.

NEW TARGET GROUPS

- Discovery of Natural Heritage
- Continuity of Traffic Flow

Want to know more?
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DISCOVERY OF NATURAL HERITAGE

THE ORIGINAL SOLUTION

Orléans Métropole contracted the SME ENEO to develop an innovative solution helping people to discover biodiversity in an original way. This led to Foxtrot, an algorithm which can be integrated in existing apps, websites, social networks, routing solutions and can be queried through a chatbot.

THE CAPITALISATION

Foxtrot, the routing algorithm aimed to reach new target groups like cyclists, tourists and local producers during the capitalisation phase of BE-GOOD. Orléans Métropole and ENEO continued to work together for the expansion. Foxtrot offers an endless amount of personalized routes in daily journeys in two means of locomotion (by foot or by bike) according to 4 profiles (nature, calm, tourism, local products).

Foxtrot is invisible for users as it integrates in existing tools (websites or apps) of Orléans Métropole. Now it is accessible from the Tourist Office's website via a chatbot: https://www.tourisme-orleansmetropole.com/orleans-metropole-a-velo .

Finally Orléans Métropole has received a **bronze label of "Territoire Innovant"** in the category of citizens' innovation for the Foxtrot project.

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CONTINUITY OF TRAFFIC FLOW

THE ORIGINAL SOLUTION

Département du Loiret and Orléans Métropole worked together with Nextérité to improve road traffic information for both professionals and the general public in the Loiret. The solution is based on a data platform and two web applications. The data platform, combining different types of data like roadworks, public transport, parking availability and the weather forecast, feeds the web apps, ViaPro, for road managers, and ViaFacil, for all road users.

THE CAPITALISATION

The capitalization of the challenge Continuity of Traffic Flow strongly contributed to the ViaPro/ViaFacil uptake in the ecosystem previously identified and expanded its potential with new stakeholders.

ViaPro is integrated in the crisis management exercises which will allow, in the middle term, further expansion of its use in the crisis management ecosystem (police, gendarmerie, fire & rescue services, and municipalities). Département du Loiret will use ViaFacil as a crisis management communication tool for citizens

ViaPro is progressively entering in the daily use of the road department which is the guarantee of true viability of the service.

In parallel, Orléans Métropole participates to this territorial success by involving roadwork enterprises in test phases for better adaptability of the tool to roadworks issues.

Finally, new service contracts of Nextérité during the past months show how the solution developed is replicable out of Loiret.

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DATA FOR ORGANISATIONAL CHANGE

The thinking behind this workstream came as a **combination of the overall theme of Glasgow City Council's involvement in BE-GOOD (Data for Organisational Change) and Rijkswaterstaat's (RWS) interest in developing an online tool to analyze progress in digital innovation.**

All BE-GOOD partners have shown progress in developing digital innovations; the rationale for this aspect of the capitalisation was to locate these innovations within the organisational context.

Self assessments and one-to-one interviews enabled the BE-GOOD partners to reflect on decision-making within their own organisation and on the role of digital information within it. This showed that all partners were each in their own way involved in the transition of using data within their own organisational culture; and that this had changed throughout the duration of the BE-GOOD project. The main outcomes of the project were the better use of available data

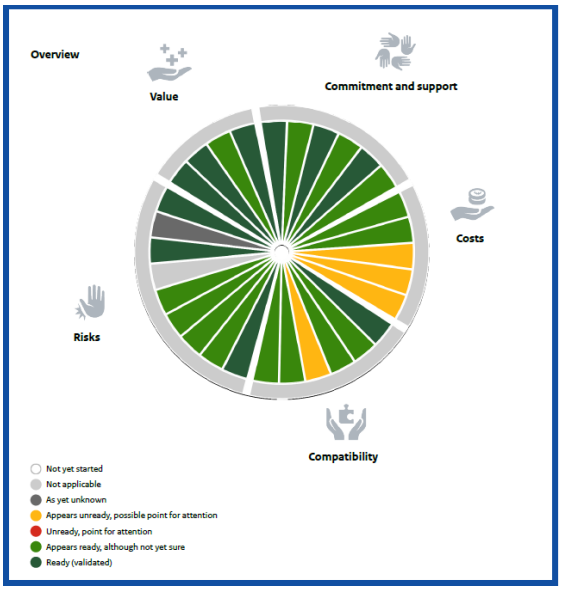
One of the outcomes of the interviews was a reflection on each partner's IT infrastructure and the rules and procedures that govern the use of IT. In particular the way in which the IT infrastructure might itself encourage or in some cases limit innovation; the balance between developing innovation and implementing new ways of working; and the different pressures between the operational use of the IT provision and the way in which this provision is managed.

These questions were already considered with the work RWS was undertaking in the **Stakeholder Readiness Tool (SRT)**; it was clear that developing the SRT would be a highly relevant outcome. RWS developed the tool because Implementing new innovations into everyday practice is a major challenge.

Rijkswaterstaat
Ministry of Infrastructure and Water Management

Glasgow CITY COUNCIL

DATA FOR ORGANISATIONAL CHANGE



The Stakeholder Readiness Level tool facilitates the implementation process and shows **how prepared the organisation and stakeholders are to implement a certain innovation**.

The tool gives an overview of the aspects for which work remains to be done, such as value, support, costs, compatibility and risks. Paying attention to SRL aspects at an early stage accelerates the implementation of an innovation. Although the instrument was developed by RWS, other organisations can use it as well.

You can use the tool with this link: srl-tool.com

Other possibilities of the tool:

- Making assessments of readiness towards digital transformation. It is important to understand the context within which each participant operates and how this context might change;
- Awareness raising of the different stages of transition. We are all to some extent working in a transition towards more data-led approaches to our work, and are at different stages in this transition;
- Analysis of the maturity of the operational balance between IT implementation and IT innovation.
- Comparison of the maturity of different innovations and individual projects in time (some project of RWS use the tool for periodic reporting).

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