UNIFORM AND SHARED CARTOGRAPHY FOR THE EMERGENCY SERVICES 2.0

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ICEG WG Data, 14 January 2022
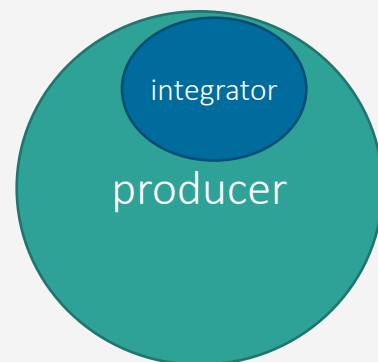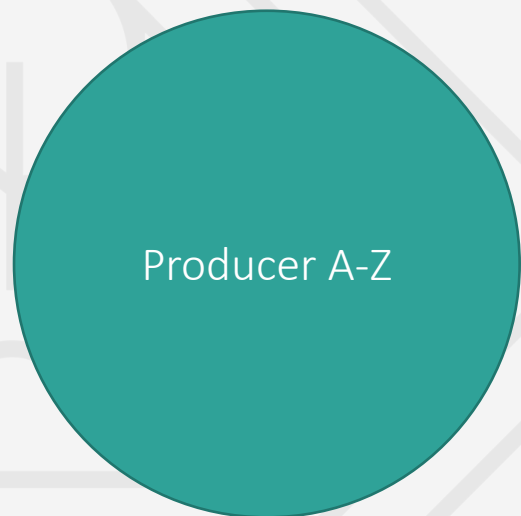
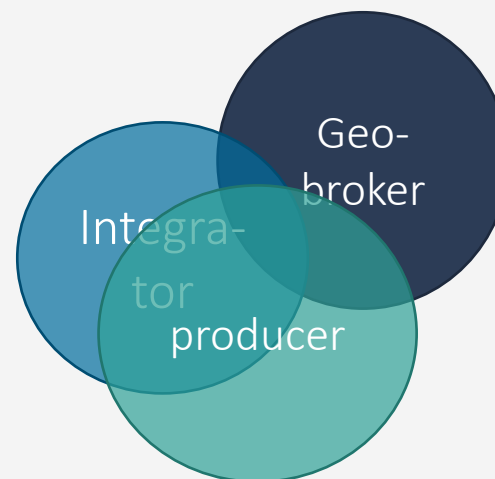# NGI provider of Geo Information (Location Data)

Producer A-Z

integrator

producer

ITGI

Integra-tor

Geo-broker

producer

Strategy 2020

Integrator

Geo-broker

Pro-ducer
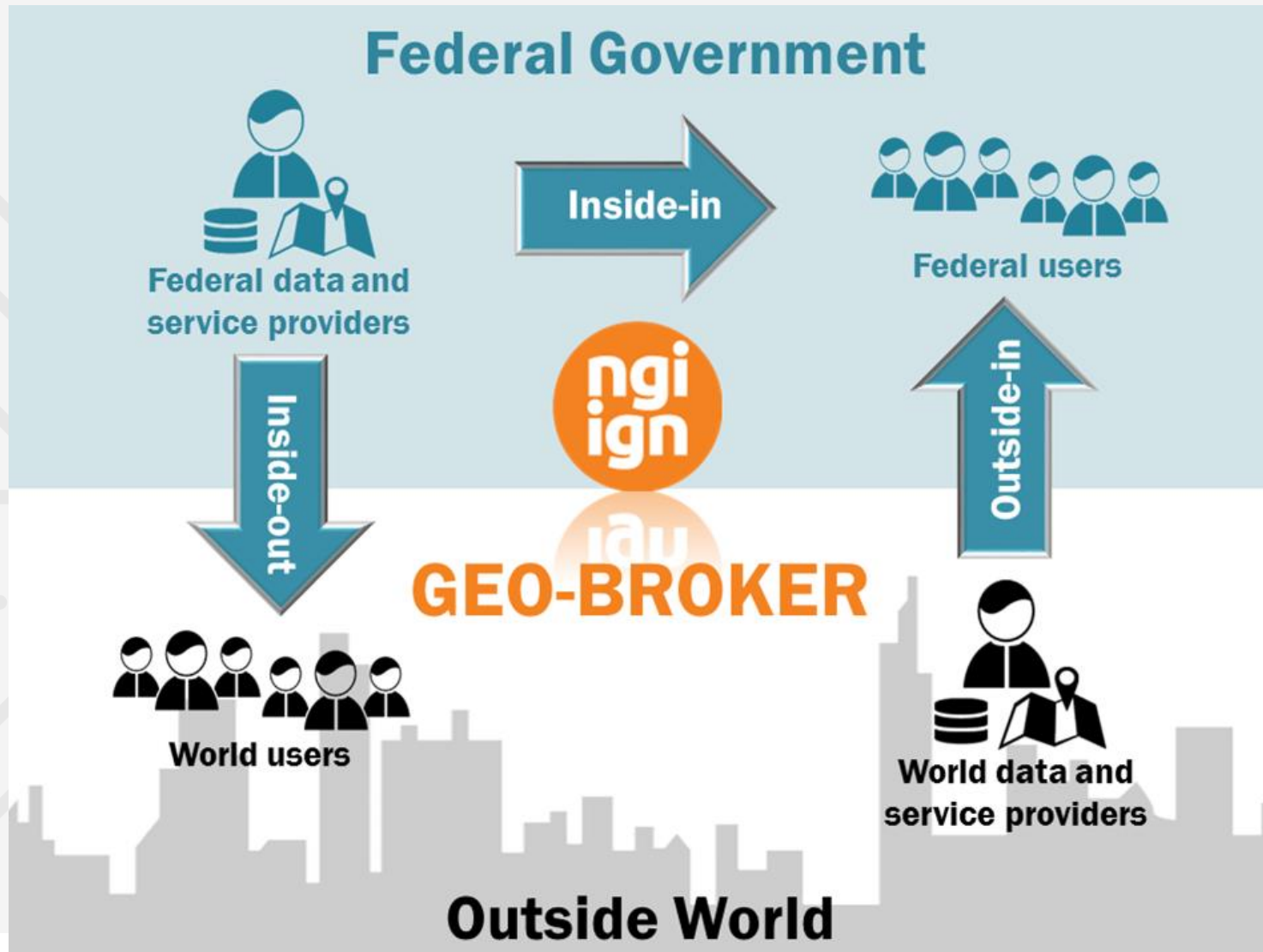
Vision 2030

Battles can only be won with good maps

Services for Defense

Geographical products and services in Belgium and abroad

Centre of Expertise

Geo-enabling Incident- & Crisismanagement

- Print tool for Uniform Cartography for the Emergency Services (launched January 2022)

- GeoNATOtool (2018 - today)

- POC Cartography for Wildfire fighting
(2016 - 2017, 2019 - 2021)

- Uniform & Shared Cartography for Emergency Services

  - National Crisis Centre

  - Emergency Services (incl. Defense)
    - Innovatieve Overheid Project (PIO)
      - Workshops Belgian emergency services
      - Cartographic & Functional consolidation
    - National Comittee Emergency Services Geo
  - Symbolisation & Data Definition

Data standard for Wildfire Fighting

Components

- Authentic source CartoWeb.be
- Emergency Index Grid 1.0
- **Thematic data (natural areas)**

  (Agencies for Nature & Forest)

  Being extended for all kinds of data →
  "Geo-Information-Ecoystem"

- Online
- Paper maps & atlases
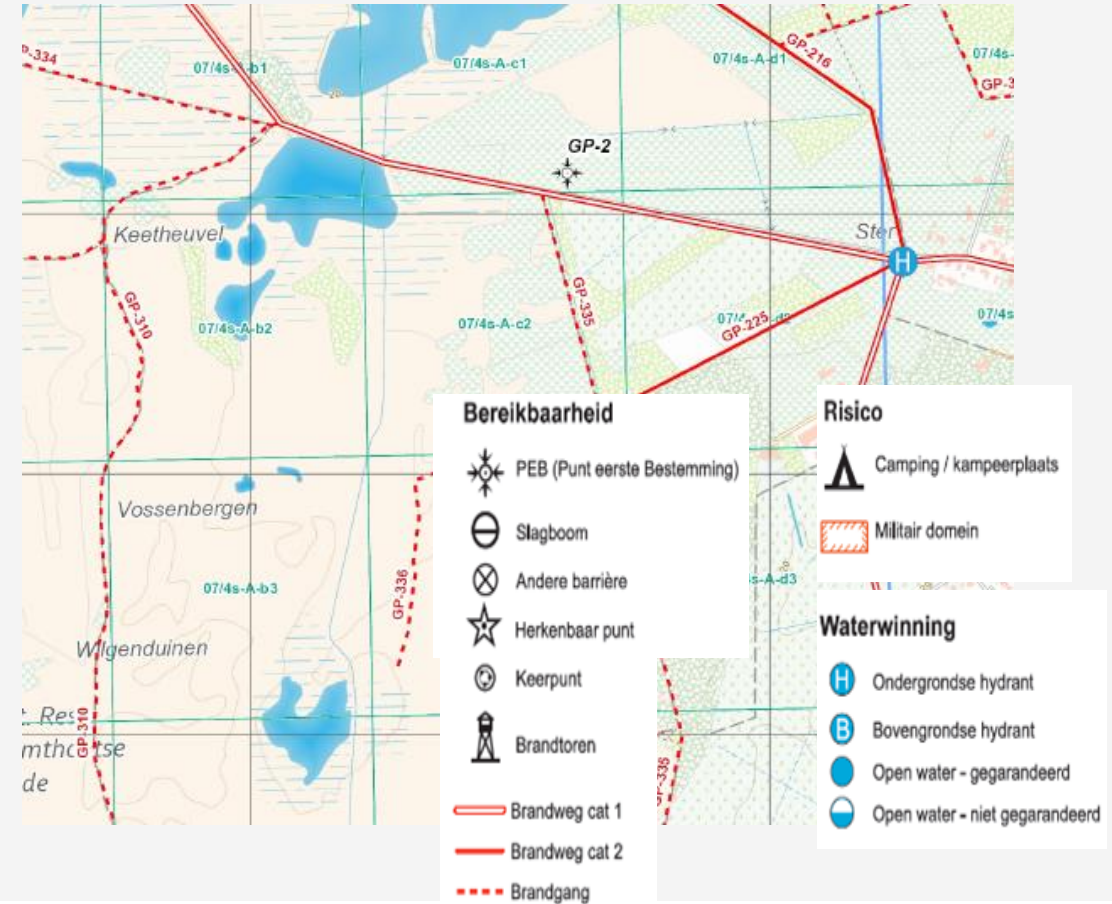
Hydrants

Via this initiative, the various stakeholders proposes to semantically model the different data flows and standardize the structure of the data for the following subject:

- **Extinguishing-water sources**
  - o <mark>**Hydrants (underground & above-ground)**</mark>
  - o **Water supply in the form of basins, wells, and other sources**

  Other potential themes:

- PEB/PPB (Point of First Destination) for the emergency services to assemble at first instance

- Measuring points for dangerous substances during incidents.

- Major electricity transportation networks (capacities, voltage, dependencies, switches, …)

- Transport pipelines

- …

The focus is on terms related to **extinguishing water sources**. We start from terms defined for these entities in the existing **extinguishing water source** Registers.

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The focus is on terms related to **extinguishing water sources**. We start from terms defined for these entities in the existing **extinguishing water source** Registers.

The objective is to make the data accessible as Linked Open Data and to define standard interfaces (APIs) in order to simplify collaboration and integration of the various services and tools. The objective is to make the data easily reusable for all stakeholders.

Hydrants – Data Owners

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SOCIÉTÉS DE DISTRIBUTION D'EAU EN WALLONIE
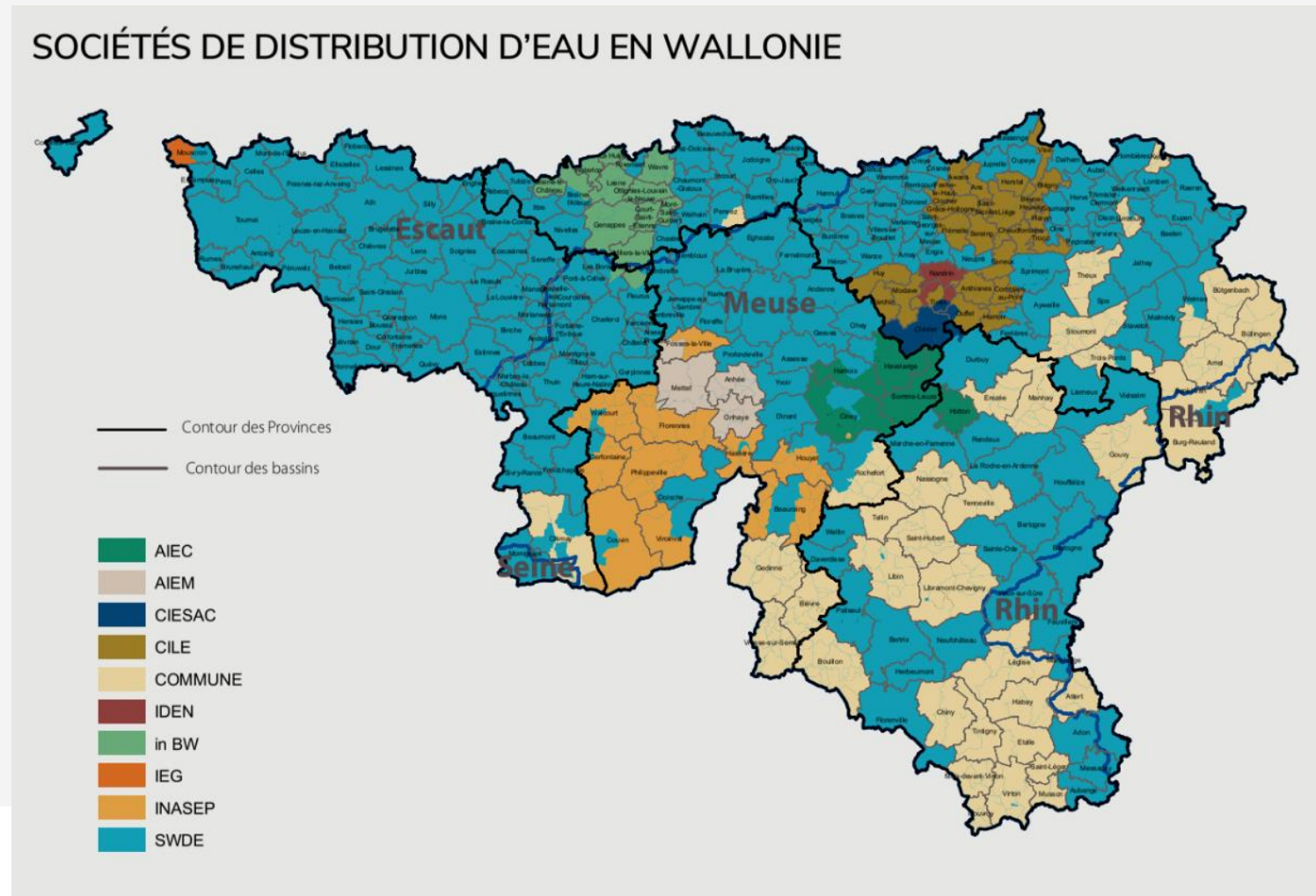
Hydrants – Data Availability

Increasing amount of available datasets

(e.g. Antwerp)

From paper inventory to cutting edge APIs

Legende:
- AIEC
- IEG
- SWDE
- IWVA
- De Watergroep

0   25   50 Kilometers

Geodetic Reference System ETRS 1989
Belgian Lambert 2008 projection

Hydrants – Very diverse data specifications

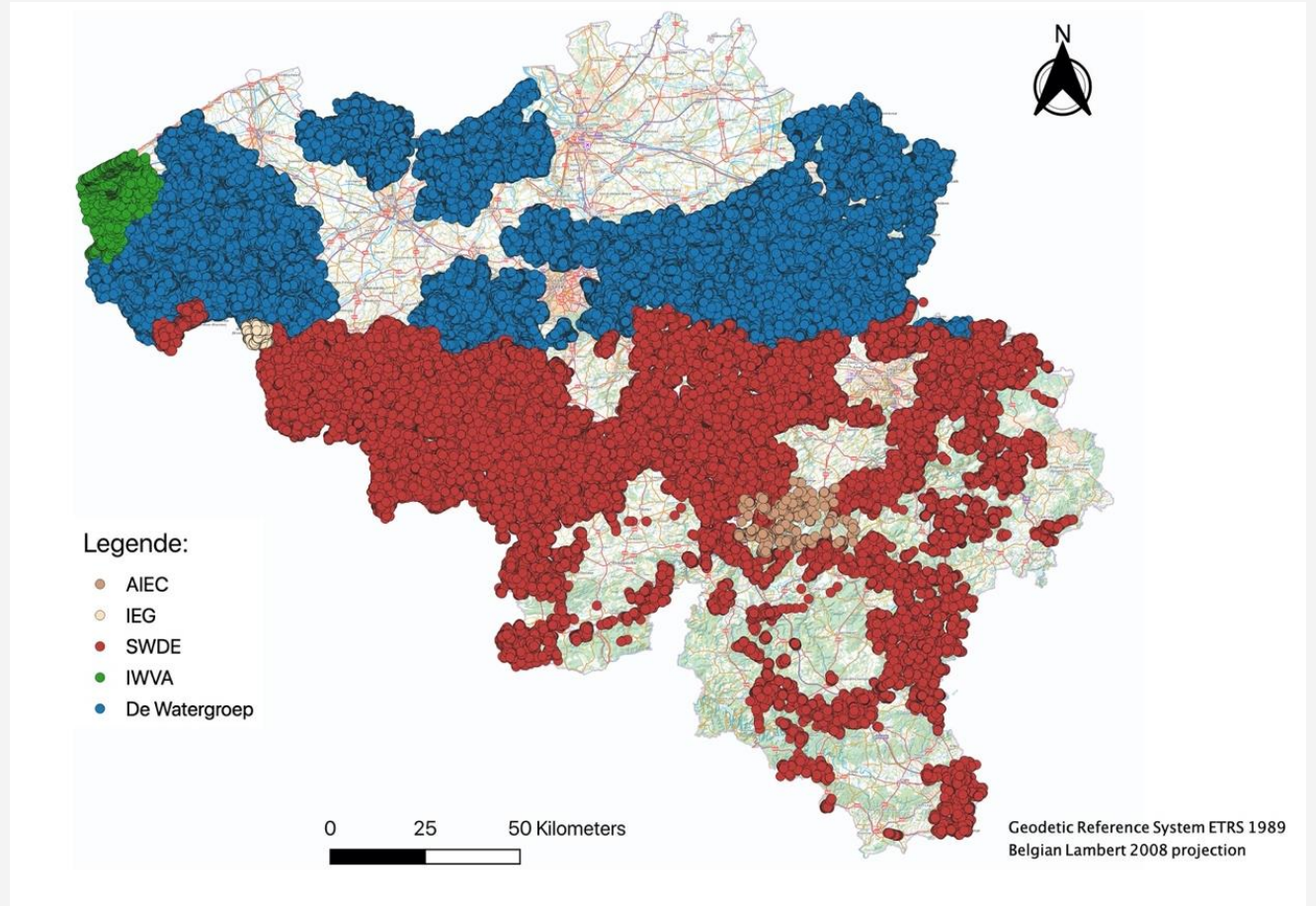| Watermaatschappij	Attributen Hydranten
AIEC	Types: type hydrant (bovengronds, ondergronds of hydrant air purge) Orientatio: (ingevuld) Anccom: Naam van de gemeente
IEG	Type: Borne (bovengronds en privé) ou bouche d'incendie (ondergronds)
SWDE (Aparte files voor 'Bouches d'incendie' & 'Bornes d'incendie')	ID : identifiant (numero unique) DN_CONDUIT : DN conduite mere NUM_HYD : numero interne EP_FIABILI : indice de fiabilité du point (1=excellent, 2=bon, 3=satisfaisant,4=faible, 5=inconnu) CODINSEE : Entitée communale ADRESSE : Rue calculée DERCTRL : date et heure du dernier contrôle DISPO : Disponibilité de l'hydrant (o/n) LOCALISE : precision de localisation (numero de police) EXTREMITE : extremite reseau (o/n) PRESSION : pression QMAX : SENS_FER : sens de fermeture (gauche ou droite) SIGNALISAT : presence signalisation (o/n)
IWVA	Geen attributen
De watergroep	G3E_FID: Unieke identificatory van het object NOMINALE_D: Nominale diameter van de brandkraan (mm) SOORT: Plaatsing ten opzichte van het maaiveld (bovengronds of ondergronds) X: X-coördinaat (Lambert '72) Y: Y-coördinaat (Lambert '72) STR_NAMEN : Straat waarin de brandkraan gelegen is. Afgeleid uit een ruimtelijke bevraging wat inhoudt dat dit veld leeg kan zijn of meer dan éé straatnaam kan bevatten. LEIDING_D: Nominale diameter van de leiding waarop de brandkraan staat (mm) CREATE_DAT: Dag, maand, jaar van het genereren van het bestand

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Hydrants – Use cases

A. First use case

Extinguishing water sources are objects with a location, meaning that they have a set of coordinates attached to them. They have an owner, often a water distribution company or an enterprise with a certain risk, it must be clear who is the owner, so a link can be made with amongst others the Enhanced Crossroad Bank for Enterprises.

B. Second use case

In order to make an extinguishing water source meaningful for emergency services, they need standardised attributes such as unique-id, type, capacity, source (e.g. a certain main pipe), hose connection type, availability, accessibility, contact point to inform owner about use of the source so he can take appropriate action …

C. Third use case

Some owners, emergency services, municipalities and provinces have a system and process to register the status of the extinguishing water sources (broken, checked-and-working, last-check-date). It must be possible to establish a link with the water source and its management status/follow-up.

A. Fourth use case

Create a link between the attributes and establish a standardised symbol to be shown in cartographic interfaces.

Hydrants – Scope

The objective of the business workshop is to map, define and standardise information related to extinguishing water sources. Based on our use cases the scope will be defined.

The following are within the scope:

- Extinguishing water sources
- Hydrants (above/underground), wells, basins, …
- Location
- Owner
- Maintenance status
-
- Parcel
- Address
- …

Hydrants – Stakeholders

- Emergency Services (users of the sources)

- Responsibles/experts from Interior Affairs concerned with legislation (Civil Security)

- Owners of the extinguishing water
- National Geographic Institute (NGI/IGN)
- Crossroads Bank for Enterprises (KBO/BCE)
- KLIM-CICC (Federal Cable and Pipeline Management Database) and KLIP (Flemish Cable and Pipeline Portal register)
- Vlaamse Milieumaatschappij (VMM) / Department Omgeving / SPW Territoire, Logement, Patrimoine, Energie (TLPE) - Département de l'énergie et du bâtiment durable
- Vlaamse Vereniging van Vlaamse Steden en Gemeenten (VVSG)
- The Union of Cities and Municipalities of the Walloon Region (UVCW)

Towards Common data

Towards a Data Hub

- Consensus on need for uniform and shared cartography
- Consolidation of Geo needs
  - Static, Dynamic
- Match Demand & Supply
  - Federal, Regions, Provinces, Local
  - Integration datasets (ex. hydrants)
  - Operational / Strategic data **shareable & reuseable**
- Prioritities

Benefits – Millions of Euros and Lives

- No more endless searches for each emergency service for the same information
- Data producer no longer needs to supply data in an endless number of ways
- Focus on corebusiness
- Uniformisation of map image
  - Reinforcements can start work immediately
  - Disciplines can play their role in harmony, more autonomously
  - Gives peace of mind when it is most needed

Globale framework

Stakeholdercomittee Emergency Services

National Crisis Centre (NCCN)

- Strategy - multidisciplinary

- Development
  - Base Cartography (CartoWeb+)
  - Emergency Index Grid (2020)
  - Print-tool Hulpdiensten (2021)
  - Symbology (2017 – heden)
  - GeoHub
  - GeoModule+

- Geomodule (software)
  - Functional needs
  - Consolidation, Integration
- GeoHub (data)
  - Definition, Collection & Distribution
  - Exchange (multidisciplinary)

- Transform the existing
  - Track&Trace, GISGOV, …
  - Hosting, …

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Geodata
as a public utility

Find out more?

https://www.ngi.be/website/develop/**uniforme-cartografie-voor-hulpdiensten/**

NL - https://www.youtube.com/watch?v=9HytxnDFXW0

FR - https://www.youtube.com/watch?v=gDHteWKNeTc

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