

LifeWatch Belgium

A research infrastructure supporting biodiversity and ecosystem study

LifeWatch Users and Stakeholders meeting

15-15 October 2020, Belgium



"Making nature healthy again is key to our physical and mental wellbeing and is an ally in the fight against climate change and disease outbreaks. It is at the heart of our growth strategy, the European Green Deal, and is part of a European recovery that gives more back to the planet than it takes away."

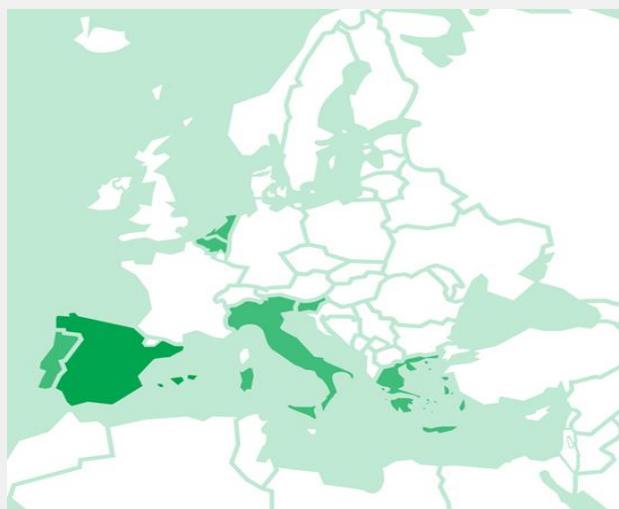
Ursula von der Leyen, President of the European Commission



LifeWatch ESFRI Landmark

E-Science Infrastructure for Biodiversity and Ecosystem Research

LifeWatch is a distributed RI to advance biodiversity research and to address the big environmental challenges and support knowledge-based strategic solutions to environmental preservation. This mission is achieved by providing access to a multitude of data sets, services and tools enabling the construction and operation of Virtual Research Environments.



Challenges: Preservation of ecosystem functioning and services



Climate Change



Habitat loss






Invasive species



Pollution

Biodiversity research services:

Observatories, Data bases, Semantic standards, Web services, Workflows and modelling tools, Virtual labs, Collaborative environment, Digital innovation, Big Data, Artificial Intelligence, ICT resources & services, Open science, Citizen science

Statutory Seat  Institutional relationships, including organisational acting as data distributed construction and operation. Read More	Service Centre  Provision of tools and services to the user infrastructure, communication activities, active involvement of the European scientific community. Read More	Research & Innovation Centre  Coordination of virtual laboratories and innovations by the establishment of a proper Innovation Lab Centre. Read More
---	---	---

An e-Infrastructure to support research for the protection, management and sustainable use of biodiversity

TYPE: distributed
COORDINATING COUNTRY: ES
PROSPECTIVE MEMBER COUNTRIES: BE, EL, ES, IT, NL, PT, RO

PARTICIPANTS: FI, FR, HU, NO, SE, SI, SK

TIMELINE
• ESFRI Roadmap entry: 2006
• Preparation phase: 2008-2011
• Construction phase: 2011-2016
• Operation start: 2016

ESTIMATED COSTS
• Capital value: 66 M€
• Operation: 10 M€/year

HEADQUARTERS
Statutory Seat: ES
Common facilities: ES-IT-NL

WEBSITE
<http://www.lifewatch.eu>

The Consortium

The Flemish contribution is shaped by the Flanders Marine Institute (VLIZ) and the Research Institute for Nature and Forest (INBO), and funded by the Research Foundation - Flanders (FWO).

The contribution of the Wallonia-Brussels Federation is a collaborative research program between scientists of the Earth and Life Institute (Université catholique de Louvain) and the Biosystems Engineering Department (Université de Liège/Gembloux-ABT).


The federal contributions (Biodiversity.aq, BopCo) are coordinated by the Royal Belgian Institute of Natural Sciences (RBINS) and the Royal Museum for Central Africa (RMCA) and are funded by the Belgian Science Policy Office (BELSPO). The federal authority also supports the Belgian Biodiversity Platform to set-up and animate a LifeWatch scientific node. BELSPO also funds the annual monetary contribution to the ERIC.





LifeWatch Belgium

 www.lifewatch.be

 @LifewatchBE

 info@lifewatch.be

 +32-(0)59-34 14 68

 VLIZ - National focal point distributed
LifeWatch centre,
Wandelaarkaai 7,
Oostende, 8400,
Belgium

LifeWatch ERIC

 www.lifewatch.eu

 @LifeWatchERIC

 facebook.com/ERICLifeWatch

 info@lifewatch.eu

 Plaza España SN, SECTOR II-III
41013 Seville
Spain



LifeWatch Belgium

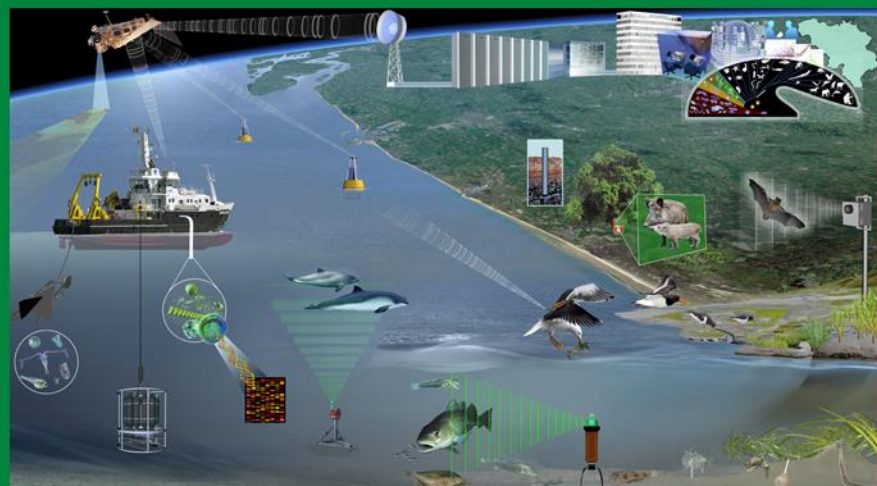
www.lifewatch.be

LifeWatch Belgium

Notwithstanding its relatively small territory, Belgium has a remarkable diversity of habitats and species, and has a rich tradition of biodiversity and ecosystem research, both within and outside of its borders. Since the start of LifeWatch, Belgium has been a committed country that actively contributes through a number of long-term projects managed by different research centres and universities across the country and supported by the respective political authorities.

The national distributed centre for LifeWatch in Belgium develops and operates a number of essential and complementary infrastructure components:

- a species information backbone as a central European component;
- a regional marine, freshwater and terrestrial observatory;
- a facility for habitat mapping from remote sensing;
- an Antarctic virtual lab for biodiversity;
- and a barcoding facility for species of policy concern.



What we do

Species Information Backbone



Central LifeWatch service that facilitates the standardisation and integration of species data and provides access to information on species taxonomy, biogeography, genetics and traits (habitat, morphology, vulnerability, etc.).

Marine Freshwater Terrestrial Observatory



Integrated observation systems that generate long-term and openly accessible biodiversity data applying innovative approaches (imaging, acoustics, genomics, tagging and tracking, artificial intelligence, citizen science).

Thematic remote sensing



An interactive geoportal provides thematic pan-European remote sensing data. An object-based ecotope database integrates geographic data for Belgium. Moreover, biophysical variables are available for the South Pole.

Antarctic Biodiversity Portal



The Antarctic Biodiversity Portal (biodiversity.aq) works closely with the Scientific Committee on Antarctic Research (SCAR) to provide access to data and tools for understanding Antarctic marine and terrestrial biodiversity.

BopCo



The Barcoding Facility for Organisms and Tissues of Policy Concern (BopCo) provides, upon request, identifications of organisms or derived tissues and products of policy concern.

LifeWatch.BE in action

LifeWatch VLIZ Retweeted



WoRMS @WRMarineSpecies · Apr 16

The International Compositae Alliance (TICA) and the launch of the Global Compositae Database through the Aphia platform marinespecies.org/news.php?p=sho... compositae.org



6 retweets, 8 likes



LifeWatch VLIZ @LifeWatchVLIZ · Feb 18

The LifeWatch [#Maritime](#) Industry [#Workshop](#) of last month was a first step towards a sustainable [#collaboration](#) between [#LifeWatch](#) and [#Industry](#). Next step: the [#launch](#) of the LifeWatch [#Maritime](#) Industry Advisory Board. More information here: lifewatch.be/en/lifewatch-m... [#FWO](#) [#ESFRI](#)



3 retweets, 10 likes

LifeWatch VLIZ Retweeted



LifeWatch ERIC @LifeWatchERIC · Aug 6

One of the camera traps in Heverleebos, Belgium, recently captured a European pine marten, an extremely rare species, previously thought to be extinct in the region. The camera trap network CATREIN is part of the Flemish LifeWatch infrastructure. bit.ly/33th2Pz



LifeWatch Belgium and 5 others

4 retweets, 9 likes



Antarctic Biodiversity Portal @BiodiversityAQ · Sep 30

Webinar series: Biodiversity data from the field to research 3 - 6 November 2020. How to structure and manage your biological data from the field to your analysis. Register for our webinar series more info & registration @ biodiversity.aq/how-to/webinar...

@SCAR_Tweets @Polar_Research



11 retweets, 12 likes



LifeWatch VLIZ @LifeWatchVLIZ · Jul 9

"Hoelang duurt het vooraleer plastic de Scheldemonding bereikt? Wetenschappers zoeken het uit" vrt.nws.be/p.0n4DVwnoZ

=> The tags used in this research on plastic in the Scheldt river make use of the LifeWatch Receiver Network!

lifewatch.be/en/fish-acoust...



Hoelang duurt het vooraleer plastic de Scheldemonding bereikt? Weten... Hun actie past in een onderzoek naar hoe plastic zich in de rivier verplaatst. vrt.be

1 retweet, 1 like



LifeWatch VLIZ @LifeWatchVLIZ · Sep 21

Meer weten over het zeebaars onderzoek binnen LifeWatch?

lifewatch.be/en/european-se...

lifewatch.be/en/fish-acoust...

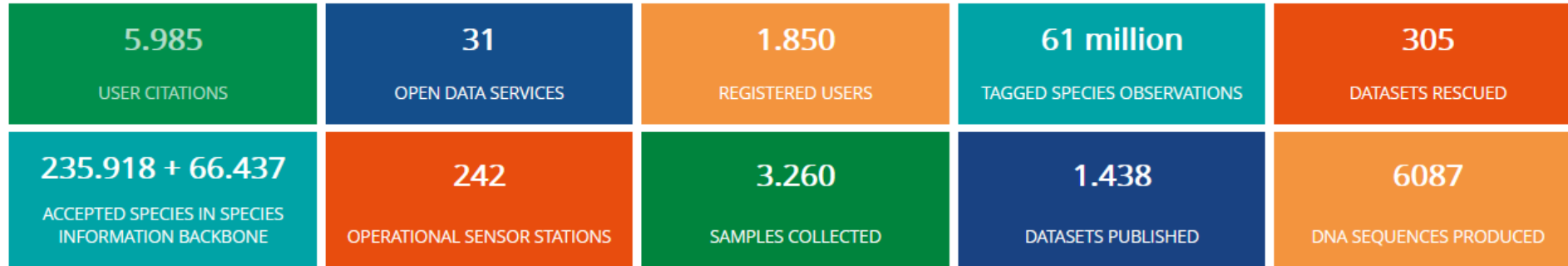
Eos Wetenschap @eos_wetenschap · Sep 21

Het gaat niet goed met de zeebaars. Om daar iets aan te doen, volgt biologe Jolien Goossens de vissen met behulp van een zender. Wij gingen mee hengelen in Zeebrugge. Bekijk de reportage op bit.ly/3ctfkQN

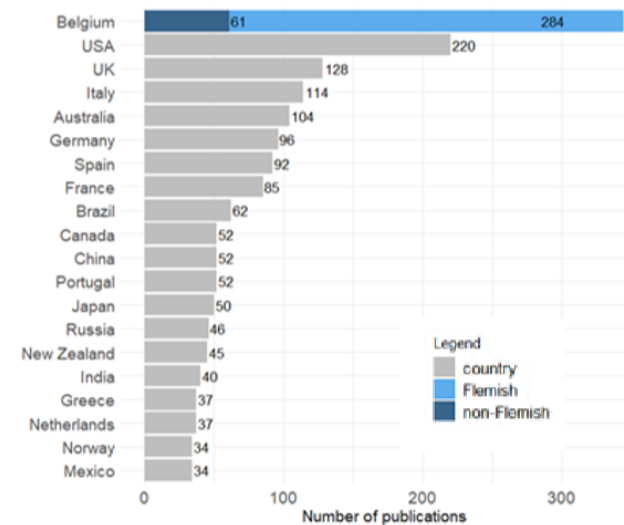
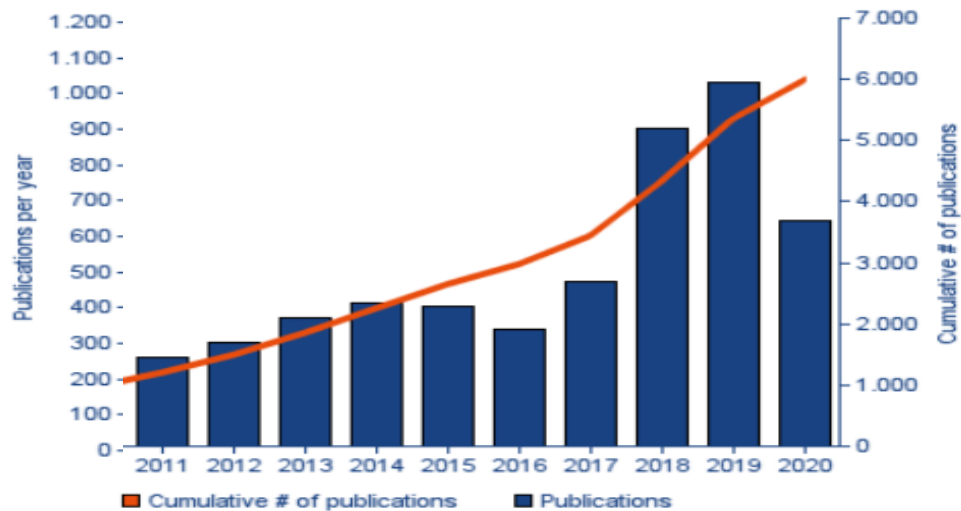
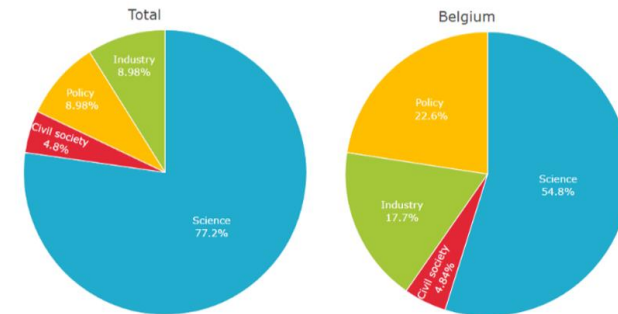
@ugent @LifeWatchVLIZ @ILVOvlaanderen #science #wetenschap



Output and user uptake



- Registered users: > 1.700
- Web visitors: > 5.000/day
- Scientific publications: 5.985
- Institutes using infrastructure: > 2.119



LifeWatch user stories



SCIENCE



Visualising fisheries agreements with Maritime Boundaries for the EU Parliament



Using Maritime Boundaries as financial calculation tool (Jan De Nul Group)



Using maritime boundaries for legal usage of radio frequency bands (ScanReach).



INDUSTRY



How Atlantic cod behave to seismic sound exposure - a joint industry project



Identifying invasive alien species using DNA



Understanding mass mortality in saiga antelope population



POLICY



Promoting microbial culture collections with mars.biodiversity.aq



Identifying African bushmeat for sale in Brussels using DNA



Fisheries data initiatives



CIVIL SOCIETY



Thank you

info@lifewatch.be

<https://www.lifewatch.be>

