A Plan towards an eDNA reference library and data repository for Aquatic Organisms, navigating Europe towards the next generation biodiversity monitoring

Fact Sheet

Project Information

eDNAqua-plan
Grant agreement ID: 101112800

DOI
10.3030/101112800

Funded under
Food, Bioeconomy Natural Resources, Agriculture and Environment

Start date
1 September 2023

End date
31 August 2026

Total cost
€ 1 978 282,50

EU contribution
€ 1 978 282,00

Coordinated by
EUROPEAN MARINE BIOLOGICAL RESOURCE CENTRE EUROPEAN RESEARCH INFRASTRUCTURE CONSORTIUM
France

Objective

The EU Mission to restore our Oceans and Waters by 2030 relies on robust, reliable and ideally real-time biodiversity data. The analysis of environmental DNA (eDNA)
extracted from water or sediment, represents a major source of innovation in aquatic ecosystem monitoring with great potential to support the EU Mission. The central limitation for the routine implementation of eDNA-based methods are incomplete, disconnected and non-standardized reference libraries for taxonomic assignment as well as a lack of harmonised metadata. To support the coordination of the EU Mission Ocean strategy, eDNAqua-Plan will 1) collect information on existing projects, initiatives and infrastructures for aquatic monitoring in the EU and associated countries, 2) provide an overview of all national and international activities of standardization and interoperationalisation of methods and data workflows and 3) assess the relevance and feasibility of the creation of a digital ecosystem of eDNA repositories and an integrated and dynamic reference library of marine and freshwater species that is open-access and based on FAIR principles to support future aquatic biodiversity monitoring programmes and mapping initiatives. The interdisciplinary eDNAqua-Plan consortium comprises 18 partner institutions from 11 countries, and one international (UN) institute, with complementary expertise in marine and freshwater monitoring, eDNA analysis as well as data science. The consortium cooperates with the large EU research projects and infrastructure such as EMODnet, BIOSCAN-Europe, the Ocean and Water knowledge system, LifeWatch, and international systems (ELIXIR/EBI and OBIS) etc. to maximise synergies and interoperability internationally. Possible implementation will be demonstrated by use cases from national and transnational water monitoring programs. Based on this, eDNAqua-Plan will deliver a roadmap for harmonized aquatic monitoring using eDNA tools in Europe and beyond.

Fields of science

natural sciences  >  computer and information sciences  >  data science
natural sciences  >  biological sciences  >  genetics  >  DNA
natural sciences  >  biological sciences  >  ecology  >  ecosystems
natural sciences  >  earth and related environmental sciences  >  hydrology  >  limnology

Keywords

eDNAqua-plan

Programme(s)

HORIZON.2.6 - Food, Bioeconomy Natural Resources, Agriculture and Environment  MAIN PROGRAMME
HORIZON.2.2 - Culture, creativity and inclusive society
HORIZON.2.4 - Digital, Industry and Space
HORIZON.2.3 - Civil Security for Society
HORIZON.2.5 - Climate, Energy and Mobility

Topic(s)

HORIZON-MISS-2022-OCEAN-01-09 - Towards a European e-DNA library of marine and freshwater species

Call for proposal

HORIZON-MISS-2022-OCEAN-01

See other projects for this call

Funding Scheme

HORIZON-CSA - HORIZON Coordination and Support Actions

Coordinator

EUROPEAN MARINE BIOLOGICAL RESOURCE CENTRE EUROPEAN RESEARCH INFRASTRUCTURE CONSORTIUM

Net EU contribution
€ 240 625,00

Address
4 place jussieu
75005 Paris
France

Region
Ile-de-France > Ile-de-France > Paris

Links
Contact the organisation
Participation in EU R&I programmes
HORIZON collaboration network
Other funding
€ 0,00

Participants (17)

UNIVERSIDADE DO MINHO
Portugal
Net EU contribution
€ 49 607,00
Address
Largo do paco
4704 553 Braga ⚡
Region
Continente > Norte > Câvado
Activity type
Higher or Secondary Education Establishments
Links
Contact the organisation Website Participation in EU R&I programmes HORIZON collaboration network
Other funding
€ 0,50

SORBONNE UNIVERSITE
France
Net EU contribution
€ 27 453,75
Address
21 rue de l'ecole de medecine
75006 Paris ⚡
Region
Ile-de-France > Ile-de-France > Paris
Links
UNIWERSYTET LODZKI

Poland

Net EU contribution

€ 112 825,00

Address

Ul prezydenta Gabriela Narutowicza 68
90 136 Łódź

Region

Makroregion centralny > Łódzkie > Łódzki

Links

Contact the organisation
Website
Participation in EU R&I programmes
HORIZON collaboration network

Other funding

€ 0,00

UNITED NATIONS EDUCATIONAL SCIENTIFIC AND CULTURAL ORGANIZATION

France

Net EU contribution

€ 179 503,75

Address

Place de Fontenoy 7
75007 Paris

Region

Île-de-France > Île-de-France > Paris

Activity type

Research Organisations
EUROPEAN MOLECULAR BIOLOGY LABORATORY

Germany

Net EU contribution

€ 224,678,75

Address

Meyerhofstrasse 1
69117 Heidelberg

Region

Baden-Württemberg > Karlsruhe > Heidelberg, Stadtkreis

SEASCAPE BELGIUM

Belgium

Net EU contribution

€ 195,068,75

Address

Kindermansstraat 14 bus 19
1000 Bruxelles / brussel

SME

Yes
Région de Bruxelles-Capitale/Brussels Hoofdstedelijk Gewest > Région de Bruxelles-Capitale/ Brussels Hoofdstedelijk Gewest > Arr. de Bruxelles-Capitale/Arr. Brussel-Hoofdstad

Links
- Contact the organisation
- Participation in EU R&I programmes
- HORIZON collaboration network

Other funding
€ 0,00

VLAAMS INSTITUUT VOOR DE ZEE
Belgium
Net EU contribution
€ 125 000,00

Address
Jacobsenstraat 1
8400 Oostende

Region
Vlaams Gewest > Prov. West-Vlaanderen > Arr. Oostende

Links
- Contact the organisation
- Participation in EU R&I programmes
- HORIZON collaboration network

Other funding
€ 0,00

E-SCIENCE EUROPEAN INFRASTRUCTURE FOR BIODIVERSITY AND ECOSYSTEM RESEARCH
Spain
Net EU contribution
€ 82 957,50

Address
Plaza de espana s/n, sector ii-iii
41071 Sevilla

Region
DIETHNES PANEPISTIMIO ELLADOS

Greece

Net EU contribution

€ 66 575,00

Address

14th km thessalonikis moudania
57001 Thermi thessaloniki

Region

Βόρεια Ελλάδα > Κεντρική Μακεδονία > Θεσσαλονίκη

Activity type

Higher or Secondary Education Establishments

Links

Contact the organisation
Website
Participation in EU R&I programmes
HORIZON collaboration network

Other funding

€ 0,00

INSTITUT NATIONAL DE RECHERCHE POUR L'AGRICULTURE, L'ALIMENTATION ET L'ENVIRONNEMENT

France

Net EU contribution

€ 120 625,00

Address

147 rue de l'universite
75007 Paris
SUOMEN YMPARISTOKESKUS
Finland
Net EU contribution
€ 149 757,50
Address
Latokartanonkaari 11
00790 Helsinki

UNIVERSITAT DE VALENCIA
Spain
Net EU contribution
€ 73 412,50
Address
Avenida blasco ibanez 13
46010 Valencia
Region
Este > Comunitat Valenciana > Valencia/València

Activity type
Higher or Secondary Education Establishments

Links
Contact the organisation ☑️ Website ☑️ Participation in EU R&I programmes ☑️ HORIZON collaboration network ☑️

Other funding
€ 0,00

EIGEN VERMOGEN VAN HET INSTITUUT VOOR LANDBOUW- EN VISSERIJONDERZOEK
Belgium

Net EU contribution
€ 108 906,25

Address
Burg. van gansberghelaan 92 bus 1
9820 Merelbeke 🕵️

Region
Vlaams Gewest > Prov. Oost-Vlaanderen > Arr. Gent

Links
Contact the organisation ☑️ Website ☑️ Participation in EU R&I programmes ☑️ HORIZON collaboration network ☑️

Other funding
€ 0,00

NORSK INSTITUTT FOR VANNFORSKNING
Norway

Net EU contribution
€ 36 263,75

Address
Okernveien 94
0579 Oslo
Region
Norge > Oslo og Viken > Oslo
Activity type
Research Organisations
Links
Contact the organisation
Participation in EU R&I programmes
HORIZON collaboration network
Other funding
€ 0,00

ASSOCIACAO BIOPOLIS
Portugal
Net EU contribution
€ 38 442,50
Address
Campus de vairao da universidade do porto, rua padre armando quintas nº7
4485-661 Vairao, vila do conde
Region
Continente > Norte > Área Metropolitana do Porto
Links
Contact the organisation
Participation in EU R&I programmes
HORIZON collaboration network
Other funding
€ 0,00

WAGENINGEN UNIVERSITY
Netherlands
Net EU contribution
€ 48 705,00
Address