# AgriHub

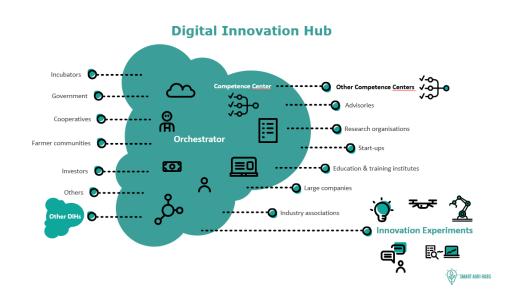
AgriHub as Social Space for Agriculture Data

Karel Charvát, Karel Charvát junior František Zadražil, Petr Uhlíř



#### What is DIH?

- ≈ center for digital innovation
- DIHs are supported by Horizon Europe and Digital Europe
- Linking innovative technologies, SMEs and other entities



#### What is DIH?

The purpose of the creation of a **digital innovation hub** is to design and develop an intelligent innovation center not only for agriculture. The platform is designed to create **connections between people**, **businesses** and **other entities** with the knowledge and technology that will help realize innovative projects and ideas.

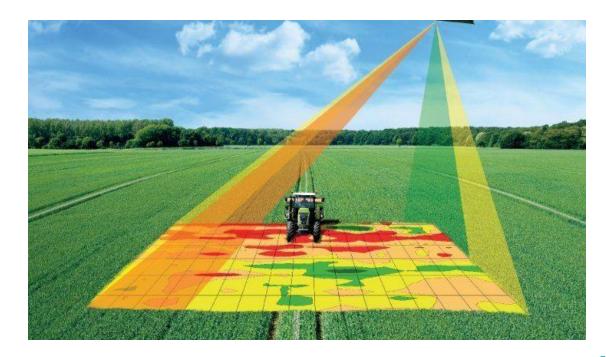
- One principle is to connect common users with developers, experts, researchers and investors - create community.
- The second principle is to integrate demo applications or innovative experiments
  where users, developers and researchers can collaborate, create and test new
  solutions.
- 3. The third principle is to create **knowledge base**.

### AgriHub.cz



#### Motivation

- SUSTAINABILITY
  - ECOLOGICAL BENEFITS
  - STRICT REGULATIONS
- PRODUCTIVITY
  - ECONOMICAL BENEFITS
  - INCREASING DEMAND



### Goals of AgriHub CZ

- One access point
- Integration and creation of spatial data of various sources in the Czech Republic

   we currently harvest data from Cenia and LPIS, but we also generate our own data
   (eg OLU, yield potential maps, vegetation development from remote sensing data...)
   and we access our results of our research in real time
- Access to spatial data within QGIS and HS-Layers NG technologies and mobile applications for data display
- Community of experts community portal
- Knowledge base
- Shared knowledge and the possibility of recycling developed applications
- Support for startups and new ideas
- Space for promotion

# Based on Hub 4 Every body

Web Portal solution to

manage web content

publish geodata (OGC services)

create maps

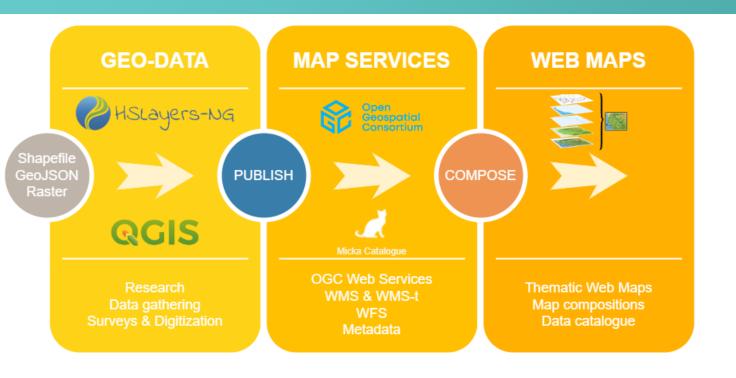
share all of it

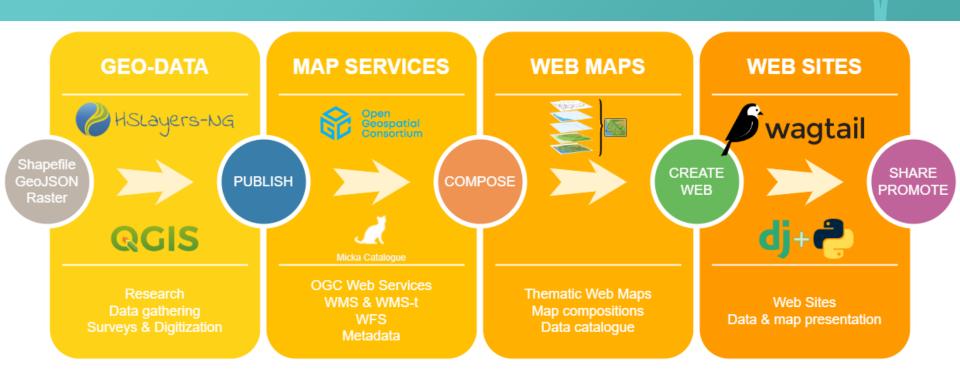
# Hub4Everybody











#### Hub architecture

- Map oriented Web Portal
  - O Content management
  - o Blog
  - o Forum
- Web & desktop GIS clients
- Geo-data publishing service
- Metadata catalogue
- Mobile app connection



#### Open Land Use

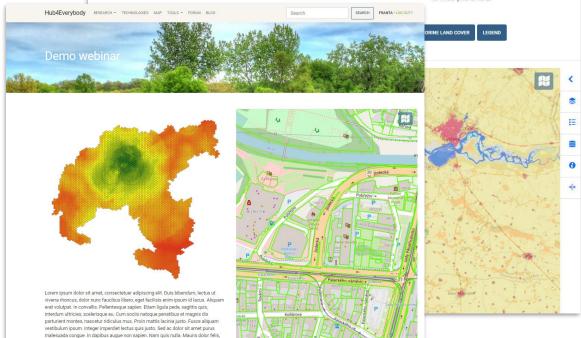
Open Land Use Map is a composite map that is intended to create detailed landuse maps of various regions based on certain pan-European datasets such as CORINE Landcover, UrbanAtlas enriched by available regional data.

sagittis at, luctus sed, aliquam non, tellus. Mauris tincidunt sem sed arcu. Etiam neque.

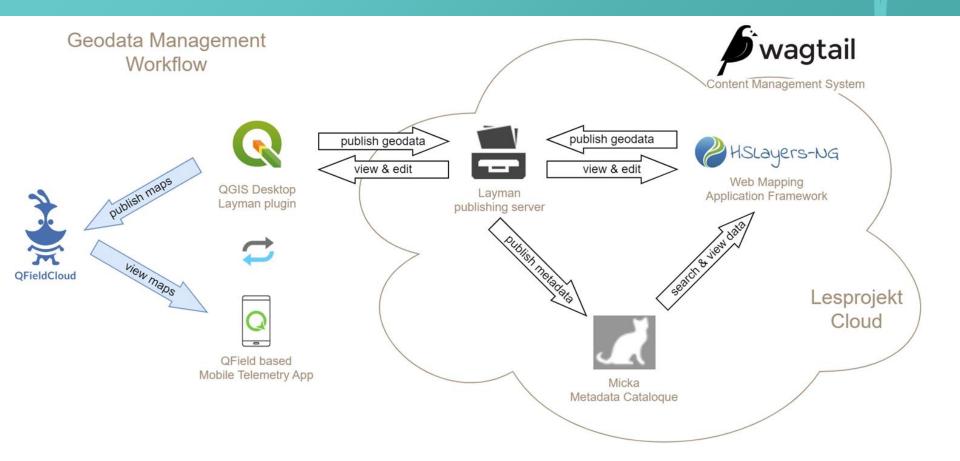


#### Land Cover

The CORINE Land Cover (CLC) inventory was initiated in 1985 (reference year 1990). Updates have been produced in 2000, 2006, 2012, and 2018. It consists of an inventory of land cover in 44 classes. CLC uses a Minimum Mapping Unit (MMU) of 25 hectares (ha) for areal phenomena and a minimum width of 100 m for linear phenomena.



#### Hub architecture





#### **THEROS Key Facts & Consortium**

- Project Title: An integrated toolbox for improved verification and prevention of adulterations and noncompliances in organic and geographical indications food supply chain
- Call identifier: HORIZON-CL6-2022-FARM2FORK-01-04
- Topic: "Innovative solutions to prevent adulteration of food bearing quality labels: focus on organic food and geographical indications"
- **Duration:** 01.01.2023 31.12.2025 (36 months)
- Funding scheme: IA Innovation Action
- **EU contribution:** EUR 3,999,961.00
- Coordinated by: Institute of Communication and Computer

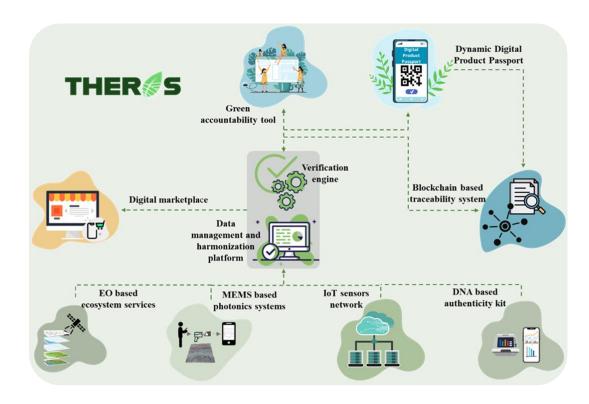
Systems (ICCS), Greece





This project has received funding under grant agreement No 101083579. It is funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Research Executive Agency (REA). Neither the European Union nor the granting authority can be held responsible for them.

#### **THEROS Concept & vision**



Find more at: www.theros-project.eu

THEROS aims to implement an integrated toolbox being capable to modernize the process of verifying organic and geographical indications food products and preventing adulterations and non-compliances, while demonstrating enhanced traceability, security and transparency in the supply chain, through the use of various technologies and innovations

that leverage Earth Observation, photonics, internet of things (IoT), DNA metabarcoding, blockchain, digital interfaces and product passport, advance analytics, machine learning, artificial intelligence and business models.

At the same time, efficient mechanisms will be employed in order to ensure interoperability with existing control systems, as well as improved accessibility and sharing of data through harmonized and standardized means, whilst also demonstrating their uptake by relevant stakeholders for improved decision-making.

# Thank you for your attention

charvat@plan4all.cz

zadrazil@lesprojekt.cz

charvat\_junior@lesprojekt.cz





