The **scope** of the challenge is to enhance your geospatial and/or INSPIRE enabled web-based or mobile application so as to connect to either Citizen Science and/or Earth Observation data. More specifically, the challenge will focus on improving accessibility to protected resources while also enabling their direct consumption and utilisation by third party applications.

For enhancing your existing web-based or mobile application to contribute to citizen science and crowdsourcing activities within the LandSense Citizen Observatory (https://landsense.eu), you would need to implement OpenID Connect into your application that is able to interact with the LandSense Authorization Server (https://as.landsense.eu/). The LandSense Authorization Server is a core output from the project and more details can be accessed from the public deliverable “LandSense Engagement Platform – Part I”.

In order to initiate registration, you can choose to use a static registration page or leverage the RFC 7591 compliant dynamic client registration endpoint. A registered application can then use the LandSense federation including login options from Google, Facebook or eduGain (approx. 2800 University and Research organizational logins). The collection and processing of any personal data is compliant with the EU’s General Data Protection Regulation (GDPR). However, when registering the application, you can control the degree of personal information you need: A user can be simply authenticated, labelled with a cryptoname or identified with personal information.

In order to contribute to Citizen Science with your application, you will need to interact with the LandSense platform. Additionally, you may use an OGC SensorThings API for accessing existing data or inserting new observations from the SCENT Harmonisation Platform (http://scent-harm.iccs.gr/). The latter includes an OAuth2 Resource provider that is also integrated within the LandSense federation.

Last but not least, you will have the opportunity to connect also to NextGEOSS Single Sign On (https://nextgeoss.eu/platform-services/user-management/) and integrate within your application protected EO resources or utilise existing applications. Additionally, details on how to interact specifically with NextGEOSS User Management system are available from here: https://github.com/ec-nextgeoss/nextgeoss-integration-guide-um

As a participant in this challenge, you should be familiar with OpenID Connect / OAuth2 principals and the developer of the application that you bring to enhance. You will learn during the hack-a-thon how to integrate a OpenID Connect library like HelloJS into your web-based application and how to setup the library to connect to a 3rd party OpenID Connect Authorization Server.

Register here

Mentors: Andreas Matheus, from Secure Dimensions GmbH and Hector Rodriguez, from DEIMOS-Space

Andreas Matheus *holds a German Dr. degree in computer science from the Technische Universität München and a German Dipl.-Ing. degree in Electrical Engineering from the Gerhard Mercator Universität. He is an active member in the Open Geospatial Consortium (OGC). In 2009 Andreas founded Secure Dimensions GmbH. The business is coined as Holistic GeoSecurity which covers most of all dimensions regarding security for enterprise systems. Andreas has participated in a wide range of projects conceded with the design of security architectures, security assessments of existing architectures as well as the implementation of software to demonstrate novel concepts of coupling traditional standards for federated authentication with Web-technology. Since 2018, Andreas' additional focus is on privacy by design to build systems that represent data privacy as defined in the GDPR - General Data Protection Regulation (EU) 2016/679 (GDPR). Andreas has been involved in different EU funded projects dating back to 2012: COBWEB, LandSense and Cos4Cloud.*