spéir (Gaelic): noun 1. Sky, air, heaven. 2. Sphere, orbit

SPÉir: Satellite Platform for Éire

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Introduction

The SPÉir facility is being developed by ICHEC to provide access to and facilitate the use of Copernicus EO data and services for Irish users. We present here the objectives, the development plan and the applications which are currently underway on the system.

SPÉir Objectives

To collate and archive Sentinel data relevant to Ireland

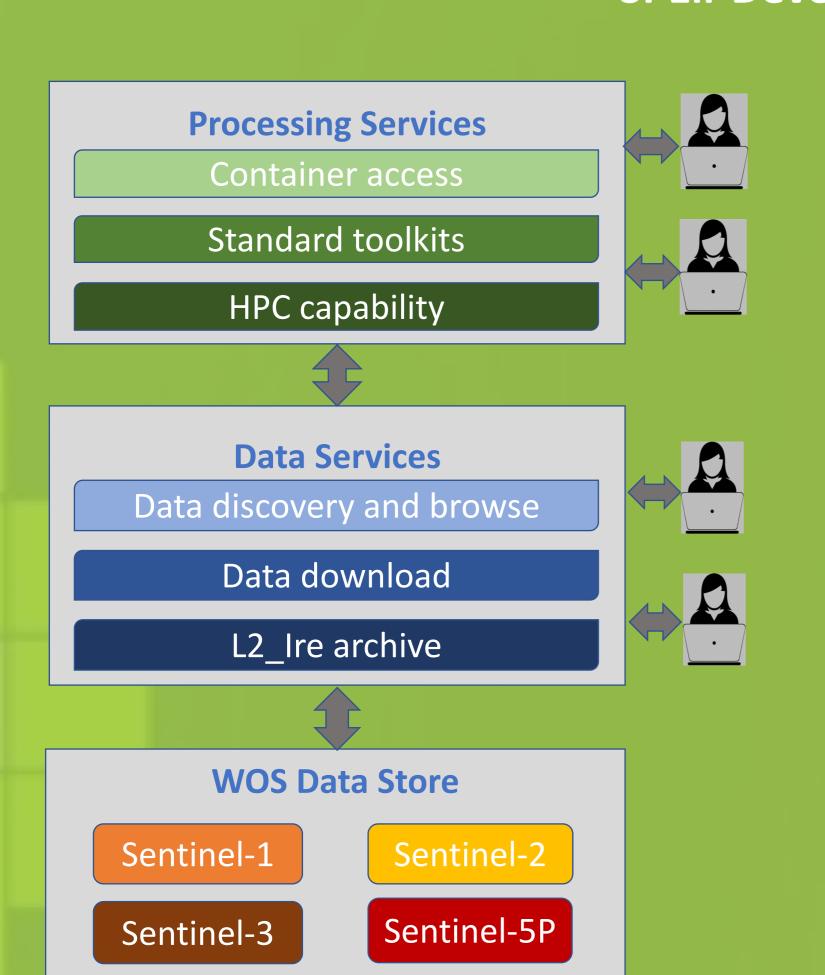
To provide **free and open access to data** archives

To provide data and processing services

To develop a user base of public agency, academic and commercial users

To promote the use and value of satellite data in Ireland

SPÉir Development Plan & Schedule



Q2 2019 PaaS

Q1 2019 DaaS

Q3 2018 Data Archive Develop data services: 'Irish data cube'
Develop processing services:

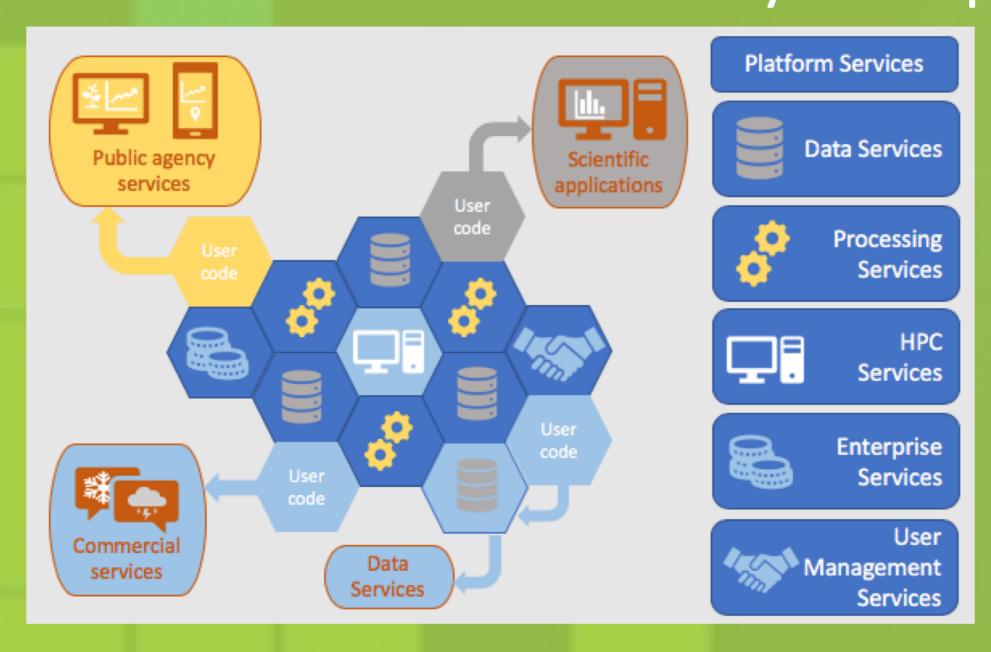
Standard EO toolkits, container/VM access, access to High Performance Computing facilities

Develop data access services:

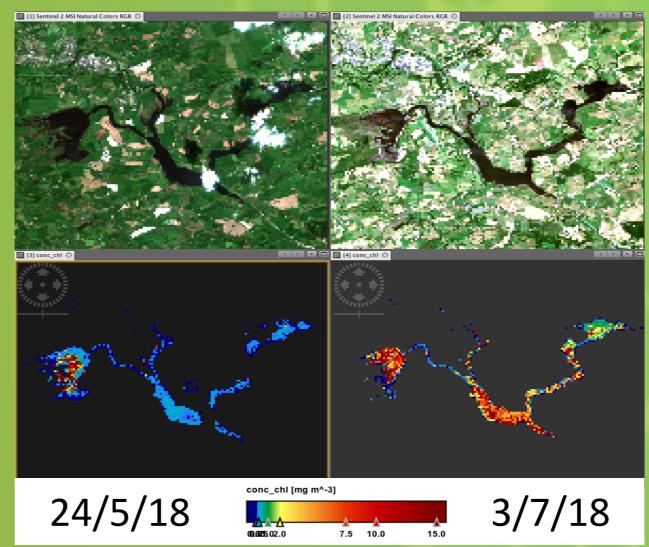
Browse, discovery, download, subset Provide access to Beta users for feedback Launch & rollout of data services early 2019

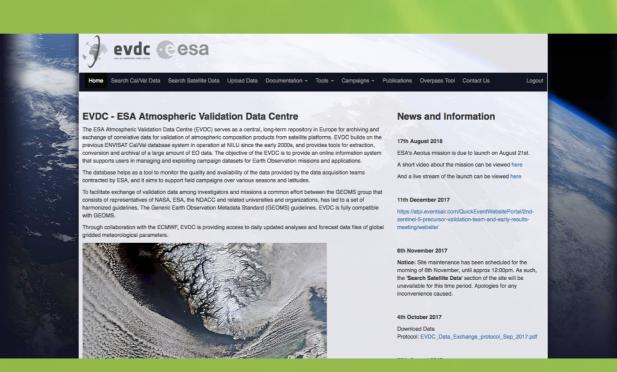
Data archive is accumulating daily
Data is being stored over Ireland and North Atlantic
Region

SPÉir System & Applications



A unique aspect of the SPÉir system will be the combination of a <u>large EO data archive</u> with <u>high performance</u> computing capability and <u>AI analytics</u>. This combination will help to unlock insights in the data, removing technical limitations to growth in downstream services and enabling innovative academic research and public sector services.





An Irish EPA-funded project to monitor water quality in inland and coastal waters is being carried out at ICHEC. Data from Sentinel-2 for a Special Area of Conservation shows large differences in C2RCC chlorophyll from May to July 2018.

The data archive is currently supporting the ESA Validation
Data Centre, providing satellite and in situ data for the Sentinel 5P Validation Team.

