Common Challenges in EO

Creation of valuable content from large and growing volumes of Earth Observation derived data is a challenge for research organisations, governments and companies around the world.
EO Lab is....

A **cloud** based **spatial content management** system that gives organisations the capacity to develop multiple **content sharing** applications.
Applications

- **Bespoke** applications
- Bring together **data**, **areas** of interest, **narrative** information, **queries** and **people**
Mapping technology

MDD Chiapas

Monitoreo de Bosques y Deforestación en Chiapas

The "Monitoreo de Bosques y Deforestación en Chiapas" app brings together earth observation and other spatial data related to forest resources and change monitoring in Chiapas, Mexico. The aim of this application is to provide information about areas of forest, the links to those forests, and the historic and ongoing losses and changes with them.

An important part of this effort is to collate and understand the quality and availability of data needed to improve our understanding of the forest resources in Chiapas.

The development of this app is supported by the UK Space Agency.

You can view the map layers by selecting them from the list of layers (click the Map Layers icon in the left margin). To view results for an area of interest, click the Area tool and use the "Add New Area" button. This allows you to draw an area on the map and view results on land cover change over time.

Use the Quick Start Guide to get started. OE Cloud Terms of Use.
Mapping technology

• A scalable structure for managing spatial data

• Analysis and reports from compressed files without download

• Useful content, accessible to non-GIS experts
2015: Ecometrica leads UKSA IPSP project, establishing **EO Labs in UK, Mexico and Brazil**

Collaborative project, building partnerships to improve the **application of EO in forests**
Case Study: ECOSUR, Mexico

Biodiversity Conservation

REDD +

International Collaboration

Mangrove conservation
Example: monitoring impact of donor programmes on forests

Providing evidence for the ‘Hectares Indicator’ – a measure of avoided forest lost

EO Labs funded by UK DFID to monitor programmes in Nepal, Ghana, Brazil, Colombia and Indonesia

http://icf-cerrado.ourecosystem.com/
Example: Presenting Research Outputs

University of Edinburgh’s **CARDAMOM** model integrates EO data to provide estimates of carbon pools and fluxes.

The EO Lab application displays the **temporal evolution of the Amazon carbon cycle**, illustrating the **spatial and temporal patterns** of carbon stocks and carbon exchange.

http://cardamom.ed-ac.ourecosystem.com/
Example: Agroforestry

Forestry Grant Scheme (FGC) supports land owners to practice agroforestry.

Application developed to help land owners determine the support available to them based on FGS criteria

http://agroforestryscotland.ourecosystem.com/
Example: near-real time soil saturation, drought and flood extent

Using Sentinel 1 C-band SAR to detect extremes in soil moisture and produce alerts for end users
Thank you!

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