

A BROKERING SOLUTION FOR GEOSPATIAL RESOURCES RETRIEVAL

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Outline

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- Geospatial data access
 - ▣ The “common grid” issue
- Proposed solution: the access broker
 - ▣ Requirements
 - ▣ Use-cases
 - ▣ Interface
- Use scenario

Geospatial data access

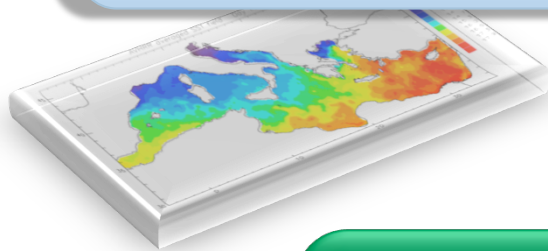
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- Is composed of various functionalities
 - ▣ Data pre-processing
 - Sub-setting (i.e. trimming, slicing)
 - Format conversion
 - CRS transformation
 - Data Interpolation
 - Etc.
 - ▣ Data download
 - Synchronous and asynchronous transfer
 - Restful and SOAP bindings

The “common grid” issue

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Sub-setting, Format conversion, CRS transformation, Interpolation



WMS

Access Client

Sub-setting, Interpolation

WCS

Sub-setting, Format conversion, Interpolation

WFS

ESSI

<http://essi-lab.eu>



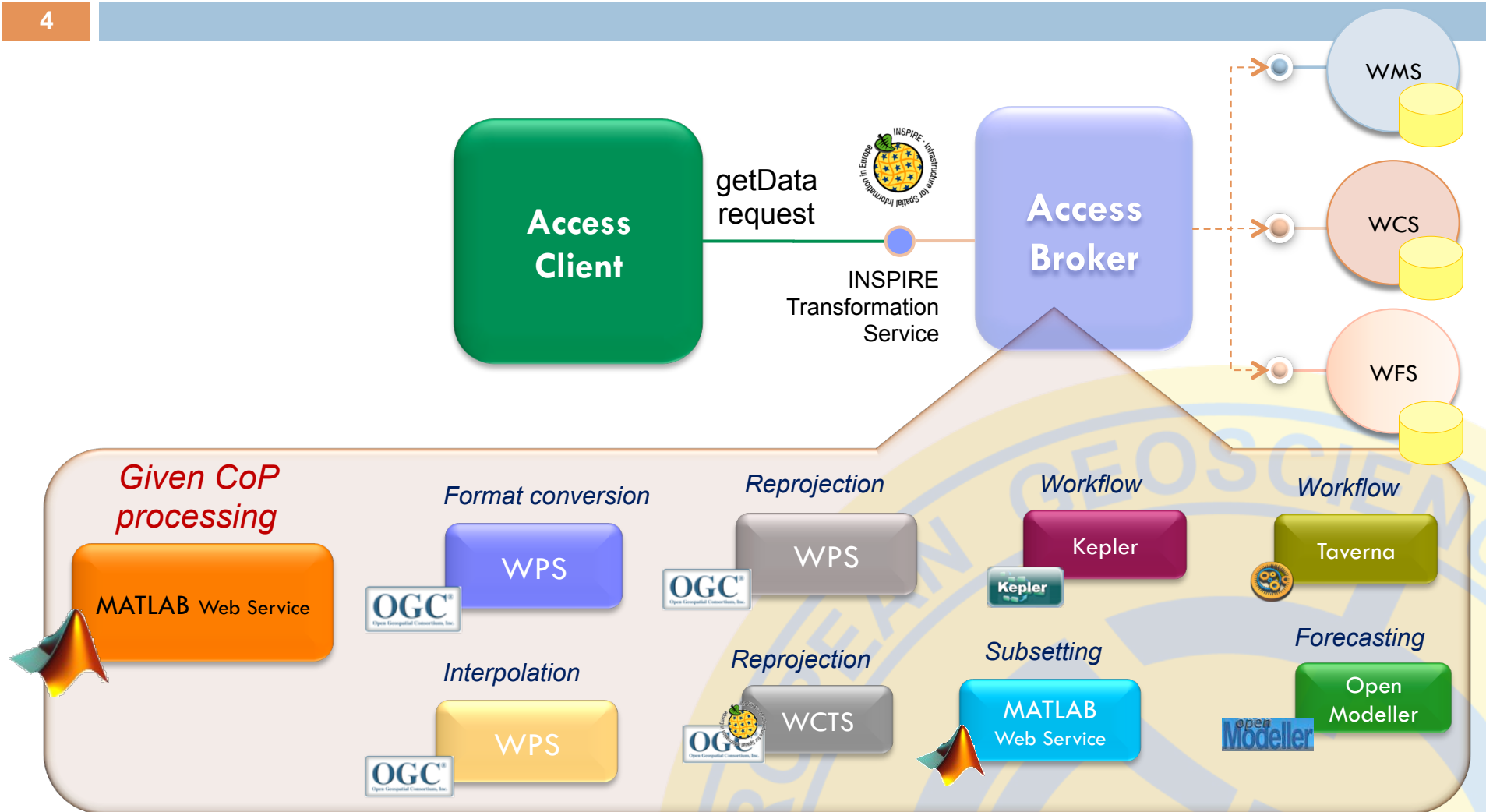
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Proposed solution: the Access Broker

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Requirements and objective

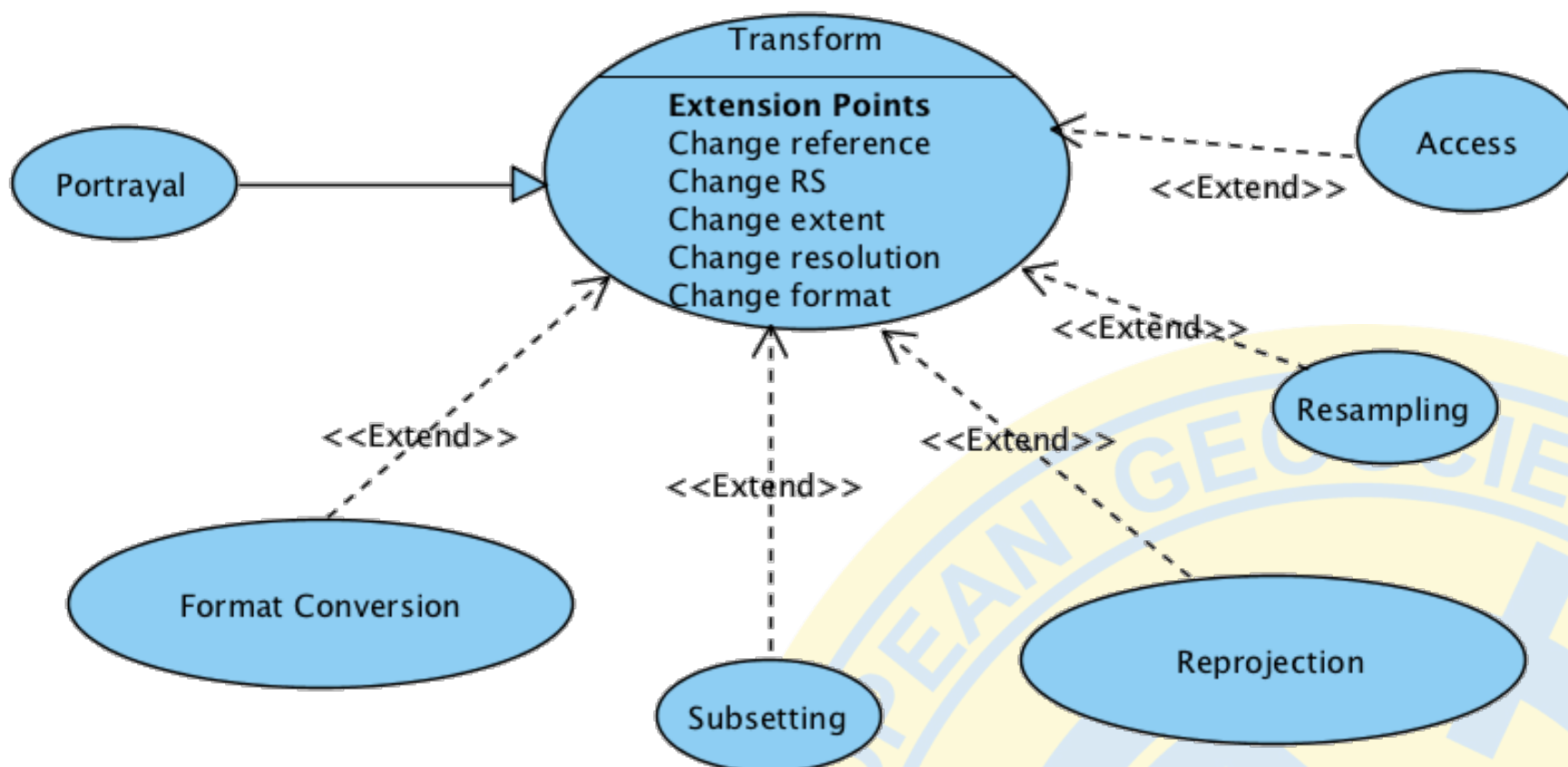
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- An access framework which does not supplant, but complement existing access systems/services
- A flexible framework to allow CoPs to use their pre-processing components/services – where required
- Compliant with the INSPIRE transformation implementing rules

A broker system which implement the necessary **mediation** to **existing** and **future data pre-processing services** – to “normalize” discovered data

Access broker use-cases

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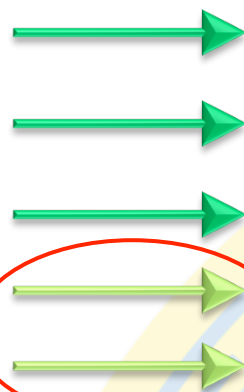
Access broker interface

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INSPIRE Transformation Service

Operation	Obligation
<i>Get Service Metadata</i>	Mandatory
<i>Transform</i>	Mandatory
<i>Is Transformable</i>	Optional
<i>Get Transformation</i>	Optional
<i>Put Transformation</i>	Optional



Access broker service

Operation
<i>GetCapabilities</i>
<i>Transform, GetData</i>
<i>Is Transformable</i>
<i>Get Transformation</i>
<i>Put Transformation</i>

presently implemented off-line
(using a Configuration File)

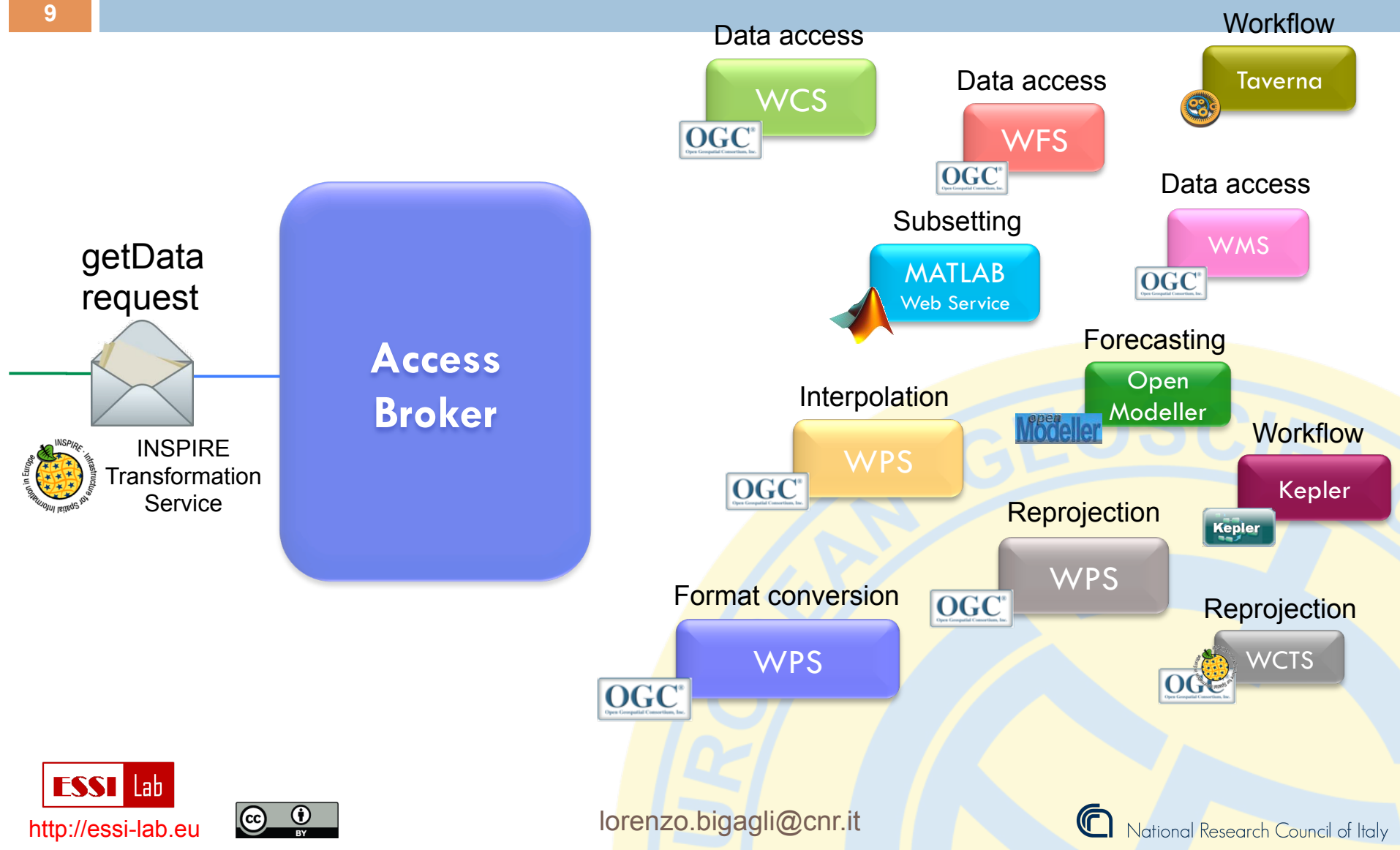
Data access – revisited

8



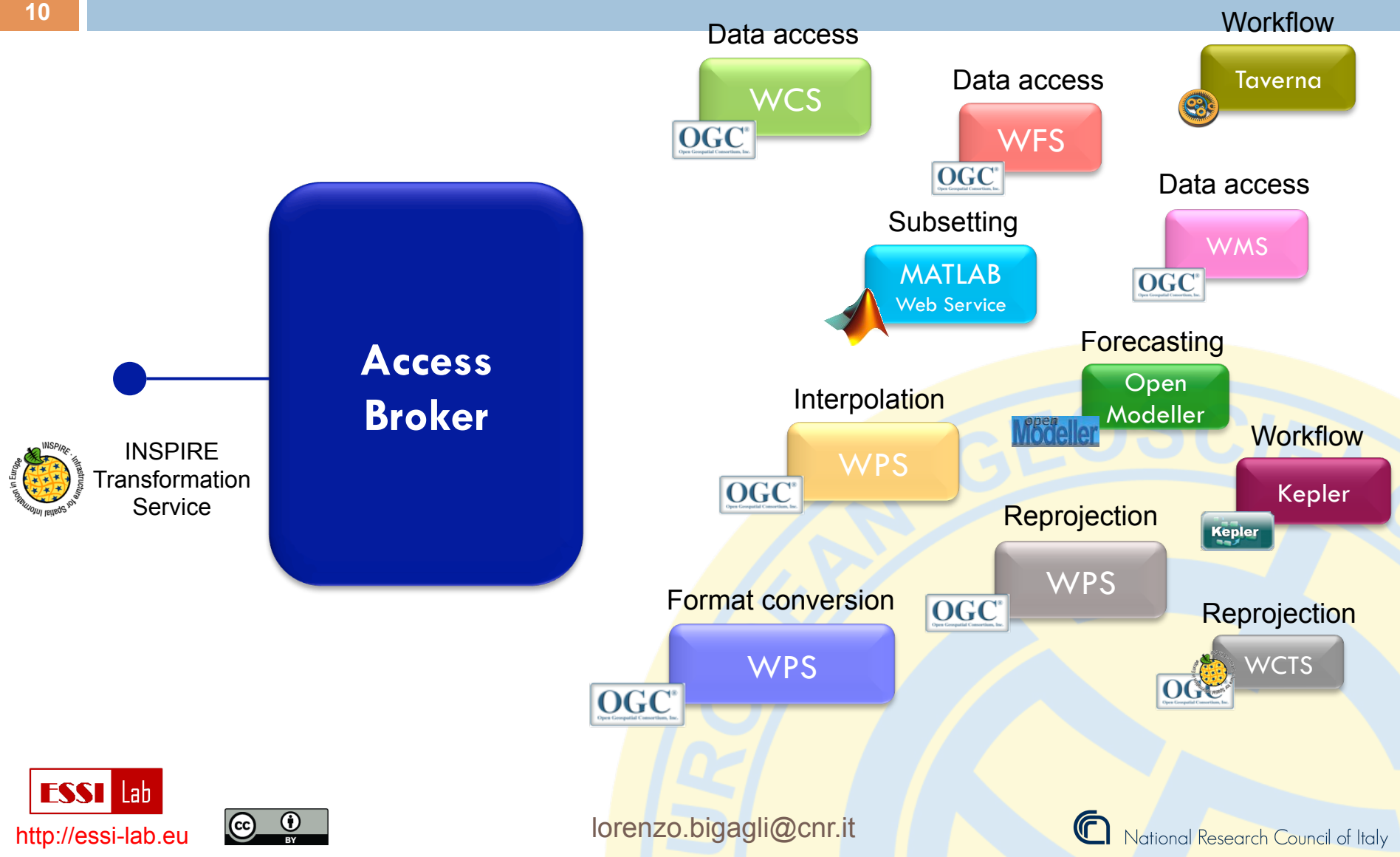
Data access – revisited

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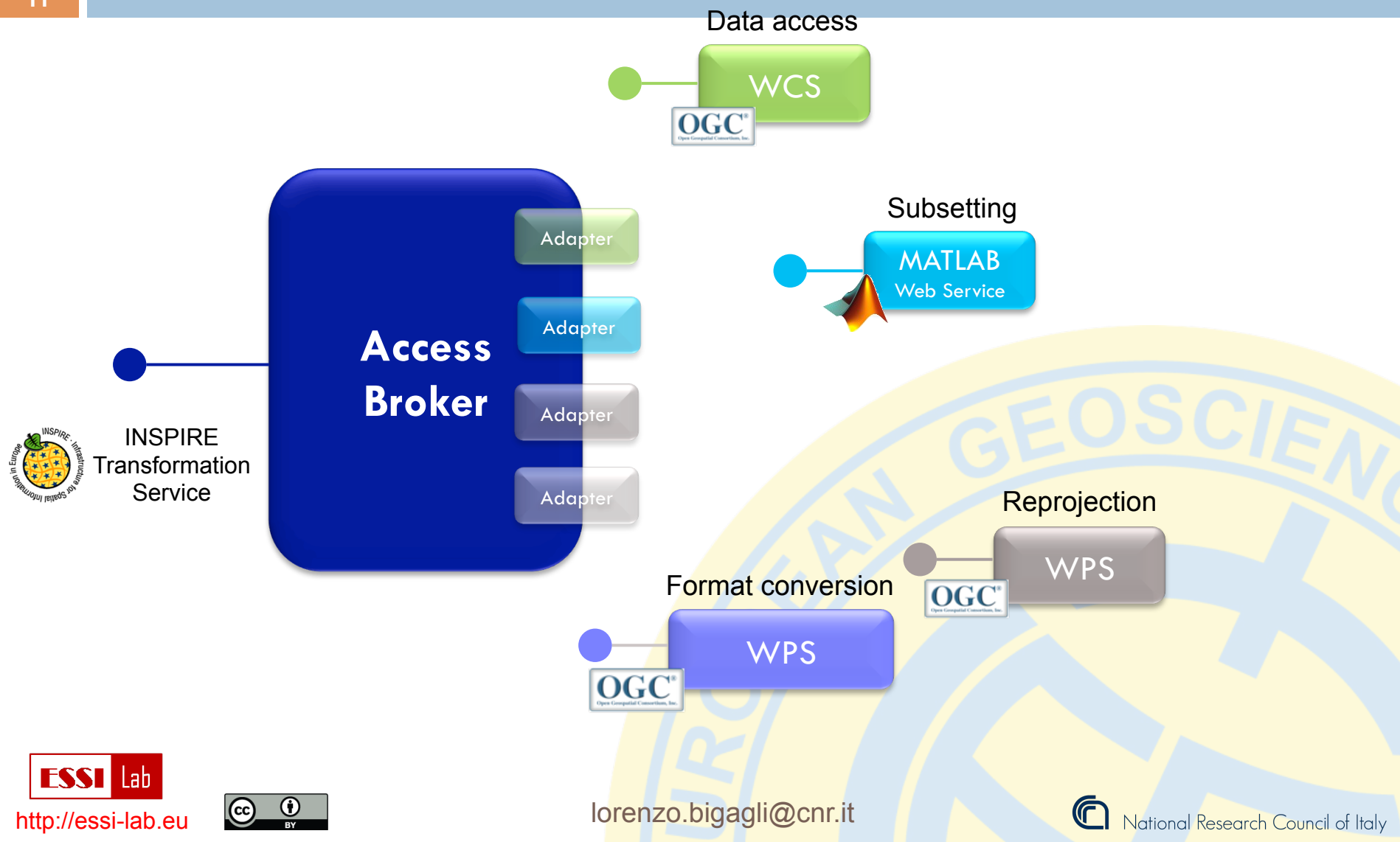
Data access – revisited

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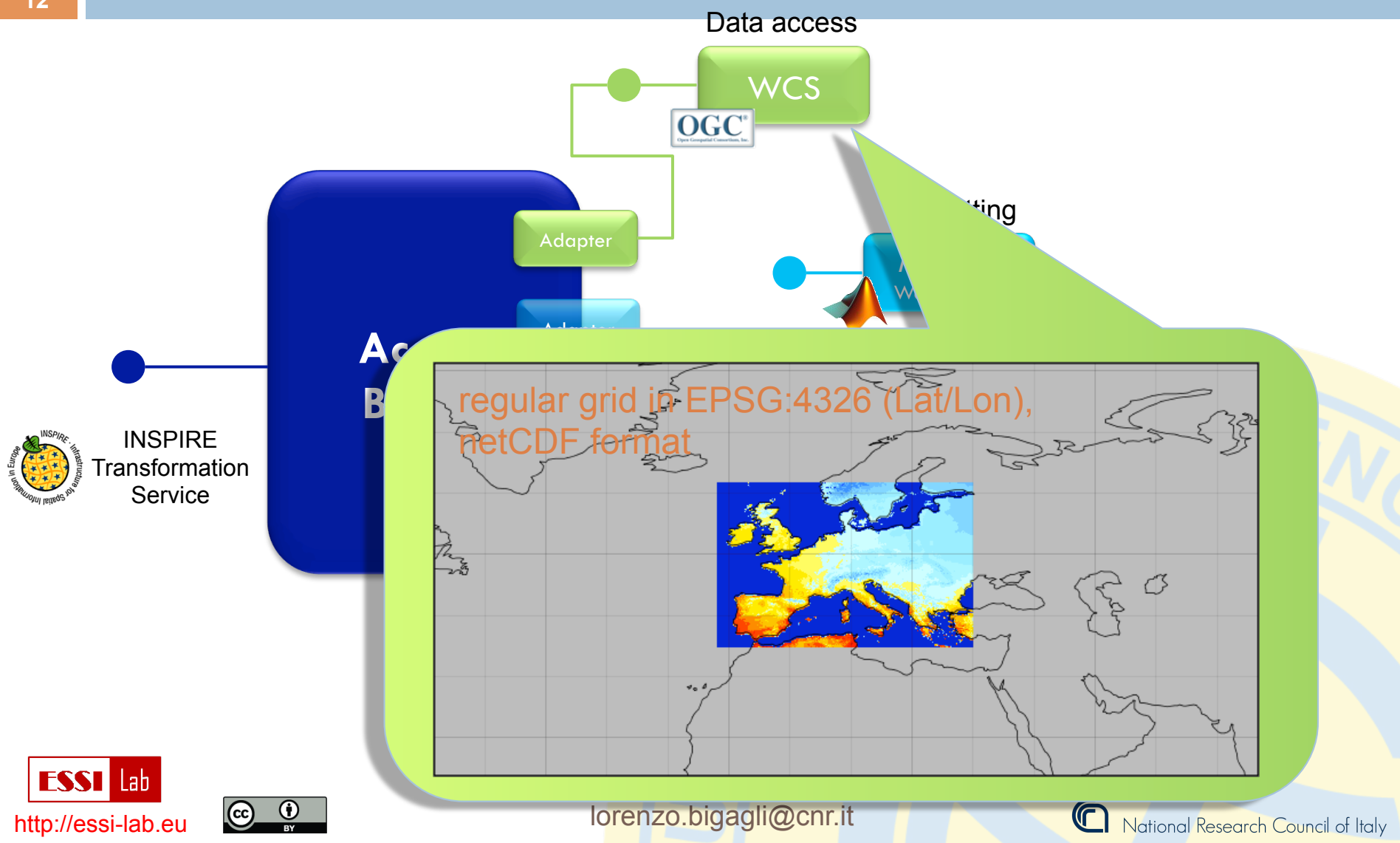
Data access – revisited

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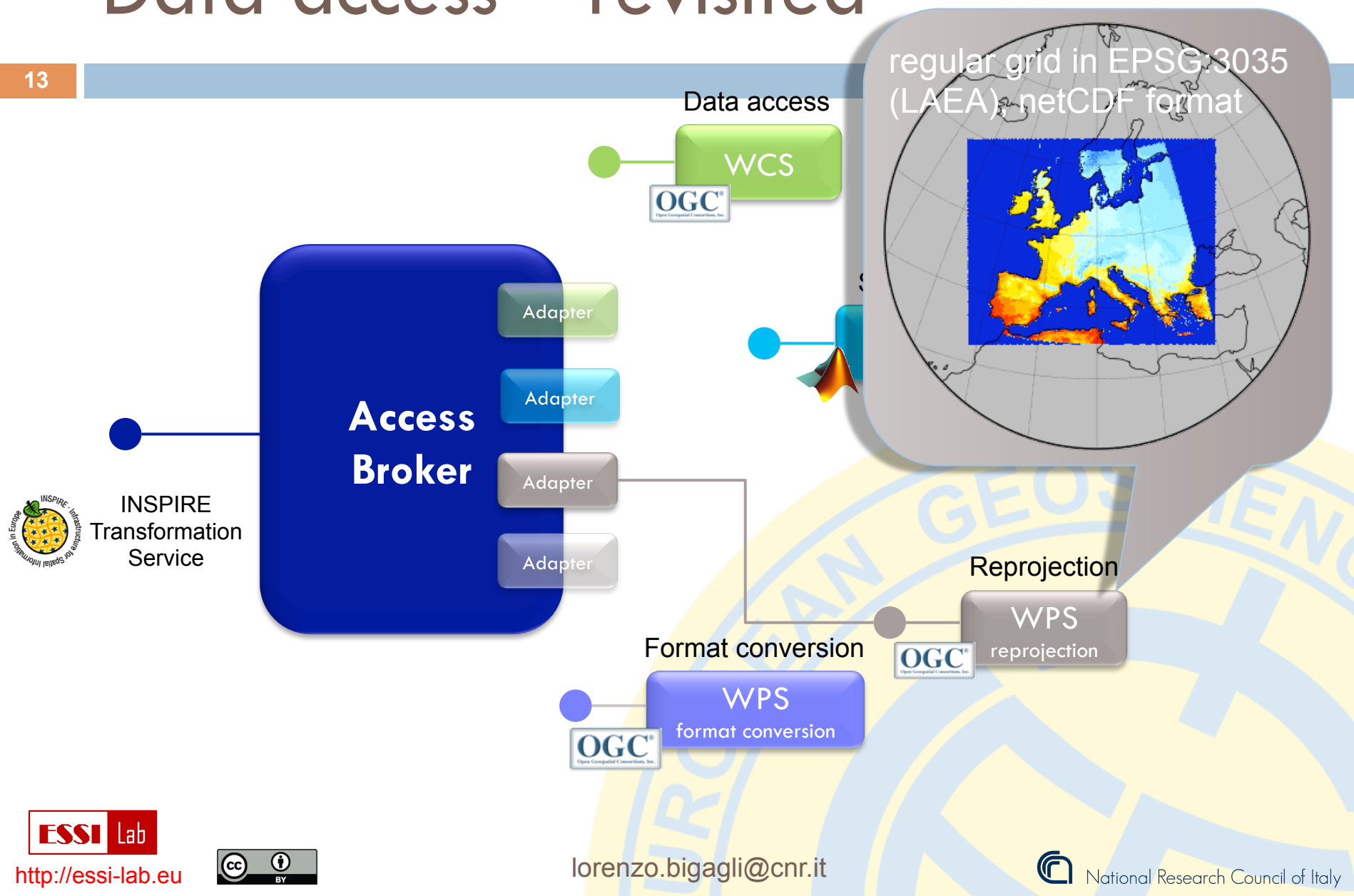
Data access – revisited

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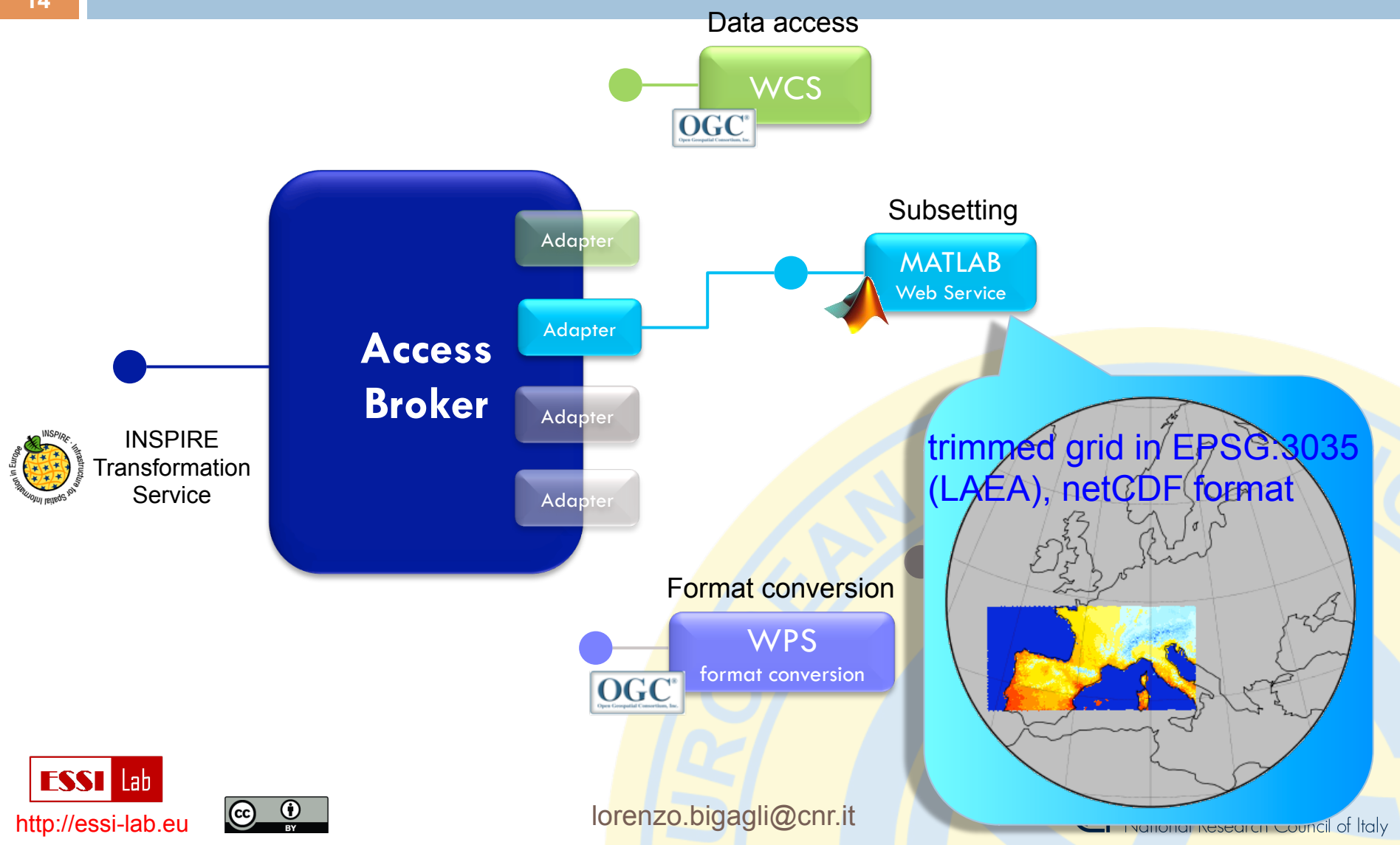
Data access – revisited

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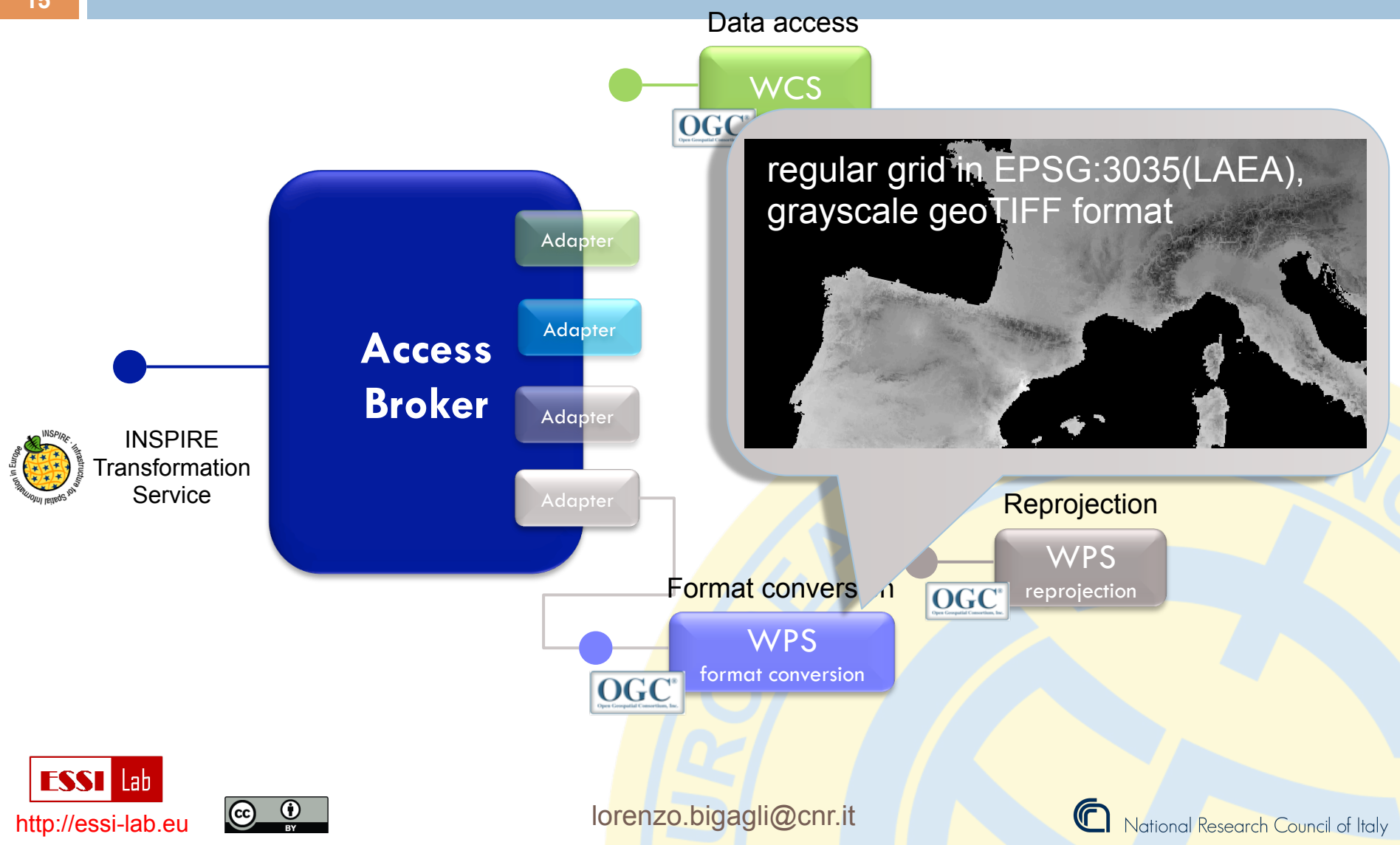
Data access – revisited

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Data access – revisited

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Client → Access Broker →
Access Services

Client → Access Services

