EOSC Future Science Project 9 Climate Neutral and Smart Cities

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Integrate climate data from Copernicus ERA5 and air quality data from the European Environmental Agency (EEA) with data from the European Social Survey (ESS)

Climate data

Social scientific survey

European Air Quality

opernicus
Europe's eyes on Earth

IMPLEMENTED BY
ECMWF

European Social Survey

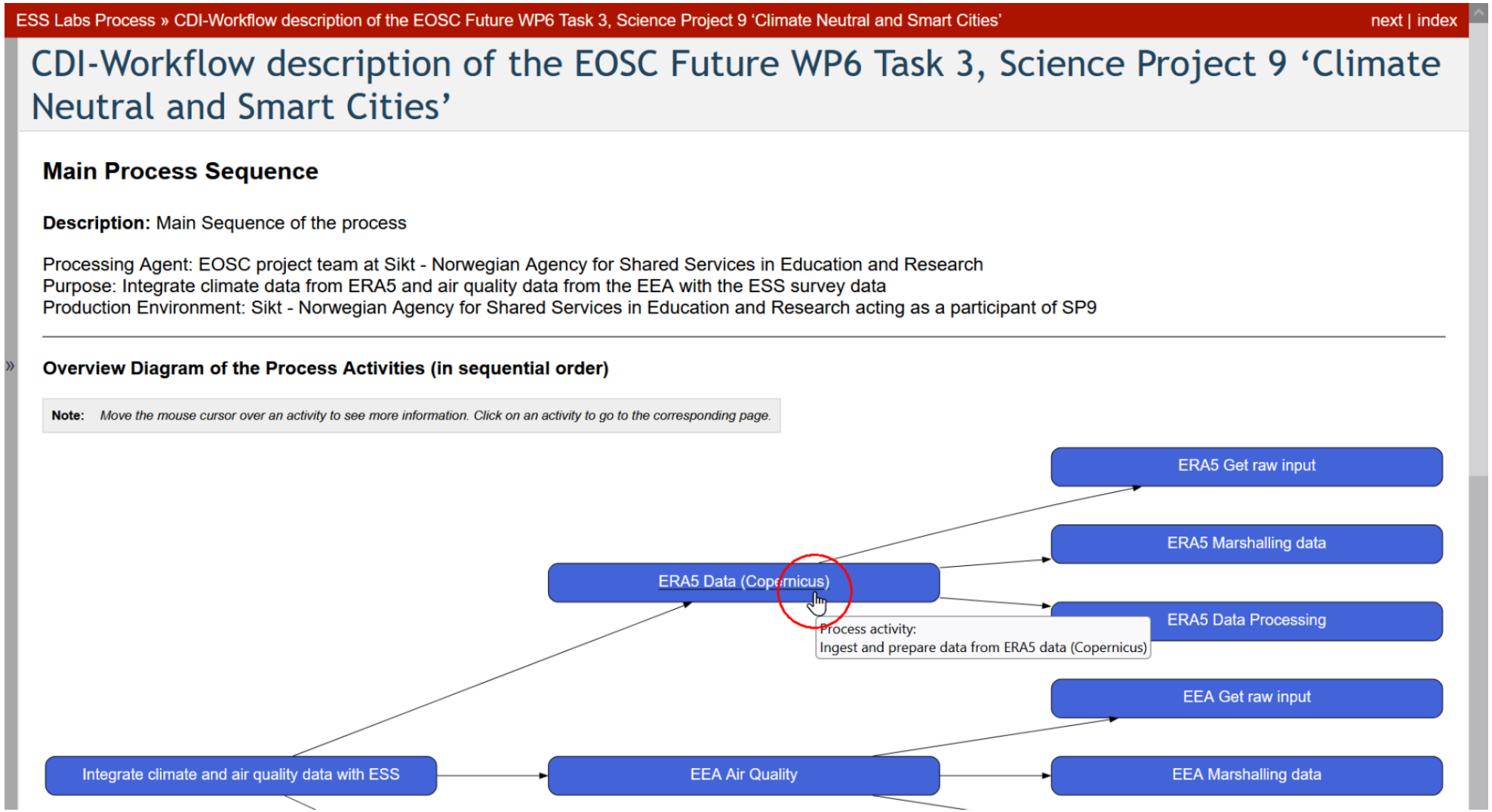
European Environment Agency

Metadata Requirements for Cross-Domain

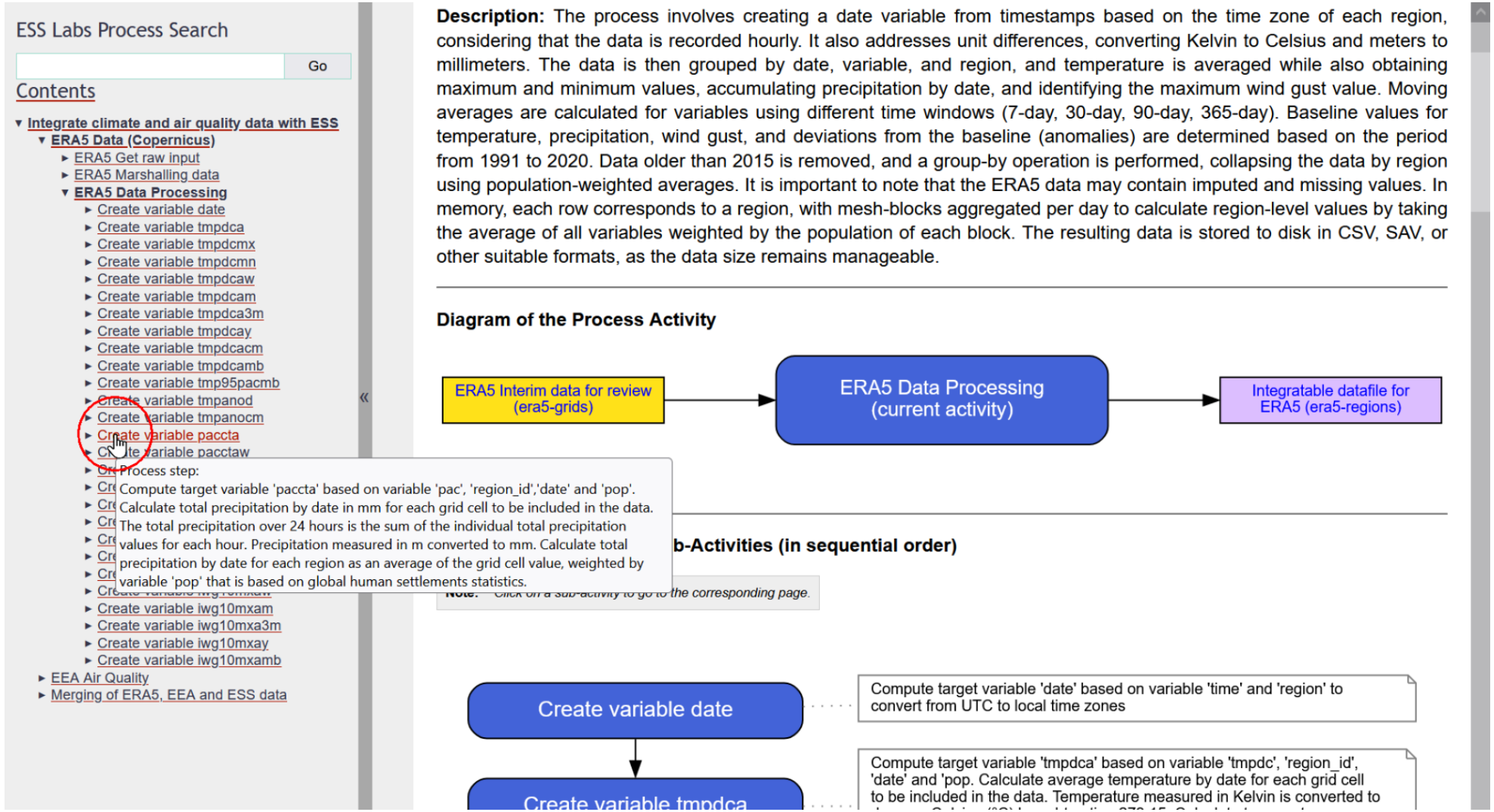
- The integration of data from multiple domains has **higher demands** on metadata than reuse of data in a single domain
  - It **increases** the requirements on the quality and scope of the metadata
- This applies especially for **provenance** information

- *Following slides show screenshots of the process description application prototype*

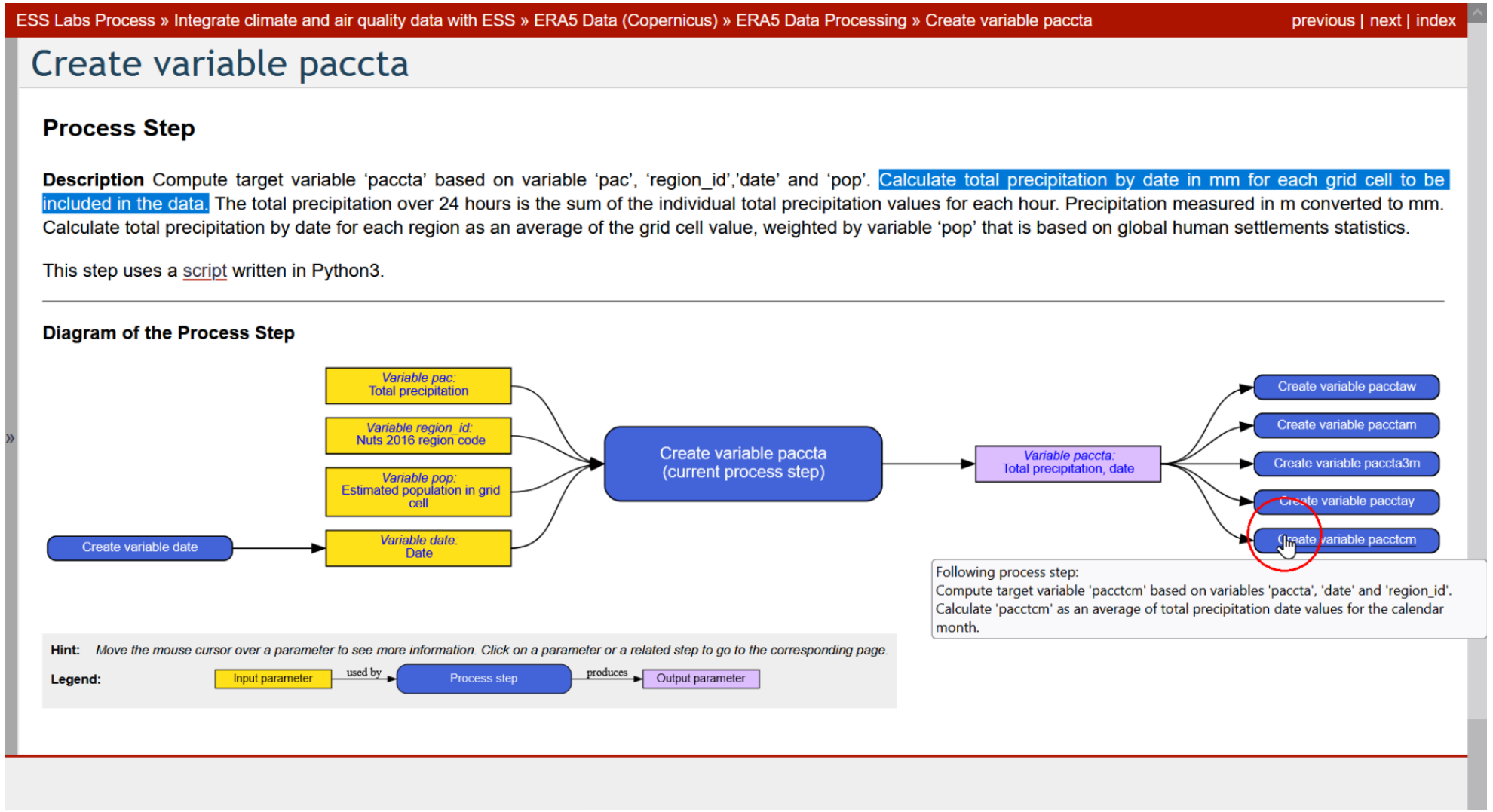
Overview of Process Activities



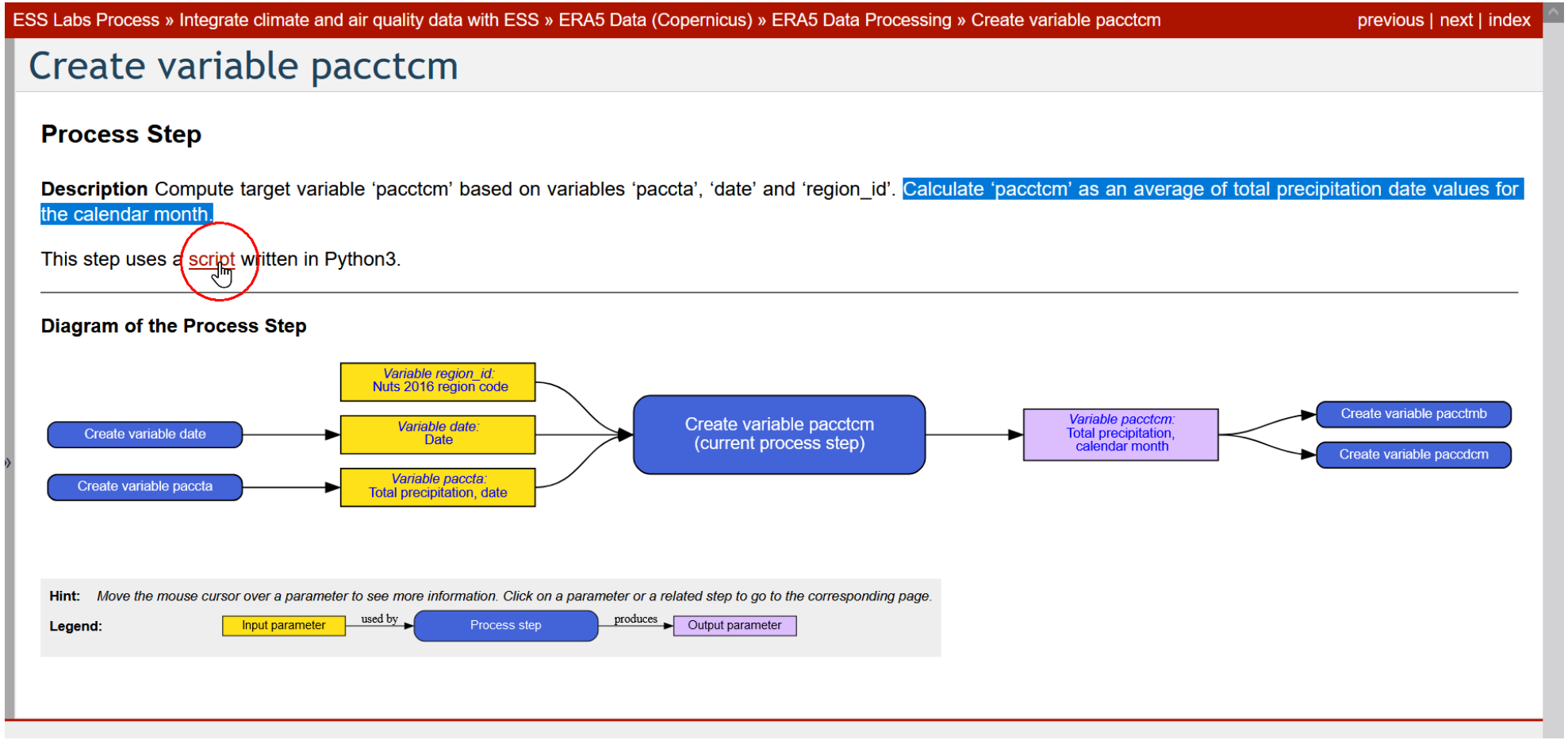
ERA5 Data Processing



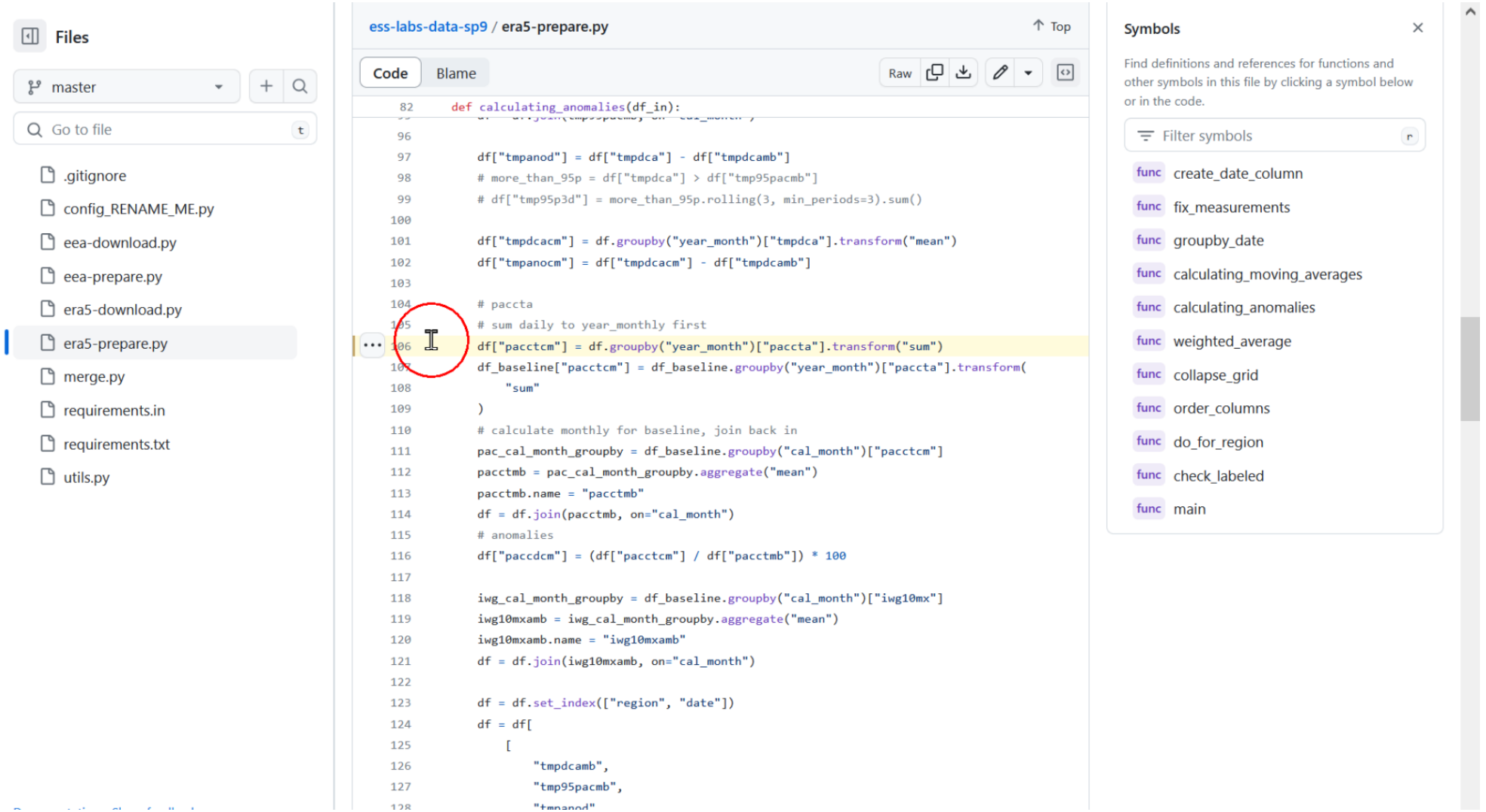
Create Variable ‚paccta‘



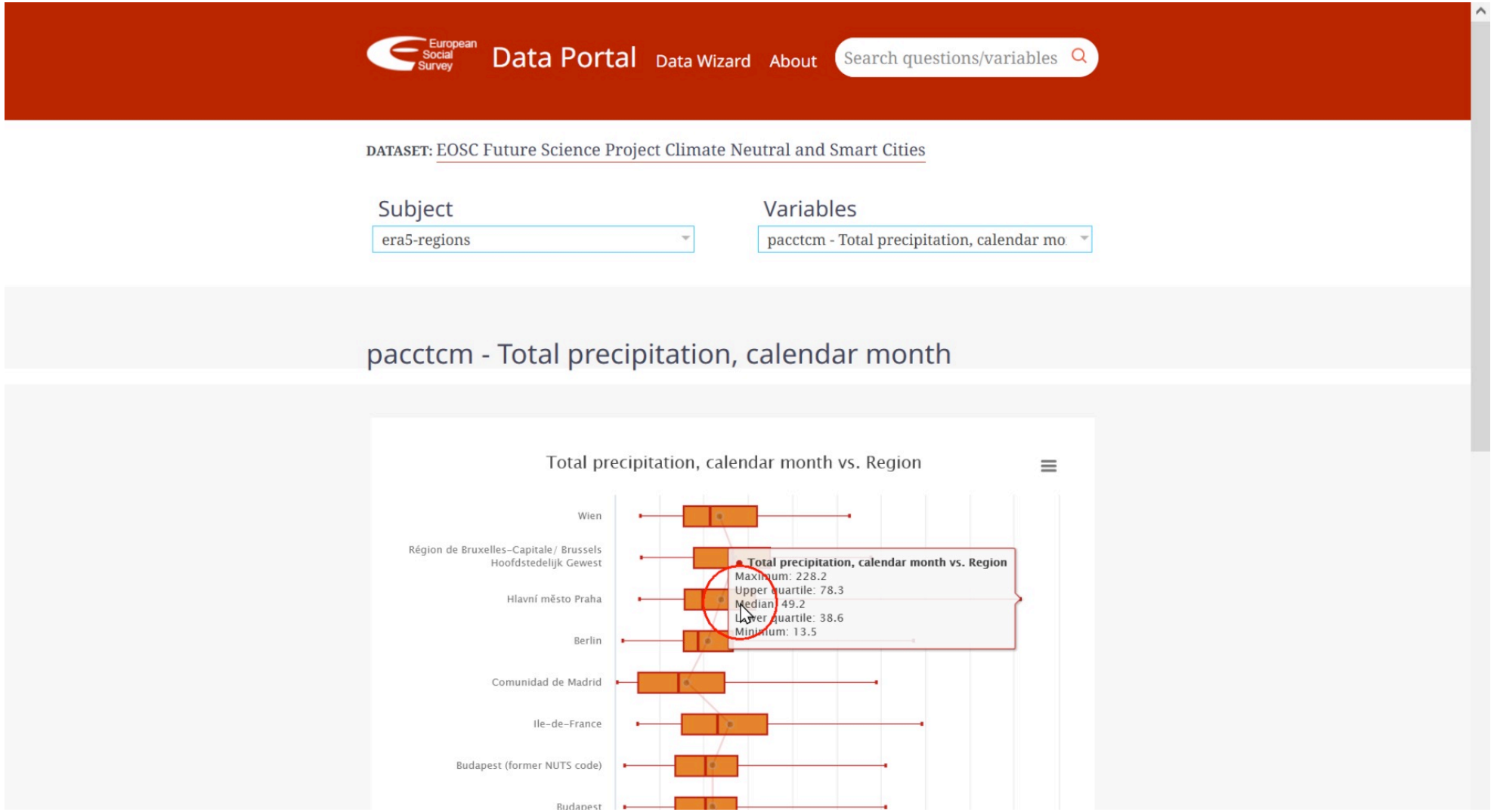
Create Variable ‘pacctcm’



Code for the Creating Variable ‘pacctam’



Created Variable ‘pacctcm’ in the Data Repository



Process Information in Standardized Form

- The description of the process/provenance information is made in DDI-CDI
- DDI Cross Domain Integration (DDI-CDI) is an emerging standard for the domain-independent description of data
- The DDI-CDI Process description is aligned with
  - Prov Ontology of World Wide Web Consortium (W3C)
  - Business Process Model and Notation (BPMN) of the Object Management Group (OMG)

Further Project Information at ESS Labs

https://europeansocialsurvey.org/esslabs/