

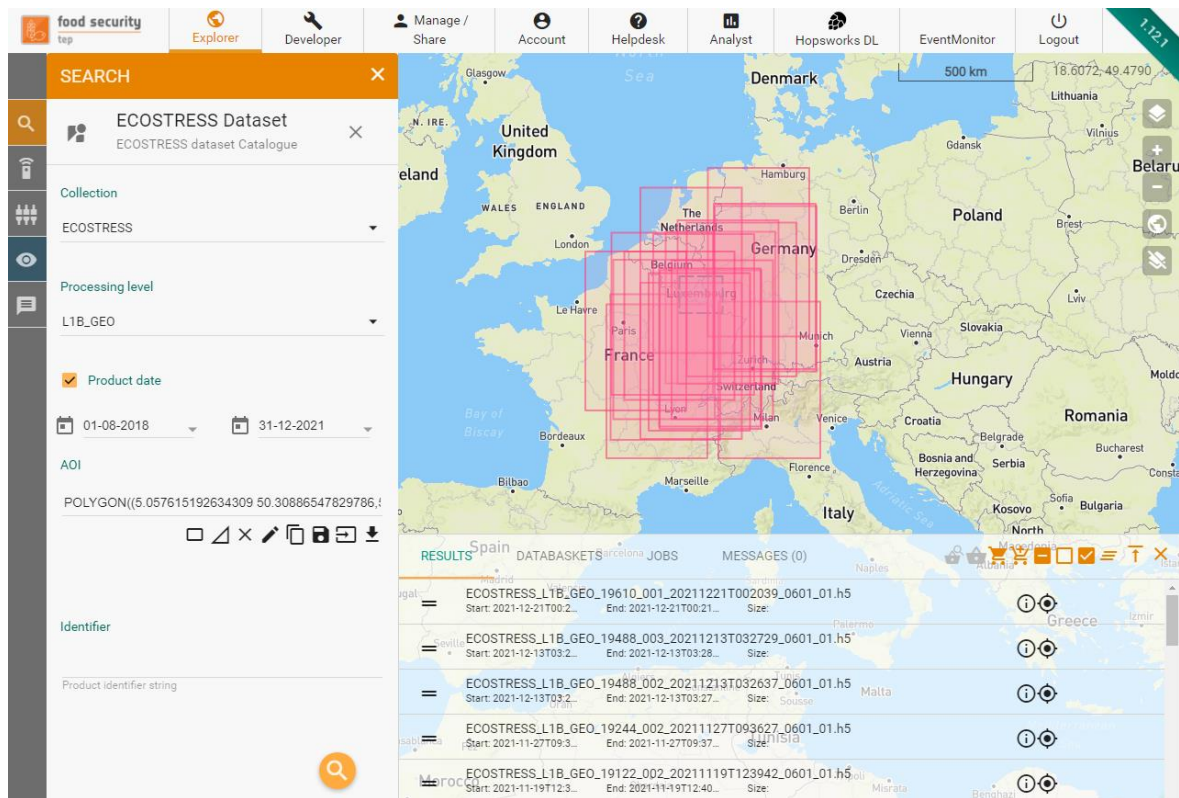
EUROPEAN ECOSTRESS HUB (PHASE 1)

NOR REPORT

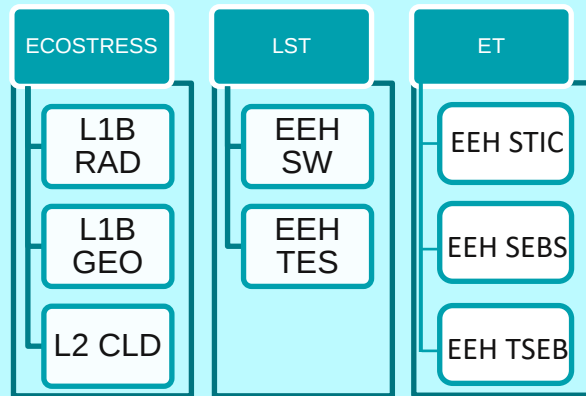
2023-11-02

EUROPEAN ECOSTRESS HUB (EEH)

- Generating publicly accessible LST and ET products for ECOSTRESS over Europe and Africa from multiple models
- Providing a user-interactive interface (FS-TEP) for running the models with customized model coefficients



Data Hierarchy



Ancillary data in cloud storage

<https://foodsecurity-tep.net/#/>

EEH USER INTERFACE

NOR supported operational and ingestion costs

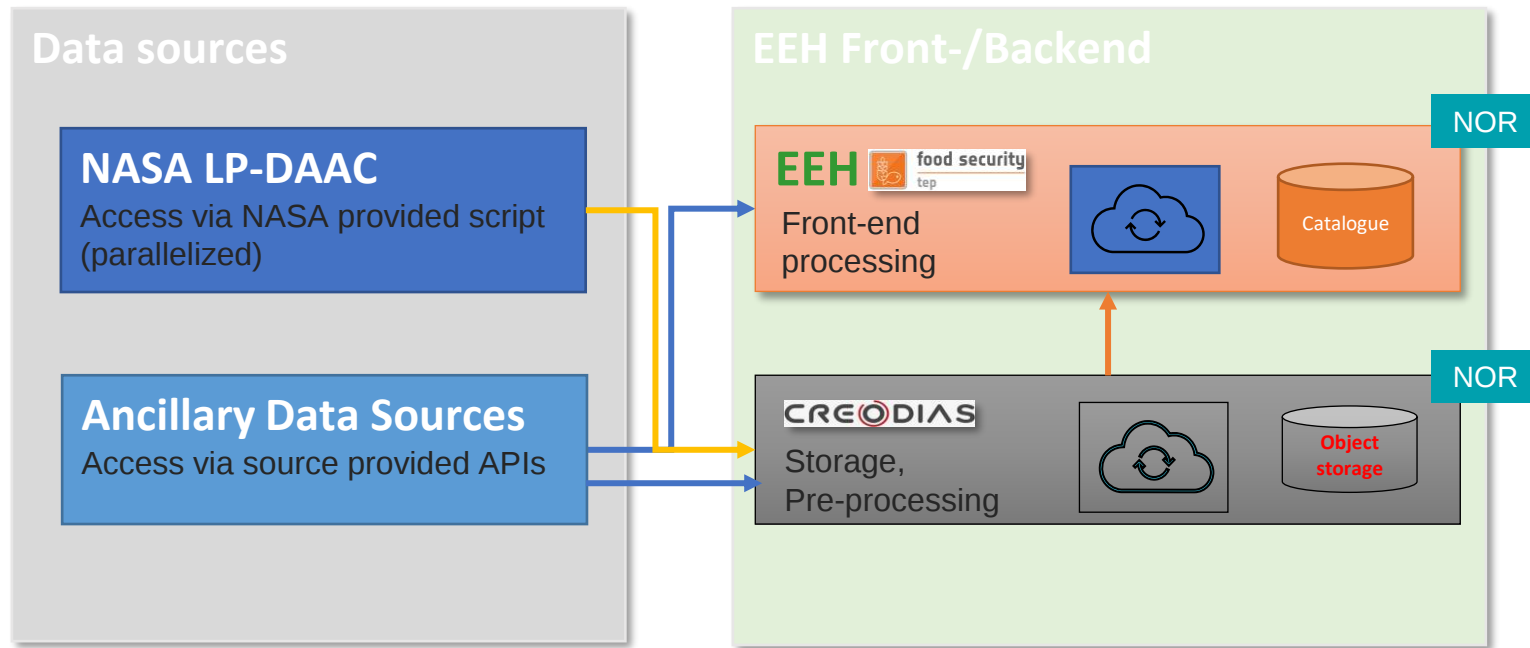
The screenshot displays the EEH User Interface for the ECOSTRESS Dataset. The top navigation bar includes tabs for 'food security', 'Explorer', 'Developer', 'Manage / Share', 'Account', 'Helpdesk', 'Analyst', 'Hopsworld DL', 'EventMonitor', and 'Logout'. The left sidebar contains a 'SEARCH' section with a search bar, a 'Collection' dropdown set to 'ECOSTRESS', a 'Processing level' dropdown set to 'L2_LSTSW', a 'Product date' filter set to '01-04-2020' to '04-04-2021', and an 'AOI' (Area of Interest) defined by a polygon. The main area shows a map of the Mediterranean region with a blue rectangle highlighting the search area. Below the map, a table lists the search results, including dataset identifiers, start/end dates, and sizes.

Dataset Identifier	Start Date	End Date	Size
EEHSW_L2_LSTE_15550_020_20210403T185759_0000_00.h5	2021-04-03T18:5...	2021-04-03T18:58...	
EEHSW_L2_LSTE_15550_019_20210403T185707_0000_00.h5	2021-04-03T18:5...	2021-04-03T18:57...	
EEHSW_L2_LSTE_15535_021_20210402T194655_0000_00.h5	2021-04-02T19:4...	2021-04-02T19:47...	
EEHSW_L2_LSTE_15535_020_20210402T194603_0000_00.h5	2021-04-02T19:4...	2021-04-02T19:46...	
EEHSW_L2_LSTE_15504_019_20210331T194154_0000_00.h5	2021-03-31T19:4...	2021-03-31T19:42...	

- EEH products integrated in FS-TEP data catalogue
- Using all front-end available functionalities
- NOR financed operational costs
 - Product pre-processing (on CREODIAS)
 - Storage
 - Platform costs for FS-TEP account

EEH INGESTION ARCHITECTURE

NOR financed parts



NOR financed parts:

- processing (on CREODIAS infrastructure, cf. next slide)
- data provisioning (via FS-TEP, hosted on CREODIAS)
- FS-TEP platform costs

EEH PRODUCTS

Provided on FS-TBP, pre-processed on CREODIAS, stored on CREODIAS (*)

	Product name	Product description	Date Range	Volume (TB)	Number of files
ECOSTRESS Level 1 (local copies)	L1B_GEO	Level 1 ECOSTRESS product	08/2018-12/2021	62.2	56197
	L1B_RAD	Level 1 ECOSTRESS radiation product	08/2018-12/2021	42.2	56197
	L2_CLOUD	Cloud mask data	08/2018-12/2021	1.6	56197
EEH products (processed)	L2_LSTSW	Separate estimation of LST and LSE, LSE dependent on ancillary data	08/2018-10/2021	8.8	53022
	L2_LSTTES	Simultaneous estimation of LST and LSE, mainly dependent on the ECOSTRESS data	08/2018-10/2021	12.4	56197
	L3_ETSTIC	Non-parametric modelling of H, ET and resistance variables	08/2018-10/2021	24.9	56157
	L3_ETSEBS	Parameterisation of resistance and atmospheric stability variables	08/2018-12/2019	6	13629
	L3_ETTSEB	Parameterisation of resistance and atmospheric stability variables, empirical parameters used in the model e.g. fg, KB-1	08/2018-12/2019	15.7	16715

- **Total data volume provided on FS-TBP: 173 TB**
- **Ca. 1TB of auxiliary Data**

EEH PRODUCTS

Project achievements

- Three peer-review papers
- Data products of continental scale LST and ET from 08/2018 to 12/2021
- 5 International symposium and workshop presentations
- EO-Africa funding based on EEH products