

MEMO

Date:	14/08/2023	Ref.:	EUCL-EST-ME-8-014
From:	R. Laureijs on behalf of the EST	Visa:	
To:	Public		
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Subject: Product definition for the Q1 data release

This memo provides the list of SGS Q1 data release products as recommended by the Euclid Science Team (EST). The Q1 scope and content are given in a previous EST memo [AD1]. The EST was guided by the instruction in the Euclid Science Management Plan [AD2] that “Level Q data represent products suitable for most purposes in astronomy, except for the core cosmology objectives of the mission.” The Data Product Definition Document (DPDD) [RD1], which describes the SGS products generated by each OU, was used to decide on the selection. In the following list, the product descriptions as defined in the DPDD are written in italic.

List of Q1 products

- *VIS Calibrated Frame Products*: science ready single epoch frames.
- *NIR Calibrated Frame Products*: science ready single epoch frames.
- *MER Background-subtracted Mosaic Product for EXT (ugriz), NIR (YJH) and VIS*: coadded (stacked) images resampled to a common pixel scale and associated merger object catalogue.
- *MER Final Catalogue Product*: source catalogue extracted from the coadded images.
- *SIR Extracted Spectra Collection Product*: one-dimensional spectra of sources.
- *PHZ output catalogue product*: merged source catalogue with photo-z information.
- *SPE output catalogue product*: collection of classification, redshifts, PDF, spectral line measurements, spectral model parameters.



The EST decided to include typical PHZ and SPE cosmology-oriented products, because the PHZ and SPE products can be derived by the general community relatively quickly from the other Q1 products, but without the consistency ensured by these OUs.

References

[AD1] EUCL-EST-ME-8-007: Q1: Euclid's first public data release - scope and content (06/02/2022, EST memo).

[AD2] ESA/SPC(2012)19: Euclid Science Management Plan version 2.4 (24/05/2013).

[RD1] Euclid Data Product Definition Document