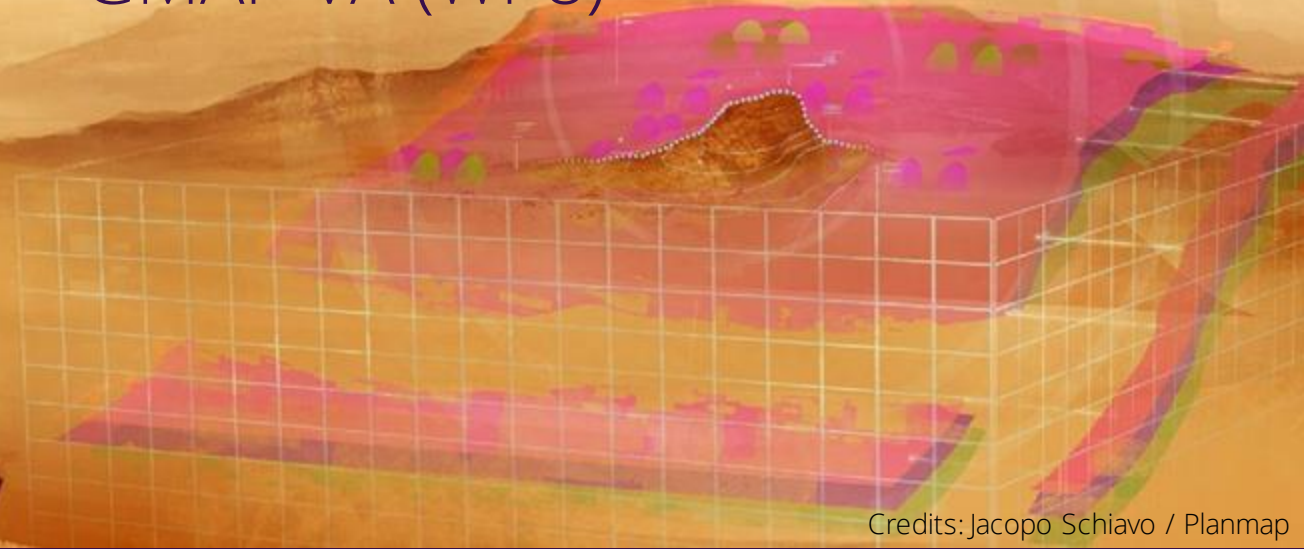


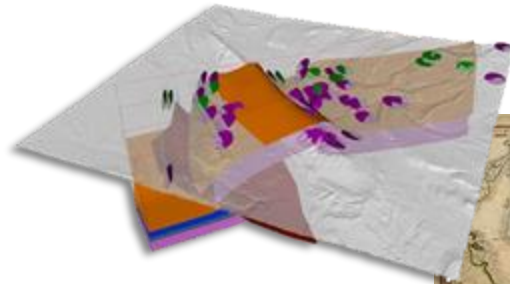
This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 871149.



GMAP VA (WP8)



Credits: Jacopo Schiavo / Planmap



Background

Since the early 19th century geological mapping is essential for any kind of activity e.g.:

- Science investigation
- Resources and Mining exploration
- Resources evaluation, exploitation and management
- Hazard and Risk assessment
- Land use and Infrastructure planning
- Environmental protection

All of the above have a planetary counterpart



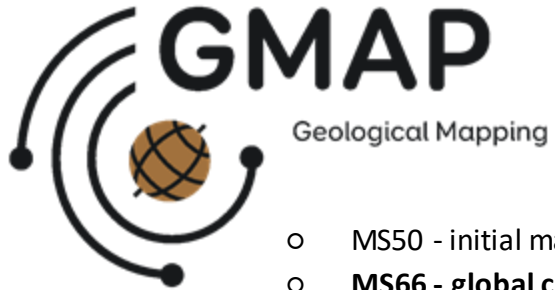


Motivation

- Foster planetary geologic mapping in Europe
- Support community training and engagement
- Provide tools, services documentation
- Assist in geologic mapping data dissemination

See also for more technical aspects:
<https://aprossi.github.io/planetdata2021>

- D8.1 - GMAP VA 1st year report
- D8.2 - Data Integration portal
- D8.3 - Mapping training material: Basic geological maps
- D8.4 - GMAP VA 2nd year report = OK 31 Jan 2022
- D8.5 - Community mapping report 1= OK 31 Mar 2022
- D8.6 - Training materials: 3d and geomodelling = OK 31 Mar 2022 **POSTPONED TO 31 May 2022**
- **D8.7 - Training materials: lithostratigraphy and landing sites = POSTPONED 30 June 2022**
- D8.8 - Geologic mapping integration report and published data (first iteration) = OK 30 Apr 2022
- **D8.9 - Training materials for resources = POSTPONED TO 30 Sept 2022**
- D8.10 - GMAP VA 3rd year report = OK 31 Jan 2023
- D8.11 - Community mapping report 2= OK 30 Jun 2023
- D8.12 - Geologic mapping integration report and published data (second iteration) - OK 30 Nov 2023
- **ADD D8.13 (NEW) GMAP VA 4th year report 31 Jan 2024**
- **D8.14 (NEW) - Community mapping project report 3 = 30 Jun 2024**



- MS50 - initial mapping = OK
- **MS66 - global classification maps of mercury = POSTPONE of 2 MONTHS**
- MS84 - consolidated mapping = OK Feb 2023
- **MS107 - final mapping = POSTPONED 30 Jun 2024**

Milestones



Work performed so far

A screenshot of the GMAP wiki page titled "Deliverables". The page is displayed in a browser window with a blue header. The header contains the GMAP wiki logo and navigation links: "Public wiki", "Applications", "Documentation", "Private wiki", and "Register". The main content area shows the title "Deliverables" and a sub-section "GMAP deliverables". Under this sub-section, there are two tables: "VA" and "JRA". The "VA" table lists three deliverables (D8.1, D8.2, D8.3) with their respective delivery dates and access links. The "JRA" table lists two deliverables (D9.1, D9.2) with their respective delivery dates and access links. The "Notes" column for D9.1 contains the text "Live document, updated to be posted here.".

Navigation

- Welcome to the GMAP wiki
- community mapping projects
- Deliverables
- Documentation
- GMAP community telecons
- Services and tools

Deliverables

Last modified by Angelo Rossi on 2021-09-21 11:47

GMAP deliverables

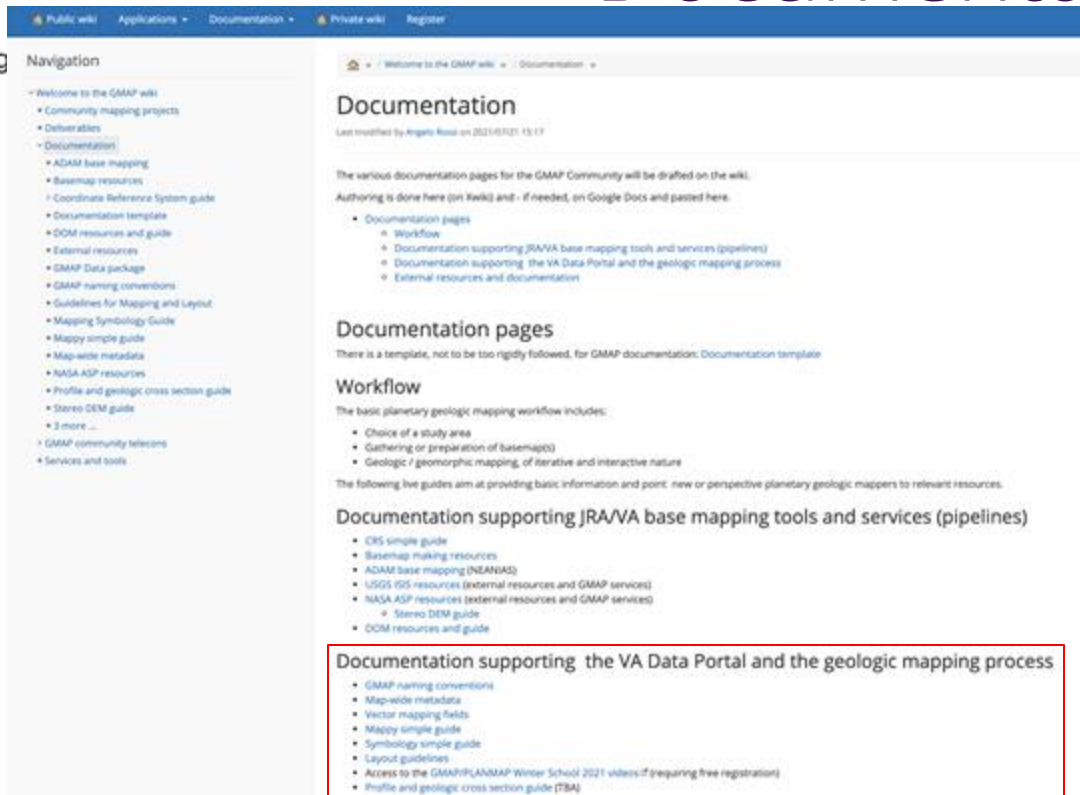
VA

| No. | Deliverable name | Delivery date | Access link | Notes |
|------|--|-----------------|------------------------|-------|
| D8.1 | GMAP VA 1st year report | 31 January 2021 | PDF of | |
| D8.2 | Data Integration portal | 31 May 2021 | PDF of | |
| D8.3 | Mapping training material: Basic geological maps | 31 August 2021 | PDF of | |

JRA

| No. | Deliverable name | Delivery date | Access link | Notes |
|------|--|-----------------|---|---|
| D9.1 | Standard definition Document 1st iteration | 29 October 2020 | PDF of (static version, 1st version of deliverable) | Live document, updated to be posted here. |
| D9.2 | GMAP JRA 1st year report | 31 January 2021 | PDF of | |

<https://wiki.europlanet-gmap.eu/bin/view/Main/Deliverables/>



Public wiki Applications Documentation Private wiki Register

Documentation

Last modified by Angelo Rossi on 2021-01-21 15:17

The various documentation pages for the GMAP Community will be drafted on the wiki.
Authoring is done here (on Wikki) and - if needed, on Google Docs and pasted here.

- Documentation pages
 - Workflow
 - Documentation supporting JRAVA base mapping tools and services (pipelines)
 - Documentation supporting the VA Data Portal and the geologic mapping process
 - External resources and documentation

Documentation pages

There is a template, not to be too rigidly followed, for GMAP documentation: [Documentation template](#)

Workflow

The basic planetary geologic mapping workflow includes:

- Choice of a study area
- Gathering or preparation of basemap(s)
- Geologic / geomorphic mapping, of iterative and interactive nature

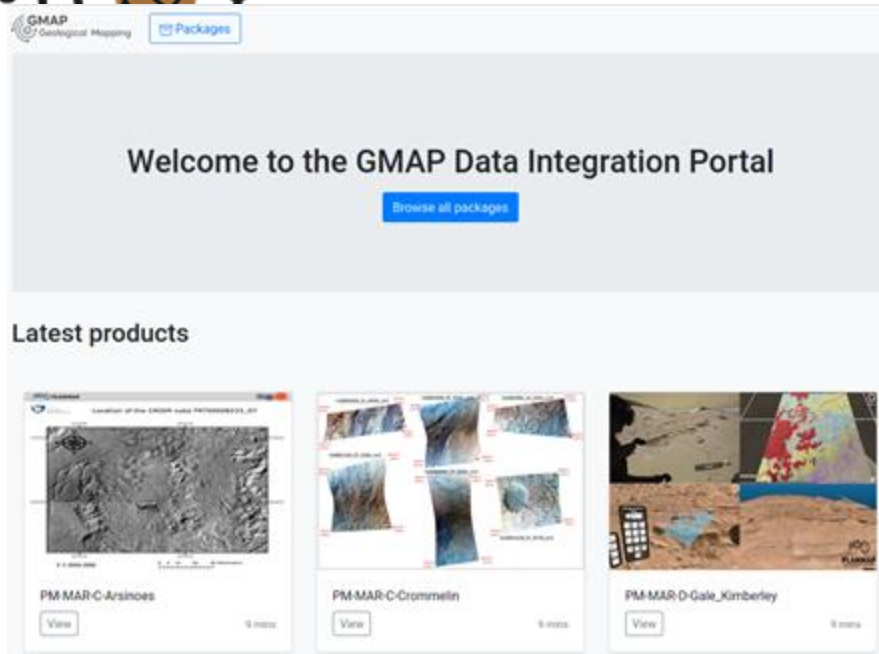
The following live guides aim at providing basic information and point new or perspective planetary geologic mappers to relevant resources.

Documentation supporting JRAVA base mapping tools and services (pipelines)

- CIS simple guide
- Basemap making resources
- ADAM base mapping (NEANIAS)
- USGS 905 resources (external resources and GMAP services)
- NASA ASP resources (external resources and GMAP services)
 - Stereo DEM guide
- DOM resources and guide

Documentation supporting the VA Data Portal and the geologic mapping process

- GMAP naming conventions
- Map-wide metadata
- Vector mapping fields
- Mappy simple guide
- Symbology simple guide
- Layout guidelines
- Access to the GMAP/PLANMAP Writer School 2021 videos if (requiring free registration)
- Profile and geologic cross section guide (TBA)



GMAP Geological Mapping Packages

Welcome to the GMAP Data Integration Portal

[Browse all packages](#)

Latest products

PM-MAR-C-Arsinoes 0 items [View](#)

PM-MAR-C-Crommelin 0 items [View](#)

PM-MAR-D-Gale_Kimberley 0 items [View](#)

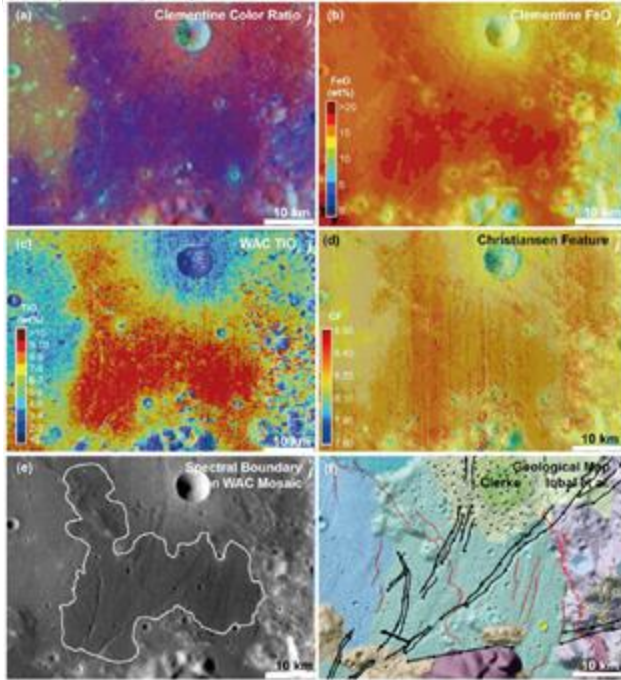
It provides an entry point for both data access and data submission, as well as separate support documentation and tool access directory for geologic mapping projects to start and progress. The data submission is primarily aimed at those creating data (geological mappers), while the other tools and facilities are community-facing services available to both geological mappers and the more general planetary geology and mapping communities. The tools have been provided either directly from the GMAP community or collected from externally available sources. Documentation for use of the tools and services has been compiled from both internal and external sources. Such documents and sources will also be of interest for the general planetary science community, e.g. for image processing, basemap preparations for outreach or amateur planetary scientists.

Development in progress...

- Integration with an invenio instance for dataset hosting
- Developed to explicitly increase user participation at any level (from full datasets to simple map advertising)
- Expected level of involvement is variable:
 - Level 0 - Users of GMAP materials, e.g. registered to the GMAP web to access Winter School videos, or GitHub users (e.g. via stars, forks, other measurables)
 - ...
 - Level 4 - Geologic mappers with or without published papers who engage with GMAP and develop their project (from scratch or from a certain point) with GMAP, adhering to standards and joining calls/seminars where relevant/possible (dataset on repo)

D8.3 - Mapping training material: basic geological maps

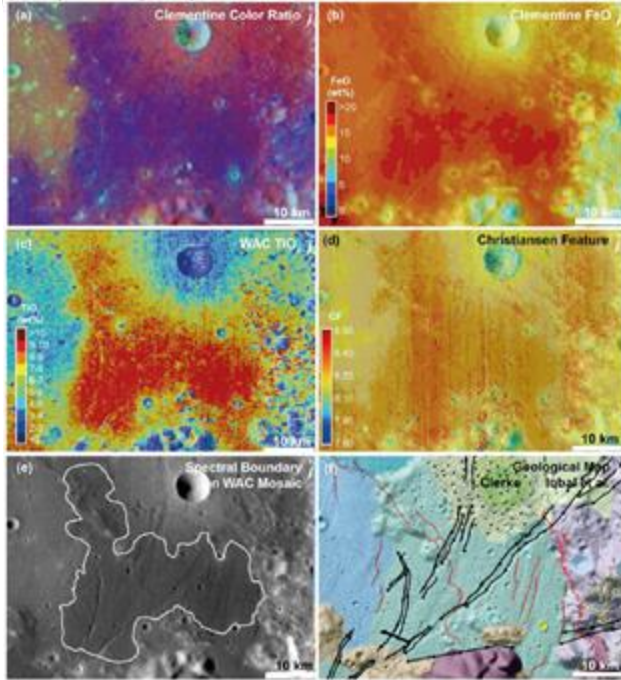
31 August
2021



The approach of geoscientific mapping is introduced. This document describes best practice in geoscientific mapping, including the different types of mapping. The role of geologic processes in specific mapping practices is described, Case studies from published geologic and geomorphic maps over several Solar System bodies are used to exemplify best practice in mapping. Specific mapping types, such as those aimed at resource evaluation are included.

D8.3 - Mapping training material: basic geological maps

- Introduces users to the main types of mapping products in planetary sciences
- Highlights mapping problematics related to most important bodies
- Provide an useful overview of mapping activities





THE SCHOOL

PROGRAM

CASSINI WORKSHOP

ACCESS THE SCHOOL

Geology & Planetary Mapping Winter School

See also: <https://www.planetarymapping.eu>
<https://www.europlanet-gmap.eu/planmap-gmap-ws-2021-videos/>
<https://www.europlanet-gmap.eu/register/>



[ABOUT GMAP](#) [GMAP VA CALL #1](#) [NEWS](#) [SERVICES](#) [RESOURCES](#) [CONTACTS](#) [PRIVACY](#)

Training



INTRODUCING GMAP

NOVEMBER 24, 2020

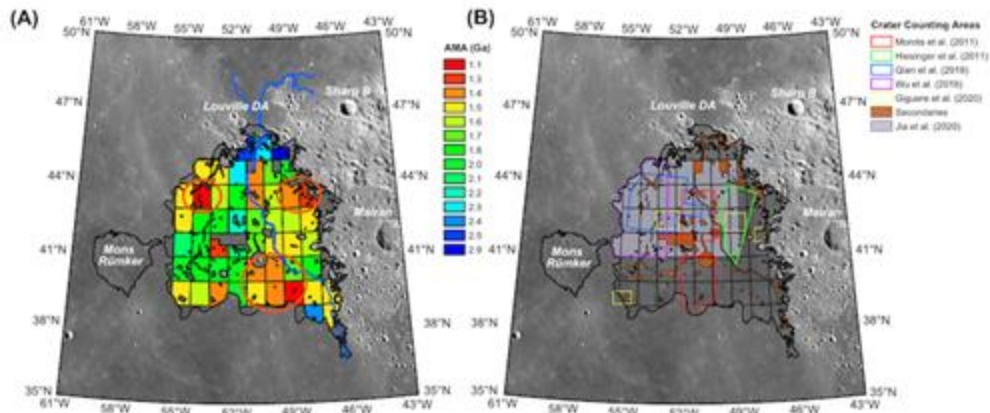
See also: <https://www.planetarymapping.eu>
<https://www.europlanet-gmap.eu/planmap-gmap-ws-2021-videos/>
<https://www.europlanet-gmap.eu/register/>



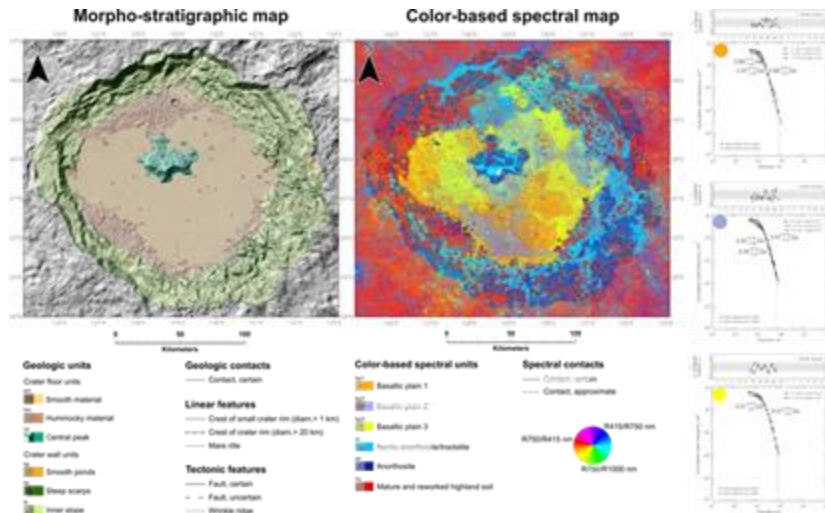
Monthly telecons

- We introduced a monthly online event to support the community
- The discussion is informal and open to any topic
- Useful to provide technical support (e.g. GIS use) and feedback on community mapping project

<https://github.com/europlanet-gmap/mappy>



<https://doi.org/10.1016/j.epsl.2020.116702>



<https://doi.org/10.3390/rs13183619>

<https://wiki.europlanet-gmap.eu/bin/view/Main/community%20mapping%20projects/>

- Support more community mapping projects
- Broaden training (winter schools, workshops)



Use of resources

- See WP1
- In line with DoA