# SNAP ESA open source remote sensing

# Level 1 – Initiation

## **ONLINE CLASSROOM**



## **OBJECTIVES**

- Use European Union Copernicus program and SENTINEL satellite imagery (free) to map the land
- Understand the Remote Sensing basics
- Download satellite imagery data -
- Analyze satellite imagery data with SNAP ESA -
- Generate statistics -
- Perform a supervised land classification with SNAP ESA \_
- Perform vegetation indices calculation from satellite imagery data (NDVI)

#### BACKGROUND

Basics in computing science and IT technology.

#### PUBLIC

Everyone who wants to handle, organize, and process satellite imagery data with SNAP ESA in order to perform classifications and spectral indices calculation.



**DURATION >** 2 days (14 hours of training)



#### PRICES

✓ Individual training: 1 500 € taxes free



#### **TEACHING RESOURCES**

- ✓ Interactive training using Microsoft Teams
- ✓ Practical exercices and case studies
- ✓ Loan of temporary software license : yes
- ✓ Training certificate : yes
- ✓ Evaluation : yes

#### **HOW TO REGISTER**

email: contact@maptogis.com phone: +33 (0)5 46 34 07 71

### **TRAINING CONTENTS**

#### REMINDERS ON REMOTE SENSING

- Brief introduction to Remote Sensing
- Remote Sensing mission description
- Sensors and their uses
- Introduction to the European Earth Observation Program "Copernicus"
- Register a new account on the Copernicus Open Access Hub

#### DOWNLOAD IMAGERY / DISCOVER SNAP ESA

- Introduction to SNAP ESA
- SNAP ESA software handling
- Sentinel Imagery download
- Understand the structure of an image
- Understand images corrections

#### SENTINEL 2 IMAGERY HANDLING

- Display images
- Image enhancement
- Create / analyze natural and infrared color combination
- Understand spectral indices
- Spectral Indice calculation (NDVI)
- Use colour palettes

#### LAND OCCUPATION / LAND USE MAP

- Reminders on classification
- Understand supervised classification process
- Land use class definition
- Region of interest (ROI) management
- Run the supervised classification process

