COPERNICUS & AFRICA DEVELOPMENT

MOZAMBIQUE CASE STUDY

INNOVATING SOLUTIONS

CONTENTS

1. GMV Introduction
2. Copernicus Overview and GMV Participation
3. Mozambique Case Study
4. Further Opportunities on EO for Sustainable Development
5. Potential of collaboration

GMV INTRODUCTION

Headquarters in Madrid (**Spain**)

Independent multinational technology group

1,400 employees

Roots tied to Space

CMMI level 5

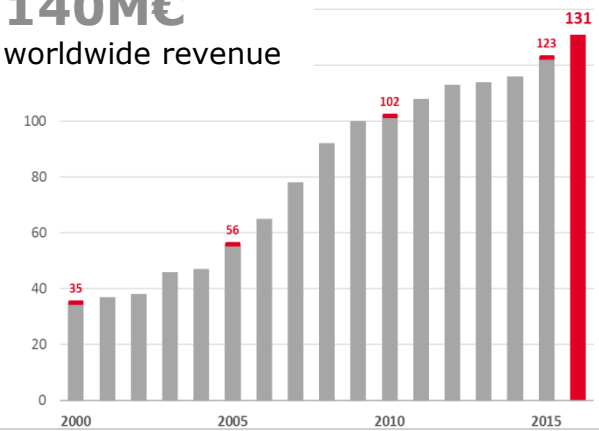
CMMIDEV/5 SM
Exp. 2016-09-16 / Appraisal #20109

32 years of experience

International sales **65%**

Subsidiaries in 11 countries

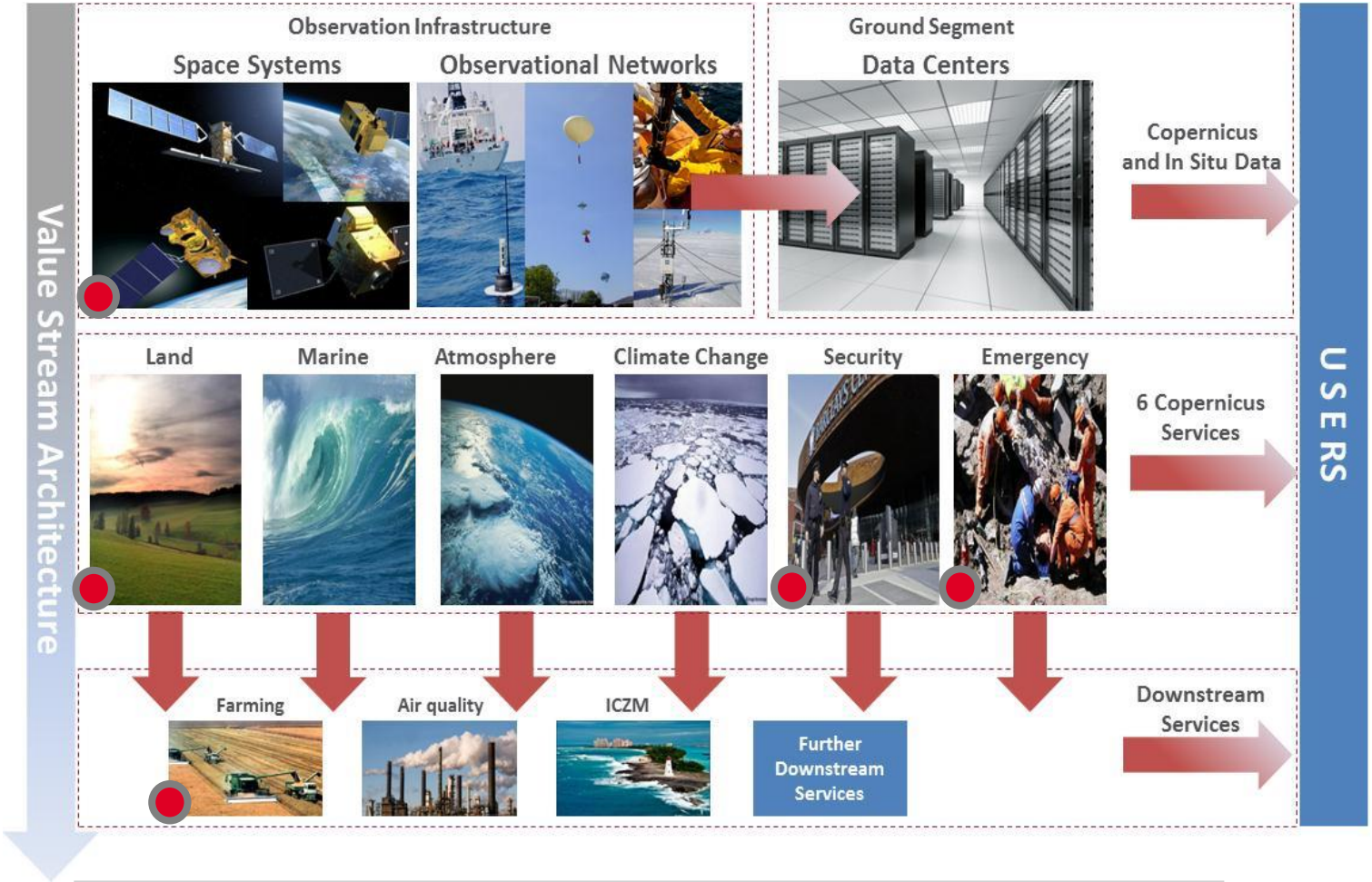
140M€ worldwide revenue



Engineering, development and integration of systems, software, hardware, specialized products and services to **global customers** and **end-users**

Aeronautics | Space | Defense & Security | Cybersecurity | Healthcare | Transport | Telecommunication | Public Sector and Corporate ICT | Banking & Finances

COPERNICUS OVERVIEW AND GMV PARTICIPATION



Copernicus Next Generation User Services
Copernicus Next Generation Requirements framework contract

MOZAMBIQUE CASE STUDY, INCLUDING CAPACITY BUILDING ON EO

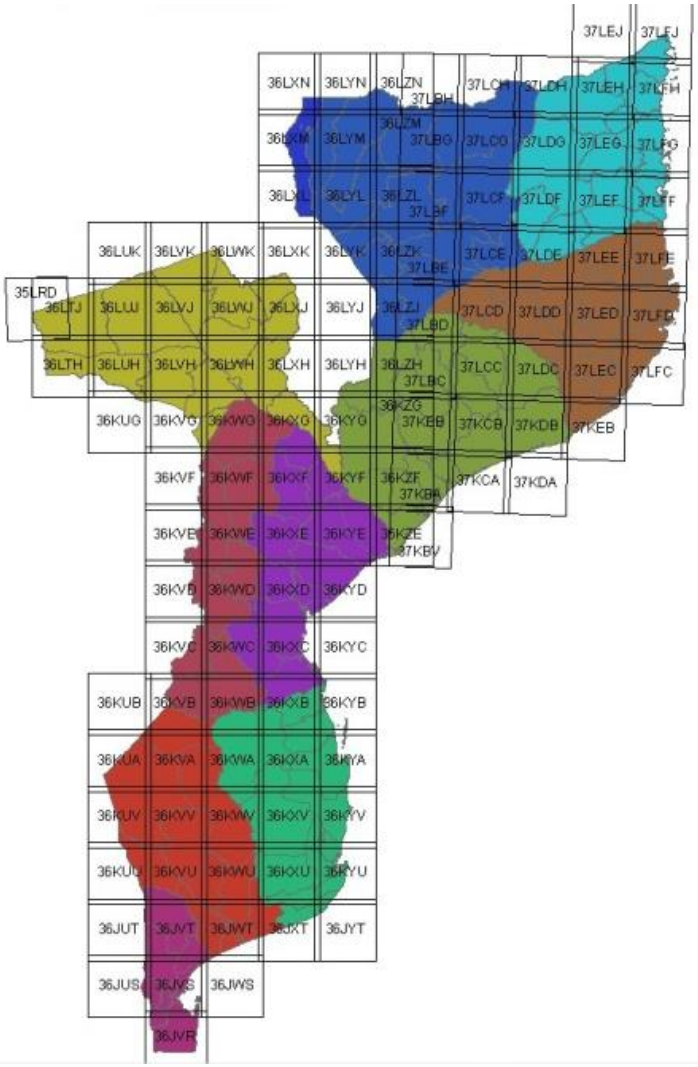
Related Sustainable Development Goals:

- **Goal 15**. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
- **Goal 4**. Ensure inclusive and equitable quality education and promote life-long learning opportunities for all

Project Overview:

- World Bank funds for Government of Mozambique National REDD+ Strategy
- Preparation of a multi-temporal an multi-resolution Sentinel 2A mosaic for the country
- Special actions: capability building to work with Sentinel 2 data

MOZAMBIQUE CASE STUDY: CAPACITY BUILDING ON EARTH OBSERVATION



Sentinel 2 Data:

- 403 Level 2A scenes
- 123 Level 3A scenes

Information volume:

- Each 10 m resolution mosaic: 87Gb
- Each 20 m resolution mosaic: 46Gb

4 national coverage mosaics (at 2 different resolutions in 2 dates):

- 2 with 10-m bands
- 2 with the 20-m bands

MOZAMBIQUE CASE STUDY: CAPACITY BUILDING ON EARTH OBSERVATION

Challenging image quality:

- Advanced algorithms for clouds-free products

MOZAMBIQUE CASE STUDY: CAPACITY BUILDING ON EARTH OBSERVATION

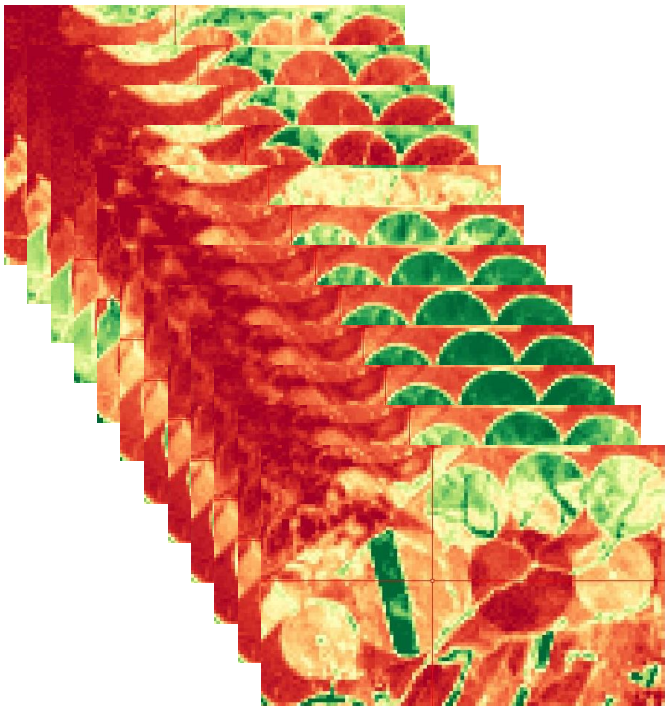
Challenging image quality:

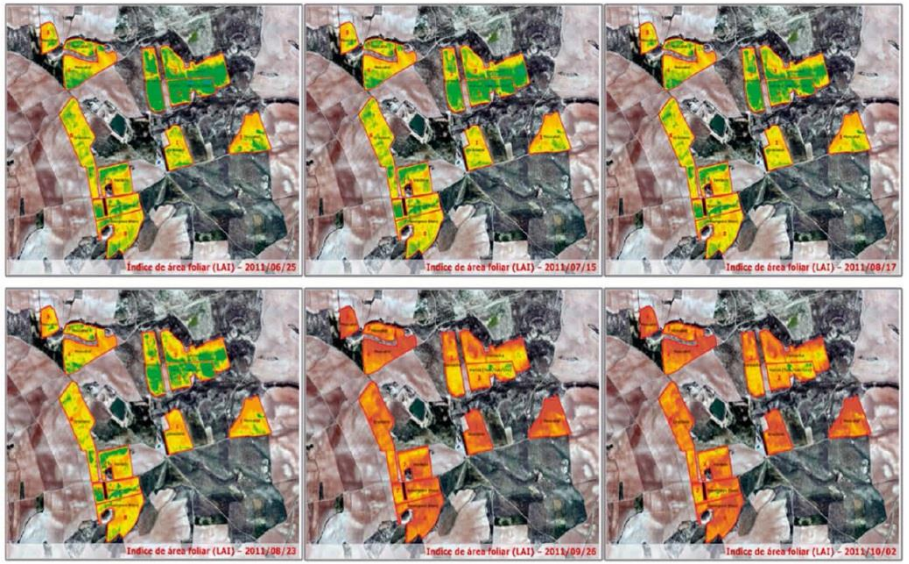
- Advanced algorithms for clouds-free products

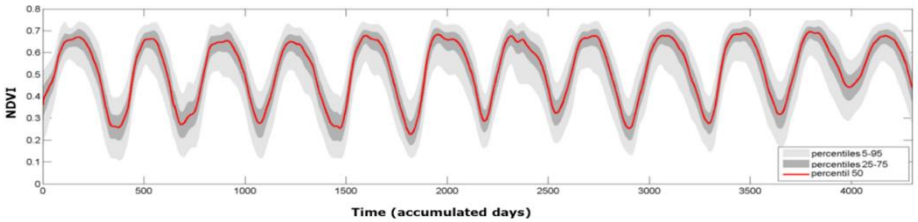
FURTHER OPPORTUNITIES ON EO FOR SUSTAINABLE DEVELOPMENT

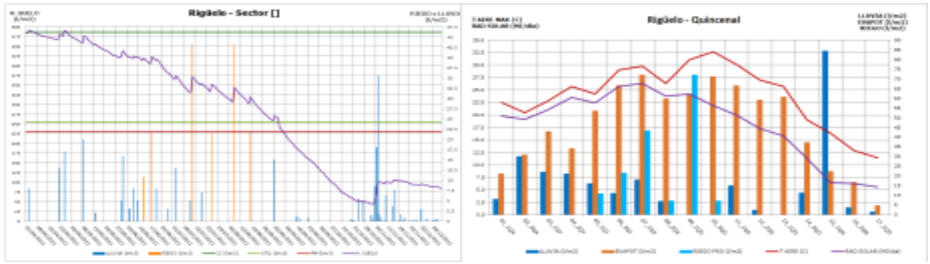
Resources Optimization and Crop Phenology Monitoring.

WinEO





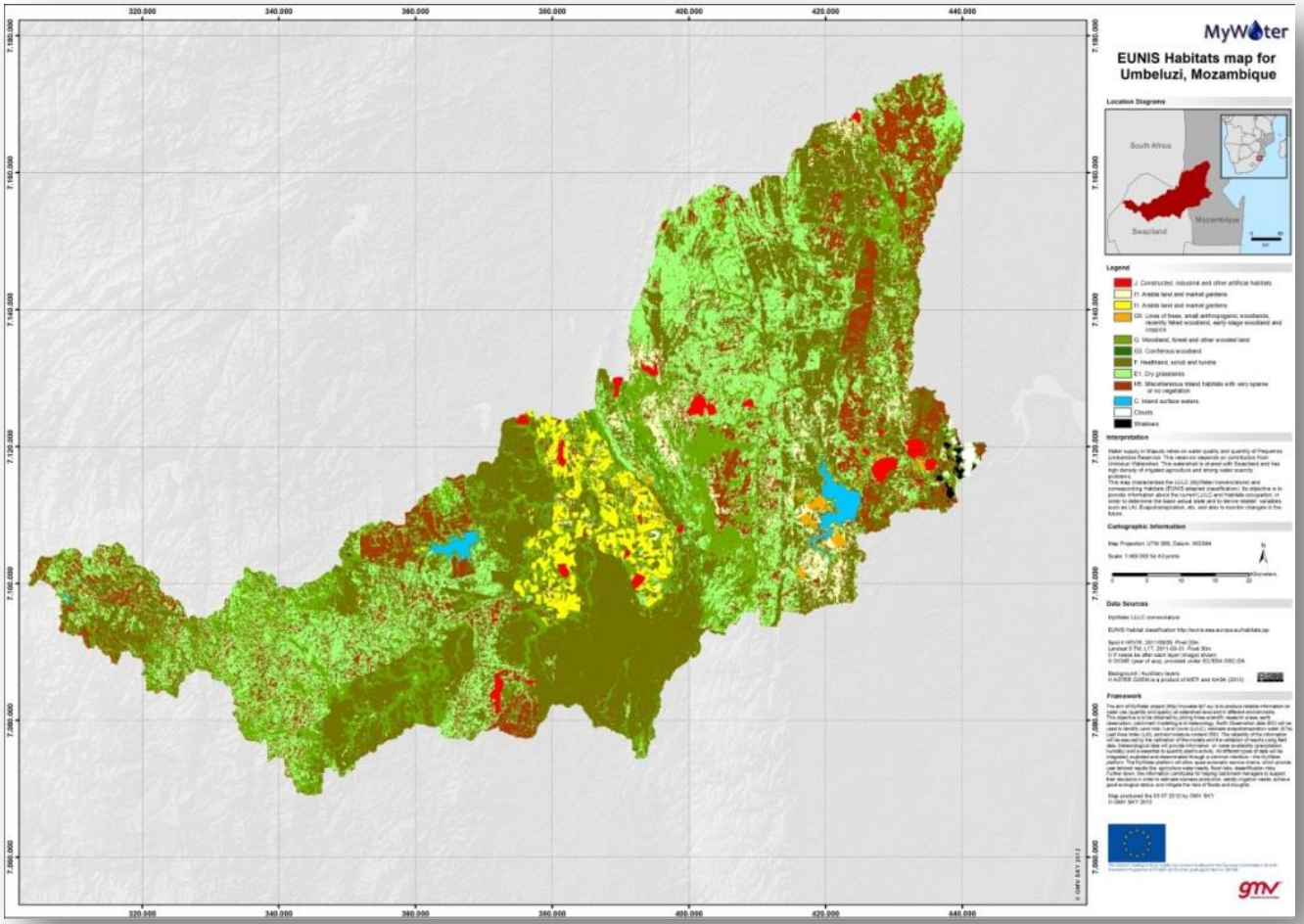




FURTHER OPPORTUNITIES ON EO FOR SUSTAINABLE DEVELOPMENT

Habitats Mapping and Sustainable Forest Management.

eoforest

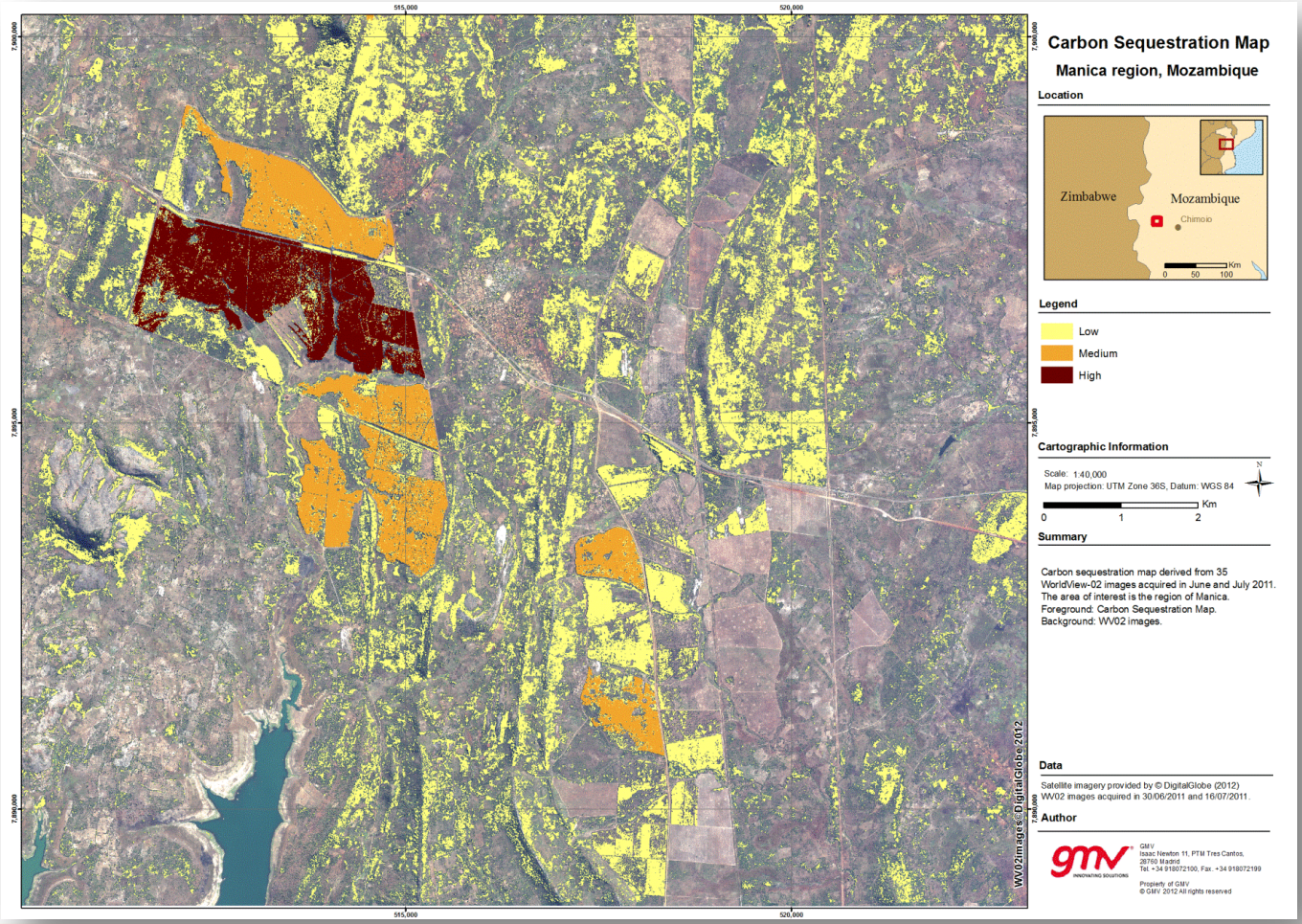


gmv INNOVATING SOLUTIONS

FURTHER OPPORTUNITIES ON EO FOR SUSTAINABLE DEVELOPMENT

Overview CO2 sequestration.

eoforest



POTENTIAL OF COLLABORATION

- 30+ years cumulated skills on large scientific and commercial international projects management and coordination
- Technological partner on innovative remote-sensing intelligence:
  - Very high resolution radar and optical space-based sensors
  - Automatization of processing chains
  - Computation of key indicators in relation with habitats, biodiversity, water stress, resources optimization towards yield productivity, etc., for supporting decision making
  - Advanced algorithms for clouds-free products
- Reliable partner from a financial point of view
- Capabilities for international cooperation with many public and private stakeholders in rural and peri-urban environments
- Developed relationships with African national/regional/local stakeholders
- Large industry with global perspective: REDD+, illegal logging monitoring, etc.

Thank you

Ana Sebastián

Senior Project Manager and Thematic Expert

asebastian@gmv.com

Almudena Sánchez

Business Development Executive

asanchez@gmv.com

gmv®

INNOVATING SOLUTIONS