Demonstration objectives;

- Optimization of water allocation for irrigation during summer and anticipation of water shortage crisis in the irrigated area of Doukkala (Morocco).
- Regular monitoring and Crop mapping throughout the growing season (September to July).
- Evapotranspiration monitoring maps (Weekly update) and Irrigation water productivity.

Use case benefits and uptake;

- The irrigated area of Doukkala is among the earliest developed areas in Morocco, remarkable for its size and strategic importance for national production, specially sugar beet (38%) and commercialized milk (20%).
Site features

- Location, extent:
  - Dam Al Massira
  - Hydraulic Bassin of Oum Er-rabia
  - Oum Er-rabia River
  - Daily Reference Evapotranspiration ($ET_0$) and Precipitations of the growing season 2012-2013

- Mean Annual Precipitation (mm/year) of Doukkala Irrigation scheme [1964 – 2013]
  - 318 mm/year

- Daily Reference Evapotranspiration ($ET_0$) and Precipitations of the growing season 2012-2013

- Latitude: 32°15′N and 33°15′N; Longitude: 7°55′W and 9°20′W
- 318 mm/year
- Irrigated Perimeter Low service
- Irrigated Perimeter High service
- Irrigation Canals
Site features

Water shortage

Site features

- Wheat
- Maize
- Sugar Beet

Site features

- Perimètre Irrigué bas service
- Perimètre Irrigué haut service
- Canaux d’irrigation

Site features

- Maize
- Sugar Beet
- Alfalfa
- Wheat

Site features

- Faregh district
- Sidi Bennour district
- Zemamra district
- T. Gharbia district

Site features

- Water shortage
EO and in-situ dataset

Field campaign and in-situ dataset

- **Fractional Cover**
- **Crop Height Hc**
- **Exposed soil**

APRIL 2016
EO and in-situ dataset

- S2 and L8 (cloud-free) acquisitions along the season (Some Examples)
Sen2-Agri products assessment

- Monthly cloud-free composites

31-01-16 02-03-16 01-04-16

01-04-16 01-06-16 02-07-16
• LAI
Sen2-Agro products assessment

- Monthly crop masks

No vegetation
Vegetation
• Illustrate how one / several Sen2-Agri product(s) is used or could be used in relevant manner in your context (it can be very specific to your context):

  for our H2020 MOSES project we will use this products.
  Our local partner (ORMVAD) will be interested in mapping crops and especially Sugar beet that is one of the major winter crop in the irrigated area of Doukkala (38% of national production, 20 000 ha /96 000 ha).

• Explain and, as much as possible, show concrete applications and results

  Application for the productivity of water, for the evaluation of agricultural production and to introduce the products in the models of forecasting.
• If applicable (if you had a direct feedback from information users or officers), please share their feedback with regards to the Sen2Agri products

☐ An information and training session will be scheduled for the staffs our local partner (ORMVAD) soon and we will share with you, their feedback.
• *Did you have the opportunity to operate the Sen2Agri system?*
• *What is your experience?*
• *What are your recommendations for the future for the system?*
• *What are your recommendations for the future for the Sen2Agri products?*

• We have just received your products recently, that is why we didn’t had time to operate the senti2agri system.
• We will use your products in the future and we will let you know about our Feedback
Do you consider the demonstration phase relevant for testing the operational capabilities of the Sen2-Agri system?

The demonstration phase relevant for testing the operational capabilities of the Sen2-Agri system but the flow information and capacity building remains below our expectations and ambitions.

Do you consider the demonstration phase relevant with respect to your objectives?
Yes

Which improvements do you expect in the future (priority ranking)?

WE ASK TO DO MUCH MORE TRAINING. And to put at our disposal the products with all the information and the Senti2Agri system.

What are the top priority you would recommend to contribute to the system uptake by your team?

Think of other types of products such as: ETr, the water-agriculture relationship(Assessment of irrigation performance in term of adequacy between requirement and allocations and in term of effectiveness (using hydrological models)).
THANK YOU