

Remote Sensing of Fluorescence, Photosynthesis and Vegetation Status

B. Hoersch, S. Mecklenburg, M. Drusch
and many others ...

1. June 2002, ESTEC, NL
2. November 2004, Montreal, CA
"A consolidation in the vegetation fluorescence community's interest in proposing the FLEX (FLuorescence EXplorer) mission in response to ESA's Call for Earth Explorer Ideas in 2005"

May 2006: FLEX selected as EE7 candidate mission

3. February 2007, Florence, Italy
"A focus on the developments towards preparatory activities for the FLEX mission, which had been selected as one of the candidate Earth Explorer Core Missions."

November 2010: FLEX selected as EE8 candidate mission flying in tandem with Sentinel-3

4. November 2010, Valencia, Spain
"An opportunity to inform the vegetation fluorescence community on the status of the FLEX mission."
5. April 2014, Paris, France
"Will address the current status of research and understanding of vegetation fluorescence, within the framework of the upcoming selection by ESA of the Earth Explorer 8 mission to go forward in the next mission phase."

November 2015: FLEX selected as EE8

- Review the state of the art in vegetation fluorescence and biophysical parameter retrievals and exploitation.
- Promote links between classical vegetation remote sensing methods (i.e., multispectral) and new approaches based on fluorescence and high spectral resolution measurements.
- Bring together the vegetation remote sensing community, including data providers, experts and users.
- Provide updates on recent modeling activities coupling remote sensing signals and vegetation physiology and dynamics.
- Plan future activities in the field of vegetation remote sensing exploiting the new observational capabilities.

(Scientific) Challenges until FLEX Launch:

- Develop and implement operational data processors.
- Generate test data sets.
- Prepare the communities to use and integrate the data sets for their applications.
- Develop the infrastructure for product validation and uncertainty estimation.

