Goal of the project:
Generation of global long-term and properly validated burned area (BA) products to serve the needs of climate modellers.

Currently available BA products:

**Global**
- MODIS FireCCI51: 2001-2019, 250 m & 0.25 degrees
- AVHRR FireCCILT10: 1982-2017, 0.25 degrees

**Regional**
- Africa: S-2 MSI FireCCISFD11: 2016, 20m
- Africa, Amazon & Indonesia: SAR regional BA products

Fire CCI recent developments:

**BA Algorithm developments:**
- Adaptation to S-3 sensors: SYN
- Integration of S-1 and S-2 sensors.

**Validation:**
- Global sample based on Landsat OLI.
- Regional sample based on S-2 and Planet.

**Product assessment:**
- Atmospheric emissions from chemical models and MOPITT
- Global fire size distribution analysis based on power-law fits

**Product dissemination highlights:**
- Fire CCI presentation at COP25 Madrid.
- FireCCI51 now available at Google Earth Engine.

Highlights:
- First ever global BA product based on MERIS 300m.
- First ever global BA product based on MODIS 250m.
- First ever global BA product based on LTDR time series.
- First ever S-2 BA product covering a continent (Africa).
- First ever S-1 BA product covering a large area (Amazon).
- First ever spatio-temporal validation of BA products.
- All products adapted to the climate user needs.
- Strengthen the EO fire European community.
- European-generated BA datasets are now credible to the international community.

Emission inventories were fed to the atmospheric chemistry transport model WRF-Chem and simulated atmospheric concentrations were compared with satellite observations and aircraft/site measurements. Despite the FINN inventory has the lowest CO fire emissions of all fire emission inventories (shown in the right panel), simulated WRF-Chem CO concentrations over West Africa are substantially overestimated when compared to, e.g., MOPITT satellite observations.