



# MMAMA

## Microwave Microscopy for Advanced and Efficient Materials Analysis and Production

### General description

The MMAMA project aims to enable advanced material analysis and boost its quality and production efficiency thanks to the GHz measurement and modelling platform in a wide community.

### MMAMA Objectives

- Technological**
  - Improvement of SMM technology
  - Nanoscale characterization platform for EU manufacturers of coatings, photovoltaic cells, and semi-conductor circuits
- Economical**
  - Acceleration of the development of high efficiency cells
  - Performances prediction at early stages
- Sustainability**
  - Open innovation environment
  - Standard Operating Procedures
  - Electromagnetic 3D models

### MMAMA Ambition

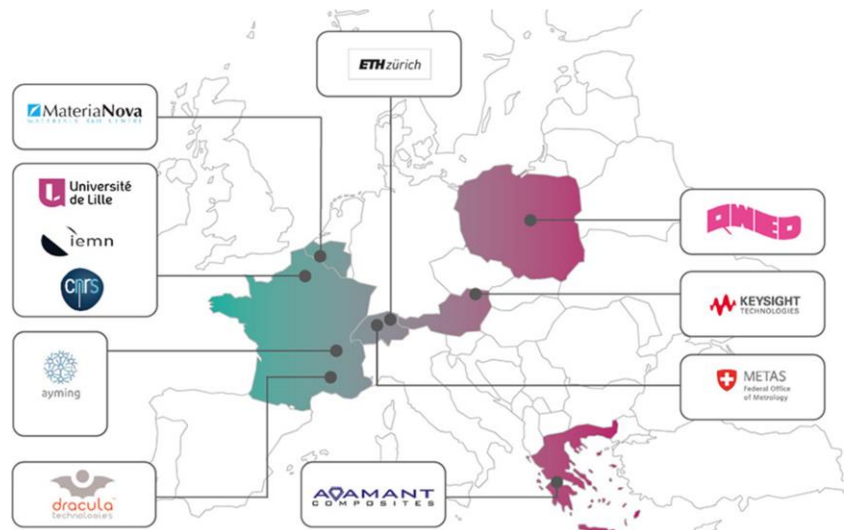
Beyond R&D and demonstration of SMM interest at production scale, MMAMA will notably allow standardization of practices and:

- allow off-line & lab characterization to generate data and application Database
- monitor and compare in-line pilot with application Database to optimize material

### Main Outputs

MMAMA project results will first be exploited through dissemination to a selected community in the field to improve the application database. It will be the basis of new business opportunities for European industries in photovoltaic and composites sector.

### MMAMA Consortium

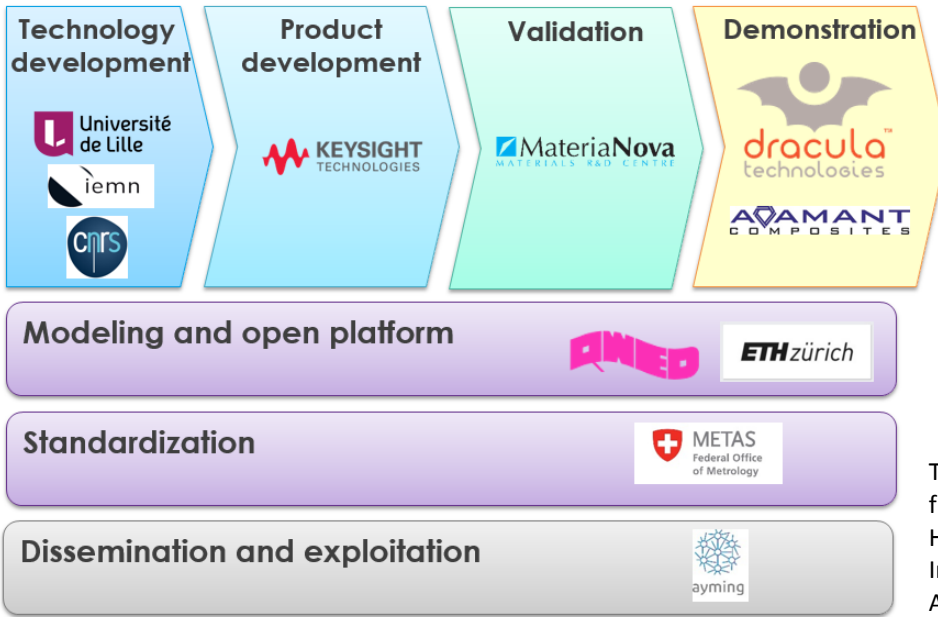


**Countries involved:** Austria, Belgium, France, Greece, Poland, Switzerland.

**Duration :** 01/11/2017 to 30/10/2020

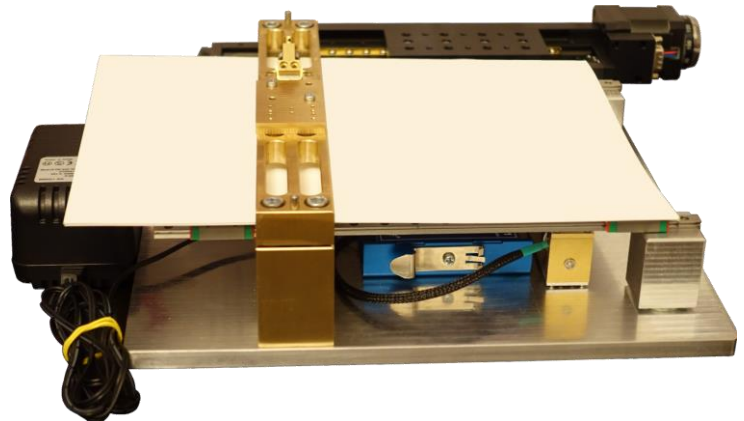
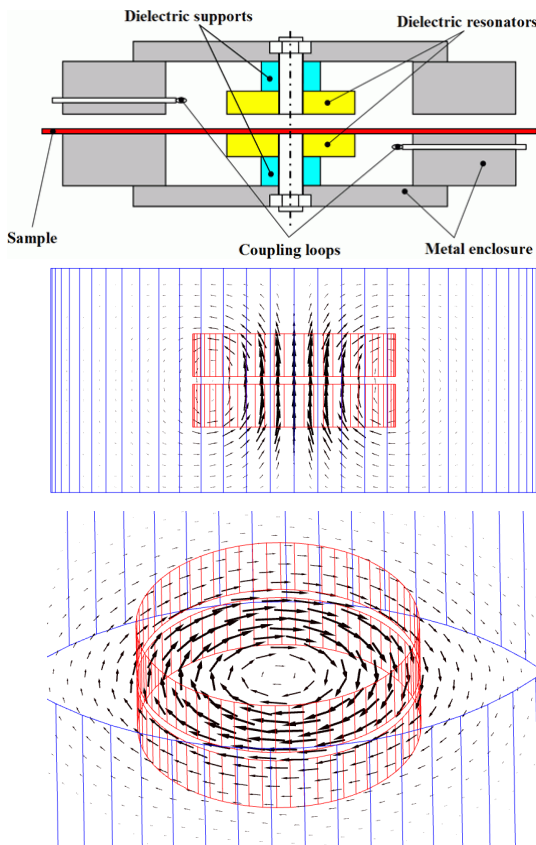
**Budget/EU Grant:** 3 992 176.25€

## MMAMA Value Chain



The MMAMA project has received funding from the European Union's Horizon 2020 Research and Innovation program under Grant Agreement N°761036.

## Current QWED activities



Developments for a new scanner for 2D imaging of material properties – 10 GHz technology selected as a compromise between lateral resolution and max thickness.



Adaptation of the dielectric resonator technology from laboratory environment to S2S inline industrial application.



New small portable 10 GHz Microwave Q-Meter with enhanced EMC characteristics.