

ALFAMA

Advanced lightweight
and Flexible Array with
Mechanical Architecture

AIRBUS



Optimising each level of the solar array to answer high-power challenge

The ALFAMA project aims to develop an innovative photovoltaic solution thanks to 4 main development streams:

- Cost reduction, with its innovative manufacturing process
- High power per mass ratio, with high efficient ultra-thin solar cells & PVA
- Reduce stowed volume
- Modular mechanical architecture adapted to large PVA (up to ~ 70kW capability), addressing all missions

ALFAMA's drastic improvements will enhance the EU space sector competitiveness, enable new missions and build synergies between space and non-space activities.



<http://alfamaproject.eu/>



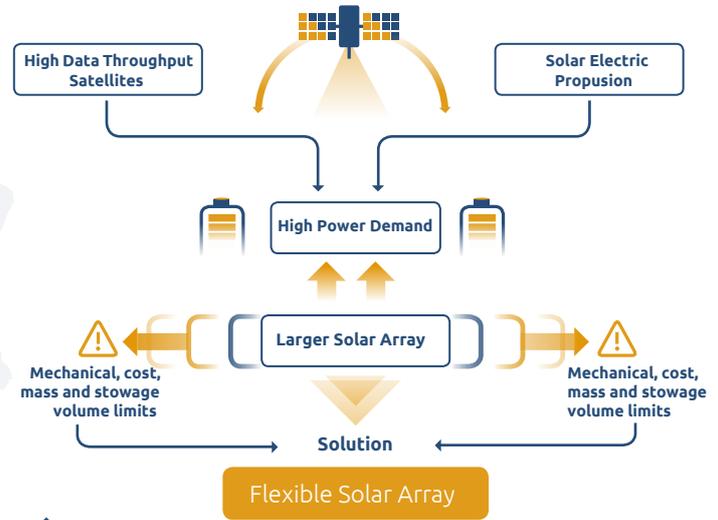
@ProjectAlfama



Project ALFAMA



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Mechanical Structure Module

- Up to ~ 70 kW
- Modular and flexible
- Compact storage

Blanket

- Flexible
- Lightweight
- Thin

PhotoVoltaic Array (PVA)

- Printed harness
- New fabrication process
- Radiation and high voltage protection

Solar Cell

- High performance/cost ratio
- High power density
- Thinner and flexible