



SOLAR XONE

SOLARXONE - THE FIRST PROTOTYPE SOLAR DRONE

Numerous studies predict that drone construction and servicing companies will see growth in the global market for civilian and military drones. Major obstacles limiting drone applications and potential related services are autonomy and payload capacity, both in terms of weight and mass.

Against this backdrop, XSun is seeking to develop a drone – the SolarXOne – capable of long-distance flight (>12hr) due to being exclusively solar-powered and equipped with an innovative energy storage system. There will, however, be no compromise on flight or payload performance.

Several years of R&D have identified an original concept. The long-distance drone will be operated from a control centre, where the data captured by the drone will be centralised and exploited for commercial purposes (in real or non-real time post processing). This economic solution is based on the service delivery model. Target markets are terrestrial surveillance, maritime sector and precision agriculture (PA).

Innovations will comprise the drone's aerodynamic design, electronics miniaturisation of the energy system and a structure featuring composite materials that will incorporate high-performance photovoltaic cells.

The SOLARXONE project is also recognised by the S2E2 Cluster.

Partners

Companies

XSUN SAS, Guérande [Project Developer]
Dassault System, Paris
NEOGY SAS, Mérignac

Research centers

École Centrale de Nantes
Icam, Carquefou
IMN, Nantes
IREENA, Nantes

Funders

Commission européenne
(SME Instrument phase 2)

Labelisation

28/06/2019

Overall budget

2 523 k€