Focus on CSIR

Active Aerostat

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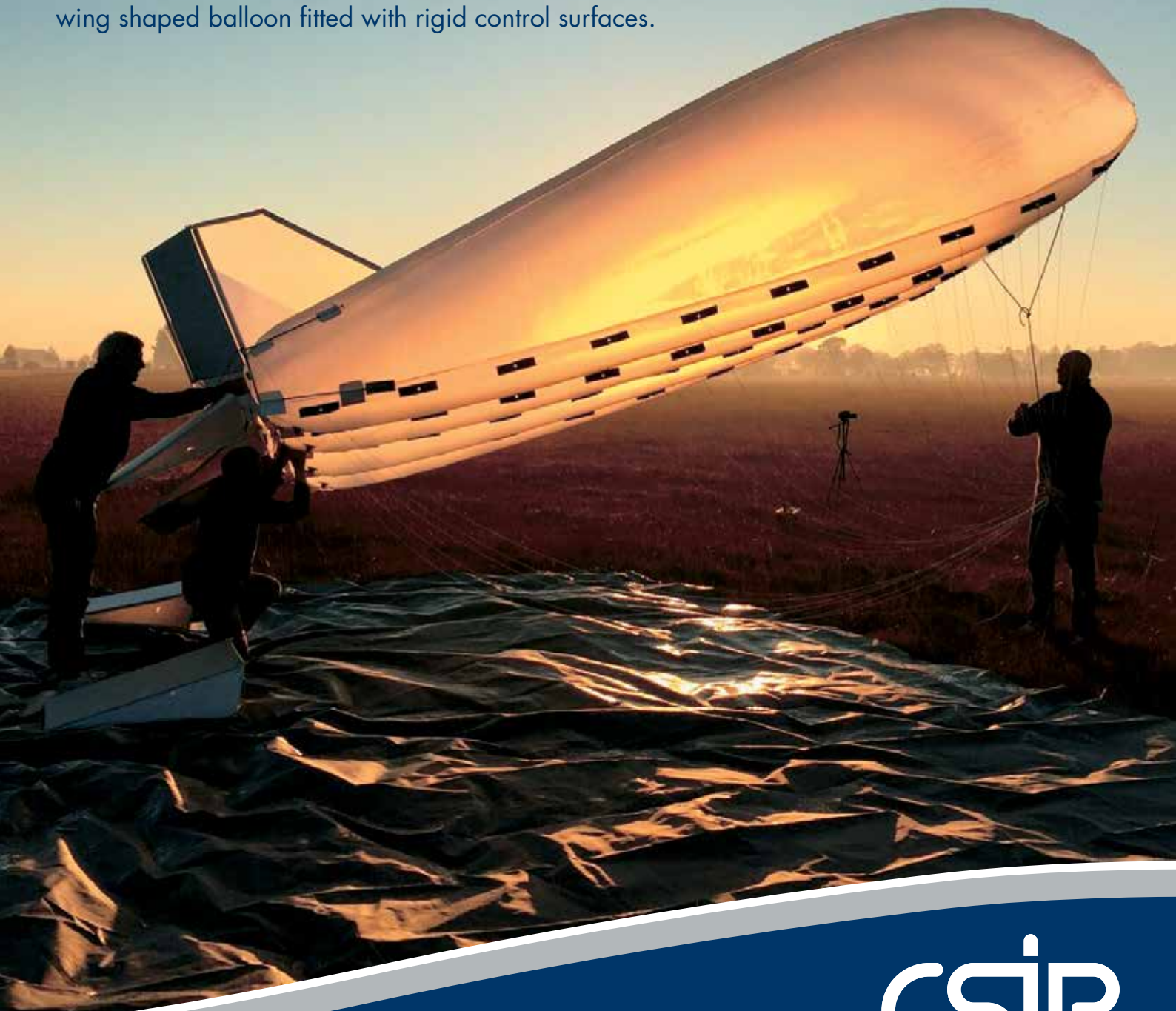

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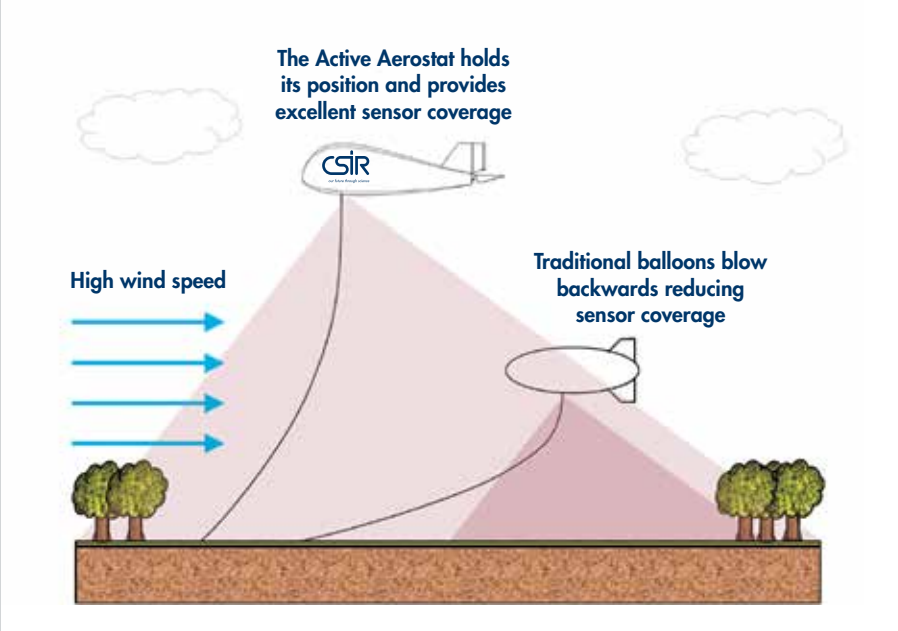

A prototype was developed to act as a proof of concept and to validate the predictions of control effectiveness. The first flight was successfully achieved in April 2016.

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The Active Aerostat is superior to traditional tethered balloons in two respects:

- It can better maintain its position in high wind conditions through the additional lift produced by the envelope, providing improved sensor coverage.
- It is a far more stable sensor platform in high wind conditions due to the active control of the system in pitch, roll and yaw using an on-board autopilot.

The Active Aerostat can be rapidly deployed to the required heights for maximum surveillance. Line tension is maintained within pre-set limits by the active control system.

The system has application in all areas where persistent aerial surveillance is required and isn't required to meet the strict civil aviation requirements governing the use of unmanned aircraft systems.

Typical application areas for the Active Aerostat include, but are not restricted to:

- Military and security
- Wild life and farming
- Crowd control
- Border surveillance
- Mining surveillance
- Shark monitoring
- Advertising
- Communications relay

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