



**SOLARIMPULSE™** | **SOLVAY**  
AROUND THE WORLD IN A SOLAR AIRPLANE | MAIN PARTNER

ADVANCED MATERIAL SOLUTION  
PROVIDER

Since joining the Solar Impulse project as its first Main Partner back in 2004 at the very early stage of the project, Solvay has always played an active role in this daring technological challenge. It puts its recognized scientific skills and expertise at the disposal of Solar Impulse to contribute solutions in the field of the development and production of innovative materials.

These skills are only one example of the positive, specific efforts made by the Group to sustainable development in terms of aiding the advent of alternative or renewable energy sources.

Solvay's contribution to the Solar Impulse project is based on research into innovative materials and technical solutions, the replication and simulation of their behavior in extreme environments, their technical evaluation and the conducting of a series of tests.

More specifically, Solvay's technical partnership with Solar Impulse, involving both the Chemicals and Plastics divisions, focuses on the following areas:

- research into optimum solutions and materials, especially through the definition of composite structure materials and high-performance plastics for metal replacement;
- the production and/or selection of high performance polymers for critical applications (watertight joints, lubrication, etc...);
- methods of encapsulating and assembling photovoltaic cells using the structural material selected for the plane;
- research into the production and utilization of appropriate photovoltaic materials;
- solutions for improved (Ion-polymer) batteries;
- selection of high-performance thermal insulation materials;
- non-linear numerical simulation using software adapted to suit large-scale parts and extreme conditions;
- mechanical evaluation and testing of materials in extreme conditions.

In doing so, Solvay has taken up a challenge that will push back the limits of current technological know-how.

The partnership between Solvay and Solar Impulse reflects its belief in personal commitment, entrepreneurial spirit and technical innovation as responses to the challenge of "Sustainable Development".

Solvay's overriding passion for mankind, science and technology, as expressed in its corporate signature "A passion for Progress®" once more materializes in this partnership with Solar Impulse.

Contact: [claude.michel@solvay.com](mailto:claude.michel@solvay.com)