CHOPIN

COATINGS WITH HYDROPHOBIC AND OMNIPHOBIC PROPERTIES AGAINST INSECT CONTAMINATION

SUSTAINABLE SOLUTIONS REDUCING CO_2 EMISSION

The project

The insect sticking on the aircraft leading edges may cause a surface roughness disrupting the laminar flow with the consequent negative impact in safety and fuel consumption. In H2020 **CHOPIN** project, hydro- and omniphobic coatings are being developed in order to mitigate the insect contamination. Briefly, wet chemistry (**sol-gel**, **UV-varnish**, **Ionogel**) and dry (**Ion implantation** and **Dry-spray**) processing technologies are considered for these purposes. Additionally to their repellent ability to different fluids –i.e. including synthetic hemolymph as insect simulant-, the erosion resistance of the developed coatings and their resistance to aircraft liquids are being investigated. The project **CHOPIN** is coordinated by **Materia Nova** and participated by **CIDETEC, NORCE**, **VKI** and **ECO-TREAT** for **Airbus**.

COATINGS

SOL-GEL

IONOGEL

UV-VARNISH

ION IMPLANTATION

DRY SPRAY

VALIDATION

CLEANABILITY

DURABILITY

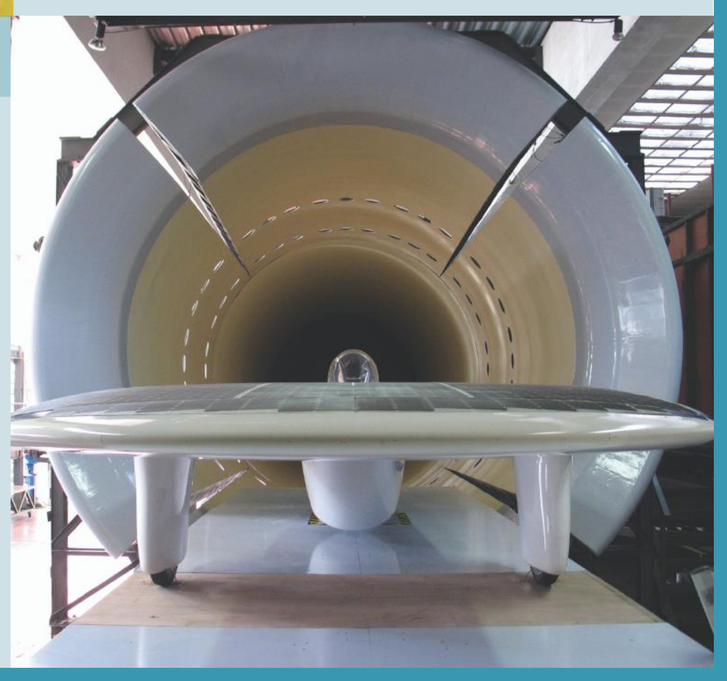
UV

IMPACT

EROSION

CHEMICAL RESISTANCE

TESTS IN WIND TUNNEL AND ON DRONES



MateriaNova MATERIALS R&D CENTRE

cidetec surface engineering

NORCE

von KARMAN INSTITUTE FOR FLUID DYNAMICS

ECO-TREAT Ecofriendly Surface Treatment

AIRBUS

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Clean Sky

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