i-TRIBOMAT – Intelligent Open Test Bed for Materials Tribo-logical Characterisation Services*

The "research subsidiary" of the Austrian Tribology Society, the Competence Center for Tribology in Wiener Neustadt (AC2T research GmbH), brings the first "Open Innovation Test Bed" to Austria. On 1 January 2019, the EU project i-TRIBOMAT started with a total of 10 international partners and a funding volume of € 7,113,313. The aim of the project is to establish the world’s largest "Open Innovation Test Bed" for tribo-logical material characterisation over the next 4 years.

By interconnecting existing infrastructure for (tribology-oriented) characterisation of materials and the development of new (digital) services, the industry is provided with a cost-efficient opportunity for material characterisation and up-scaling (i.e. prediction of system properties) of new or alternative materials.

In order to achieve this goal, the existing infrastructure of the project partners for tribological material characterization will be interconnected using IoT (Internet of Things) technology and coupled to an IT platform. The characterisation data can thus be stored centrally in a database and further processed. A “collaboration interface” will enable industrial customers to use the data to simulate and predict application-specific properties of the materials concerned via “virtual workrooms” and “surrogate models”. Thus, an up-scaling of parameters of tribological material properties from TRL3 (Technology Readiness Level 3) to TRL 6 should be achieved very efficiently and easily.

i-TRIBOMAT will offer these new (digital) services through a new company to be founded and will ultimately help to significantly reduce development times and costs.

"This project shows the potential of digitalization, especially in terms of new digital services and new business opportunities. One of the largest digitalization projects in Austria".

The ÖTG is pleased about the successful placement of an EU project by the consortium and wishes the best of success for the project.