



HORIZON-CL4-2022-TWIN-TRANSITION-01-07: Digital tools to support the engineering of a Circular Economy (Made in Europe Partnership) (RIA) Specific conditions

Ideas for the project:

- Unique sensors design and development
- Production line data analysis
- Connection of electronics and algorithms for creation diagnostic systems
- Energy monitoring and data acquisition
- Evaluation of production efficiency
- Sensors and analytics for fault prevention
- Predictive maintenance
- Analysis of vibrations, noise, energy consumption to identify non-standard behavior of production machines

Infrastructure offered:

- o More than 200 m² of relevant laboratories
- o Workstations for long term simulations
- o Laboratories for digital image analysis
- o Infrastructure for numerical and physical simulations

Recent projects solved, related to the issue:

- o CZ.01.1.02/0.0/0.0/20_321/0023812 → Development and verification of new technology of industrial automation and digitization of the production process of zinc pigments, obtained by recycling and utilization of waste
- o CZ.01.1.02/0.0/0.0/20_321/0024561 → Research and development of a mobile solar charging station for electric cars
- o CZ.01.1.02/0.0/0.0/20_321/0025077 → Advanced diagnostics and adaptive autonomous control and measurement systems at robotic production sites
- o CK01000190 → Sensor measurement of pedestrian roads in the urban environment to support the mobility of people with disabilities
- o CZ.01.1.02/0.0/0.0/20_321/0024458 → Development of test and application equipment for HMI (Human Machine Interface) devices

Active participation in relevant associations:

- o Cluster WASTen
- o Automotive Industry Association
- o Czech Society for Mechanics

Digital Innovation Hubs:

- o South Bohemian Science and Technology Park

Partners in previous research projects:

University of Hradec Králové, VSB-Technical University of Ostrava

Contacts with industrial partners:

MOTOR JIKOV Strojírenská a.s., COREZINC s.r.o., KERN s.r.o., MULTICORE s.r.o., TŘINECKÉ ŽELEZÁRNY, a. s., PKS servis spol. s r.o., T.W.I. spol. s r.o., AUFEER DESIGN, s.r.o., AJKA - SOLUTION s.r.o., Campus energy spol. s r.o., ITB Engineering & Production s.r.o.

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