

Ollscoil na Gaillimhe University of Galway

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Dr. Mingming Tong Lecturer in Mechanical Engineering School of Engineering University of Galway Ireland





We are based in the modern Alice Perry Engineering Building on the campus of University of Galway.

# Interest in Horizon Europe calls (2023, 2024)

- Cluster 4 (sustainable manufacturing, material recycling, renewable energy, computational modelling and digital twin, recovery of raw materials, wastewater treatment)
- Cluster 5 (CFD modelling, hydrological modelling, renewable energy, energy efficient technologies)

### **Experience with former EU collaborative projects**

- FP6-NMP: Intermetallic Materials Processing in Relation to Earth and Space Solidification
- FP7-NMP: Modelling of Interface Evolution in Advanced Welding, (role: work package leader)
- FP7—ENVIRONMENT: High Shear Processing of Recycled Aluminium Scrap for Manufacturing High Performance Aluminium Alloys, (role: co-PI and work package leader)

## **Background and Experience**

- We are based in the School of Engineering of the University of Galway. I am a FI of the SFI I-Form Centre.
- We have extensive experience with research on materials, processing (thermomechanical processes, fluid flow and heat transfer processes etc.), manufacturing, material recycling, and hydrological modelling.
- We have expertise in a variety of related experimental research and computational modelling.

#### **Resources and Facilities**

#### <u>Hardware</u>

- 3D printer for metals, polymers, resins
- Gleeble 3500 system, Tensile testers, fatigue testers
- Micro CT scanner, nano-indentation tester, microscopy
- Corrosion testing and biocompatibility testing facilities
- Laser processing and characterisation
- <u>Software</u>
- Abaqus , Ansys, In-house codes