

Łukasiewicz
Institute
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Metals

CONTACT

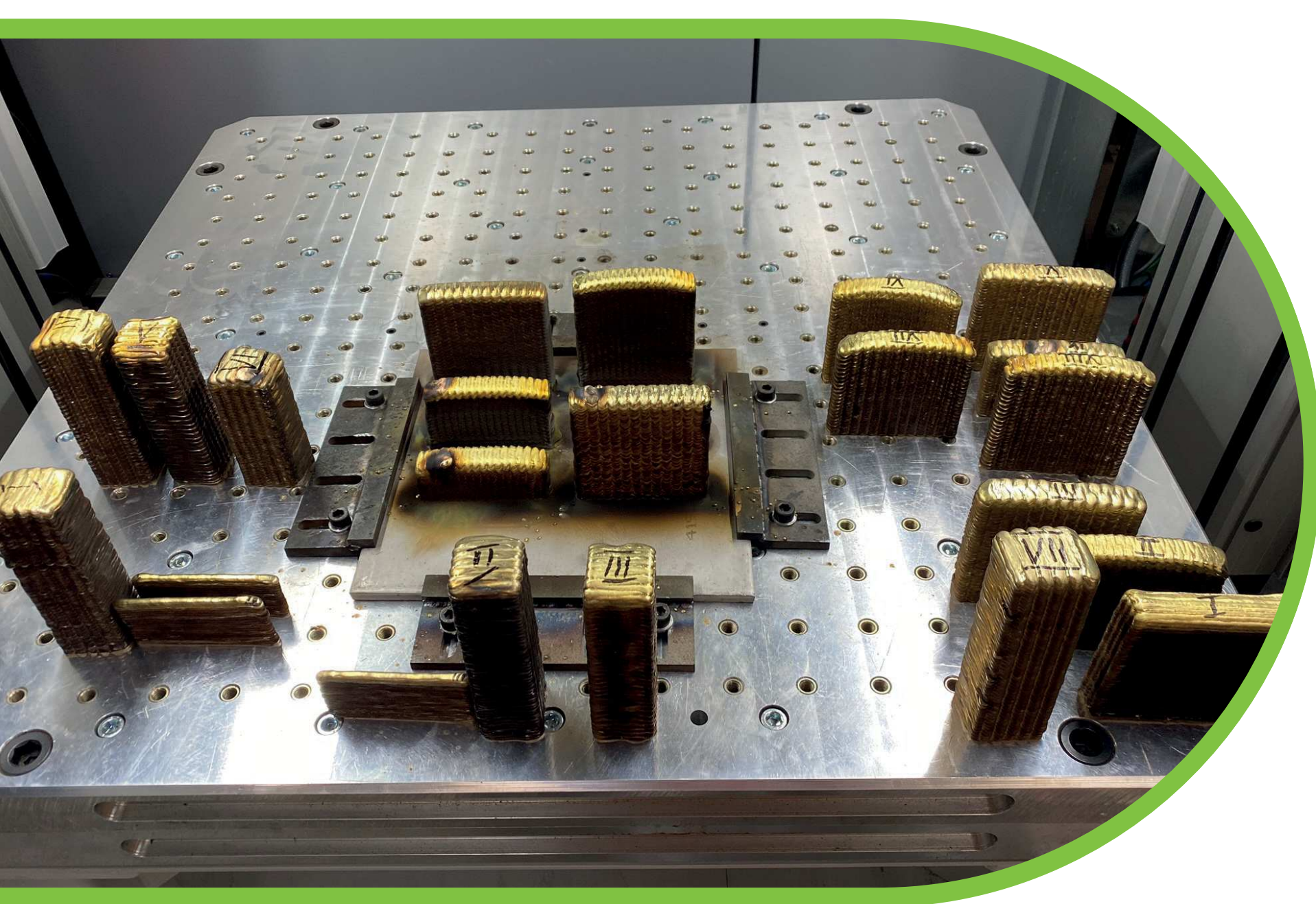
Łukasiewicz Research Network - Institute of Non-Ferrous Metals

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3DMPWIRE

Material-efficient Cu wire-based 3D printing technology

The objective of the project is the development of new wire as a feedstock material for the 3DMP® process which belongs to the Wire Arc Additive Manufacturing (WAAM). In this project commercial Cu based wires are tested and modified as well as new chemical compositions of wires is developed. Another outcome of the project will be a 3D printed element working in seawater environment such as a ship propeller using the new wire. It will also result in a ready to implement 3DMP® technology with adjusted parametres for printing elements operating in marine environments.



CONSORTIUM



Łukasiewicz Research Network - Institute of Non-Ferrous Metals

- Development of the Cu-based alloys
- Development of production technology of feedstock materials for WAAM
- Wire Arc Additive Manufacturing at laboratory scale
- Materials investigations



Gefertec GmbH

- Development of the production process parameters by means of 3DMP® technology
- Implementation of the results of the project
- Manufacturing of the new products



ENEA Italian National Agency for New Technologies, Energy and Sustainable Economic Development

- Material Investigations
- Mechanical properties



Tecnalia Research and Innovation

- Erosion test
- Non-destructive test



Ghent University

- Corrosion-fatigue investigations
- Test of the prototypes in seawater environment

Supported by



This activity has received funding from the European Institute of Innovation and Technology (EIT), a body of the European Union, under the Horizon 2020, the EU Framework Programme for Research and Innovation



ACKNOWLEDGEMENTS

The project 4DMPWire. Material-efficient Cu wire-baes 3D printing technology, 2019 - 2021 (Upscaling) is cofunded by EIT Raw Materials

Area
Acceleration (D2)

Segment
Upscaling (D2.2)

Duration
2019-01-01 - 2021-12-31