

How NetCastPL4.0 Supports Innovation in Lightweight Castings – See What's New!

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NETCASTPL4.0
- NETWORKING -



Funded by
the European Union



Newsletter - NetCastPL4.0


Reasons to follow the project

The NetCastPL4.0 newsletter is your go-to source for the latest updates on our efforts to advance excellence and innovation in lightweight castings within the Foundry 4.0 framework in Poland. This project fosters collaboration between research institutions and foundries, promoting sustainability and bridging the research and innovation gap across Europe.



Featured Seminars

We are excited to highlight our series of seminars, designed to share knowledge and advancements in foundry technologies:


 **January 22, 2025:**

Austempered Ductile Irons (ADIs)

This seminar focused on the 10-year scientific collaboration between CNR-ICMATE and Zanardi Fonderie S.p.A., a European leader in ADI production.

Speakers:

- Dr. Giuliano Angella (CNR-ICMATE, Italy) and Mr. Franco Zanardi (Zanardi Fonderie S.p.A., Italy) presented results from the positive interaction between research and industry.
- Key topics included austempering time optimization through tensile behavior analysis, refining the Dorozil method for ADI production.


 **February 24, 2025:**

Green Molding Technologies

This seminar showcased inorganic foundry binders for sand molding processes, featuring collaboration between researchers at Aalto University and AGH.

Speakers:

- Dr. Kalle Jalava (Aalto University) discussed the state-of-the-art and challenges in inorganic binder systems.
- Dr. Nurul Anwar (Aalto University) explored the potential of solid inorganic foundry binders as a sustainable alternative.

 **March 24, 2025:**

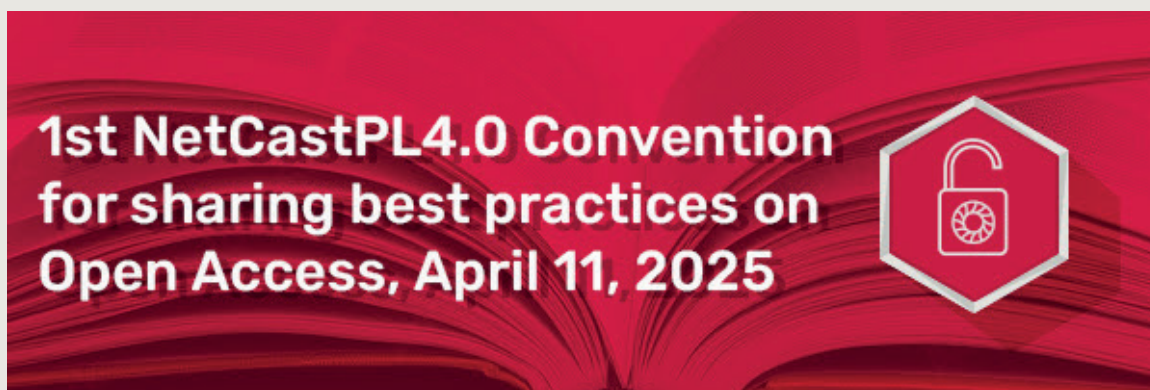
Ductile Iron and Aluminum Alloys for Thin-Walled Castings

This seminar highlighted collaborations between Teksid Iron Poland, Silesian University of Technology, and AGH.

Speakers:

- Bogdan Cygan (Teksid Iron Poland) discussed spheroidal graphite cast iron for lightweight automotive castings.
- Jarosław Piątkowski (Silesian University of Technology) presented technological aspects of aluminum alloy castings.

Trainings and Webinars



Speakers:

Taija Tuoresjärvi & Lucie Hradecká (Aalto University): "Supporting Open Science at Aalto University"

Stanisław Skórka (AGH University of Krakow): "How do we help to make research FAIR"

Laura Benassi (National Research Council of Italy): "From fieldwork to Practical Strategies for Open and Reproducible Research"

Open Forum Jan 13, 2025: Working with a gender perspective – Taking a gender aware approach to research & teaching

NetCastPL4.0 Network

Outstanding partners join the NetCastPL4.0 network!

Check out who has already joined
the NetCastPL4.0 network



Project Updates



Project partners meeting in Krakow

A successful meeting was held on December 9-10, 2024, with representatives from Project Partner Institutions and the External Advisory Board. Discussions included school and workshop programs, seminar schedules, and dissemination plans. Milan was selected as the tentative location for the next meeting.



Inaugural meeting of the social council:

The Faculty of Foundry Engineering AGH held the inaugural meeting of its Social Council for the 2024-2028 term on November 21, 2024. The council, comprising leaders in the foundry market, will focus on aligning graduate skills with employer needs and enhancing research and development collaboration.

Project Promotion and Research Presentations



SPOLUPRÁCA 2025 Conference

April 2-4, 2025, Rajecké Teplice, Slovakia (3 presentations connected with NetCastPL4.0 research)



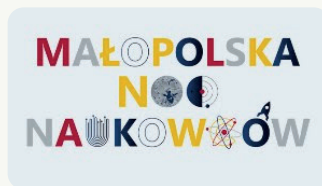
Polish Foundryman's Day 2024

December 13, 2024, Krakow, Poland



75th World Foundry Congress

October 25-30, 2024, Deyang, China (Prof. Marcin Górny received First Prize for Best Scientific Paper)



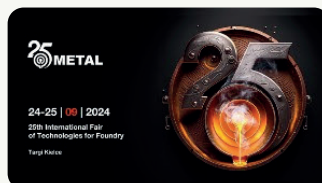
Małopolska Researchers' Night 2024 in Krakow

September 27, 2024, Krakow, Poland



Co.Science

Meet Research to Connect Science and Society in Milan, September 27, 2024, Milan, Italy



METAL 2025

25th International Fair of Technologies for Foundry

September 24-26, 2024, Kielce, Poland



The 3rd Carl R. Loper Conference
September 22-25, 2024, Brasov, Romania



AIM
National Conference
September 11-13, 2024, Napoli, Italy



ESOMAT 2024
13th European Symposium on Martensitic Transformation
August 26-30, 2024, Lecco, Italy



SPCI-XIII 2024
XIII International Symposium on the Science and Processing of Cast Iron – SPCI-XIII
June 23-26, 2024, Krakow, Poland

Check out our E-Library and stay up to date with the latest research findings

💡 **"Insights into Carbides in Cast Iron"** by M. Górny, M. Kawalec, J. Marosz, M. Bork, G. Angella

💡 **"AIM – National Conference 2024 _G. Angella on ADI thin sections"** by G. Angella, R. Donnini, M. Schiralli, M. Vedani, M. Górny

💡 **"Environmentally friendly foundry molding sands as a part of Green Deal policy"** by K. Major-Gabryś

💡 **"Selection of chemically cured molding sands' with inorganic binders dedicated to 3D sand printing"** by D. Halejcio & K. Major-Gabryś

💡 **"Optimisation of the chemical composition of cast iron for high wear resistance"** by M. Kawalec, M. Górny, A. Trela-Przybyło & Michał Skurzak

💡 **"The potential of solid inorganic foundry binder"** by N. Anwar

💡 **"State-of-the-art and challenges in inorganic binder systems"** by K. Jalava

Upcoming Events in 2025

1st NetCastPL4.0 Course: **Enhancing Research Capacity for impactful R&I Projects**

Part 1 - 🇮🇹 **April 28-29, 2025, Milan, Italy**

Part 2 - 💻 **May 8, 2025, online**



This training course is designed to enhance the skills of scientific and administrative staff in research management while promoting gender equality, diversity, and inclusion. The program will equip participants with essential strategies for securing and managing funding, along with real examples of effective dissemination and outreach techniques to maximize the impact of Research and Innovation (R&I) projects.

The ultimate goal is to provide attendees with practical insights and tools to navigate the complexities of research administration and make a lasting contribution to their field.

School on S&T mechanics, metallurgy & green processing - June 30 - July 02, 2025

Covering fundamentals, processes and production techniques exploitation, valorisation and industrial use of castings is the aim.

The organization of NetCastPL4.0 schools on S&T mechanics, metallurgy & green processing in the production of light-weight castings is planned.



Workshop on Lightweight Castings Innovation - July 03 - 04, 2025



Organization of a Workshop on Green Processes in Foundry 4.0 practice of Light-Weight Castings (at AGH) is planned.

One day will be dedicated to technical aspects and one day will be dedicated to policy and business development in the field.

**V International Conference of Casting and Materials Engineering ICCME 25,
October 27-28, 2025, Krakow, Poland**

Lightweight innovations panel will be organized in the frame of the conference.



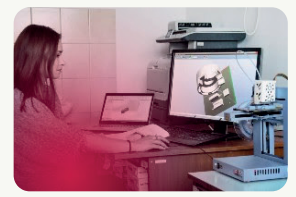
Stay Connected

Thank you for your continued interest in the NetCastPL4.0 project. For more information and updates, please visit our website and follow us on social media. We look forward to your participation in our upcoming events and initiatives.

Discover more and Get involved!



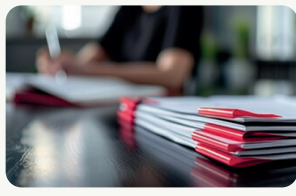
About Project



Schools & Workshops



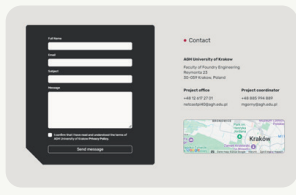
Events



E-Library



News



Contact



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