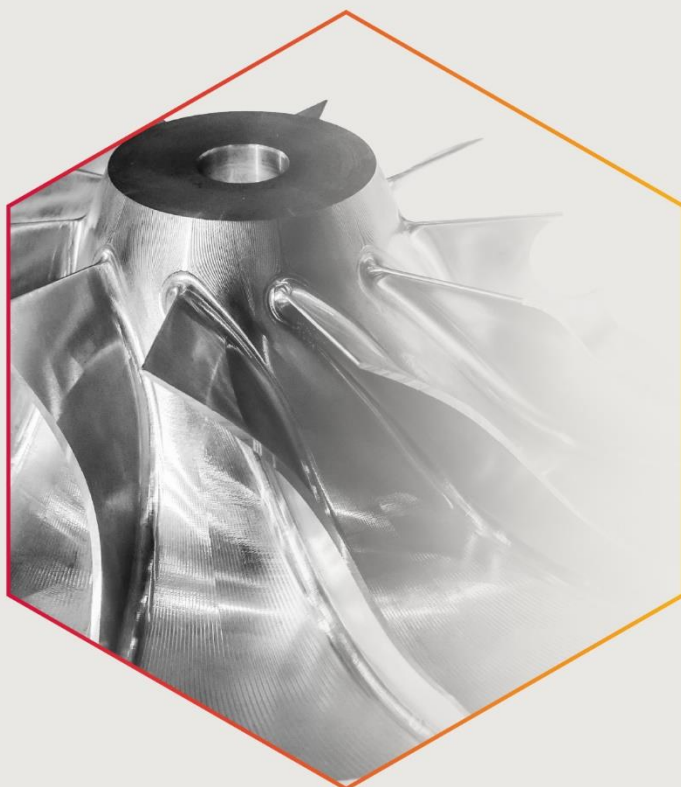




# NETCASTPL4.0

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[www.netcastpl4-0.agh.edu.pl](http://www.netcastpl4-0.agh.edu.pl)



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# NetCastPL4.0

(Grant Agreement number 101159771)

## D7.1 Web Platform

Funding Scheme: Coordination and Support Action

Call: HORIZON-WIDERA-2023-ACCESS-02

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Lead Partner for Deliverable:	AKADEMIA GORNICZO-HUTNICZA IM. STANISŁAWA STASZICA W KRAKOWIE
Partners contribution:	All partners
Deliverable Due Date:	30/09/2024 (M5)
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## D7.1 Web Platform

Dissemination level		
PU	Public	<input checked="" type="checkbox"/>
SEN	Sensitive	<input type="checkbox"/>

**NetCastPL4.0** aims to enhance excellence and innovation capacity at AGH, putting AGH in a leading position to nuclei the Networking Pole for Castings Foundry Innovation and Sustainability to face the strategic challenges of Poland and EU foundries and of lightweight components end-user industry. It also aims to engage the country in pan-European collaborative efforts on this topic twinning with the Consiglio Nazionale delle Ricerche (Italy) and AALTO University (Finland). It will put AGH This will be achieved through realization of following specific objectives implemented via 7 WPs:

1. Improving the overall capacity and resources at AGH in advanced lightweight castings science & technology and in emerging Industrial Sustainability assessment and management practices and tools.
2. Conducting exploratory research on “High-tech cast iron and Al alloys for lightweighting castings for the medium and heavy-loaded conditions produced by green molding materials” demonstrating enhanced capacity in novel lightweight materials and components fabrication, modelling and characterisation.
3. Establishing an AGH European Networking Pole on Lightweight Castings Innovation and Sustainability. This will enhance the replication potential developed at AGH, creating strategic partnerships with Research organizations, Universities, Foundries, Industry, Public and Governmental Organizations, and Agencies in light-weighting casting components and Technologies for casting foundries 4.0 development.
4. Providing new results and experiences analysing 3 case-studies in production of light-weight castings components in medium and heavy loaded conditions and automotive for the preparation of a Guide Document on Best Available Practices in the Green Foundries Industry.
5. Leveraging the NetCastPL4.0 partnership at a European level and creating the enabling conditions for a long-lasting joint collaboration.
6. To arrange schools and training workshops in partner countries for scientists and for potential follower foundries and other relevant stakeholders.
7. Raising mobility (internal and external) of scientists and staff in green molding/casting science and technologies.
8. Improving the research management and administration skills at AGH, by creating the Department of European cooperation within AGH.
9. Fostering gender equality issues at AGH and in the castings foundry through implementation of the action plan for Equality, Inclusion, and Diversity.

## LEGAL NOTICE

Neither the European Commission nor any person acting on behalf of the Commission is responsible for



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## 1. Scope of the deliverable

This deliverable presents the project's Web Platform.

In order to promote AGH and increase the university's recognition in the international environment, the platform was created under the domain and on the AGH server. It was created at: <https://netcastpl4-0.agh.edu.pl/>. The hosting has been registered on internal AGH server.

The website refers to and uses the visual identity of both AGH University and the Faculty of Foundry Engineering of AGH University. The website uses the visual identity of the project.

The website is designed according to the project identity. The logo of the European Union is displayed on each page of the website in the footer. The partner responsible for maintenance of the project website is AGH. Other consortium partners support AGH by providing content for the website.

Over the course of the project the website will be regularly updated. Namely, all the news related to the project will be published in the "News" section. Project public deliverables, research publications, etc. will be published in the E-Library section.

This deliverable has several goals:

- ✓ It is one of the main dissemination and interaction vehicles, to facilitate information exchange among beneficiaries.
- ✓ Via the platform continuous updates about the project progress and the results are presented.
- ✓ It serves the Networking Pole providing the needed functions of members enrolment, stakeholders identification and support, activity promotion and feedback and virtual knowledge-based library and services.

The present document consists of two chapters. Chapter 1 presents introductory information about the deliverable. Chapter 2 shows the NetCastPL4.0 Web Platform structure, technical specification & functionalities.



## **2. The Web Platform structure, technical specification & functionalities**

### **2.1 The structure**

The NetCastPL4.0 project web platform consists of the following sections, which form the main menu at the top of the website:

- About project (Visual identity, Work packages, Project partners, Network partners, Governance)
- Schools & Workshops
- Events
- E-Library
- News
- Contact

The website is implemented in English.

The Web Platform has a public area, targeting users external to the consortium, and an internal, password-protected area.

The content of the web platform is based on the NetCastPL4.0 project Description of Action. The main page presents the title of the project, its objectives, partners, latest news, events and publications, as well as the information about schools and workshops. There are links to the project's social media as well as the possibility of subscribing e-Newsletter. The About Project section presents a brief description of the project aim, logos of each consortium partner with brief description and links to their organization websites, research capabilities description, logos of network partners – the number of network partners will increase with building the network. It includes information about project objectives, WPs and project team with contact details. It also contains different logotype versions and graphical templates with the project's visual identity ready to download. In the Schools & Workshops section the information about schools and workshops planned to be organized under the project is available. This section will allow candidates the registration. The Events section contains brief information about upcoming events. All the public deliverables and other materials produced over the course of the project will be published in the E-Library section. The News section shows the latest news and activities of the project, and announcements. The Contact section provides the contact details to both project office and project coordinator with the map. The platform provides a search for specific information.

The Web Platform footer presents the information about EU foundation, contact details to project office and partners logotypes. There is also navigation, links to social media and the number of visits calculator.

In Fig. 1 screenshot of project web platform is presented.



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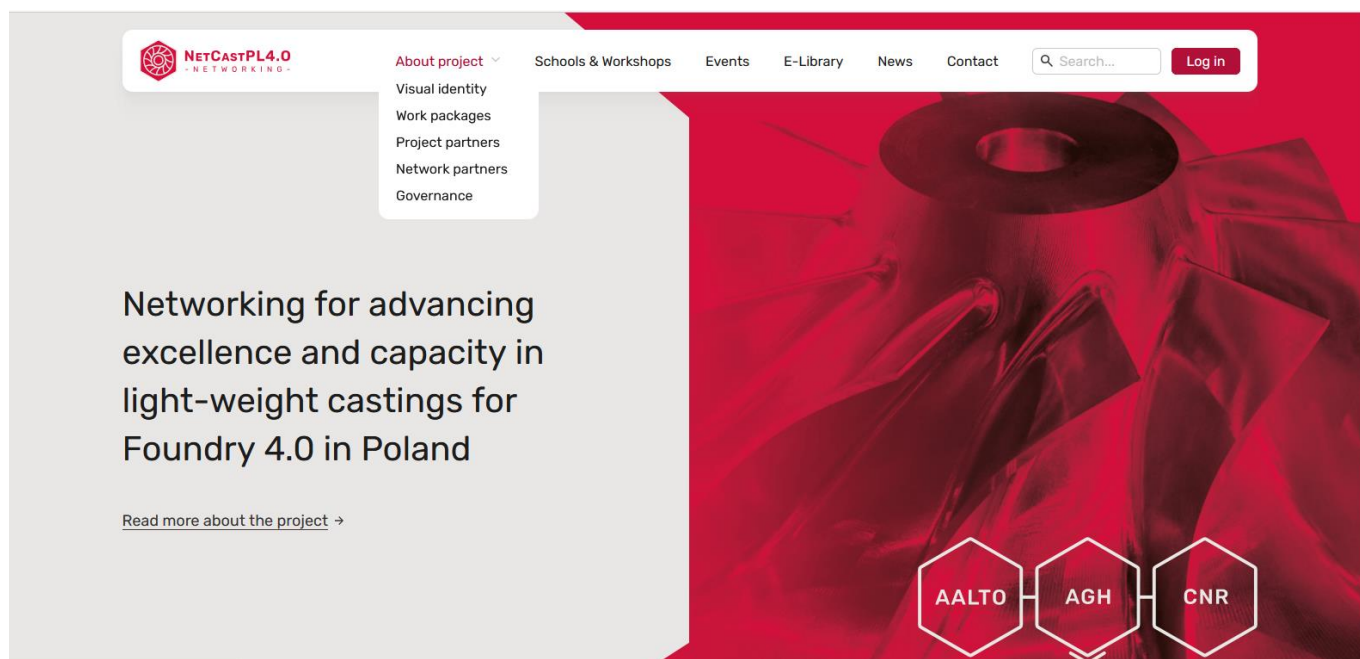


Fig. 1. The interface of the Web Platform.





## 2.2 Technical specification

The following technical specification was assumed:

➤ **programming using html/scss/php/js/jquery**

The project will utilize standard front-end and back-end technologies. HTML and SCSS (a CSS preprocessor) will be used for structuring and styling the website, while PHP will handle server-side functionality and database interactions. jQuery will simplify DOM manipulation and dynamic website actions.

➤ **creation of subpages for cookie policy and privacy policy**

Dedicated subpages will be created for both Cookie Policy and Privacy Policy, clearly outlining the site's practices regarding user data and cookies in compliance with GDPR or other relevant regulations.

➤ **full responsiveness of the site on mobile devices**

The website will be fully responsive, ensuring optimal display and functionality on all screen sizes, including mobile phones, tablets, and desktops.

➤ **code and page optimization before publishing - minimum page speed score according to <https://pagespeed.web.dev/> - 80 pts mobile and tablet / 85 pts desktop**

Prior to launch, the code and overall page performance will be optimized. The goal is to meet a minimum score of 80 points for mobile and tablet, and 85 points for desktop, based on the PageSpeed Insights tool (<https://pagespeed.web.dev/>). This includes improving load times, reducing render-blocking resources, and ensuring smooth user interactions.

➤ **installation and configuration of CookieYes plugin**

The CookieYes plugin will be installed and configured to manage user consent for cookies in compliance with data protection regulations. This will include presenting cookie banners and managing cookie preferences.

➤ **plugging in analytics i.e. Google Search Console, Google Analytics etc.**

Analytics tools, such as Google Search Console and Google Analytics, will be integrated to track website performance, user behavior, and SEO effectiveness. These tools provide insights into visitor data and help optimize the site's visibility and usability.

➤ **implementation of Captcha**

CAPTCHA functionality will be implemented to enhance security on forms and prevent spam submissions by requiring users to complete verification tests, such as image recognition or checkbox verification.

➤ **installation and configuration of SeoPress**



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The SeoPress plugin will be installed and configured to optimize the website's SEO capabilities. This includes managing meta tags, optimizing content for search engines, creating sitemaps, and ensuring the website ranks well in search results.

### ➤ **creation of DEV + STAGE environments**

Separate development (DEV) and staging (STAGE) environments will be created for testing and deploying new features. This allows for safe development, bug testing, and client reviews before moving changes to the live (production) site.

### ➤ **configuration of DNS zones**

DNS zones will be configured to ensure proper domain management and routing, including setting up custom records for services such as email, subdomains, or CDN.

### ➤ **implementation of security features**

The site will be equipped with essential security measures such as SSL certificates, secure authentication, encryption, and regular security audits to prevent unauthorized access or data breaches.

### ➤ **implementation of CloudFlare**

CloudFlare will be integrated for content delivery network (CDN) services and enhanced security. It will optimize content delivery speeds, provide DDoS protection, and improve overall site performance.

### ➤ **implementation and configuration of contact forms using WP Mail SMTP.**

Contact forms will be configured with the WP Mail SMTP plugin to ensure that form submissions are correctly routed through authenticated email services, avoiding delivery issues or spam filters.

### ➤ **Optimization of graphics via WEBp Express**

The WebP Express plugin will be used to optimize images by converting them to the WebP format, reducing file sizes without compromising image quality. This will improve load times and overall site performance.

### ➤ **Clearing the database of unnecessary links containing incorrect URL's**

The database will be cleaned of any outdated or incorrect URLs to ensure smooth navigation and improve SEO by eliminating dead or broken links.

### ➤ **Widgets and integration with social media channels.**

Social media widgets will be added to the site, allowing for easy integration and display of live updates from platforms such as Facebook, Twitter, and Instagram.



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### 2.3 Functionalities

The following functionalities were assumed:

➤ **User registration for up to 100 users:**

The website will allow users to register and create accounts. It is designed to handle approximately 100 registered users, providing each with login credentials and access to relevant sections of the site.

➤ **Creation of accounts for partners/administrators (max 15-20 accounts):**

The system will support the creation of max 15-20 admin or partner accounts, each with varying levels of permissions to manage site content, monitor user activity, or oversee course/workshop registrations.

➤ **User login facility:**

Registered users will be able to log in securely using their credentials, with access to their personalized dashboards or account information.

➤ **Ability for users to reset their passwords:**

A password reset feature will be implemented, allowing users to recover their accounts through email-based verification or similar secure methods.

➤ **Option to sign up for a course/workshop (limited number of places):**

The website will offer users the ability to register for specific courses or workshops, with the availability of spots being limited and managed by the admin panel.

➤ **Organizers' ability to upload .pdf files per course:**

Course organizers or administrators will have the functionality to upload and distribute .pdf documents related to each specific course, which users can download.

➤ **Ability to download files in public and sensitive zones:**

Users will be able to download files in both public and restricted areas. Sensitive files will require the user to have proper permissions to access.

➤ **Administrator approval of user registrations:**

All user registrations will require approval from an administrator before the account becomes active, ensuring controlled access to the site's features.

➤ **WCAG 2.0 compliance:**

The website will meet WCAG 2.0 accessibility standards, ensuring it is usable by people with disabilities, including keyboard navigation, screen reader compatibility, and appropriate color contrasts.

➤ **Newsletter sign-up option:**



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Users will be able to subscribe to a newsletter, receiving regular updates or marketing content from the website via email.

➤ **Integration with social channels with latest posts on the main page:**

The website will be integrated with social media platforms, and the latest posts or updates from those platforms will be automatically imported and displayed on the main page.

➤ **Search engine functionality:**

A search engine will be included on the website, enabling users to search for specific content, articles, or pages within the site.