

WELCOME MESSAGE



Yanchun Lou

*Chairman, The World Foundry Organization;
Chairman, The Scientific Committee of the
75th World Foundry Congress*

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Distinguished guests, ladies and gentlemen,

First, on behalf of the Executive Committee of the World Foundry Organization (WFO), I would like to extend a warm welcome to all of you to the 75th World Foundry Congress (WFC).

Today, over a thousand of colleagues from global foundry industry gathered here in Deyang, a city which boasts a remarkable bronze metallurgy legacy that spans over 3,000 years and now is known as a major equipment manufacturing base in China. We are here to explore and exchange ideas on innovations in foundry technology, share the latest advancements in the industry from our respective countries, foster friendship and collaboration, and work together towards healthier and more sustainable development for the global foundry industry.

This WFC 2024 has received an impressive total of 473 paper submissions from 25 countries and regions around the globe. After thorough review by the Scientific Committee, we are proud to present 9 reports for the congress and 229 reports for the sub-forums. Additionally, we have set up a dedicated poster paper presentation area to encourage lively discussions among all attendees. So, I firmly believe that this WFC 2024 will be a vibrant and high-level academic feast. On behalf of the 75th WFC Scientific Committee, I would like to extend my heartfelt respect and sincere gratitude to all the authors of the papers, all the members of the Scientific Committee, and all the organizers from the Secretariat of the Foundry Institution of Chinese Mechanical Engineering Society (FICMES) for your tremendous efforts and contributions!

In today's era, the global foundry industry is making rapid strides towards integrated development with the trend to pursue digital, smart and green transition. The high-quality development of the foundry industry is a kind of integrated development led by high-quality and high-level talents and based on the advancement in casting

technology, which offers a win-win scenario for various stakeholders. By promoting talent cultivation, particularly nurturing young professionals worldwide, new energy and vitality has been injected into industry development. Former WFO President Dr. Carsten Kuhlitz has taken the initiative to organize the "WFO Foundry Young Researchers and Early Career Professionals Conference," which has significantly contributed to the development of young talents in the global foundry industry and has garnered high recognition from the industry. This year's 2nd WFO Foundry Young Researchers and Early Career Professionals Conference has recognized three outstanding winners. The FICMES has generously supported and invited them to attend the Global Youth Forum during this WFC 2024, where they will each share their insights.

In 1926, the WFO was founded. Now, nearly a century has passed. Currently, we boast representatives from over thirty member countries, encompassing major foundry-producing nations and regions in the world, thereby establishing an international network that serves the global foundry industry. Remarkably, the annual production of castings worldwide has reached an impressive 100 million tons. Through diverse events like the biennial WFC, technology forums, and foundry summits, we provide valuable support to the industry. As an advocate of and a leader in sharing foundry knowledge and driving technological progress worldwide, the WFO shoulders the significant mission of promoting and boosting the development of the foundry industry. Besides, the WFO stands ready and willing to make its due contribution to tackling global climate change, facilitating a low-carbon transition in the industry and promoting the advancement of human civilization.

As the President of the WFO Executive Committee for 2024-2025, I will work closely with the WFO Executive Committee, Secretariat, working committees, and foundry organizations from over thirty member countries to build a high-quality and high-level platform for global exchange and cooperation, promote talent development and contribute to the advancement of the global foundry industry.

Thanks to Deyang Municipal People's Government and relevant departments in Sichuan Province, enterprises, universities, research institutions, and related service organizations engaged in the foundry industry from around the globe for your generous support of this congress!

I believe that WFC 2024, hosted in China, will leave everyone with wonderful memories.



Wenjiang Ding

Chairman, The Scientific Committee of the 75th World Foundry Congress

Academician of Chinese Academy of Engineering; Professor, Shanghai Jiao Tong University; Director, Light Alloy Net Forming National Engineering Research Center

Distinguished guests, ladies and gentlemen,

First, please allow me to extend a warm welcome and heartfelt thanks on behalf of the Organizing Committee and the Scientific Committee of the 75th World Foundry Congress (WFC) to over a thousand colleagues around the globe.

As we all know, China is an ancient country in the East with a history of over five thousand years and a brilliant foundry civilization that spans more than three thousand years. A prime example of this is the renowned Sanxingdui cultural relics, located right here in Deyang. As a part of this year's congress, a special visit to this cultural site will be arranged for you to experience the awe and inspiration that our ancestors have imparted to modern civilization and modern foundry.

Today, China has become the world's largest producer of castings, with an annual output of approximately 55 million tons, accounting for nearly 50% of the global total. As Chinese foundry enterprises continue to improve and upgrade technology and equipment, the quality of castings made in China has steadily increased. Particularly in industrial application fields such as aerospace, automotive, rail transportation, machine tools, power and energy equipment, and internal combustion engines, a number of foundry enterprises have emerged that are notable for their high quality, substantial scale, and specialization. These enterprises span the entire spectrum of ferrous and non-ferrous metal castings, driving the overall development and continuous technological advancement of China's foundry industry.

At present, the foundry industry is grappling with multiple pressures from rising labor costs and climbing raw material prices, compounded by the global economic downturn, all the vicissitudes in the international landscape, and a need for energy conservation and environmental protection. Against the background,

China's foundry industry is still steadily transitioning toward green and smart development while maintaining a strong focus on high-quality, innovation-driven development. This progress is guided by the Chinese government's commitment to further deepen reform and opening-up and pursue high-quality development driven by new quality productive forces.

At the same time, it is important to recognize that China is not only the largest casting producer in the world but also a massive consumer market for castings. An increasing number of overseas enterprises, research institutions, universities, and other related service organizations are choosing to invest in and seek cooperation with China. China's foundry industry is integrating into overseas markets at a faster pace. I believe that as the global foundry industry continues to develop in an integrated manner, China's foundry industry will undoubtedly contribute even more to global foundry development.

Taking WFC 2024 as an opportunity, I sincerely invite foundry professionals worldwide to visit, exchange and cooperate with China's foundry enterprises, universities, research institutions, suppliers across the foundry industrial chain, and relevant service organizations to develop the foundry industry and foundry technology in China and globally.

Since its establishment in 1962, the Foundry Institution of Chinese Mechanical Engineering Society (FICMES) has been dedicated to advancing the development of China's foundry industry, driving continuous transformation and high-quality growth. Meanwhile, the FICMES has consistently focused on promoting exchanges in casting technology between China and foreign countries, fostering talent development, and supporting industry cooperation and related services. Back in 1978, the FICMES represented China in joining the WFO, marking that China officially became a member country of the WFO. Currently, the secretariats of the four WFO working committees on ferrous metals, non-ferrous materials, moulding materials, and die casting are all located in the FICMES which represents them in planning, organizing, and coordinating global activities with stakeholders from member countries. On the occasion, I would like to extend our gratitude to the WFO for your long-standing trust and support. In the future, the FICMES will continue to support the work of the WFO and strive to contribute more to the development of the foundry industry in China and around the world!

Thank you for attending WFC 2024. I sincerely wish you all good health and success in your work!