

July 30, 2025

Die Casters Look to European Conference for New Market and Sustainability Reports

Die casters from Europe's leading companies will gather in Lyon, France, this September 10-12th for the 2025 Zinc Die Casting Conference. A much anticipated market outlook from IZA consultant Didier Rollez as well as promising results from IZA's Life Cycle Assessment demonstrating the sustainability of ZAMAK and other secondary zinc alloys will be released at the event, which is attended by die casters, designers, specifiers, design engineers and representatives from end-use industries.

In addition to the market and sustainability reports, the conference will feature presentations from Initiative Zink's Frank Neumann on the impact of the new European construction product regulation and from Genlis Métal's Laurent Coster on the opportunities and challenges of producing die casting alloys from recycled zinc.

IZA is pleased to announce to the addition of <u>EUROGUSS</u> as a media partner, an agreement intended to promote IZA's triennial event and highlight die casting coverage provided by Europe's leading die casting publication. IZA also wants to thanks the many sponsors who make the conference possible, including <u>RE:ZN</u>, <u>Genlis Metal</u>, <u>AGRATI-AEE</u>, <u>Experience Zamak</u>, <u>Grillo</u>, <u>FRECH</u>, <u>S. Erasmo Zinkal</u>, <u>TF Lab</u>, and <u>MAGMA</u>.

To learn more and secure your spot at the September conference, register at this link.



Participants of the Beyond Lithium conference toured PNNL's testing facility.

Accelerating Commercialization of Zinc Batteries

IZA's Zinc Battery Initiative continues to promote the high performance and low cost of rechargeable zinc batteries, with <u>Dr. Josef Daniel-Ivad</u> presenting at last month's <u>Beyond Lithium-Ion Conference</u> at the U.S. Department of Energy's Pacific Northwest National Laboratory (PNNL) in Richland, Washington. A mix of energy storage technologies will be needed to meet the rising demand to provide a reliable source of backup power for both the electrical grid and data storage.

During the session on zinc batteries, Josef highlighted the many unique chemistries powering zinc batteries, including zinc-air, zinc-bromine, zinc-ion, zinc-manganese, and nickel-zinc. Zinc batteries also demonstrate versatility in their applications due to their safety and sustainability: they provide energy storage for data centers, the power grid, Uninterruptible Power Supply for traffic signals, fighter jets and submarines, and eventually electric bicycles and other vehicles.

The June conference provided an opportunity for leading scientists from national laboratories to meet with battery developers and manufacturers to accelerate the commercialization of alternatives to lithium-ion and address potential bottlenecks in innovation and manufacturing.



The new Mexico City to Toluca interurban rail system uses galvanized steel to ensure safety and durability.

Zinc Makes Rail Infrastructure Stronger and Safer

The use of galvanized steel and its anti-corrosion protection are key elements in the design and operation of the Mexico-Toluca Interurban Train El Insurgente, and contributes to the safety, efficiency, and sustainability of the rail line which connects Mexico City and Toluca. The benefits of a zinc coating are detailed in a recent white paper by IZA Latin America representative Emmanuel A. Ramírez G.

Hot-Dip Galvanized Steel (HDG) is increasingly utilized in major new projects in Mexico due to its corrosion resistance and durability. With El Insurgente, HDG steel primarily was used in signaling poles, support towers for electrical cables, station elements, and other infrastructure related to communication and energy.

The use of galvanized steel and its anti-corrosion protection play key roles in ensuring safety, efficiency, and durability in the design and operation of El Insurgente, which will have the capacity to carry 235,000 people daily when completed later this year.

In addition to ensuring the long-term safety of the rail system, using galvanized steel lowers project cost by reducing short-, medium-, and long-term costs related to maintenance and material replacement. Replacing corroded steel is expensive, and replacing each ton of scrapped steel equals approximately one ton of carbon dioxide emissions. IZA estimates the cost of corrosion is 3% of the world's GDP.

You can learn more about zinc's impact on El Insurgente and other projects in Latin America in Emmanuel's reports on HDG, found here.



New Projects from Life Cycle Assessment Team

IZA has ramped up its Life Cycle Assessment (LCA) reporting for zinc products with the introduction last year of its LCA team, which now is seeking participants for its LCA update for Primary Zinc Production slated to begin this fall.

The latest project welcomes zinc-producing participants in the areas of mining, smelting, enriching EAF dusts, and primary alloy production. This opportunity is offered exclusively to IZA members and includes enhanced services such as data visualization on a new dashboard and support services for participants.

The LCA team recently completed its Secondary ZAMAK LCA, with data sets distributed to LCA database provider Ecoinvent as well as to PEF 4.0, which harmonizes environmental footprints for products to follow European Commission specifications. Both Ecoinvent and PEF 4.0 can provide designers and specifiers with high-quality, up-to-date information for using secondary ZAMAK. In addition, an LCA report for Re-Melt Zinc is underway.

IZA coordinates the LCA projects and methodological developments via its newly formed LCA Working Group, which is collaborating with other commodity associations to hold webinars on the use of LCAs in European regulations as well as on carbon footprint reporting expectations by downstream users and regulators. Building on these webinars, a hybrid workshop focusing on allocation and electricity modeling will be held in Brussels August 26-27 with the goal of further harmonizing reporting methodologies among the metals. To participate in the upcoming webinar, access the recordings of previous webinars, or participate in the primary zinc production LCA update, email LCA Manager Hemant Sharma at hsra/barma@zinc.org.

Speaking and Writing of Zinc

The International Zinc Association is pleased to announce the three winners of the 2024-2025 Zinc Challenge. The award winners used zinc alloys to create a hardware fixture for residential, commercial or industrial furniture: the University of Oregon's Alexander Gross, under the guidance of Professor Kiersten Muenchinger, designed the Knova retracting privacy door handle; Purdue University's Bronte Kunkler, advised by Design Instructor Abolfazl Ghaderi, created the Wilcom accessibility handle for those facing mobility difficulties; and also from Purdue University, Jessica Wong, guided by Professor Steve Visser, designed the unique Sorelle hinge system for medicine cabinets. Each winner receives \$2,000, and faculty sponsors receive \$1,000 for the associated university. Congratulations to the winners for demonstrating their knowledge of sustainable zinc alloys and practical design for die casting. Learn more here about the Zinc Challenge and 2024-2025 winners.

IZA Executive Director Andrew Green spoke last month about the growing markets for zinc in infrastructure, the energy transition, and the automotive sector at the 13th Asia Pacific General Galvanizing Conference Malaysia 2025 in Kuala Lumpur. Thanks to the Asia Pacific General Galvanizing Association, the Galvanizers Association of Malaysia, and IZA's Banu Nargis, Kamal for organizing and hosting this informative and well-attended event.

More than 100 scientists, farmers, students, and leaders in India's agricultural industry attended a recent Zinc in Crops Project Workshop at the Maharana Pratap University of Agriculture and Technology (MPUAT) in Udaipur, where IZA's <u>Soumitra Das</u> spoke on behalf of the <u>Zinc Nutrient Initiative</u>. Zinc fertilizers were found to increase the yield of maize and wheat crops between 15 and 20%,

and local farmers shared how zinc fertilizers increased crop yield while cattle consuming zinc-fortified feed overcame sterility due to zinc malnutrition. Both crop results and farmer feedback confirmed the efficacy of zinc fertilizers, which were distributed to participating farmers.

IZA's European Affairs Director <u>Howard Winbow</u> was pleased to join representatives from Eurometaux and the International Lithium Association to meet with Vilja Sysaite, Social and Health Adviser in the Cabinet of EU Commission EVP <u>Stéphane Séjourné</u> and discuss the upcoming revision of REACH, the Registration Evaluation and Authorization of Chemicals overseeing all metals, coproducts, alloys, and compounds manufactured in or imported into Europe. IZA endorses a pragmatic, risk-based approach to REACH assessments, one that acknowledges the unique attributes of each metal and the essentiality of zinc to all humans, animals, and plants.

IZA's European Affairs Manager Mik Gilles was delighted to visit Nyrstar Budel for a workshop on workplace health and safety monitoring. Mik explained how workplace limit values are set in the European Union and how to set up workplace monitoring and assess compliance, followed by a discussion on the use of respiratory protection and experiences meeting the challenging goals set by the EU Commission.



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2025 Zinc Metal Roundtable

November 5-7 Nashville, TN

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