**PRESS RELEASE**

**Cost-effective breakthrough in auto manufacturing earns Italian and German engineers the European Inventor Award 2024**

* **Fiorenzo Dioni and Richard Oberle, IDRA Italia automotive engineers, have won the ‘Industry’ category of the European Inventor Award 2024**
* **Their work on the Giga Press, acknowledged by the European Patent Office, focuses on producing larger car parts with fewer components, thus minimising waste and energy consumption**
* **Dioni and Oberle are committed to advancing the Giga Press to enhance the manufacturing process of electric cars**

**Munich, 9 July 2024** – The European Patent Office (EPO) is pleased to announce **Fiorenzo Dioni and Richard Oberle as the winners in the 'Industry' category of the prestigious European Inventor Award 2024.** Their pioneering work led to the development of the Giga Press, the world's largest die-casting machine, which, along with its 5S injection system, revolutionises the manufacturing of electric cars by producing larger car parts with fewer components, thus minimising waste and energy consumption. Alongside their award-winning Giga Press, the other finalists in the ‘Industry’ category were Icelandic inventor G. Fertram Sigurjonsson and his team for their fish skin-based wound-healing method, and Swedish duo Ulf Landegren and Simon Fredriksson for their pioneering protein detection assays.

Dioni said, *“The Giga Press machine is revolutionizing the automotive industry and will forever change the world of die casting. Our invention is primarily a development tailored to the market because the input came from the market. But this project will be a great advantage for the future of the whole automobile industry: less investment, more energy saving and great saving also for the final user. And this is not related just to electric vehicles, but generally for the whole automotive world.”*

Oberle added, “*We’ve invented something unique in the world. In Idra, research is the order of the day for us. Always. This innovation is particularly important in the era of electric cars. I have spent a lifetime designing hydraulic systems, and reaching the 5S first and then the Giga Press has been a great satisfaction. With my extensive experience in this field, I never imagined at the beginning of my career that we could achieve such an innovative milestone that would change the world of die casting.”*

The Giga Press is designed to simplify the manufacturing process of large vehicle underbodies. In contrast to conventional techniques that require assembling multiple individual castings, **the Giga Press only produces two to three large castings, leading to substantial reductions in waste and energy usage.**

**Cutting costs and emissions**

Powered by natural gas, **their invention has significantly decreased automakers' product expenses through streamlined manufacturing, fewer parts and reduced transportation costs.** It includes a metal recycler to collect aluminium cutoffs and scraps for future casting cycles, reducing waste. [The European Aluminium Industry Association](https://european-aluminium.eu/wp-content/uploads/2022/10/european-aluminium-industry_sustainability-roadmap-towards-2025.pdf) notes that this recycling initiative consumes roughly 95% less energy and produces fewer greenhouse gases, marking a remarkable leap forward in sustainable production practices.

Furthermore, according to estimates by [IDRA Italia](https://idragroup.com/en/gigapress), the latest Giga Press variants exhibit an impressive 54% decrease in energy usage.

**All the winners of the 2024 edition of the European Inventor Award were announced at a hybrid ceremony today** in Malta. You can stream the ceremony [online](https://www.epo.org/en/news-events/european-inventor-award/streaming?mtm_campaign=EIA2024&mtm_keyword=pressrelease&mtm_medium=press).

[Find out](https://www.epo.org/en/news-events/european-inventor-award/meet-the-finalists/fiorenzo-dioni-and-richard-oberle?mtm_campaign=EIA2024&mtm_keyword=pressrelease&mtm_medium=press) more about the invention’s impact, the technology and the inventors’ stories.

**Next generation of the Young Inventors Prize in 2025 to take place in Iceland**

During today's ceremony in Malta, the European Patent Office (EPO) was excited to announce a new concept for the award, starting in 2025. From next year onward, the award will be held biennially, with the upcoming edition focusing on young innovators below 30 years-old whose inventions address one or more United Nations Sustainable Development Goals (SDGs). An independent jury of former finalists will evaluate the entries, ensuring a fair and insightful selection process that honours the innovative spirit and achievements of the next generation of inventors. The 2025 edition will be celebrated in Iceland, marking the first of these newly biennial-focused awards, and the [nominations period](https://www.epo.org/en/news-events/young-inventors-prize/nominations?mtm_campaign=EIA2024&mtm_keyword=pressrelease&mtm_medium=press) for all technological fields remains open from today until the end of September.

In alternating years, starting in 2026, the EPO will return to the original concept of the European Inventor Award, featuring its traditional categories of ‘Industry’, ‘Research’, ‘SMEs’, ‘Non-EPO countries’, ‘Lifetime Achievement’ and ‘Popular Prize’.

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**About the inventors**  
  
As IDRA Group’s engineering manager, Fiorenzo Dioni has spearheaded the Giga Press project since 2016, leading to significant energy-efficient advancements for the industry. In 2016, Richard Oberle, a die-casting expert with roots at IDRA Group dating back to the 1970s, rejoined the company as a consultant.

The collaboration between Fiorenzo Dioni and Richard Oberle has yielded the development of the state-of-the-art 5S injection unit. Their ongoing commitment and expertise are evident as they strive to enhance the Giga Press to meet the ongoing needs of electric vehicle production.

**About the European Inventor Award**

The European Inventor Award is one of Europe's most prestigious innovation prizes. Launched by the EPO in 2006, the award honours individuals and teams, who have come up with solutions to some of the biggest challenges of our time. The finalists and winners are selected by an independent jury comprising former Award finalists. Together, they examine the proposals for their contribution towards technical progress, social and sustainable development, and economic prosperity. All inventors must have been granted a European patent for their invention.

**About the EPO**

With 6,300 staff members, the [European Patent Office (EPO)](https://www.epo.org/?mtm_campaign=EIA2023&mtm_keyword=EIA-pressrelease&mtm_medium=press&mtm_group=press) is one of the largest public service institutions in Europe. Headquartered in Munich with offices in Berlin, Brussels, The Hague and Vienna, the EPO was founded with the aim of strengthening co-operation on patents in Europe. Through the EPO's centralised patent granting procedure, inventors are able to obtain high-quality patent protection in up to 45 countries, covering a market of some 700 million people. The EPO is also the world's leading authority in patent information and patent searching.