



## ***European Steel Design Awards 2023 – ESDA 2023***

The overall winner **ESDA 2023 Laureate** and **Special Awards** were announced and celebrated in the frame of the Eurosteel conference ([www.eurosteel2023.org](http://www.eurosteel2023.org)) on 12 September 2023, in Amsterdam.

**The European Steel Design Awards** are given by the European Convention for Constructional Steelwork (ECCS) every two years to encourage the creative and outstanding use of steel in architecture. The awards are dedicated to the owners, the architects, the engineers, the general contractors and the steelwork contractors.

The professional jury met in the ECCS headquarter on 13 June 2023:

**Annamarie HAGOORT**, The Netherlands, ECCS President and Chairwoman of AC4 Architectural Awards Committee;

**Bernhard HAUKE**, Germany, Chairman of Promotional Management Board of ECCS;

**Klaus THÜRRIEDL**, Austria, President European Council of Engineers Chambers (ECEC);

**Karel TERWEL**, The Netherlands, Engineer, IMD Ingenieurs;

**Joost VOS**, The Netherlands, Architect, Benthem Crouwel Architects.

The European Steel Design Awards 2023 nominees have been selected out of 18 projects submitted in total by the ECCS member associations.

Steel is recognized for its high potential in terms of strength, durability, design flexibility, adaptability, recyclability and reusability. Today's steel structures allow the best adaptation to modern life and renovation of historical elements of our built environment, being in cities or countryside. Steel is also the perfect material for reaching a circular economy while leaving the necessary room for creativity in design.

**ECCS** is the European Federation of National Associations of Steelwork Contractors, the unique platform gathering all the actors of the sector: steel producers, contractors, researchers and academics. ECCS is a federation of 15 National Associations of steelwork contractors: [www.steelconstruct.com](http://www.steelconstruct.com)

## ESDA 2023 LAUREATE

### Netherlands - BioPartner 5

*Much of the emphasis was on the main structure, because it accounts for 38% of the total shadow costs. This makes the main structure the largest emission source of all building components. BioPartner 5 is an assembly of materials with the lowest possible carbon footprint. It is the first large-scale application of the Donor Skeleton principle: used building materials have been reused on a large scale. The building is constructed from as much as 165,000 kilograms of reused structural steel that for 50 years formed the basis of a nearby Leiden University laboratory building. Together with the entire project team, a doubly sustainable building was realised. Besides reusing existing steel members, the new structure was designed to be easily deconstructed again the end of its service life. Together with all the energy consumption measures, this has resulted in the first 'Paris-proof' building completed in the Netherlands.*

Owner:

BioPartner Center Leiden

Engineer:

IMd Raadgevende  
Ingenieurs

Architect:

Popma ter Steege  
Architecten

General Contractor:

De Vries en Verburg,  
Stolwijk

Steelwork Contractor:

Vic Obdam Staalbouw



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*The BioPartner 5 building is a pace maker of low embedded carbon construction by large scale reuse of existing structural steel elements of a former laboratory building.*

*Not only nice appearance and up to date user comfort but rather a strong architectural and engineering concept of an upcoming reuse culture constitute the outstanding quality of this exciting construction of high*

*technical and environmental quality. The BioPartner building can be seen as an archetype of a new building concept based on availability and structural preservation. Evidently steel plays an important role in this ecofriendly concept.*

## ESDA23 Special Award - Manufacturing

### France – Luma Tower

*The contract for the Luma Tower was signed in 2014 and the project was completed in June 2021: 10 000 m<sup>2</sup>, mixed of opacity reflecting the light and transparency. The 4500 m<sup>2</sup> opaque walls are made up of 300 stiffened 3D shells in 3mm stainless steel + stiffener 8 mm, total 380 t. On external side, the 11 000 SS bricks build-up of 1mm thick plate weighing 90 t are used as cladding and signature of the building. on the inside the shell system support the sprayed insulation (250 mm thickness). At ground level, the rotunda 3500 m<sup>2</sup>, 56 m diameter and 16 m high is made of 400 t reconstituted rectangular section S355 Carbon Steel hot deep Galvanized supporting insulated glazing.*

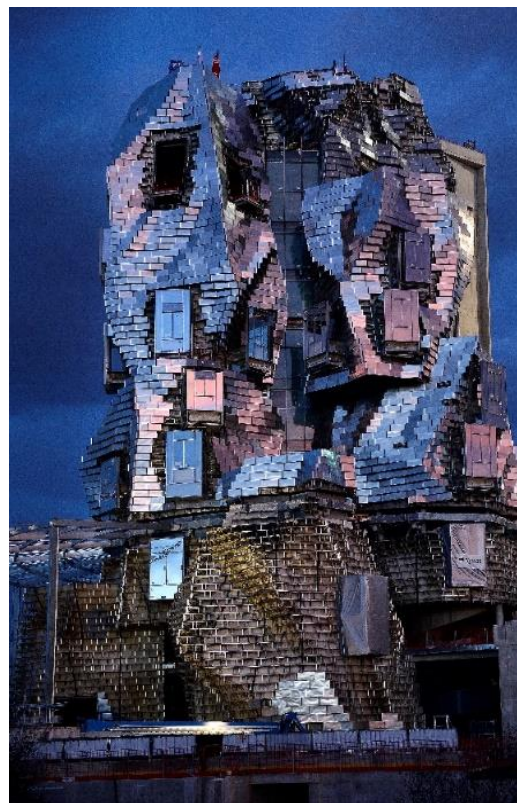
Owner :  
Luma Foundation

Engineer:  
Tess, Eiffage Metal

Architect:  
Gehry Partners

General Contractor:  
Joint venture Eiffage Metal/  
Vinci Construction France

Steelwork Contractor:  
Eiffage Metal (Smulders /  
Iemants)



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*Luma Tower is a new inspiring landmark for the building art, celebrating the possibilities of the forefronts of integrated digital design, engineering and construction.*

*What looks so spacy playful and inspiring variable is an unique showcase of architectural creativity in combination with the shapable structural material steel, enormous engineering skills of modern art as well as an extremely organized high end steel fabrication*

## ESDA23 Special Award – Integrated Design

### Sweden – Varvsbron, Helsingborg

*‘Varvsbron’ is a highly inventive pedestrian and cycle bridge; and a key part of The City of Helsingborg’s plans to develop vibrant new neighbourhoods and revitalise its urban harbour. In 2014 the international competition was won with an innovative design which shares characteristics with both suspension and cable-stayed structures. The bridge’s two pylons lean dramatically away from each other, with primary support cables swooping between to ‘cradle’ the deck from below rather than simply connect to the deck edge, as is typical for traditional cable-stayed structures. The gently inclined sinuous form of the bridge successfully resolved complex site requirements and created a dynamic centrepiece for the city’s new ‘urban archipelago’, Oceanhamnen. The team’s up to date use of parametric modelling merged design and analysis processes and created a seamless transition between traditionally distinct stages of design, fabrication, and installation, which ultimately made this distinctive bridge more sustainable, structurally efficient, and cost-effective.*

Owner:

Helsingborgs Stad (The City of Helsingborg)

Engineer:

Ramboll Sweden AB  
Centerlöf&Holmberg, Malmö  
Leonhardt, Andrä und Partner,  
Stuttgart  
Luxera AB, Malmö (Lighting design)

Architect:

Ramboll Sweden AB/Ramboll UK

General Contractor:

PEAB

Steelwork Contractor:

Stål-och Rörmontage,  
Sölvesborg, Sweden



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*Varvsbron pedestrian bridge is a technoid masterpiece of integrated engineering concept and design as well as fabrication and erection. It is a stunning example of classy steel construction.*

*The structurally sound pedestrian bridge is not only an architectural eyecatcher.*

*The structurally sound pedestrian bridge is not only an architectural eyecatcher and practical link over the harbour waters but nicely invites to stroll and stay, enjoying the urban quality of the spot.*





The European Steel Design Awards 2023 Finalists were (by country alphabetical order):

Austria: Neue Eisenbahnbrücke Linz

Denmark: Kangiata Illorsua - Ilulissat Icefjord Centre

Finland: Terminal 2 extension of Helsinki-Vantaa Airport

France: Luma Tower

Luxembourg: Dethlinger Teich

Netherlands: BioPartner 5

Norway: Espenes Rest Stop

Poland: Sport and entertainment hall in Lubelska Street, Puławy

Portugal: Multimodal Train Station in Mons, Belgium

Sweden: Varvsbron, Helsingborg

Turkey: BIVA TOWER, Izmir, Turkey

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For more information, please visit the ECCS website: [www.steelconstruct.com](http://www.steelconstruct.com).

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