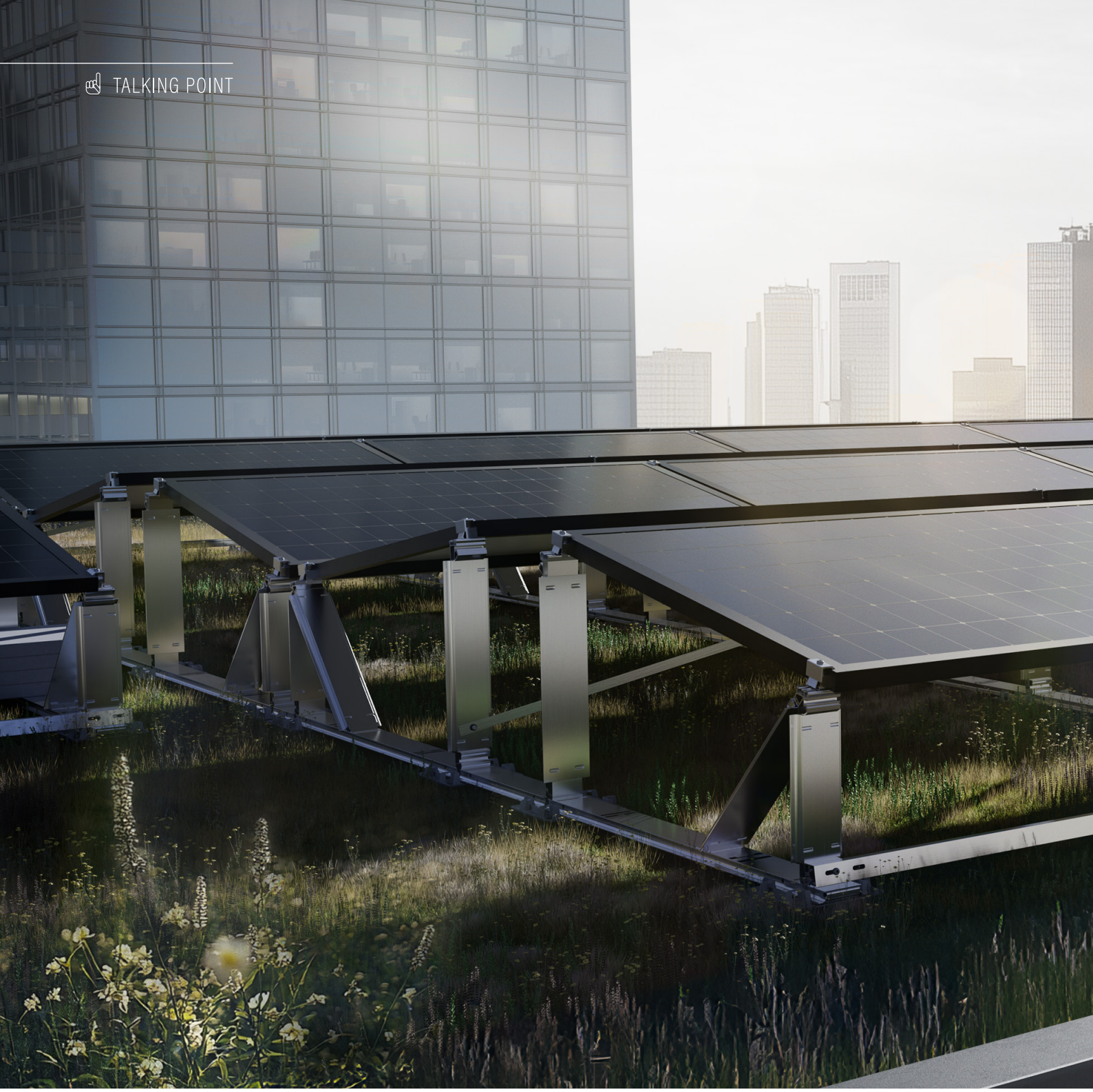
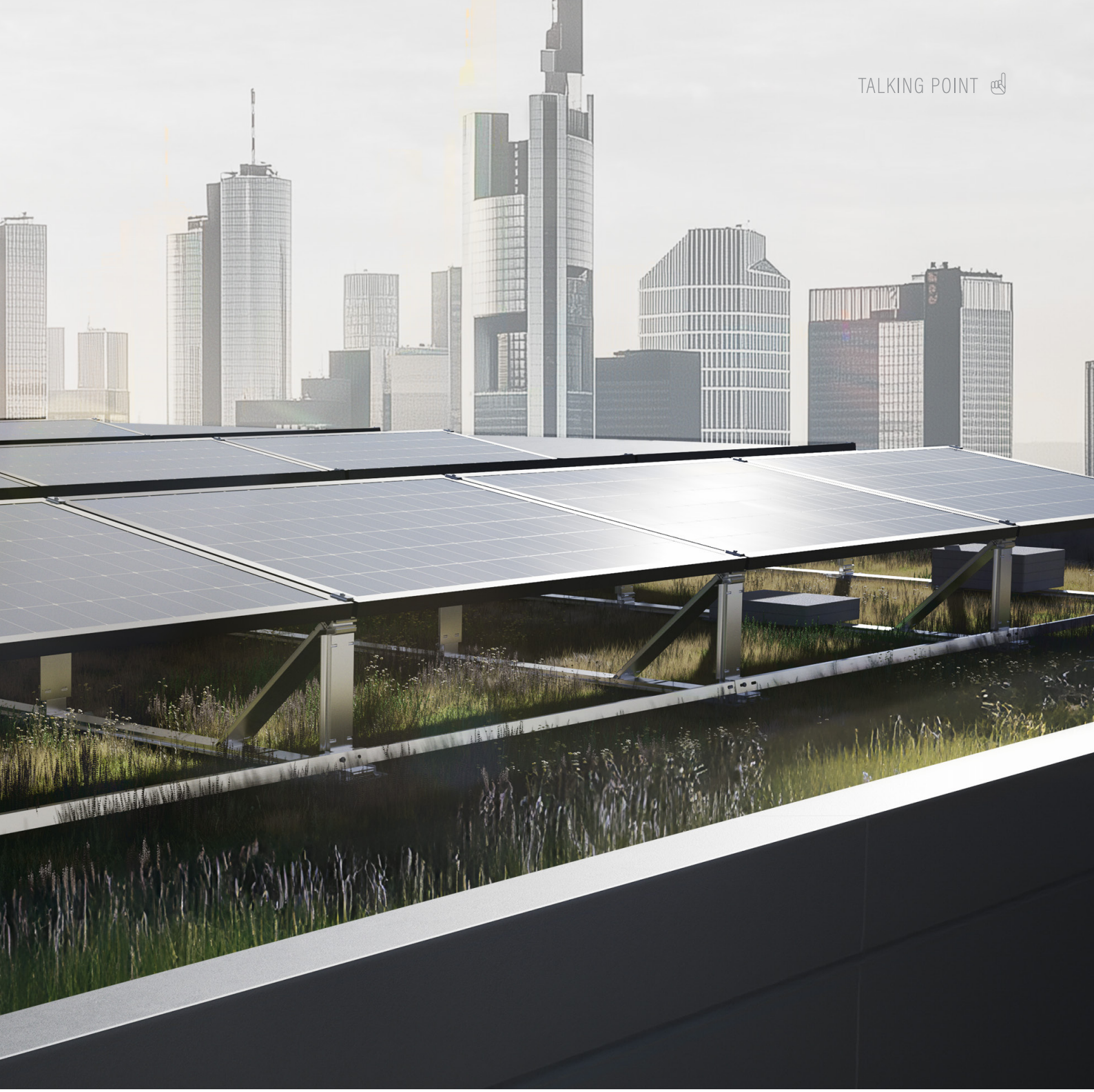


Green efficiency meets technical precision

Green roofs improve the climate both inside and outside buildings. German manufacturer PMT (Premium Mounting Technologies) is responding to market trends with PMT EVO GREEN, an innovative mounting system designed specifically for green roof photovoltaics.



Climate change is causing urban areas to heat up more intensely during summer. In response, many regions are turning to greenery rather than concrete to enhance living conditions in city centres. Green roofs are growing in popularity, offering not only a more pleasant urban climate but also significant benefits for biodiversity.

Recognising this trend, PMT acted swiftly and creatively. Within a remarkably short development period, the idea evolved into the first components of a system that applies the proven strengths of existing PMT solutions to the unique demands of green roofs: PMT EVO GREEN.

The trustworthy PMT EVO 2.1

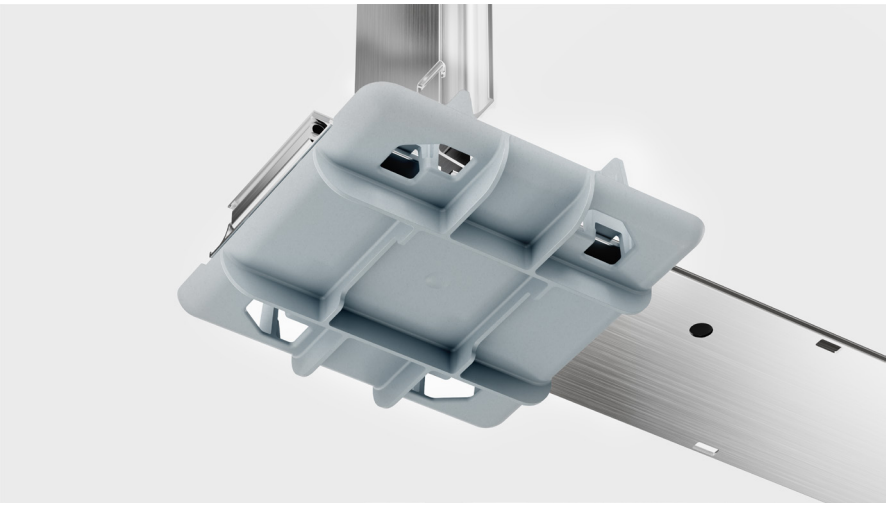
To appreciate the innovative power of this system, it is helpful to consider its foundation: the PMT EVO 2.1. This mounting system is characterised by sustainable quality, high flexibility and uncompromising safety. With its specially developed ProPlates, the company from Stadtsteinach has optimised load distribution across the roof while reducing point loads.

These benefits are especially important for buildings with limited load-bearing capacity, as the mounting system can also support photovoltaic installations. This enables owners of challenging properties to adopt renewable energy, paving the way towards energy independence and a sustainable, future-oriented energy supply.

The proven ProPlates are now integrated into the PMT EVO GREEN system. In the gravel version, their specially contoured design allows the support plates to anchor securely into gravel or vegetated surfaces. This stabilises the system on the roof while minimising additional weight, thereby preserving more space for actual greenery. Consequently, it is the ideal solution for roofs that are already greened or covered with gravel. The system enables targeted retrofitting or expansion without compromising the existing structure or vegetation.

Company engineers have also developed a smart solution to further reduce ballast: PMT ballast trays replace traditional blocks. These trays serve a dual purpose, holding the

This new system is more than just a mounting solution; it's a tailored response to the specific challenges and opportunities of green roof photovoltaics.



substrate needed for roof greenery while providing structural support. This integrated approach allows the system to blend seamlessly into the green roof environment.

Special challenges of green roofs

Photovoltaic systems on green roofs face additional challenges. They must not only deliver maximum energy output with as many PV modules as possible, but also provide sufficient space beneath the modules for healthy vegetation growth and ongoing maintenance. This is where the system's hallmark flexibility comes into play, drawing on a legacy of earlier innovations. The main base profile can be combined with connecting profiles, allowing highly flexible planning of module heights across the system. Despite this adaptability, PMT EVO GREEN maintains the high level of stability that customers expect.

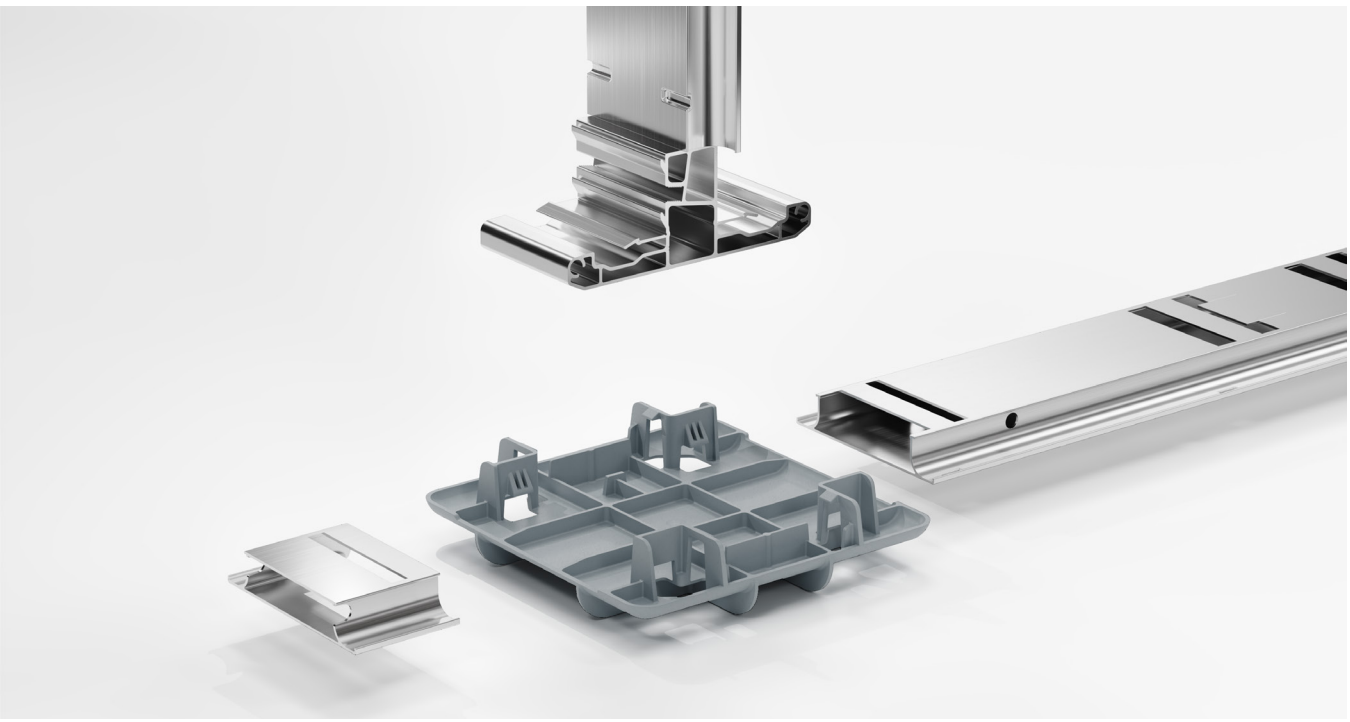
'Our connections of the cross and ballast struts make this a very rigid system that can easily withstand even high wind and snow loads,' explains Head of Product and Project Management Sarah Spörl. 'As with all our systems, this one was rigorously wind tunnel tested.'

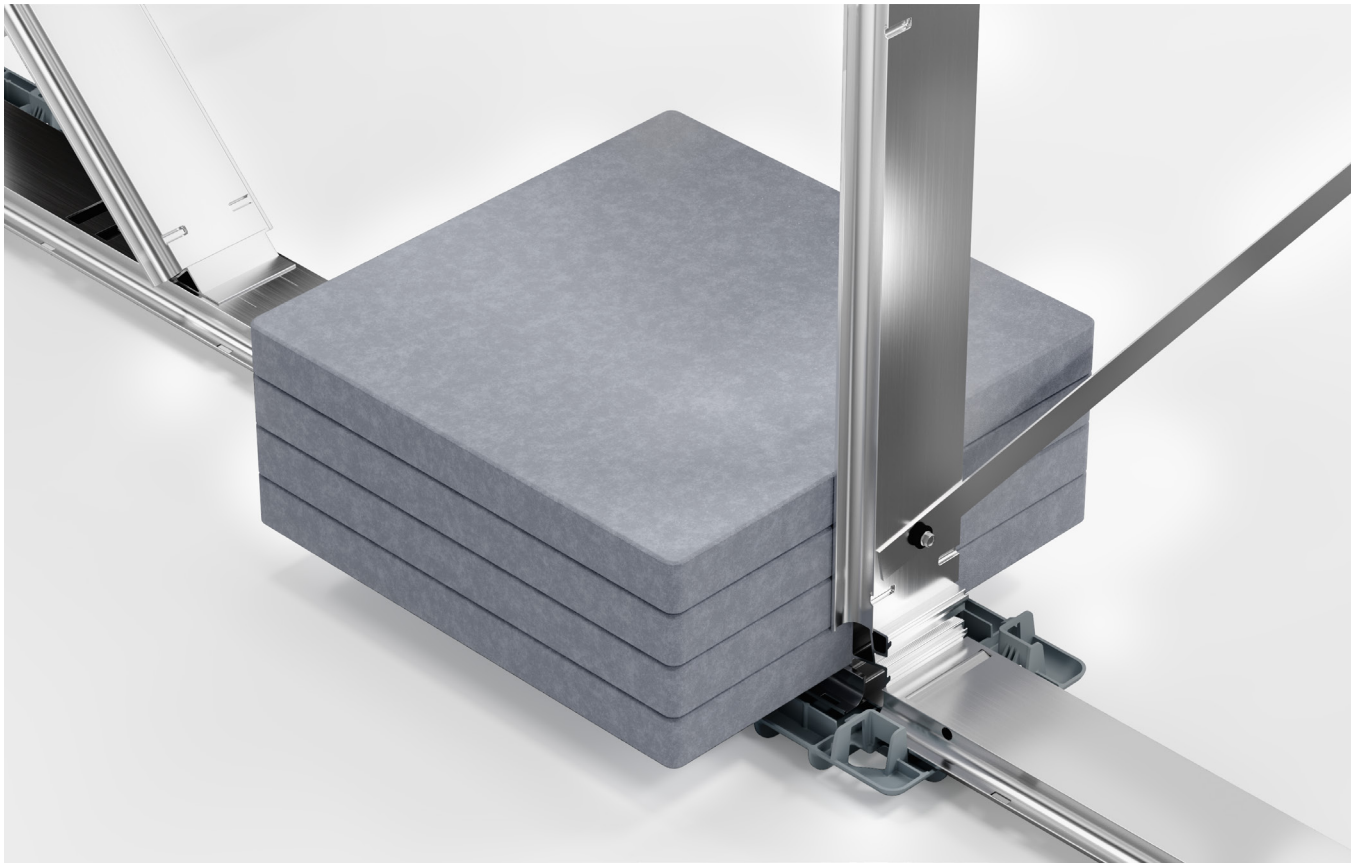
Perfect area utilisation for more solar power

The system takes flexibility a step further with its open-roof design. Previously, an east-west layout was the only option, limiting usable space around obstacles like fans, chimneys or complex roof structures. Now, modules can be installed with an open ridge, allowing individual modules to be omitted where needed. This makes it easier to optimise the layout and increase the total number of modules. As Sarah explains, 'We can simply leave out a module to make better use of the available roof area.' The system supports modules up to 1305 mm in width.

It also supports both portrait and landscape module orientations, offering flexibility to match the clamping specifications of different module manufacturers. This ensures customer requirements can be precisely met during project planning.

Maintenance is another area where the system stands out: the length and placement of maintenance walkways can be fully customised thanks to the adaptable design. Building owners can decide in advance how accessible the green areas should be and whether the walkway should run along the





high or low side of the modules, making ongoing care and maintenance much easier.

This flexible design allows easy access to vegetation for tasks such as watering, weed removal or pruning. Simultaneously, the modules remain accessible for maintenance, cleaning or repairs, ensuring the system's long-term operational reliability and yield.

The result is a mounting system that not only enables efficient solar energy utilisation but also fully preserves the integrity and functionality of the green roof. It's the perfect solution for a green photovoltaic roof that adapts to the customer's needs, not the other way around.

The substructure with the click

The system remains true to the core principles of simplicity and efficiency, even when tailored for green roofs. Like its predecessor, it features a click-connection system that enables fast and secure installation, especially valuable on complex green roof layouts.

With fewer screw connections, installation is not only quicker but also safer, helping to reduce potential errors. High-quality materials and precise manufacturing ensure long-term durability and strong weather resistance.

Technical excellence and certification

Safety and reliability remain top priorities. Approval from the German building authorities (abZ) has been applied for, following the precedent set by earlier systems, providing planners and building owners with the assurance of a certified, tested solution.

The green roof substructure has been tested for lightning current carrying capacity in accordance with DIN EN 62561-1 (VDE 0185-561-1:2017-12), allowing integration into the building's existing lightning protection system. Additionally, the system's low-resistance connection has been verified according to DIN VDE 0100-540 and DIN VDE 0100-712, ensuring electrical safety and optimal PV performance.

Quality made in Germany

The rapid development of the system, completed in well under a year, highlights the company's innovative drive and agility. 'We place great value on ongoing dialogue with our customers and actively incorporate their feedback. That's how we identified the growing demand for green roof solutions early on and responded quickly,' says Dr Bodo Krebs, Chief Executive Officer.

This new system is more than just a mounting solution; it's a tailored response to the specific challenges and opportunities of green roof photovoltaics. By combining the proven strengths of the earlier EVO 2.1 system with innovative features designed for vegetated roofs, it sets a new benchmark in this rapidly expanding market.

pmt.solutions/en/

About PMT

Premium Mounting Technologies GmbH & Co. KG develops and produces aerodynamic photovoltaic substructures for all types of roofs on commercial buildings and builds industrial carport systems.

Headquartered in Stadtsteinach, Upper Franconia, the company was founded in 2012 as a supplier of flat-roof constructions for conventional solar systems.

Today, with over 90 employees, it develops individual, tailor-made solutions for flat and pitched roofs that meet the highest safety and quality requirements for the global market.

Its customers include a wide range of EPCs, distributors, installers and sales partners.

In 2019, PMT realised the largest PV system to date with EVO 2.0, in a southern orientation, at the CLIP Logistics site in Jasin, Poland.

An impressive 22,947 modules provide a total output of 7 MWp across five roofs of the logistics group, covering an area of over 3,000 square metres.