

PLATIO SOLAR PAVER COMPANY BROCHURE





ABOUT US

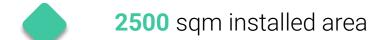
PLATIO Solar is a Hungary-based green tech company focusing on creating sustainable building materials: the solar pavers.

PLATIO's solar pavement is an innovative, **double green** building material, that not only generates clean energy, but it is also **environmentally friendly** as its base is made of recycled plastic.

PLATIO design paving solution makes solar technology part of the modern architecture. It provides new **clean energy** source for homes, green companies or smart cities and even offers e-mobility solutions.

OUR RESULTS







37 country representation

30+ international projects

CE product certification

ISO 9001 certification





PLASTIC COMPOSITE MATERIAL

WASTE BECOMES VALUE

Effective recycling: Plastic waste is reused as durable building material in the modular base parts of PLATIO Solar pavers.

Durable material: The composite material in PLATIO Solar pavers have similar life-span than concrete.





WALKABLE SOLAR MODULE

Solar cells

High-performance photovoltaic cells collect the energy of solar irradiance on the level of pavement



Glass tiles

Highly solid, tempered, scratch resistant and slip-proof hardened glass tiles protect the cells

Frame with recycled materials

Recycled plastic waste makes up the frame.

Durable structure, similar lifespan as concrete

Modular system

Modular units interlock together creating a solar surface.

Built in wiring: no convoluted complex external cabeling needed

Custom design

PLATIO solar pavers come with two types of glass (Clear and Opal) and two different high performance solar cells (monocrystalline and polycrystalline)

Both glasses are tempered and have anti-slip surfaces. solar cells are available in Ocean blue and Midnight black colours





Opal Ocean blue

Clear Midnight black



PRODUCT BENEFITS

A space-saving solution

 Solar technology becomes part of the built environment without taking up valuable space

Recycled materials

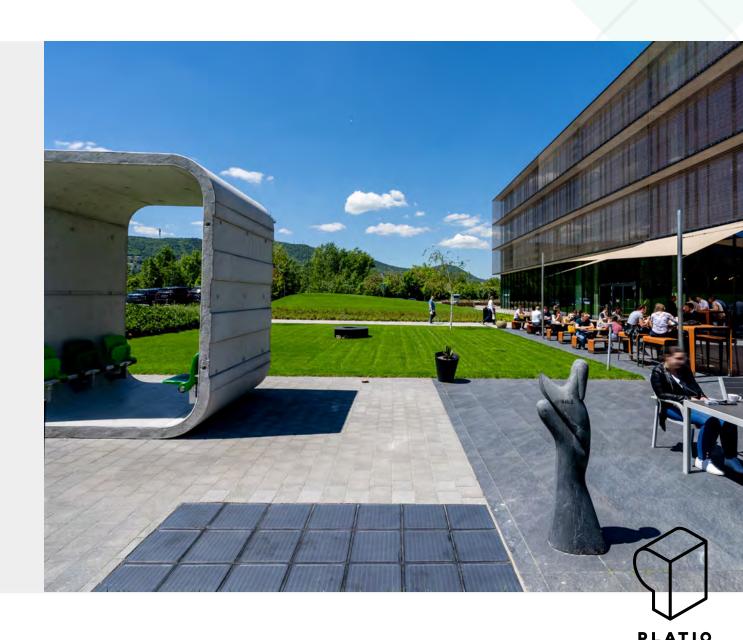
- PLATIO contributes to creating a sustainable living environment and a greener future.
- To obtain value from waste, the frame of the PLATIO pavers is made of recycled plastic waste.

Visibly green, aesthetic design

- PLATIO improves the public image of your business and supports green CSR goals.
- Solar pavements transforms any building into a landmark of architecture and sustainability.

Low operational complexity

 Simpler maintenance compared to regular roofmounted solar panels.



24/7 REAL TIME MONITORING

Why is it good?

- You can keep track of the solar energy PLATIO Solar pavers produces real time from anywhere
- With using Enphase Envoy-S or IQ Envoy, you will be able to monitor every detail of your solar pavers in the Enlighten App
- You can follow your consumption, production or the battery chargeness anytime





PRODUCT MAIN FEATURES

Shock-protection

- Safe for pedestrians
- Low voltage system, SELV
- IP69+ certificated connectors

Heat absorption

- Low heat conduction, polymer coating
- Heats up like concrete surface

Slip-protection

- DIN-certified: R11, R12 and R13 level (DIN 51130)
- Special coating prevents slipping in all weather conditions
- Roughest coating suitable for bike path

Weatherproof system

- IP68 wiring system: 100% weatherproof
- Low degree of thermal expansion



Cars &heavy vehicles

- Primarily designed for pedestrian areas
- Withstands the weight of cars up to 2 tons

Vandal resistance

 Hardened glass, better impactresistance than regular pavers

In case of breakage, still suitable for walking

Easy to clean

- Broom
- Pressure wash
- Floor squeezgee
- Snow shovel in winter



SUSTAINABILITY

CIRCULAR ECONOMY

- We apply the circular economy approach at all points of production
- The product is 95% recyclable at the end of its life cycle
- During the supply of raw materials, we use wooden containers which are suitable for storing, shipping and multiple reuse.

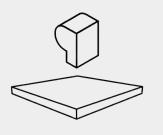


RECYCLING

- We obtain value from waste, PLATIO's base is made of hard to recycle plastic waste
- PLATIO contributes to creating a sustainable living environment and a greener future.

SUSTAINABILITY

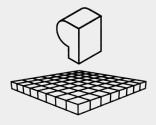
- PLATIO generates renewable energy
- Reduces the global greenhouse gas emissions
- Uses valuable space while producing green energy
- Solution for Net Zero Energy building.



1 m² PLATIO solar pavement



Plastic recycled equivalent to 400 PET bottles



20 m² PLATIO solar pavement



Yearly average electric energy need of a household



SUSTAINABILITY

THREE PILLARS:



SUSTAINABILITY

- Powering buildings and devices with green energy
- Decarbonizes buildings and cities (Net zero goals, reduce GHG emissions)
- Green transport: turning micromobility sustainable



RECYCLING

 Value from waste, PLATIO's base is made of hard to recycle plastic waste



CIRCULAR ECONOMY

 Circular economy approach at all points of production (production, transport, reuse)

PLATIO contributes to Sustainable Development Goals

in 3 ways:









CARBON NEUTRAL GOALS BY 2050

Reach Net Zero carbon emission with PLATIO pavers

EU initiatives: carbon neutral by 2050, at least 40% renewable energy for buildings by 2030.

PLATIO solar pavement offers a suitable solution for providing renewable energy for buildings and vehicles

CORPORATE

- Investing in renewable energy instead of purchasing carbon credits.
- Independence from the grid
- Cost-saving opportunity with renewable energy sources
- Become a pioneer of the industry / ahead of competitors

RESIDENTS

- Net zero goals with integrating energy-generating building materials and clean energy in the long run without compromising aesthetics
- Independent energy with off-grid solutions

SMART CITIES

- Solar pavement in public places makes urban spaces valuable
- Support cities' energy supply with green energy
- Generating local energy in urban spaces where the grid is not available or grid construction is expensive and complicated









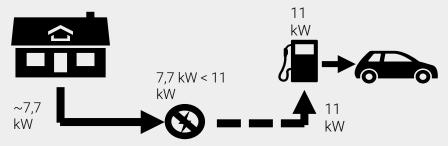
E-MOBILITY IN FOCUS

EV CHARGER SYSTEM WITH PLATIO PAVERS

EU goals will rewrite E-mobility bringing the followings:

- All new vehicles have zero-emission capability by 2035.
- The current utility grid cannot provide enough electrical energy to supply the EV chargers sufficiently.
- The number of charging stations must increase dramatically to cover the higher energy need of Evs.
- Utility grid infrastructure development issues.
- Environmental taxes and increasing electricity fares.
- The combination of PLATIO solar pavers with charging stations is a smart and innovative solution for EV owners and charging providers.
- Powering EVs with renewable energy is key to a sustainable future.

We need a local solution to back up the grid.







APPLICATION AREAS AND CUSTOMERS

Since the beginning, 20+ successful references were installed all over the world from US till Europe. Click on the solutions to see the references.



HOMES

Conscious residentials, homeowners

- Pavement,
- Terraces,
- Driveways,
- Rooftops



GREEN COMPANIES

Sustainability, carbon neutrality seeking companies, architect offices, contractors

- Office and other buildings,
- Warehouses,
- Rooftops



SMART CITY

Municipalities, governments, communities

- Off-grids (smart tools, smart bench, outdoor ad screens)
- Public (Sideways, Bicycle roads, Lightening)



E-MOBILITY

Private and corporate customers

 EV charging systems supported with PLATIO (E-car, bike, roller, boat)



SOLUTIONS







GREEN COMPANIES SMART CITY





E-MOBILITY

A NEW SOURCE OF CLEAN ENERGY



A SOLAR DESIGN INNOVATION







APPLICATION POSSIBILITIES FOR HOMES



DRIVEWAYS



BALCONIES



PATHS



AROUND THE HOUSE

A NEW SOURCE OF CLEAN ENERGY



HOME SYSTEM CONFIGURATION

- 1) The clean energy is generated by the PLATIO Solar Pavement.
- 2) This DC electricity is inverted into AC and fed to the power network.



- 3) The microinverters are mounted in a switch cabinet, which can be installed in the garage.
- 4) By adding a battery pack to the system, a more reliable power source can be ensured for the household.







Driveways

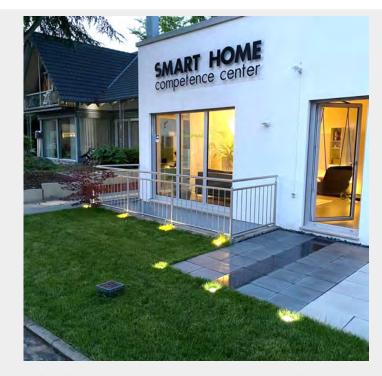
Paths

Balconies

Invest in solar energy and beautiful home design

The Platio Solar Paver was developed to fulfil both aesthetical and energy-efficiency needs of homeowners. Besides the innovative design, this solution allows the owners to produce clean energy.





SOLAR MEETS DESIGN





The unique PLATIO solar pavers allow sustainable and useful luxury by combining design, recycled materials with renewable energy to create a beautiful and green environment for your living space.





REFERENCE: FELLBACH, GERMANY

Size: 5 sqm

Performance: 0.84 kWp

Client: Smart Home Competence Center,

Corvus Solutions GmbH

The Smart Home Competence Center is Germany's first show house to present the best architectural and smart home solutions. The back terrace of the house is covered with 5m2 of solar pavers, thus the PLATIO grid-connected system provides around 50% of the house's electricity consumption from renewable energy.





REFERENCE: KECSKEMÉT, HUNGARY

Size: 9 sqm

Performance: 1.7 kWp

Client: Residental

In 2018, a 9 m2 large PLATIO Solar Pavement system was installed on the driveway of a family house. Our goal was to provide an aesthetic alternative to roof-mounted solar panels.





REFERENCE: BALATONALMÁDI, HUNGARY

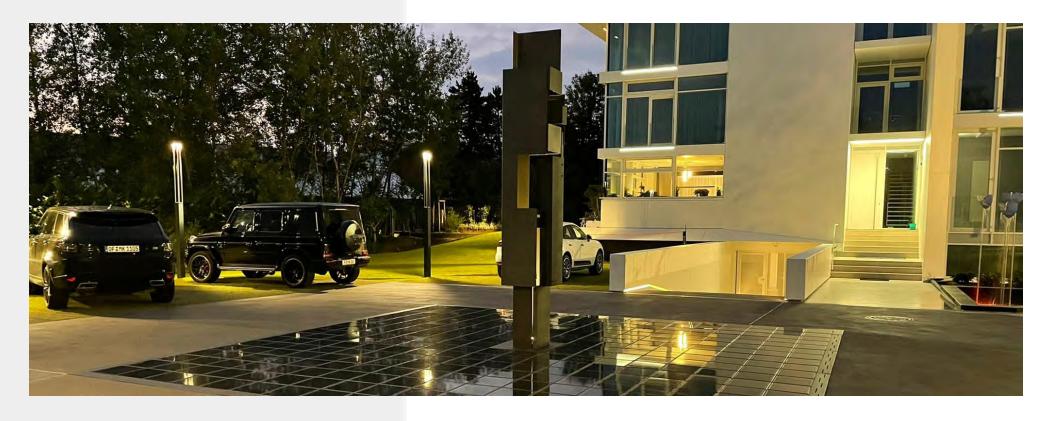
Size: 35.14 sqm

Performance: 6.3 kWp

Client: Residental

In 2020, a 35 sqm wide solar pavement was installed on the the driveway of the real estate with marvelous panorama near Lake Balaton. The owner chose PLATIO's on-grid solution in order to utilize the driveway and also contribute to the energy supply of the house.





REFERENCE: Frankfurt, Neu-Isenburg, Germany

Size: 40.4 sqm

Performance: 6.64 kWp

Client: Residental, Yukatel

In 2021, we installed PLATIO solar pavers in the courtyard of a 6-flat apartment building near Frankfurt. The 40 sqm on-grid solar system next to the driveway provides the energy supply of the house. The construction builder aims at reducing the carbon footprint of the building by using PLATIO as a renewable energy source.





REFERENCE: WERLING, GERMANY

Size: 12 m2

Performance: 2.15 kWp

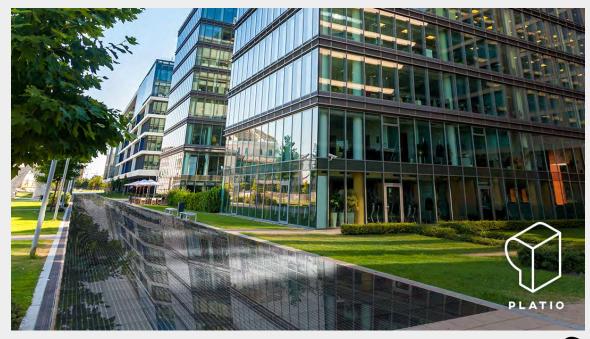
Client: Residential

In 2021, we installed 12 m2 of PLATIO system, including 100 solar paver elements on the driveway of a detached house, which connects to the electricity grid to power the property and recharge the electricity back into the utility grid.



POWERING FUTURE ARCHITECTURE







APPLICATION POSSIBILITIES FOR GREEN COMPANIES



BALCONIES



ENTRANCES AND WALKWAYS



ROOFTOP TERRACES



OFF-GRID UTENSILS

A NEW SOURCE OF CLEAN ENERGY



GREEN COMPANIES - A NEW WAY TO SUSTAINABILITY

An innovative, unique and attractive BIPV solution to make solar technology part of the building.

The integration of PV technology in buildings (also called BIPV) offers a vast potential: environmental and economic benefits, encouragement of technological innovations, trends towards bioclimatic architecture etc. The possibilities for BIPV are unlimited, since it can be integrated into new or old buildings, car parks, lighting features, canopies, etc. making the most of all the advantages of PV technology.

To comply with new and more demanding building regulations – such as the 2020 EU Energy Performance of Buildings Directive – innovative energy harvesting technologies have to be adopted.

The PLATIO Solar Pavement system is able to deliver significant part of energy consumption and in some cases can be a single solution to achieve Net Zero Energy building (nZEB) status.

The integration of PLATIO solar pavement systems into the surrounding pavements of buildings not only provides inhabitants with low-cost energy but also reduces the global greenhouse gas emissions.

In order to obtain a LEED or BREEAM certification, the architectural choices of the project have to respond to the goal of creating a highly efficient and sustainable building.

A PLATIO Solar Paving System installed at the outdoor area of a building provides an additional green energy source to reach BREEAM and LEED certifications.

As a special building integrated photovoltaic solution (BIPV) for public, commercial or residential buildings, the PLATIO Solar Pavement can be a supplement to existing PV capacities or provide an aesthetic alternative to regular solar panels.

FOR A

BREEAM

GREEN BUILDING SYSTEM



CORPORATES PIONEERING INNOVATION





Consumers and businesses are more receptive to socially and environmentally-conscious companies. Those companies, in turn, are more likely to do business with those who share the same values. PLATIO can not only decrease your business's carbon footprint, but it also improves the public image of your business. Quality, innovation and design also attracts talents and public attention. Technologies like PLATIO can awaken enthusiasm for your business among the best employees and talents. We like to think about PLATIO as a piece of modern art from a future, where green technology is part of our built environment.

GREEN BUILDING SYSTEM

Cover the energy need of your office space with **PLATIO** Solar Pavement.

100 sqm office space lightning



10 sqm solar pavement













REFERENCE: ASTANA, KAZAKHSTAN

Size: 2 x 40 sqm

Performance: 13.02 kWp

Client: BI Group

In 2017, a 80 m2 large system was installed at the entrance of the Green Mall shopping centre. The project was part of the Green Quarter urban development in connection with World Expo 2017.





REFERENCE: BUDAPEST, HUNGARY

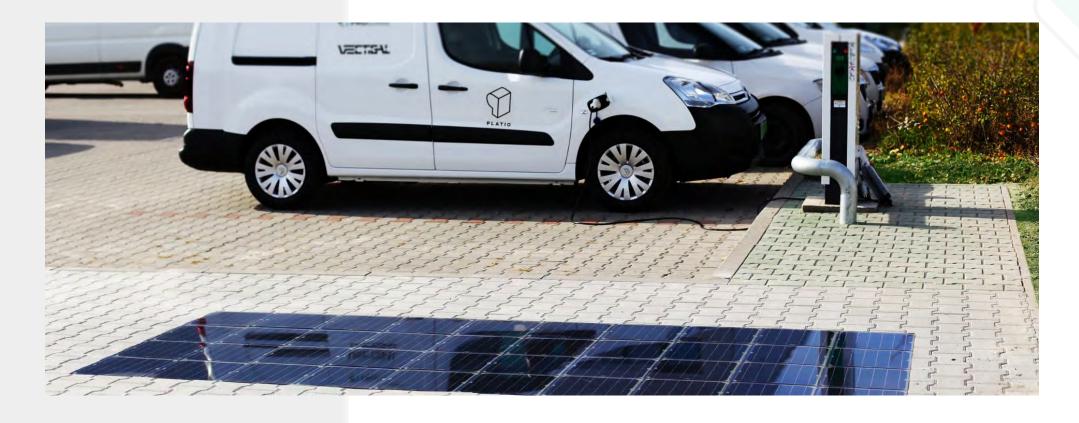
Size: 2.7 sqm

Performance: 0.44 kWp

Client: Graphisoft Park

In 2021, 21 pcs of PLATIO Solar Pavers have been installed at the garden of the Graphisoft Park. This PLATIO surface supply electricity for a robotic lawn mower.





REFERENCE: BUDAPEST, HUNGARY

Size: 4.62 sqm

Performance: 0.72 kWp

Client: Prologis Hungary Kft.

In 2017, a 4.62 m2 large system was installed in the parking lot of Prologis in Budapest. Our aim was to increase the rate of green energy in the energy mix and fuel cars with clean energy.





REFERENCE: BUDAPEST, HUNGARY

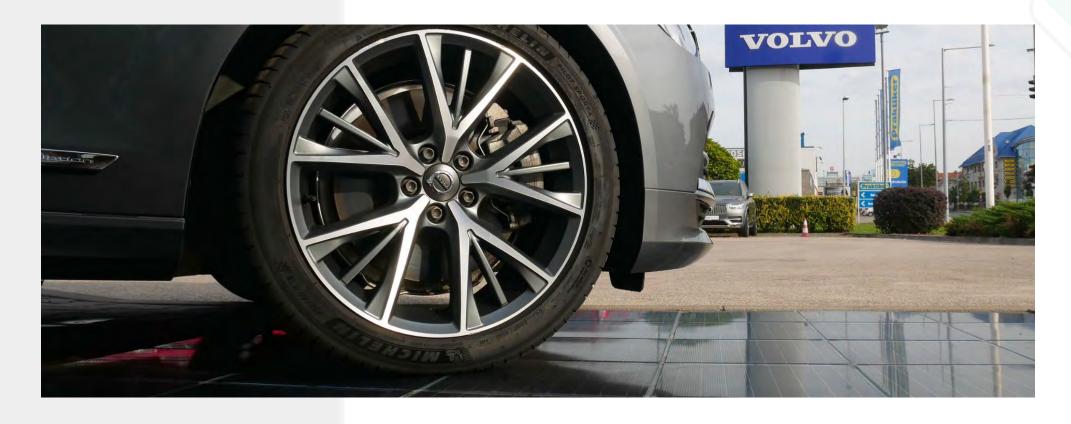
Size: 2.7 sqm

Performance: 0.44 kWp

Client: Market Zrt.

In 2021, 21 pcs of PLATIO Solar Pavers have been installed at the garden of the Head Office of Market Zrt. This PLATIO surface supply electricity for a robotic lawn mower.





REFERENCE: BUDAPEST, HUNGARY

Size: 4 sqm

Performance: 0.8 kWp

Client: Volvo Galéria Budapest

At Volvo Galeria Budapest 4 m2 PLATIO supports the charging of electric vehicles. The system is an on-grid system with the performance of 0.8 kWp.



SMART CITY

POWER ANYWHERE







APPLICATION POSSIBILITIES FOR SMART CITIES



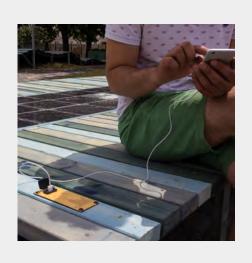
CITY LIGHTS



BICYCLE / ROLLER CHARGERS



PONTOONS



MOBILE CHARGERS

A NEW SOURCE OF CLEAN ENERGY



OTHER APPLICATION POSSIBILITIES FOR SMART CITIES

PLATIO ON-GRID SOLUTION CAN GENERATE GREEN ENERGY FOR OTHER SMART CITY TOOLS:

- SMART LIGHTING (energy efficient LED lamps)
- FREE WIFI FOR TOURISTS
- ENVIRONMENTAL SENSORS (measuring humidity, rainfall, CO2 levels, temperature or noise levels)
- SMART PARKING (indicating available parking spaces)



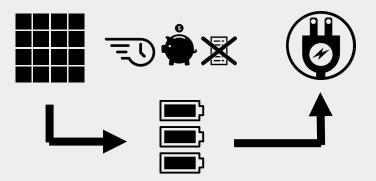
SMART CITY SYSTEMS

DEVICES NEED POWER SOURCES



Grid construction is expensive and complicated, and devices with high energy demand cannot be powered with regular PVs either.

When deploying smart city devices in urban areas, city planners have to face the problem of expensive, time-consuming and bureaucratically complicated process of power grid constructions. Locally produced electricity could be a solution, but regular solar panels can not provide enough energy, as their effectiveness is limited by their size.



The Platio Solar Pavement is a cost-effective, instant and independent power source for mobile chargers, lighting or digital signages.

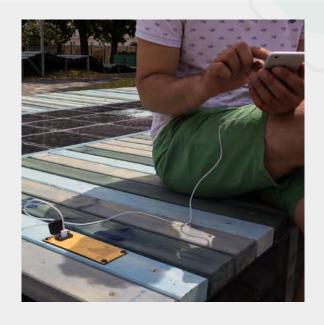
By integrating Platio Solar Pavers into the area of the device, and putting a battery pack between them, Platio can provide a smart way to provide sufficient clean energy to operate devices where no grid is available. Unlike regular solar panels, Platio Solar Pavers can provide larger scale energy production for advanced devices.



SMART CITY SYSTEM







BETTER URBAN ENVIRONMENT WITH PLATIO

Our off-grid solutions generate power for:

- Mobile chargers and power sources integrated into outdoor furniture
- Digital smart city devices: digital signages, info kiosks & info totems
- Streetlights, outdoor lighting & other small energy consumption devices





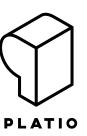
REFERENCE: BARCELONA, SPAIN

Size: 56 sqm

Performance: 9 kWp

Client: Barcelona City Council

In 2021, one of our most impressive public installation was commissioned by the Barcelona City Council to place 56m2 of PLATIO solar pavement in the Glòries park, where an electric bike charging station is powered by PLATIO. This off-grid solution will help the city in its attempt of becoming carbon neutral.





REFERENCE: KALKARA, MALTA

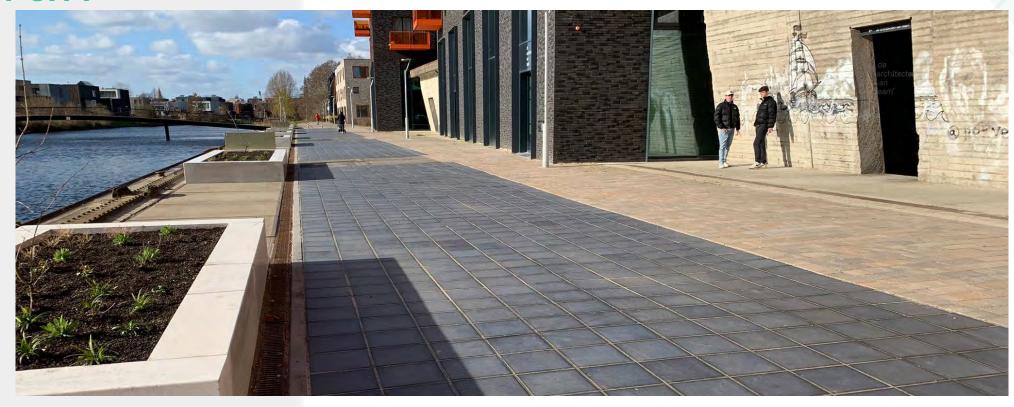
Size: 25 sqm

Performance: 4,1 kWp

Client: Municipality of Kalkara

In 2022, with the help of PLATIO pavers, the first carbon-neutral park opened in Malta. The Rinella park in Kalkara is unique because the energy supply is fully covered by renewable energy sources. The 25 sqm long PLATIO solar pavement generates electricity for the lighting and irrigation system of the park. The Eco project was carried out by the local municipality, the Ministry of Environment of Malta with Alternative Energies Ltd.





REFERENCE: GRÖNINGEN, NETHERLANDS

Size: 325 sqm

Performance: 52 kWp

Client: Municipality of Gröningen

In cooperation with European Union, 'Making Cities' project, we built a solar pathway in the city of Gröningen as the first lighthouse net-zero pilot. We laid 325 sqm of PLATIO solar pavement on the bank of the river, providing electricity to the local community and municipality buildings. With this carbon-neutral project, they aim at creating Positive Energy Districts (PEGs) to react to the climate crisis and enhance urban liveability for all.

PLATIO



REFERENCE: BUDAPEST, HUNGARY

Size: 2.7 sqm

Performance: 0.44 kWp

Client: Graphisoft Park

In 2021, 21 pcs of PLATIO Solar Pavers have been installed at the garden of the Head Office of Graphisoft Park. This PLATIO surface supply electricity for a robotic lawn mower.





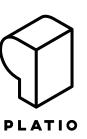
REFERENCE: BUDAPEST, HUNGARY

Size: 3.01 sqm

Performance: 0.47 kWp

Client: Budapest City

In 2017, a 3.01 m2 large system was installed in a Pop-Up park in the city center of Budapest, Hungary. We integrated PLATIO solar modules in the surfaces of outdoor furniture to provide off-grid power sources for mobile devices.





REFERENCE: BUDAPEST, HUNGARY

Size: 2.7 sqm

Performance: 0.44 kWp

Client: Market Zrt.

In 2021, 21 pcs of PLATIO Solar Pavers have been installed at the garden of the Head Office of Market Zrt. This PLATIO surface supply electricity for a robotic lawn mower.





REFERENCE: Cham, Switzerland

Size: 10 sqm

Performance: 1.64 kWp

Client: Municipality of Cham, Faboro

We created Switzerland's first solar bike path in the town of Cham. PLATIO solar pavers were installed on an urban cycle and pedestrian path. The off-grid solar system supplies energy to the electric bike charger next to the road, the unused energy is fed to the nearby school building.

PLATIO



REFERENCE: GOTHENBURG, SWEDEN

Size: 4.86 sqm

Performance: 0.76 kWp

Client: SF Marina System

In 2017 Swedish marina engineer company, SF Marina System AB partnered with PLATIO to develop the first solar pontoon.





REFERENCE: BUDAPEST, HUNGARY

Size: 2.312 sqm

Performance: 0.43 kWp

Client: City of Budapest

In 2019, a 2.3 m2 solar pavement was installed in the city center of Budapest, Hungary. The solar paving system powers a citylight poster independently from the grid.





REFERENCE: GÁRDONY, HUNGARY

Size: 120 sqm

Performance: 18.6 kWp

Client: Magyar Közút Nonprofit Zrt.

In 2019, the first pilot project for building bicycle roads with PLATIO off-grid solution near the town Gárdony, in Western Hungary. The goal was to rebuild a busy asphalt bicycle road with photovoltaic solar tiles powering public lighting.





REFERENCE: TATA, HUNGARY

Size: 6.47 sqm

Performance: 1 kWp

Client: Spar Hungary

In 2019, we installed a 6.47m2 solar pavement in the environment of a Spar shopping-centre. The solar pavers power mobile charging stations equipped on benches near the playground.





REFERENCE: RAPALLO, ITALY

Size: 2.7 sqm

Performance: 0.38 kWp

Client: Trenitalia

Since 2018, PLATIO's solar paver has been powering the rest area on the roof terrace of Rapallo railway station, where travelers can easily charge their phones at any time using the solar bench.



POWERING E-MOBILITY







APPLICATION POSSIBILITIES FOR E-MOBOLITY



BICYCLE / ROLLER CHARGERS



PONTOONS

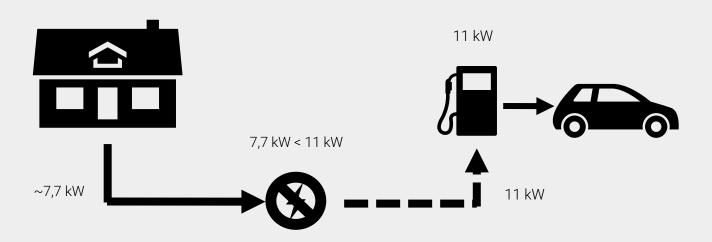


CAR CHARGERS

A NEW SOURCE OF CLEAN ENERGY



EV CHARGER SYSTEM



We need a local solution to back up the grid.

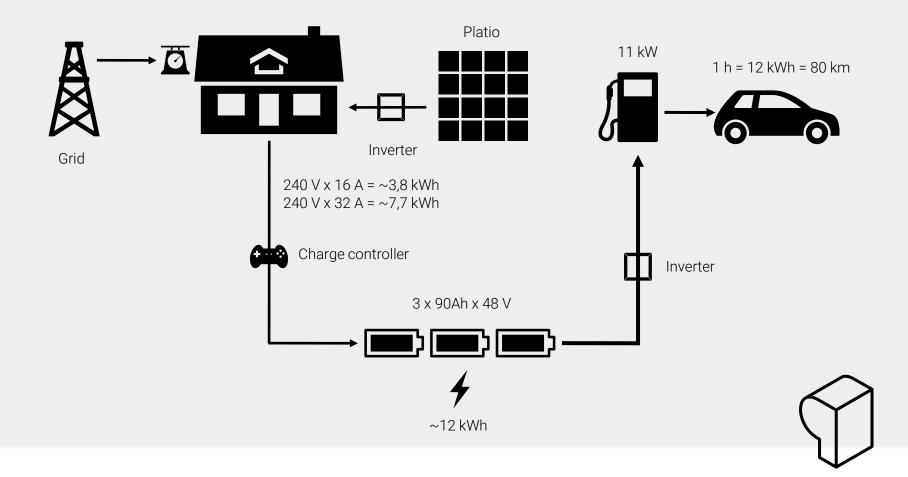
The current utility grid cannot provide enough electrical energy to supply the EV chargers sufficiently.

As e-mobility emerges, the demand for more charging stations will grow soon as well. However, the utility grid infrastructure developments will not be able to keep up with the growing number of these devices.



EV CHARGER SYSTEM CONFIGURATION

- 1) The clean energy is generated by the Platio Solar Pavement.
- 2) This DC electricity is inverted into AC and fed to the power network.
- 3) The electricity is stored in the battery pack driven by the charge controller.
- 4) The battery pack ensures reliable power source for the charging station.



PLATIO







RELIABLE POWER ACCESS WITH PLATIO

The PLATIO Solar pavement connected with charging stations provides a smart, space-saving and local power source to back up the grid and contribute to cleaner e-mobility.

It becomes possible to expand the charging station network, and to establish charging points in shopping centers and public areas by using the energy generated by the paving.

The PLATIO Solar Pavement system can be connected to the home EV charging station as well.

This provides actual clean energy for your electric car directly or through a battery system.



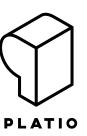
REFERENCE: BARCELONA, SPAIN

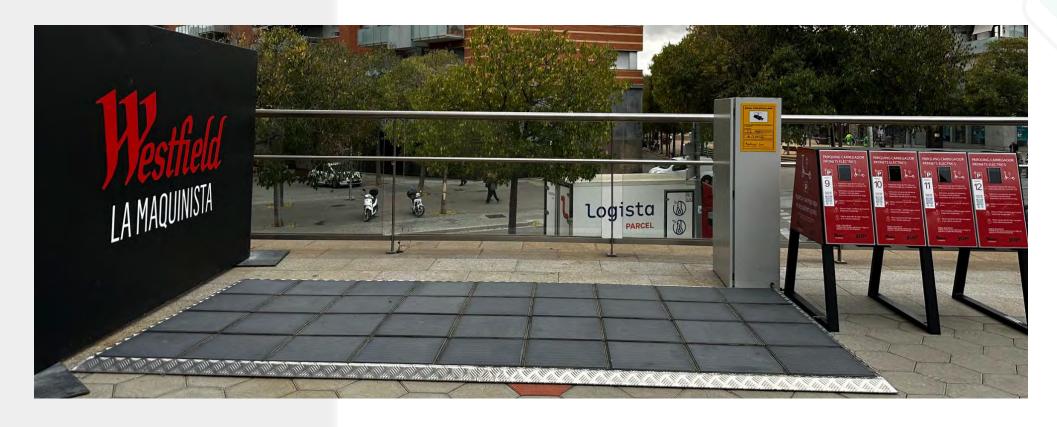
Size: 56 sqm

Performance: 9 kWp

Client: Barcelona City Council

In 2021, one of our most impressive public installation was commissioned by the Barcelona City Council to place 56m2 of PLATIO solar pavement in the Glòries park, where an electric bike charging station is powered by PLATIO. This off-grid solution will help the city in its attempt of becoming carbon neutral.





REFERENCE: BARCELONA, SPAIN

Size: 4.5 sqm

Performance: 1 kW

Client: Yupcharge

At the entrance of Westfield la Maquinista, Barcelona's largest shopping center, you will find the first PLATIO-powered scooter charger! Our pavers charge Yupcity's charging stations with solar energy, which can fully recharge the shoppers' scooters while they are shopping. Our first micromobility project will make public transport sustainable.





REFERENCE: BUDAPEST, HUNGARY

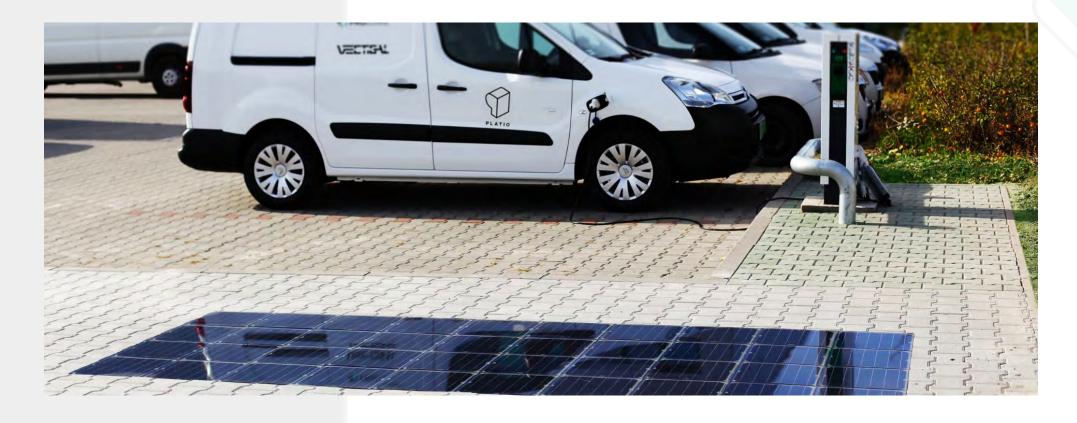
Size: ~3.52 sqm

Performance: 0,46 kWp

Partner: Kuube, Rollin

Together with Rollin and Kuube, we have developed a unique micromobility solution: a micromobility station with green energy and smart features. PLATIO's pavers charge electric scooters waiting at Rollin' charging stations with solar energy. And Kuube's smart bench complements this with smart features (wifi, phone charging, music) and a social experience for users. The result is clean, cost-effective, energy-efficient transport in cities.





REFERENCE: BUDAPEST, HUNGARY

Size: 4.62 sqm

Performance: 0.72 kWp

Client: Prologis Hungary Kft.

In 2017, a 4.62 m2 large system was installed in the parking lot of Prologis in Budapest. Our aim was to increase the rate of green energy in the energy mix and fuel cars with clean energy.





REFERENCE: BUDAPEST, HUNGARY

Size: 4 sqm

Performance: 0.8 kWp

Client: Volvo Galéria Budapest

At Volvo Galeria Budapest 4 m2 PLATIO supports the charging of electric vehicles. The system is an on-grid system with the performance of 0.8 kWp which was installed in 2020.











Supply clean energy for boats and marinas, by integrating solar pavers on the pontoons.

Utilize solar radiation absorbed by the pontoon's surface with the help of Platio Solar Pavers. The clean energy generated during sunshine hours can be used to provide the marina and the boats with clean energy.

PLATIO



REFERENCE: GOTHENBURG, SWEDEN

Size: 4.86 sqm

Performance: 0.76 kWp

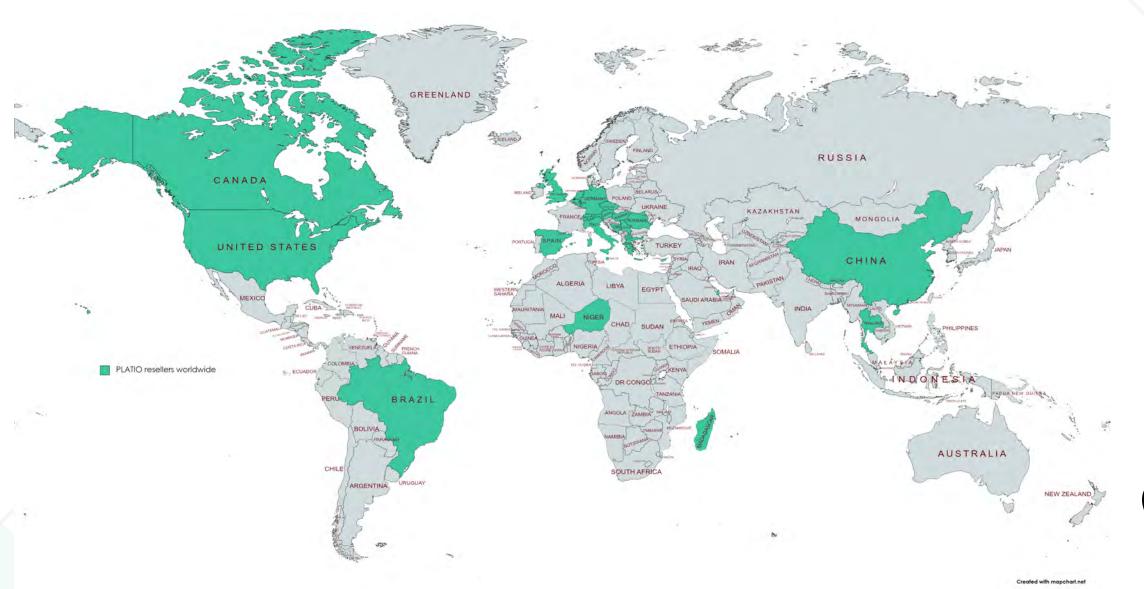
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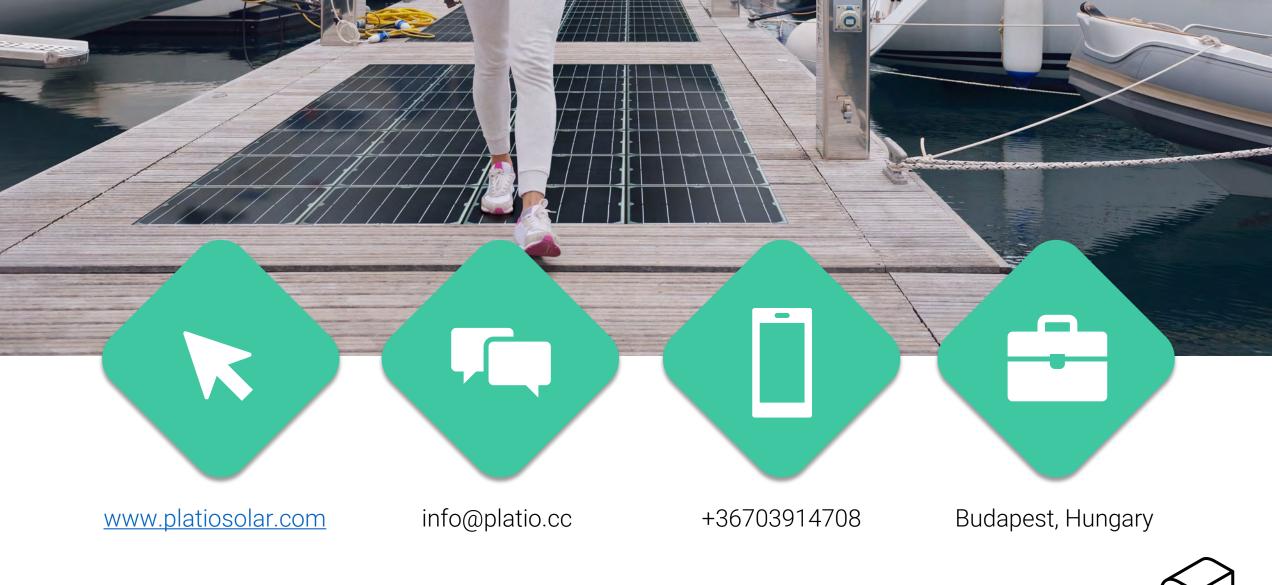


PLATIO RESELLERS WORLDWIDE









WALK WITH US, TALK WITH US

