

1000+ SOLUTIONS

A SELECTION OF CLEAN AND PROFITABLE SOLUTIONS



>CONSTRUCTION

CELSIUS ENERGY (FRANCE)



ENERGY



BUILDINGS

A turnkey solution for heating and cooling buildings using shallow geothermal energy that, thanks to a hub-and-spoke drilling method and a much smaller physical footprint, is a viable option for densely populated areas. Celsius Energy is able to reduce the area needed from a soccer field to the size of five parking spaces. Using a system of angled boreholes, they are able to extract heat from multiple locations from a single point of entry.

- Reduces CO₂ emissions by up to 90
- Energy savings of up to 60%



>SMART CITY

SUNSTYLE (SWITZERLAND)



ENERGY



BUILDINGS

Sunstyle® is a photovoltaic roof that provides waterproofing and clean electricity while maintaining building aesthetics. This solution provides a fully integrated, seamless photovoltaic roof with a fish-scale appearance (and color option), ideal for urban/residential areas. With the visual integration of Sunstyle®, development in historic buildings/areas is possible.

- 6.5 tons of CO₂ saved per year for every 1000 m² of Sunstyle® roof
- An average of 60% savings on electricity bills (France)



>CONSTRUCTION

SOLARBOX (BELGIQUE)



ENERGY



BUILDINGS

SOLARBOX is an architectural solar glass structure designed to provide sustainable energy to existing structures and protected buildings. SOLARBOX uses PV technology in laminated glass to generate energy from the sun while meeting visual regulatory requirements for older buildings. SOLARBOX is highly customizable (e.g., size, colors), making it suitable for protected buildings such as old town centers, castles and churches to generate clean renewable energy.

- A medium-scale installation produces over 250 MWh of energy per year
- Power installed on a roof 2.5 times higher than a normal PV installation on a roof



>CONSTRUCTION

BHALAUU (BELGIQUE)



ENERGY



BUILDINGS

Bhaluu's patented technology consists of a continuous layer of self-supporting material that avoids thermal bridges and essentially blocks all temperature exchange between the house and its environment. The result is a zero emission home.

- 17-fold reduction in housing energy consumption
- 15 to 20% cheaper than the traditional construction



>LOGISTICS/TRANSPORT

SMART CONTAINER (SWITZERLAND)

■ MARITIME FRET

AELER's Smart Container is a shipping container that provides end-to-end visibility and traceability. With this solution, logistics players can reduce their risks and proactively act on events throughout the supply chain. The Smart Container reduces transportation costs while monitoring what is happening to the container itself and the cargo in real time.

- **CO₂ emissions reduction up to 90%**
- **Energy savings of up to 60%**



>LOGISTICS/TRANSPORT

MARINEPAQ (LUXEMBOURG)

■ MARITIME FRET

■ WASTE

A solution for the treatment of wash water from large ship exhaust gas cleaning. The system combines field-proven membrane filtration technology with unique treatment technologies, setting new standards in performance, quality, safety and economic value as well as environmental efficiency.

- **Contributes to the overall sulfur emission limit of 0.5% respectively, 0.1% in the emission control areas**



>LOGISTICS/TRANSPORT

THERMAL STORAGE TANK (LUXEMBOURG)

■ MOBILITY

This solution is a heat storage device based on the existing windshield washer tank for electric vehicles. The heat produced during the operation of the vehicle is stored on board and released when the vehicle is restarted from cold, in addition to the auxiliary electric heater. It can also be used as a heat sink during thermal peaks, e.g. in fast charging mode.

- **A 10-liter tank can store up to 1 kWh of thermal energy, equivalent to 5.5 km of electric range in urban mode**
- **Increases vehicle range and reduces operating costs by approximately €36/year per vehicle**



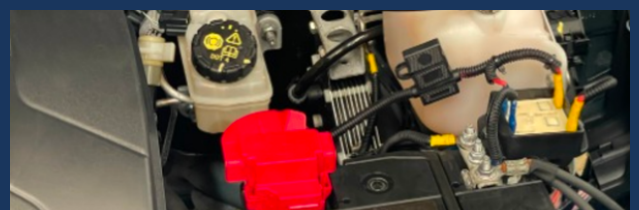
>LOGISTICS/TRANSPORT

HYDROGEN INJECTION SYSTEM (FRANCE)

■ MOBILITY

H.I.S. is a miniaturized, autonomous and secure system that improves combustion in internal combustion engines by injecting hydrogen, produced by water electrolysis. H.I.S. reduces the carbon impact of all types of combustion engines, whatever their size, and actively participates in the energy transition, spearheading a positive ecology and a positive, sustainable and circular economy.

- **Eliminates up to 70% of the toxic pollutant emissions released by any rooftop PV engine installation**
- **Saves up to 25% of fuel for high polluting engines**



>SMART CITY

ENERGY BOX (BELGIUM)



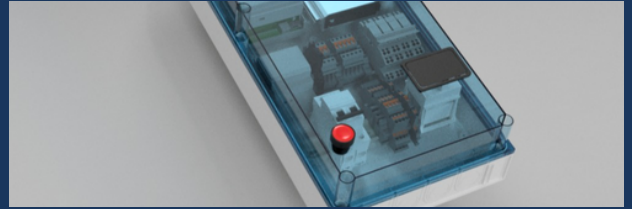
ENERGY



BUILDINGS

A tool to reduce energy consumption in retail stores. It will do this by: (1) controlling lights based on store hours, (2) controlling the HVAC system to reduce its consumption, and (3) monitoring the store's consumption and providing feedback to the owner.

- **Saves up to 15-20% of energy consumption for most stores**
- **Customer pays an initial installation cost and has a 2-3 year payback period**



>SMART CITY

GREENBONDS PRIME ENERGY (SWITZERLAND)



ENERGY

PrimeEnergy offers the exclusive opportunity to invest directly in solar photovoltaic projects in Switzerland and Europe. PrimeEnergy Green Bonds ensure that investors invest in concrete projects while giving them the opportunity to visit the solar power plants. The green bonds are not correlated to the stock market. People get their fixed coupon of 2.85% to 4.75% annually depending on the currency (CHF or EUR) or the duration.

- **Saves 12'190 tons of CO₂ per year**
- **Return of the initial amount invested at the maturity date of the bond.**



>SMART CITY

SUSTAINABILITY MANAGEMENT PLATFORM (LUXEMBOURG)



LOGISTICS

The Sustainability Management Platform (SMP) identifies the carbon footprints of transportation, products, and companies in any sector. The solution provides comprehensive analysis using real-time data to provide companies in all sectors with reliable information and pave the way to a more sustainable economy. The SMP is a fully integrated and automated solution for calculating and analyzing ecological and social aspects as well as economic values.

- **Companies using SMP pay 20% less in carbon taxes compared to business as usual due to emissions savings**



>SMART CITY

SOLAR E-LIGHT (FRANCE)



ENERGY



INFRASTRUCTURE

A connected and autonomous smart solar street light that can manage the energy consumption of the integrated IoT with respect to the environmental sensors. The electronic controller manages the energy for optimal use of the whole system (solar panel, battery, LED, video, environmental sensors, etc.) In this way, customers can be sure that their electricity consumption will be optimal and will help them achieve a significant reduction in their electricity bill.

- **Up to 118% energy savings compared to the conventional alternative**
- **80% savings compared to the conventional solution**

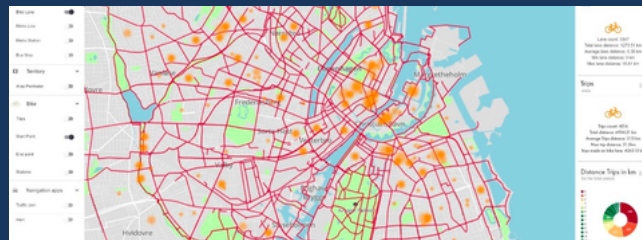


>SMART CITY
URBAN RADAR (FRANCE)

INFRASTRUCTURE

Urban Radar provides a sustainable and effective solution for designing, executing and measuring urban planning. It sells data visualization and analysis software that transforms public and private data into actionable information and analysis for planners (transportation companies and public consulting firms). The solution is a SaaS on a B2B2G model.

- **Reduces traffic jams by 30%**
- **30% reduction in urban pollution**



>INDUSTRY/WASTE
SHAYP (BELGIUM)

WATER

Shayp helps public and private organisations improve water efficiency in their buildings with wireless IoT and user-friendly software. They use machine learning and real-time data to report how much water is unnecessarily wasted due to leakages or system discrepancies in buildings and provide insights on how you can improve the situation.

- **ROI within 1 to 2 years**
- **Up to 20% savings on annual water bills for homeowners due to leak prevention**



>INDUSTRY/WASTE
PAG PLASMA (LUXEMBOURG)

ENERGY INFRASTRUCTURE

Plasma Assisted Gasification (PAG) is a clean energy recovery technology that converts non-recyclable waste into hydrogen, heat or thermal cooling without greenhouse gases for direct local use - without toxic residues.

- **Processes 8,000 to 16,000 tons of medical or hazardous waste per year**
- **Produces 100 kg of clean, local, affordable hydrogen per ton of waste**
- **ROI of 4 to 7 years, compared to 9 to 11 years for incineration**



>INDUSTRY/WASTE
KEIRYO PET (LUXEMBOURG)

WASTE PLASTIC

The Keiryo PET solution is a manufacturing process that reduces the environmental footprint and cost of manufacturing plastic (PET) bottles. The Keiryo PET solution modifies material performance by integrating a patented 3D printed metal insert into existing industrial production assets. This allows PET containers to be produced using less virgin material and/or increases the use of recycled raw materials.

- **Each ton of PET avoided saves 2.2 tons of CO₂**
- **This technology can generate up to €735 million in raw material savings per year for the industry**

