# EU communication campaign on climate action

European Commission

Tlimate

Action

a world you like with a climate you like

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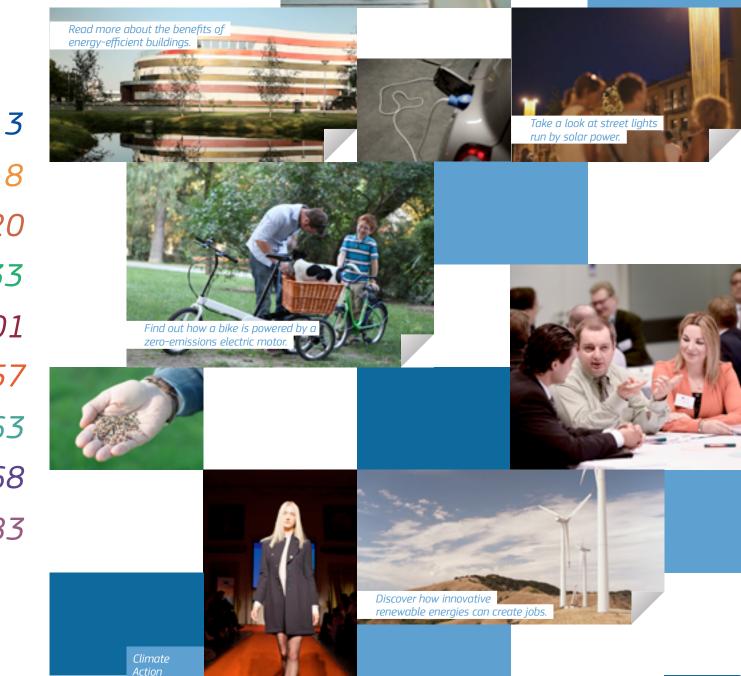
A world you like. With a climate you like – The European Commission's campaign to promote practical, innovative and cost-efficient solutions to climate change.

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# Editorial

Engaging with citizens and stakeholders from across the EU, the campaign demonstrated that many practical solutions to climate action already exist – now they need to be scaled up.



#### Welcome

Building a low-carbon society is without doubt a big challenge, but it also offers a huge opportunity. Making our society more climate-friendly and less energy-consuming will create green jobs and growth and increase Europe's energy security. We will drive electric and hybrid cars and live in cleaner cities with less air pollution and lower noise levels.

With its Roadmap 2050, the European Commission set out a pathway to move towards a competitive low-carbon economy. It outlines how Europe's key sectors can make this transition most cost-effectively.

#### 1. Editorial

As a follow-up of this roadmap, the Commission launched a European-wide publicawareness campaign to promote climate action. Under the slogan "A world you like. With a climate you like" the campaign aimed at changing the narrative about climate change away from melting glaciers to climate solutions and the benefits of a low-carbon society.

The campaign engaged with many different stakeholders through a variety of online and offline channels. It has reached millions of Europeans and gained over 70,000 followers on social media. It also attracted the support of high-level politicians and celebrities, including UN Secretary-General Ban Ki-moon.

A key part of the campaign was the World You Like Challenge. This low-carbon contest encouraged creative minds from across the EU to put their innovative climate solutions to the test. 269 projects were accepted and entered into the Challenge for the public to vote on. Over 230,000 votes were cast and the topranked projects were presented to distinguished juries who selected one overall European winner and one winner in each of the campaign's five focus countries – Bulgaria, Italy, Lithuania, Poland and Portugal.

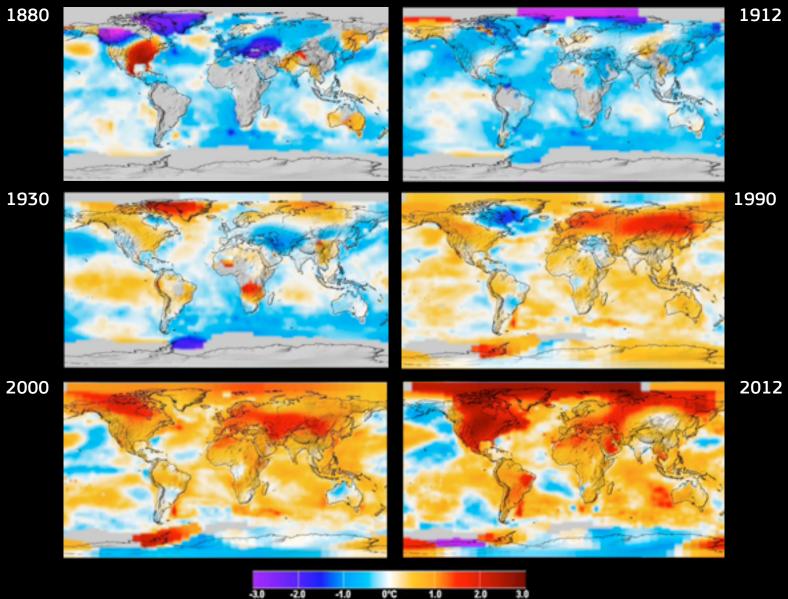
This successful campaign clearly demonstrated that many practical solutions to climate action already exist but need to be scaled up. If we start now, we can make a smooth and cost-effective transition to a low-carbon future. The more we delay climate action, the higher the costs.

So flip through the next pages to explore the highlights of the campaign, and join us on our social media channels to see what is going on in Europe and help us build "A world you like. With a climate you like".

Carring Holpard

Connie Hedegaard, European Commissioner for Climate Action

#### 1. Editorial

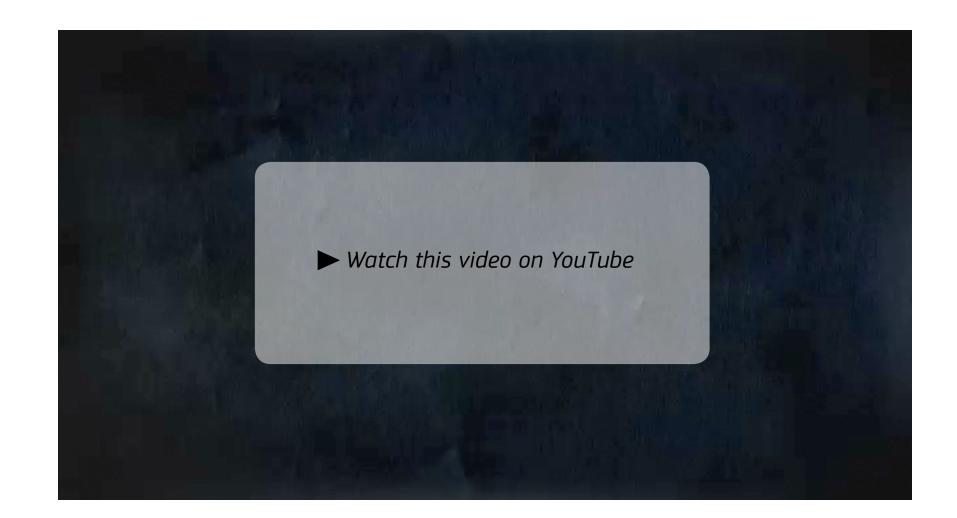


Climate Action

Climate change is already happening. We must take action now to move towards a low-carbon future.

1. Editorial

#### A world we like by Connie Hedegaard



# Why it matters

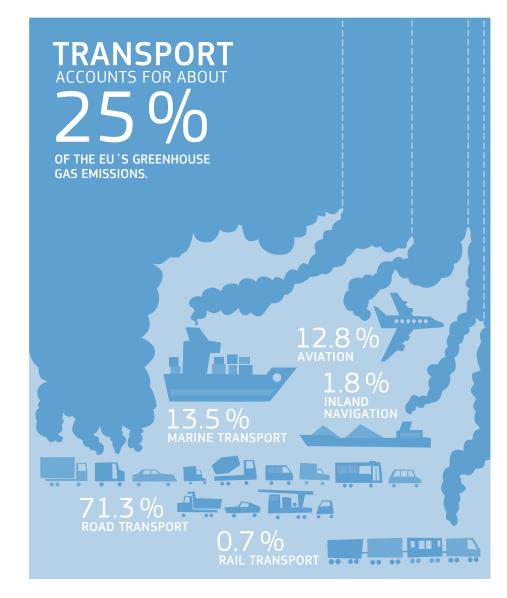
Taking action for the climate is also good for our health and our economy. Through its five themes - travel & transport, building & living, re-use & recycling, shopping & eating, and producing & innovating – the campaign showed that simple but innovative ideas can make a difference.

#### Move in the right direction

Mobility is an essential part of our daily life. But did you know that running a car can cost as much per year as you would earn in 840 working hours? To say nothing of the greenhouse gas emissions released.

Initiatives from all corners of the EU show how pioneering ideas and a hands-on, 'can-do' approach can help us reduce costs and bring us a step closer to low-carbon travel and transportation.

Public transport systems across Europe are embracing greener options for improved efficiency. Bus fleets running on alternative fuels have reduced local air and noise pollution while providing passengers with a better quality, more reliable service. And this at the same time as reducing the greenhouse gas emissions that harm the climate.



#### By bridging the gap between car ownership and traditional rentals, car-sharing schemes can make more efficient use of the existing car fleet, reducing pollution and congestion, as well as providing savings or income for subscribers.

And for those of us wanting to burn some calories, the broad spectrum of smart pedalpower options includes bikes with the stability of three wheels, a narrow frame, handy electric motor and heavy load capacity.

### How you can help

In tandem with actions taken by local people, businesses and community groups, the EU has taken measures to help the transition to a more efficient and sustainable European transport system. These include  $CO_2$  emission standards for cars and vans and rules to reduce emissions from fuel production and use. The goal is to reduce travel and transport emissions by up to two-thirds of 1990 levels by 2050.

As demand drives our markets, the continued success of such innovative initiatives and the development of new transport concepts depends on the willingness of conscientious citizens and consumers to support them. So act now to build a sustainable future for us all! What are your low-carbon ways of getting about?

Share them on Facebook.

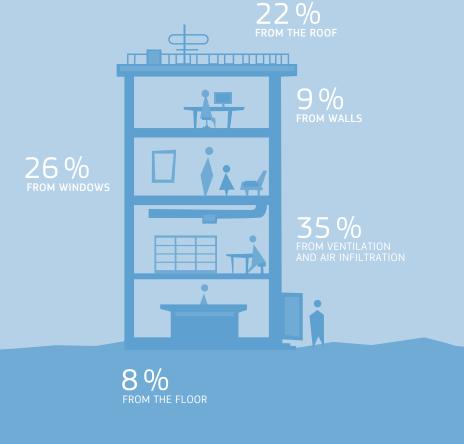
## Greener thinking at home, work and play

Imagine your house not only saves energy. It even produces enough to power your car – all year round.

This is already a reality. Today's state-of-theart homes packed with a range of eco-innovations like ecological insulation and photovoltaic lighting are often no more expensive than more traditional designs, and can indeed lead to massive savings.

Gearing your individual habits towards more sustainable choices can extend beyond the home: we can take them with us on holiday! Across Europe, we can find environmentally friendly hotels making strategic use of low-carbon technologies, like LED lighting, geothermal energy and heat transfer devices. Thanks to these and other measures, guests in eco-hotels leave a carbon footprint 90% smaller than people staying at a traditional hotel.





"Shaping a clean, climate-friendly society is not a farewell to modern commodities and home comforts." Connie Hedegaard, EU Commissioner for Climate Action.

If we all took these steps, the European Commission estimates that emissions from homes and office buildings could be reduced to zero within our lifetime. The EU has already moved this way by phasing out traditional light bulbs in favour of much more energy-efficient lighting that reduces annual emissions of  $CO_2$  by 15 million tonnes.

What's more, the average household could save as much as €1000 on its annual energy bill by following these and other low-carbon solutions, so we'd be foolish not to! Entire communities are getting in on the action, mobilising to lower their carbon footprint and establish new means of revenue for local areas.

#### How you can help

Large-scale initiatives for sustainable buildings can help bring better living conditions and financial benefits for consumers and create sustainable jobs.

However, big changes won't occur without small contributions. We can all build a world (and environment) of which we can be proud. How green is your house or work place?

Share your smart ideas on Facebook.

## What's old is new (and helps us grow)

Ever thought of getting a smartphone for only half the price?

Second hand shopping, an integral part of reuse and recycling, makes sense. It is kind on the wallet and makes an important contribution to climate protection. By contrast, dumping waste in landfill sites causes lasting damage to air, water and soil, polluting the surrounding areas and emitting high levels of CO<sub>2</sub> and methane into the atmosphere. It is often a pointless waste of valuable materials.

Recycling and recovery has emerged as a key industry to protect our environment, encourage innovation and boost our economy. Across Europe, state-of-the-art treatment facilities that transform waste into compost or Solid Recovered Fuel (SRF) are being built.

# 503 KG OF MUNICIPAL WASTE THIS MUNICIPAL WASTE WAS TREATED IN DIFFERENT WAYS: den 15%COMPOSTED 25% 23% NCINERATED

In the cement industry, one of the highest CO<sub>2</sub>-producing sectors, sustainable ideas are being introduced that enable energy and materials to be recovered from waste and later used as a substitute for primary fuel and raw materials.

Innovative ideas have been encouraged by the legislation and policy introduced by the European Commission. Recycling of household waste has increased from 17% in 1995 to 40% in 2008, with the amount going to landfill dropping from 68% to 40% in the same period.

Minimising waste provides added value to us all and encourages resource-efficient growth.

### How you can help

Given that even the most effective recycling and waste management processes generate greenhouse gases, the key strategy is to prevent waste in the first place.

That's where you can help make a difference in shaping a desirable future for us all. Have you given a second life to clothes or electronic devices?

Tell us about your low-carbon tricks on Facebook.

# Being healthy, wealthy & wise

Fresh strawberries are one of the delights of summer. But does it make sense to fly them in from the other side of the world so we can eat them in winter too?

We are all consumers, but some of our consumption habits contribute more to climate change than others. Small changes can reduce these impacts – and allow us to live less expensively, longer and more healthily.



Businesses and community groups across Europe are already offering a variety of creative and practical solutions. For instance, smalltown communities are digitally connecting local farmers to consumers in their area to ensure the shortest distance from production to plate.

And fashion-forward urban designers are creating one-of-a-kind clothes and accessories from used and leftover materials. There's a lot going on! We have the power of the purse to make smarter consumer choices. Green is not just a slogan for environmentalists; it's for us all.

### How you can help

The EU has taken measures to enhance sustainable consumption. The EU Ecolabel and other environmental labelling schemes help you to identify the "greenest" products, while Ecodesign rules are pushing manufacturers to develop innovative products which are of better quality and have a lower environmental impact. But it's not just up to political decision-makers and businesses to make changes.

By rethinking our habits and making small but effective changes to what we consume, we can collectively make a big reduction in our environmental impact. So take a positive step and leave a low-carbon footprint! What are your smart ideas for reducing the carbon footprint of what we buy?

Share them on Facebook.

# *Competitive enterprises shaping a green future*

Using energy more efficiently not only saves you money – it creates jobs too.

In a warming world where greenhouse gas emissions need to be reduced, many new, innovative low-carbon products will be developed. Both industries and consumers are increasingly using energy-efficient lighting, hybrid or electric cars, solar energy, and many other low-carbon products and processes.

EUROPE 2020 STRATEGY ACHIEVING THE GOAL OF SUPPLYING 20% OF THE EU'S ENERGY FROM RENEWABLE SOURCES BY 2020 IS ESTIMATED TO HAVE A NET EFFECT OF CREATING AROUND 417,000 ADDITIONAL JOBS.

Using solar panels and other forms of renewable energy is helping schools meet the majority of their energy needs while also saving money. Other forward-thinking public services are embracing green initiatives and introducing comprehensive plans to save energy and resources and minimise their carbon footprints.

"Our targets for a low-carbon society are not about some distant future. It's all about jobs. It's about innovation and competitiveness which we can harness today." Connie Hedegaard, EU Commissioner for Climate Action.

### How you can help

To reach Europe's full innovative potential, we need to capitalise on our smart ideas and put them into practice.

Which low-carbon products do you think will revolutionise our daily lives and economies in the coming decades?

Share your thoughts on Facebook.

# A Roadmap to a low-carbon economy by 2050

With its low-carbon Roadmap, the European Commission has set out a blueprint for making the European economy much more climatefriendly and less energy-consuming. By increasing investment in cleaner technologies, the European Union could cut most of its greenhouse gas emissions by 2050.

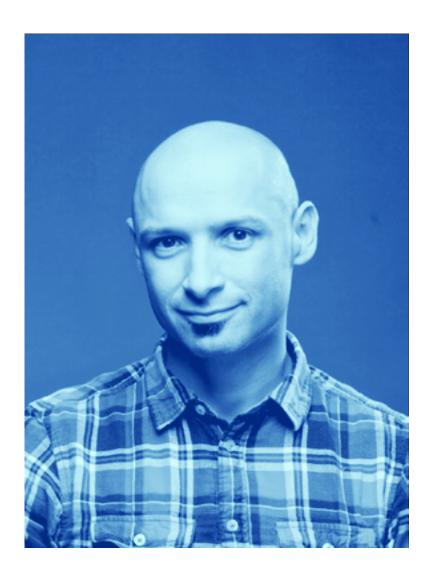
To keep global warming below 2°C and prevent dangerous climate change, science shows that the world needs to cut emissions of greenhouse gases by at least half of their 1990 levels by the middle of this century. Developed countries will need to go further and reduce emissions by 80-95%.

As a first step towards meeting the challenge the European Commission has published a Roadmap setting out a pathway for building a competitive low-carbon European economy by 2050. The blueprint suggests a number of milestones for cutting emissions between now and the middle of the century and shows how major sectors, including energy, transport and manufacturing, can make the transition while remaining prosperous and competitive. Investing in a low-carbon society will have multiple benefits, including stimulating innovation in clean technologies, creating sustainable sources of economic growth and jobs, and reducing Europe's dependence on imported energy. Up to 1.5 million additional jobs could be created by 2020.

A low-carbon Europe can be built by further developing proven technologies that already exist today. For instance, we will drive electric or plug-in hybrid cars, live in energy-efficient homes and work in offices with intelligent heating and cooling systems. Our cities will have cleaner air and more efficient public transport systems. The low-carbon society is a win-win for the climate and the economy!



"My vision for a world I like..." Find out how the campaign's high-profile supporters imagine the world they like.

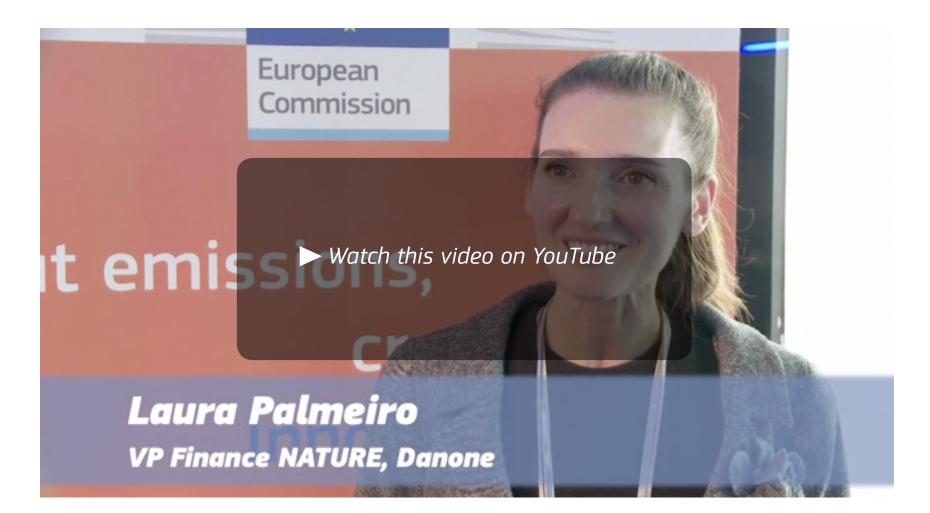


#### Jurgis Didžiulis Singer and producer (Lithuania)

"My vision for a world you like is one where we are closer to the environment and understand our relationship with it better."

## Laura Palmeiro

VP Finance NATURE, Danone



### Jason Anderson

Head of Climate and Energy Policy, WWF Europe

"My vision for a 'world I like' is one where people, government and industry tackle climate change by rolling up their sleeves and taking action at all levels."





#### Magdalena Maleeva Founder, Gorichka and former tennis player (Bulgaria)

"My vision for a world I like is to be able to look my children in the eyes and not feel guilty for the planet they are going to inherit."

**Ed Davey** Secretary of State for Energy and Climate Change (United Kingdom)

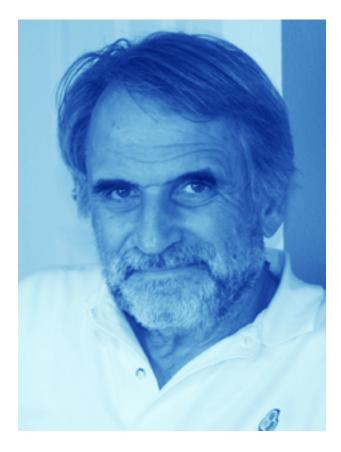




### Tessa Gelisio

TV journalist and President, forPlanet Onlus (Italy)

"My vision for a world you like is a world with no extreme events due to climate change: no drought, no great hurricanes, no floods, no desertification or deforestation... just a healthy environment."



"I am an architect and my main field of interest is building efficiency. This is why I insist that zeroenergy building is the epitome of sustainable cities."

## Zdravko Genchev

Executive Director, Centre for Energy Efficiency (Bulgaria)

# Editą Baltrėnaitę

Associate Professor, Vilnius Gediminas Technical University, (Lithuania)

"My vision for a world you like is a person of integrity working for sustainability"



# David Nussbaum

Chief Executive, WWF-UK (United Kingdom)

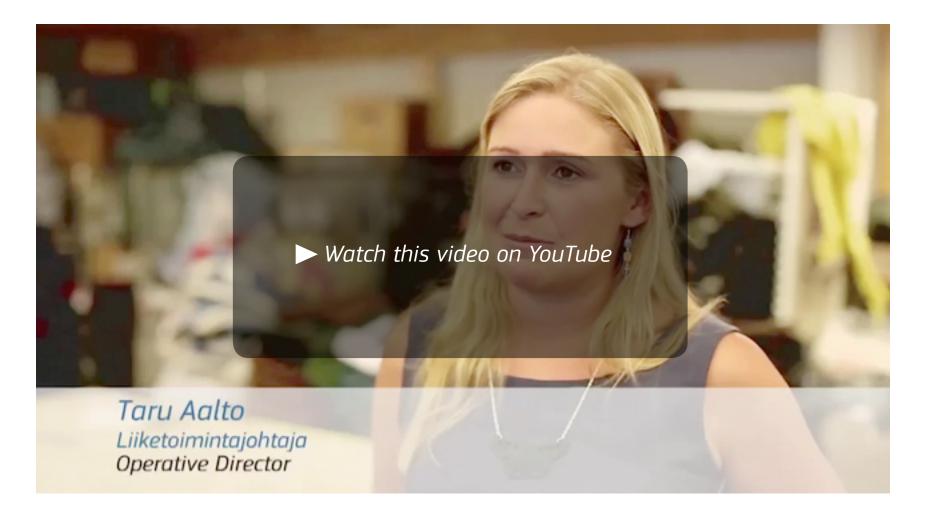




**Andrzej Kassenberg** President, Institute for Sustainable Development (Poland)

"My vision for a world you like is one where global climate is not the subject of compromise and where the needs of the next generation are valued as important as the needs of the current generation."

#### **Taru Aalto** Operative Director, Globe Hope (Finland)



### Christiana Figueres

Executive Secretary, United Nations Framework Convention on Climate Change

"A world that I would like, which is by the way a world that we need, is a world that uses all of our national resources in a responsible way, not abusing our national resources, and then uses it for the challenges that we have today."



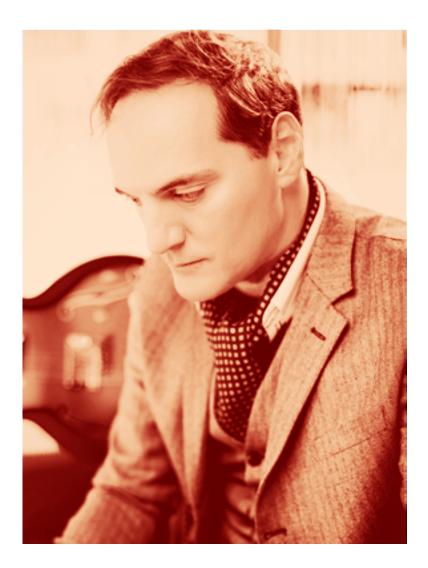


**Júlia Seixas** Professor, New University of Lisbon (Portugal)

"My vision for a world you like is to get our needs satisfied with no harm on natural cycles."

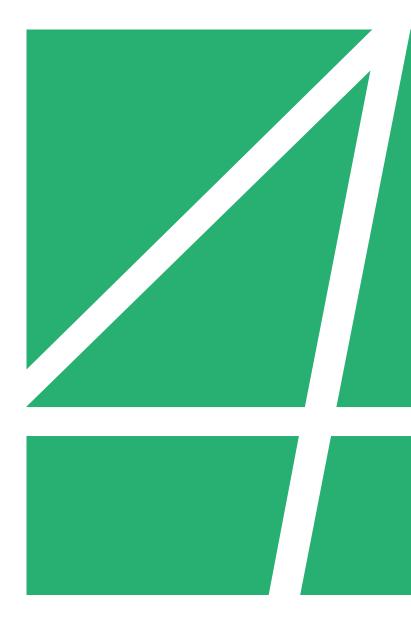
# **Tiago Domingos** CEO, Terraprima (Portugal)





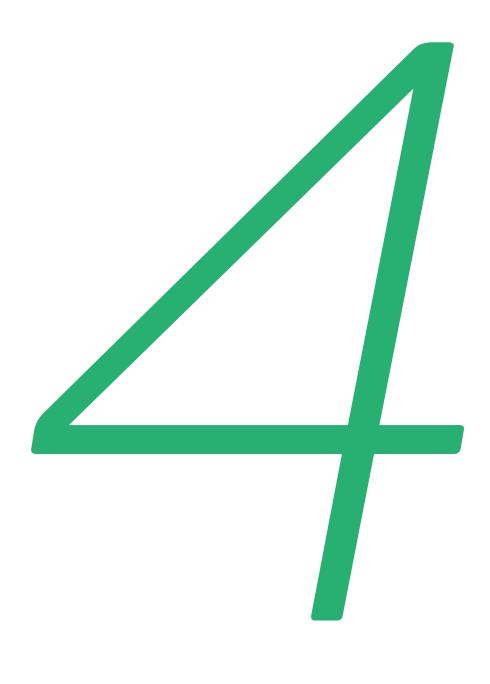
### Miquel Ângelo Singer and musician (Portugal)

"My vision for a world you like is global conscience. Bold progress whilst respecting one another is key, and so is communication and commitment for nature."



# Good practices

The campaign showcased a range of best practices and climate change solutions developed by citizens, businesses and organisations across Europe.



# **Good practices**

Travel & transport

Building & living Re-use & recycling Shopping & eating Producing & innovating

# 'Tubeway' - future mobility system and eco-wall modules (Austria)

The worldwide energy crisis has sparked the need for alternative means of transportation and eco-living. Tubeway is a concept for a solar energy public transport system engineered to connect to current transport networks, while eco-wall modules help build sustainable homes that utilise renewable power. Combined, these projects can provide efficient future solutions for mobility and green living.

# 100 Bikes for 100 Families (Italy)

Trips within a city are often spent needlessly in traffic or car parks. The collective buying initiative '100 Bikes for 100 Families' aims to help participants replace their cars with a low-carbon alternative that has no restrictions on where to park. With a canopy for all seasons, the bike allows families to travel in a safe, fun and environmentally friendly manner. The bike also comes with an electric motor to assist drivers whether they are transporting children or going shopping.

## Double Deck Bus Stations (Spain)

Double Deck Bus Stations is a design solution in which stations for double deck buses are equipped with access doors on both decks. Passengers can easily access the upper deck, which helps remove the queues and bottlenecks typical of traditional double deck buses. By making bus transport more efficient, the solution helps make public transport more attractive and reduce CO<sub>2</sub> emissions.

# Rothar – Cycling for the community (Ireland)

Rothar is a bicycle-recycling project with a dual mission: provide development opportunities to under-privileged populations in Dublin while promoting environmental stewardship. The project helps get more people cycling, reduces traffic, prevents waste, creates green jobs and improves sustainable transport. To date, Rothar has diverted 1,000 bikes from landfill, equivalent to 40 tonnes of waste, while 800 of these bikes have been sold on at affordable prices.

### ALD bluefeet (Luxembourg)

The ALD bluefleet programme aims to help ALD Automotive's vehicle leasing and fleet management customers reduce their CO<sub>2</sub> emissions. The programme provides advice about choosing eco-responsible vehicles and helps clients evaluate their transport needs and define how they can reduce their emissions. Since 2012, twenty companies have joined the programme and ALD Automotive's fleet has reduced its emissions by 19,000 tonnes of CO<sub>2</sub>.

### 'Austria saves energy' campaign (Austria)

In 2013, the Austrian Environment Ministry launched a broad information campaign as part of its climate protection initiative. The aim is to raise awareness about reducing heating, fuel and electricity consumption, and to change habits by highlighting the associated cost savings. An online energy saving coach and a practical pocket booklet give citizens tips on energy savings, allowing them to track their energy use reduction in euros and CO<sub>2</sub>.



## Ensuring e-mobility across borders (Luxembourg)

Don't worry about finding a charging station. Help is at hand to take e-mobility across borders. Just plug in and drive on!

Luxembourg-based company Estonteco is building a growing network of charging stations to ensure cross-border mobility for electric car drivers.

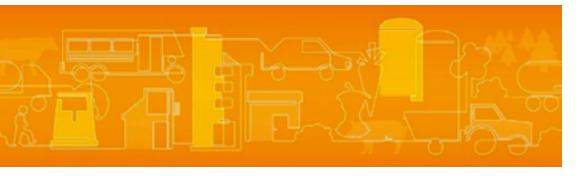
"Estonteco takes a transnational approach to charging stations, allowing all customers and owners of electric cars to charge up day and night, no matter which country they're in," said company CEO Fréderic-Michael Foeteler.

"There are many technical issues involved in e-mobility, such as the limited driving range or finding and using charging stations. We at Estonteco are dedicated to finding the solutions."

Climate Action

### Biogas West (Sweden)

Biogas West is a regional development programme that offers a platform to exchange experiences and knowledge and work together to develop the efficient production and use of biogas in the region of Västra Götaland. The programme aims to build upon this cooperation to meet the objective of 2.4 terawatt hours (TWh) of biogas produced and used by the year 2020. This means a 25 times increase compared to the 2010 levels.





### Car fasting – healthy start to sustainable mobility (Austria)

Transport is a major cause of climate change that requires all of us to drive more sustainably. "Car Fasting" uses Lent as an opportunity for the people in Austria to review their own mobility behaviour and look at the green alternatives. With more than 15,000 participants in 2013, the project contributes to a significant reduction of  $CO_2$  emissions in Austria each year.

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### eCarsharing24/7 – the platform for peer-topeer carsharing (Austria)

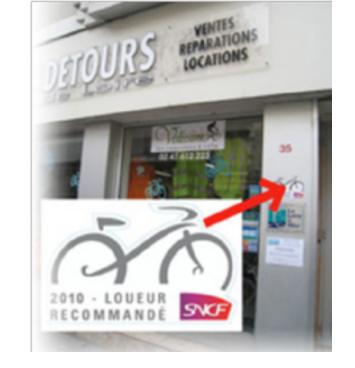
Carsharing is a cost effective and eco-friendly option to an owned vehicle. Carsharing24/7 is the first social network and comprehensive online/ offline service to enable private individuals in Austria to offer and share their vehicles with other private individuals. Studies on the use of car sharing show that a single carsharer saves up to 200 kilograms of CO<sub>2</sub> per year. In 2013, eCarsharing24/7 will save up to 300 tonnes of CO<sub>2</sub>.

### Carzapp – next generation car sharing (Germany)

Car sharing means fewer cars on our roads and fewer carbon dioxide emissions. carzapp is the first private car rental platform in Europe that provides a hardware solution (ZappKit) specifically developed for that purpose. The ZappKit allows individuals to rent out their cars spontaneously without manually handing over the keys while also earning money when not using their vehicle. Carzapp GmbH employs 11 people and won the first prize at the 2012 European Venture Competition.

### Climate Smart City Distribution (Sweden)

Climate Smart City Distribution is a collaborative sustainable transportation project aimed at reducing greenhouse gases from freight transports within the city of Gothenburg. Freight delivery companies, vehicle manufacturers, fuel suppliers and governmental organisations demonstrate the potential of new and existing technology, renewable fuel use and more efficient freight transport coordination. The project aims to reduce the emissions from distribution traffic within Gothenburg's environmental zone by 50%.



### Customer routes to and from rail stations (France)

The French national railway company SNCF offers a range of green options to make travelling to or from train stations easier and cheaper for commuters. The services include carpooling offered in 347 stations, agreements with 200 bicycle rental agencies, 25,000 bicycle parking spaces, and 50 parking lots with electric vehicle charging stations.

### CV Online (Portugal)

This project allows people looking for jobs or training opportunities to submit their CV to the Portuguese authorities through an online portal where the information can be shared with prospective employees. This not only saves travel time and paperwork, but reduces the associated paper waste and  $CO_2$  emissions generated by transport.

### Green parcel delivery and urban transport (Spain)

The project distributes parcels and transports people with noiseless electric vehicles, taxis charged with pedal-assisted electric motor, electric bikes and electric freight vehicles. In addition to reducing CO<sub>2</sub> emissions, the project also helps promote ecotourism via unique vehicles powered by human fuel. Large parcel distribution companies in Seville are already interested in utilising these green urban transport solutions.

## A unique design for a greener city (Austria)

Hop on, push off and pedal into a greener, healthier, future! Practical, safe and convenient. A wise choice for the environment, and for the wallet.

The innovative Vienna Bike proves that two wheels really can be better than four. Inventor Valentin Vodev has created a unique design that combines a zero-emissions electric motor with a sturdy three-wheel frame and load-carrying capacity. "The Vienna Bike is actually a tricycle, but thanks to the patented tilt system, it feels like a bicycle when you ride it," said Vodev.

"You can fold the bike up and stow it away easily. You can even take it on holiday. Lithium batteries use very little electricity, making the Vienna Bike not only more environmentally friendly than a car – but cheaper too," he added.



### Driver Carbon Sink Initiative (Portugal)

The project is a web-based solution to promote energy efficient driving. Supported by a plug&play monitoring device, drivers generate eco driving scores and good driver credits through better fuel consumption and CO<sub>2</sub> emission reductions. By changing driving behaviour, CO<sub>2</sub> emissions can be reduced by up to 25% per trip. The monitors are linked to a large online social network that promotes efficiency and emission reduction among drivers.

### Ebike Prague Tours (Czech Republic)

Ebike Prague Tours offers visitors and residents alike the opportunity to discover the beauty of Prague in a safe and environmentally progressive way. Eco-friendly, state of the art electric bikes offer a sustainable alternative to the cars and buses that fill Prague's congested streets. Ebike Prague Tours give visitors the chance to explore the historic sites without adding to the heavy traffic and high pollution levels.

### EcoCity (Luxembourg)

EcoCity's uses electric bicycles and scooters as a local postal delivery service that employs young people at risk of unemployment. The project's clean urban deliver system reduces the amount of cars, traffic and pollution in cities while promoting eco-friendly behaviour that supports the local community. Since the launch of the company in 2011, EcoCity has helped prevent over four tonnes of  $CO_2$  emissions.





### Eliancycles cargobike (Netherlands)

Eliancycles is a Dutch bicycle company aiming to build eco-friendly bicycles that last a lifetime. The bicycles are produced with long-lasting steel and stainless tubing in the company's own workshop. The parts are mainly sourced from Europe, reducing shipping to a minimum. Eliancycles' designs and handcrafts commuter, touring and cargo bicycles, the latter engineered to compete with fossil fuel-producing cars over short and mid-long distances.



### Fastned: fast-charging along the highway (Netherlands)

Fastned provides people who drive electric cars in the Netherlands with freedom via a network of 200 fast-charging stations directly on the highway. Fastned not only addresses the lack of fast-charging stations that has limited electric vehicle adoption; it also helps combat climate change by offering 100 percent green electricity, partly generated via solar roof panels at each station.

### Go on foot to school! (Spain)

As part of a programme to promote environmental awareness and healthy habits among students, families and teachers, the project encourages students to walk to school. While reducing automobile emissions and traffic, the project also increases the environmental awareness and self-esteem of students. Whether students walk to school alone or are accompanied by an adult, they learn about the surrounding environment and sustainable lifestyles.

### HERE Transit (Finland)

Accessible from an array of internet-enabled devices, the HERE Transit app gives users bus, train, subway information to help them plan their route. Users in 700 cities can quickly compare routes, departure, arrival times and energy consumption. The app makes it easy for people to choose public transportation over driving and enables them to reduce their greenhouse gas emissions.

### HyperBus (Sweden)

HyperBus is a pilot fleet of public transport buses that combine outstanding performance with low energy consumption. Using newly developed plug-in hybrid energy technology that allows buses to run longer on battery power, the project makes it possible to electrify a major part of the Gothenburg bus network. The project aims to demonstrate that this technology can reduce energy consumption by 65% and CO<sub>2</sub> emissions by 75% compared to conventional diesel buses.



## Tricycle assisted by an electric motor (Italy)

The project is developing a tricycle assisted by an electric motor powered by three 36v batteries. Creating zero carbon emissions this accessible and affordable technology can help users get around easily in heavy traffic while helping to fight climate change. A tricycle equipped with batteries that can run for 40-50 km is planned.

### Green Parking (Italy)

The Green Parking project promotes the use of electric vehicles powered by renewable electricity that is produced on site in the parking lots. The parking lot is totally self-sufficient, generating power to feed charging stations for electric vehicles with photovoltaic panels placed on shelters that cover the parking spaces. All materials used in the parking lot are also sustainable and reusable at the end of their lifecycle.



#### *4. Good practices – Travel & transport*



### Challenge Bibendum (France)

Challenge Bibendum is an international platform to track sustainability innovations in the transport sector. Facilitating the transfer of knowledge and best practices among professionals and decision makers, the Challenge is a bridge between suppliers, manufacturers, technology developers, project managers and policy makers. While pursuing a common policy framework for sustainable mobility, the Challenge is focusing on climate issues and working to reduce CO<sub>2</sub> emissions in the transport sector.

### MOVEO - ultra-light, folding electric scooter (Hungary)

Moveo Co. has developed an ultra light-weight, foldable, electric scooter called MOVEO. This new class of compact eco-vehicle meets the increased needs for low emission mobility in crowded city streets. The scooter can be folded and stored easily, moved around on public transport, and requires no parking space. MOVEO's average power consumption is 25-35% lower than most other electric scooters.



### An electric taxi fleet driving the local economy (Poland)

In Warsaw, you can now get around the green way thanks to Green Capital City's new fleet of environmentally-friendly taxis.



In Warsaw, an innovative business is showing how a good low-carbon idea can play a big role in the local economy. EcoCar is an electric cab service that not only takes citizens around the Polish capital, but also reduces CO<sub>2</sub> emissions and creates jobs for drivers, mechanics and engineers. Work on the EcoCar System project started in March 2012. Today, the group has 113 cars and employs almost 200 people.

"The team responsible for converting the cars removes the internal combustion engine and replaces it with an electric engine," explained CEO Przemyskaw Rozmyskowicz. "The original gearbox and clutch remain, but we remove everything 'dirty' from the engine – the internal combustion engine, exhaust oils, etc. The car is left clean, environmentally friendly and able to run on electricity."

### My Green Prague (Czech Republic)

The project offers low-energy means to enjoy memorable experiences when travelling around Prague. Half-day and day walks and cycling trips combined with public transport in and around Prague allow travellers to explore the city in an environmentally-friendly way that uses local resources, culture and existing public infrastructure. The service is pitched at tourists, foreign students, expats and other people interested in eco-friendly and responsible travelling.





### New-generation rail stations (France)

In December 2011 the Rhin-Rhône rail line was launched with two new stations. Belfort-Montbéliard TGV and Besançon Franche-Comté TGV present highly innovative designs featuring natural light, photovoltaic technology and geothermal energy. The solar energy produced by these stations generates 40MWh of electricity per year, accounting for 50% of their electricity consumption. The project's sustainable technologies can also be implemented when renovating larger and more resource intensive stations.

Climate Action



### Cargohopper (Netherlands)

The project aims to reduce the number of trucks going into the city. Electric trucks equipped with solar panels are recharged without using the public electrical networks. Each electric truck is estimated to save 30 tonnes of CO<sub>2</sub> emissions a year. The systems are placed in Utrecht, Enschede and Amsterdam.

### Octopus Plan (Belgium)

The Octopus Plan is a comprehensive project to encourage sustainable travel behaviour. The goal is to reduce the number of cars travelling to and from schools by inspiring alternative, eco-friendly modes of transport. The project targets all stakeholders who can influence sustainable residential school traffic: road authorities, school boards and teachers, parents and children. The positive impact on local traffic will contribute to a more environmentally-conscious and healthy community.

### Onshore power supply for vessels in the Port of Gothenburg (Sweden)

When in port, a ship can use as much energy as a normal-sized house in a year via polluting and noisy diesel or heavy oil engines. However, with an onshore power supply, vessels docking the Port of Gothenburg can shut down the engines when moored and connect to clean power sources. The environmental benefits are considerable, with CO<sub>2</sub> emissions reduced substantially the use of renewable energy sources such as wind.

### Railport Scandinavia – trains save on carbon emissions (Sweden)

This project offers a solution to reduce emissions generated by road transport. Railport Scandinavia is a comprehensive railway link network between the Port of Gothenburg and cargo terminals across Sweden and Norway. These rail shuttles allow large quantities of goods to quickly and efficiently reach the port with significant environmental benefits, saving more than 60 000 tonnes of carbon dioxide emissions each year.









### Bicycle city - a model of modern urban mobility (Bulgaria)

This project is Bulgaria's first public rent-a-bike system. It encompasses 12 rent-a-bike stations hosting a total of 120 bicycles located within various urban zones and residential areas in Burgas, one of the country's fastest-growing cities. The project promotes and supports energy efficiency and low carbon transport at community level. It is calculated to reduce CO<sub>2</sub> emissions by 500 tonnes a year.

### Cold sun (Bulgaria)

The project aims to develop a system that will produce and supply electricity to refrigerated trucks with renewable energy instead of a fuel engine. It develops photovoltaic systems that produce and supply electricity for cooling units using daylight. If used by 150,000 trucks, the system can save of 675,000 tonnes of CO<sub>2</sub> annually, an important step in fighting climate change.

### Airport Carbon Accreditation (Belgium)

Airport Carbon Accreditation is the only independent, institutionally-endorsed carbon-management certification standard for the airport business in Europe. Airports are independently assessed and their efforts to manage and reduce their carbon emissions are recognised with four levels of certification: 'Mapping', 'Reduction', 'Optimisation' and 'Neutrality'. In this way, the accreditation scheme provides airports with a common framework for carbon management with measurable goals.



### CO2 monitor for transport logistics (Austria)

This project aims to provide companies with a software-based tool that calculates transport-related CO<sub>2</sub> emissions. For a company to be ecologically responsible, it is essential to be aware of the carbon output in each area of its activities, including that of transport logistics. With this in mind, in 2011 Satiamo started to develop a CO<sub>2</sub> monitoring process in cooperation with several Austrian companies. The cooperation project aims to raise awareness on sustainable shipping.

#### *4. Good practices – Travel & transport*



### Bee - Green Mobility Sharing (Italy)

Bee is a green mobility sharing system that integrates the already-existing mechanisms of car sharing and bike sharing with the electric option. The energy used by Bee derives primarily from solar panels, so pollutants are reduced both upstream and downstream. This pool of cars and electric bikes not only reduces harmful greenhouse gas emissions, but saves commuters around 90% in transport costs, a major incentive for adopting green mobility.

### New Engine – high efficiency generator with low energy consumption (Italy)

The New Engine is a high efficiency generator with low energy consumption that can be used in any industry and that also aims to drive sustainable mobility into the future. This innovative electric motor/generator has a double cooling system, and the magnets are positioned in an innovative, energy-efficient way. It is ideal for electric mobility as it will generate more electricity when the brakes are used, making it a power generator.



### Driving down emissions with eco-friendly public transport (Romania)

Suceava is dealing with the problems of tomorrow, today, by introducing an environmentally-friendly bus network.

Eco-friendly public transport was the answer to the growing problem of traffic congestion in the Romanian city of Suceava.

The introduction of the CIVITAS bus network has been a huge success with more people opting to use buses than drive their cars. This is good news for the environment as one bus could carry the same number of people as 30 cars, while only occupying the road space of three.

"We improved public transport and began alternative fuel use in Suceava, so we helped to reduce emissions and improve the quality of life in the city," said CIVITAS site manager Dan Dura.

Climate Action

### Social Cycling Station (Italy)

The Social Cycling Station aims to promote bicycle mobility as a means of eco-friendly transportation in urban settings, and to foster training and job placement for people facing social hardships. Through a network of guarded bicycle stations, either permanent (nearby train stations or universities) or temporary (on-demand service during city events, festivals etc.), the project aims to stimulate urban cycling by ensuring bicycle security, one of greatest disincentives for bicycle use in Italy.

### Eco Driving (Lithuania)



Eco Driving means smarter and more fuel-efficient driving. It can reduce fuel use and  $CO_2$ emissions by up to 20%. The Eco Driving monitor attached to the vehicle's onboard computer informs the driver of every non-economic move, and sets benchmarks for driving efficiency. This eco driving intelligence is logged into an online system and can be later analysed.

### Travel CO<sub>2</sub> calculator for Lithuania (Lithuania)

Aiming to promote climate-friendly modes of travel in Lithuania, this web-based tool integrates into a popular online Lithuanian route planner. Whenever a site visitor is planning a trip, the calculator provides information on their travel carbon footprint for the most popular transport modes, and highlights sustainable options.

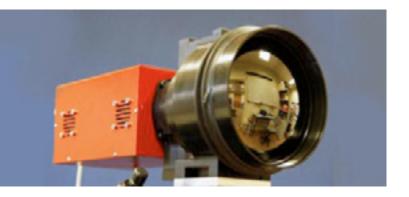
### Vilnius Metro (Lithuania)

Vilnius Metro is a proposed rapid transit system for the Lithuanian capital. It will consist of three lines connecting the busiest areas and offers an affordable, reliable and environmentally-friendly way of getting around the city. Metro rolling stock is electric, meaning it will significantly cut CO<sub>2</sub> emissions compared to fossil fuel driven public transport. It will further help fight climate change by removing significant amounts of CO<sub>2</sub>-producing traffic from the street level.



### Road-traffic pollution IR detection system (Spain)

Identifying, monitoring and removing highly polluting vehicles from our roads is necessary to reduce transport emissions. The Road-traffic Pollution IR Detection system measures a vehicle's exhausts to discover which cars or trucks exceed  $CO_2$  emission limits. The project was developed by the Infrared Lab of the Universidad Carlos III of Madrid.





### Safe routes to school (Spain)

In Santa Fea, Granada, over 50% of children going to school used to arrive by car. This project introduced a safe and eco-friendly alternative to help reduce carbon emissions and improve the quality of urban life. Different routes were designed to make it safer for the children to go to school on foot. Together with awareness-raising activities among teachers, pupils and parents, this approach has helped some areas of Granada decrease the number of children arriving to school in cars by half.

### Eco-driving at sea saves fuel (Sweden)

Waxholmsbolaget, which provides passenger and cargo transport in the Stockholm archipelago, installed computers on its ships to help its officers drive in a fuel-efficient way. Fuel consumption fell by 10–15 percent with no effect on timetabling, largely thanks to the engagement of the staff on board. Fuel computers have been installed on a further eight high-speed ships and will become standard whenever new engines are fitted.

## Intelligent street lighting saves energy (Sweden)

The City of Gothenburg Traffic and Public Transport Authority has been working on intelligent systems for street lighting since 2006. It has been successful with the unusual combination of arranging better lighting with lower electricity consumption and at a lower operating cost. The application of more efficient light sources and better fixtures has reduced electricity consumption by more than 60%, while also lowering maintenance costs.

### Reducing street light consumption (Sweden)

The successful installation of street lighting dimmers in Helsingborg shows that it is possible to save electricity while preserving the sense of security on city streets. Unlike other saving efforts, this is an action that the public has accepted. Advanced dimmers were installed in 140 electricity substations during 2005–2007, reducing electricity consumption by 10 percent without a noticeable deterioration in light yield. Significant cost savings were also achieved.



### Green Light World Flight – measuring concentration and distribution of black carbon (Slovenia)

Aimed at providing a low cost platform for monitoring air pollution, the project conducted a transglobal environmental-awareness mission on a fuel-efficient, ultralight aircraft in 2012. Black carbon, caused by the incomplete combustion of fossil fuels and a major cause of global warming, was detected in high concentrations during the research mission across seven continents and all major oceans.

### Pooling resources for a more sustainable climate (United Kingdom)

Cars sitting idle clog up our streets. But they can be put to good use. They can earn you money and save some for your neighbours.

> A number of initiatives across the UK are encouraging drivers to travel together to save money and the environment, like carpooling or car sharing schemes.

> Carpooling.com is the world's leading car sharing network where lifts can be easily organised via computer, mobile phone or Facebook. The UK version, carpooling.co.uk, has more than 4 million registered users. Worldwide, the network has saved over 1 million tonnes of  $CO_2$  and 430 million litres of petrol.

Users have seen huge financial savings and thousands of friendships have been created – resulting in at least 16 marriages!

Car sharing schemes are also becoming a successful business model. Daimler's subsidiary 'car2go' launched one of the first large-scale all electric car sharing fleets.

The new mobility concept has been rolled out in the UK as well as in other parts of Europe, North America and Canada.

### Smarter Travel Workplaces Pedometer Challenge (Ireland)

Smarter Travel Workplaces is a unique programme that works with organisations in Ireland to implement actions to promote sustainable, low emission transport modes as part of a workplace travel plan. The Pedometer Challenge in particular focuses on walking. Besides its health benefits, walking on the commute can contribute to reduced noise pollution and CO<sub>2</sub> emissions from fuel and traffic through neighbourhoods.

### 'Urban cycling' - cycling for a good climate (Germany)

The campaign aims to raise awareness among citizens about using pollution-free bicycles in everyday life to help fight climate change. Since 2008, the Climate Alliance has invited local politicians to pedal with citizens to promote cycling. Schools, businesses and citizens can form their own teams and take part in 21 days of bicycleonly transport, with local councils across Germany lending support.

### The TEV Project (United Kingdom)

TEV is a model for small-footprint, speciallydesigned roadways or 'tracks' that provide direct, low cost power for electric vehicles, including private cars, public transportation and light freight. Vehicles would operate under software control in the track environment, allowing high speeds and passenger safety benefits.

Travel on the track network would create no local emissions and provide electric vehicles with endless range.

## *Promoting cycling to work (Finland)*

The campaign aimed to increase the number of cyclists and reduce the number of high emission vehicles on the road through bike sharing and the communication of memorable biking experiences. Local workplaces could borrow bicycles for one month and users could share their experiences on social media. Unique shared bicycles, so-called art bikes 'pimped' by local artists, played an important role as the colorful design attracted attention to the campaign and its goal of promoting sustainable transport.



### Urbanbiba - a compact cargo bike (Spain)

Urbanbiba is a small, affordable and compact cargo bike for daily use that can be used by anyone. The aim is to replace the need for a car in the city with a bike that handles big or small cargo like shopping bags, kids, a work bag or computer. This sustainable transport solution is produced and manufactured as locally as possible. Production techniques have a low environmental impact and emit low levels of CO<sub>2</sub>.

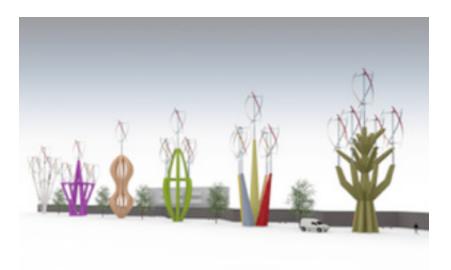


### Online 'friend' campaign (Belgium)

This online 'friend' campaign is aimed at young families in the province of Antwerp who wish to participate in sustainable, fun activities that reduce CO<sub>2</sub> emissions. With each sustainable action (cycling to work, planting trees, saving energy), participants earn stars, the total number of which is automatically posted on the campaign website. When a predetermined number of stars is reached, the provincial government undertakes a sustainable initiative.

### Wind trees avenues (Italy)

The project redesigns street lamps and traffic pylons to help build vertical wind turbines that can produce electricity for urban and non-urban areas. These micro power plants for the production of energy from alternative sources reduce the dependence on fossil energy and help fight climate change. The project's benefits also include the visual rehabilitation of roadsides.





## **Good practices**

Travel & transport

Building & living

Re-use & recycling

Shopping & eating

**Producing & innovating** 

# *3enCult (Efficient Energy for EU Cultural Heritage) (Germany)*

3ENCULT introduces historical buildings to energy efficiency and carbon reduction. Local governments and municipalities can join workshops on how to make their heritage sites more ecofriendly. This helps participating regions integrate a more sustainable approach into their local planning while taking advantage of decreased energy costs.

### Click Post (Spain)

ClickPost is an online tool that automatically receives and sorts household bills, helping users reduce the need to print them on paper. So far, 10,000 users have registered in Spain to receive their bills for electricity, water, gas, telephone and internet from leading suppliers in the country electronically. ClickPost has helped transform a costly, inefficient and polluting system into a useful, economical, efficient, safe and environmentally friendly alternative.

### Solarstromerzeugung.de web portal (Germany)

Solarstromerzeugung.de is a German information portal on solar power. The website explains how to install, clean, maintain and finance solar modules. It also allows users nationwide compare prices of solar panels from different companies. So far, the project has responded to more than 5,000 requests for photovoltaic systems from climate conscious individuals.

### Electricity cost savings in rental housing (Spain)

ECO<sub>2</sub>Next Solutions help tackle the increasing cost of electricity bills for people renting in residential buildings by providing alternative options for energy. The project provides LED lighting, photovoltaic panels and reactive power batteries, along with monitoring output to eliminate deviations on consumption. Additionally, charging stations in garages can be installed to provide electric vehicles with energy.

### A new day for energy production and storage (Italy)

The project targets the residential market and only uses renewable energy sources on-site. It also employs intelligent energy management systems that will better manage the accumulation and flow of energy in the houses. Moreover, it promotes the use of energy-saving appliances. Since 2008, Gammaenergy has been financing the construction of photovoltaic energy systems at no cost for its clients.





### Beach we like – a sustainable resort (Italy)

The Beach We Like project aims at establishing a sustainable beach resort that combines a low environmental impact with a high level of technology. For example, the project aims to generate renewable energy, use recycled materials, install innovative systems for waste disposal and promote social networking. The initiators of the project have already identified technology providers for the equipment required and selected areas to start pilot projects.

Climate Action

### Solar powered charging stations keep electric cars moving in Bulgaria

Recognising electric vehicles are the way forward, Sofia is now equipped to receive them.

> With increased awareness about climate change creating more demand for electric vehicles in Bulgaria, two companies, A1 Ltd and BIES Ltd, launched the country's first solar-powered charging station in Sofia in 2012.

> The charging station produces 25 kWh of electric power each day. This can also charge four electric cars and provide additional electricity to the nearby Expo Centre.

> "We started producing electric cars first. Then we decided it wasn't enough and we made a charging station which makes driving an electric car completely clean and emission-free," said Teodor Ivanov, marketing manager at A1 Ltd.



# BUND Label 'Energy saving hospital' (Germany)

Facing huge energy bills, hospitals often introduce a climate conscious approach to cut their costs. The Association for Environment and Nature Conservation Germany (BUND) recognises the hospitals most involved in climate protection with the 'Energy saving hospital' label. The seal of approval confirms a hospital's energy conversation policy and the savings it makes. This spurs more hospitals to establish an energy management system and create a more efficient practice for their patients.

# *'Climate seeks protection' campaign (Germany)*

One seventh of CO<sub>2</sub> emissions in Germany are produced by private households. This project's goal is to inspire energy saving among German consumers and citizens by helping them monitor their energy and CO<sub>2</sub> consumption and savings via interactive online tools. The dedicated website also features climate experts offering practical energy saving tips.

#### 4. Good practices – Building & living



#### Climate Solver (Sweden)

Low-carbon entrepreneurs have the power to create a green economy. WWF Sweden's Climate Solver is a platform to facilitate innovative technologies that can dramatically reduce carbon dioxide emissions. The project also intervenes with policy makers, large companies and investors to ensure they support these green solutions. In total, Climate Solver represents products, systems and services with the ability to reduce  $CO_2$  emissions by at least 20 million tonnes per year.

#### CO<sub>2</sub> savings account (France)

Incentives are a proven method to help people switch to a low-carbon lifestyle. The CO<sub>2</sub> savings account rewards households and businesses that reduce carbon emissions by paying them with "kg CO<sub>2</sub>". This is a type of currency that can be used to purchase train tickets and sustainable products or sold to companies that offset their emissions. In 2012, the participating households and businesses helped reduce 35,000 tonnes of CO<sub>2</sub>.



#### Using sustainable energy to rebuild a rural economy (Italy)

Faced with a bleak future a mere ten years ago, Varese has brought its fortunes back from the brink through renewable energy.



Ten years ago, the Italian city of Varese Ligure experienced a mass exodus of inhabitants over a short space of time. The city took the strategic decision to reinvigorate the community by using renewable energy and boosting organic agriculture.

"Varese was a dying town. All the young people were leaving, because they had no opportunities," said Michela Marcone, mayor of Varese Ligure. "So we focused on developing agriculture with an emphasis on organic farming and this has created new jobs. We also concentrated our efforts on renewable energies, and now, people aren't leaving anymore."

Varese Ligure sells the energy it doesn't use to the national grid. The move has revitalised the local economy and increased tourism.

Climate Action

# Social electricity (Cyprus)

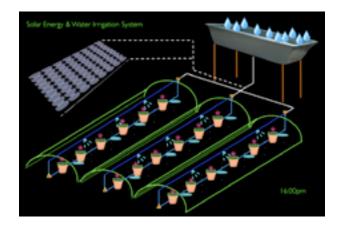
Social Electricity is a fun and educational Facebook application that aims to make citizens aware of their energy consumption by comparing their behaviour with their friends, neighbourhood, city or country. Consumers use the application to improve their energy consumption and reduce their carbon footprint. After 6 months, the project had more than 1,000 users signed up and over 1,450 friends on its Facebook page.



# The Blue Diamond - a CO<sub>2</sub> neutral town hall complex (Denmark)

The Blue Diamond is an eco-building that will produce 25% more energy than it consumes while being entirely  $CO_2$  neutral. The 4,200m<sup>2</sup> town hall will provide enough space for 165 staff members, an outdoor skate ring, a day-care centre and a range of green technologies with 900m<sup>2</sup> of solar panels used throughout the building. This project commissioned by the Skive Municipality was designed as a beacon of eco-design for Europe.

#### 4. Good practices – Building & living



#### 'Babylon Effects!' rooftop farms (Germany)

Babylon Effects (BE!) is a rooftop-farming project that aims to provide a sustainable and profitable solution to high-rise buildings. The project's farming technology enables a range of crops to be grown in poly-tunnels connected to a closed-loop water and clean energy management system. The project's team combines experience in energy, civil and mechanical engineering and agronomic sciences.

#### Green Solution House (Denmark)

Green Solution House is a knowledge and conference center for climate technology and sustainability based on a triple green strategy involving Cradle-to-Cradle, the Active House Vision and the DGNB system for sustainable buildings. In an industry that consumes about 40% of Europe's total energy, the Green Solution House combats climate change by showing how to sustainably retrofit old buildings with the latest eco building materials, along with renewable, low energy consumption solutions.



#### EEMontti - reducing residential estates' heating costs by half (Finland)

The project aims to replace electrical heating in Finnish houses with water circulation-based heating systems that cut energy consumption by 30-60%. Such heating system retrofitting also halves heating costs for the average home. EE-Montti focused on four of the 500,000 houses without a water circulation-based heating system in Finland. So far, the heating upgrade of three houses has been extensively documented, serving as an important model for holistic energy renovation.



#### Electree City (France)

Electree City is a tree whose leaves are solar panels. The renewable energy produced can be used to charge electric bicycles, interactive video projection or street lighting, or to complement existing home or city power grids. This unique and symbolic renewable energy concept carries a strong and effective ecological message, and helps to integrate photovoltaic energy in almost any urban environment.

#### A lesson in sustainability from a Dutch school (Netherlands)

RAU combines sustainability with great design to produce truly amazing architecture.



Christiaan Huygens College in Eindhoven has an environmental motto: "What we do today should not have a negative impact on resources for future generations."

"We really want to create a good school today while making sure that future pupils don't suffer from what we do now," said principal Martin van den Berg.

"The building is very energy-efficient. It allows us to provide much better education with lower costs. The CO<sub>2</sub> levels are low and the energy costs are much lower than in a normal school. Our energy roof collects heat in the summer and cold in the winter. We store it for six months later, so we use the summer warmth to heat the building in the winter and the winter cold for cooling in the summer."

# Energy savings in school buildings (Latvia)

Skaistkalnes high school is developing an energy audit and heating system replacement project to help lower its carbon emissions. It is installing more efficient heating systems in three school buildings, replacing 84 windows, insulating attic space, and converting boiler rooms and radiators into a water circulation system that does not burn fossil fuels. Reducing both carbon emissions and total heating costs, the project also improves the school environment and the surrounding climate.

# Action! It is your responsibility (Spain)

An energy efficiency awareness campaign designed for students, parents and teachers at the local level. The project involves and benefits the entire school community by encouraging everyone to participate in improving energy efficiency. Dissemination and communication activities carried out using websites and social media are intended to have a multiplier effect and help students become active agents of social change for green awareness.

#### ACHIEVE (Actions in low income households to improve energy efficiency through visits and energy diagnosis) (France)

With rising energy prices, more and more households across Europe are facing fuel poverty. ACHIEVE is a pan-European action with practical and structural solutions that help Europeans reduce unnecessary energy and water use. The action reaches out to households that are most vulnerable to fuel poverty and works with them to reduce their consumption, while developing common tools and methodologies to address energy usage and simultaneously fight climate change.

#### Eco-Home (France)

Eco-Home is a self-sufficient, mobile kit house made of sustainable wood and materials designed to have the least impact on the environment. The adaptable structure utilises solar energy, recovered water resources (filtered rainwater), and composted crop waste. Solar modules are installed on the Eco-Home's transparent roof, creating a fully self-sufficient office, garage, workshop and studio that uses natural light and clean energy.



#### The Grapevine (United Kingdom)

The Grapevine aims to get 1000+ Viridian Housing colleagues excited about low-carbon living. The project communicates tips on low-carbon lifestyles through intriguing engagement activities whereby colleagues try out new sustainable habits and spread the word "through the grapevine". Colleagues also run local environment projects with the thousands of residents living in Viridian homes across the UK, including changing light bulbs to LEDs and community food growing schemes.

# Green Hospitality Programme (Ireland)

The Green Hospitality Programme (GHP) aims to help green the Irish hospitality industry via third party environmental certification. The focus is on reducing carbon emissions, energy, water and waste consumption in the sector. Actively benchmarking the environmental footprint of Irish hotels since 2007, GHP is among the most successful certification programmes in Europe, helping to reduce waste going to landfill by 80%, water consumption by 30% and energy consumption by up to 25%.

greenhospitality.ie



#### Green Wood Chairs (Ireland)

Green Wood Chairs offers an environmentallyfriendly way of producing rocking, arm and children's chairs for everyday use. The chairs are produced using sustainable materials sourced locally to avoid transport emissions, and the manufacturing process has a very low environmental impact. Green Wood Chairs can substitute products that have a much higher carbon footprint, while encouraging woodland protection and promoting climate-friendly behaviour.

# GreenPocket: light the 'black box' of energy consumption (Germany)

In Germany, 60% of the population do not know their electricity expenditure. Yet targeted information about daily energy consumption is vital to optimising consumption behaviour. The Green-Pocket smart meter app helps reduce the energy consumption of private households, and makes saving energy fun. It creates real-time information about energy use, costs and comparisons with similar households to shine light into the "black box" of personal energy use.



#### A luxury hotel stay that won't cost the earth (Slovenia)

A luxury weekend getaway shouldn't cost the earth. It can even help you protect it. Take your green habits with you on holiday.

> Hotels are responsible for 20% of the CO<sub>2</sub> emitted by the tourist industry. Yet the potential for energy saving in the industry is significant, particularly as a large part of any hotel's energy consumption is due to unnecessary loss and wastage.

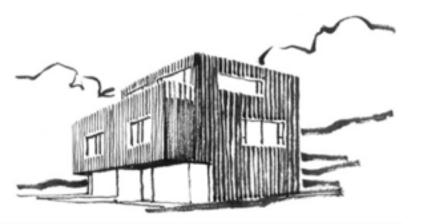
> The Bohinj Park is an eco-hotel in Slovenia's Julian Alps that combines luxury with environmental sustainability.

> Sustainable measures undertaken at the hotel prevent 63 tonnes of CO<sub>2</sub> entering the atmosphere every year. LED lamps, geothermal energy, heat transfer systems and electric car charging stations are just some of the measures making it one of the most energy efficient hotels in central Europe.



# HAUSÎNG (Luxembourg)

HAUSÎNG was founded in 2010 with the goal of developing cool, green, affordable architecture. Avoiding fossil fuels and embracing renewable energy (preferably geothermal), HAUSÎNG has already built a few passive energy houses that typically use CO<sub>2</sub>-neutral wood as the main construction material. Two 'positive energy houses' are in development that produce more energy than is consumed via photovoltaic and solar thermal panels.



# Inspiring and enabling a more sustainable life at home (Portugal)

The project seeks to inspire and enable IKEA customers to live more sustainably, use less energy and water, and reduce waste. Demonstrating that all can help tackle climate change, sustainable living campaigns have been initiated globally, including an IKEA Portugal/LIKEarchitects collaboration that installed 1,200 IKEA LED light bulbs. The event highlighted the efficiency of LED technology that consumes 85% less energy than traditional incandescent lighting and lasts 20 times longer.

#### Information platform Topprodukte.at (Austria)

Since 2005, this online information platform has been part of the climate protection initiative of the Austrian Environment Ministry. It offers clear, consumer-friendly information on energy efficient products in 30 categories including household, lighting, consumer electronics and office equipment. The project promotes a market for energy efficient products, and offers tips on the most energy-efficient equipment. The site includes about 3,000 products and has attracted over 2.5 million visitors.

# WATTlive experience electricity (Germany)

Information about household energy consumption leads to greater energy awareness and energy savings. WATTlive is a free web app that gives private households instructive information on how to save energy in a fun and intuitive way. Using off-the-shelf energy meter hardware, WATTlive offers users an affordable way to explore and reduce their energy consumption by up to 20%.



## LED Streetlighting Project (Germany)

Following a pilot project installing LED street lighting in a local parking lot, the city of Langen decided to replace its entire street lighting with modern, energy-efficient LED lighting heads. 2,558 street lights were replaced in 2010-11 to save energy and reduce CO<sub>2</sub> emissions - both have decreased by around 62 percent as a result. Langen won the Green Light Award 2012 for the project.





The Ecobuilding is the central office of Lavola, a company offering sustainability services since 1981. The building meets Lavola's own sustainability criteria by reducing resource consumption (materials, water and energy) and waste generation throughout the building's lifecycle from construction to use and operation and finally deconstruction. The Ecobuilding has significantly helped Lavola reduce its own carbon footprint.

Climate Action





# Local renewables conference series (Germany)

The Local Renewables Conference Series provides an international forum for over 800 policy-makers, energy experts, researchers and business representatives from 25 contries. With a different topic linked to renewable energy every year, Local Renewables combines social events, inspiring keynotes, thematic workshops and study tours providing practical insight of initiatives in Freiburg. The Conference goes beyond awareness raising and aims at triggering continuous tangible change towards the vision of 100% renewable communities.

# Maes Yr Onn Farmhouse, Wales (United Kingdom)

Magnificent views and rolling hills is the setting for one of Wales' newest sustainable homes, built completely off-grid with no access to mains electricity, gas, water or sewerage services. The main aim of the project was to provide a renewable energy generation and water resource solution in an off grid setting, which has been achieved using solar PV panels for electricity, rainwater harvesting technology and a biomass hot water boiler.



Climate Action

#### Raising awareness on energy savings at home (Spain)

The project aimed to raise awareness among vulnerable, low income groups about how to save emissions and money by reducing energy consumption and water usage at home. The project promotes climate-friendly behaviour by visiting the homes of the elderly, or giving talks at schools, and distributing information kits and manuals of best practices for saving energy.

## New leased OTE-COSMOTE office complex at Paiania (Greece)

Transforming buildings into green working spaces is something that benefits both businesses and the environment. OTE-COSMOTE uses specialised technology to manage the microclimate of its building, reducing its energy consumption and bills in the process. The building also uses LED lighting, green insulation and solar power. It was the first property in Greece to be awarded a gold level LEED<sup>®</sup> (Leadership in Energy and Environmental Design) certification.



# Harnessing the power of the sun (Greece)

Improving a person's quality of life. By harnessing the power of the sun. A lift that functions only on renewable energy.

Greek firm Mezolift has created a solar-powered lift that can be easily installed in small homes and apartment blocks. The Solar Home Lift can operate continuously all day long, thanks to its capacity to store energy absorbed during the day, and can even channel excess energy to the home. With the latest safety measures and compliance certification, this is a lift that not only satisfies people's mobility needs, it also leaves a greener environment.

Climate Action

### Pecol ECO SYSTEM reusable cartridge for sealants (Portugal)

The project's main objective is to reduce the waste generated by the application of chemical sealants in the building industry. It does this by replacing traditional PE sealant cartridges with recyclable cartridges, reducing by 85 % the number of waste containers that generate high carbon hazardous waste that is costly to treat. The innovative project is being promoted throughout the building industry in Portugal.



#### Romania's first green school building (Romania)

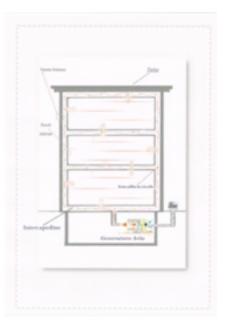
The project is the first school in Romania built on the principles of sustainability and energy efficiency. The certified "green" school building utilises natural lighting, energy efficient heating and cooling systems, non-toxic natural materials and continuously ventilated classrooms. The benefits are not only environmental but educational. Since the building was completed, student performance soared by 30%, while absences for medical reasons have declined by over 25%.

#### Urban Stewardship Network Madrid (Spain)

Urban Stewardship Network Madrid aims to establish a platform for citizens to propose sustainable regeneration projects and activities for vacant city spaces. Such regeneration includes strengthening urban biodiversity through tree planting, garden planting and other environmental activities. Empowering citizens to "create their own city" increases environmental awareness and promotes urban agriculture, active recreation, floriculture, aquaculture and horticulture in areas that would otherwise be wastelands.

# Energy efficient heating in public and private spaces (Italy)

The project proposes new techniques of energy efficient heating in public and private spaces, and seeks to lower the electrical energy consumption of home appliances such as conditioners, electric heaters and heating systems. One innovation is a chamber filled with hot or cool air depending on the season. This is achieved via an air generator connected to a solar panel that heats or cools the rooms with high energy efficiency.



# Green Homes (Spain)

Green Homes is a programme to promote energy and water savings at home, as well as commitment to responsible consumption. Sponsored by the Government of Navarra through the Environmental Resource Centre Navarra (CRANA), the programme offers training workshops for households. Over 1,000 families have taken part in the project.



## Multi-energy heating system (Italy)

The project offers a solution to store excess electricity produced at night by transforming it into heat for use during the daytime. This is done through a solar thermal system with integrated heating tubes. The solution helps use energy that would otherwise be wasted.



¡Reduce el consumo energético de tu hogar!



Climate Action

#### Saving Water Energy (Spain)

This water and energy saving hot water system has the potential to achieve significant carbon emission reductions. It consists of a water flow interruption system that causes the water to re-circulate in the hot and cold water pipes coming from the boiler to the taps, so as to obtain hot water without wasting cold water. The system has the potential to reduce water and energy consumption in households across Spain and Europe.

# EASYHOME 4EQ: Eco-friendly life concept and housing (Italy)

EASYHOME 4EQ is a residential complex that uses only fully renewable energy sources (solar panels, geothermal heat and heat pumps). Consisting of two towers for a total of 20 singlefamily homes, the buildings are designed using the KlimaHaus A-GOLD protocol, meaning there are zero CO<sub>2</sub> emissions. 4EQ stands for Energy Efficiency, Economy, Ethics and Quality, principles at the basis of a new way of eco-sustainable building, dwelling and living.



# EcO – buildings with zero consumption (Italy)

The EcO project is the first national Zero Energy Building network in Italy. Its primary objective is to develop and enable the construction of better Zero Emission Buildings in Italy and other EU member states. The project aims to influence the public and private building sector that is responsible for 40% of energy consumption in the EU by raising awareness and promoting the construction of low energy houses.



## Growing our future raising awareness of hemp building materials (Lithuania)

The project aims to raise awareness of organic hemp building materials that help reduce CO<sub>2</sub> emissions, and ensure superior insulation and structural properties compared to conventional building materials. Hemp is more productive and environmentally-friendly than forestry products due to a more rapid growth rate in less space, and absorbs more CO<sub>2</sub>. Hemp-based building materials can also replace crude-oil-based materials. Moreover, local hemp products reduce CO<sub>2</sub> emissions by decreasing the use of transported materials.

Climate Action

# Turning a home into a power house (Germany)

While other houses save energy, a WeberHaus generates energy.

With buildings accounting for almost 40% of the EU's total energy consumption and greenhouse gas emissions, energy efficiency is a priority for the construction industry.

While some houses save energy, the greenest homes can even produce it. Combining nature with innovation, WeberHaus has set new standards when it comes to the construction of energy efficient homes. With innovative and ecological insulation and photovoltaic lighting systems, the company builds wooden homes that are totally energy-independent.

On average, they produce 55% more energy than required to fulfil domestic needs. The surplus energy is transferred to a supply point in front of the house and can power an electric car for 30,000 km.





# 'The Sixth Fuel' communication campaign (Poland)

The Sixth Fuel is a communication campaign aiming to increase awareness and understanding of energy efficiency in buildings. Beyond five widely recognised energy sources (gas, oil, coal, renewables, nuclear), the campaign focuses on a sixth, which is simply to save energy via efficient building design. Buildings are responsible for more than 40% of energy consumption in the EU. By increasing their energy efficiency, we reduce energy production and therefore GHG emissions.

### Low energy houses for everyone (Poland)

Two recent housing developments by Dworek Polski combine innovative eco technology with culturally entrenched notions of a traditional house. All houses require very little energy, which is achieved by using innovative methods such as heating water from fireplaces. Dworek Polski runs its own laboratory researching how to lower energy consumption to "near zero" while remaining faithful to traditional architecture.

#### The Biggest Loser (Poland)

This is a competition to raise awareness about CO<sub>2</sub> emissions and empower individuals to take action in a fun and easy-to-understand way. The competition is based on the reality television show, The Biggest Loser, in which contestants attempt to lose the most weight. Contestants of "The Biggest Carbon Loser" will create initial carbon footprints and implement energy efficiency measures to reduce them over a three month period.

#### Reducing emissions of nitrous oxide (Sweden)

The impact of nitrous oxide on climate change is over 300 times greater than that of carbon dioxide. This facility has aimed to reduce nitrous oxide emissions at Karolinska University Hospital since 2004. Splitting the nitrous oxide into nitrogen and oxygen, the facility breaks down nearly 97 percent of the nitrous oxide. The first facility of its kind worldwide, it shows how to capture a large proportion of the nitrous oxide otherwise dispersed from healthcare services.

# Snow heap becomes cooling facility (Sweden)

At Sundsvall County Hospital, snow has been transformed into a renewable energy solution. A basin has been created alongside the hospital that can accommodate up to 70,000 m<sup>3</sup> of snow removed from nearby roads and car parks. A heat exchanger, pump and a system of pipes use the cold in the snow's meltwater to cool the hospital on warm days, lowering electricity use for cooling by 90%.

# Trees in the street (Italy)

The project aims to increase the green heritage of the city, especially in empty areas often filled with asphalt or left to decay. With the help of the local administration and citizens, the project identifies appropriate areas for enhancement. Private companies are contacted for support, and trees are planted and maintained. The project also aims to disseminate educational material online regarding green zone and tree management.



# Low-carbon construction material solutions for the Porta Nuova project (Italy)

The Porta Nuova project involves the regeneration and redevelopment of the Garibaldi, Varesine, and Isola areas of Milan. Holcim produced low-carbon and highly sustainable building materials for the project based on locally available resources supplied from within 11 km of the area. 11,800 tonnes of waste and by-products were also recovered to be used on the site, saving around 12,600 tonnes of CO<sub>2</sub>, and helping further reduce the project's environmental impact.





# Tackling fuel poverty (Spain)

Fuel poverty is the inability to affordably keep the house at a comfortable temperature. This economic disadvantage is exacerbated by the poor energy efficiency standards in low income homes; fuel-poor households are likely to occupy properties with inadequate thermal insulation and expensive and inefficient heating systems. This project focuses on energy education for vulnerable groups by offering energy assessments and training by volunteers who act as ambassadors for energy efficiency measures.

Climate Action



# Urban gardening with reused materials (Bulgaria)

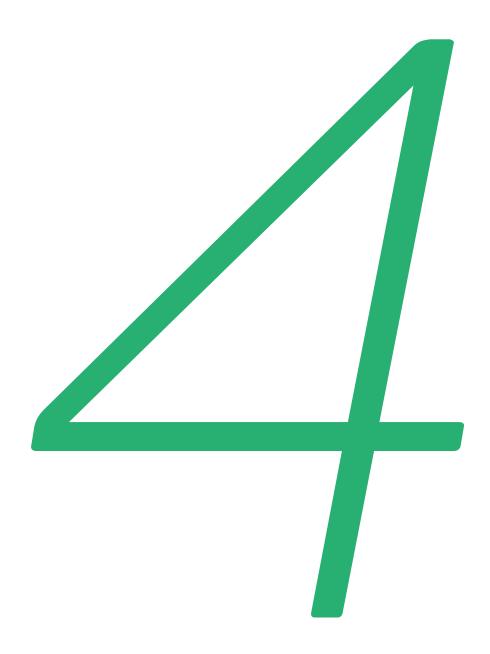
The project uses recycled materials to create sustainable urban gardens. Old tires, plastic bottles and coffee grounds are used to create a large vegetable garden and plant trees. Producing food in urban gardens reduces fruit and vegetable transportation by hundreds of thousands of kilometers. The project thus gives people a means to limit  $CO_2$  emissions in their own neighbourhood, and teaches them about sustainability.

# Living from the air of the sky (Spain)

The project aims to finance the installation of a renewable energy wind turbine thanks to contributions by individuals, families, small businesses and local NGOs. The objective is to foster solidarity among people living in urban areas (availability of capital) and those living in rural areas (availability of wind) to generate clean, green electricity. This project will be the first of its kind in Catalonia and Spain.







# **Good practices**

Travel & transport Building & living Re-use & recycling Shopping & eating Producing & innovating

# Giveaway shop Zeist (Netherlands)

Weggeefwinkel is a volunteer bargain store whose lively trade has made it a household name in Zeist. Through social media, visitors to Weggeefwinkel's Facebook page can confirm their interest in second hand goods and pick up their purchase later that day. Over the years many items have been saved from the dump. The shop also provides well needed items to the less privileged members of Zeist's community.



# Recycling and re-using sewage and waste (Cyprus)

By recycling and re-using sewage and waste it's possible to create low-cost environmental and commercial by-products. This project adapts this approach to create biogas fuels that can be used to generate heat and power. It also produces fertilisers that result in a lower cost of food, lower pollution and healthier food products.

#### 4. Good practices – Re-use & recycling



## A solution for efficient water management (Spain)

As climate change is expected to affect water supplies in the future, there is a growing need to improve the management of this increasingly scarce resource. Sabadell is one of the first cities in Spain to regulate water saving within the municipality's bylaws. The pioneering project uses non-drinking water to irrigate green areas. This has released 100,641 m<sup>3</sup> of drinking water for the public, reducing the need to pump water from elsewhere.

# ABP Food Group carbon reduction programme (Ireland)

Carbon reduction can be difficult for the food industry, but by going green companies give themselves a competitive edge in the market. ABP Food Group has developed environmental policies and sustainability plans for their processing operations in order to gain consistent carbon reductions. A total reduction of 1,089 tonnes of CO<sub>2</sub> was achieved for the entire ABP Food Group from improved work practices and efficiency.





#### Improving the environment with a state-of-the-art waste facility (Cyprus)

State-of-the-art recycling and disposal techniques. On a small island nation. Protecting the environment while improving people's quality of life.

In Cyprus, each citizen throws away more than 550kg of household rubbish every year. Disposing of all this waste is a challenge, but thanks to a state-of the-art facility, Cyprus is at the cutting edge of waste management. Larnaca, on Cyprus's southern coast, is home to the country's leading waste treatment facility. "This is the first plant in Cyprus that treats mixed waste and can separate the waste automatically," said Loizos Antoniou, technical manager at the waste site.

#### ART-EPI Green Performing City (Denmark)

ART-EPI Green Performing City is a project combining culture, architecture and sustainability to find new answers for climate change. Artists and scientists live and work together to invent new solutions for a sustainable future. With six major cities already partnered to the project, ART-EPI aims to adapt new types of sustainable energy, materials and technologies to provide citizens with a green solution for every aspect of their daily lives.



# Climate School of the Hohe Tauern National Park (Austria)

The Climate School is committed to reducing carbon dioxide emissions through the transfer of knowledge and the visualisation of a sustainable behaviour in areas such as consumption, food and mobility. The project is targeted at students from the 4th to the 8th grade in a national park region of Austria. It is a mobile service free of charge, including all teaching material.

#### CO2 Diet (Bulgaria)

CO<sub>2</sub> Diet is an innovative and interactive online platform to encourage people to reduce their CO<sub>2</sub> emissions. Through this platform, the CO<sub>2</sub> emissions generated by people's daily activities can be calculated easily. The CO<sub>2</sub> Diet includes tips to reduce the impact on the environment by, for example, unplugging appliances that are not in use. Set up in 2009, CO<sub>2</sub> Diet has already organised several public events as well.

# Community Reuse Network (Ireland)

Climate change is something that affects us all communities, organisations and members of the public. In Dublin, the Community Reuse Network (CRN) brings together waste prevention organisations to help stimulate job creation and reduce carbon emissions while tackling social exclusion through training and employment opportunities. In total, the CRN has diverted over 175,000 tonnes of material from landfill. Its members include 710 full time workers and over 100 volunteers.

### Method for air cooling and climate control (Germany)

Storing carbon in the sea is a little known but natural approach to reduce greenhouse gases in our atmosphere. Methane and CO<sub>2</sub> can be taken from the atmosphere and stored in the oceans. This is achieved by a controlled and measured introduction of special additives into the troposphere over large industrial areas. The method was demonstrated at the University of Bayreuth in Germany and is part of ongoing practice.



#### Local energy and climate protection concept (Germany)

Since July 2012, the municipality of Oberrot, Germany, has taken initiative to address energy use and climate protection. A weekly community bulletin provides energy saving tips and commends exemplary climate protection measures of associations and companies. A free energy advisor service is provided at the city hall, a carpool initiative has been established, and the municipality takes part in a community project to utilise new fuel cell technology.

#### 4. Good practices – Re-use & recycling

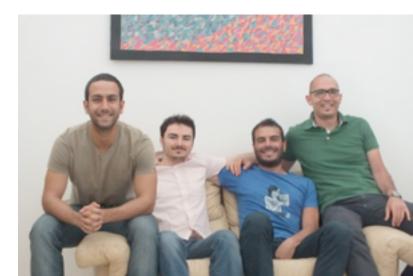


#### Eco-friendly art and fashion project (Estonia)

This project aims at creating sustainable, eco-friendly art and fashion. It ensures that the production, labelling and packing of the products are carried out mostly in the country of origin with minimal transportation to save emissions. There is also a strong emphasis on recycling, a process that starts in-house via the reuse of fabric waste. The label's third sustainable collection was shown at the Tallinn Fashion Week in October 2013.

#### EggPlant – transforming wastewater into raw material (Italy)

EggPlant aims to create a holistic solution to the problem of non-biodegradable waste based on a project to reuse olive mill wastewater. A zero waste process transforms the wastewater into a raw material to produce eco-friendly and valuable products such as bioplastics, polyphenols and compost. Such holistic innovations can significantly reduce the consumption of plastics derived from hydrocarbons, one of the biggest sources of pollution on the planet.



#### Turning waste into energy (Latvia)

Landfills can produce green energy. Thanks to a sustainable restructuring and cutting-edge technology. Building a low-carbon future in the dirtiest of locations.

> One of Latvia's biggest landfill sites has undergone an overhaul in recent years. Now modern and environmentally friendly with state-of-the art technology, the Getlini waste site produces green electricity.

> "On this site, waste is disposed of in an environmentally-friendly way, because the polluted water is prevented from entering the groundwater as well as from flowing out into natural water systems," said Māris Liepiņš, manager of the environment protection department at Getlini EKO. "Secondly, the waste is covered up and so most of the gas coming off the waste gets collected when it would otherwise pollute the atmosphere," he adds.



#### Composting in a network to valorise, educate and participate (Spain)

The project promotes climate-friendly behaviour among schoolchildren and citizens via a municipal composting programme in Granada, Spain. The local collection of household organic waste helps reduce transport emissions associated with its disposal. The compost is also utilised by local farmers. Since 2010, the municipality of Ogíjares, for example, has achieved an annual saving of 57% in transport and treatment costs of pruning wastes alone.

#### Expressing ideas, performing actions (Greece)

The second experimental primary school of Rhodes initiates ongoing environmental projects that aim to protect local forest, seas, flora and fauna. Based in Rhodes, a main resort island in Greece, the school has successfully implemented recycling, energy saving and water resource management projects in recent years, helping to raise environmental awareness among students, teachers and parents alike. Such actions are further publicised on school blogs, magazines and brochures.

#### 4. Good practices – Re-use & recycling



#### Food storage in an easy way (Austria)

NaKu has developed an innovative bioplastic bag that keeps food fresh for longer, and helps protect the climate. The NaKu-Bag made out of decomposable bioplastic based on corn starch is breathable and keeps bread and vegetables fresh. It can also be used as shopping bag and an organic waste container liner. NaKu-Bag production generates 40% less CO<sub>2</sub> than paper and plastic bags.

#### From waste to clean energy (Sweden)

Every Swede produces half a tonne of household waste yearly that ends up in dumps that create methane –a particularly damaging greenhouse gas. At the waste-to-energy plant in Sävenäs, this waste is instead transformed into energy used to generate electricity for district heating, replacing fossil fuels. One of the world's most advanced waste incineration facilities, it can generate 5% of Gothenburg's electricity and 30% of its district heating needs.



#### Garbage SYSTEM (Slovenia)

Garbage SYSTEM is a project to separate waste at the source in a cheap and effective way. Each household receives a variety of recycled bags for different types of waste. By encouraging conscientious waste separation in households, the project reduces the cost of waste disposal, reduces the amount of waste deposited in landfills, increases the production of recycled eco-materials, and promotes awareness about a clean environment.



www.geresnis pasaulis.lt

#### A Better World -Geresnispasaulis.lt (Lithuania)

The Geresnis Pasaulis (A Better World) project promotes the reuse and restoration of throwaway items to encourage sustainable consumption, sharing, cooperation and community building for mutual benefit. The Geresnispasaulis. It website shows how to reduce excessive consumption by getting better use out of items, extending their life as much as possible, or giving them to others who can use them. The site provides ideas, advice and inspiring examples on how to do this.



#### *Gymnastics with bottle dumbbells (Latvia)*

Households often just throw away their food packaging, but most of it can be given a second life. Thanks to an idea by a gym teacher, the Valmiera city preschool in Latvia now uses dumbbells made by filling empty yogurt bottles with sand. Used for physical education classes, the dumbbells help to teach preschoolers about recycling while reducing the need for new exercise equipment.

#### Hamac nappies (France)

Every child uses 5,000 disposable nappies, which is one tonne of waste per child. Hamac, a young startup, developed a durable and simple solution to reduce waste caused by nappies. Created out of eco-innovative textiles, Hamac nappies are biodegradable and combine the advantages of both disposable and reusable nappies. The product saves 900 kilos of waste per child, and reduces greenhouse gas emissions by 92%.



#### Houses from straw (Lithuania)

In recent years, straw bale construction has attracted much interest as a modern and sustainable way of building. The 'House from Straw' project promotes straw constructions' environmental benefits that range from improved insulation and lower energy bills to reduced environmental impact. In fact, constructing a typical straw bale house could save 12–14 tonnes of CO<sub>2</sub> emissions compared to a brick house.





# *'I Prefer 30°' campaign (Belgium)*

This initiative aims to promote sustainable consumption of household laundry detergents through a project aimed at low temperature washing. If average wash temperatures were reduced by just 3° in the five key countries covered by the campaign (Belgium, Denmark, France, Italy, UK), the saved electricity would power the needs of 180,000 people annually. Low temperature washing can save up to 11.3% of energy used for laundry machine washing today.

Climate Action



#### Katcha Bilek - beautifully reconstructed designs (United Kingdom)

Katcha Bilek designs and produces original bags and accessories made from recycled materials that would otherwise be destined for a landfill, such as tyres and seatbelts. The products are made by hand, eliminating carbon-generating mass machine production. Katcha Bilek's designs have caught the attention of major companies including Sony, for which she designed a collection of laptop bags.

#### LifeCycle Tower – taking timber to new heights (Austria)

With our cities growing, LiveCycle Towers offer many people an urban living environment with environmental and resource-friendly building materials. The multi-story green buildings combine resource and energy efficiency for high-rise buildings. The timber-hybrid structures provide a way to save, enhance and improve energy use – before and after construction. LifeCycle Towers can host offices, hotels, apartments, shops or schools with a positive energy balance and an unmatched ecological footprint.



#### Lumoi Jewellery Upcycling Service (United Kingdom)

Finding alternative ways to deal with waste has never been greater: Lumoi Jewellery up-cycles fast-fashion accessories and prevents perfectly good materials from being thrown away. All jewellery they receive is dismantled, cleaned and checked for any damage before being up-cycled into a brand new design. For any jewellery received, Lumoi Jewellery offers a voucher in return which can then be spent on their website lumoi. com on new, trendy accessories.





#### modesTalka (Latvia)

modesTalkas are regular events where members collaborate to create new costumes and accessories from their used, unwanted clothes. Both environmentally friendly and creative, the project employs reuse and recycling to create something new out of objects that otherwise would have been discarded and encourages participants to consider how their everyday choices impact on the environment.

#### Līgatne paper mill (Latvia)

The Līgatne paper mill manufactures all its high value products, such as writing/art paper and cardboard, from 100% recycled waste paper. To educate consumers about recycling and to better source waste paper, the company has implemented a free scrap collection service across 2000 local offices and 350 schools. Incentive awards are given to the schools that forward the most waste paper for recycling.

#### Mist Fan (Austria)

The Mist Fan achieves temperature reduction via the atomisation of water into fine mist, a tool that aids the cooling of industrial equipment, server systems, dust control in waste areas and much more. The product and process is characterised by very low energy consumption, low maintenance, and noise and dust reduction. The project helps create a healthier work environment by improving working conditions and avoiding pollutants or hazardous materials.



#### Offshoots Permaculture Project (United Kingdom)

This flourishing garden based on 21st century green technologies is one of the 37 land learning centres in the UK recognised by the Permaculture Association. The purpose is to refocus society's view of the environment by allowing the garden's 6000 annual visitors experience a food garden that produces no waste, is carbon neutral, and demonstrates how food needs can be met sustainably without depriving others now or in the future.





#### Pillestone project (Hungary)

The project focuses on promoting the innovative use of recycled building materials. Pillekő (pillestone) is a new composite building material derived from recycled PET bottles. The lightweight, waterproof and impact resistant material is used for example to build outdoor and street furniture. The project works with households, educational institutions, municipalities and companies to raise environmental awareness and design and build sustainable community spaces.

Climate Action

#### Pixel Pocket Park (Greece)

Taking up the challenge of creating something beautiful and eco-friendly with limited resources, the project created a community park from recycled, reused materials in an abandoned area of Athens. Pallets, stones and soil were collected from the streets to plant trees and build chairs and a playground for local children. The project has helped to teach local citizens to care for their neighbourhood , think green, reuse and recycle.

#### Portuguese Celebration (Portugal)

This combined art and recycling project creates artworks out of waste while highlighting the excessive consumption of western society. The project recycles various materials such as styrofoam, plaster, stone and ceramic trays and converts them into symbolic art works that can be appreciated by citizens across Porto.



#### Waste treatment facility eases burden on high-emission industry (Slovakia)

Forget about wasteful production methods, Slovakian company Ecorec has found a way to use the waste to make cement.



Cement is an essential material in the construction industry, but its production accounts for 5% of global CO<sub>2</sub> emissions. Ecorec runs one of Slovakia's most innovative waste treatment facilities in Bratislava, where innovative methods are helping to reduce cement's carbon footprint. "We work mainly with municipal, separated and industrial waste," said Abl Christian, managing director of Ecorec. "We turn it into alternative fuels that can later be used in the cement industry."

"Concrete is the second most widely used material worldwide, after water," said Ecorec's sustainable development coordinator Peter Robl. "We have to do our best to produce it in the most environmentally friendly way possible."

Climate Action

#### Power Tower (United Kingdom)

Power Tower is a sustainable power generation technology that can be scaled to provide clean, sustainable electrical power for homes, businesses and industrial consumers. The technology uses recycled materials, fluid dynamics and hydro-engineering innovation to deliver clean, affordable energy. Used in a social housing scheme, this renewable energy generation method can provide low income homes with free or low cost electricity that is significantly cheaper, and more sustainable, than grid supplied power.



#### Comprehensive residential eco-management (Spain)

Started in 2011, this comprehensive eco-management project aims to reduce carbon emissions and increase CO<sub>2</sub> capture in a residential area. The objective is to show that population centers can become more efficient and sustainable by reducing energy and natural resource consumption. Tree planting, organic gardening, composting and potential renewable energy projects are some of the ideas discussed at local meetings in which residents develop an eco-friendly attitude in their daily lives.



## Re+concept recycled bag collection (Hungary)

Since 2006, Re+concept creative recycling workshops have created eco-friendly consumer objects, such as outdoor furniture, handbags, wallets and much more, from diverse recycled materials. The project offers a creative and sustainable solution to the challenges of consumer culture. The project was honoured with a Hungarian Design Council prize in 2012.

> Climate Action

#### RECICLETA (Romania)

RECICLETA uses carbon free transport of paper waste – cargo bikes – to educate employees, companies and residents about recycling. With each cargo bike covering 16,000 km each year, over one million people are exposed to the message of recycling. Additionally, over 200 companies and 2500 individuals are involved in the project. In three years, the project has helped to collect 193 tonnes of paper, helping to avoid over 17,563 tonnes of CO<sub>2</sub> and methane gas emissions.



#### Books for waste (Bulgaria)

"Books for waste" promotes both literacy and a responsible attitude towards the environment. The project gives the citizens of Sofia a free book in exchange for at least 1 kg of recyclable plastic. The project has so far encouraged nearly 5,000 people of all ages to recycle their plastic waste.

#### Raising awareness on battery recycling (Bulgaria)

The project addresses the problem of indiscriminate disposal of used batteries along with other waste. The campaign informs consumers about the environmental damage that discarded batteries can cause, how to correctly recycle batteries, and how recycled elements can be transformed into raw materials for new products.



Climate Action



#### Waste Office Week 2013 (Bulgaria)

Waste Office Week encourages sustainable behaviour in the work and office environment of Bulgarian companies. Each day of the week is focused on a different type of waste - plastic, glass, paper, metal - and the last day will be dedicated to employees' innovative ideas to reduce and reuse waste. The initiative gives three daily tips on how to be more responsible and eco-friendly during work days.

#### LIFE+ECO Courts ecological courtyards (Italy)

Homes are the ideal place to begin initiatives on sustainable resource and energy use, for the benefit of the whole community. The ECO Courts project aims to involve families in reducing water and energy consumption and waste production by supporting neighbourhoods, interest groups and a web community to embark on collective action to fight climate change.



#### Collecting and transforming used cooking oil into biofuel (Italy)

This project aims to collect and recycle used cooking oil from private citizens. Each household receives a 5 litre plastic container which is collected every two months and replaced with another empty container. This allows households to dispose 80% of vegetable oils that are currently poured into the sink. The collected oil is then transformed into biodiesel, an eco-friendly fuel that has lower nitrogen oxide and carbon dioxide emissions than standard fuel.

#### Students against waste (Italy)

The Students against waste campaign aims to promote environmental sustainability focusing on two sources of plastic waste: disposable glasses from university canteens, and bottled water bought from automatic machines in universities. These are to be replaced with washable and reusable polypropylene glasses and recycled aluminium and tritan water bottles that students can always carry around; and drinking water machines connected to the urban water system, reducing the transportation and disposal of bottled water.



#### Trash To Trend (Estonia)

Trash To Trend (TTT) is a web platform that enables the up-cycling of textile material and the extension of its life-cycle by adding new design value. TTT works as a meeting point between waste material sources, designers, producers and all those who prefer sustainable alternatives to fast fashion. It is about sharing design globally and using secondary materials locally. By helping materials circulate much longer, TTT demonstrates the environmental benefits of reuse and up-cycling.

#### Different design studio "Absurd ideas" (Lithuania)

This design studio creates and designs items for production from secondary raw materials, and initiates educational activities such as workshops on organic production and lifestyle. Not only using recycled materials, the project adds value to these materials, creating lighting products from metal hangers or PET containers. Attendees at the studio's creative workshops not only learn to make a lamp cover out of waste, but also develop greater environmental awareness.



#### Eco-friendly bottle (Lithuania)

Eco-friendly bottles are eco-designed, reusable PET bottles designed to replace classic PET bottles, reducing both waste volume and CO<sub>2</sub> emissions generated when transporting PET waste. Thanks to the folds locking principle, the eco-friendly bottle can be compressed up to six times and remains strong enough to be reused. Producers using a compressible eco-friendly bottle instead of classic PET bottles save more than half the cost of fuel for waste disposal.



# Galvok žaliai.lt

#### Think Green (Lithuania)

The Think Green eco project promotes recycling ideas through eco workshops, cultural exchange and information technology. Climate-friendly behaviour is promoted via a computer game, "Recycle", whereby users try to visually and interactively convey the importance of different sorting methods for plastic, glass and paper. Another component of the project is to share experiences, and discuss the most pressing eco problems while searching for new solutions.



#### GreenEvo "Green Technology Accelerator" (Poland)

This project aims to promote environmentally-sound technologies that influence everyday lives all over the world, making them more carbon-efficient and greener. Solutions evolve through a competitive procedure whereby participants receive varied forms of assistance. Awarded GreenEvo technologies that combine strong know-how and best practices in areas like renewable energy sources, passive and energy-efficient building, and low-emission transport ultimately achieve global reach.

#### Conteira Friend (Portugal)

The project transforms Conteira leaves (an invasive, abundant weed) into a 100% biodegradable substitute for plastics, styrofoam and polypropylene foams used in the production of a large variety of goods. Products that can be made with Conteira instead of high waste, non-renewable materials include flower pots, cups, plates and various packaging items. The project aims, for example, to replace plastic airline cups – 6 million are used per hour – with biodegradable Conteira cups.



#### EcoToothbrush (Portugal)

The project promotes increased environmental awareness through the collection and recycling of toothbrushes that have been used for more than three months. This minimises the waste from an estimated 40 million toothbrushes that are incinerated or end up in CO<sub>2</sub>-producing landfill sites each year. Toothbrush recycling containers are distributed in schools, which promotes greater recycling awareness and responsibility. The toothbrush material is reused to construct urban furniture, children's playground equipment etc.





#### Green Cork (Portugal)

The project's main goal is to promote sustainable and responsible consumption of cork wine bottle stoppers and to increase the rate of collection for recycling in Portugal. Cork stoppers are a 100% natural, biodegradable and recyclable cradle-to-cradle product. Green Cork helps fight climate change as cork oak forests can absorb up to 5.7 tonnes of CO<sub>2</sub> per hectare/year. Cork stopper production also emits less CO<sub>2</sub> than plastic and aluminium closure systems.



#### HádeHaver Bags (Portugal)

HádeHaver bags are unique and 100% handmade using reused plastic lids. The plastic lids are given a new function and new aesthetic purpose, and the bags receive the name of an important female character of Portuguese history. Through this innovative way to employ recycling and reuse, the project aims to help reduce waste and emissions and stimulate environmental awareness.

## Think Well (Portugal)

This project produces kindling and logs for use as an alternative low carbon fuel for home-heating in stoves and fireplaces. Kindling and logs are obtained from pressing and drying organic material (cow and horse manure) into a perfect burning product. The recycling of unused raw organic matter produced in large quantities by domestic animals is an important low emission alternative to burning fossil fuels like wood and oil in homes worldwide.



#### Converting body heat into energy (Sweden)

Transferring surplus energy from one building to another. Large groups of people generate a considerable amount of heat. Such energy shouldn't be wasted.

> Stockholm's central railway station is using the body heat of commuters to warm a nearby office building. This is not only reducing emissions but also the building's energy bill - by 20-25%.

> "The system is based on the principle of heat transfer where we take surplus heat from the installations and from people who are in Central Station and then move it to Kungshuset, an adjacent office block," said Klas Johansson, head of sustainability at Jernhusen AB which owns both the station and the office building. Transferring surplus energy from one part of a building to another has been done before, but what Jernhusen has achieved is moving energy between two buildings, creating a collaboration between two different energy profiles.



#### Schools for Kyoto (Italy)

'Schools for Kyoto' is an educational programme on sustainable development aimed at teachers, students, families and citizens. The programme aims to improve energy efficiency in school buildings via reduced fuel consumption, sustainable mobility to and from school, waste collection and recycling, and woodland regeneration among others. The learning process is bottom-up, with students promoting the initiative themselves.

Scuole per Kyoto

#### House owners in Kristianstad switch to district heating (Sweden)

The Municipality of Kristianstad has been running a successful campaign since 2002 to persuade owners of detached houses to switch from oil-fired or electric boilers to district heating. As district heating is produced in biofuel-fired heat and power plants that also generate electricity, increased usage raises biofuel electricity production, and thus decreases CO<sub>2</sub> emissions. With further grant incentives, more than 600 home owners have switched to district heating.



#### 'Second Breath' charity shop (Latvia)

Second Breath was Latvia's first charity shop. It receives and buys items that would otherwise be dumped and sells them to new users, helping to reduce the consumption of new products and promote environmentally friendly habits. "Second breath" also hosts educational and cultural activities, such as seminars on re-using, recycling and ecology, and collaborates with like-minded organisations on many social and environmental issues.

#### Hemp House (Lithuania)

Hemp House uses hemp to produce building blocks that absorb carbon dioxide and offer other environmental and health benefits compared to building with synthetic materials. Industrial hemp absorbs 3 to 8 times more CO<sub>2</sub> than plantation trees, while one acre of hemp field can absorb 10 tons of CO<sub>2</sub>. The project cultivates hemp in Lithuania to produce a wide range of building materials and other household and cosmetic products showcased at Hemp House.



#### SMILE Resource Exchange (Ireland)

SMILE (Saving Money through Industry Links and Exchanges) Resource Exchange is a free service that helps businesses reuse each other's materials, byproducts and surplus products in order to reduce waste going to landfill, increase the life of resources, and promote more sustainable business practices. Around 1,000 businesses registered on the website can access a database of available materials from which to develop new products and innovations.





#### Mobile applications to encourage recycling (Lithuania)

This project aims to offer fun, educational smartphone applications to encourage kids and adults to recycle. One app, an educational game set in a virtual city, allows kids to sort waste, recycle and produce new goods with the raw material, nurturing eco-awareness about climate-friendly behaviour. Another app, targeted for adults, will provide tips and advice for sorting waste.

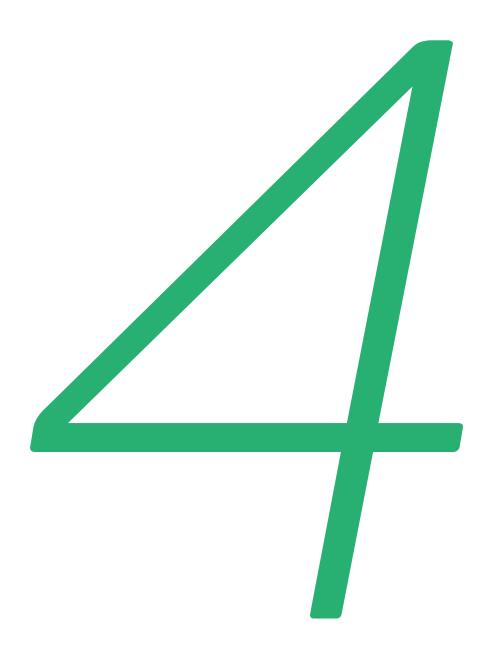
Climate Action

#### Wellspent.eu web portal (Czech Republic)

This web portal is dedicated to positive examples of EU funding projects, mapping environmentally-friendly investments and best practices to inspire a more sustainable 2014-2020 EU budget. Facts and figures from twenty low carbon projects in different sectors and countries including Italy, Portugal, Poland and the Baltic region prove the climate mainstreaming potential of EU funds. A video available on social media also promotes the green perspectives of the new EU budget.



EU money can benefit the economy and the environment. Find out how at www.wellspent.eu



## **Good practices**

Travel & transport Building & living Re-use & recycling Shopping & eating Producing & innovating

Climate Action

#### A garden for the future (Belgium)

Rethinking the way we grow our fruit and vegetables could be the key to sustainable food production. 'A garden for the future' is a permaculture project that helps reduce CO<sub>2</sub> emissions by removing the need for industrial fertilisers, pest control, irrigation and heavy machinery. It also contributes to a local food system that can store tons of carbon in the ground. In Belgium, 'A garden for the future' has paved the way for similar projects with 25 permaculture initiatives now existing throughout the country.

#### Atlas Schools – working with schools for a low carbon future (Belgium)

The Atlas Project helps schools reduce their carbon emissions thanks to an interactive tool that both measures carbon emissions and educates the next generation. By using the toolkit in areas as diverse as energy use, food consumption and transportation, schools are taking a step in the right direction to tackle their carbon emissions and electricity bills. The hands-on nature of the toolkit has been tested in schools in Italy, Poland, the Netherlands and the UK.



#### AUGUECO ecological kindergarten (Lithuania)

This project is a private kindergarten that is built with ecological materials. The children get organic food from local farms and they also have space to grow their own food. Furthermore, AUGUECO organises seminars on ecology and healthy living for local residents.

#### βNEUTRAL – voluntary standard for reducing carbon emissions (Italy)

The project aims to inspire organisations and companies that are not covered by the Emissions Trading Scheme to consciously reduce and offset greenhouse gas emissions. It offers a certified standard for the calculation, reduction and offsetting of greenhouse gas emissions of companies and products, and the generation of carbon credits. The voluntary standard is administered by an independent certification body.



## Putting a shine on the festive season (Spain)

Christmas lights are one of the joys of the festive season. Providing sparkle and magic for young and old. But they can be made more energy efficient.

In Manlleu, Spain, innovative company Lavola has created easy-to-install street decorations that light up the town at Christmas.

"Excessive energy is being used worldwide," said Dolors Rifà, president of the 'Avinguda Roma' merchants association. "We wanted something that doesn't use energy, which looks nice during the day, is illuminated at night and has a Christmas feel." Gold-plated aluminium chains of varying lengths decorate the town's existing street lamps throughout the festive period. The chains don't use any power, because they reflect sunlight during the day and street lighting at night.

Climate Action

#### Carbon Control™ (Ireland)

Customers are increasingly eco-conscious of the brands they buy. The CARBON CONTROL<sup>™</sup> mark is an independent stamp of approval, and an international campaign, assuring consumers that the companies awarded the mark are committed to reducing their carbon emissions. In this way, the campaign helps bring consumers and companies together to combat climate change.

#### Changers.com first marketplace for private CO<sub>2</sub> trading (Germany)

Eco-friendly behaviour can be both measurable and personally rewarding. 'Changers' is an intelligent solar-charger that enables its users to measure the exact amount of generated energy and CO<sub>2</sub> savings. For each gram of CO<sub>2</sub> savings, the project rewards their users with Changers Credits that they can then use to acquire sustainable products and services on the online marketplace of the Changers.com community. So far, the community has produced over 280,000 Wh of solar power.



#### Dell'ortofrutta – biodegradable label for sustainable packaging (Italy)

Fruit, vegetables, bottles - you name a product and it has a label. 'Dell'ortofrutta' <sup>®</sup> is a completely biodegradable, adhesive label designed to help companies use sustainable packaging for their products. For fresh food products, consumers can even throw the scraps into compost bins without the need to remove the label. Currently, 21 companies are involved in the project and helping to build a brand in sustainable consumption.



## Let's do it (Lithuania)

Darom is a social movement that seeks to increase environmental awareness and social cohesion among people from all ages and social backgrounds. To reach these objectives, Darom organises campaigns to collect garbage once a year under the slogan "Let's Do It". The first campaign was organized in 2008. In 2012, 210,000 participants managed to collect 1,500 tonnes of waste.

#### Klimawerkstatt 2.0 (Germany)

The project aims to motivate vocational students to explore energy-saving potential in their own businesses, at school or in everyday life. The "Climate workshop 2.0" allows trainees free play to implement their creative climate-friendly ideas. After a theoretical introduction to the topic of climate change, the students can develop their own project in areas such as waste prevention, recycling, energy saving and energy efficiency.

#### Resterechner.de – reducing food waste (Germany)

A third of all food purchased annually in Germany ends up in the garbage – a massive waste of valuable energy used in food production, transportation and storage. The www.resterechner.de website addresses this issue in a playful way by showing what could have been consumed instead: hours of television, countless cups of coffee, and so on. Consumers are encouraged to consider the environmental impact of food waste and question their own behaviour.

#### Producing food as nature intended (Hungary)

Sustainable food production. Combining traditional aquaculture with hydroponics - cultivating plants in water. Revolutionising the way we approach food.

In Hungary, a revolutionary concept is being used to produce food with a low carbon footprint and without using chemicals and pesticides. "Aquaponics is a crop management and fish-farming system that is based on a highly water-efficient natural process.

We produce off-season crops and fish in a closed system," said aquaponic farm owner Péter Gönczi. "The system does not need fertilisers or plant protection products. In fact, it's impossible to even use such products with these systems. This kind of production is based on a natural process."



# Looking to the future -ECOCENTRE (Poland)

ECOCENTRE is an environmental education centre to promote environmentally-friendly solutions that combine traditional and modern technology. The project shows how green technologies that use renewable energy sources like solar work in practice in rural areas. The aim is to demonstrate that ecological solutions work well in local conditions, are cost effective and significantly reduce greenhouse gas emissions. The award-winning centre attracted 30,000 visitors in the years 2002-2013.





# Education for sustainable development (Malta)

Nature Trust is an NGO focused on environmental education in Malta, specialising in improving awareness about climate change. Sustainable development is taught through EkoSkola, which started off with six pilot schools in 2002 and has flourished to over a hundred schools, incorporating more than 70% of Malta's student population. The project has increased environmental awareness in local communities and improved the natural environment around the schools.



# Gaea's green REV-OIL-UTION (Greece)

Greek specialty foods producer Gaea is taking action to minimise its climate impact by offsetting the carbon emissions of its olive oil products. In cooperation with the Swiss organisation Myclimate, who helped calculate the carbon emissions produced throughout the olive oil life-cycle, Gaea olive oils are the first carbon neutral consumer product in Greece, and the first carbon neutral extra virgin olive oil worldwide.

# EMAS at Ritz Carlton (Germany)

In 2011 the Ritz-Carlton Hotel Berlin initiated an Eco-Management and Audit Scheme to underline its commitment to continually improve its environmental performance. The scheme encourages both employees and suppliers to always optimise the use of raw materials, energy and resources. From reducing paper usage to doubling the use of public transport among employees and growing organic honey on the roof of the hotel, the scheme encourages environmental responsibility across all hotel operations.

# Environment -The social site (Poland)

The project aims to educate the public on issues related to environmental protection. The social media site focuses on innovative environmental projects, recycling, waste separation, nature protection, sustainable development, renewable energy, and the development of urban public transport. There is a particular focus on improving waste management, sorting and recycling.

# Freiburg Scientific Theatre (Germany)

Freiburg

Scientific Theatre

The Freiburg Scientific Theatre uses theatrical performance to address scientific topics, including the need to combat climate change. The theatre is an innovative means of communicating complex environmental and policy issues to academic audiences and the public. The goal is to advance sustainable development, encourage behavioural change, and promote a shift to low-carbon lifestyles. At present, the particular focus is on the issue of sustainable consumption.



#### From farm to fork the sustainable way (Malta)

Bad farming practices, long food chain and the need to widely transport food are among the biggest contributors to climate change. In response, the Malta Organic Agriculture Movement (MOAM) is developing local organic agriculture to promote sustainable food production and increase environmental awareness. Its organic farming programme contributes to biodiversity protection, land conservation and water conservation, and reduces the need for transport.

# Future Bristol: Low Carbon 2050 (United Kingdom)

Future Bristol explores low carbon futures for the city region of Bristol, UK, via interactive online media, visual art and social media. The intention is to start a public discussion about how Bristol can become a low carbon city, and provide valuable evidence to inform local policy. Future Bristol has been a key part of the public engagement strategy for Bristol's bid to be the 2015 European Green Capital.





#### Turning old textiles into new trends (Finland)

Promoting Finnish Haute-Couture. Made from recycled Materials. Globe Hope redefines the negative images associated with left-over odds and ends.

Following the latest fashion can take its toll on the environment. Every kilo of new clothes bought results in some 25kg of CO<sub>2</sub> emissions – the equivalent of powering a lamp for nearly 20 days. But fashion can still be cool and sustainable. One designer in Nummela, Finland, has turned old clothes into a popular and ecological fashion label. Globe Hope uses a range of materials, from old curtains, hospital fabrics and army textiles to advertising banners and flags to make the unique clothes it sells across Europe.

# Gödöllő Climate Club (Hungary)

The Gödöllő Climate Club aims to raise awareness of climate change in households, establish links between climate change and household consumption, and create a sense of responsibility for consumption and lifestyle-related emissions. Since it was launched in 2009, the monthly club has been a meeting place and forum for local citizens of all ages and socio-economic backgrounds to discuss climate change problems and share tips on low-carbon living.



### Gradwanderung – explore climate, understand, protect! (Germany)

Developed by the German Climate Foundation, Gradwanderung is an interactive traveling exhibition informing young people about climate systems, climate change and the impact of humans on the climate. The free exhibition allows German schools to convey the complex topic of climate change, a knowledge that can be strengthened and deepened after the exhibition visit with climate workshops in the classroom. The workshops encourage debate, participation and action among pupils.





### GreenMate (Bulgaria)

GreenMate is a dashboard device designed initially for electric cars that monitors a user's energy consumption and suggests ways to improve it. The system can be easily modified to serve different users. A 3G module is planned to allow users to remotely control the charger, heater and other devices in their electric vehicles.

# Greentrack, transition network for the arts in Ghent (Belgium)

Greentrack is a network of nearly 40 cultural organisations in Ghent working together to stimulate ecological actions and innovations within the sector. Involving museums, theaters, concert halls and festivals, the project will contribute to the Ghent municipality's goal of climate neutrality by 2050. All participants have started a carbon calculation of their activities, have made a yearly action plan and are communicating their actions among staff, artists and the public.



# JUSTO - sustainable water use in fashion (Italy)

The project aims to educate fashion companies about sustainable use of water resources, especially by using alternatives to cotton. As 10,000 liters of water are used producing cotton jeans, alternative materials that use fewer resources such as hemp, nettle and bamboo are promoted instead using innovative online campaigns (justoblog.com) aimed at young consumers.



JUSTOBLOG.COM

#### School's garden (Spain)

This project opens a dialogue on green issues, environmental protection and responsible consumption within a neighbourhood in Bilbao. It transforms public spaces such as a primary school yard into an organic allotment garden. Students and community members who look after the garden learn about more efficient and responsible use of energy and resources by growing their own food.



# *Life in the green garden (Romania)*

Slow Food Turda creates school gardens in which Romanian children learn about local and sustainable food production, and how to respect the environment. The Life in the Green Garden project helps young consumers become food co-producers and spreads awareness about sustainable agriculture among the broader community. The project started in 2009 and continues to reach out to a wider public.

# New old traditions (Italy)

The project began when a group of young people rented some long-abandoned land and gave it new life as a sustainable farm. Growing fruit and vegetables year-round in soil enriched by organic fertilizer collected from neighbouring farms, the project also reactivated an old aqueduct to source water sustainably. By producing food with very low environmental impact, the project helps promote biodiversity and sustainability in the local community.



# Planting the seeds of sustainability (Lithuania)

Organic farming in an urban landscape. People of all ages and backgrounds, coming together to grow their own food. Making communities leaner, greener and stronger.

> A low-carbon project in Lithuania is proving how organic farming practices can be developed in urban areas. The Pilaitė Eco Garden gives the people of Vilnius an opportunity to discover the benefits of growing their own food.

> "The aim of the eco garden is to show city dwellers that it's possible to grow vegetables in cities in small plots," said project manager Virginija Vingriené. One of the main goals is to promote sustainable agriculture which avoids the use of synthetic fertilisers and pesticides. This way the Pilaite Eco Garden saves energy and protects the environment.



# Come - start greening (Latvia)

The campaign aims to inform the community about the benefits of a green economy and lifestyle. The campaign symbol is an Environment Clock that ticks as the planet becomes more polluted, but which people can slow down, or even reverse, by sharing and showing ways to protect the environment. Over 1000 participants have shared their ideas through various creative mediums including video, stories, poetry, drawing and song.



# Reboot for the climate (Germany)

Moving house is an ideal time to shed old habits and think about the environment, a time to "reboot for the climate". The project works with people who have recently moved into a new city, a time when their consumption patterns can be more easily influenced. Project consultants travel with citizens to cities across Germany to help choose low emission mobility, green energy supplies, or regional foods with a low carbon footprint.



# Integrating renewable energy in homes (Spain)

The project integrates renewable energy into family homes to meet energy needs. Solar thermal technology is used to produce hot water; solar photovoltaic to produce electricity; biomass to produce heat, and bioclimatic architecture is employed. The project also aims to serve as an example of potential resource and economic savings when local food and goods are consumed or organic waste is recycled and reused.

# Heroes of Responsible Dining (Hungary)

The project aims to draw attention to the environmental effects of our food consumption habits. By testing restaurants through 'green' lenses and blogging about it, readers can get informed about the environmental practices of restaurants. The project also aims to organise a network of green restaurants and help them become even more eco-friendly.

# Easy gardening practices to survive the crisis (Bulgaria)

The project aims to promote practical organic gardening to help Bulgarians who have been badly hit by the economic crisis, and help fight climate change by producing and consuming food locally. The project is an online contest open to participants from any country who submit Easy Gardening Practices that should be accessible, of low price, and result in tasty food produced in an environmentally sound way.

### Biofertilisers from sludge and organic waste (Bulgaria)

This project is an antidote to waste generation and the limited measures for its recovery. It involves the use of an innovative technology, "be-Vermi", which helps recover sludge and organic waste at building work sites, and which is used to produce fertiliser. Instead of burning waste, which creates heavy emissions, the technology employs a type of red Californian worm that uses waste as a food and produces a natural compost.



# Food for the Earth – neighbourhood composting project (Bulgaria)

Household bio waste makes up 30-40% of landfill waste, and a lot of greenhouse gas emissions are created during its transportation. This integrated project for neighbourhood composting allows people to bring their household and garden bio waste to the specially built composting site. In return, they receive ready compost. The project promotes social cohesion while making a local contribution to climate change mitigation.

# Venette Waste (Italy)

Venette Waste is a sustainable '2.0 Wardrobe' fashion project that produces dresses "from nothing" since all stages of production, presentation and even packaging use and reuse existing materials. Venette maintains seasonal fashion without needing new materials by renovating garments and recovering even small cuts of fabric. Since clothes never reach obsolescence, and are sold locally online,  $CO_2$  emissions are significantly lower than those of high fashion brands.



# A low-carbon idea linking food producers and consumers (Belgium)

Imagine shopping online for the freshest, seasonal produce. Grown locally, just around the corner. Connecting families to farmers and helping local communities grow.

> Transporting fruit and vegetables from the farm to the supermarket and finally home is a big contributor to carbon emissions. But what if you cut out the middleman? In the Belgian town of Jodoigne, an innovative concept is taking root.

> Panier Malin ('Smart Cart' in English) is an online marketplace connecting some 15 Belgian farmers to local consumers. This ensures short distances from production to plate, as well as more profit for farmers and a stronger local economy.

"At the end of the week, the customer comes to collect everything. There's no need for planes or lorries, which brings CO<sub>2</sub> emissions right down. It's a good way to reduce your carbon footprint," said Valentine Kervyn, project manager for Panier Malin.



# Polish Youth Climate Network (Poland)

The Polish Youth Climate Network (PYCN) was founded to engage young Poles in creating solutions leading to low carbon, sustainable societies. This informal citizen initiative is driven by a group of young people for young people. It organises film screenings, workshops and public events, and distributes a weekly newsletter and maintains a web page. In November 2013, PYCN organised a Conference of Youth in Warsaw dedicated to promoting climate-friendly behaviour.



# Self sufficient Windmill Klekotki Resort and Spa (Poland)

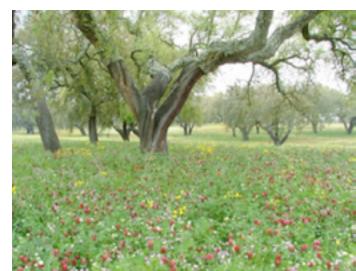
The Windmill Klekotki Resort and Spa is a historical venue equipped with solar panels, a hydroelectric power station, an eco-sewage treatment plant, fruit and vegetable gardens that are free of genetically modified plants, and a herbal backyard. The project aims to achieve total energy and water self-sufficiency, and to set the example in environmental protection by reducing CO<sub>2</sub> emissions, pesticides and overall consumption.

### Bio School (Portugal)

The initiative aims to deepen understanding of organic gardening in schools, and make schools self-sufficient in terms of vegetables. Organic gardening will be added to the curriculum in primary schools in the city of Setúbal. This will allow children to acquire theoretical knowledge and practical experience on self-sufficient organic farming. The project will also reduce CO<sub>2</sub> emissions from the production, packaging and distribution of vegetables.

# Sown Biodiverse Pastures for climate change mitigation and soil protection (Portugal)

In this project aimed at climate change mitigation and soil protection, more than 1,000 farmers have committed to sowing and maintaining new pastures, and are paid for the resulting soil carbon sequestration equivalent to more than 1 million tonnes of CO<sub>2</sub>. The process increases organic soil matter by around threefold in 10 years, making farmland more fertile and resistant to erosion. So far, large parts of Portugal with high risk of desertification have been sown.



# Small footprint campaign (Hungary)

The campaign aims to help households adopt a small-footprint, low-carbon lifestyle through innovative communications on energy saving measures and ways to reduce consumption. This includes low-carbon community environment and festivals, self-assessment tools provided at user-centered training events, and small footprint competitions with attractive eco holiday prizes. Participating household have already achieved significant energy savings.



# Solar Solutions Solar Solutions Solar Solutions Rele 9652 3072

# Solar Solutions Cyprus (Cyprus)

Solar Solutions is engaged in education about the energy and cost savings of solar power in Cyprus, a country that enjoys almost 300 days of annual sunlight. This new business supplies solar panels, solar pool pumps, solar fans, solar educational toys and other renewable energy products, helping to fight climate change by reducing carbon-based electricity usage.



# Adopt a bee (Sweden)

Bees are a critical to a healthy environment, but their numbers are declining globally. The project's solution is to buy beehives, find them a nice home in a family garden, and take care of them. Individuals can adopt a bee by purchasing shares for a small fee; in return the bees will work hard to fill two jars of honey for their sponsor, while the bee's progress can be tracked online.

### The Climate Scale (Sweden)

This fun, educational and interactive exhibit innovatively shows the impact of consumption on climate. A shopping basket is filled with items consumed on an average day. Products and services are represented by colourful bags of different weight depending on their impact on the climate. Weighing the basket on a scale indicates the level of impact and allows for comparisons with others, and the relative emission level considered sustainable in 2050.





#### Key environmental data at your fingertips (France)

Hop-Cube - the sustainability barometer that helps you monitor the impacts of what you buy on greenhouse gas emissions and on water and land use.

A recent European survey revealed that four out of five Europeans consider the environmental impact of the products they buy, with more than 80% saying it plays an important role in their purchasing decisions. Now, thanks to French company Hop-Cube, finding out how environmentally friendly a product is has just got easier.

"Hop-Cube publishes data on about 40,000 products a day. That's three million entries a month," said Thomas Albisser, chief engineer and associate at Hop-Cube.

Products carry the sustainability barometer on their packaging, digitally through a mobile and/ or directly on the product page of e-merchant websites.

# The Vegetarian Butcher (Luxembourg)

Massive amounts of land, food, energy and water are required in the production of animals for food. The Vegetarian Butcher has created a range of tasty plant-based products that are real alternatives to eating animals. By providing convincing alternatives to meat and fish, the project aims to reduce the environmental damage caused by meat production.



# Underprotection – climate-conscious fashion (Denmark)

Underprotection is a Danish brand that combines climate-conscious ethics to create fashionable and sustainable underwear and loungewear for women. Each item of clothing has a unique sustainable element that contributes to making Underprotection a brand for eco-fashion. The project has established a strong relationship with an organic textile supplier and was certified with Fair Wear Foundation for their spring/summer 2012 collection.





#### Kooperuokimes.lt platform (Lithuania)

The project helps people find each other and work together for the environment. The Kooperuokimes.lt page encourages people to cooperate when traveling, going to work, to another city, to play sports, learn, or just live. By inspiring people to work together to save energy and resources, reduce consumerism, and especially share transport resources, the project helps fight climate change from the ground up.

# Learning sustainability through creative workshops (Latvia)

The project aimed to raise awareness among young people of 12-13 years of age on issues such as energy efficiency, water conservation, indoor air quality, renewable energy, healthy lifestyle, and waste management. Each of these key environmental issues was explored through creative workshops that aimed to influence the daily habits and lifestyle of the students.



# Voluntary Agreement Programme - reduction of greenhouse gas emissions (Spain)

This programme is aimed at any organisation with operations that generate greenhouse gases in Catalonia, and that wants to reduce emissions beyond those required by legislation. Organisations join the programme voluntarily. The Government of Catalonia encourages these efforts, establishing mechanisms to increase public awareness of the measures via promotion on a programme webpage.

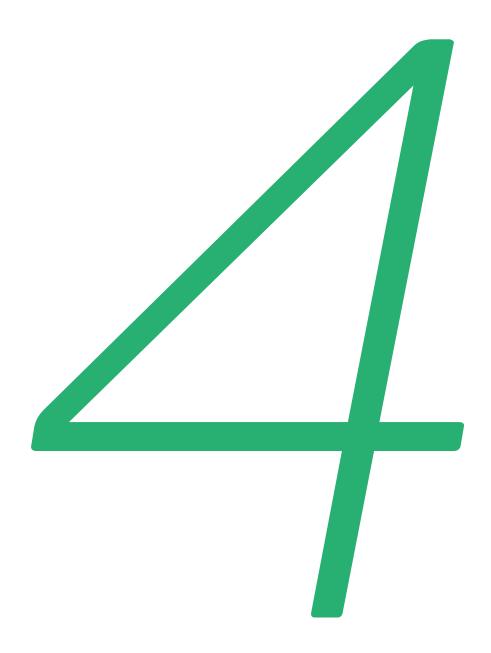


Find more information in: www.gencat.cat/canviclimatic Organization code:

# Walk-in ecological footprint in Gesaeuse National Park (Austria)

What impact do I have on Earth? How can I save energy? What can I do to reduce my own ecological footprint? These and other questions are answered in the walk-in 'ecological footprint' in Gesaeuse National Park. The ecological footprint is designed as a maze where visitors encounter different categories of energy usage, and are made aware of the way their lifestyle impacts on the environment and the planet.



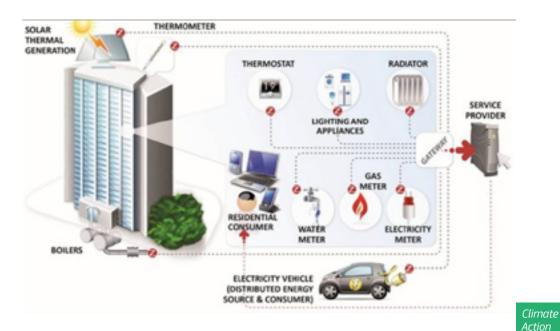


# **Good practices**

Travel & transport Building & living Re-use & recycling Shopping & eating Producing & innovating

#### 3-E Houses (Spain)

3-E Houses provide homeowners with control over their electricity bills thanks to an energy consumption system integrated throughout their homes. Renewable energy supplies are installed, and heating, electricity and water consumption levels are monitored. This allows users to make a smooth transition to an energy efficient lifestyle that will reduce their carbon footprint in the long term. In fact, the 3-E Houses project can help each household reduce almost 53 tonnes of  $CO_2$  per year.



# Airborne Windenergy with X-Windtechnology (Germany)

Hundreds of tonnes of materials are needed to build the huge tower and elongated rotors of a conventional wind turbine. Airborne Windenergy is a cost-effective alternative that uses 20% less materials. It consists of a steered kite and a grounded rail system that can harness stable and constant wind currents at altitudes between 200–500m. This allows one Airborne Windenergy system a capacity of 5 GWh per year, which can generate enough energy to power 1,450 households.

#### Blinking sail windmill (United Kingdom)

Wind turbines rely on the strength of the wind to produce electricity and can often be left idle in times of low wind. The blinking sail windmill is an invention that has the potential to generate power all year round thanks to its four sails' ability to utilise all strengths of wind. It aims to generate more electrical power than any current windmill – even if the speed of the wind is extremely low – while reducing manufacturing costs. The end result is a renewable energy source that can reduce CO<sub>2</sub> emissions and produce cheaper power.

# 'Upstream' reform of the EU Emissions Trading System (United Kingdom)

'Upstream' aims to improve the EU Emissions Trading System by replacing certain procedures with elements from the Kyoto2 proposals. The project aims to switch the focus on controlling emissions from the point where they enter the atmosphere to the point where fossil fuels are extracted from the ground or imported into the EU. This approach would raise the price of fossil fuels and provide a strong incentive for everyone to make the transition to renewable sources of power.



Block up the holes? Or turn off the tap!

# *Turning waste into a resource (Malta)*

Heating a pool with the excess energy from a nearby waste treatment facility. Reducing costs and cutting carbon footprints. Taking the plunge with innovative and creative ideas.

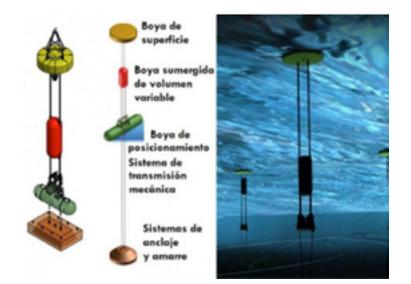
> The Sant'Antnin Waste Treatment Plant in Marsaskala, Malta uses state-of-the-art facilities to recycle waste and transform it into an energy source.

> The plant is a sustainable source of energy for the village. As well as providing electricity to 1,400 homes, it also heats the local swimming pool which is used by people with special needs. "Through the joint innovation and creativity of Inspire and WasteServ, we found a suitable way to heat our pool: by making use of excess heat energy," said Nathan Farrugia, CEO of Inspire, the Foundation for Inclusion.



# The race for the intelligent buoy (Spain)

Wave energy is a future energy resource; it's clean, powerful, steady, and able to supply 10% of global electricity consumption. Under this premise, Pipo Systems create an 'intelligent buoy' capable of generating electricity, desalinating water and promoting ocean monitoring and research. Following successful tests in Catalonia and the Canaries, the project team has plans to mount an offshore plant.



# The Climate Project (Spain)

The 'Climate Project' aims to help reduce greenhouse gas emissions in Spain's residential, agricultural and transportation sectors. Through the project's carbon fund, these sectors are provided with a financial incentive to lower their emissions. In 2012, 37 projects were selected for the pilot phase. With the fund's support, they are estimated to save more than 800,000 tonnes of  $CO_2$  over a period of four years.





#### Universal Dental Wax Workstation (Ireland)

The Universal Dental Wax Workstation aims to help dental practices and laboratories soften and manipulate dental wax without using gas. If used with renewable energy, the equipment thus allows to make the process carbon neutral. Its design is effectively a "mini-lab" that allows it to be easily implemented into any dental surgery.

# WWF Climate Group (Austria)

The WWF Climate Group is a leading platform for companies in Austria to actively engage in voluntary CO<sub>2</sub> emissions mitigation efforts. By reducing their emissions and promoting climate -conscious behaviour, the participating companies make a contribution to achieving global climate change goals. Current members include IKEA, Allianz, Pfanner, Fronius, Erste Group and SPAR Austria who have all helped the WWF Climate Group avoid a total of 400,000 tonnes of CO<sub>2</sub> emissions.



#### WWF CLIMATE GROUP

for a living planet°

# Aspiro 8000 -LED pendant (Finland)

Made from natural materials, Aspiro 8000 uses advanced LED technology to create an innovative, ecological and durable cost-effective light. The pendant helps reduce waste and energy consumption because of its longer lifespan and design that emits more light per watt than incandescent light bulbs. Aspiro 8000 has been presented to the audience at the Stockholm Furniture Fair in February 2013 and at Euroluce Milan in April 2013.



# Two team project – 2TP (Belgium)

The Confederation of European Paper Industries (CEPI) has set goals to decarbonise the paper and pulp industry by 80% by 2050. Its Two Team Project has already made a significant impact on emissions by promoting innovative and low-carbon production. The project consists of two competing teams of experts, scientists, manufacturers and suppliers identifying break-through concepts in technology to make the industry more  $CO_2$  efficient.

# A community benefitting from low-carbon solutions (Portugal)

Individual efforts to pursue low-carbon solutions can encourage entire communities to do the same. Building more sustainable cities one household at a time.



Residents and businesses in the city of Évora have embraced solar energy, electric cars and  $CO_2$  monitoring technology to boost their economy and become an environmental role model.

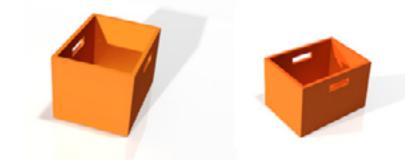
"Évora is a city with a population of 50,000 with universities and major local stakeholders. It's an ideal place to demonstrate the consumer benefits of reduced consumption, for micro-producers who inject energy into the grid, and also for our electric vehicle charging stations." said António Aire Messias, advisor to the board of directors at Energias de Portugal (EDP). "All this reduces CO<sub>2</sub>, first for the city, but also on a national level."

# Boson Energy Unit – A small-scale resilient biomass cogeneration plant (Luxembourg)

Boson Energy is developing a small-scale biomass fuelled CHP (Combined Heat and Power) plant that produces electricity, heat and cooling. It is a renewable, sustainable and resilient energy source with a close to zero carbon footprint with the potential to replace expensive diesel power for hospitals and factories. The project will also teach communities about sustainable energy production and about building a renewable powered and resilient economy.

Boson Energy Unit \* A small-scale resilient biomass cogeneration plant





#### Box – innovative eco-design (Belgium)

This project aims to create an interior object that is simple, timeless, ecological and multifunctional. Made out of ecoboard, a material with a negative carbon footprint, the Box can be used as a chair, table, cupboard, storage element, moving box and much more. And it's easy to build in any local workshop, reducing transport emissions and further minimising the carbon footprint of this innovative eco-designed object.

# CELTEE (Clean Energy Low Temperature Emission-free Engine) (Austria)

Engines powered by clean or renewable sources help reduce industrial emissions. CELTEE's engine operates by using existing heat from natural sources or industrial processes like solar, geothermal, waste or biomass energy. The project has a fully autonomous operation that can be implemented for industrial and agricultural sectors in cities or remote areas across the world.





# Change - coin deposit lamp (Finland)

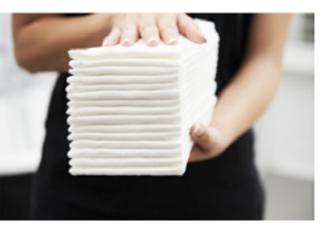
Leaving the lights on creates 95 percent of lighting's environmental impact. 'Change' is a task light for public spaces, such as libraries. The coin deposit lamp lights up when a coin is inserted. By removing the coin, the lamp is turned off. The project encourages people to turn off electricity when a lamp is left unattended and creates a climate-friendly attitude that is both fun and slightly profitable.

# Carbon capture in citrus farms, the example of Córdoba (Spain)

Farming oranges has the unknown potential to capture millions of tonnes of carbon dioxide from our atmosphere. In Vega del Guadalquivir, ASAJA Córdoba studied 37 farms to highlight the environmental benefits of orange groves and found that eight million tonnes of CO<sub>2</sub> were captured since 2000. The project now uses this information to influence Spanish agricultural policy to support sustainable farming.

# BIOMASA – low-carbon pellet boilers for public buildings (Slovakia)

The BIOMASA project helps upgrade old fossil fuel boilers to modern low-carbon pellet alternatives. The aim of the project is to contribute to the reduction of greenhouse gas emissions in Slovakia's public buildings. So far, the project has replaced more than 114 coal boilers, created over 33 jobs and provided 12,000 tonnes of locally produced pellets.



#### Easydry – eco-friendly disposable towel (Ireland)

Billions of clean towels are laundered every day, wasting precious water and vast quantities of energy, and pouring chemicals into the ecosystem. Easydry is an eco-friendly disposable towel made from 100% natural, biodegradable wood fibres and harvested from sustainablymanaged forests. Easydry saved the UK almost 160 million litres of water and 4.5 million kg of  $CO_2$  by reducing businesses' need to launder towels.

# ECO-S, wooden window insulation (Slovenia)

ECO-S project aims to reduce energy consumption, CO<sub>2</sub> emissions and natural resources consumption in the building sector. ECO-S stands for ecological wooden window insulation, essential to low-energy windows in passive houses. Throughout their 20-year life, low-energy windows also help users save on their heating bill.



# Renewable energy for a sustainable campus (Spain)

The project involves the integrated installation of solar PV in different parts of the Espinardo campus at the University of Murcia. The aim is to generate a significant part of the electricity consumed at the university from renewable sources. The PV system is boldly integrated into the campus architecture as an exemplary model of alternative energy production, showing the potential for renewable energy throughout the entire public sector.





# Energy savings through system optimisation (Austria)

The project aims to reduce carbon emissions caused by electric motor systems in manufacturing plants. Compressed air systems, pumps, fans and ventilation systems are responsible for almost 70% of electricity consumption in these plants. The project aims to save 20–30% of this energy by optimising these systems. Highly trained consultants and technicians implement the efficiency measures, and help increase awareness of the high potential energy savings in the manufacturing sector.

# Energy is everywhere – human powered floor systems (Netherlands)

Energy Floors aim to create awareness about energy production by making it interactive and fun. The Sustainable Energy Floor is a permanent installation that converts human walking power into electricity in high footfall areas. The cradle-to-cradle floor system is designed for long durability, reuse and recycling.



## Energy saving carrots in the education division of the city of Turku (Finland)

TURN OFF THE LIGHTS

FROTURE TURNU

The education division of the city of Turku, Finland, started an initiative in 2012 that motivates departments to save energy by changing everyday habits. The programme helped reduce electricity usage by 569 MWh in the first year. It also encouraged climate-friendly behaviour by giving out 'carrot money' incentives to 37 departments when annual cuts were achieved. The money enabled the units to take additional sustainability initiatives, such as purchase bicycle racks.

Climate Action

## How one Czech village became an eco-community (Czech Republic)

A small village which has made big changes, Písečná is becoming an eco-village.



When the villagers of Písečná voiced their concerns about emissions caused by their antiquated heating systems, the local government offered interest-free loans to those who wanted to install new eco-friendly heating.

"Písečná is slowly turning into an environmentally-friendly community," said mayor of Písečná, David Čmiel. "Our citizens are steadily becoming more and more concerned about protecting the air. So far, we have managed to install biomass stoves in 15% of our family homes. All in all, this has allowed us to reduce emissions by 4.5 tonnes every winter."

Biomass stoves run on wood chips or pellets and are the climate friendly and economical choice for heating homes. A growing number of Písečná residents are installing these boilers, thanks to their potential to reduce  $CO_2$  and cut energy costs.

Climate Action



# Energy-efficient nanotechnology paint factory (Spain)

This nanotechnology paint factory delivers significant energy savings and environmental benefits via a new furnace with reduced temperatures that saves 8,000 KW of energy monthly. The process also reduces waste water and toxic waste, and is free of hazardous metals. Promoting environmental research, development and innovation projects worldwide, Thyssenkrupp Elevator Manufacturing Spain has also increased its commitment to the environment by creating and producing more efficient and sustainable products.

# Flexible photovoltaic film for buildings and consumer products (Austria)

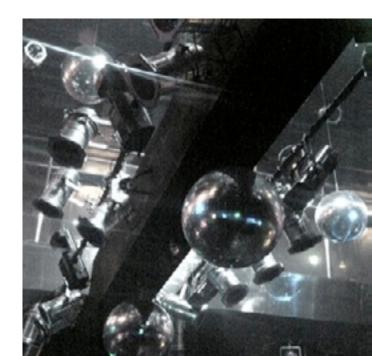
Crystalsol develops an entirely new type of flexible photovoltaic film based on crystalline semiconductor powder. The product offers a significant cost and versatility advantage compared to all currently known photovoltaic technologies. The flexible film can either be opaque or transparent and can truly be integrated into windows, facades or rooftops. It can also be integrated into consumer products like mobile chargers, bags, clothes and the like.

## Fresnel Concentrated Solar Thermal Collector (Greece)

The Fresnel concentrated solar thermal collector brings the power of the large solar power plants to households, factories and hotels. With an efficiency monitor system and automatic orientation towards the sun, the solar collector is able to draw solar energy from early morning until late afternoon. It can be installed in houses and small buildings at low cost, producing year-round heating and cooling from a wholly renewable energy source.

# Green Club Index (Germany)

Music and night clubs consume massive amounts of energy, yet the energy-saving potential remains largely untapped due to a lack of awareness and know-how. The Green Club Index (GCI) pilot project solves this by using qualified energy consultants to identify the energy-consuming hotspots of participating clubs and develop reasonable suggestions to save energy. GCI will help club operators limit their impact on the environment and encourage climate-friendly behaviour in the industry.



# Green Crowding (Germany)

Green Crowding is a crowd-funding website for tangible green community projects like installing solar cells in schools. It helps community projects and citizen initiatives find finance from their local communities instead of taking on a bank loan. Environmentally friendly infrastructure built with the help of Green Crowding helps reduce reliance on fossil fuels. Better integration of civil society into project finance also creates greater climate awareness.

## Green Syn Fuel (Portugal)

The project promotes the economic development of syngas, or synthesis gas. Syngas is produced by alkaline electrolysis of water using graphite/carbon electrodes. It is fundamental to producing green synthetic fuels, which are a bridge technology for reducing oil dependence and reaching carbon reduction targets without the need for heavy investments to replace the existing motorised platform.

## Green Music Initiative (Germany)

The Green Music Initiative (GMI) is a pan-European platform coordinating the music and entertainment industry's efforts to minimise their climate impact. CO<sub>2</sub> reduction strategies are implemented in close cooperation with scientific institutes, stakeholders and artists, paving the way for others to follow. GMI showcases best practice with the objective to create an industry-wide demand for innovative and sustainable solutions from both the climate and business point of view.

# Heliospectra - efficient lighting systems for plant production (Sweden)

LED Light in bio feedback with y

Producing food for a growing population locally, efficiently and continuously is an important climate challenge. Heliospectra's highly energy efficient LED based lighting systems automate plant production to increase yields year-round and help produce quality food in any location. WWF estimates that this or similar systems could reduce CO<sub>2</sub> emissions by 21 million tonnes per year if used by 20% of the target market by 2022.

# Fighting fire and climate change (Ireland)

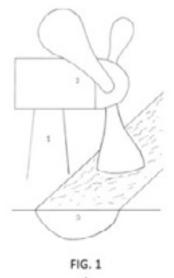
Serving the community. With distinction and a green conscience. A fire station that leads the way in sustainability.

In Dublin, the firemen are not just fighting fires; they are also fighting climate change. With their Green Plan to improve sustainability, officers at Kilbarrack Fire Station have reduced energy consumption by 80%. As a result, the fire station has become an inspiration to the entire city.

"The Green Plan started with the recycling of batteries," said Neil McCabe, firefighter and Green Plan manager. "So far we have completed 354 renewable projects including a rainwater harvester which collects 14,000 litres of water approximately every 10 days."



#### 4. Good practices – Producing & innovating



# HIDROGENERADOR (Spain)

This project aims to produce electricity from clean, renewable water resources. The HIDROGENE-RADOR generator produces electricity day and night by leveraging the strength of a water current to move a blade-set rotor-generator. The clean energy technology is easy to install as it does not require major infrastructure, while the environmental impact is minimal and no CO<sub>2</sub> is produced.

## *iameco green computers* (*Ireland*)

MicroPro has pioneered the development of green computers that drastically reduce energy use,  $CO_2$ emissions and waste. Based on 'cradle-to-cradle' principles, the products are designed for easy disassembly and access: 88.5% of the device can be reused or recycled. With a computer chassis made of renewable or recycled wood, iameco computers have been tested to show a 50% reduction in  $CO_2$ emissions compared to conventional computers.



# Energy Innovation – tools and actions for energy efficiency and renewable energy (Italy)

Energy Innovation's goal is to provide citizens with useful tips and practical tools to lower their energy consumption and emissions. By registering as part of the virtual community "Stop the Fever", citizens can monitor and reduce their emissions, and also learn about renewable energy sources. The project's future goal is to sign 1000 members for savings of one million tonnes of CO<sub>2</sub>.

# Parks for Kyoto (Italy)

Parks for Kyoto aims to raise awareness about forestation and global warming to encourage organisations, companies and citizens to take sustainability, energy efficiency and respect for the environment into account in their individual and collective choices.





## Less CO<sub>2</sub> Project (Spain)

The project studies the technical viability of capturing CO<sub>2</sub> in a cost-effective way through carbonation and calcination technologies. Carbonator technology uses biomass combustion for CO<sub>2</sub> capture and storage, reducing CO<sub>2</sub> concentration in the atmosphere and producing energy at the same time. The project thus has the potential to produce "negative emissions". The demonstration plant in León, Spain is the first of its kind worldwide.

> Climate Action

## Mobile Garden (Germany)

Mobile Garden is a modern and portable gardening tool inspired by "Tsurishinobu", a traditional Japanese gardening method. Mobile Garden owners can use the tool as a container to grow herbs in their own kitchen. By making home gardening easy and fun, the project aims to inspire environmental awareness and more climate-friendly behaviour.





## Motor and pump replacement (Denmark)

Why use a 1,5 kW-motor if a motor half as powerful can meet the same demands? This question kick-started a global project within Grundfos manufacturing, where all motor installations are checked and replaced with energy-efficient motors. In addition, Grundfos motors have an integrated frequency-control, allowing the speed of the motor to be adjusted and optimised to the demand of the job.

# NRG Battle Europe Edition (Netherlands)

This project is a competition inviting talented young students to help companies save energy and come up with new technical innovations to harvest energy. The first edition reached out to 5000 participants around the world. Not only do the students come up with real innovations, they also get inspired to enter the energy business and actively fight climate change.



# Using the sea to heat a maritime museum (Estonia)

A museum heated by the power of the Baltic Sea. Reason enough to spend your Sunday afternoon at the Seaplane Harbour.

The Seaplane Harbour Museum in Tallinn is a tourist destination that stimulates the mind while protecting the environment. With almost 325,000 visitors in its first year, it is proving to be one of Estonia's most popular museums.

It's not just the hundreds of exhibits displayed throughout the unique seaplane hangars that make the museum worth visiting. By using tidal energy to heat the museum, it manages to save energy and cut heating bills at the same time.

"The museum is by the sea, so it gets its heat from tidal energy. This makes it very economical for us and means that we can survive financially," said Urmas Dresen, director of the maritime museum.



# Environmental and social organisations united against climate change (Spain)

In addition to educating young people about climate change, the project helps to install and maintain a biomass boiler to heat a child protection center on a farm in Tordera, Spain. The farm is located on over 30 acres of forested land from which biomass is sourced to power an 80kW boiler.

The implementation of green technologies is combined with education about sustainable farm management, including an organic vegetable garden.

# Centre for eco-construction (Spain)

This project aims to create a centre for researching and demonstrating bio-construction with sustainable, natural local materials. The centre aims to use sustainable building solutions, such as renewable energy generation and rain water collection, and become a meeting place for local people and tourists visiting the region.

ITEMS	Net value	VAT (21%) 8.820.00 €	
Natural Building	42,000,00 €		
Fumiture (FSG Wood)	7.108,00 €	1.492.68 €	
Eridge 12/24V (DC)	628,00 €	101,08.6	
Tools and farming implements	1.372,00 €	288,12 €	
Development of Web Page and e-Commerce (On-line shop)	1,900,00 €	399.00 €	
Material for solar restaurant	1.600,93 €	336,20 €	
Tank for rainwater	2.764,25 €	580,49 €	
Audiovisual and computer material	1.406,62 €	295,39 €	
RENEWABLE ENERGY SYSTEMS FOR SELF-CONSUMPTION AND DEMON			
PV solar installation for self-consumption	7.726.80 €	1.622.63 €	
Biomass installation for radiant floor and to cook	11.050.00 €	2.320.50 4	
Solar Thermal installation for heat water and generation of cold during summer (absorbion system)	4.525.00 €	950.25 €	
Biodigestor to generate gas from compost and waste	2.000.00 €	420.00 €	
Micro-wind farm installation	5.310,00 €	1,115,10 €	
PROJECTS, DOCUMENTS AND LICENCES			
Honoraries for the architect and works management	6.749,22 €	1,417,34 €	
Notary costs and register	503,48 €	568,73 (	
Work and aslivity licenses	3,213,91 €	0.00 4	
Licence for public interest (the Project is placed in a Protected Zone)	803,48 €	0,00 €	
Canon	401,74 €	0,00 €	
	101.363,42 €	20.358,30 €	

TOTAL	QUOTE	FOR 1	THE	PROJECT	(WITHOUT VAT)	101.363.42 €
TOTAL	QUOTE	FOR 1	THE	PROJECT	(WITH VAT)	121.721,72 €

## State-of-the-art eco-friendly cement installation (Bulgaria)

Devnya Cement AD is constructing an ultra-modern, high-tech, state-of-the-art cement production facility that has important benefits for the environment. The goal is to transform the plant into a greener facility by reducing its carbon footprint. The three-year project will replace the current production process via the construction of new installations in line with European environmental requirements and standards.



# CIMC Silvergreen – the new trailer philosophy (Germany)

CIMC Silvergreen is a new German trailer manufacturer that develops cost-effective and environmentally-friendly semi-trailers and trailers. Its Curtain SGO3 product is the first climate-neutral trailer in the world. All phases of production have ecological goals set in collaboration with KlimAktiv, committed to climate change mitigation in Germany, and Product Carbon Footprint (PCF), which serves to limit the CO<sub>2</sub> created during manufacturing.

100% CLIMATE-NEUTRAL TRAILER:

**Carbon Foot Print** 

klimAktiv

ARKTIK

Certified Compensation Projects

Certified Carbon Offset

# Solar Pond - towards the use of renewable energies in European industry (Spain)

The Solar Pond captures solar energy, stores it and then delivers it as thermal energy for industrial use. It is a way of using renewable energy in the chemical sector that reduces costs while stepping further towards sustainable development.

The Solar Pond will be unique in Europe and aims to be a role model for using renewable energies within industries that are major consumers of energy.

# *"Black Revolution" for a green agriculture (Italy)*

The Black Revolution project takes its name from biochar, which is used in the production of electrical energy from biomass. Biochar is currently considered an important option in the agriculture sector to fight climate change because it can sequester atmospheric carbon into the soil for many thousands of years. The Black Revolution project aims to build a clean energy supply chain from residual biomass in the agricultural sector.

# Bioenergy for the Region – integrated programme for PhD students (Poland)

The project gathers young scientists from different universities in Central Poland to work together for sustainable energy development. Young scientists become regional leaders of climate change mitigation by transforming new intelligent energy solutions into practice. Innovations inspired by the programme include for example a hybrid power plant powered by biomass, wind and sun energy that will replace inefficiently distributed fossil fuel heat generation in Daszyna County.

## EnerPlus - promoting energy efficiency and diversification (Portugal)

The project aims to increase energy efficiency and the sustainable management of energy, by enhancing knowledge and skills and promoting technical renovation. Workshops are held on topics such as "Save Energy, Improve the Environment" to discuss and reflect on these themes. About 30 companies are already participating in the project.

Diversificação Energé

# A school powered by the sun (Denmark)

Energy saving through innovation - Gedved school gives the rest of us an eco-education.

Gedved School in Horsens, Denmark, gets 75% of its energy from the sun, saving the school €30,000 each year. These funds can now be diverted to education.

Switching to solar power has reduced CO<sub>2</sub> emissions by 90 tonnes a year and is also helping educate pupils about climate change.

"Politicians at Horsens local authority are strongly focused on green energy, and that means that at Gedved School we have been able to install a solar energy plant," said headmistress Lone Møller Andresen.





## Plant life in deserted areas project (Portugal)

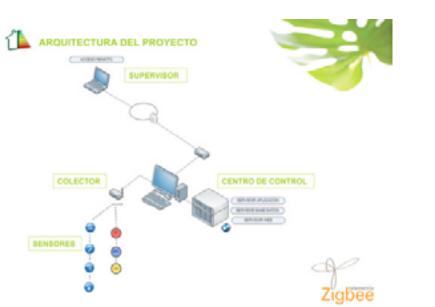
The project helps reforest areas that have been abandoned or have suffered badly from forest fires. Reforesting increases the capacity for carbon capture, helps reduce future CO<sub>2</sub>-producing fires, and is extremely important in the fight against climate change. The goal is to replant tree species that best retain CO<sub>2</sub> and resist wildfires. The project uniquely employs local communities to collect the seeds that are better adapted to that territory and will quickly reforest areas.

# *Tejo Platform* (*Portugal*)

PlataformaTejo helps dispersed local actors overcome financial difficulties to develop sustainable energy by scaling up small and isolated energy efficiency and renewable energy ideas and merging them into a regional network of viable and attractive projects. With 25 energy sustainability projects in process, and 32 more in preparation, the project is changing the paradigm of sustainable energy development to facilitate investment in efficient and renewable energy.

# Monitoring energy consumption in public buildings (Spain)

The ARE system is designed for the monitoring and control of energy and fluid consumption in buildings to improve energy efficiency and reduce CO<sub>2</sub> emissions. Based on a network of gauges, wireless technology lets users monitor and control electricity, water, fuel and gas consumption. Valid for any type of building, the system is especially designed for public institutions like schools or hospitals.



# Solarbrush (Germany)

Climate Action As more solar power plants are installed globally, deposits like sand and dust collect on the photovoltaic panels. This leads to efficiency losses of up to 30% per month in the Middle East. Solarbrush is a robot dedicated to cleaning solar modules while raising their energy-generating efficiency. The lowcost, energy-efficient robot steps between modules and systematically covers the whole surface, ensuring we get the most out of the sun.

#### 4. Good practices – Producing & innovating

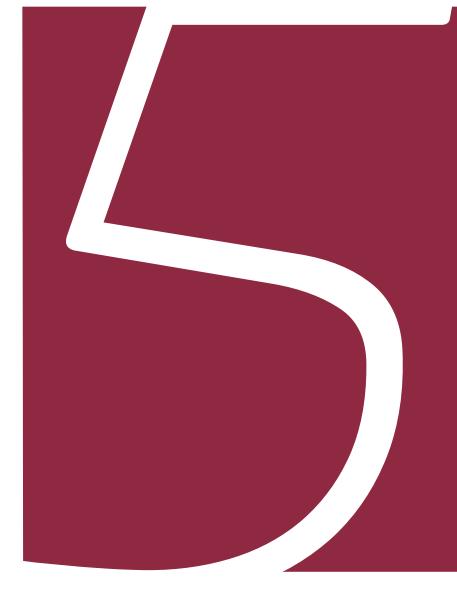


# Sustainable use of biomass for energy purposes (Romania)

Romanian farming villages that once relied on carbon intensive wood stoves have turned to agricultural waste for a cheap way to heat their homes. This project provides villages with biomass briquettes that provide a more efficient and sustainable energy source. Supporting 1,100 households, the project has saved 20,000 trees and created jobs in each village thanks to providing a resource that they can sell.

# Thermal storage to eliminate energy waste (Denmark)

The project stores the surplus heat from cooling in Grundfos factories in obsolete groundwater boreholes and uses it in the district heating network when needed. The synergy between the cooling demand in Grundfos' production plants and the heat demand of the district heating company has virtually eliminated energy waste. The remarkable reduction of energy consumption,  $CO_2$  emissions and operational costs benefits both companies and the district heating customers in the area.



# Partners

Teaming up with 320 partners from across Europe, the campaign connected with people, ideas and actions at all levels – from local to Europe-wide. Some of the partners are presented below.

#### <u>Austria</u>



#### Lebensministerium

Sector: Environment Type of organisation: Public authority *Lebensministerium* is the Ministry responsible for agriculture, forestry, environment and water management in Austria. www.lebensministerium.at



#### <u>Belgium</u>



#### Euroheat & power

Sector: Energy

**Type of organisation:** Business association *Euroheat & power* unites the combined heat and power, district heating and cooling sector throughout Europe and beyond through its network of members from over thirty countries. *www.euroheat.org* 



#### Passeurs d'énergie

Sector: Energy Type of organisation: Not-for-profit *Passeurs d'énergie* assists individuals wishing to reduce their energy bills and carbon footprint. *www.passeursdenergie.be* 



## Inter Environmental Wallonia (IEW)

Sector: Environment

**Type of organisation:** Not-for-profit *IEW* unites and assists over 150 organisations that work towards the preservation of the environment. *www.iewonline.be* 

## REVOLVE Revolve

Sector: Media

**Type of organisation:** Media *Revolve* is an independent multi-media platform that highlights new ideas, energy projects and environmental issues to build a culture of sustainability. *www.revolve-magazine.com* 



### International Association for Soaps, Detergents and Maintenance Products (A.I.S.E.)

Sector: Industry

**Type of organisation:** Business association *A.I.S.E.* aims to benefit society by contributing to the sustainable improvement of the quality and comfort of life through hygiene and cleanliness, in a free, competitive and innovative way. *www.aise.eu* 



#### Airport Carbon Accreditation

Sector: Transport

**Type of organisation:** Business association *Airport Carbon Accreditation* is an independent, voluntary programme for active carbon management at airports, initiated by Airports Council International Europe. *www.airportcarbonaccreditation.org* 



## Committee of the Regions

Sector: Environment Type of organisation: EU institution *The Committee of the Regions* is the voice of regions and cities in the European Union. *www.cor.europa.eu* 



## European Federation of Waste Management (FEAD)

Sector: Recycling Type of organisation: Not-for-profit *The FEAD* represents the European waste management industry. www.fead.be

#### 5. Partners – Belgium



## Future of Rural Energy in Europe (FREE)

Sector: Energy

Type of organisation: Not-for-profit

*The FREE* initiative gives a voice to all those who believe that rural energy needs are important issues both for those who live in the countryside and for European society as a whole.

www.rural-energy.eu



# European Cyclist Federation (ECF)

Sector: Transport Type of organisation: Not-for-profit The ECF promotes cycling as a sustainable and healthy means of transportation and recreation. www.ecf.com



## European Community of Consumer Co-operatives (Euro Coop)

#### Sector: Consumption

**Type of organisation:** Not-for-profit *Euro Coop* represents over 4,500 regional co-operatives and works to establish an ethical and sustainable approach for its 30 million consumers across Europe. *www.eurocoop.org* 



## The Council of European Municipalities and Regions (CEMR)

Sector: Consumption

Type of organisation: Environment

*The CEMR* represents the interests of European local authorities and their associations in more than 40 countries. It supports energy and climate policies that constitute real opportunities for local economies.

#### www.ccre.org

## <u>Bulgaria</u>



## Bulgarian Photovoltaic Association (BPVA)

Sector: Energy

Type of organisation: Not-for-profit

*BPVA* supports solar energy production in order to contribute towards the reduction of carbon emissions and development of renewable energy sources in Bulgaria. *www.bpva.org* 



## Association of Producers of Ecological Energy

#### Sector: Energy

**Type of organisation:** Business association *The association* supports cooperation between its members and state or local authorities to help improve the deployment of renewable energy in Bulgaria.

#### www.apee.bg/en



#### Sector: Environment

**Type of organisation**: Business association *Gorichka* aims to contribute to tackling climate change by transforming the mindset of decision makers and the general public towards sustainable solutions. *www.gorichka.bg* 



#### Credo Bonum

Sector: Environment

Type of organisation: Not-for-profit

*Credo Bonum* promotes positive news, successful practices, valuable tips and inspirational ideas to help tackle climate change in Bulgaria.

www.credobonum.bg



### Bulgarian Ministry of the Environment and Water

Sector: Environment

Type of organisation: Public authority

*The Bulgarian Ministry of the Environment and Water* is the ministry responsible for the protection of Bulgaria's air, water and soil, and activities to prevent climate change and waste.

www.moew.government.bg



#### Cleantech Bulgaria

Sector: Technology

Type of organisation: Not-for-profit

*Cleantech Bulgaria* is an online platform for communication between stakeholders in the field of clean technologies and sustainable development.

#### www.cleantech.bg

# Center for Energy Efficiency Eneffect

Sector: Technology

**Type of organisation:** Not-for-profit *Eneffect's* mission is to support efforts towards more efficient use of energy at all governance levels in Bulgaria. *www.eneffect.bg* 



#### Bulgarian Wind Energy Association

Sector: Energy Type of organisation: Not-for-profit *The association* brings together companies active in the wind energy sector in Bulgaria. *www.bgwea.org* 



## EcoEnergy

Sector: Energy

**Type of organisation**: Not-for-profit *EcoEnergy* gathers the efforts of Bulgarian municipalities to contribute to better energy efficiency and sustainable solutions.

#### www.ecoenergy-bg.net



#### Agency of Sustainable Development and Eurointegration – Ecoregions (ASDE)

#### Sector: Environment

Type of organisation: Not-for-profit

*ASDE* works with state administration and civil organisations for long-term national and public plans that support sustainable development in Bulgaria.

#### www.asde-bg.org



Sector: Environment

Type of organisation: Public authority

*Copernicus,* previously known as GMES (Global Monitoring for Environment and Security), is a European system for monitoring the Earth, coordinated and managed by the European Commission with the European Space Agency, the European Environment Agency and the Member States. *www.copernicus.eu* 



## AgroMedia Group

Sector: Media Type of organisation: Media AgroMedia produces video materials on agricultural and environmental topics. www.agromedia.bg



### The Association of Bulgarian Cities and Regions (ABGR)

Sector: Environment

**Type of organisation:** Public association *ABGR* creates the conditions for sustainable development for local cities and governments through enhancing energy efficiency and environmental management. *www.abgr.org* 



#### Garant-D

#### Sector: Building

Type of organisation: Private company

*Garant-D* provides construction supervision, project management and consultation services, contributing to sustainable construction in Bulgaria.

#### www.garant-d.eu



## Association for building with natural materials (ACEM)

Sector: Environment

Type of organisation: Not-for-profit

ACEM works with natural materials and informal groups who have common interests in areas such as energy efficiency, low-carbon development and sustainable architecture.

#### www.asem-bg.org



## Bulgarian Energy Efficiency Fund (EERSF)

Sector: Energy

Type of organisation: Public authority

*EERSF* provides technical assistance to Bulgarian enterprises, municipalities and private individuals in developing energy efficiency investment projects. *www.bgeef.com* 



#### **Climate Action Coalition Bulgaria**

Sector: Energy

Type of organisation: Not-for-profit

*Climate Action Coalition Bulgaria* is a portal that acts as a meeting place for all those interested in doing their bit to avert and counteract climate change.

#### www.climatebg.org



## University of Agribusiness and Rural development

#### Sector: Agriculture

Type of organisation: Academia

The college was established to develop sustainable agricultural practices such as organic farming, ecological food production and the implementation of innovative technologies. *www.uard.bg* 



### South-East European Smart Cities

Sector: Technology Type of organisation: Private company Smart Cities organises international exhibitions and conferences in key industry fields that accelerate climate friendly technologies. www.viaexpo.com,

www.viaexpo.com/en/pages/smart-cities



## Bulgarian Green Building Council

Sector: Building

Type of organisation: Not-for-profit

The *Bulgarian Green Building Council* aims at a more sustainable and efficient built environment in Bulgaria. *www.bgbc.bg* 

# Enitpenes

## *Commissioner for the Environment of the Republic of Cyprus*

Cyprus

Sector: Media

**Type of organisation:** Media *The office of the Commissioner's* online platform provides information on environmental issues.

www.theopemptou.com



## *Cyprus Employers and Industrialists Federation (OEB)*

#### Sector: Industry

**Type of organisation:** Business association *OEB* promotes sustainable approaches to its member companies that employ more than 60% of the private sector's workforce in Cyprus.

#### www.oeb.org.cy



## Department of Merchant Shipping (DMS)

#### Sector: Transport

Type of organisation: Public authority

*The DMS* supports the development of merchant shipping in Cyprus, giving particular attention to the protection of the environment and the prevention of marine pollution. *www.mcw.gov.cy* 



## Friends of the Earth (Cyprus)

Sector: Environment

Type of organisation: Not-for-profit

*Friends of the Earth* aims to raise awareness on the importance of preserving the natural environment and to campaign for solutions to environmental and social problems.

www.foecyprus.weebly.com



#### **Department of Environment (Cyprus)**

Sector: Environment Type of organisation: Public authority *The Department of Environment* promotes sustainable management of the environment, natural resources, and agricultural, livestock and fisheries production. *www.moa.gov.cy/moa/environment/ environment.nsf/index\_en/index\_en* 

#### Czech Republic



#### ENVIC, občanské sdružení

Sector: Environment Type of organisation: Not-for-profit *ENVIC* is a network of information centers in the environmental field in the Czech Republic.

www.envic.cz



#### The Czech Climate Coalition

#### Sector: Environment

Type of organisation: Not-for-profit

*The Czech Climate Coalition* is a platform for Czech non-governmental organisations working in the areas of environment protection, development cooperation and humanitarian aid. *www.zmenaklimatu.cz* 

#### <u>Denmark</u>

D Danish Energy Industries Federation

## Danish Energy Agency

Sector: Energy

Type of organisation: Public authority

The Danish Energy Agency engages at the national and international level in issues related to the production, supply and consumption of energy as well as strengthening efforts to reduce emissions of greenhouse gases. www.ens.dk



#### Energibyen Skive

#### Sector: Environment

Type of organisation: Public authority

*The Skive* municipality works to develop climate and sustainable energy through eco-friendly projects in geothermal, biogas, solar and wind energy. *www.energibyenskive.dk* 



# Nordic Initiative Clean & Ethical (NICE)

Sector: Consumption

**Type of organisation:** Business association *NICE* is a joint commitment from the Nordic fashion industry to take the lead on social and environmental issues.

www.nicefashion.org

## Danish Energy Industries Federation (DI Energy)

Sector: Energy Type of organisation: Business association *DI Energy* represents Danish companies working in the energy sector. www.energi.di.dk



## The Danish Ministry of Climate and Energy

Sector: Environment

Type of organisation: Public authority

*The ministry* is responsible for national and international efforts to prevent climate change, as well as energy issues, national geological surveys and meteorology. *www.kebmin.dk* 



#### Sustainia

Sector: Environment

**Type of organisation:** Business association *Sustainia* is an innovation platform where companies, NGOs, foundations and public figures come together to work on tangible approaches to sustainability. *www.sustainia.me* 



# ECOWEEK (Copenhagen School of Design and Technology)

#### Sector: Building

Type of organisation: Academia

*The ECOWEEK* organised in 2013 in Copenhagen brought together 300 young architects, engineers, landscape and industrial designers and energy technologists to work on new ideas to address climate, energy and evironmental challenges in cities.

www.kea.dk/da/ecoweek



## The Sustainability Science Centre (University Of Copenhagen)

Sector: Environment

Type of organisation: Academia

*The Sustainability Science Centre* is a gateway for research, education and projects in sustainability that encourage cross-disciplinary action on energy and climate challenges. *www.sustainability.ku.dk* 



#### Act NOW

Sector: Technology

**Type of organisation:** Not-for-profit *Act NOW* is a partnership platform for companies, NGOs and public institutions, aimed at accelerating the implementation of energy reducing initiatives by increasing knowledge about readily available solutions.

#### www.actnow-movement.com



#### ART-EPI

#### Sector: Building

Type of organisation: Not-for-profit

*ART-EPI* is a social laboratory that invites artists, scientists and climate enthusiasts to exchange their ideas and collaborate in their efforts to generate new sustainable solutions to global challenges.

#### www.artepi.dk



## SE Big Blue

#### Sector: Energy

**Type of organisation:** Private company SE Big Blue helps industrial companies and municipalities on their journey to a sustainable CO<sub>2</sub>-neutral world by optimising their energy use. www.sebigblue.dk



#### Danish Cyclist Federation

Sector: Transport

Type of organisation: Not-for-profit

With 18,000 members, *the Danish Cyclist Federation* is an active organisation that aims to create better conditions for cyclists and sustainable transport.

www.cyklistforbundet.dk

#### <u>Estonia</u>

#### Ministry of the Environment

Sector: Environment

Type of organisation: Public authority

*The Ministry* aims to ensure a clean environment for both our generation and future generations as well as guarantee the economical use of natural resources. *www.envir.ee*/67244



## Estonian Wind Power Association (EWPA)

#### Sector: Energy

**Type of organisation:** Business association *EWPA's* mission is to create conditions for the development of wind energy, ensure its competitiveness and thus contribute to the preservation of the environment. *www.tuuleenergia.ee/en* 



Sector: Environment

**Type of organisation:** Not-for-profit ELF works to preserve Estonia's nature and its diversity through wildlife conservation and nature protection initiatives. *www.elfond.ee/en/about-elf* 

## <u>Finland</u>



### Ministry of the Environment

Sector: Environment

Type of organisation: Public authority

*The Ministry* is responsible for matters concerning eco-friendly communities, green housing, biodiversity, sustainable use of natural resources and environmental protection.

www.ym.fi



### Finnish Environment Institute

#### Sector: Environment

Type of organisation: Academia

*The Institute* combines research and international cooperation with legislation to help Finland increase its positive impact in tackling climate change and greenhouse gas emissions.

#### www.ymparisto.fi



## Union of the Baltic Cities (UBC)

Sector: Energy

**Type of organisation:** Public authority *The UBC* is responsible for the Baltic cities' work on environmental and urban sustainability, co-operation and coordinating the UBC Sustainability Action Programme. *www.ubc-environment.net* 



## Martat Organisation

Sector: Energy

Type of organisation:

*Martat* is a Finnish home economics organisation, which promotes sustainability and a green way of life at home by exchanging environmental ideas and information.

www.martat.fi/info/in-english

## NOKIA Nokia

Sector: Technology Type of organisation: Private company *Nokia* have set out to improve their offices, factories, logistical operations and use of technologies in ways that save energy and reduce emissions. *www.nokia.com/global/about-nokia/ people-and-planet-page* 

#### <u>France</u>



## French Environment and Energy Management Agency (ADEME)

Sector: Environment

**Type of organisation:** Public authority *ADEME* aims to encourage, coordinate and undertake operations to protect the environment and manage energy. *www.ademe.fr* 



## Compte Epargne CO<sub>2</sub>

Sector: Energy

**Type of organisation:** Private authority *Compte Epargne CO*<sub>2</sub> allows homes, businesses or local authorities to open a free online "CO<sub>2</sub> Savings Account" to help reduce their carbon emissions.

#### www.compteepargneCO<sub>2</sub>.com



## **Energy Cities**

Sector: Energy

Type of organisation: Not-for-profit

*Energy Cities* aims to accelerate the transition of European cities and towns to renewable energy by strengthening their skills in sustainable development.

www.energy-cities.eu

#### FONDATION GOODPLANET GoodPlanet Foundation

Sector: Environment

Type of organisation: Not-for-profit

*GoodPlanet Foundation's* mission is to educate the public and make people aware of how to protect the environment through realistic and simple solutions. *www.goodplanet.org* 

#### 

#### Alstom

Sector: Energy Type of organisation: Private companies *Alstom* provides power generation, power transmission and rail infrastructure solutions along with innovative and environmentally friendly technologies. *www.alstom.com* 

#### Germany



#### Ecosummit

Sector: Environment

**Type of organisation:** Not-for-profit

*Ecosummit* is a green business network and conference for startups, investors and corporates to accelerate smart green innovation.

#### www.ecosummit.net



### Postdam Institute for Climate Impact Research (PIK)

#### Sector: Academia

Type of organisation: Not-for-profit

PIK brings together researchers from natural and social sciences to address crucial questions in the fields of global change, climate impacts and sustainable development.

#### www.pik-potsdam.de



## Wuppertal Institute

Sector: Academia

Type of organisation: Not-for-profit

Research work at the Wuppertal Institute interlinks aspects of climate, environment and resources while combining ecological guestions with issues related to economic and social change.

www.wupperinst.org

#### das hanðwern

## Der Zentralverband des Deutschen Handwerks (ZDH)

#### Sector: Building

Type of organisation: Business association

*ZDH* represents the skilled crafts sector in Germany, contributing to a range of eco-friendly goods, services and skills that help establish a sustainable and green crafts sector

www.zdh.de



### German Renewable Energy Federation (BEE)

Sector: Energy

**Type of organisation**: Business association *BEE* is the umbrella organisation of the associations for renewable energies in Germany.

www.bee-ev.de



### Woche der Sonne

#### Sector: Energy

Type of organisation: Business association

*Woche der Sonne* brings together energy consultants, local authorities and initiatives from across Germany to support the use of solar energy, solar heating and heating with pellets.

www.woche-der-sonne.de



## Collaborating Centre on Sustainable Consumption and Production (CSCP)

Sector: Consumption

Type of organisation: Not-for-profit

*The CSCP* works on conceptualising the future infrastructure needed for achieving sustainable ways of living by bringing together civil society organisations, governments, business and retailers.

www.scp-centre.org

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#### Unna Administration

Sector: Environment

Type of organisation: Public authority

*The administration* works with the citizens of Unna for the preservation and sustainable development of nature and landscape in Unna.

www.unna.de

#### 5. Partners – Germany



## Climate Alliance of European Cities with Indigenous Rainforest Peoples

Sector: Environment

Type of organisation: Not-for-profit

The member cities and municipalities of the Alliance are committed to reducing greenhouse gas emissions and protecting tropical rainforests.

www.klimabuendnis.org



## The German Innovation Prize for Climate and Environment (IKU)

Sector: Environment

**Type of organisation:** Public authority The prize awarded by the Federal Environment Ministry and the Federal Association of German Industry recognises innovation in environmental and climate protection. *www.iku-innovationspreis.de* 



## Local Governments for Sustainability (ICLEI)

Sector: Environment

Type of organisation: Public authority

*ICLEI* is a network of local authorities driving positive change through programmes and campaigns on local sustainability.

www.iclei-europe.org



<u>Greece</u>

Sector: Environment

Type of organisation: Not-for-profit

*Ecocity* aims to limit the effects of climate change through supporting environmental conservation and developing sustainability by cooperating with European and international organisations.

www.ecocity.gr



## Hellenic Federation of Enterprises (SEV)

#### Sector: Environment

**Type of organisation:** Business association With members from most sectors of the Greek economy, *SEV's* aims to contribute to the further development of sustainable practices for Greek enterprises.

#### www.sev.org



## Centre for Sustainability and Excellence (CSE)

Sector: Environment

**Type of organisation:** Private company *CSE* provides consulting, coaching and training services to help clients integrate sustainability into their culture, products and services.

www.cse-net.org



### Appliances Recycling S.A

Sector: Recycling Type of organisation: Private company Appliances Recycling S.A. coordinates the collection, processing and recycling of electrical and electronic equipment waste in Greece. www.electrocycle.gr/gb

## ECOWEEK ECOWEEK

#### Sector: Environment

Type of organisation: Not-for-profit

*ECOWEEK's* mission is to raise awareness on environmental issues and climate change and to promote the principles of sustainability through conferences and education.

www.ecoweek.netfirms.com/ecoweek/index\_ENG.html



## Kainotomia

Sector: Media

Type of organisation: Media *Kainotomia* is a Greek information portal on green innovations and sustainable development. *www.greekinnovation.eu* 



#### **Global Sustain**

#### Sector: Environment

**Type of organisation:** Business association Global Sustain offers online and off-line services related to sustainability, corporate responsibility, responsible investing and green economy to businesses. *www.globalsustain.org* 

#### **Hungary**



## Hungarian Society for Environmental Education

Sector: Environment Type of organisation: Not-for-profit *MKNE* works to increase environmental awareness, knowledge and responsibility in Hungary. *www.mkne.hu* 



Sector: Consumption

**Type of organisation:** Not-for-profit

*ECO-PACK* offers communication tools and experience to help Hungarian organisations and citizens work together to tackle climate change.

#### www.okopack.hu



## Energiaklub

Sector: Environment Type of organisation: Not-for-profit Energiaklub aims to make energy producers, users and political decision-makers view energy in a different way. www.energiaklub.hu/en

kék 🕚 planéta

## Kék Planéta

Sector: Environment

Type of organisation: Not-for-profit

*Kék Planeta* aims to promote sustainable development in Hungary by sharing climate-friendly communication tools.

www.kekplaneta.hu

Climate Action

#### <u>Ireland</u>



#### Carbon Control<sup>™</sup>

Sector: Environment Type of organisation: Private company The Carbon Control<sup>™</sup> mark guarantees that the organisations displaying the mark are meeting strict CO<sub>2</sub> emissions reduction targets. www.carboncontrol.com



#### Ask About Ireland

Sector: Environment Type of organisation: Public authority Ask About Ireland provides information on the environment and sustainable living. www.askaboutireland.ie/enfo

> Climate Action

### <u>Italy</u>

fiper

FEDERATIONE ITALIANA PRODUTTORI DI ENERGIA DA FONTI FRIMEWAR

## Italian Producer of Renewable Energy Federation (FIPER)

Sector: Energy

**Type of organisation:** Business association *FIPER* spreads the message that a wider use of biomass will bring tangible benefits in the field of agriculture, forestry, environment and employment.

www.fiper.it



Federazione Italiana Amici della Biciletta (FIAB)

Sector: Transport Type of organisation: Not-for-profit *FIAB* promotes cycling as an environmentally-friendly means of transport. *www.fiab-onlus.it* 



## Verdi Ambiente e Societá (VAS)

Sector: Environment

**Type of organisation:** Not-for-profit *VAS* aims to bring forward sustainable projects and initiatives for the protection of nature and cultural heritage.

www.vasonlus.it



## assoRinnovabili

Sector: Energy Type of organisation: Business association *assoRinnovabili* represents the Italian renewable energy sector at the national and European level. *www.assorinnovabili.it* 



## Linearebag

Sector: Consumption

**Type of organisation:** Private company *Linearebag* is a line of products designed to carry, keep and protect clothing items and made using environmentally friendly materials.

#### www.ecopiace.com



### KlimaHaus/CasaClima

Sector: Building Type of organisation: Private company *KlimaHaus/CasaClima* operates as a certification body for energy efficiency in the construction sector. *www.klimahaus.it* 

#### سے Venette Waste

#### Venette Waste

Sector: Consumption

**Type of organisation:** Private company *Venette Waste* is an online hub that focuses on sustainable fashion and discusses ideas that combing social, artistic and commercial innovation.

www.venettewaste.com



## Kyoto Club

Sector: Environment Type of organisation: Not-for-profit *Kyoto Club* promotes awareness-raising initiatives, information and training to foster energy efficiency, renewable energy and sustainable mobility. *www.kyotoclub.org* 

#### REGIONE DEL VENETO

#### Regione del Veneto

Sector: Environment

**Type of organisation:** Public authority *Veneto* municipality implements actions for a climatefriendly and sustainable approach to biodiversity, agriculture, and energy and water use.

#### www.regione.veneto.it



## Creativity Lifestyle and Sustainable Synergy C.L.A.S.S.

#### Sector: Environment

Type of organisation: Business association

*C.L.A.S.S.* is a multi-platform network that showcases fashion, textiles and materials created using smarter, sustainable technology for designers, buyers, media and business.

#### www.classecohub.org



Sector: Environment Type of organisation: Academia *IED* offers higher education courses and training in sustainable design. *www.ied.it* 

#### **FEDERBIO**

## Federazione Itallana Agricoltura Biologica e Biodinamica (FederBio)

Sector: Agriculture

**Type of organisation:** Business association *FederBio* represents the Italian organic produce sector and promotes sustainable agriculture and protects nationally and internationally.

#### www.federbio.it



#### Demeter

Sector: Agriculture

**Type of organisation:** Business association *Demeter* promotes biodynamic products that are eco-friendly to consumers while showcasing the benefits of sustainable agriculture.

www.demeter.it



## Associazione Consumatori Utenti (ACU)

Sector: Consumption

**Type of organisation:** Not-for-profit *ACU* provides assistance and advice to consumers throug-hout Italy and campaigns for sustainable consumption. *www.associazioneacu.org* 



## Italian Climate Network

Sector: Environment

**Type of organisation:** Not-for-profit *The Italian Climate Network* is an association of citizens, businesses and NGOs engaged in solving the climate issue to ensure a sustainable future for Italy. *www.italiaclima.org* 



Sector: Environment

Type of organisation: Not-for-profit

*Legambiente* aims to promote climate-friendly lifestyles and contribute to environmental protection through initiatives based on a solid scientific basis. *www.legambiente.it* 

#### <u>Latvia</u>



## Baltic Environment Forum (BEF)

Sector: Environment

**Type of organisation:** Non-governmental organisation *BEF* facilitates dialogue and supports projects on environmental issues in Latvia and Baltic States.

#### www.bef.lv



### Homo Ecos

Sector: Environment

**Type of organisation**: Not-for-profit organisation *Home Ecos* brings together various organisations online and for educational events on environmental sustainability.

#### www.homoecos.lv



## Zaļā brīvība

#### Sector: Consumption

Type of organisation:

*Zaļā brīvība* aims to inform the public about the world of consumption, globalisation, and the impacts of climate change on the environment and society.



## *Rigas Technical University* (*RTU*)

Sector: Academia

Type of organisation: Academia

*RTU* develops systems and structures for managing urban planning and environment-friendly solutions. *www.rtu.lv* 

### <u>Lithuania</u>

# Ministry of Environment of the Republic of Lithuania

Sector: Environment

**Type of organisation:** Public authority *The Ministry of Environment* implements Lithuania's state policy on environmental protection, forestry and use of natural resources.

www.am.lt



## Lithuanian Electric Vehicles Association (LEVA)

#### Sector: Transport

**Type of organisation:** Business association *LEVA* brings together electric vehicle enthusiasts and companies operating in the field of electric vehicles to promote sustainable transport in Lithuania.

#### www.elektromobilis.org

## **BIC**enter

#### BICenter

#### Sector: Energy

**Type of organisation:** Private company *BICenter* offers solutions for waste water treatment, household waste sorting/recycling and biogas production. *www.bicenter.lt* 

## ECAT

## Environmental Centre for Administration and Technology (ECAT)

Sector: Environment

Type of organisation: Not-for-profit

*ECAT's* mission is to integrate environmental concerns into society and improve the quality of life through practical and sustainable solutions.

#### www.ecat.lt

#### 5. Partners – Lithuania



## Baltic Environmental Forum Lithuania (BEF Lithuania)

#### Sector: Environment

**Type of organisation**: Non-governmental *BEF Lithuania* is dedicated to the protection of healthy and clean environment and resource and biodiversity conservation for future generations.

#### www.bef.lt



## The Lithuanian Wind Power Association (LVEA)

#### Sector: Energy

Type of organisation: Business association

*LVEA* unites the Lithuanian wind energy market to achieve energy independence by developing more turbines and pursuing the implementation of the EU's renewable energy policy.

#### www.lvea.lt



#### Darom

Sector: Environment

**Type of organisation:** Not-for-profit *Darom* aims to promote ecological thinking and social participation and strengthen local communities and human cooperation to tackle climate change. *www.mesdarom.lt* 



## Lietuvos Pramaonininku Konfederacija (LPK)

Sector: Industry

**Type of organisation:** Business association *LPK* creates conditions for the development for sustainable economic, technical and social progress within Lithuanian enterprises. *www.lpk.lt* 



Institute of Environmental Engineering (APINI)

Sector: Environment

**Type of organisation:** Academia *APINI* aims to contribute to the application of innovative sustainable development solutions through research and knowledge-sharing. *www.ktu.lt/apini* 



## *Lietuvos Energetikos Institutas (LEI)*

Sector: Energy Type of organisation: Academia *LEI* conducts research and develops sustainable solutions for the Lithuanian energy sector. www.lei.lt

> Climate Action

#### <u>Luxembourg</u>

LE GOUVERNEMENT DU GRAND-DUCHÉ DE LUXEMBOURC Ministère du Diveloppement durable et des Infrastructures

## Ministry of Sustainable Development and Infrastructure

Sector: Building

**Type of organisation:** Public authority *The Ministry* supports the development of sustainable projects in order to strengthen the green economy in Luxembourg and help tackle climate change. *www.gouvernement.lu* 



## myenergy Luxembourg

Sector: Energy

**Type of organisation:** Private company *myenergy* provides information and advice on energy efficiency and renewable energy to boost sustainable development in Luxembourg.

www.myenergy.lu



## European Investment Bank (EIB)

Sector: Building

Type of organisation: Not-for-profit

*EIB* supports projects that make a significant contribution to growth, employment, economic and social cohesion and environmental sustainability in Europe and beyond. *www.eib.org* 

## <u>Malta</u>

MALTAENTERPRISE

## Malta Enterprise (ME)

Sector: Energy

**Type of organisation:** Public authority *ME* is the national development agency responsible for promoting and facilitating international investment in the Maltese Islands.

#### www.maltaenterprise.com



#### Investing in Water

#### Sector: Environment

Type of organisation: Business association

*EU LIFE+ Investing in Water project* aims to help businesses and hotels reduce their water consumption by identifying water saving opportunities and recommending water saving solutions.

#### www.investinginwater.org



## Malta Business Bureau (MBB)

Sector: Industry

**Type of organisation**: Public authority *The MBB* is a EU-business advisory office for the Malta Chamber of Commerce, Enterprise and Industry and supports sustainable development for the country. *www.mbb.org.mt* 



## Association of General Retailers and Traders (GRTU)

Sector: Industry

**Type of organisation:** Public authority *GRTU* encourages and supports small and medium-sized sustainable enterprises within the framework of a functioning advanced green economy. *www.grtu.org.mt* 



#### Malta Resources Authority (MRA)

Sector: Environment Type of organisation: Public authority *MRA* is a body with regulatory responsibilities relating to sustainable use of water, energy and mineral resources in the Maltese Islands.

www.mra.org.mt



## Malta Chamber of Commerce, Enterprise and Industry

Sector: Industry

**Type of organisation:** Public authority *The Malta Chamber* aims to develop policy at national and European levels to boost the sustainable development of enterprise and industry in Malta. *www.maltachamber.org.mt* 

#### **Netherlands**

#### **Energy** Academy **Europe**

### Energy Academy Europe

Sector: Energy

Type of organisation: Academia

The Energy Academy Europe provides education, conducts research and fosters innovation in the field of energy while working towards the transition to a sustainable energy future.

#### www.energyacademy.org



#### Centre of excellence for sustainable water technology (Wetsus)

Sector: Environment Type of organisation: Academia *Wetsus* is a centre of excellence for sustainable water technology. www.wetsus.nl

### NATUUR & MILIEU Natuur & Milieu

Sector: Consumption

Type of organisation: Non-governmental

*Natuur & Milieu* promotes easy and affordable ways to be environmentally friendly that contribute to sustainable development.

www.natuurenmilieu.nl

#### <u>Poland</u>



The Polish National Energy Conservation Agency (KAPE)

Sector: Energy

Type of organisation: Public authority

*KAPE* promotes and implements global standards and practices in the fields of energy efficiency and sustainable development.

#### www.kape.gov.pl



### Polish Climate Coalition

Sector: Environment

Type of organisation: Not-for-profit

*The Polish Climate Coalition* undertakes actions to prevent human induced climate change for the benefit of humanity and the environment.

#### www.koalicjaklimatyczna.org



#### Stop CO<sub>2</sub> Get moving!

Sector: Transport

Type of organisation: Not-for-profit

Stop  $CO_2$  Get moving! campaigns to raise awareness on how to save energy, recycle, tackle climate change and protect the environment.

www.cycling-recycling.eu



#### **EurActiv Poland**

Sector: Media

Type of organisation: Media

*EurActiv Poland* provides information on the latest developments in energy and climate change from across the country and Europe. *www.euractiv.pl* 

#### 5. Partners – Poland



Sector: Not-for-profit organisation Type of organisation: Private company *WWF Poland* helps tackle climate change at home and abroad by bringing together environmentalist to get involved in and support eco-friendly practices. *www.wwf.pl* 



## National Fund for Environmental Protection and Water Management (NFOIS)

#### Sector: Environment

**Type of organisation:** Public authority *NFOIS* promotes environmental action by aiding sustainable projects in the sectors of energy and water management with financial, legal and organisational support. *www.nfosigw.gov.pl* 



## Research and Innovation Centre Pro-Akademia

#### Sector: Energy

**Type of organisation:** Private company *Pro-Akademia* supports sustainable development and environment protection in Poland through professional managerial education, economic consultancy and entrepreneurship.

#### www.proakademia.eu



## *Center for Civic Education Officer (CEO)*

Sector: Environment

Type of organisation: Not-for-profit

*CEO* aims to improve the quality of the education system and promote knowledge, skills and attitudes necessary for the development of the civil society.

#### www.ceo.org.pl

#### 5. Partners – Poland



### Dla Ziemi Association

Sector: Environment

**Type of organisation:** Not-for-profit organisation *The Dla Ziemi Association* organises a variety of artistic, educational and social activities to connect people interested in the future of the Lubartów region. *www.dlaziemi.org* 



## Polski Związek Firm Deweloperskich (PZFD)

#### Sector: Building

Type of organisation: Business association

*PZFD's* mission is to promote the sustainable development of the Polish residential market by educating potential customers about the process of buying a ecofriendly home.

#### www.pzfd.pl



## *Polish Green Building Council* (*PLGBC*)

#### Sector: Building

Type of organisation: Not-for-profit

*PLGBC* is dedicated to promoting sustainable design, construction and operations in the entire Poland with special focus on post-industrial regions.

#### www.plgbc.org.pl



## Fundacja Nasza Ziemia (Our Earth Foundation)

Sector: Environment

Type of organisation: Not-for-profit

*Fundacja Nasza Ziemia* coordinates projects and programmes to raise awareness about environmental protection and sustainable development.

www.naszaziemia.pl



#### Norden Centrum

Sector: Environment

**Type of organisation:** Not-for-profit *Norden Centrum* contributes to the exchange of ideas and experiences in solving important social and economic

problems in the Nordic-Baltic region.

www.nordencentrum.pl



## Klub Gaja

Sector: Environment Type of organisation: Not-for-profit *Klub Gaja* encourages Polish citizens to take real action on the environment and engage in public debate about what it means to be environmentally friendly. *www.klubgaja.pl* 



## Regional Environmental Center Poland (REC)

Sector: Environment

Type of organisation: Not-for-profit

*The REC* assists in addressing environmental issues by promoting cooperation and supporting the exchange of information among all environmental stakeholders. *www.poland.rec.org* 



## <u>Portugal</u>

#### Quercus

Sector: Environment

**Type of organisation:** Not-for-profit *Quercus* aims to promote environmental protection and

sustainable development in Portugal through its regional centres across the country.

www.quercus.pt



## Direção Geral de Energia e Geologia (DGEG)

#### Sector: Energy

Type of organisation: Public authority

*DGEG's* mission is to contribute to the design, development and evaluation of energy policies that contribute to sustainable development.

www.dgeg.pt



#### Sector: Consumption

**Type of organisation:** Private company *e)mission* works with organisations and individuals to reduce their climate impact in a way that makes economic sense and improves competitiveness. *www.e-missionneutral.com* 

www.e-missionneutrat.com

AGÉNCIA PORTUGUESA DO AMBIENTE

## Agência Portuguesa do Ambiente

Sector: Environment

Type of organisation: Public authority

*The Agency* proposes, develops and monitors the management of environmental policies and sustainable development for Portugal.

www.apambiente.pt



#### Euronatura

Sector: Environment

**Type of organisation:** Not-for-profit *Euronatura* develops research projects in the area of climate change and proposes climate ideas to decision-makers.

#### www.euronatura.pt



#### EDP – Energias de Portugal S.A

Sector: Energy

Type of organisation: Private company

*EDP* is an energy company committed to a strategy of diversifying energy sources, investing in cleaner energy and fostering improvements in energy efficiency.

#### www.edp.pt



## The Institute of Environment and Development – IDAD

Sector: Energy

**Type of organisation:** Not-for-profit *IDAD* provides consultancy services in the areas of environment and sustainable development through environmental impact assessment, environmental modeling and monitoring activities. *www.ua.pt/idad* 

#### carris 🕕

Transportes de Lisboa

#### Carris

Sector: Transport

Type of organisation: Public authority

*Carris,* Lisbon's public transport company, contributes towards a less congested city and better quality of life by supporting sustainable transport. *www.carris.pt* 

#### Natureza🏈

Natureza0

Sector: Media Type of organisation: Media NaturezaO is a blog about environmental sustainability with a focus on Portugal and Madeira. www.naturezaO.blogspot.pt



## *Federação Portuguesa de Cicloturismo e Utilizadores de Bicicleta (FPCUB)*

#### Sector: Transport

Type of organisation: Not-for-profit

*FPCUB* aims to protect the environment by promoting the bicycle as a form of sustainable mobility and developing practical cycling infrastructure.

#### www.fpcub.pt

universidade de aveiro 📄 dao departamento de ambiente e ordenamento

## Universidad de Aveiro (UA)

Sector: Environment Type of organisation: Academia *UA supports research and projects that contribute to reducing emissions and tackling the impacts of climate change. www.ua.pt* 



## Portuguese Association of Enterprises for the Environment Sector (AEPSA)

Sector: Environment

**Type of organisation:** Business association *AEPSA* represents environmental companies operating in the areas of water supply, wastewater and solid waste. *www.aepsa.pt* 

#### <u>Romania</u>



#### MaiMultVerde

Sector: Consumption

**Type of organisation:** Business association *MaiMultVerde* helps build the reputation of responsible companies among customers, partners, investors and authorities to help develop a sustainable society. *www.maimultverde.ro* 



#### Eco-Romania

Sector: Environment

Type of organisation: Not-for-profit

*Eco-Romania* brings together the public and private sector to support climate friendly practices, nature conservation and sustainable tourism.

#### www.eco-romania.ro



### Terra Mileniul

Sector: Environment

**Type of organisation:** Not-for-profit *Terra Mileniul* develops environmental programmes to raise public awareness on sustainable development and the impacts of climate change. *www.terraiii.ngo.ro* 



### **Green Revolution**

Sector: Environment

Type of organisation: Not-for-profit

*Green Revolution* focuses on education, participation and creating sustainable urban communities by bringing together citizens and civil authorities.

www.greenrevolution.ro



## Asociația Salvați Dunărea și Delta (SDD)

Sector: Environment

**Type of organisation:** Not-for-profit *SDD's* mission is to organise eco-friendly activities that demonstrate concrete results and solutions to the major environmental problems facing the region's nature reserve. *www.salvatidelta.ro* 



#### Realitatea Media

Sector: Media Type of organisation: Media *Realitatea TV* provides coverage of the latest developments in Romania and Europe regarding climate change and sustainable development.

www.realitatea.net

Climate Action

#### <u>Slovakia</u>



## Slovak Environmental Agency (SEA)

Sector: Environment

**Type of organisation:** Public authority *SEA* supports the Slovakian Ministry of Environment in the planning and implementation of environmental management in the Slovak Republic.

www.sazp.sk

## **ASPEK** Asociácia priemyselnej ekológie

na Slovensku (ASPEK)

Sector: Environment Type of organisation: Not-for-profit *ASPEK* aims to reduce the impact of manufacturing on the environment through their members that share solutions to reduce carbon emissions.

#### www.aspek.sk

## cyklÓ Dalícia Cyklokoalicia

Sector: Transport

Type of organisation: Not-for-profit

*Cyklokoalicia* works for more bicycle lanes, better conditions and improved safety for cyclists in Slovakia through public campaigning and meeting politicans and decision makers.

www.cyklokoalicia.sk

#### <u>Slovenia</u>



#### Snaga

Sector: Recycling

**Type of organisation:** Public authority *Snaga* is responsible for waste collection and disposal as well as cleaning and taking care of roads, parks and children's playgrounds in Ljubljana. *www.snaga.si/en* 



Slovenian Photovoltaic Industry Association (ZSFI)

#### Sector: Energy

**Type of organisation:** Business association *ZSFI'S* main aim is to increase public awareness and knowledge about research and development in solar power by uniting the photovoltaic industry in Slovenia. *www.zsfi.si* 

## Municipality of Zagorje ob Savi

Sector: Environment

Type of organisation: Public authority

*The Municipality* supports environmentally friendly practices in its region that contribute to sustainable development in Slovenia.

www.zagorje.si

### <u>Spain</u>



#### Aquieuropa

Sector: Media

#### Type of organisation: Media

*Aquieuropa* provides citizens and organisations with information on EU policies and legislative processes in various areas, including climate and sustainability.

#### www.aquieuropa.com



### Fundación Entorno

#### Sector: Energy

**Type of organisation**: Not-for-profit *Fundación Entorno's* mission is to work with business leaders to address the challenges and business opportunities related to sustainable development.

#### www.fentorno.org



## La Tirajala

Sector: Environment Type of organisation: Not-for-profit *La Tirajala* promotes environmental and social responsibility and sustainable development in the Canary Islands. *www.latirajala.org* 



#### Ecoserveis

Sector: Energy

Type of organisation: Not-for-profit

*Ecoserveis* coordinates educational projects and research related to clean energy and energy efficiency.

www.ecoserveis.net



### The Catalan Office for Climate Change

Sector: Environment

**Type of organisation:** Public authority *The mission of the Catalan Office for Climate Change* is to introduce policies for fighting climate change so as to mitigate its effects and seek the most appropriate means of adaptation.

www20.gencat.cat

## Spanish Ministry of Agriculture, Food and Environment

Sector: Environment

**Type of organisation:** Public authority *The Ministry* works to develop sustainable agriculture practices in Spain alongside promoting environmentally friendly behaviour.

www.magrama.gob.es/es

ciencias ambientales.com empleo - masters - legislación

### **Ciencias Ambientales**

Sector: Media

Type of organisation: Media

*Ciencias Ambientales* provides information on various topics related to environment, energy and sustainable development.

www.cienciasambientales.com

## <u>Sweden</u>



## Stockholm Environment Institute (SEI)

Sector: Environment

Type of organisation: Academia

*SEI* are engaged in environmental issues at local, national, regional and global policy levels by bridging science and sustainable development with policy.

#### www.sei-international.org



## Swedish Environmental Protection Agency

### Sector: Environment

Type of organisation: Public authority

*The Agency* is responsible for coordinating, monitoring and evaluating efforts to meet Sweden's environmental objectives and promote a green economy.

#### www.swedishepa.se



# EU Ecolabel

Sector: Consumption

Type of organisation: Public authority

*Ecolabel* promotes products that have fulfilled stringent environmental and climate criteria in order to promote sustainable consumption and climate friendly brands. *www.svanen.se/en* 



### IKEA

Sector: Consumption

**Type of organisation:** Private company *IKEA* aims to reduce carbon dioxide emissions from all aspects of their operations, from raw material extraction to a products' end-of-life. *www.ikea.com* 



### **United Kingdom**

# Commonwealth Youth Climate Network (CYCN)

Sector: Environment

Type of organisation: Not-for-profit

*The CYCN* is a connection of youth leaders with expertise on climate issues that have come together to share plans and campaigns for climate action.

www.youthclimate.org.uk/commonwealthclimate-ambassadors

# **govtoday** Govtoday

### Sector: Environment

Type of organisation: Public authority

*Govtoday* provides the latest news from the UK government's plans to implement a low-carbon economy, including national developments in the environmental, sustainable and energy sectors.

#### www.govtoday.co.uk



### The Atlas Project

### Sector: Energy

Type of organisation: Academia

*The Atlas Project* helps schools to reduce their carbon emissions and save money on their energy bills while also seeking to grow low-carbon industries.

### www.atlasschools.org



### Cynnal Cymru - Sustain Wales

### Sector: Energy

Type of organisation: Business association

*Cynnal Cymru* enables people to learn from each other and discover interesting good practice projects in Wales across a broad range of issues - from climate change to economy and fair-trade to health.

www.cynnalcymru.com

### 5. Partners – United Kingdom



### **Global Action Plan**

Sector: Environment

**Type of organisation:** Not-for-profit *Global Action Plan* helps people live sustainably by offering practical and creative solutions to everyday life that are also aimed to inspire climate action.

www.globalactionplan.org.uk

# THE CLIMATE GROUP

Sector: Environment

Type of organisation: Not-for-profit

*The Climate Group* aims to build a low-carbon future that boosts economies, creates jobs, enhances energy security, improves quality of life and averts the impacts of climate change.

www.theclimategroup.org



# *Climate Change Commission for Wales*

Sector: Environment

Type of organisation: Public authority

*The Commission* provides leadership in reducing emissions and preparing for the effects of climate change by bringing together political parties, sector representatives, academics and climate change experts.

www.wales.gov.uk/topics/environmentcountryside/ climatechange/commission/?lang=en

WORLD CLIMATE LTD

# World Climate Ltd. (UK)

Sector: Energy

Type of organisation: Private company

*World Climate Ltd. i*s dedicated to accelerating solutions to climate change by facilitating large-scale collaboration between businesses, financiers, philanthropists and governments on regional, national and global actions. *www.wclimate.com* 

# What you can do

Finding climate solutions is not only about large-scale initiatives. We can all contribute with simple actions in our daily lives.



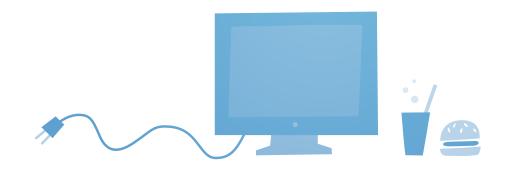
## **Travel & transport** A few enterprising ideas

Consider the following as you decide on the most suitable means of transport for you:



- A typical car is used only 4% of its lifetime, sitting idle for the remaining 96%. Why not make more efficient use of it by car sharing? The increasing popularity of car sharing is relieving the burden on our roads by giving people the flexibility to drive only when they really need to - without having to buy a car.
- A bus can carry up to 40 passengers while occupying the road space of only three cars. This lowers congestion and emissions, and gives passengers a chance to relax by reading a book or listening to music.
- Biking helps to promote cardiovascular fitness, burn calories, strengthen heart rate and enhance concentration.

### 6. What you can do



# **Building & living** A few enterprising ideas

The fact that our buildings account for 40% of greenhouse gas emissions means that the potential for energy savings is huge. But even apparently insignificant changes can have extraordinary results:

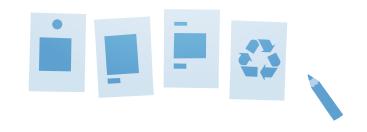
- Turning down the heating by just 1°C can cut as much as 10% off a household energy bill and avoid up to 300kg of CO<sub>2</sub> emissions – or the equivalent of going on a 1600km road trip – each year.
- Turning off the office computer when leaving for a meeting or lunch break can save up to 20% of daily energy consumption.
- Using a multi-socket board and switching it off when the TV and other items are not in use, instead of leaving them on stand-by, can save as much as 10% of annual energy costs.



### **Re-use & recycling** A few enterprising ideas

Smarter choices with a lasting impact won't require major adjustments to our daily routine:

• Every year we use up to 190 different plastic bags which will take as long as 1 000 years to break down in a landfill dump. Taking a reusable carrier bag when you go shopping will cut down on this waste and stop plastic bags from littering the streets.



- Choosing goods with less packaging at the supermarket will ease the burden on our landfills, while re-thinking the need to print at the office will curb deforestation. That's how to reduce our individual waste total of six tonnes per year.
- Bringing used glass to the bottle bank and sorting paper, cardboard, plastics and cans from the rest of your waste can save enormous amounts of CO<sub>2</sub>.



### **Shopping & eating** A few enterprising ideas

As consumers who want to build a world we like, it's useful to bear in mind that:

- Fresh seasonal produce grown locally requires as little as one fifth of the energy needed for produce transported from further afield.
- Producing a kilo of beef generates more CO<sub>2</sub> emissions than driving a car for three hours, so cutting back reduces your carbon footprint.
- Every kilo of new clothes bought results in some 25kg of CO<sub>2</sub> emissions the equivalent of powering a lamp for nearly 20 days.



• One-third of emissions linked to clothes stems from how they are cared for, so wash at a lower temperature and dry them in the air – you'll save money too!





# **Producing & innovating** A few enterprising ideas

European companies have developed many state-of-the-art renewable energy technologies and are creating real economic added value with these. We have 40% of the global market in renewable power generation and more than half of the world's waste management and recycling industry. Europe is home to 23 of the world's 25 largest photovoltaic power stations. Eco-industries account directly for more than 3.4 million jobs in the EU, more than major sectors like car manufacturing or pharmaceuticals. Sectors like energy-efficient products, renewable energy sources, equipment for smart grids and clean transport are bound to grow dramatically. The renewable energy industry, for instance, has seen its workforce grow by around 15% a year.

The European Commission estimates that CO<sub>2</sub> emissions from the industrial sector could be reduced by almost 90% by 2050, largely by implementing advanced industrial processes that are more efficient in their use of energy and other resources.

The campaign inspired debates and exchanges on climate change solutions, gathering a wealth of support from EU citizens, businesses and high-level figures along the way.



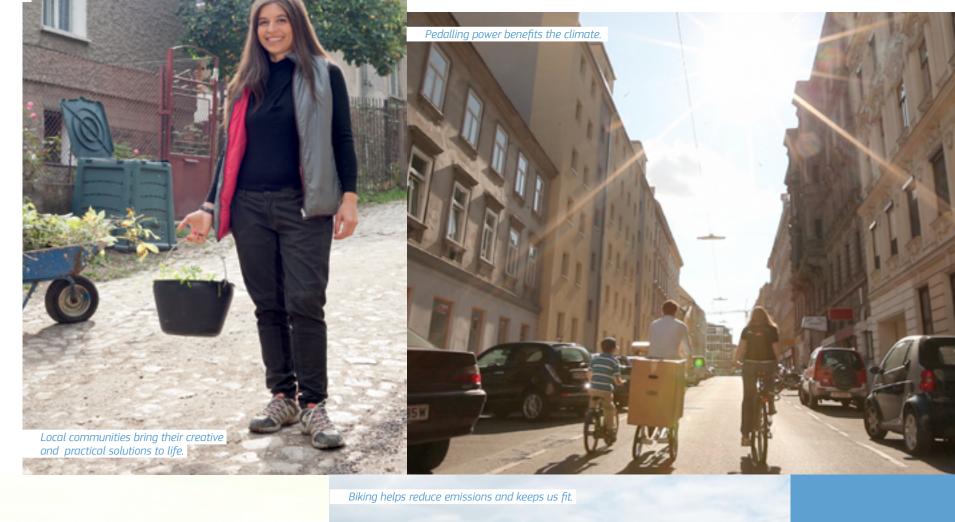
will create new, green jobs and cutting-edge technologies. It will help give us lower energy bills, comfortable and modern homes, cleaner air and more mobility. We already have many of the necessary technologies to achieve this. The real challenge is to apply them and bring them to scale.

Imagine your house could save energy as well as power your car – all year round!



Renewable energy is at the heart of the debate on climate change.









The freshest produce is locally grown.

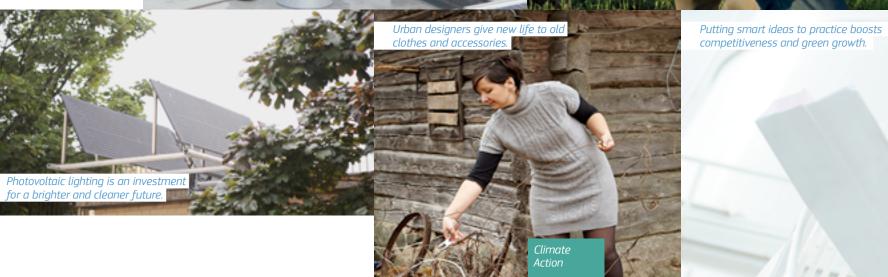






Sustainable solutions at home can come with modern comforts and low costs.

<image>





Through various online and offline channels, the campaign created a unique platform for dialogue across the EU.

# "A world you like. With a climate you like"

*EU communication campaign on climate action 2012–2013* 

The European Commission's A world you like. With a climate you like campaign explored the benefits of moving to a low-carbon society.

The campaign invited citizens, companies and organisations from across Europe to share their best climate solutions in five areas – travel and transport, building and living, shopping and eating, re-use and recycling, and producing and innovating.

The EU-wide campaign focused in particular on five countries: Bulgaria, Italy, Lithuania, Poland and Portugal. These countries were chosen for their relatively lower awareness about climate change and personal action.



Commissioner Hedegaard led the EU

Climate action is not only necessary. It is also ...

... *feasible*: there are already lots of initiatives and technical solutions out there.

... and affordable: existing initiatives show that investing in climate solutions and best practices can reduce energy bills and help create jobs and growth.

# Act, explore, discuss

Through a variety of online and offline channels, the campaign engaged people from across Europe in dialogue on climate solutions and best practices.

The campaign's interactive website in 23 languages explored the benefits of a low-carbon society. Events across Europe provided opportunities for sharing knowledge and ideas, and the dialogue continued on social media.



The campaign invited people across Europe to join the debate on climate solutions.

# Spotlight on small actions

The campaign's communication tools showed that every one of us can make a difference and that climate action comes with other benefits.

The posters created for the campaign, available in 23 languages, showed examples of how:

- Cycling to work is not only good for the climate, it also allows you to stay fit and make your city nicer to live in.
- By insulating your house, you reduce your heating bills and help create jobs for construction workers – jobs that won't be dislocated.
- Investments in green technologies bring growth and skilled jobs to Europe.





Action

# Campaign events

A platform for dialogue

The campaign created a unique platform for dialogue on climate solutions and best practices. Visions for a world you like were shared at events in Sofia, London, Vilnius, Warsaw, Lisbon, Madrid and Milan.



Entertainment at the Vilnius event.







The Commissioner cycles to the event in Lisbon.

Support from actor Sergio Peris-Mencheta in Madrid.

A climate action debate in London.



The Commissioner's green ride at the Warsaw event.



Памелна дискусия: Как ножен да награзии българските сгради по-енергнёно ефектизии и да се справин с изменението на клината? #world.tike

anel discussion: New can we make Bulgaria willdings more energy-efficient and tackie dimate change? Furdeldulike

Deep discussions at the event in Sofia.

A sustainable fashion show in Milan added to an intense debate.

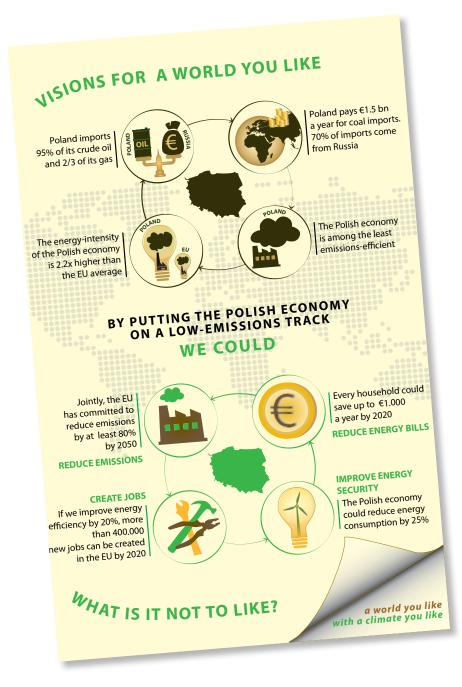


What you didn't know about your clothes 10.000 liters of water to make a pair of blue jean *'*10.000 1Kg 25 Kg  $CO_2$ of new clothes bough results in some 25kg of CO, emissions the equivale arly 20 da 2 3 4 5 20 DAYS n Europe, almost In cooper, and the second seco 100 MILLION A DAY 1% energy -11% LESS \*-ENERGY °C (

Climate Action

Creative infographics were used to boost

the communication on social media.



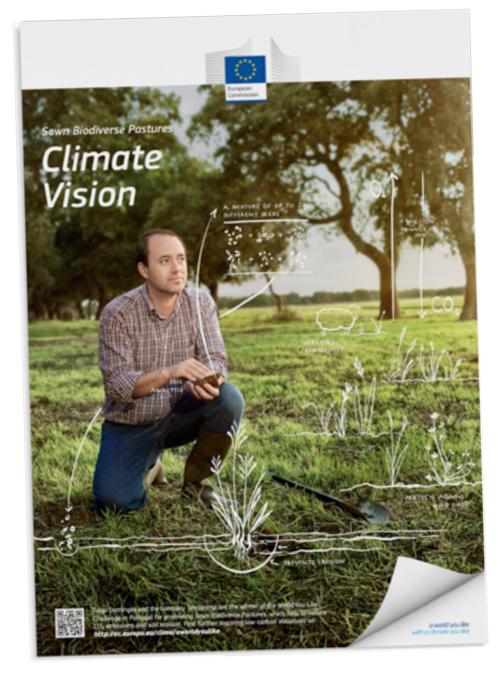


# World You Like Challenge

Citizens and businesses were invited to showcase their own low-carbon solutions in the World You Like Challenge.

For each of the campaign's five focus countries – Bulgaria, Italy, Lithuania, Poland and Portugal – a jury selected a national winner out of the top-10 projects with most public votes received. The winners were featured on poster billboards in their capital cities.

In addition, a European jury selected an overall winner of the challenge. The winning project and two runner-ups were selected from the top-10 projects with the highest number of public votes. The European winner was rewarded with a European media package and a video to promote their solution.



The EU winner: Sown Biodiverse Pastures, Portugal.



The Polish winner: Low energy houses for everyone. The Lithuanian winner: Different design studio "Absurd ideas".



The Bulgarian winner: Food for the Earth - good for all.





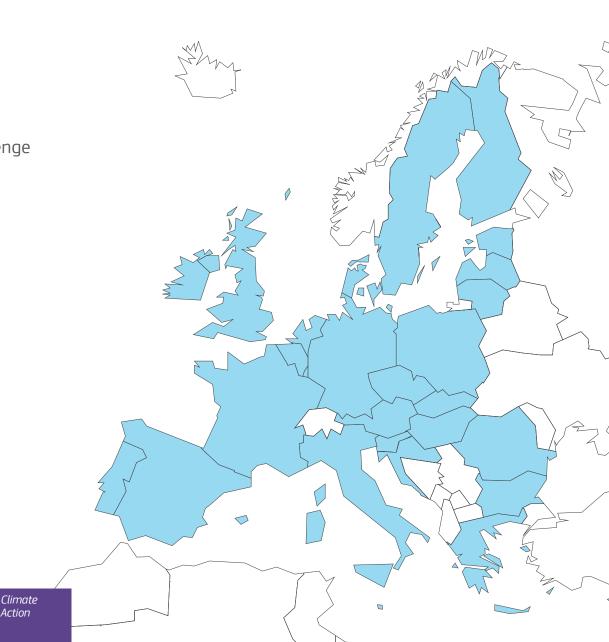
The Italian winner: EASYHOME 4EQ: Eco-friendly life concept and housing.

# Millions of Europeans reached

> 269 submissions to the World You Like Challenge

Action

- > 230,000 votes online
- > 1.9 million website views
- > 600,000 unique website visitors
- > 70,000 Facebook fans
- > 1,200 features in European media





# Stay in touch

Find out more about climate action and join the debate!

# Follow us!

Stay informed and follow EU Climate Action on Twitter, YouTube, Flickr and Pinterest: *https://twitter.com/EUClimateAction www.youtube.com/EUClimateAction www.flickr.com/photos/euclimateaction www.pinterest.com/EUClimateAction*  Engage in the debate on EU Climate Action's Facebook page: www.facebook.com/EUClimateAction

Visit the European Commission's website on Climate Action to find out more about how we can create a world we like: *http://ec.europa.eu/clima/aworldyoulike* 

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