

LIMERICK LEADS SMART ENERGY CITIES PROJECT

Limerick has been awarded a substantial grant in the biggest EU Research and Innovation Funding programme – Horizon 2020 – for a smart city and community project worth €6.5m to the Treaty City. The project was formally launched on 6 September by the Minister of Communications, Climate Action & Environment, Richard Bruton.

The +CityxChange (Positive City Exchange) is a smart city project that has been submitted by a consortium of 32 partners (including Limerick City and County Council) from 11 countries. The full-scale project will receive €20m funding from Horizon 2020, which has nearly €80bn of funding available over seven years.

Over the next five years, Limerick City and the city of Trondheim in Norway will work with the distinguished partner cities of Alba Iulia (Romania), Pisek (Czech Republic), Sestao (Spain), Smolyan (Bulgaria) and Voru (Estonia) to develop, together through citizen engagement, a series of demonstration projects on how to become smart positive energy cities.

The project partners will develop solutions to help cities generate more energy than they consume, and exchange experiences with cities across Europe to learn faster and together.

FIRST 'LIGHTHOUSE SMART CITY'

By winning the grant, Limerick will become the first Irish 'Lighthouse Smart City'. Lighthouse cities are ones that develop and test integrated innovative solutions at district scale and act as exemplars for their region and other cities and regions across Europe. Limerick is the only Irish city to ever receive this prestigious award and €6.5m of the overall funding will go directly to Limerick and its partners.

"A smart city is a place where its infrastructure and services are made more efficient with the use of Digital and ICT technologies for the benefit of its inhabitants and business.

"The +CityxChange is another major step forward as part of our digital strategy for Limerick to become a Smart City Region, that's ready for the new energy market and increased use of clean energy for sustainable development of our communities," noted



Limerick becomes the first Irish 'Lighthouse Smart City' and €6.5m of the overall funding will go directly to Limerick and its partners.



Following the launch of '+CityxChange' project, pictured (l-r): Pat Stephens, Limerick Clare Energy Agency; Dr Mihai Bilauca, Head of Project, Limerick City and County Council; Richard Bruton TD, Minister for Communications, Climate Action and the Environment; David Conway, CEO of Limerick 2030; Dr Pat Daly, CEO of Limerick City and County Council; Cllr Adam Teskey, Mayor of the City and County of Limerick; Prof Stephen Kinsella, University of Limerick; Rosie Webb, Senior Architect, Limerick City and County Council; and Caroline Curley, Director of Service, National and Regional Shared Services, Limerick City and County Council.

Dr Mihai Bilauca, Head of Digital Strategy & EU Programmes at Limerick City and County Council and Lighthouse project leader.

The mission in Limerick is clear: it is a pilot based on transforming the Georgian neighbourhood in Limerick into a Positive Energy District – a district that produces more energy than it consumes. This is a difficult challenge that will involve setting up a new community grid, the use of smart meters, innovation in new energy sources (including hydrokinetic energy), storage, digital tools and citizen participation.

POSITIVE ENERGY DISTRICT

"This is something we are very excited about as it will see Limerick become the example for transitioning to the new energy market: from the traditional energy model based on very few large energy generators to the new energy model with many micro generators of renewable energy," noted Dr Bilauca.

"The micro

generators in this pilot programme being the people in Georgian Neighbourhood. To make this happen we will encourage people that own buildings in the Georgian Neighbourhood to adopt clean energy sources such as PV panels, solar-thermal, heat pumps and energy storage."

Pat Stephens, Manager of the Limerick Clare Energy Agency and the projects' energy leader, said: "The project will start with five buildings: Gardens International – a state-of-the-art LEED gold building that will be an anchor for the project in terms of its carbon footprint; the Limerick Chamber; the Post Office; Limerick Youth Services and Rooney Auctioneers. These are all different building types with different energy requirements to create this positive energy block. This approach will then be applied to other blocks in the city.

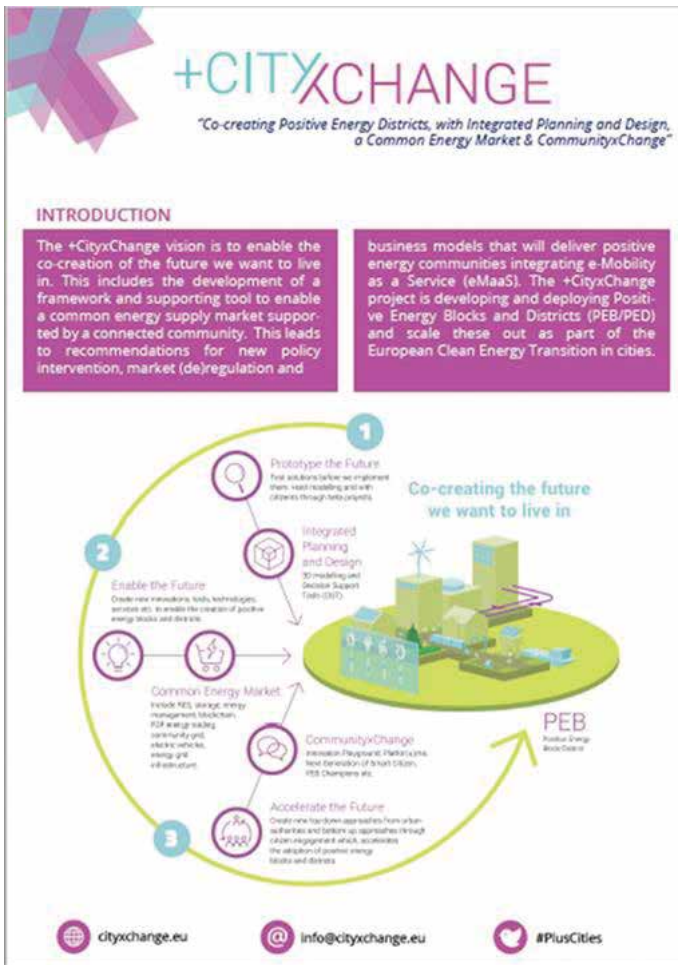
"With the support of our partners, the AVIS Group, we will explore the impact that electric vehicles will have on the energy consumption for building owners and the wider district. We are also tapping into the brilliant entrepreneurial gene-pool here in Limerick by placing a tidal turbine developed by GKInetic, a Limerick based company."

The tidal turbine will generate electricity by harnessing the power of the Shannon River, and Stephens added that this flagship project for Limerick will "demonstrate at European level the potential of our innovation ecosystem in Limerick and Ireland".

IRISH PROJECT PARTNERS

The project will be led by Limerick City and County Council in





The steps in the smart energy city project for Limerick. The launch of +CityxChange comes just months after Limerick City was awarded the European Green Leaf for 2020.

Ireland and Trondheim Kommune in Norway and co-ordinated by the Norwegian University of Science and Technology (NTNU).

The Irish partners include Limerick Clare Energy Agency, Innovate Limerick, University of Limerick, IES R&D, Smart MPower, ESB Innovation and ESB Networks, Space Engagers, GKInetic Energy Ltd, Future Analytics Consulting.

In its evaluation, the European Commission commended the Limerick +CityxChange proposal for demonstrating and substantiating actions that will contribute to the wide scale roll out of Positive Energy Districts across Europe. The Commission commended the Limerick led project's convincing approach to make local governments an active and integral part of the energy solution and engage citizens in the city's transformation.

The project includes the development of a framework and supporting tools to enable a common energy market. This market will be supported by a 'connected community', using digital technologies for collaboration, to reduce energy costs and resource consumption and to engage more effectively and actively with its citizens.

Rosie Webb, Head of Urban Innovation Department for Limerick City and County Council and Urban Development

Lead for the project, described it as "an outstanding opportunity" for Limerick to lead at an international level on the creation of positive energy areas.

"The Georgian Innovation District will enable us to co-create the future we want to live in. This can only happen with the active participation of citizens and by working closely with the University of Limerick, industry partners and local businesses. "In Limerick we will specifically look at adapting our historic city centre to enable citizens to play a key role in this new sharing and exchange model of energy consumption. We will then be in a position to exchange our experience with cities across Europe," Webb added.

INNOVATIVE INITIATIVES

At the launch of the project the Deputy Mayor of the City and County of Limerick, Cllr Adam Teskey, said "This is a very proud day as we embark on another new and great Limerick journey and possibly among our greatest. Today we officially begin a programme here in our stunning Georgian core that, together with Trondheim in Norway, will help define how urban areas in the EU become positive energy cities.

"We must believe in our ability to tackle climate change and, if we do, in years to come, Europe will be able to look back and say that much of this started in two cities, one in Norway and the other in Ireland – Limerick."

Launching the project, Minister Richard Bruton said: "I have set the ambition for Ireland to become a leader in climate action and today Limerick is becoming an EU leader. Positively managing energy is pioneering thinking from Limerick City and I hope that this programme will influence our other cities and towns to do the same.

"The Government's Climate Action Plan has set a target for 70% renewable energy by 2030 and it is only through ambitious programmes like +CityxChange that this will be achieved. Since the foundation of the state the mid-west region has been to the forefront of renewable energy with the Ardnacrusha Hydroelectric Power Station, and I commend Limerick City and County Council for continuing that tradition today."

EUROPEAN GREEN LEAF AWARD

The launch of +CityxChange comes just months after Limerick City was awarded the European Green Leaf for 2020.

The European Green Leaf Award is a competition aimed at cities and towns across Europe, with populations ranging from 20,000 up to 100,000 inhabitants that recognises commitment to better environmental outcomes, with a particular accent on efforts that generate green growth and new jobs.

Commended for its ongoing investments leading to improved air quality and noise levels in the city, Limerick is currently transforming itself into Ireland's first digital city, integrating several public services, creating smart homes and buildings, energy districts and smart neighbourhoods, thus linking in with the +CityxChange programme

**This project has received funding from the EU's Horizon 2020 research and innovation programme under grant agreement No 824260.*