

Thursday 19 July 2018

Dancing across NewcastleGateshead in a competition to create electricity in ingenious ways

- Public invited to compete to generate energy in ingenious ways on smart flooring at locations across Newcastle as of the Great Exhibition of the North
- Each step produces three joules of energy, which can be stored – the more steps, the more energy created.
- Ingenious Energy Challenge will be at intu, Eldon Square between 23 July and 1 August and the Get North Family Expo on 4-5 August

An exciting energy challenge will hit the streets of NewcastleGateshead as part of the Great Exhibition of the North, and the public are invited to take part, by walking, dancing, jogging or rolling across smart-flooring.

The Siemens Ingenious Energy Challenge uses innovative Pavegen smart flooring, which generates off-grid power and data from human contact.

Visitors will have seven seconds to move across the floor in the most creative way possible. The kinetic movement on the surface will generate electricity and the user's actions will be automatically captured as a gif and sent to the participant. Those gifs shared on social media will be judged and the best will win a prize at the end of each day. Participants will get chance to win a Intu shopping voucher worth £50 each day, with the overall winner awarded a gaming PC.

As people move across the flooring, the weight from their footsteps creates a small vertical movement of 5-10mm in the top surface. This compresses the generators below, creating a turning motion which produces around three joules of off-grid electrical energy per step – the more steps, the more energy.

The data from the number of steps and the equivalent amount of energy captured will be recorded across the Challenge.

Carl Ennis, Managing Director of Siemens Energy Management, said:

“The Ingenious Energy Challenge will be huge fun for all involved and will show the effort needed to create a small amount of energy!

“We’re generating energy in lots of clever ways using sources such as the sun, wind and water. But these renewable sources can be unpredictable – you can’t always guarantee they will generate enough electricity at the right time and in the quantity needed. So we need to store some of the electricity they do produce in batteries, to use later and make sure the grid always has power available to manage demand. For example, electricity demand jumped 1,200 megawatts after England’s penalty shootout against Columbia as people opened their fridge doors, or put the kettle on!

“Siemens is working with Newcastle University on a project to understand how we can make batteries work more efficiently and be ‘greener’. This will ultimately help bring down our energy bills and improve the energy system.”

Carol Bell, Executive Director, Great Exhibition of The North, said:

“This project is a fantastic example of some of the great innovations taking place here in the North and is a fun way for people of all ages and abilities to get involved.

“Visitors will have the opportunity to take part in the challenge at two of the destination’s iconic venues this summer – Intu, Eldon Square and St. James’ Park and we encourage everyone to go along and demonstrate some creative moves!”

The challenge will be open to the public in intu Eldon Square between 23 July and 1 August. It will then move to the Get North Family Expo at St. James’ Park on 4-5 August – a free event dedicated to kids, full of interactive activities designed to feed the imagination and expand horizons.

Siemens is also partnering with the Edinburgh Science Festival to bring the Gadget Factory to the Family Expo, open from 2-9 August. The 60 minute activity is open to children aged 8+ where they will learn the basics of circuitry and electronics, producing their own flashing badge to take home.

Spaces in the Gadget Factory are limited to 16 people per workshop and four workshops will run per day. Details at how to register are available at <https://getnorth2018.com/venues/get-north-family-expo/>.

Great Exhibition of the North is an 80-day Exhibition, which takes place between 22 June and 9 September 2018 across NewcastleGateshead, celebrating great art and culture, design and innovation from across the North. www.getnorth2018.com

Ends

Notes to Editors

The Ingenious Energy Challenge

- intu, Eldon Square between 23 July and 1 August during the centre’s regular opening hours of 9am – 8pm.
- Spaces for participants will be available on a first come, first served basis.

Family Expo Gadget Factory

- The Ingenious Energy Challenge will be at the Family Expo in St James’s Park on 4-5 August, offered on a first come, first served basis.
- Siemens will also present the Gadget Factory at the Get North Family Expo between 2-8 August.

- Prior registration will be needed to reserve a space in the workshops at <https://getnorth2018.com/venues/get-north-family-expo/>.
- There are only 16 spaces in each workshop and four workshops will run per day.
- The Gadget Factory is suitable for children aged 8+.

Media opportunities will be available on 23 July – contact Sara Crane for more information and to arrange.

Images of the Gadget Factory are also available. Contact Sara Crane for more info.

Media contact

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About Siemens

Siemens AG (Berlin and Munich) is a global technology powerhouse that has stood for engineering excellence, innovation, quality, reliability and internationality for 170 years. The company is active around the globe, focusing on the areas of electrification, automation and digitalization. One of the world's largest producers of energy-efficient, resource-saving technologies, Siemens is a leading supplier of efficient power generation and power transmission solutions and a pioneer in infrastructure solutions as well as automation, drive and software solutions for industry. With its publicly listed subsidiary Siemens Healthineers AG, the company is also a leading provider of medical imaging equipment – such as computed tomography and magnetic resonance imaging systems – and a leader in laboratory diagnostics as well as clinical IT. In fiscal 2017, which ended on September 30, 2017, Siemens generated revenue of €83.0 billion and net income of €6.2 billion. At the end of September 2017, the company had around 377,000 employees worldwide.

Further information is available on the internet at www.siemens.com @SiemensUKNews

About Pavegen

Pavegen is the global leader in harvesting energy and data from footfall. Our mission is to make our technology available to all communities, empowering people for a better world. Our patented technology connects people to sustainability and smart cities, creating powerful experiences which convert footsteps into off-grid energy, rich data and rewards. We call this the internet of beings, making cities smarter with every step.

Pavegen supplies both permanent installations and experiential activations and we power off-grid applications such as games, lighting, and environmental monitoring. With embedded Low-Power Bluetooth connectivity, we can register the footsteps of individuals via our apps. When we combine this real-time footfall data with analytics, we create powerful insights into the behaviours of people interacting with our systems.

Founded in 2009 by Laurence Kemball-Cook, Pavegen has delivered 200 projects in 30 countries, working with iconic brands including adidas, Coca-Cola, Heathrow Airport, Shell and Westfield. Our latest projects including working with Transport for London and New West End Company to create the world's first smart street and partnering Google to create the world's largest energy and data harvesting array in Berlin. Our latest model, the V3, won the 2017 Smart Cities Interactive Innovation award at South by Southwest.

About Great Exhibition of the North 2018:

- In October 2016, NewcastleGateshead was selected to host Great Exhibition of the North; NewcastleGateshead Initiative (NGI) led the bid and is the lead delivery partner for the Exhibition, working closely with colleagues at Tyne & Wear Archives & Museums, BALTIC Centre for Contemporary Art, Sage Gateshead, Newcastle City Council, Gateshead Council, The Great Run Company, the Department for Digital, Culture, Media and Sport (DCMS) and a board chaired by Sir Gary Verity.
- City Delivery Partners including Newcastle University, Northumbria University, Gateshead College and Newcastle United Football Club are also providing vital support for Great Exhibition of the North.
- Towns and cities across the North of England are getting involved by being part of the 'Inspired by' programme of events, experiences and performances. People can submit details of their event at www.getnorth2018.com/inspiredby.
- Great Exhibition of the North is encouraging schools to get involved, with content available on the website to both download teaching resources and upload their responses. Schools are able to do follow up work developed in the classroom by booking a tailored visit to the Exhibition during the final four weeks of the summer term.
- Great Exhibition of the North will provide a range of exciting volunteer opportunities for individuals, groups and businesses. A team of over 1,000 volunteers will welcome visitors to NewcastleGateshead, interpreting themes of exhibition, lead school groups and provide event support at special one-off occasions.
- On Tuesday 27 February the BBC announced a partnership to support Great Exhibition of the North.
- Great Exhibition of the North is supported by Premier Partners London North Eastern Railway, Accenture and CISCO.
- Funding has also been secured via Innovate UK, VisitEngland, Royal Commission for the Exhibition 1851, the Sir James Knott Trust and Reece Foundation and by England European Regional Development Fund as part of the European Structural and Investment Funds Growth Programme 2014-2020.
- National Lottery players have supported the Great Exhibition of the North through £1.7m of funding from the Heritage Lottery Fund; Big Lottery Fund and Arts Council England.
- Womble Bond Dickinson, Ward Hadaway, Siemens, Port of Tyne, Virgin Money, BT, Robertson and NewSubstance are proud partners of Great Exhibition of the North.
- Newcastle Airport, Greggs plc, Go North East, Tyne & Wear Metro and Northumbrian Water, Shout Digital, Stagecoach, PwC, Barbour Foundation, HMS Calliope and Ubisoft are supporting partners.