

# SusStations Newsletter

– Welcome to the SusStations first newsletter!

## What is SusStations?

SusStations is about encouraging a new breed of sustainable, low carbon, railway stations. Local authorities, the rail industry and other interested groups are working together across North West Europe to demonstrate and encourage sustainable station schemes.

The project will run until the end of 2013, we will be producing newsletters every six months between now and then.

The project is funded by the partners and by the European Commission's Interreg IVb North West Europe programme.

We welcome your views!

### What do we aim to achieve as part of the project?

1. A sustainable stations assessment tool, for future station design and management.
2. Demonstration schemes:
  - Accrington EcoStation, Lancashire, UK
  - Geothermal energy with Deutsche Bahn, Germany
  - Ore Modular EcoStation, Hastings, UK
  - Photovoltaic electricity scheme at Utrecht, The Netherlands
  - Design for a new environmentally friendly station in Rouen, France
3. The rail industry and interested parties working together transnationally on sustainable station issues.

December 2009

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## What are Sustainable Railway Station Buildings?

How do you see Sustainable Stations? A mud platform? A funnel, for connecting communities and rail infrastructure? A teletubby style green mound with wind turbine on top? Somewhere for happy passengers?

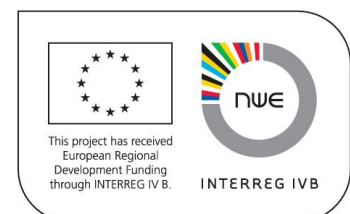
SusStation has had its first workshop on this topic, hosted by Network Rail in London. Stations should meet a wide range of objectives – **social, economic and environmental**.

As public buildings, stations are very well used. This makes them good demonstration locations for new ideas such as low energy & low carbon from cradle to cradle. In these ways, SusStation aims to develop stations as resources for sustainability.

This newsletter is available electronically or printed on recycled paper.

Sustainable Stations are or can be:

- Efficient movers of people
- The public face of rail
- Retail spaces
- An intersection of all forms of transport
- Meeting points
- Focal points for the local community
- Regeneration catalysts
- A source of tickets and information
- Safe and secure waiting areas.



## Accrington EcoStation is Ready to Go



Image from Manchester based architects SBS

Accrington EcoStation will be the very first of our demonstration schemes to be built.

It's got off to a flying start with a recommendation for an "excellent" BREEAM environmental performance rating.

Work starts on site in January 2010, and with completion planned for June. It will include a community resource centre which will explain the building's eco credentials.

We're looking forward to the photos! And also, finding out what people think of their new station.

There is a rule of thumb (at least in the UK) which is that new station buildings can generate up to 10% of the total additional use – will Accrington live up to this?

## Working with Young People

Rail can always do more to raise its image as an environmentally friendly form of transport. As part of this, SusStations partners are interested in working with young people.

Lancashire has Brian the Bull (see below) and ProRail and its partners did some work this Summer on recreating their version of the medieval DOM tower, the landmark building and symbol of Utrecht.

Young people were very much involved in all stages of the project, from concept through to design and build. The tower has displays of the tower's history as you climb up; there is then a fast descent on a helterskelter.

Please let us know if you come across any other interesting or good practice examples



Millie, Jutta, Yara and Tamar (the Domkids)

## Site Visit to Berlin

On 29<sup>th</sup>/30<sup>th</sup> September the SusStations partners and sub-partners gathered for the first partnership meeting in Berlin.

Clearly this was an important meeting to discuss the project, but was also an opportunity to visit Berlin's Hauptbahnhof, to learn about Deutsche Bahn's long term plans for incorporating sustainable design in their stations around Germany and to marvel at the scale and speed of re-development and growth in Berlin itself.

We were also taken on a trip to see the expansion of the airport and hear about the plans for improving its surface transport links.

The station itself is a cathedral like structure, light and airy and dedicated to providing a pleasant environment to those that pass through its doors. It is a gateway to the city indeed.

The incorporation of photo-voltaic panels to provide electricity is a very worthy part of the design. The scale of the construction project was explained to us, and certainly the UK partners were amazed at the limited impact the whole construction had on existing train services. Services were hardly interrupted at all—S-Bahn trains ran typically every 2 minutes throughout construction.

This was my first trip to Berlin, and infact I had never been to Germany before. I have to say that I was blown away by the city where the history of the place was blended with the modern redevelopment. Both elements work so well together; it feels like all the upheavals experienced by the city are woven into its very fabric. The Berliners have a real sense of place and are clearly very proud of their city and all that they are trying to achieve.

We were only there for a short time, and clearly it was a work visit. However the very moment that I left on the sleeper train bound for Paris, I knew that I would go back someday.

Dr Karen Booth, Head of Sustainability, Northern Rail.

*“Berliner’s have a real sense of place”*

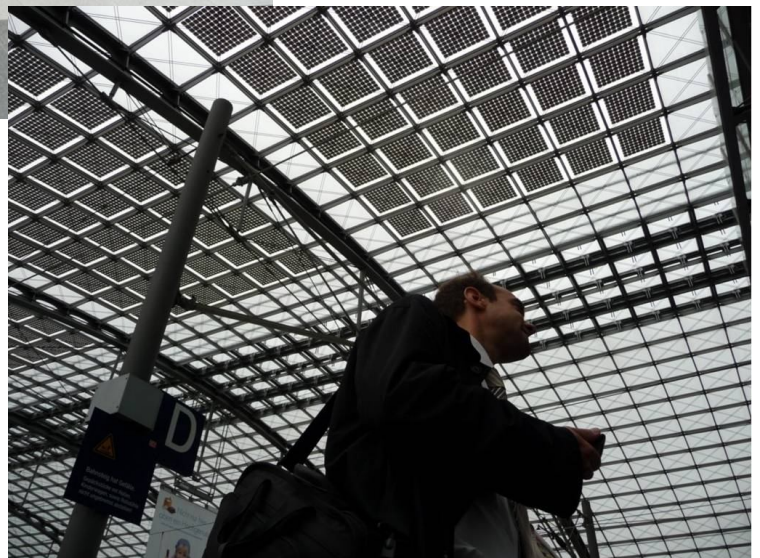


The German cultural attitude towards their landmark station in the reunited capital meant that including renewable energy was a given. Deutsche Bahn employ a team of people who undertake 1000 guided tours each year at the station—or over 3 per day on average - in addition to being a location for films, events and promotions. Watch out & you will probably see the station on TV!

### The PV System

The Berlin PV roof, shown to the left, has a surface area of 1800 m<sup>2</sup>, of which 1200m<sup>2</sup> is active. This generates typically 130,000 kWh per year, or around 2% of the station use. Peak electricity supply is 198kW. Output is exported to the grid due to favourable tariffs. The station and PV system opened in 2006.

It will be interesting to compare this scheme with the latest technology to be used in the Utrecht Centraal station PV scheme. There is also potential for retrofit of a lightweight scheme at Accrington, depending on the Dutch experience.



## Friends of SusStation

As part of the Interreg “family” we are looking at working with other projects.

Our first friend is the “Bliss” project. **Bliss** is led by St Helens Metropolitan Borough Council in the UK. Bliss is looking at energy efficient street lighting, including an “invest to save” tool. Railway stations also need public space and car park lighting – we’re keen to know about Bliss findings.

Bliss has done an initial trial of LED lighting to replace traditional sodium fittings. They found that the public preferred white light as opposed to the traditional orangey glow, and also that energy use dropped by 40%. White light is also good for CCTV coverage. These findings could be useful for public space at railway stations.

We hope that Bliss will be coming to our October 2010 meeting when we’ll find out more.

**Cap’Em** is another interesting project led by CD2E in France. Cap’Em is working on life cycle carbon impacts, which means that hopefully they’ll help us work out the carbon saving from using environmentally friendly recycled and local materials in our building schemes.

There is also a rail connection with Cap’Em – one of their investment schemes is a heritage building, the Huddersfield Station Watertower, which will soon be refurbished as a demonstration centre for sustainable renovation and used as the new headquarters for the UK Association of Community Rail Partnerships.

## Green Branding

Transit magazine (December 2009, p13) reviewed market research on this topic.

It found customers expect companies to be green, and will avoid companies which are not seen doing their bit for the environment. This could underpin why commercial organiza-



*Environment Centre,  
Morden Hall Park  
Copyright National Trust*

tions invest in green branding, to create an image of environmental consciousness.

People not generally prepared to be inconvenienced or to pay more to be green. They also expect companies to address a range of environmental issues—not just low carbon but also

We’re also talking to

**Living-Green**, which is concerned with sustainable retrofit opportunities for existing buildings.

Sofar, we’ve found out a bit about the UK investment. This is a sustainable restoration of part of the Stableyard at Morden Hall Park, London (pictured). This will create a green living demonstration & information centre for visitors to learn about renewable energy and sustainable development. Sounds like an interesting visit!

It’s easily accessible by Croydon Tramlink.

Do you know of any sustainable building or railway projects we might be interested in learning from?

Are you interested in learning about sustainable station design and operation?

Please get in touch!

waste and local environmental quality.

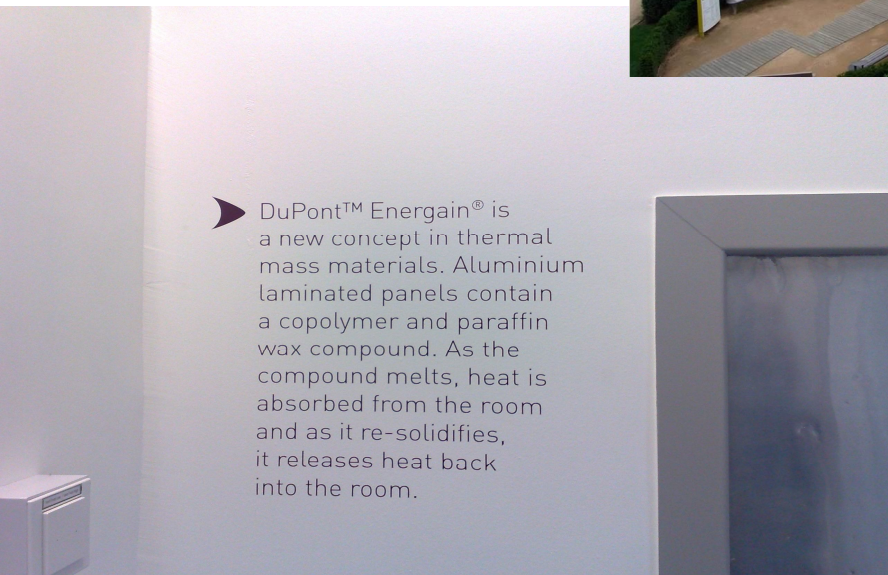
This message fits with SusStations, which deals with waste and social issues as well as reducing carbon towards sustainability.

## Site Visit to Building Research Establishment, Watford

SusStation's first team site visit was to the BRE, responsible for the well known BREEAM environmental performance assessment methodology. We went in July 2009.

The SusStation assessment tool will build on BRE methodology, but be focused specifically on railway station buildings, which are in many ways unique.

BRE also host an Innovation Park. These buildings aim to show off the latest environmentally friendly technologies and techniques, such as Energain<sup>(R)</sup>, explained in the image below.



► DuPont™ Energain® is a new concept in thermal mass materials. Aluminium laminated panels contain a copolymer and paraffin wax compound. As the compound melts, heat is absorbed from the room and as it re-solidifies, it releases heat back into the room.

### We were there ...

*“It was fascinating to see things which I’d read about, such as hemp and alternative lightweight building blocks”*

*“We could see in the exhibitions how different materials and practices work together. For me, this reinforced how you should first save energy and then manage energy in a building”*

*“It contains massive use of technology ... does it really show how we should live in the 21st Century? ... how to achieve the link between the action of the individual and our impact on the environment?”*

## Climate Change Event

The Interreg IVB North West Europe programme held its annual conference in Rotterdam in October 2009.

This year's theme was “climate change”. The event was good for networking and looking at how we could work with other projects.

There were also some excellent speakers, including eminent economist Terry Barker of the University of Cambridge. He spoke about public investment to counter climate change – would this have offered better value for money than bailing out Europe's banks?



Welcome to SusStations—A New Breed of Sustainable, Low Carbon Railway Station, under development across North West Europe.

Project website coming soon at [www.susstation.eu](http://www.susstation.eu)

## Contact Details

Project Manager: Richard Watts, Lancashire County Council  
[Richard.watts@lancashire.gov.uk](mailto:Richard.watts@lancashire.gov.uk) tel: 44 (0)1772 534582

Communications Manager: Philipp Luy, Deutsche Bahn  
[philipp.luy@bahnhofsagentur.de](mailto:philipp.luy@bahnhofsagentur.de) tel: +49 (0) 30 297 68115

Project Coordinator: Jo French, Transport Regeneration  
[Jo.french@transportregeneration.co.uk](mailto:Jo.french@transportregeneration.co.uk) tel: 44 (0)1284 705857

Project Manager for Germany: Dominik Lange, Deutsche Bahn  
[Dominik.lange@bahnhofsagentur.de](mailto:Dominik.lange@bahnhofsagentur.de)

Project Manager for The Netherlands: Marc Unger, ProRail  
[Marc.unger@prorail.com](mailto:Marc.unger@prorail.com)

Project Manager for Ore, Hastings: John Williams, SEEDA,  
[johnwilliams@seeda.co.uk](mailto:johnwilliams@seeda.co.uk)

Project Manager for Rouen, France: Philippe Adam, Region Haute Normandie  
[Philippe.ADAM@cr-haute-normandie.fr](mailto:Philippe.ADAM@cr-haute-normandie.fr)

**Stop Press!** Contracts to deliver the Utrecht Centraal Photo Voltaic electricity generation scheme, as above, have just been signed. Work starts in February 2010 for completion in 2012.

## Forthcoming Events

**Workshop** on the Sustainable Stations Assessment Tool, 29 January 2010, The Netherlands

Official **project launch**, Houses of Parliament, UK provisionally 22 March 2010 subject to the UK General Election

**Partner Meeting**, Utrecht, The Netherlands. 15-16 April.

**Site visit to SNCF experimental stations**, France. Date to be determined

**Site visit to Accrington Ecostation** during construction, UK. May/June 2010 before opening in mid June.

SusStation welcomes involvement of other interested organisations. We also want to set up a contact list for emailing future news and newsletters. Please get in touch with the Project Coordinator or the Project Manager if you are interested and want to join our contact list.

## Introducing Brian the Bull

Brian the Bull is a lovable character promoting the Ribble Valley railway line in Lancashire to local schoolchildren.

He is also a prize winning bull, taking the top spot at the Association of Community Rail Partnership's Awards for 2009 for "Involving Young People".

A DVD, teacher's pack and stickers (children love stickers) are available from the East Lancashire Community Rail Partnership, or via Richard Watts, the SusStations project manager. Target age range is KS1-KS2 or up to around 12 years.

For his next adventure Brian the Bull is thinking about going green—watch this space!



Sussex Community Rail Partnership and Southern Railway, both supporting SusStations' Ore demonstration scheme, won the Overall Prize.

Richard Watts, SusStation's Project Manager pictured above also received a Special Recognition Award as part of the same Awards scheme.

Congratulations to all!