

## EDITORIAL



**“We are in a significant strategic position to positively impact the urban environment in many different ways.”**

**MARTIN WEISSBURG**  
Volvo Construction Equipment  
President

Dear Reader,

### Countdown to the CCC Summit

We are rapidly approaching the first major event of the CCC initiative, the Construction Climate Challenge Summit in Gothenburg on 24 June.

This one-day high level meeting will bring together representatives from the construction industry value chain, academics and other stakeholders to discuss the real world challenges of achieving sustainable construction along the lifecycle of its materials, processes and end products.

We will be looking at various new developments, research and projects which can show the way towards sustainable construction in the future.

Some impressive speakers are already lined up for the Summit including Professor Johan Rockström, Executive Director of the Stockholm Resilience Centre ([read more](#)) and two senior advisers from WWF: Carina Borgström Hansson - a member of WWF's global footprint steering group - and Stefan Henningsson - Senior Advisor Climate Innovation. ([read more](#))

Other speakers will include experts from the WBCSD – World Business Council for Sustainable Development, WGBC – World Green Building Council, BRE – Building Research Establishment and others.

The presence of WWF and Volvo Group's commitment to WWF's [Climate Savers program](#), points to the contribution which Volvo as a whole can make to the environment we live in.

The cities of the world continue to grow and concentrate more and more people. In Europe alone two-thirds of the population are to be found in the cities. The urban environment is consequently the greatest source of pollution and greenhouse gases, and the great consumer of energy.

Working as Volvo does in the key areas of construction equipment and sustainable transport solutions, we are in a significant strategic position to positively impact the urban environment in many different ways. Volvo as a group is thus an important player in the environmental debate and one which has the potential to make a difference.

The Summit will be the next of many steps we will take to realise this great potential and meet the climate challenge.

It will give me great pleasure as President of Volvo Construction Equipment to host this event. I hope that many of you will be able to attend and actively participate in this important venture.

## CCC NEWSFEED

### MOST POPULAR ARTICLES



### Green buildings cost less to operate and have a smaller carbon footprint, according to a US study

Green buildings cost less to operate and have a smaller carbon footprint, according to a new US study.

A post-occupancy evaluation of 22 green federal buildings found that green government buildings cost 19% less to maintain, use 25% less energy and water and emit 36 percent fewer carbon dioxide emissions. These buildings also have a 27% higher rate of occupant satisfaction.

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### WWF supports the role of business in climate action

With no official voice in the Paris COP21 process, businesses have played and will continue to play a significant role in shaping the individual country commitments, says WWF's Head of Climate Business Engagement.

While the constructive engagement of businesses is an important element, it is equally important to mobilise businesses to ensure that they also do their part in reducing greenhouse gas emissions and transitioning towards a low-carbon economy. WWF believes that the corporate sector can take clear steps towards this low-carbon future and set the ground with concrete and ambitious actions through 2020 and beyond.

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## CCC NEWSFEED

### RESEARCH AND POLICY HIGHLIGHTS



### Study shows that rooftop gardens could grow three quarters of a city's vegetables

Rooftop gardens in cities could provide more than three quarters of the vegetables needed by the inhabitants, a case study from Bologna, Italy, suggests. If all suitable flat roof space was used for urban agriculture, rooftop gardens in the city could supply around 12 500 tons of vegetables a year whilst also providing a range of ecosystem services, the researchers say. Any unused roof space in a city represents an opportunity to add to that city's green infrastructure.

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### France legislates for compulsory green roofs for commercial buildings

A new law has been approved in France obliging rooftop on new buildings built in commercial zones in France to be partially covered in either plants or solar panels. Green roofs have an isolating effect, helping reduce the amount of energy needed to heat a building in winter and cool it in summer.

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### IEA supports heat pump technology to cut CO<sub>2</sub> from buildings

According to the International Energy Agency, IEA, the buildings sector needs to reduce its CO<sub>2</sub> emissions by over 70 % in comparison with 2010 levels in order to limit the increase in global temperature. This challenge can be met by the heat pump technology, employing it in a wide range of applications in terms of heating, cooling and air conditioning. Heat pumps are also a suitable solution for retrofit buildings. Therefore, heat pumps have a large potential in contributing to the reduction of global CO<sub>2</sub> emissions.

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### A large villa is 3D printed in China

Shanghai-based WinSun Decoration Design Engineering has managed to 3D print an entire 6-storey apartment building, as well as an impressive villa (photo). These structures were unveiled at the Suzhou Industrial Park, of east China's Jiangsu Province, and the apartment building alone features a structure which is approximately 1,100 square meters in size.

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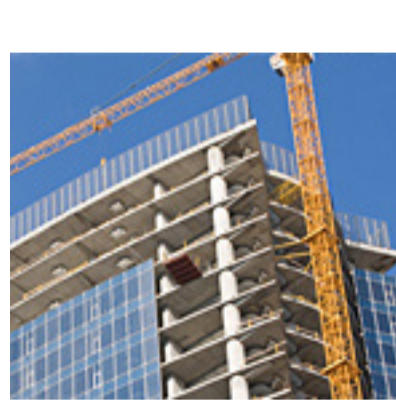


### Straw houses go on sale in UK after components win certification

Affordable homes made from straw are now being commercially marketed following certification of the sustainable components. The seven houses are on sale in Bristol, UK, on a street of traditional brick-built homes. They have been clad in brick to fit in with the surroundings.

The houses have timber-framed, prefabricated walls, filled with straw bales and encased in wooden boards. The houses offer reduced fuel bills up to 90% cheaper than an equivalent brick-built house and are cheaper than the average house in the city.

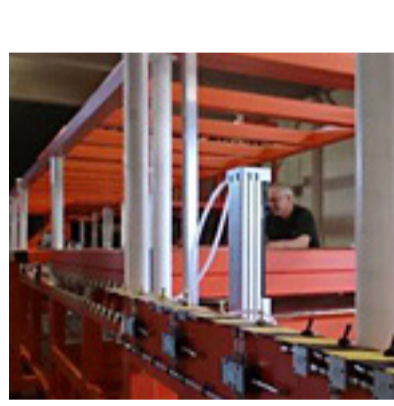
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### Climate impact of the construction process is as great as emissions from cars, says Swedish report

A Swedish report on *The Energy Efficient Society* has analysed the buildings sector and in particular the energy usage and climate impact of the construction processes. Calculations indicate that the total climate impact of construction processes in Sweden is around 10 million tonnes of carbon dioxide equivalents per year, with around 4 million tonnes related to housing projects and 6 million tonnes to civil engineering and public works. That is the same size as emissions from all of the cars in Sweden, and more than is generated by all lorries and buses.

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### Recycled glass transformed into eco-friendly construction material for wall coverings

Landfill waste – glass and plastic – is the main component of a new low CO<sub>2</sub> wall board material, recycled glass hybrid (RGH) for sustainable construction. It consists of the crushed glass recycled almost to dust that usually goes to landfill. By combining RGH with recycled plastic the UK firm C2M has created a material that can be formed into numerous products including wall boards. These can be used in the building industry to replace the far more eco-wasteful gypsum-based boards.

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### Award-winning LightCatcher innovation maximises daylight to save energy

The winner of the European Business Awards for the Environment 2014-2015 is the 'LightCatcher' project from Ghent, Belgium, that draws daylight into buildings in place of artificial light and can generate massive energy savings.

This intelligent daylight system is a polycarbonate dome fitted with mirrors that tracks the sky and detects the point where the greatest amount of light is available. The mirror captures the incoming daylight, which is then reflected, filtered, and amplified in a light shaft before spreading throughout the building.

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## CCC IN A NUTSHELL

The Construction Climate Challenge is an initiative developed and hosted by Volvo Construction Equipment. It aims to promote sustainable construction and provide much-needed funding for environmental research.

While the long-term aim is greater sustainability across the construction industry this is not limited to the construction equipment sector, but stretches the length of the construction industry's value chain, from extraction and production of building materials, to road and general construction, to demolition and recycling.

By developing a dialogue with industry partners, academics, politicians and NGOs, sharing existing knowledge and resources as well as providing funding for new research, the initiative will help the construction industry make a difference for generations to come.

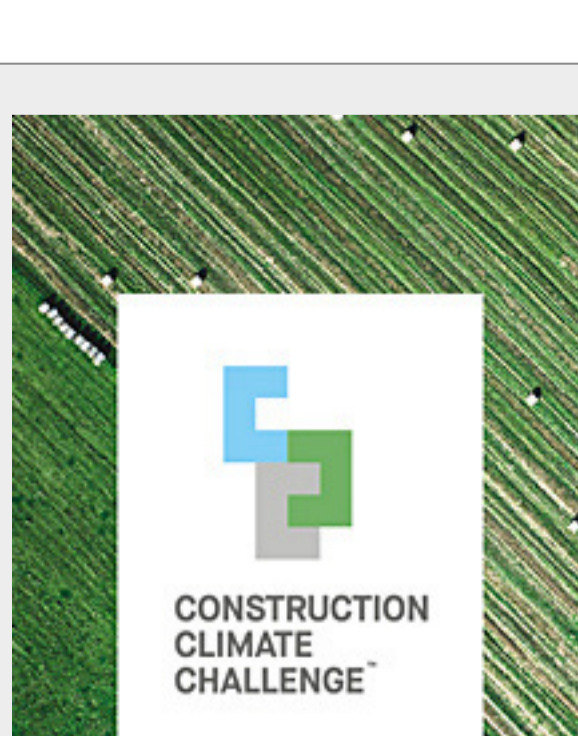
Environmental care is one of the core values of Volvo and the company has long been committed to reducing harmful from its products and facilities. In 2012 Volvo Group was the first construction equipment manufacturer to join the WWF Climate Savers program.

But this is not enough. An environmentally committed company like Volvo Construction Equipment cannot address climate issues by itself. Reducing CO<sub>2</sub> emissions requires a coordinated action from companies across the entire construction industry supply chain.

### FILLING THE RESEARCH GAPS

The first step in the CCC project has been to evaluate existing research on environmental management and identify research that is still needed. In 2013 Volvo Construction Equipment brought together researchers, professors and PhD students from around the world who identified a total of 112 activities within four research themes where research should be concentrated.

Through the CCC initiative, funding is being provided for projects which fall within these themes. The first Call for proposals closed on 25 August 2014. The aim is for the CCC to become the default arena for discussion around climate research, project funding and strategy implementation in the construction industry over the next 10 years.



**This Volvo believes can make a valuable contribution to reducing the construction industry's impact on climate change.**