

### **Skanska secures government grant to trial new construction method**

Skanska has secured a £0.75 million government grant to develop near-site fabrication of low-carbon buildings in modern flying factories.

The Technology Strategy Board, the UK's innovation agency, is providing funding to rethink building processes in the UK, helping to deliver zero and low-carbon buildings more consistently.

The research aims to deliver the benefits of off-site factory assembly, while overcoming the barriers of capital investment and high transport costs.

Near-site manufacture using modern flying factories will be combined with virtual-reality-enabled supply chain management and process improvement. Together, these will deliver a new, lean procurement and construction process for delivering low-carbon buildings at scale.

It will enable the delivery of high-quality, low-carbon buildings at affordable levels. Clients will benefit from a 28% reduction in cost per square metre and 30% shorter programmes, providing a higher-quality and a more predictable build cost. This is because the structure is built in controlled conditions, removing the potential effects of bad weather and other on-site hazards, and speeding up the assembly of the building on site.

The research and development team, led by Skanska UK's Innovation Centre, comprises:

- ModCell – off-site fabrication of buildings using laminated timber and straw bales
- University of Reading – application of virtual-reality technology to construction
- South West Manufacturing Advisory Service (SWMAS) – lean manufacturing
- BRE – built environment

Iain Gray, Chief Executive of the Technology Strategy Board, said: "The government has challenged industry to reduce construction costs by up to 30 per cent, which would enable low-carbon buildings to be constructed for the cost of a standard building. The work we are funding will encourage the UK construction industry to undertake a fundamental rethink of current ways of working and enable businesses to explore potential commercial opportunities created by novel design, procurement and construction processes."

The research will also support Skanska's industrialisation strategy, which aims to deliver more efficient manufacturing and prefabrication techniques to the company's construction projects and clients.

Andy MacAskill, Technical Services Director for Skanska, said: "We have seen on our own projects how off-site manufacture can significantly reduce waste, cost and the time spent on site, as well as reducing the environmental impact in transporting materials to our construction sites. It's an innovation that we feel should be developed, and this is a great opportunity to do that."

Flying factories have been trialled on a school building in Bristol, using straw and timber construction, and will be applied to a wide range of building types and materials.

Funding was secured by Skanska UK's Innovation Centre, click here to find out more. Link to: <http://one.skanska/en-GB/Projects--Procedures/Organizational-units/Skanska-UK/Business-Improvement/Innovation/>

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### Notes for editors

Flying factories are temporary manufacturing facilities created close to a construction site. Prefabricated structures are made in the factories and then transported the short distance to site where they are assembled, reducing travel times and the carbon footprint of transportation.

The Technology Strategy Board is the UK's innovation agency. Its goal is to accelerate economic growth by stimulating and supporting business-led innovation. Sponsored by the Department for Business, Innovation and Skills (BIS), the Technology Strategy Board brings together business, research and the public sector, supporting and accelerating the development of innovative products and services to meet market needs, tackle major societal challenges and help build the future economy. For more information please visit [www.innovateuk.org](http://www.innovateuk.org).

### Skanska in the UK

Skanska is involved in some of the UK's most prestigious building and infrastructure projects, working with both private and public-sector clients. We also deliver numerous smaller schemes, including public-realm improvement, hard and soft landscaping and utilities projects.

In addition, by combining our skills and experience in construction and infrastructure development we have become a UK leader in delivering schemes in healthcare, education, defence, transportation and municipal services that bring together private and public investment.

Working together with clients, partners and our supply chain, we make a positive difference to each project. Part of that is our resolute commitment to a more sustainable world, creating green solutions and setting high standards in green construction, as well as helping project stakeholders to make more sustainable choices. In acknowledgement, in June 2011 we were named the greenest company in the UK across all industries in *The Sunday Times* Best Green Companies Awards.

We also strive to lead in health and safety, business ethics and the working environment. *Construction News* named us Employer of the Year in its 2012 awards. Our Code of Conduct and Five Zeros together embody our values and form the foundation of our culture: zero loss-making projects, zero accidents, zero environmental incidents, zero ethical breaches and zero defects.

Skanska UK is backed by the financial strength of Skanska AB in Sweden.

[www.skanska.co.uk](http://www.skanska.co.uk)