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Innovation Pursuit

A European Journey in Pursuit of Sustainable Retail

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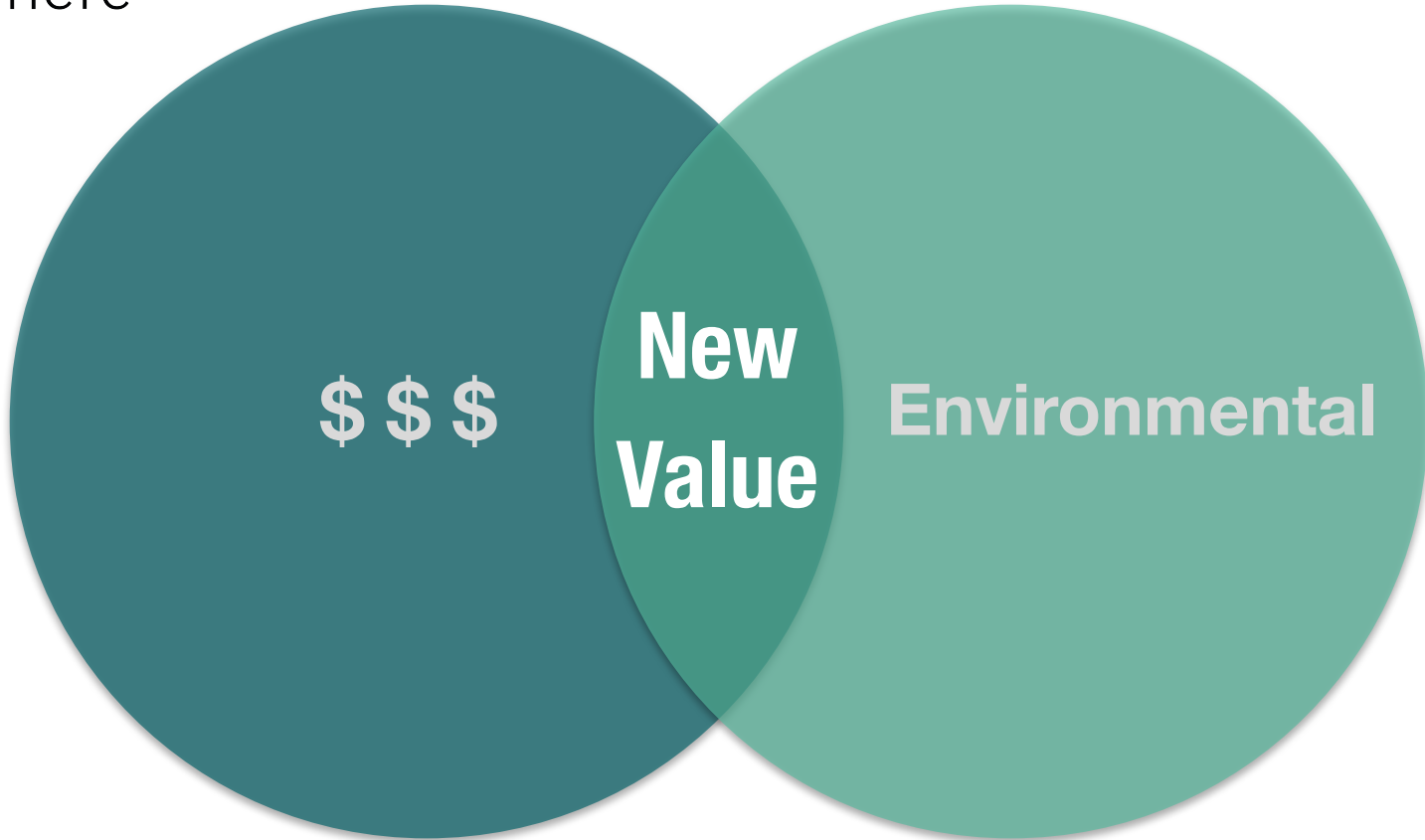
Excellence in

SUSTAINABILITY & INNOVATION

for the Built Environment

Maintaining momentum in Innovation for continual improvement in sustainability

Innovation is change that unlocks new value.



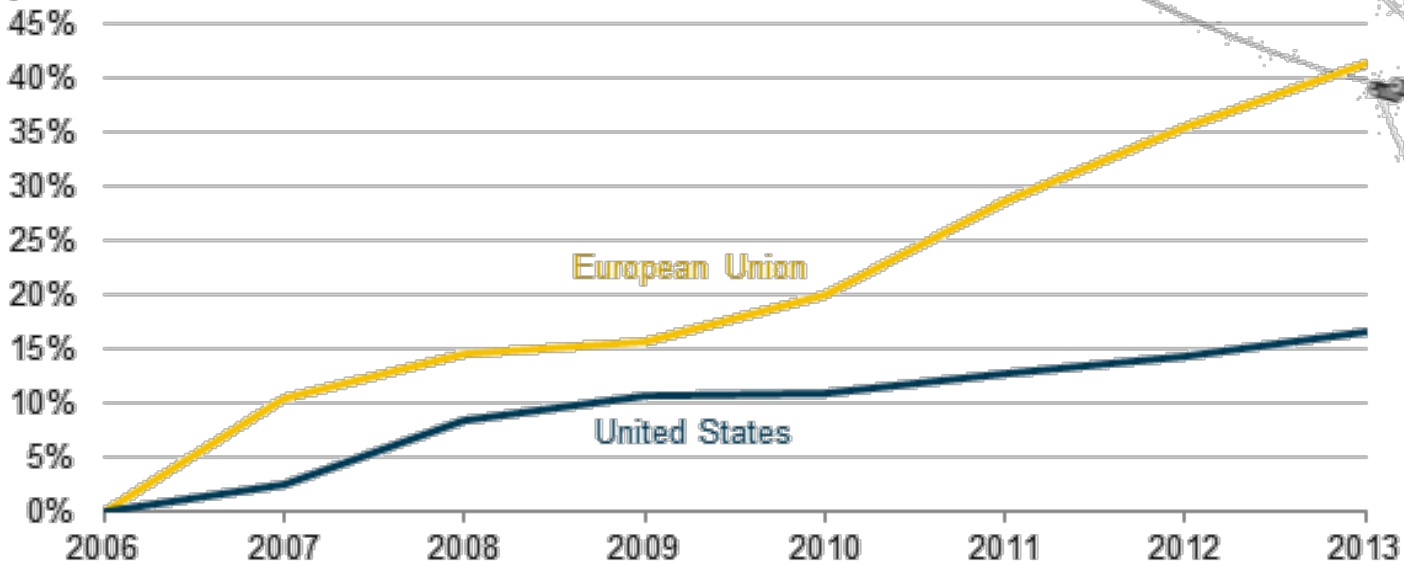
What drives INNOVATION?



Change in average residential electricity prices in Europe and the United States

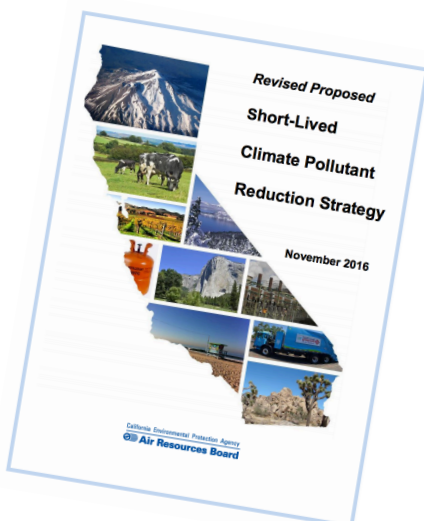
(2006-13)

percent



A wide-angle, high-angle photograph of the European Parliament's plenary chamber. The chamber is a large, semi-circular hall with multiple tiers of seating. Numerous members of the parliament are seated at desks, many with their hands raised in a vote. The room is brightly lit with recessed ceiling lights. At the far end of the chamber, the European Union flag is prominently displayed on a stage, flanked by the flags of the member states. Two large screens on the side walls show the proceedings. The overall atmosphere is one of a formal legislative session.

EUROPEAN REGULATIONS



The innovation journey

A journey of a thousand miles begins with a single step.

2005: Design team for award-winning 1st UK CO2 Supermarket

Green End User of the Year – Large Projects



Winner: Sainsbury's

Among the UK's supermarkets, Sainsbury's has taken a leading role in trialling environmentally friendlier solutions.

It has often gone where others feared to tread, testing the first ammonia-based supermarket system, and an HC-based secondary system at its Millennium store in Greenwich.

Experiments were not always successful, but important lessons were learned.

Earlier this year, the company scored a UK first with the installation of a cascade carbon dioxide-based refrigeration system at its store in Clapham, south London.

It has proved cheaper to install, and is expected to save significantly on energy costs. Other similar installations are planned for stores in the future.

The judges commented: "It is quite an achievement, and a brave thing to do – given the commercial pressures in the marketplace.

"It is a tremendously exciting project, and could point the way forward for the whole industry."

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Finalists:



Marks & Spencer

The judges praised the vision behind the company's central monitoring system for its 380 stores, which has yielded energy savings, reduced leakage and service costs and improved system reliability.



Roche Products

The judges were impressed by the company's drive for sustainable solutions for hvac plant at its new headquarters building in Welwyn Garden City. "It's an excellent example of creative thinking, linking together proven, sustainable technologies."



Installation of the Year – Retail



Winner: Denman Contracting Ltd

Refrigeration at the Sainsbury's Clapham store is powered by a new carbon dioxide-based cascade system – the first of its kind in the UK.

Installed by Denman Group in Spring this year, the system uses a combination of carbon dioxide and R404A refrigerant, and is based on pioneering technology developed in Scandinavia by York International.

Based on Bizer compressors, it combines a sub-critical carbon dioxide secondary cooling system, for high temperature loads, with a DX carbon dioxide system, cooled by R404A packs, for the low temperature loads.

Capital costs were marginally lower than for conventional solutions, while energy usage is expected to be around 14 per cent lower.

The judges said: "It fulfils its promise, this could be the future for supermarket refrigeration."

Finalists:



Frogbox

Tesco's Express site at Wickford uses a Frogbox Synergy plant unit, which caters for all the site's hvac needs. The judges praised the "imaginative use of three heat exchangers to recover heat and combine refrigeration and air conditioning, notable because the refrigeration circuit is not compromised to obtain heat."

Cross Refrigeration

The Centra Supermarket in Enniskillen saves energy by harnessing waste heat from the refrigeration packs to condition the shop floor and offices. The judges said: "This offers potentially enormous benefits in view of the requirements of Part L."



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EXPLORATION



DISCOVERY

A low-angle photograph of two massive concrete bridge piers under construction. The piers are V-shaped and extend from the bottom of the frame towards the top. At the top of the piers, there are complex metal structures, including scaffolding, ladders, and platforms. The sky is blue with scattered white clouds. The word 'IMPLEMENTATION' is overlaid in large white letters across the middle of the image.

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Thank you very much!

