

# D4FC Factsheet 14:

## Climate Adaptation Plan

### Contact details

Name: Sarah Nolleth  
 Company: Deloitte LLP  
 Email: snolleth@deloitte.co.uk  
 Tel: 020 7007 1278

### General project information

Name of project: Climate Adaptation Plan  
 Location of project: Metro Centre, Gateshead  
 Type of project: Retrofit  
 Cost of project: £10m (confidential)

### Project team

Client: Marks and Spencer Plc  
 Project manager: Currie & Brown  
 Architects: Darton EGS  
 Building services engineer: Troup Bywaters & Anders  
 Quantity surveyor: Gleeds  
 Structural engineer: WSP  
 Refrigeration consultants: Oaksmere

### Project description

The project is to undertake a refurbishment of a retail store in the Metro Centre in Newcastle. The gross internal area is approximately 130 000 sq ft.

This will involve the first MEP (mechanical, electrical and plumbing) overhaul in nearly 20 years and includes replacement of plant, décor, flooring and some lighting, for example:

- new lighting systems and controls (except for food hall) And new concept lighting
- new MEP system for cafe (heat pumps boilers, ground source heat pumps). Aiming to decrease volume of air
- reduction of the food area
- replacement/addition of ceiling tiles
- extension of the M&S cafe (will be largest café in any M&S store)
- addition of fitting rooms
- connection of the new toilet and cafe drainage system to the current supply.

### Project timescales and dates

April to November 2011



Technology Strategy Board  
 Driving Innovation

Knowledge  
 Transfer  
 Network

Modern Built  
 Environment

## Further project details

### 1 What approach did you take in assessing risks and identifying adaptation measures to mitigate the risks?

- identify key climate vulnerabilities to generic M&S stores and infrastructure:
- assessing key climate risks using the University of Reading's Walker Institute to provide data on climate science
- speaking to various people within the wider business, eg business continuity, MEP team (mechanical electrical plumbing), risk management to understand the key vulnerabilities for the business
- identifying how these risks relate to the specific M&S store in Gateshead, through discussions with the design team.

### 2 How have you communicated the risks and recommendations with your client? What methods worked well?

- use of the M&S corporate risk matrix such that the climate risks are measured in the same way as other business risks
- undertaking cost benefit analyses wherever possible.

### 3 What tools have you used to assess overheating and flood risks?

- this has been done by the Walker Institute at the University of Reading to allow us to model specific scenarios, eg number of consecutive days over a certain temperature.

### 4 What has the client agreed to implement as a result of your adaptation work?

- we are still at the planning stage.

### 5 What were the major challenges so far in doing this adaptation work?

- understanding what the key business risks are and the company's current level of resilience.

### 6 What advice would you give others undertaking adaptation strategies?

- for corporate organisations, ensure you speak to the various business areas affected to assess key vulnerabilities and current resilience levels. This helps to ensure that any recommendations are commercially viable
- risks should be measured and recorded in the same way as other business risks to allow climate risk to be understood by the wider business.