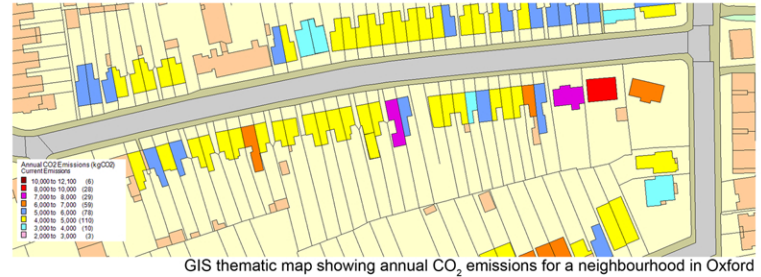
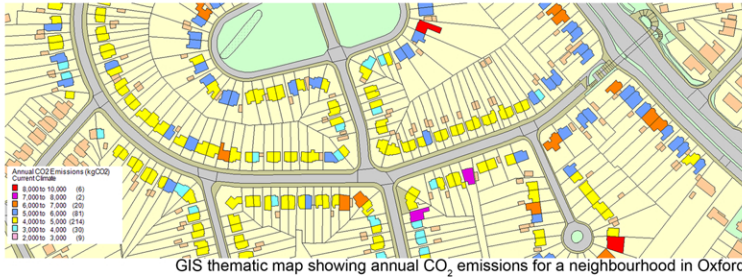


DECoRuM[®] carbon mapping

Carbon mapping: Measuring, modelling, mapping and reducing household carbon dioxide emissions locally

DECoRuM is an award-winning mapping based tool with the capability to estimate the energy performance and carbon emissions on a house-by-house level, and the potential energy savings for home energy improvements. The results can be aggregated to a street, district, suburb or city level.



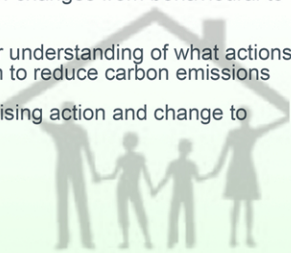
- **Evaluates the costs** for domestic CO₂ emission reductions by deploying a range of best practice energy efficiency measures, low-carbon systems and renewable energy technologies on an urban scale.
- Uses a **locally-relevant** approach and well-established methodologies to ensure credibility for carbon emission reduction planning in cities.
- Assessment requires no access to the property
- Has been applied in Oxford, Bicester, Bristol and Stockport.
- Pollution hotspots can be spatially located and targeted for improvement.
- Cost-benefits analysis enables cost comparison of different measures.
- Helps to estimate the potential for citywide application of solar energy systems.
- A useful visual aid when encouraging householders to install energy efficiency measures.

Benefits of carbon mapping

Carbon mapping has emerged as a valuable approach for strategic planning, evaluation and implementation of community and neighbourhood scale domestic refurbishments

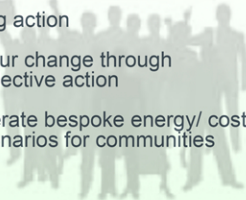
Householder

- Makes energy use visible for homeowner in a useful way - influencing energy literacy
- Increase awareness of energy use in home relative to neighbours
- Inspires range of changes from behavioural to full retrofits
- Creates a better understanding of what actions could be taken to reduce carbon emissions
- Assists in prioritising action and change to home



Community group

- Acts as a tool for communication of ideas and plans
- Engages and empowers community in carbon reduction effort through knowledge of need, capacity and limitations
- Helps community understand local housing stock and local impact
- Assists in prioritising action
- Influences behaviour change through education and collective action
- Platform to generate bespoke energy/ cost/ carbon saving scenarios for communities



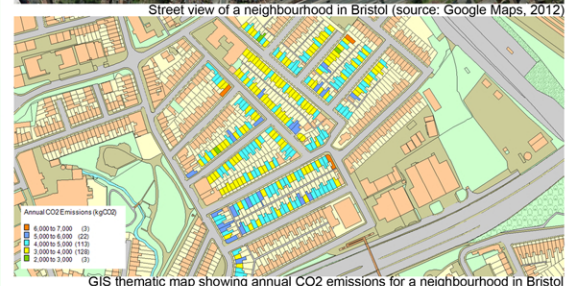
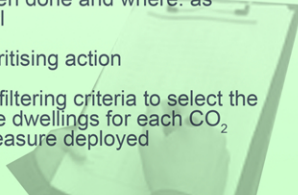
Local authority

- Allows area based carbon reduction planning
- Allows prioritisation of carbon reduction by neighbourhoods or districts
- Communication tool for change
- Visual source for organising and categorising what has been done and where: as stock inventory tool
- Allows comparison of housing stock to other local authorities or political / geographical boundaries



Green Deal Provider / Energy assessor

- Provides overview of homes most in need and platform for initial estimates of measure impact effectiveness
- Provides a complete management tool from briefing to installation of measures
- Visual source for organising and categorising what has been done and where: as business tool
- Assists in prioritising action
- Use of robust filtering criteria to select the most suitable dwellings for each CO₂ reduction measure deployed



For more information, please contact: **Professor Rajat Gupta**,
rgupta@brookes.ac.uk | 01865 484049