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## CATCH: Carbon Aware Travel Choices in the climate-friendly world of tomorrow

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### Background

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CATCH (Carbon Aware Travel CHoice) is a project with the ultimate aim to reduce the carbon dioxide emissions of the urban transport sector by encouraging carbon-friendly travel choices. The €2 million project is co-financed by the European Union under the 7th Framework Programme for Research which aims to develop and promote a trusted and credible open knowledge platform targeted primarily at decision-makers in cities.

The scientific consensus is that GHG emissions, and specifically CO<sub>2</sub>, from human activities will lead to long-term climate change that is likely to exceed the capacity of people and the natural environment to adapt. The transport sector, as a major contributor to CO<sub>2</sub> emissions, has the potential to play a significant role in reversing the present trajectory towards permanent changes in climate. Managing emissions from cities is a common challenge faced by major cities across the world, and a challenge that is arguably best responded to at the local level in the context of local circumstances.

There were five municipalities chosen as the core interest cities that would participate in the initial CATCH development. Those municipalities are: the London Borough of Hounslow (UK), Baia Mare (Romania), Lisbon (Portugal), Rotterdam (the Netherlands), and Odense (Denmark).

### Project Overview

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In order to facilitate a reduction of CO<sub>2</sub> produced by transport in cities, CATCH aims to produce a knowledge platform that:

- enhances and increases awareness of the environmental impacts of mobility and potential solutions to their management;



### Do people understand CO<sub>2</sub> information as currently presented?

- enables travellers to make timely and informed climate-friendly travel choices;
- empowers public transport operators, city managers and other mobility stakeholders to more readily and accurately incorporate environmental opportunities and challenges into their planning and innovation processes;
- identifies/forecasts the change in climate-friendly behaviour resulting from the introduction of financial measures or incentives targeted on GHG reduction. These measures might include taxes, user charges, carbon trading schemes, incentive/reward schemes etc).
- links the knowledge platform to fiscal measures provided by taxes, charges and carbon trading schemes to ensure that the combination of such measures and the knowledge platform encourages behavioural change;
- ensures that new mechanisms for funding and impact (e.g. carbon offset and trading, clean development mechanism) will be exploited, integrating the global dimension of GHG reduction with individual behavioural change;

- enhances the transparency and public understanding of government and corporate climate change policies and thereby increases trust.

7. What would help practitioners implement sustainable transport projects?

## Grounding

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CTS is leading the grounding work being carried out in work package 1 and is a main contributor to work package 2, design. The grounding work was composed of two reports: *Behavioural Inception Report* and *Research and Design Report*.

The Behavioural Inception Report reviewed research from behavioural change literature for transport, and builds on this by reviewing psychological literature on climate change reactions and techniques used in household energy use and the health field. Among the theories discussed were:

- the theory of planned behaviour,
- choice architecture or “nudges”, and
- stages-of-change.

## Current Status

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The Behavioural Inception Report has been completed and approved and is available on the [CATCH website](http://www.carbonaware.eu/home.html) (<http://www.carbonaware.eu/home.html>). Further to that research, research was conducted into a number of identified gaps and project-relevant needs.

The Research and Design Report investigated:

1. How should CO<sub>2</sub> information be presented to improve understanding?
2. How should CO<sub>2</sub> information be presented to improve motivation to change?
3. Will anchor points affect understanding or motivation to change?
4. Will gain/loss framing affect comparisons of travel scenarios?
5. Does a person’s stage-of-change with respect to sustainable transport impact who they respond to CO<sub>2</sub> information?
6. What do citizens desire in cities and neighbourhoods? A discussion on motivations beyond environmental considerations.

## Key Findings

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1. Using a percentage of a recommended amount or the equivalent amount of trees give people higher confidence, more accurate understanding and increased motivation to reduce car use.
2. In contrast to the anticipated result, larger anchor points were associated with greater motivation to reduce car use.
3. In line with other gain/loss findings, loss framing resulted in a greater difference being perceived than gain framing of the same information.
4. People who reported having made some change in the past year to reduce their CO<sub>2</sub> outputs reported greater motivation to reduce car use in general, but presenting the information in formats such as tree equivalents reduced that difference.
5. Desirable neighbourhood attributes were found such as community connections, local shops, and safety on streets. Although indirect, improvements in those areas would likely reduce transport CO<sub>2</sub> outputs as they are linked with greater non-motorised travel.
6. There are a wide range of needs for practitioners. Highlighting/filtering information that is contextually relevant to them, is from an authoritative source, and allows some consultation would be more useful.

## Contact Details

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