Sustainable Transport: How a Galway company made the ‘Smart Move’

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Introduction

• Recent social and economic changes reflected in Ireland’s transport sector
  – High spending on transport infrastructure from late 1990s until mid-2000s and limited integration of transport and land use policies led to growing ‘consumption of distance’
  – Since late 2000s transformation of transport sector due to recession and growing emphasis on sustainability
    • E.g. emissions-related motor taxation since 2008 has increased share of cars with lower emissions
Recognising the Need for Change

• BUT:
  – Transport remains among top three emitters of GHGs in Ireland (~20% in 2012)
  – ‘Celtic Tiger’ legacy of car dependency difficult to reverse
  – Since 2009 emphasis on ‘smarter travel’ – short-term response to financial difficulties or long-term commitment to sustainability?
  – Target 2020: 20% reduction (2005 baseline)
Time for Departure?
How to change travel behaviour

• Conventional view that people are rational actors who respond to 1) information, 2) (dis)incentives and 3) changes in infrastructure (‘three Is’)

BUT:
• Presence/absence of ‘three Is’ does not sufficiently explain changes in how (much) people travel
• Significance of established everyday travel practices, their social and cultural functions and meanings and their material realities
• Crucial role of meso level of social organisation which connects individuals and households to large-scale social structures
  – e.g. communities, associations, organisations
Shared Journeys and ‘Smart Moves’

Changing commuting practices in a large organisation in the West of Ireland
ConsEnSus - WP3
Researching change in travel practices

• Critical comparison of social scientific theories of travel behaviour and its transformation
• Transport policy analysis (national and international)
• Empirical investigation of travel and ‘virtual mobility’ practices in organisations

• WP3 examines two areas of change:
  – Modal shift from car to walking, cycling, public transport use and car pooling
  – Technology-led reduction in physical travel and shift to ‘virtual mobility’
Project overview

Comparative context on national level

ConsEnSus life style survey

Analysis of European and national transport policy

Case study

<table>
<thead>
<tr>
<th>Exploration T1</th>
<th>Change initiatives</th>
<th>Evaluation T2 (short-term)</th>
<th>Evaluation T3 (long-term)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site analysis</td>
<td>Earth Day</td>
<td>18 Follow up interviews</td>
<td>Travel survey</td>
</tr>
<tr>
<td>Travel survey</td>
<td>Smart Moves</td>
<td>Observations</td>
<td>11 Follow up interviews</td>
</tr>
<tr>
<td>3 Focus groups</td>
<td>Challenge</td>
<td></td>
<td>Observations</td>
</tr>
<tr>
<td>42 Interviews</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Observation</td>
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Case study

- **Thermoking Galway** - large multi-national employer (ca. 500 employees)
- Well-established since 1970s
- European HQ & manufacturing plant; diverse workforce
- Part of cluster of large employers which attracts employees from Galway city and its hinterland (similar to other cities in IRL)
- Modal split among staff reflects national pattern (more than 70% drive to work)
- Intervention in April 2011 – conventional travel plan (based on ‘three Is’) + innovative team-based competition (‘Smart moves’ challenge lasting 30 days)
## Qualitative assessment of employer-based change initiative

<table>
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<th>Evaluation T2 (short term)</th>
<th>Evaluation T3 (long term)</th>
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</thead>
<tbody>
<tr>
<td>Travel Survey (Oct 2010)</td>
<td><strong>Earth Day</strong> (20/04/2011)</td>
<td>22 Travel diaries (5 weeks)</td>
<td>Travel Survey (Oct 2011)</td>
</tr>
<tr>
<td>3 Focus groups (Dec 2010)</td>
<td><strong>Smart Moves Challenge</strong> (27/04 – 02/06/2011)</td>
<td>18 Follow-up Interviews (June 2011 - directly after intervention)</td>
<td>11 Follow-up Interviews (Sept 2011)</td>
</tr>
<tr>
<td>23 Interviews (April 2011)</td>
<td><strong>27 participants</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Conventional workplace travel

1) Information
   - specifically designed website on alternatives to car use
   - emphasis on health related issues
   - also used for Smart Moves Challenge

2) Incentivisation
   - promotion of cycle-to-work scheme
   - promotion of employer-travel-pass scheme

3) Infrastructural changes
   - new sheltered & secure bike stands
   - changing and shower facilities renovated
2 Smart Moves Challenge

Participatory initiative designed as competition

- Teams of 3 employees
- Agree to commute actively, use PT or carpool once a week
- Teams get credit for every journey without car
- Daily travel diary via online interface on website
- Weekly scores published on website
- Duration: 30 days
Earth Day at Thermo King Galway
Smart Moves Galway

Join the smarter movement, change the way you travel!

Do you want to calculate your carbon footprint? Then simply click on the link below...

Thermo King Smart Moves Challenge

Take the 30 Day Challenge

Click for the Challenge page!

Smarter Moves for the Mervue Area

WALKING
Walking is an excellent way to get your 30 minutes of physical exercise required for optimum health each day. It is also a low cost way of getting around so will help save you money on your overall transport costs.
Results I
Key influences on commuting patterns

a) Material influences
- increase in car ownership & land use issues such as sprawl
- unfavourable infrastructure for cycling, walking and PT

b) Social nature of car use & routines
- providing transport to others
- commuting connected with other everyday practices
- social meanings attached to car use shape perception of alternatives (e.g. car use = flexibility & independence)

→ Combination of actual & perceived lack of alternatives!
Results II
Responses to three Is

1) Information provision
   - no need for information, already informed
   - website used for travel diaries & score (Google Analytics)

2) Incentives
   - good uptake of cycle-to-work scheme
   - helps to purchase high-quality, customised bicycle & gear
   - no interest in employer-travel-pass-scheme

3) Infrastructural changes
   - new bike stands well received, old shed run down & unsecure
   - reaction to shower & changing facilities ambivalent – necessity for some, “nice-to-have” for others
## Results III
Outcome of Smart Moves Competition

<table>
<thead>
<tr>
<th>Evaluation T2 - Short term effect</th>
<th>Evaluation T3 - Long term effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>53 %</td>
<td>29 %</td>
</tr>
<tr>
<td>switched from car to other mode</td>
<td>continued to use alternative to car</td>
</tr>
</tbody>
</table>
## Results III
### Outcome of Smart Moves Competition

<table>
<thead>
<tr>
<th>Commuting type</th>
<th>Number</th>
<th>Place of residence</th>
<th>Intention</th>
<th>Change in T2</th>
<th>Change in T3</th>
<th>No change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commuting in the city</td>
<td>8</td>
<td>Urban</td>
<td>Cycle &amp; carpool (1)</td>
<td>5</td>
<td>3 (of 5)</td>
<td>3</td>
</tr>
<tr>
<td>Commuting from hinterland</td>
<td>3</td>
<td>Rural &amp; Peri-urban (1)</td>
<td>Carpool</td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Hybrid</td>
<td>2</td>
<td>Rural</td>
<td>Cycle</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Trip-chaining</td>
<td>4</td>
<td>Urban (2) &amp; Peri-urban (2)</td>
<td>Cycle (2) &amp; Carpool (2)</td>
<td>3 (of 3)</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Participants</td>
<td>17</td>
<td></td>
<td></td>
<td>9</td>
<td>5 (of 9)</td>
<td>8</td>
</tr>
</tbody>
</table>

Why did some participants change but not others?
### Reported factors that hinder or help

<table>
<thead>
<tr>
<th>Factors hindering change</th>
<th>Factors helping change</th>
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<tbody>
<tr>
<td>Road safety</td>
<td>Cycling is dangerous, but depends on route, skills &amp; confidence</td>
</tr>
<tr>
<td>Perception of weather</td>
<td>Weather not a hindrance</td>
</tr>
<tr>
<td>Other everyday routines affected</td>
<td>Integrating the new into old routines</td>
</tr>
<tr>
<td>Social circumstances</td>
<td>Social circumstances</td>
</tr>
</tbody>
</table>

Cycling is dangerous, but it depends on route, skills & confidence. Weather is not a hindrance.
Typology of commuting practices

**Typology** based on focus group and interview data

→ **2 practices** - *car-based* (dominant) and *alternative* (marginalised)

→ **4 performance types** *within* dominant car-based practice

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<th>Car-based commuting practice</th>
<th>Alternative commuting practice</th>
</tr>
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<tr>
<td>Commuting within the city</td>
<td>Trip-chaining</td>
</tr>
<tr>
<td>Commuting from the hinterland</td>
<td>Active commuting</td>
</tr>
<tr>
<td>Hybrid</td>
<td></td>
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**Combination of material, social & cultural influences** on commuting

→ frequently neglected in transport behaviour and policy research
Benefits and limitations of two-tiered intervention

- Conventional approach changed (infra)structural conditions in favour of alternatives → not sufficient on its own; omits social & cultural aspects

- Participatory & longitudinal initiative (SMC) → provided support & created favourable social context

**BUT** limitations of employer-based initiatives:

- Small-scale (infra)structural changes at local level → limited impact on wider structural, social and cultural conditions

**Need for strategic and targeted policies that create a material, (infra)structural, social and cultural environment conducive to alternatives to car use.**
Further changes needed?

- Policy recommendations based on WP3
  - Development of change initiatives that are sensitive to people’s existing practices and their social, cultural and material contexts
  - Policies that recognise importance of key events in people’s lives for their consumption patterns (e.g. parenthood, change in residential location)
  - Greater focus on role of meso level of social organisation (e.g. employers, institutions)
  - Need for innovative policy solutions with demonstrable economic, social and environmental benefits → critical assessment of ‘virtual mobility’ options
Thank you for listening!

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