

Using disruption as an opportunity to change travel practices

David Williams (PhD Research Student)

Dr Tim Chatterton (PhD Supervisor)

Air Quality Management Resource Centre

University of the West of England, Bristol

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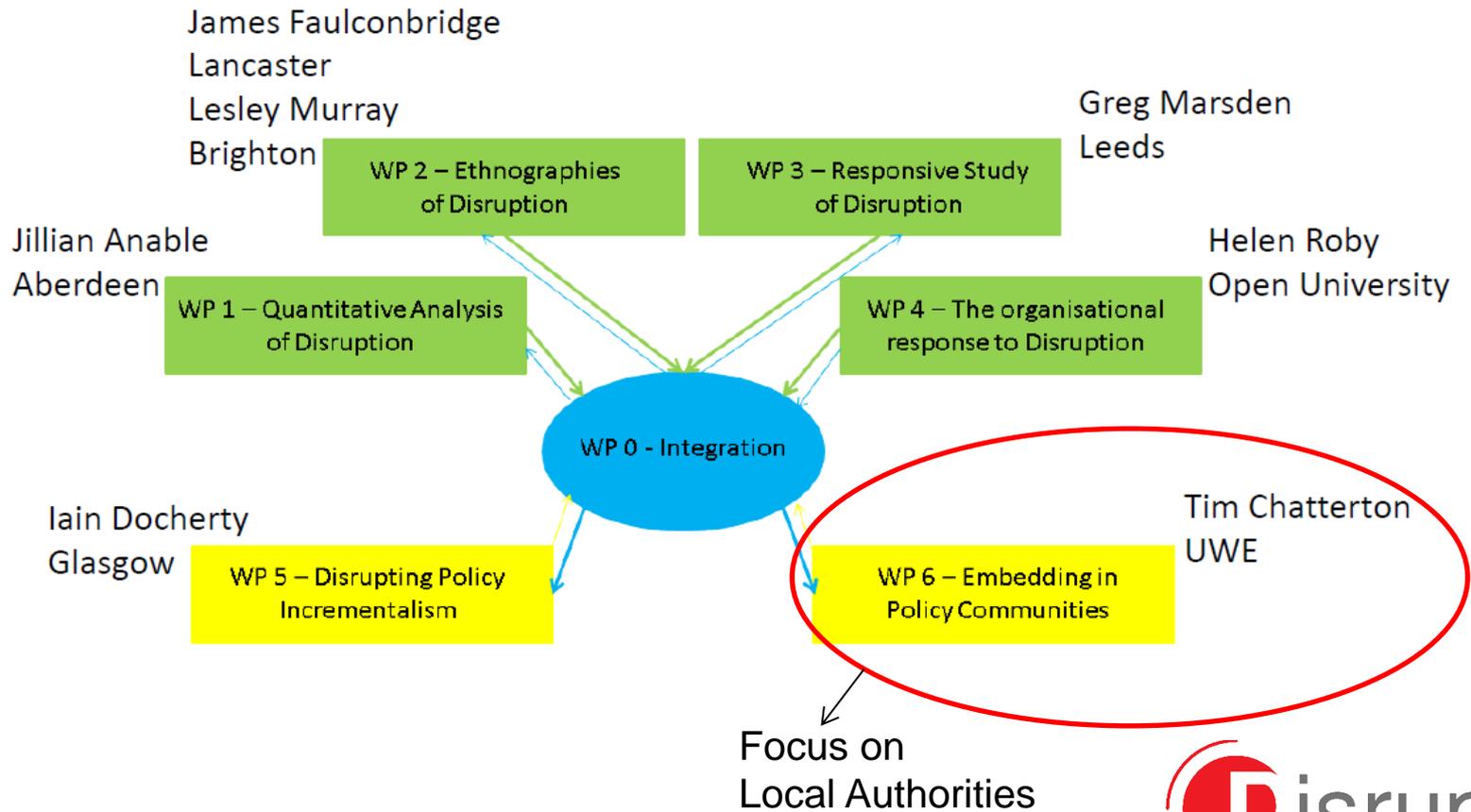
Pierhead Building, Cardiff

Presentation

- Disruption Project Overview
- What is Disruption?
- Why is this Important?
- Case Study 1 – Workington 2009/10
- Case Study 2 – Bristol 2010/11
- Next Steps
- Problems with Approach
- Summary

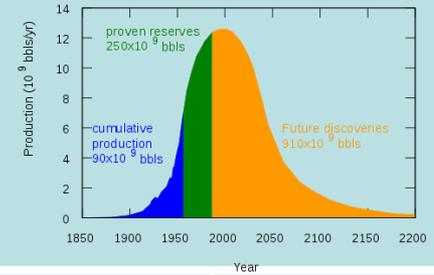
Disruption Project Overview

3 year RCUK Energy Programme funded project
Unlocking Low Carbon Travel



What is a Disruption?

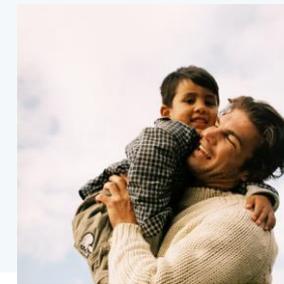
Macro Scale



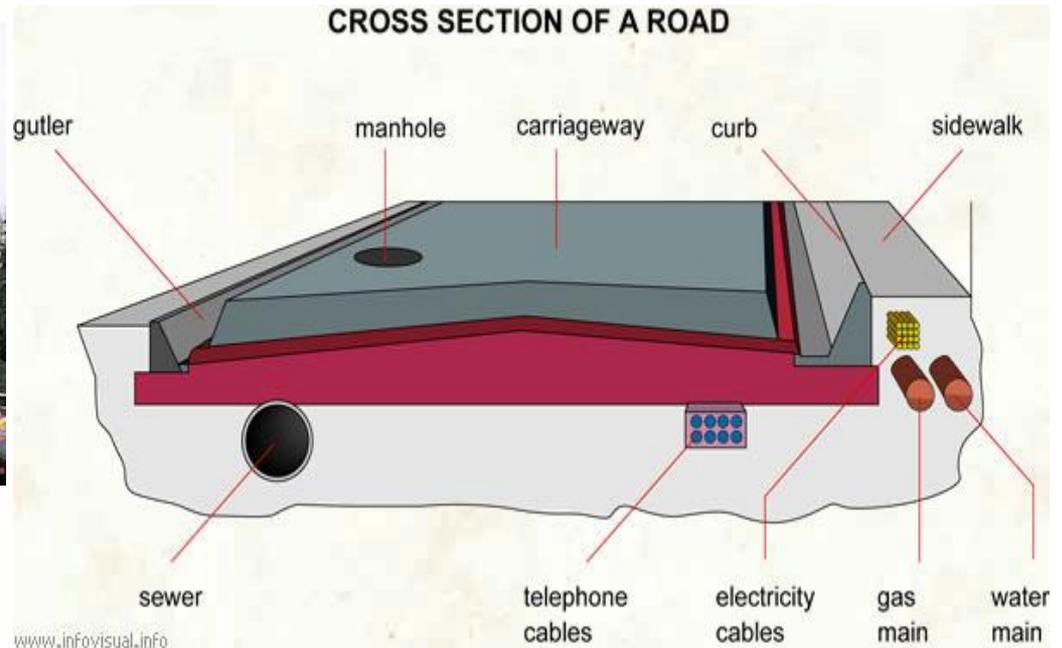
Meso-scale



Micro scale



Planned Disruption



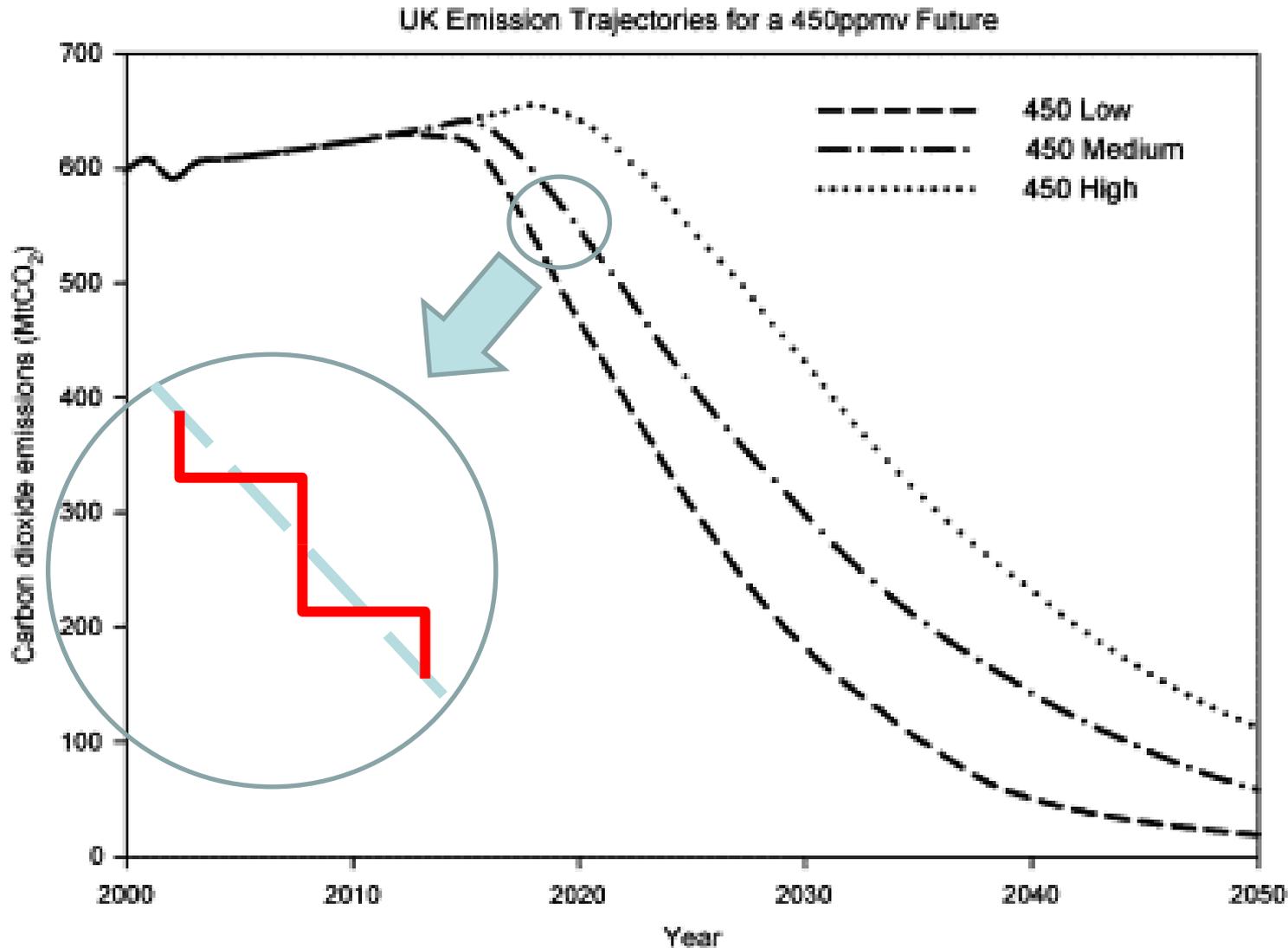
Unplanned Disruption



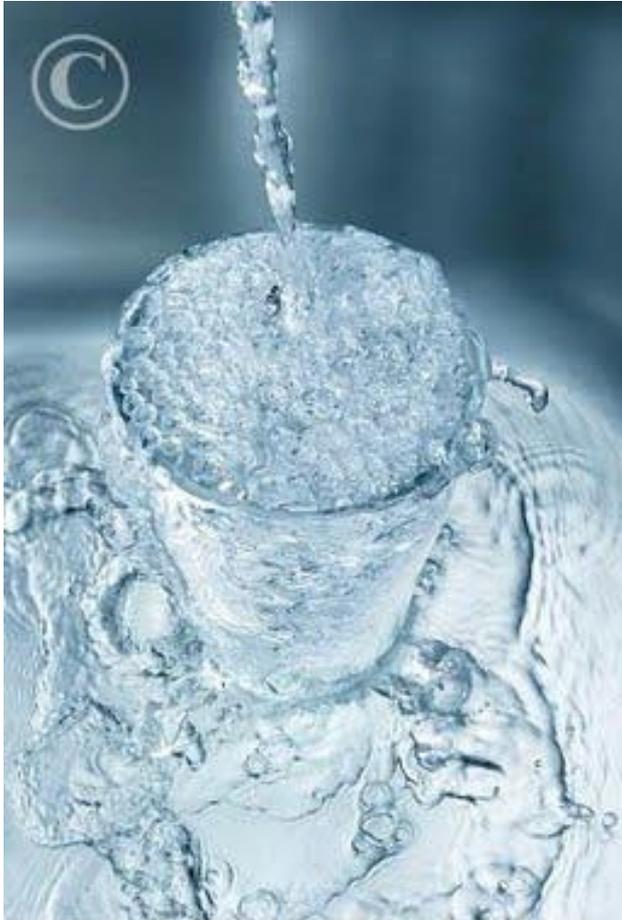
Can disruption ever be a good thing?



Can disruption ever be a good thing?



Traffic: Liquid or Gas?



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Is this approach new?

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Sally Cairns
Research Fellow, SSC,
Transport Studies Unit,
University College London



Stephen Adkins
Visiting Fellow,
University of Southampton



P. Goodwin
Professor of Transport Policy
and Director of the SSC,
Transport Studies Unit,
University College London



Disappearing traffic? The story so far

S. Cairns, S. Adkins and P. Goodwin

Reallocating roadspace from general traffic, to improve conditions for pedestrians or cyclists or buses or on-street light rail or other high-occupancy vehicles, is often predicted to cause major traffic problems on neighbouring streets. This paper reports on two phases of research, resulting in the examination of over 70 case studies of roadspace reallocation from eleven countries, and the collation of opinions from over 200 transport professionals worldwide. The findings suggest that predictions of traffic problems are often unnecessarily alarmist, and that, given appropriate local circumstances, significant reductions in overall traffic levels can occur, with people making a far wider range of behavioural responses than has traditionally been assumed. Follow-up work has also highlighted the importance of managing how schemes are perceived by the public and reported in the media, with various lessons for avoiding problems. Finally, the findings highlight that well-designed schemes to reallocate roadspace can often contribute to a multiplicity of different policy aims and objectives.

1. INTRODUCTION

Reducing roadspace for general traffic, and reallocating it to pedestrians or cyclists or buses or trams or other high-occupancy vehicles, could significantly increase the attractiveness of these modes, and facilitate more efficient use of the road network. Yet proposals for such changes are usually controversial. One recurrent issue is whether the displaced traffic will simply divert to neighbouring streets, clogging them up and leading to worse congestion and pollution. This paper reports on findings from research based on over 70 case studies from eleven countries, and the opinions of over 200 transport professionals worldwide. The findings suggest that such problems are, in reality, rarely as bad as predicted, and that, with careful planning and appropriate implementation, reallocating roadspace to more sustainable modes of transport can result in a variety of complementary benefits.

2. CONTEXT

In the mid-1990s, there was a radical shift in UK Government policy on road building. Specifically, the Government clarified that building roads was not always a solution to congestion, and creating new capacity could generate traffic. This was partly due to technical advice from its own Standing Advisory Committee on Trunk Road Assessment (SACTRA),¹ and partly due to the popular recognition that, for example, building the

M25 motorway had not produced consistently free-flowing traffic conditions around London (despite having been built with excessive spare capacity according to the traffic conditions before its construction).

However, while it was officially recognised that building roads could induce additional traffic, the opposite proposition, namely that reducing roadspace could reduce traffic, was not widely accepted in either theory or practice. Consequently, numerous proposals for pedestrianisation or bus priority schemes were rejected, due to fears of the problems that they could create on surrounding streets. Examples in London include schemes in the London 'Green Area' study, and parts of the London Bus Priority Initiative such as the whole route priority proposed for Route 68 between Camden and Camberwell.

To address the issue, a research study was commissioned by London Transport and the Department of the Environment, Transport and the Regions in 1997. Two reports were published – by Cairns, Haas-Klau and Goodwin on the practical evidence,² and by MVA³ on the implications for modelling. This paper summarises and updates the evidence study.

3. THE ORIGINAL STUDY

The original evidence study (by Cairns, Haas-Klau and Goodwin) sought to identify all possible case studies of circumstances where roadspace had been reallocated, whether due to positively planned schemes, temporary road closures for maintenance or renewal of transport facilities, or natural disasters. Although the stimulus for change varied, in each case drivers needed to decide what to do when their normal travel patterns were disrupted, and there were useful insights from all the examples as to how they reacted.

Examples included pedestrianisation schemes in German and other Continental European cities; the City of London 'King of Steel' project following IRA bombing; closures of bridges such as London's Westminster Bridge, Tower Bridge and Hammersmith Bridge for repairs and maintenance; city-centre traffic schemes in places like Oxford, Cambridge and Wolverhampton; the introduction of bus lanes in cities such as Cardiff, Bristol and Toronto; the closure of a rural road south of London; the street enhancement projects in Norwegian towns; the Six Towns Bypasses Monitoring Project; the Tasman Bridge collapse in Hobart, Australia; and the effects of earthquakes in

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Governing transitions in the sustainability of everyday life

Elizabeth Shove^{a,*}, Gordon Walker^b

^a Department of Sociology, Brunel North, Lancaster University, Lancaster, UK

^b Department of Geography, UCL, Lancaster University, Lancaster, UK

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ABSTRACT

The literature on sociotechnical transitions and their governance tends to concentrate on the introduction of new technologies and systems of supply. In this paper we seek to extend the scope of debate, introducing aspects of practice theory as a means of also conceptualising the dynamics of demand. Rather than treating 'human need' or 'societal functions' as given, we consider how variously sustainable practices come into existence, how they disappear and how interventions of different forms may be implicated in these dynamics. We use the two cases of daily showering and the congestion charging scheme in London to consider the distinctive challenges of understanding transitions in practice and of governing these so as to engender more sustainable ways of life.

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1. Introduction

The literature on sociotechnical transitions is marked by an intellectual ancestry rooted in studies of science, technology and innovation (Grün, 2008; Smith et al., 2010), and by empirical studies of infrastructures and systems of provision. This ancestry shows through in research and writings that distil and describe the steps, stages and actors involved in configuring systems like those of energy supply (Correije and Verbong, 2004; Geels and Raven, 2006); sewerage (Geels, 2006); transportation (Elzen and Wierczok, 2005); water infrastructure (van der Brugge et al., 2005), and 'new' technological, institutional or cultural patterns in utility provision' (Voß et al., 2006, p. 175). Consistent with this emphasis, commentators specifically interested in sociotechnical transitions toward sustainability (Elzen et al., 2004) routinely concentrate on issues of resource management and ecological modernisation. Whether the focus is historical or forward looking, the challenge is for the most part one of understanding and sometimes promoting more resource efficient ways of meeting existing social needs and functions. In this context, the socio-technical change typically refers to the fact that innovations are shaped by social processes rather than to the ways in which technical systems are implicated in defining and reproducing daily life. Partly because of this tendency to focus on questions of supply, somewhat less attention has been paid to patterns of demand inscribed in what remain largely technological templates for the future. Where the socio-technical

does refer to forms of practical know-how and to routines and expectations that sustain and are part of incumbent regimes, the driving interest is in how these arrangements configure the conditions of future innovation: not in how they evolve themselves.

This is limiting in that significant movement towards sustainability is likely to involve new expectations and understandings of everyday life and different forms of consumption and practice (Redclift, 1996; Wijk, 2002). Accordingly, questions about how the 'mobility burden' of achieving effective societal participation has increased, or about how resource intensive trends like those of showering every day have taken hold are at least as important as those dealing with the design of more efficient systems of provision. As we hope to make clear, this is not just a matter of paying closer attention to users or of emphasising their role within existing supply oriented narratives.

Following Giddens (1984) our ambition is to take practices, rather than individuals, citizens, societies, social groups or even sociotechnical systems – as the unit or focus of attention. The notion of attending to social practices is not in itself novel. Commentators like Spaargaren (2003) and Southerton et al. (2004) have, for instance, argued that relations between consumers, producers and systems of provision are mediated and co-produced 'through' practices. Building on these ideas, Spaargaren uses what he terms 'The Social Practices Approach' to make the point that consumer behaviour is enabled, constrained and contextualised by systems of provision. In this account, 'social practice' refers to a domain of daily life, such as food or 'cooking' (Spaargaren, 2003, p. 656), these being sites in which systems and behaviours interact. In this paper we explore the more radical proposition that social practices are not merely 'sites' of interaction but are, instead, ordering and orchestrating entities in their own right.

* Corresponding author. Tel.: +44 1524 594610.
E-mail address: e.shove@lancaster.ac.uk (E. Shove),
gp.walker@lancaster.ac.uk (G. Walker).

Why is this important now?



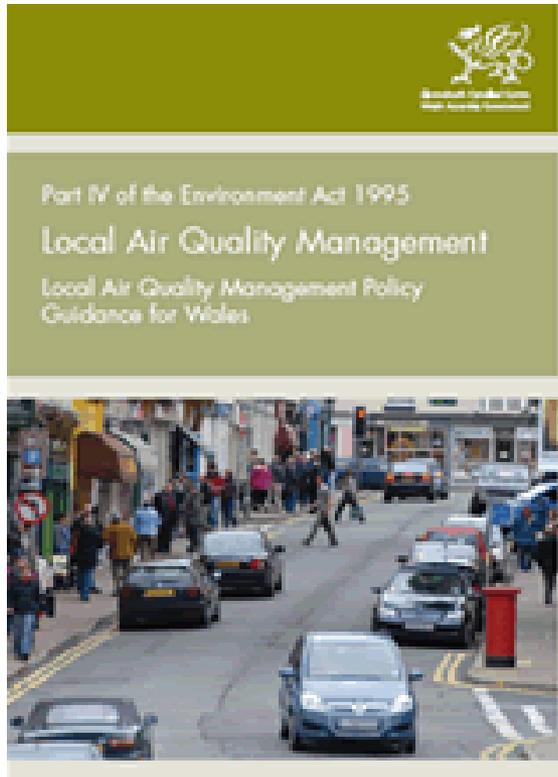
Austerity

“Deliver more with less”

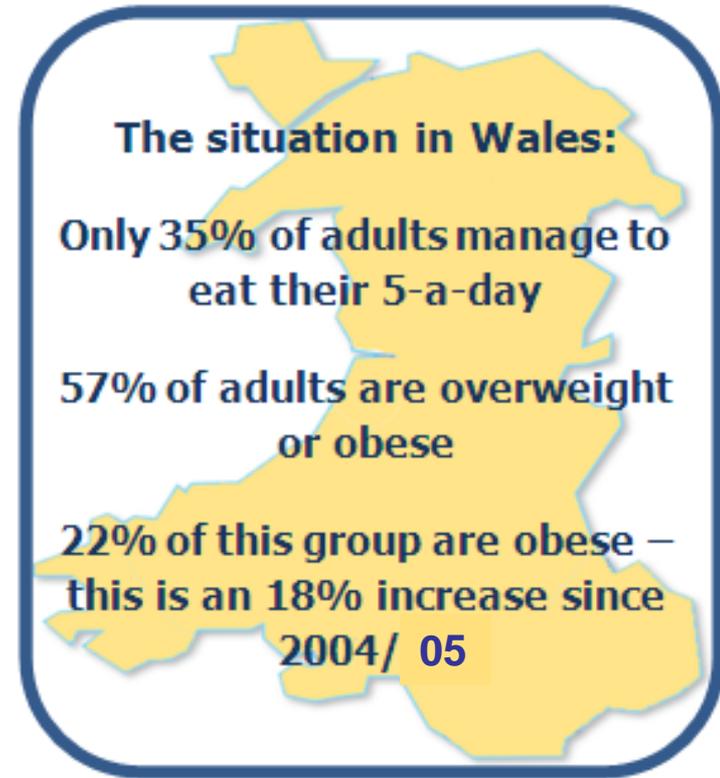


Carbon emissions

Why is this important now?



Local air quality



Health – obesity epidemic

Case Study 1 – Workington 2009/10 (Guiver, 2010)

Case Study 1 – Workington

2009/10 (Guiver, 2010)

- 19 November 2009 significant flooding event
- Damage to 4 of the 5 river crossing points (including both road bridges)
- 18 mile detour to nearest road crossing
- New road bridge opened in April 2010



Case Study 1 – Workington

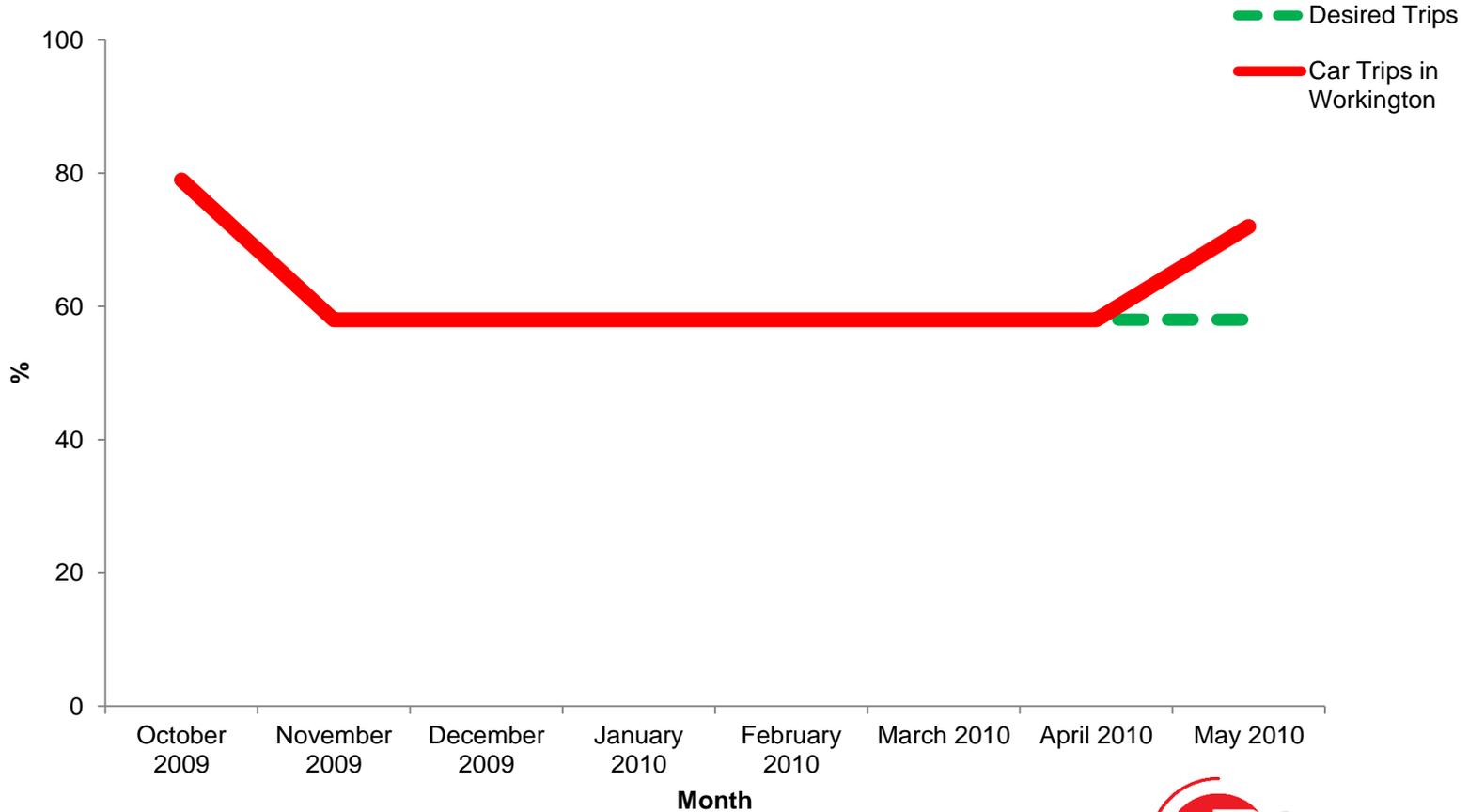
2009/10 (Guiver, 2010)



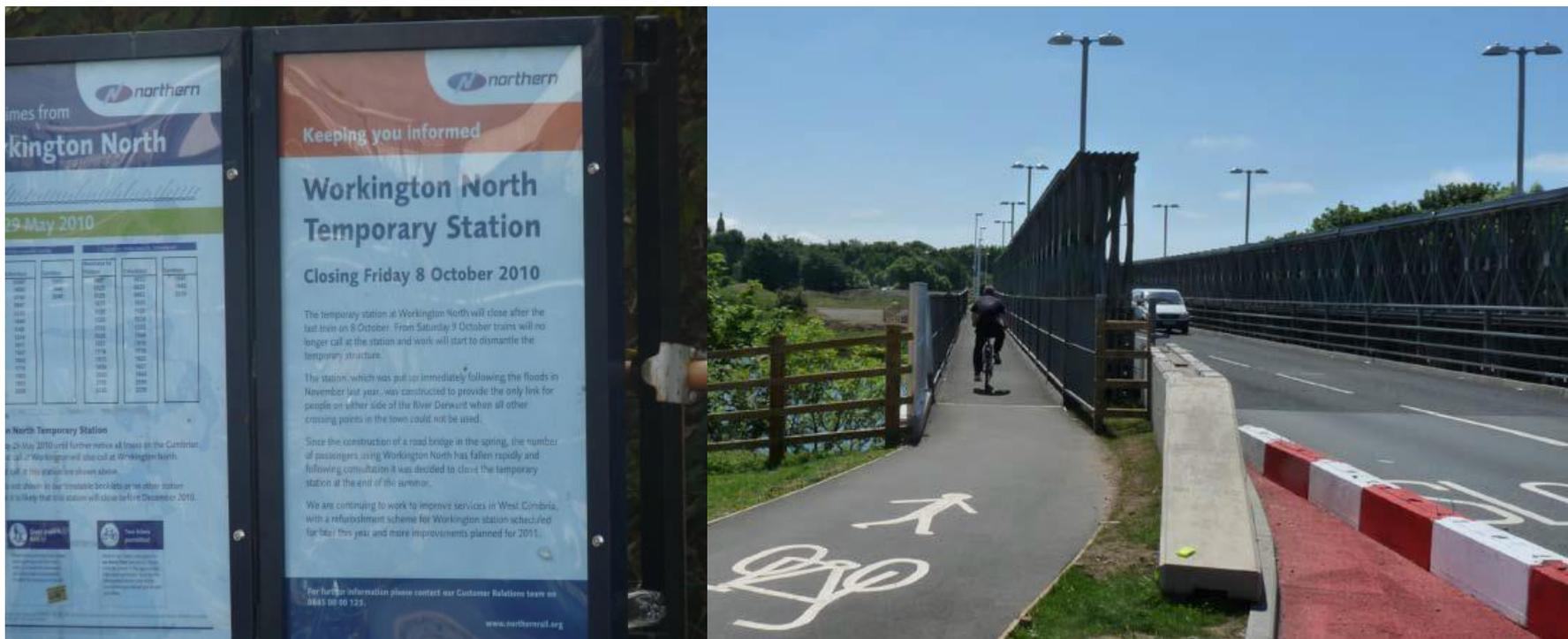
- Free of charge temporary railway station (10 days after event)
- New footbridge installed by Army (December 2009)
- Temporary changes to the way people travelled

Case Study 1 – Workington

2009/10 (Guiver, 2010)



Case Study 1 – Workington 2009/10 (Guiver, 2010)

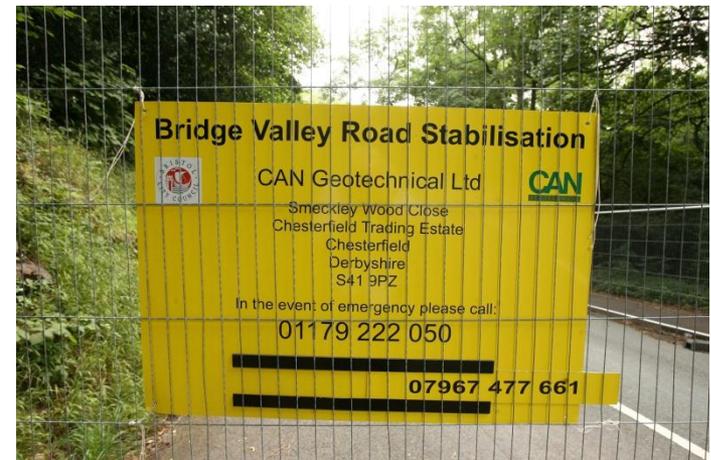


Transport Network Returned to Pre-event
Conditions

Case Study 2 – Bristol 2010/11

Case Study 2 – Bristol 2010/11

- Closure of commuter route to Clifton, Bristol
- £2.7m scheme to secure land to protect road below
- Closed March 2010 – reopened Sept 2011
- Changes to traffic movements in Bristol



AADF

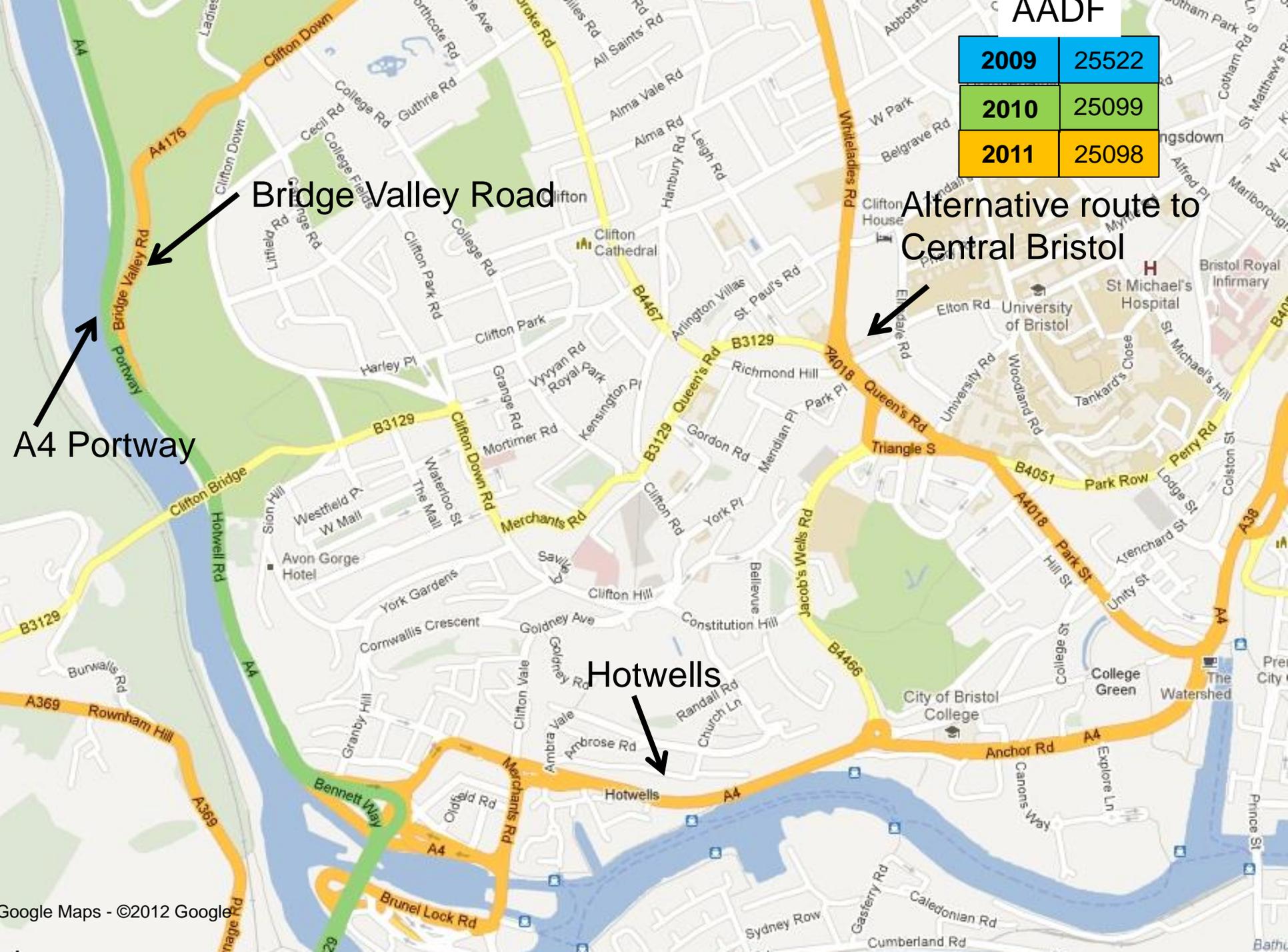
| | |
|------|-------|
| 2009 | 25522 |
| 2010 | 25099 |
| 2011 | 25098 |

Bridge Valley Road

Alternative route to Central Bristol

A4 Portway

Hotwells



Case Study 2 – Bristol 2010/11

“Every morning it is a nightmare getting down through Hotwells.”

Philip Lansdown, Founder of Hargreaves Lansdown Financial Services Providers (and Clifton Resident)

“The council is gently warning motorists who have been enjoying the delights of a free flowing Portway that the party is - sadly – over.”

Councillor Tim Kent, Executive Member for Transport, Bristol City Council

(Bristol Evening Post, 2011)

Missing Links

- Need to understand what is actually happening when a disruption occurs
- Identify what changes are taking place and why
- Identify if traffic is disappearing and record this
- Update traffic models and modelling assumptions to reflect these changes

Points for Action

From: *Cairns et al. (2002)*

- Get schemes right at the beginning
- Monitor all issues of controversy and meet critics with facts as soon as possible
- so that critics can be met with facts and ensure
- Use the press and the public consultation work to emphasise that there are likely to be initial problems.
- Implement controversial schemes in stages.

Challenges with this Approach



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31 October 2012 Last updated at 21:56

Bath loses fight to ban lorries from Cleveland Bridge

A proposed ban on heavy lorries using the Grade II-listed Cleveland Bridge in Bath has been overturned by the Department for Transport (DfT).

Bath and North East Somerset Council wanted the A36 taken out of the national road network so it could impose an 18-tonne weight limit.

Councillors in Wiltshire and Somerset and the Highways Agency appealed saying traffic would move onto local roads.

The DfT upheld the appeal saying an alternative scheme had to be found.

Related Stories

- [Bridge weight limit challenged](#)
- [Bath lorry ban could impact town](#)
- [Council bid for A36 weight limit](#)

Summary

- Disruption offers the opportunity to change
- This is not a new approach, but we fail to look for the benefits such as disappearing traffic volumes
- Society will adapt to changes caused by disruption, either planned or unplanned.
- Local authorities face pressure to return network to pre-event conditions
- The most important pressure is to successfully manage expectations to enable the reduction in traffic to take affect.

The End

More information available at

<http://www.disruptionproject.net/>

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Dr Tim Chatterton and Prof Graham Parkhurst and the wider project team

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