

The Zero Commute Option

Planning for and supporting home-based and flexible working







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Flexibility – the online journal of flexible working

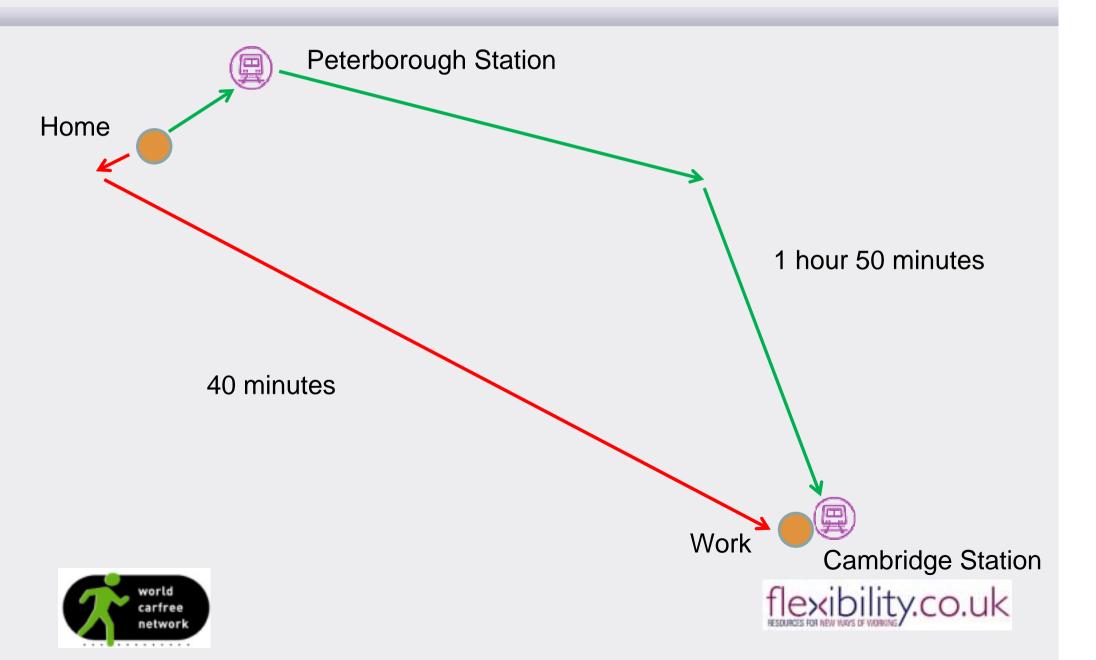
Founded 1993

- Shares knowledge on flexible/smart work...
- Through publishing, conferences, in-house seminars, policy advice
- Researches impacts of new ways of working
- Smart Work Network: www.smart-work.net





Prologue – What is the question ... ?



In this session

- Introduction
- Findings on home-based and flexible work
- Live/work space
- Workhubs
- Changes in the world of work
- Home-based work changes activity spaces
- Home-based working and carbon
- What are the barriers?
- Public policy
- What should all we be doing?







A model for us all ...?



 Meeting space incorporated at the No 10 hub

Home working wellestablished at the top



 Famous home-based workers: David Cameron, the Windsors, the Pope, Barack Obama, Al Gore, JK Rowling, Bill Gates ...





Why is home-based working 'sustainable'?

- Conserves resources through use of 1 premise for home and work, not 2
- Reduces the need to travel
- Supports localisation of economic activity
- High use of ICT to replace travel and reduce resource consumption
- Provides local job opportunities
- Overcomes exclusion
- Regeneration impacts e.g. reuse of rural buildings, urban brownfield sites
- Supports "downshifting enterprise" and phased retirement



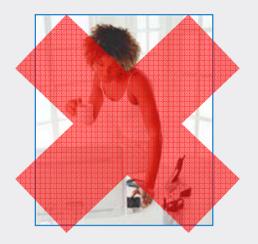






If homeworking were banned tomorrow ...

- 13% of workforce regularly working from home now have to travel to offices ...
- > 6 billion extra car miles travelled per year
- c.35 million m² extra office/workshop floorspace needed
- Incalculable loss to community vitality
- Impact on people with mobility disadvantages
- Impact on families
- ... impact on economic activity and employment







Growth of home-based working

- 12.8% of workforce 3.7 million people – work mainly from home (LFS, 2009)
- 41% of businesses based at home (DTI, 2005)
- 2/3 of homeworkers are self-employed
- Between 2001 and 2009, the number of home-based businesses (self-employed working mainly from home) rose by 22% (2.3 million people in 2009)
- c.6% of employees work mainly from home
- > 20% of employees work from home for part of the week









Factors behind growth

- Choice
 - Work-life balance
 - Greater autonomy
- Technology we do because we can
- Business efficiency
- Changes in the nature of work
- New legislation
- Dislike of commuting
- Environmental awareness
- Coming soon generational impacts
- Coming soon more technology





But we are planning as if nothing has changed?



Live/Work space

 Premises specifically designed as both residential and workspace









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Live/work developments





Creative Live/Work









Rural Live/Work







Live/Work and regeneration





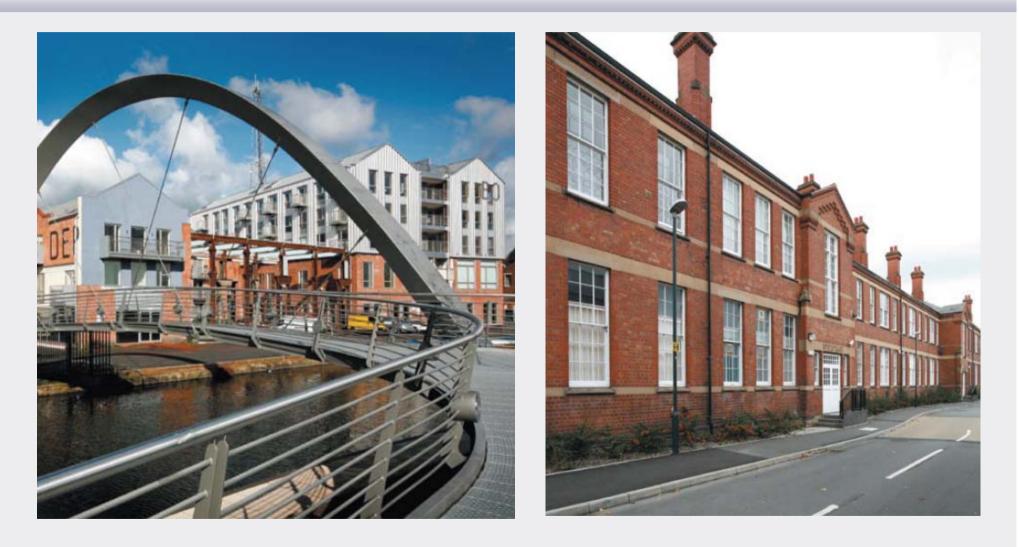








Electric Wharf and Broadheath in Coventry







Live/Work in the USA





- Main market sectors:
 - Family Live/Work houses
 - Live/Work lofts
 - Artist and creative clusters
- Often included in masterplanning
- Tend to be on larger scale
- More individual local approaches
- No grant funding



Live/Work in the USA







Workhubs

- Third-party-provided collaboration and touch-down space
- 'Office-as-needed' for users/members
- Turns office from fixed to variable cost
- Can stimulate uptake of home-based working
- Collaboration centres for home-based businesses
- Shared equipment and facilities reduces costs





Workhub – York Hub







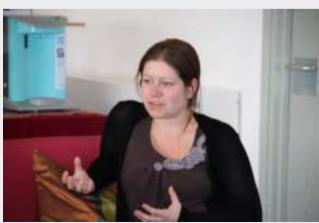




Workhub – Bristol Hub













Workhub – The Werks, Hove









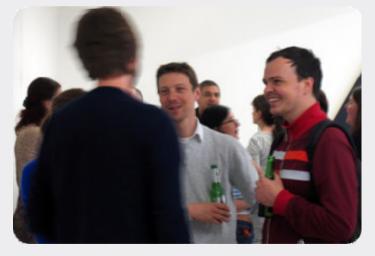




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Workhub – The Old Glove Factory, Holt







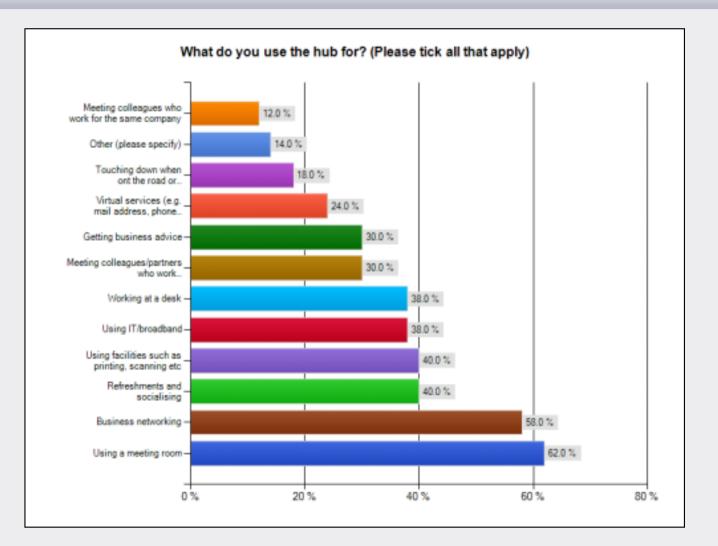






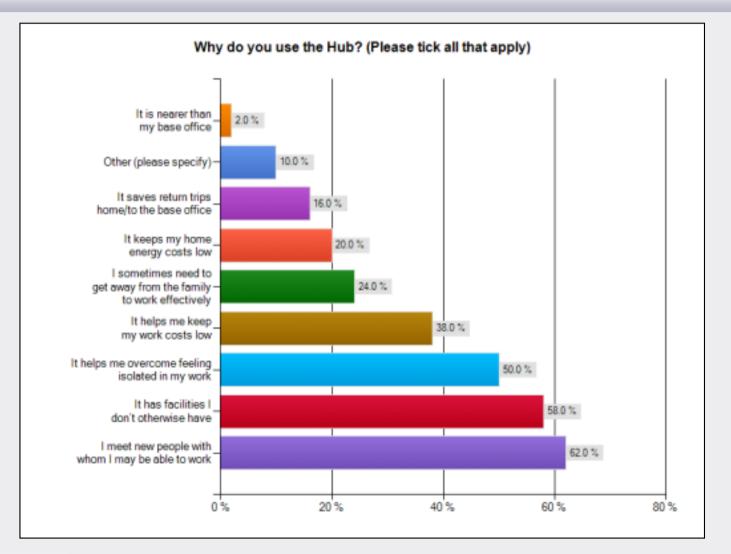
Regus















Thought for the day

"Organised crime in America turns over \$40 billion a year, and spends very little on office supplies"

– Woody Allen





The changing world of work

- 3/5 of all new jobs are 'atypical'
- >70% of companies offer flexible working
 - Flexible time
 - Flexible location
 - Flexible contract
- Desk-sharing and flexible working environments

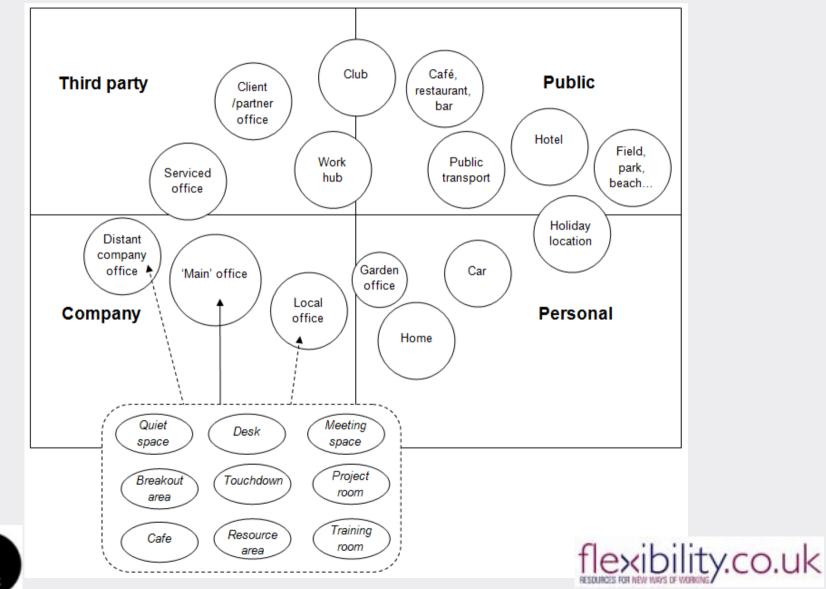






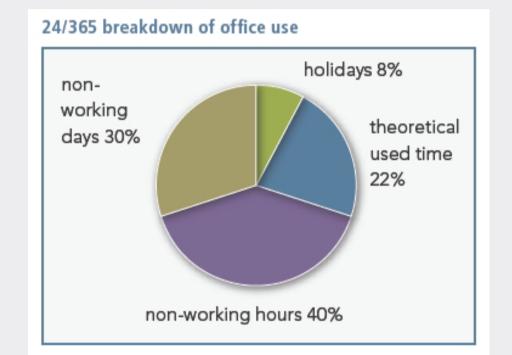


The changing location of work



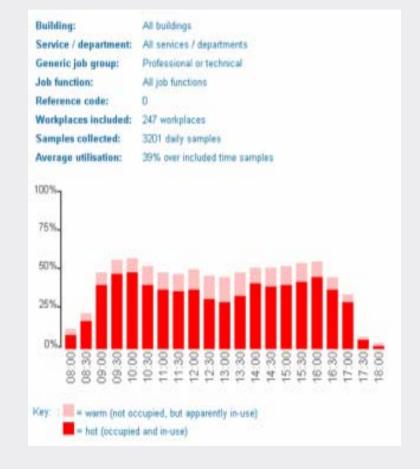


Underused offices – building in waste



- Economies of scale more apparent than real in traditional workplace
- Carbon costs of additional build







UK government – working beyond walls?

public (open access)

.





Figure 9.2: hub and spoke office model for distributed working



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New times & location of work - implications

- All temporal and locational changes of working practices have:
 - spatial implications
 - implications for travel
 - carbon implications
 - implications for public policy
 - implications for all employers especially public sector

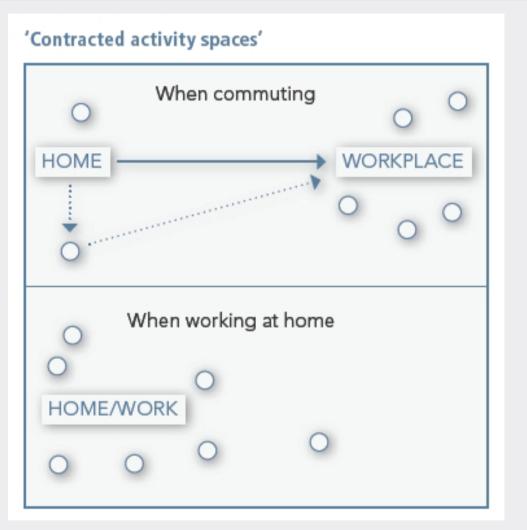


The question is: how do we maximise the benefits?





Doing stuff closer to home









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Reducing commuting

Average savings from avoiding commuting

	Average em- ployed home worker (1.5 days per week)	Full-time home worker (5 days per week)
Distance saved per year*	1175 miles	3915 miles
CO ₂ saved per year	364.5 kg	1187 kg
Time saved per year	61 hours	202.5 hours

* calculated on basis of 45 working weeks per year

- Research evidence of reduced commuting
 - www.virtualmobility.com (DfT)
 - www.sustel.org
 - Smarter choices (DfT)
 - Can Homeworking Save the Planet? www.flexibility.co.uk/ savetheplanet

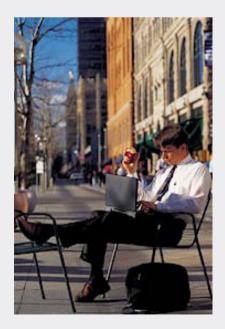




Research evidence of reduced commuting

- BT– 93 miles reduction per week for car users, 143 miles per week for rail users
- California Neighborhood Telecenters Project: 17% reduction in vehicle miles per week
- A study in Munich showed telecommuters cut their total trips by 19%, their work trips by 43%
- AA virtual call centres: 3680 miles per year saved per employee









Research evidence of reduced commuting

- Swedish survey: 64% of videoconferencing users experienced substitution of own business travel (45%) or travel for someone else (19%)
- Tetra Pak: 10% reduction of travel costs
- BT: teleconferencing replaces 50 million road miles per year. This is 11.1% of business mileage and a saving to the company of £6m

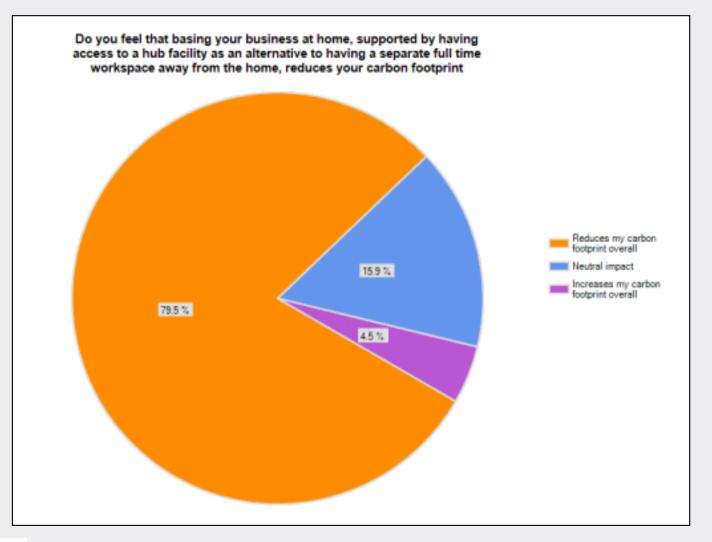








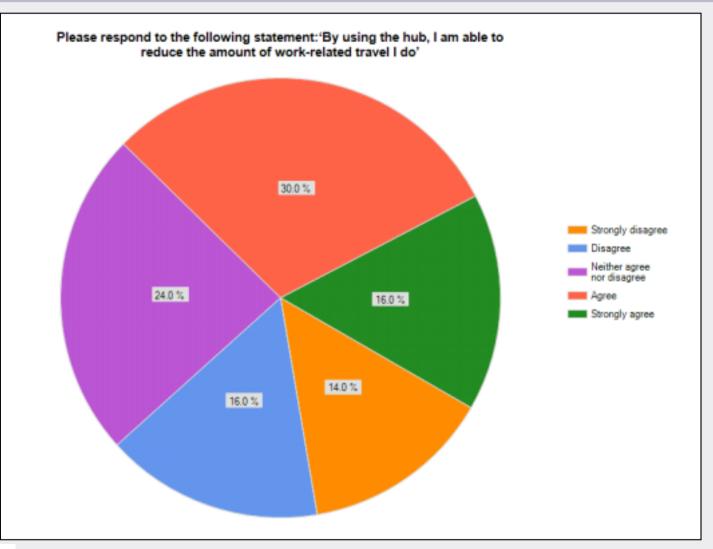
Home-based hub users and carbon...







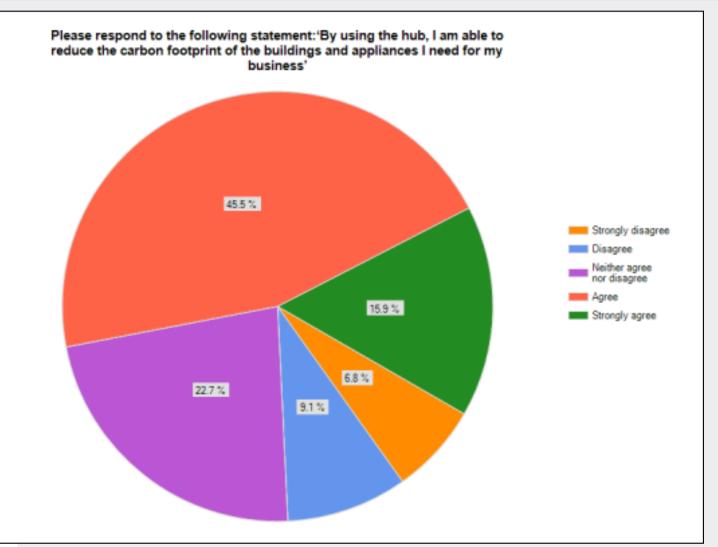
Home-based hub users and travel...







Home-based hub users & office-related carbon







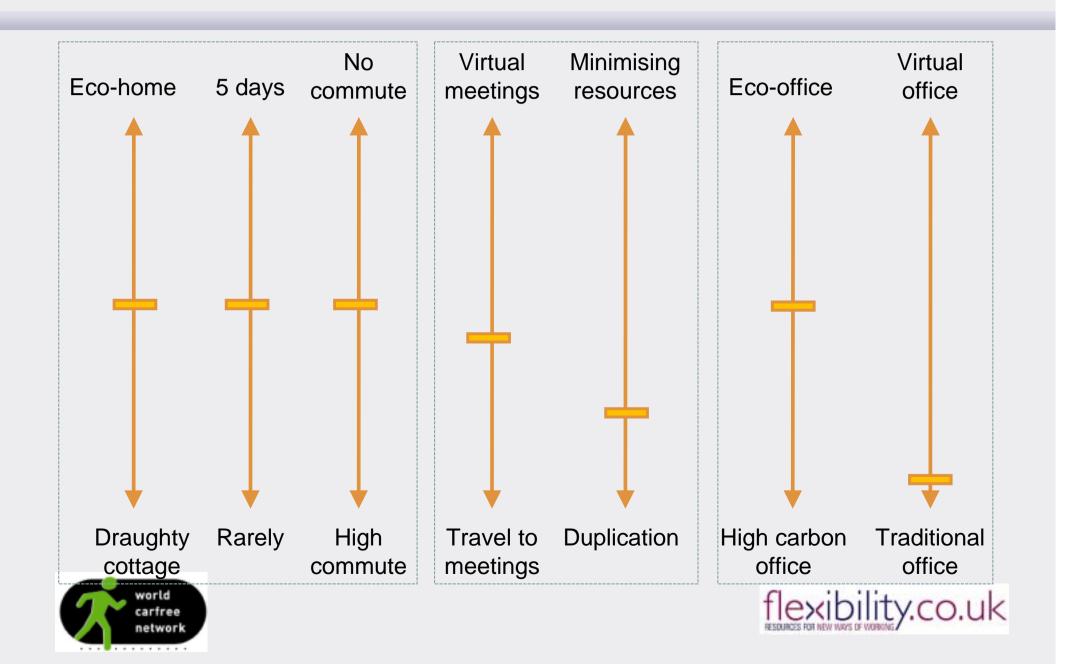
Home-working and carbon

Building type	(kwh/m²)	CO2/m²	@10m² per person	@14m² per person	
Office - naturally ventilated, cellular (2003 average)	205	103	1030	1447	
Office - naturally ventilated, open plan (2003 average)	236	119	1190	1665	
Office - air conditioned, standard (2005 average)	404	203	2030	2850	
Office - air conditioned, prestige (2005 average)	568	286	2860	4004	
Dwelling (UK 2005 average, all stock)	261-368	132-186	1320-1860	1841-2597	
Dwelling (built to 1998 Building Regs)	128-216	65-109	650-1524	903-1524	
Dwelling (built to 2005 Building Regs)	75-124	38-63	380-630	532-875	
	Source: James, 2009, adapted				

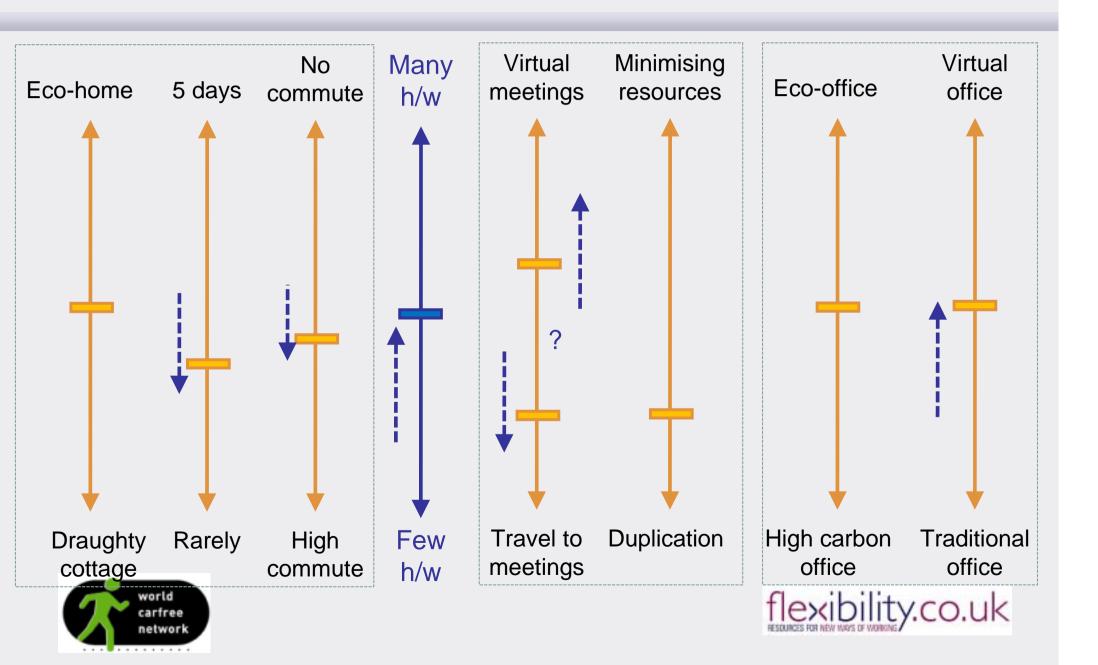




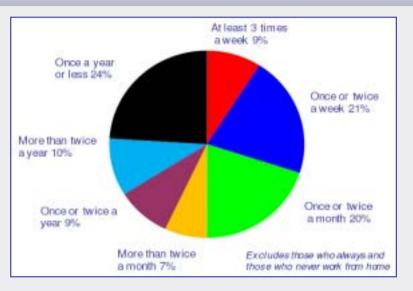
A carbon balance sheet?

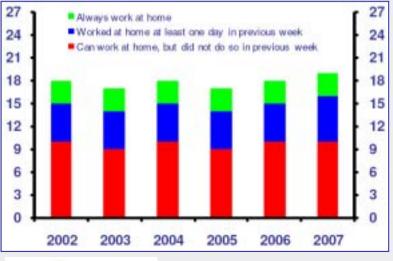


The carbon impact of workhubs



Unshackling the workforce





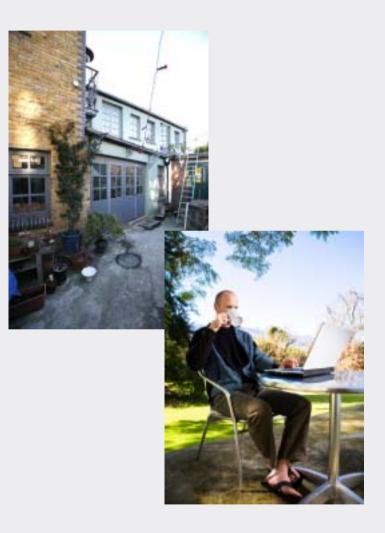


- Why do occasional homeworkers not work from home more?
- Would having a local workhub increase the possibility of their working at home?
- What would be the impact on their base office of increased remote working?
- What would be the overall carbon impact?



Smart working in the eco-mix

- Eco-homes, eco-offices, eco-towns: not enough focus on changing the way we work
- Live/work, homeworking and smart working integral to reducing carbon impacts of economic activity
- 'Total Live/work' with hub facilities and 'Smart flexibility' needed, not halfmeasures and token gestures







Public policy

Land use policies

- More integration of home and work
- Rethinking land allocations
- Planning for 'spaceless growth'
- Transport policies
- Reduce/eliminate mobility, as well as manage it
- Enterprise policy
- Promoting and supporting home-based enterprise
- Rethinking inward investment assumptions
 <u>Housing policy</u>
- Space standards / flexible layouts and uses
- Smart density



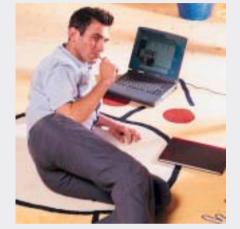


The usual policy approach to homeworking



Manifesto for a home-focused world!

- The current emphasis on public transport in transport policy misses the point, as shifting the workforce around by alternative high-carbon modes is not sustainable
- Transport policy should work with workplace trends and promote 'virtual mobility', homeworking and localised working



- The home should be seen as a key centre for productive activity, and planning policies should support the integration of home and work activities
- We need to rethink current approaches to 'sustainable communities'
- We need new approaches to urban density, approaches that 'design in' rather than 'design out' the ability to work, study, care for others and produce our own food at home





Low carbon opportunities

- How can home-based working and other forms of smart working be integrated into your regional and local policies? (Should it be?)
- To what extent should home-based working be encouraged to support policies for sustainability?
- In your city, what is being done?
- In your city, what could be done?









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