

# **The Zero Commute Option**

# Planning for and supporting home-based and flexible working







# **About Flexibility.co.uk**



#### www.flexibility.co.uk

Flexibility – the online journal of flexible working

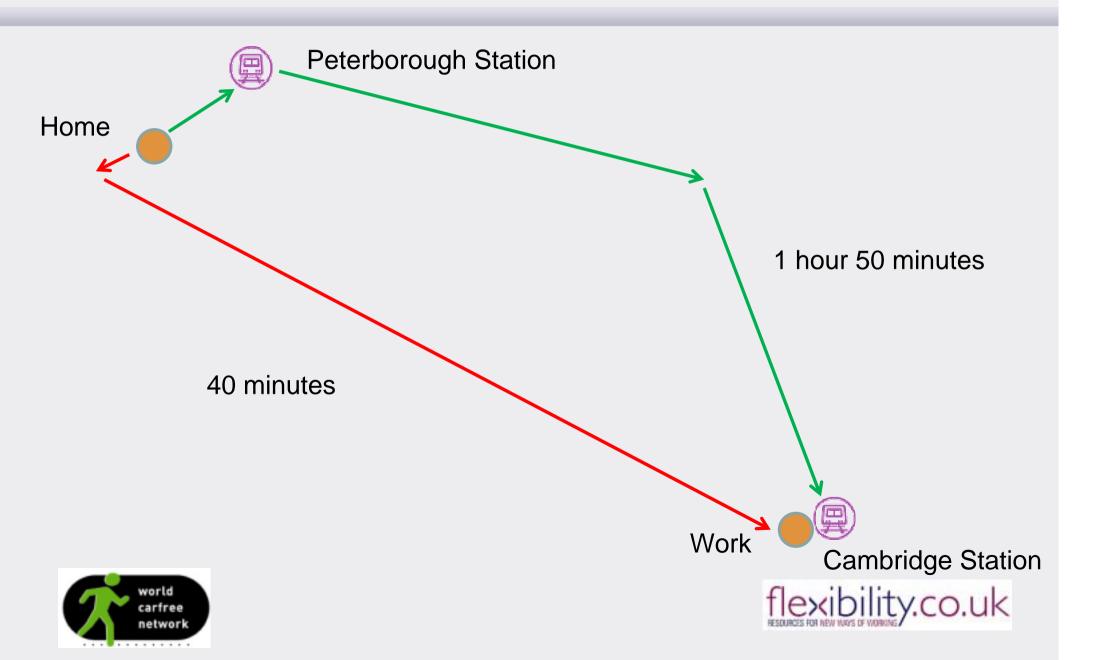
Founded 1993

- 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 m<sup>2</sup> 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



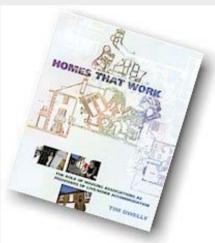


But we are planning as if nothing has changed?



### 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





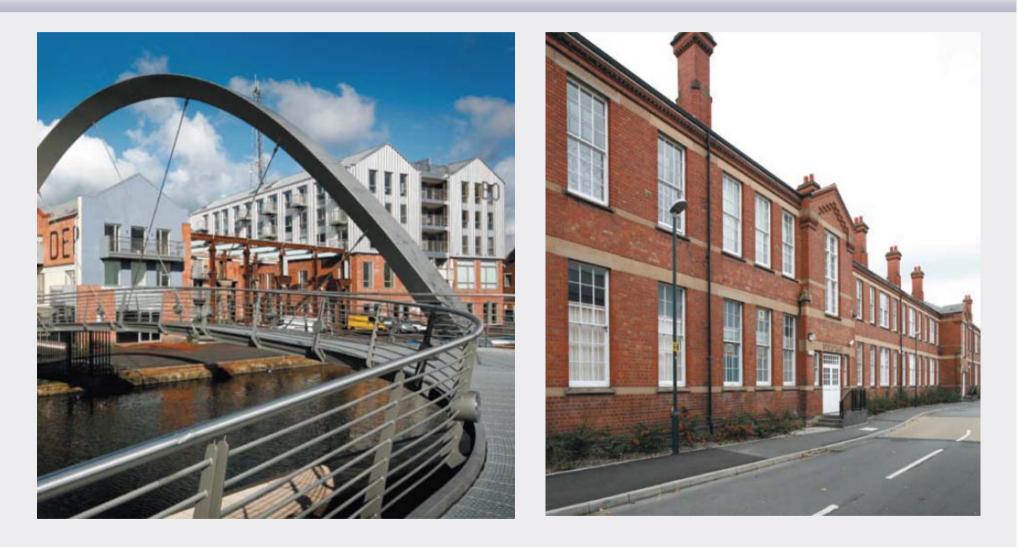








#### **Electric Wharf and Broadheath in Coventry**







# 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







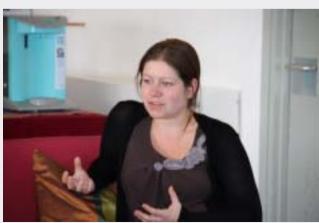




#### Workhub – Bristol Hub













#### Workhub – The Werks, Hove









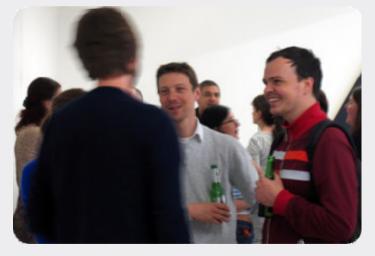




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#### Workhub – The Old Glove Factory, Holt







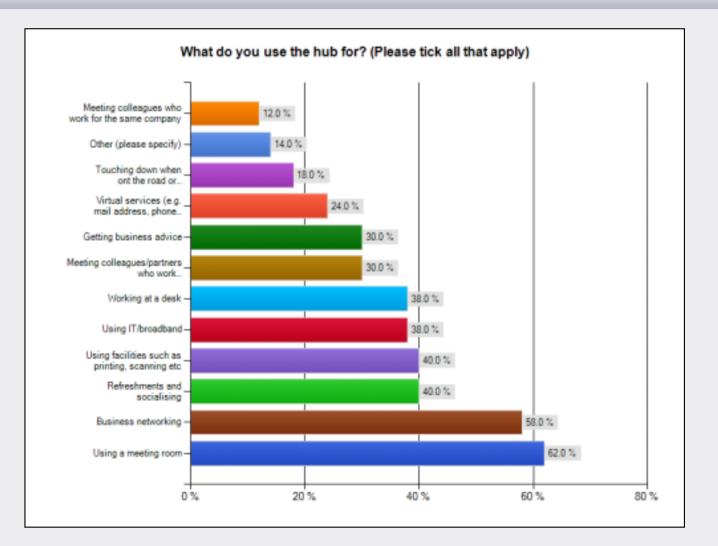






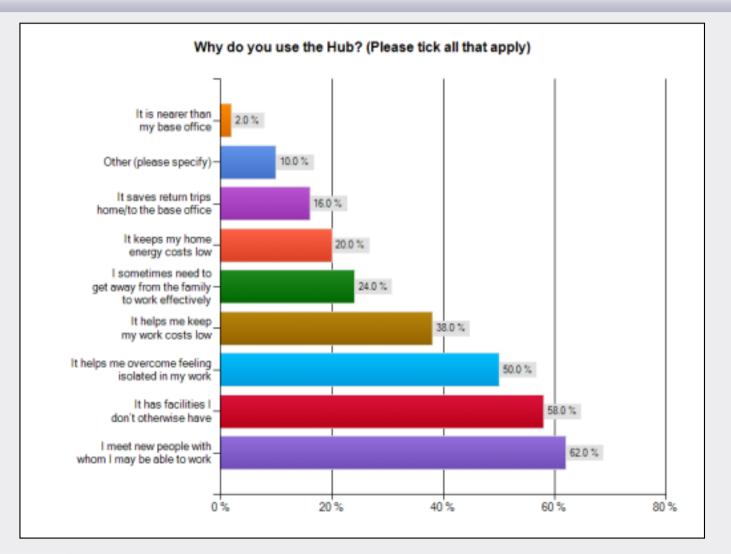
#### Regus















#### **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

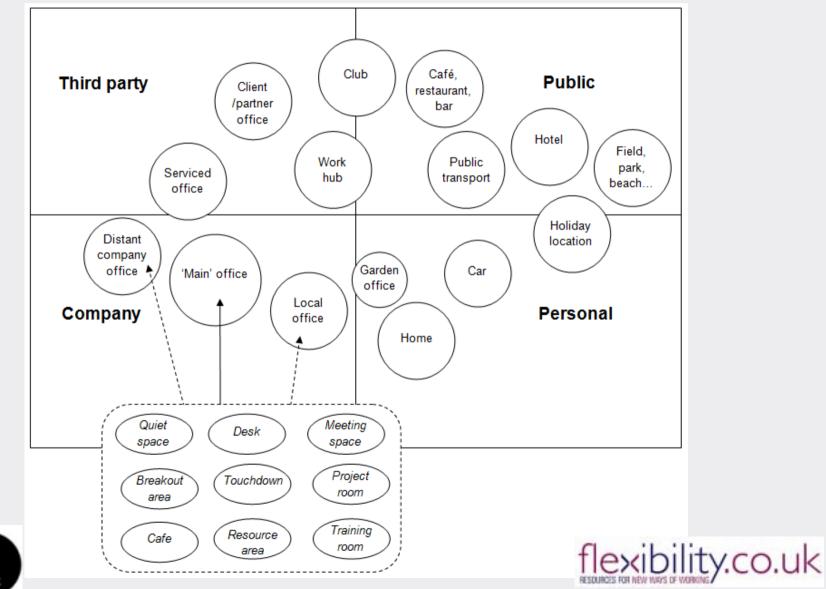






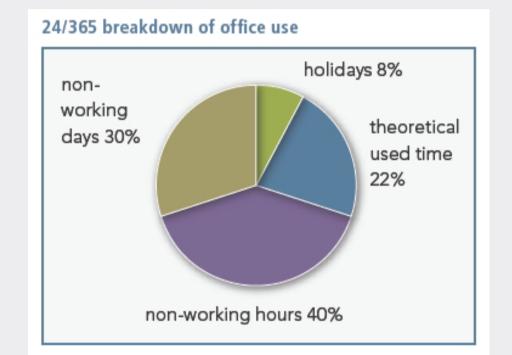


## The changing location of work



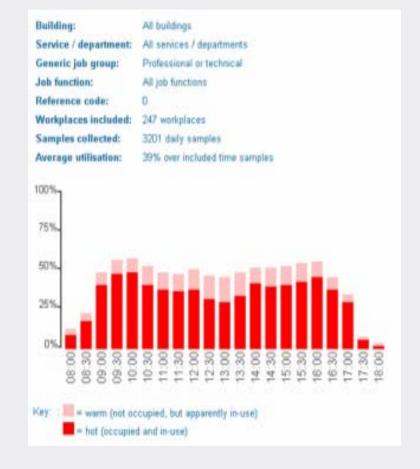


## **Underused offices – building in waste**



- 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

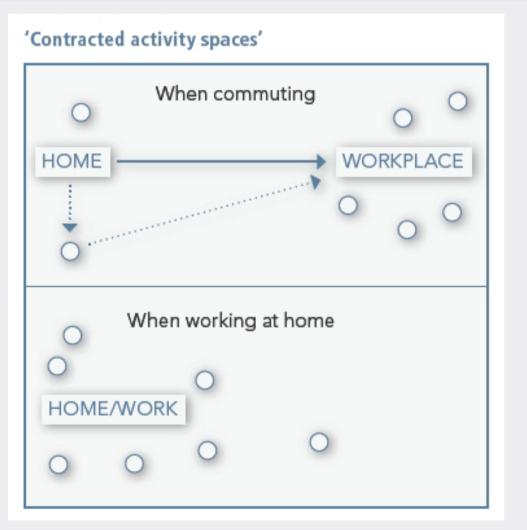


The question is: how do we maximise the benefits?





#### **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 <sub>2</sub> 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

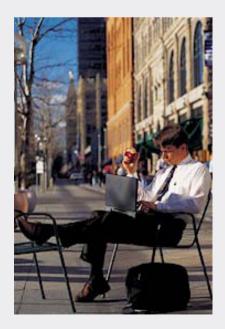




#### **Research evidence of reduced commuting**

- 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

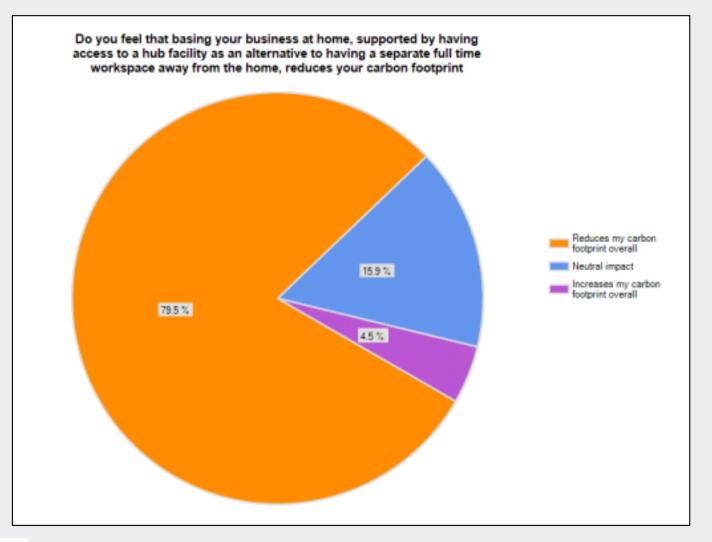








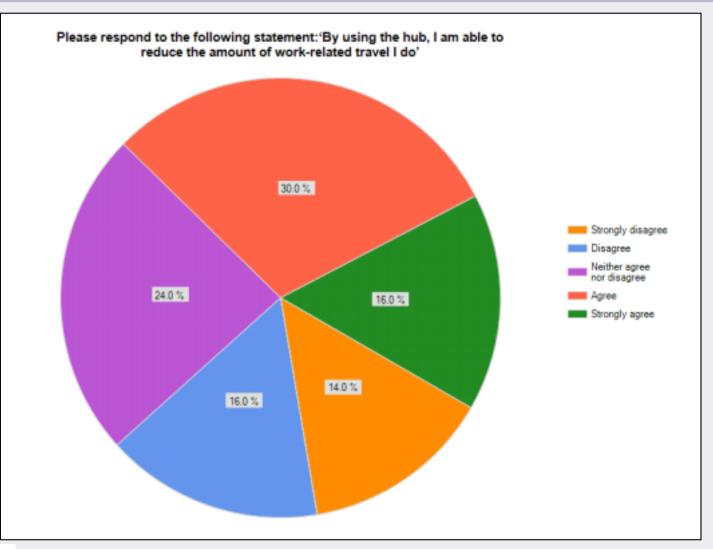
#### Home-based hub users and carbon...







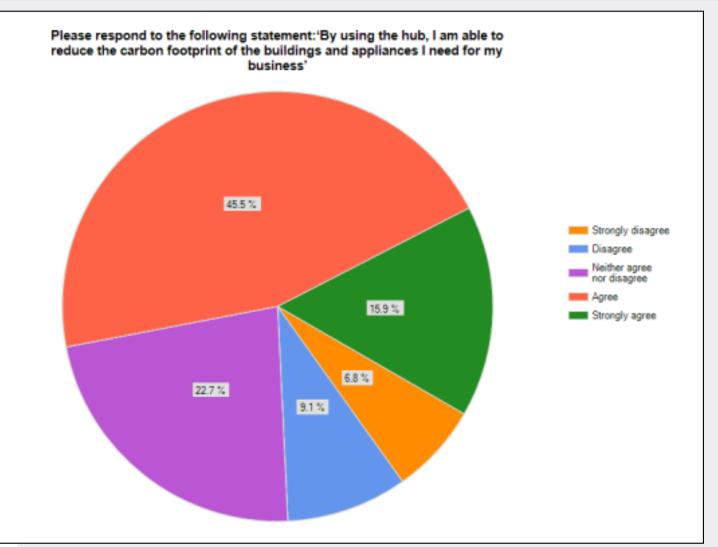
#### Home-based hub users and travel...







#### Home-based hub users & office-related carbon







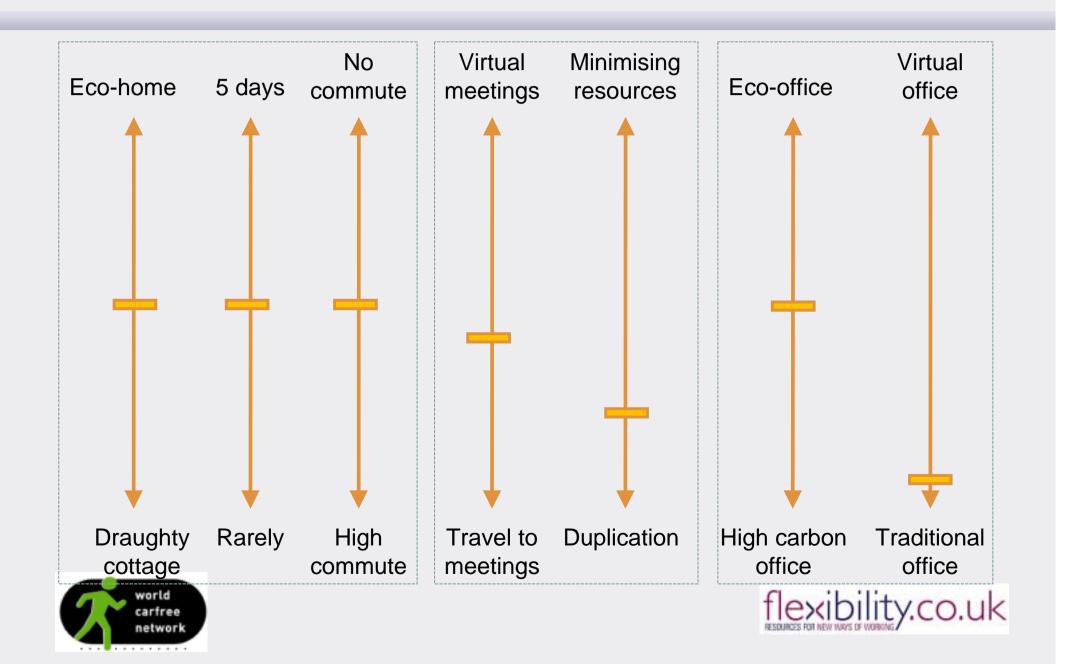
## Home-working and carbon

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				

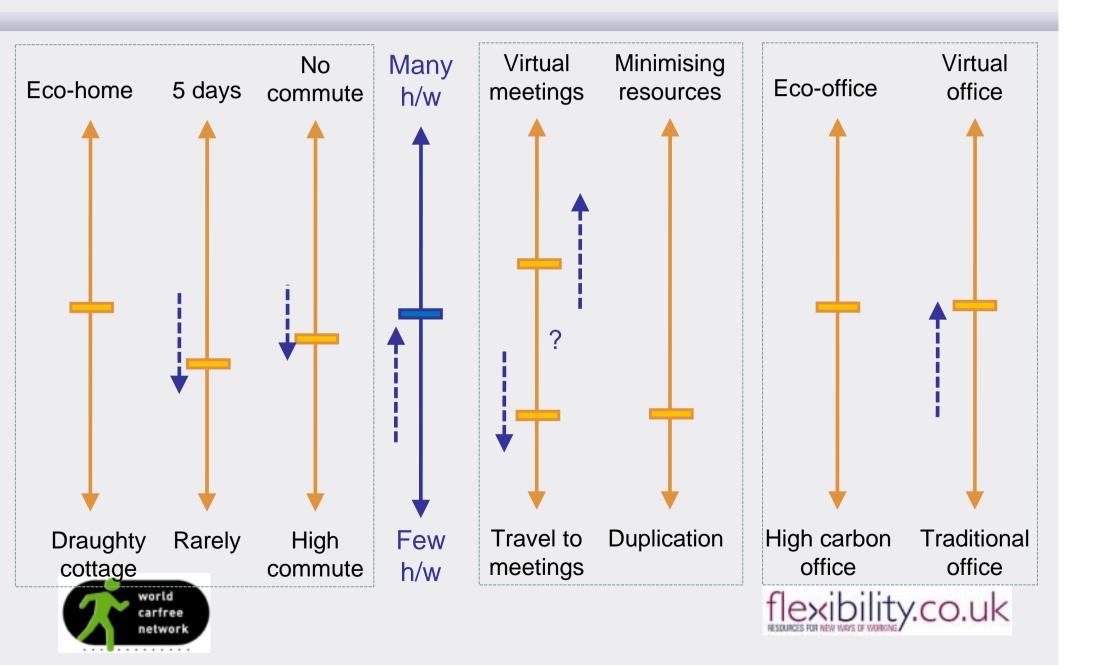




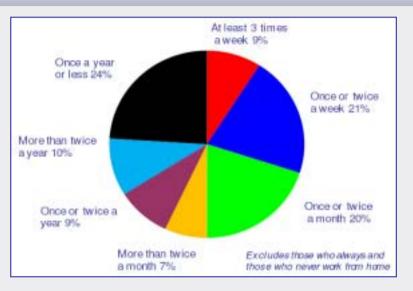
#### A carbon balance sheet?

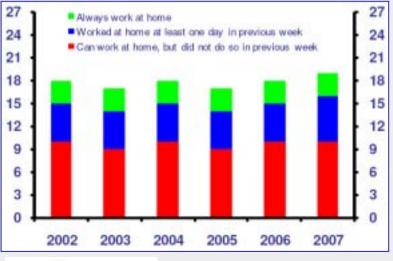


### The carbon impact of workhubs



## **Unshackling the workforce**





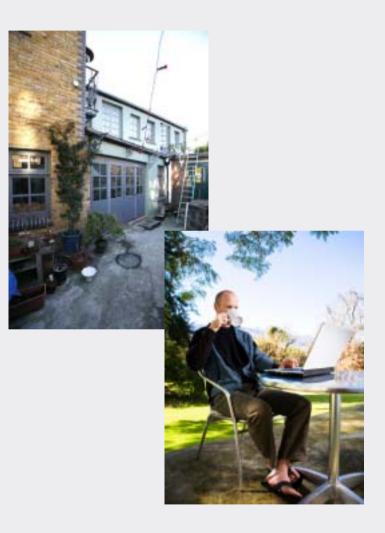


- Why do occasional homeworkers not work from home more?
- Would having a local workhub increase the possibility of their working at home?
- What would be the impact on their base office of increased remote working?
- What would be the overall carbon impact?



#### **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



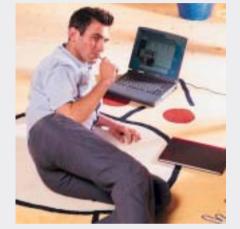


The usual policy approach to homeworking



#### 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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