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The University for business and the professions

Transport policy and information policy

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Foundation for Science and Technology Seminar

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- The data policy dilemma – charged or free?
- Some big questions

The geographical information (GI) revolution

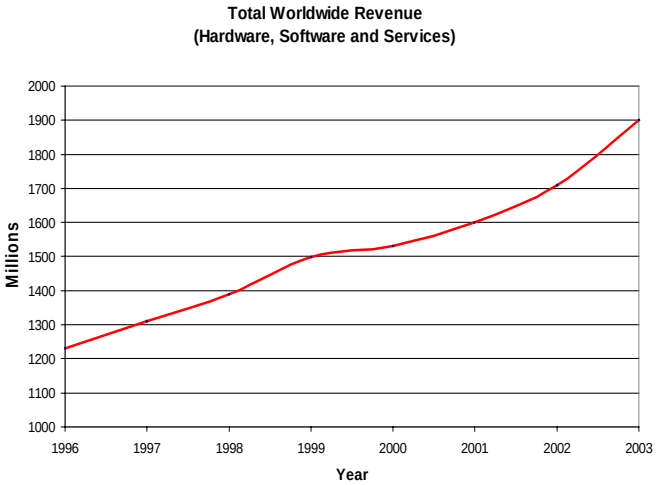
(managing congestion and traffic needs GI, often in real time)

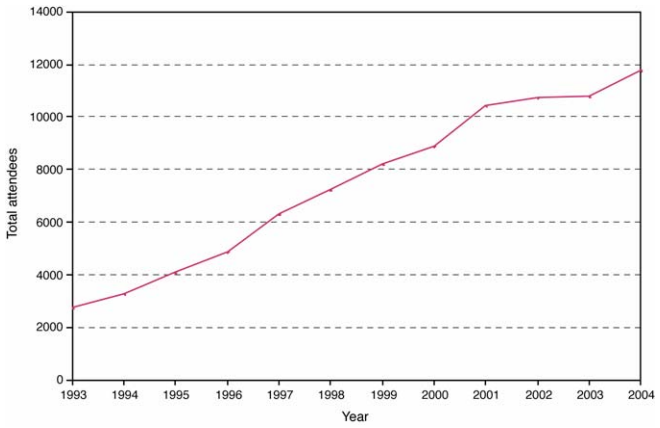
GIS and GI 'business'

- GIS software revenues $1bn+, US dominates; UK 'blew it' in 1980s
- Total global GIS-related expenditure c. $19bn (graph)
- Over 2 million professional users (many more 'incidental' ones), growing 20% per year
- GIS operated in every country
- Underpins many activities of government

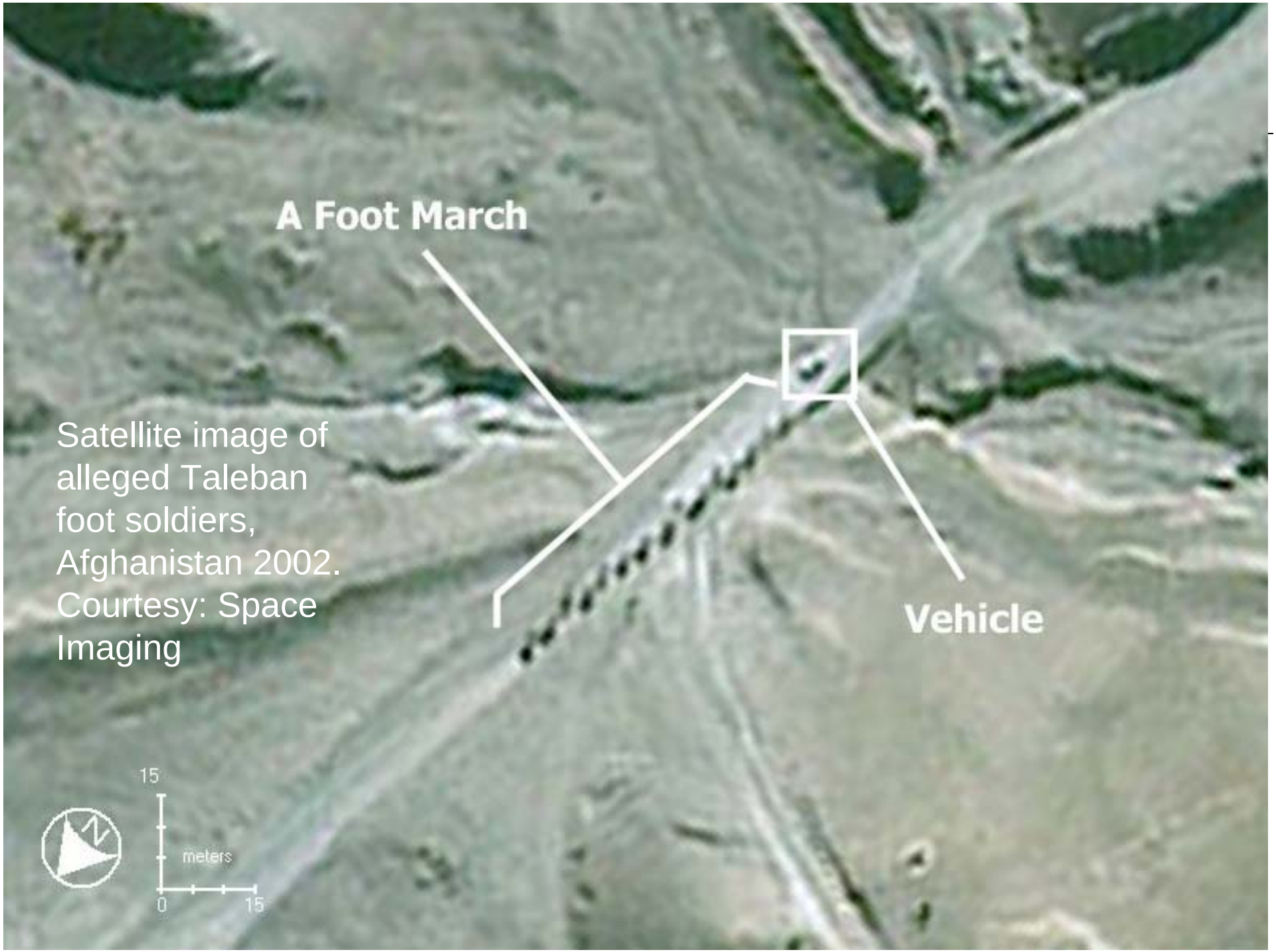
Source of information:

Daratech Inc, ESRI Inc



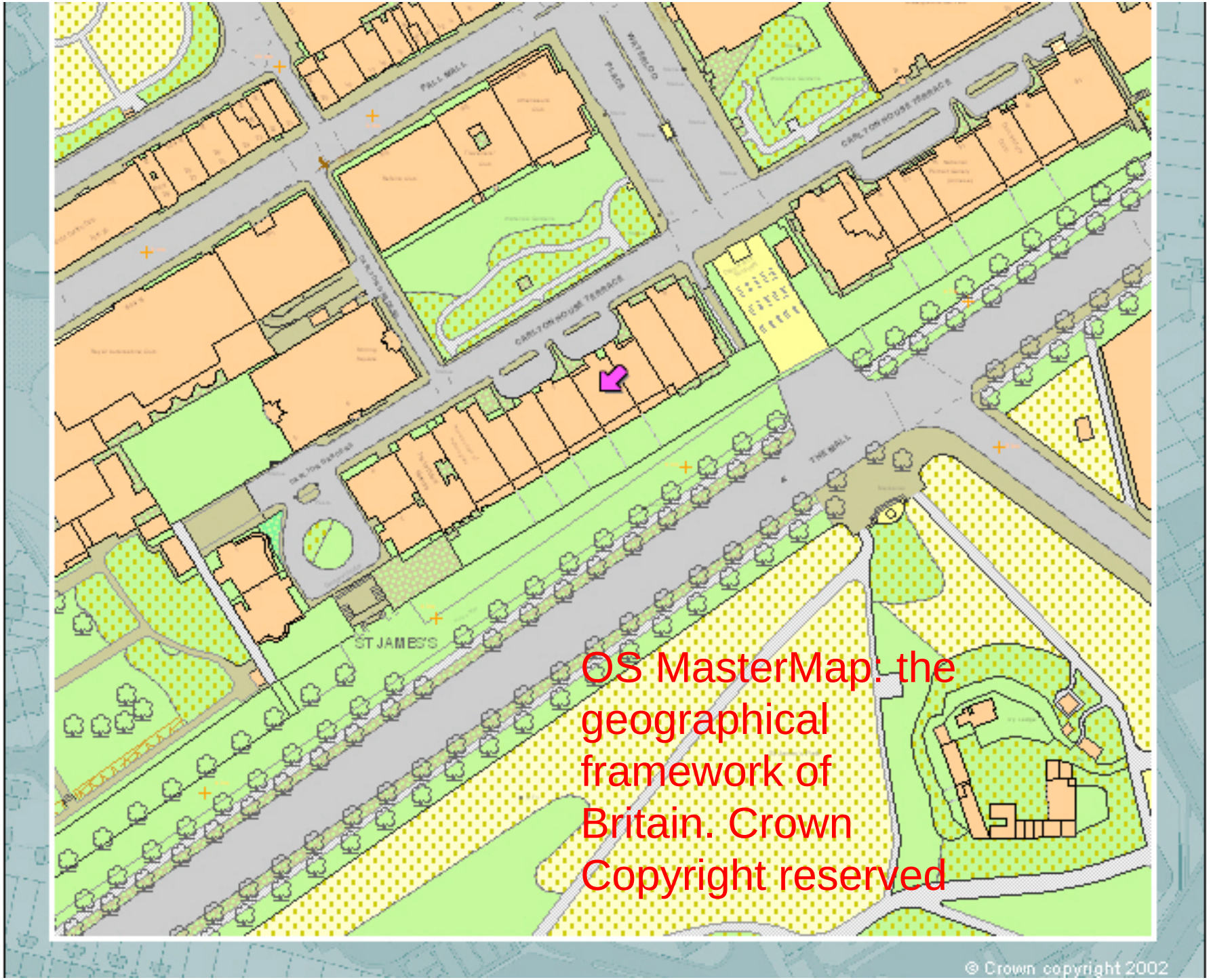


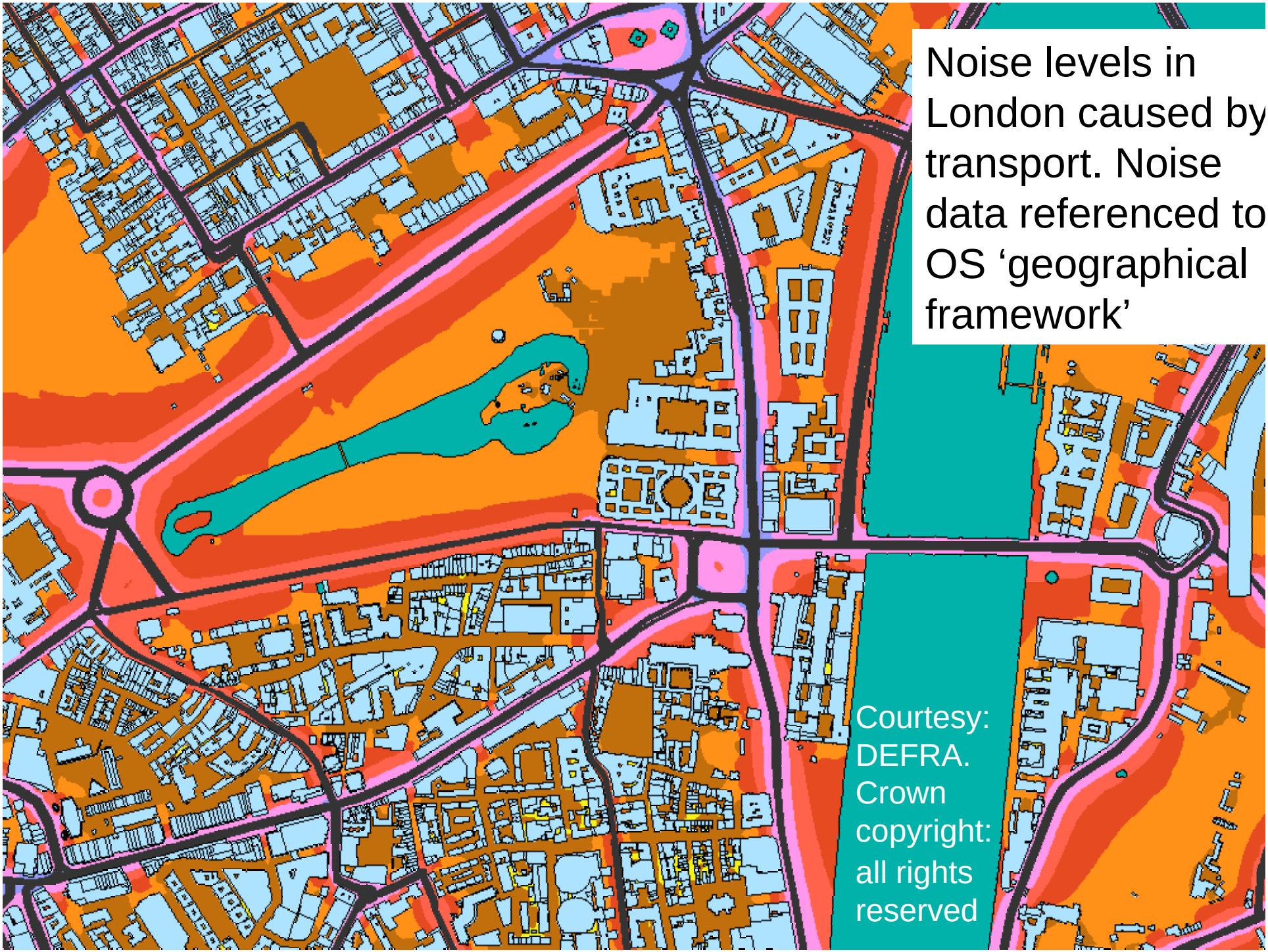
Much more coming e.g. with Galileo



Satellite image of alleged Taleban foot soldiers, Afghanistan 2002. Courtesy: Space Imaging

Banda Aceh, Indonesia. June 2004 (top); 28 December 2005. Courtesy DigitalGlobe


PALL MALL
WATERLOO PLACE
CARLTON HOUSE TERRACE
CARLTON GARDENS
THE MALL
ST JAMES'S
OS MasterMap: the geographical framework of Britain. Crown Copyright reserved
© Crown copyright 2002


Noise levels in London caused by transport. Noise data referenced to OS ‘geographical framework’
Courtesy: DEFRA. Crown copyright: all rights reserved

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Mobile navigation

- This model launched in February 2005
- 68gm GPS receiver, Bluetooth to phone
- Address entry
- Map card covers Britain
- Traffic up-dates £49/yr
- Male/female voice instruction, multi-language

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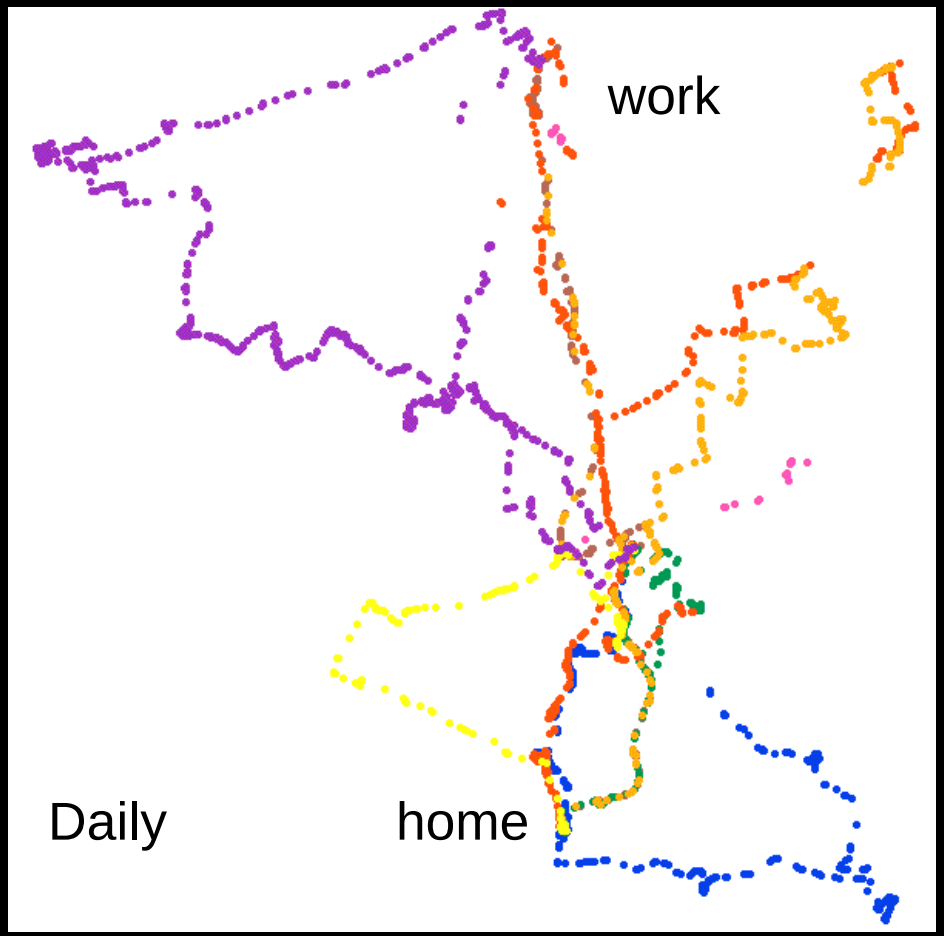
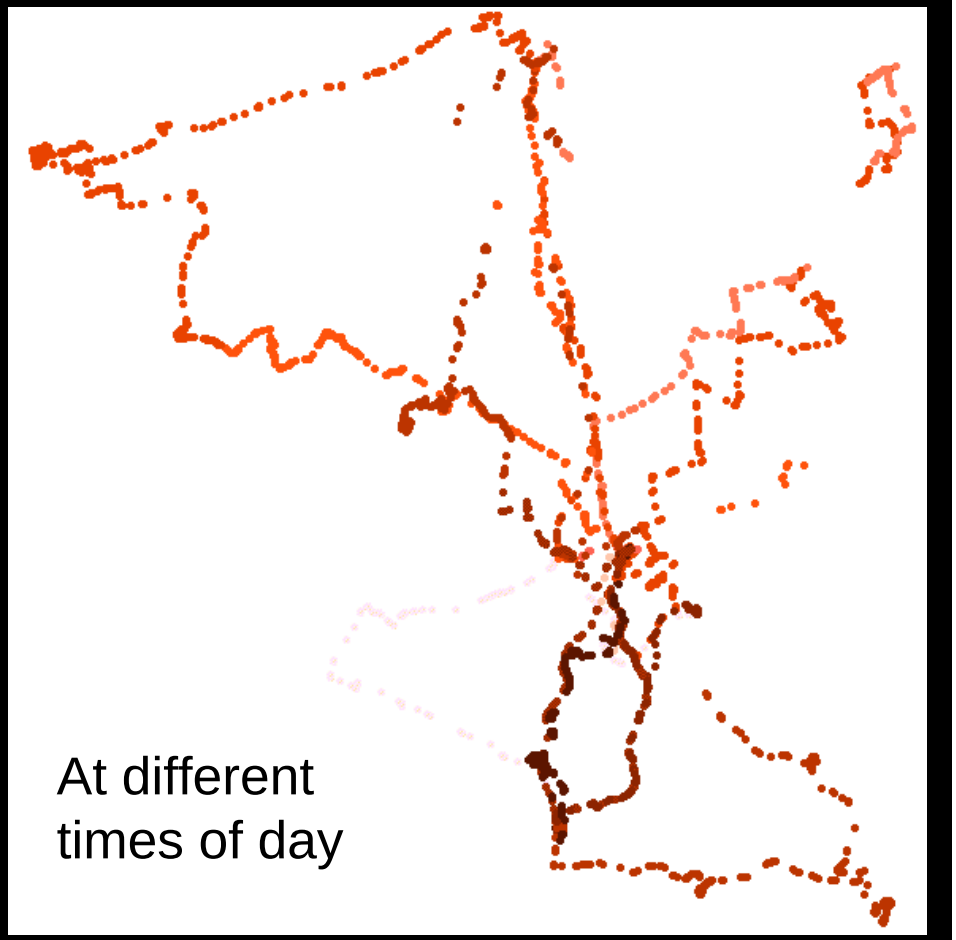
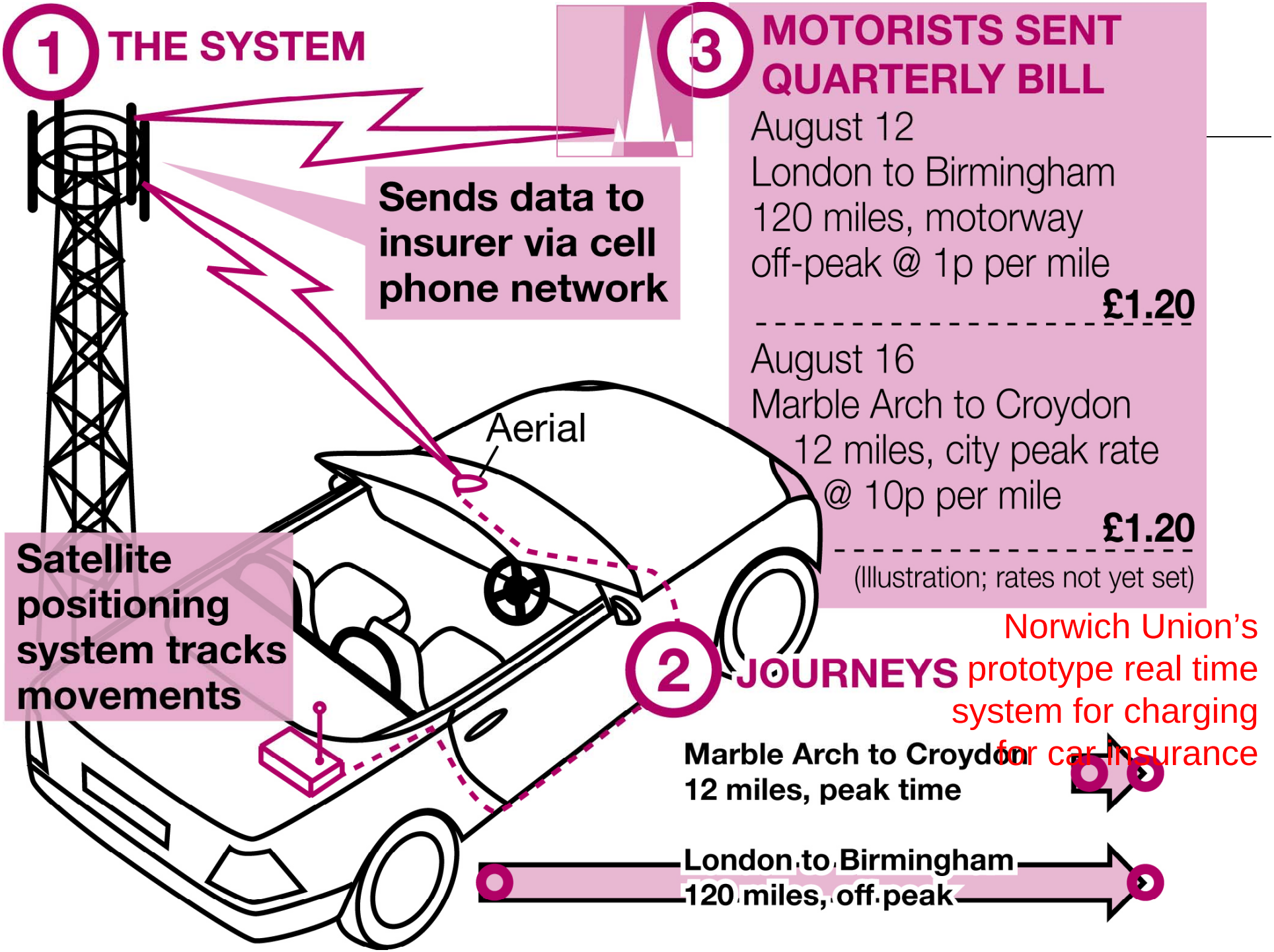
Jonathan Raper's movements across London, tracked by GPS



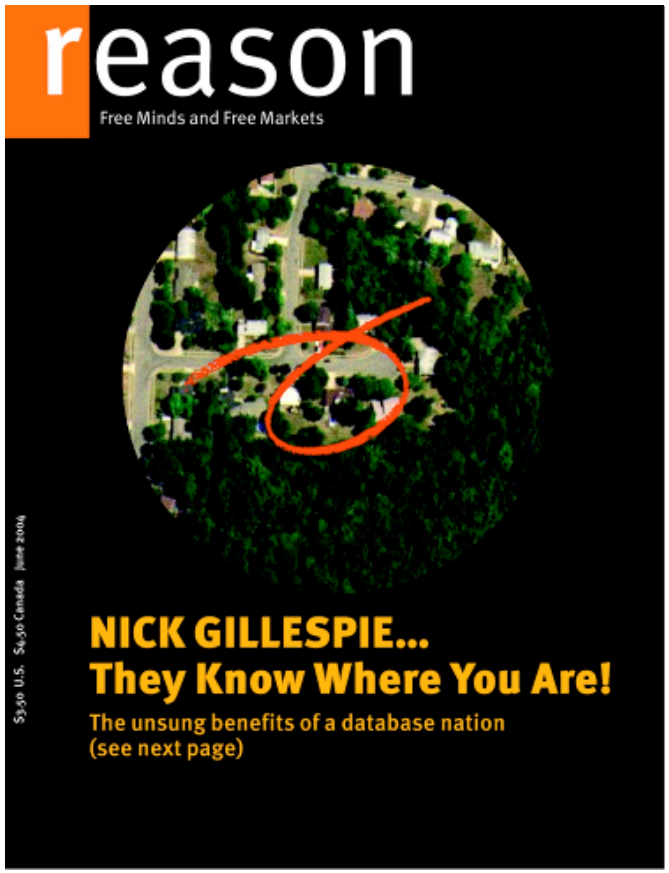


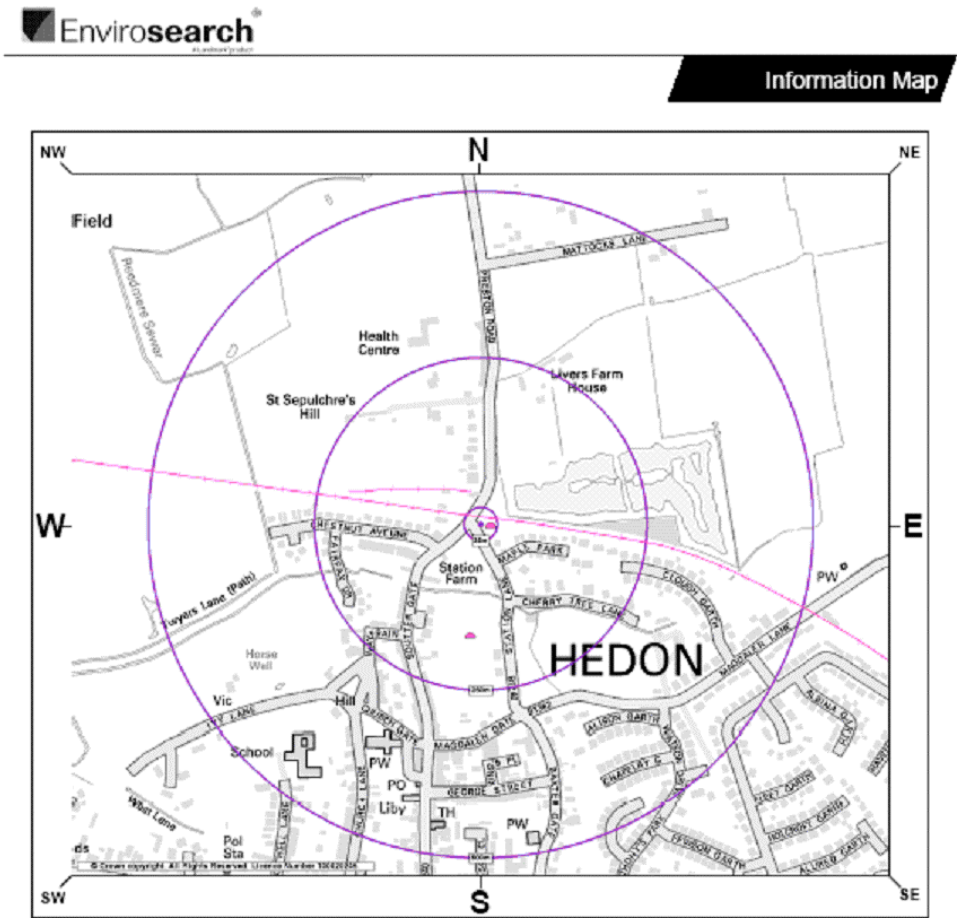
5 minutes maximum travel envelope from London Bridge over 1 month

Courtesy: Dave Mountain.
Crown Copyright: all rights reserved


1 THE SYSTEM
Sends data to insurer via cell phone network
Aerial
Satellite positioning system tracks movements
2 JOURNEYS
Marble Arch to Croydon
12 miles, peak time
London to Birmingham
120 miles, off-peak
3 MOTORISTS SENT QUARTERLY BILL
August 12
London to Birmingham
120 miles, motorway
off-peak @ 1p per mile
£1.20
August 16
Marble Arch to Croydon
12 miles, city peak rate
@ 10p per mile
£1.20
(Illustration; rates not yet set)
Norwich Union's prototype real time system for charging for car insurance

Value adding by linking GI





Something for (almost) nothing

Technology not now the problem: big issues are policy coherence, IPR, etc

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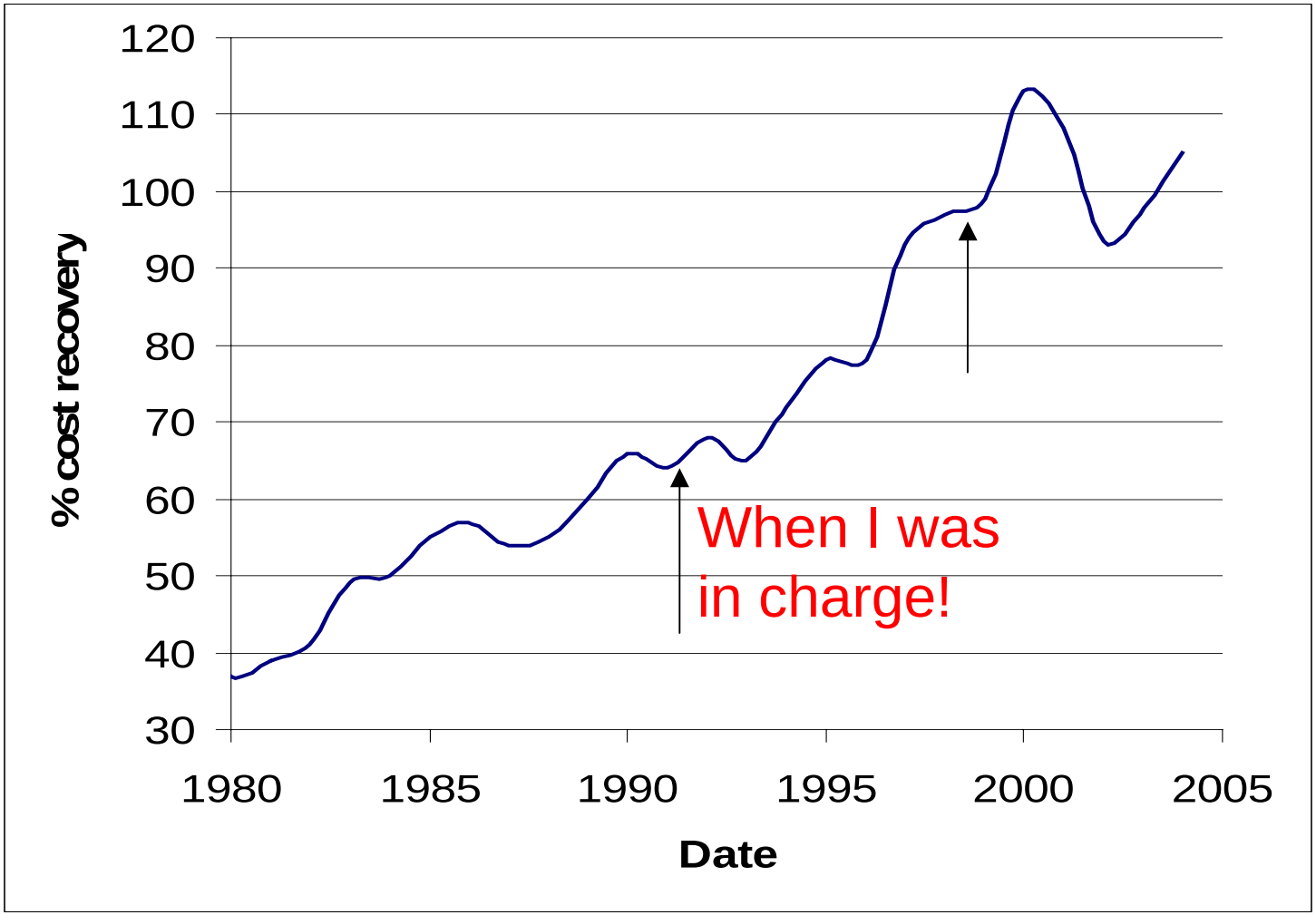
The data policy dilemma – charged or free?

My personal discomfort…

- Ex-DG of Ordnance Survey, raised revenue by 80%+ from users
- Member of City University's Centre for Information Policy – academic interest
- Chair of the Statistics Commission, advising Chancellor and Parliament. Government changed policy of charging for official statistics, on basis that freely available statistics helps democracy, enabling citizens to hold government to account

OSGB 'paying its way'



The policy extremes

- US federal government: no copyright or other restriction placed on almost all of its data
- UK government: policy varies
  - Putative Office for Public Sector Information, common terms for most Crown Copyright (and NHS and LA?) material with Click-User license
  - Met Office, Ordnance Survey and Hydrographic Office on Trading Funds and have to pay their own way; license their data
  - Local authorities have sought to generate some revenues
  - Many other government departments seek to make their data available for free to maximise use (e.g. Office for National Statistics, DEFRA)

Arguments against ‘cost recovery’

- taxpayer has already paid
- cost of revenue collection is wasted
- greatest value comes from widest use
- private sector ‘value-adders’ pay taxes on profits to state
- citizens should have free and unfettered access to all government-held information

Arguments for ‘cost recovery’

- real prices’ identify ‘real needs’
- gives customers ‘muscle’ to get what *they* want
- enables tax reductions
- better morality? Only users (not citizens) pay
- government more ready to help if users contribute
- encourages competition

Consequences

- Britain has probably the best mapping and ‘geographic framework’ in the world – it is properly funded
- But major interaction effects occur when data are put together to get added value e.g. to display statistics – and then distributed freely
  - Typically, special deals have to be done (e.g. Neighbourhood Statistics) if some is charged for and some free
- Often many players involved and ‘no one in charge’ (OPSI step in right direction?)

New applications: possible DfT speed limit database

- Driver to be informed electronically of local speed limit
- Estimated could reduce accidents by 10%
- Default speed limits set by national government, local variations by Highways Agency, devolved administrations and LAs – but no single, up-to-date source of information
- Needs coordinates of roads (from commercial suppliers or OS) e.g. from OS MasterMap
- Ideally to be put free of copyright into public domain

OS MasterMap:

Topography,

Road centre lines,

House numbers and street names,

Image ‘backcloth’

Crown copyright. All rights reserved

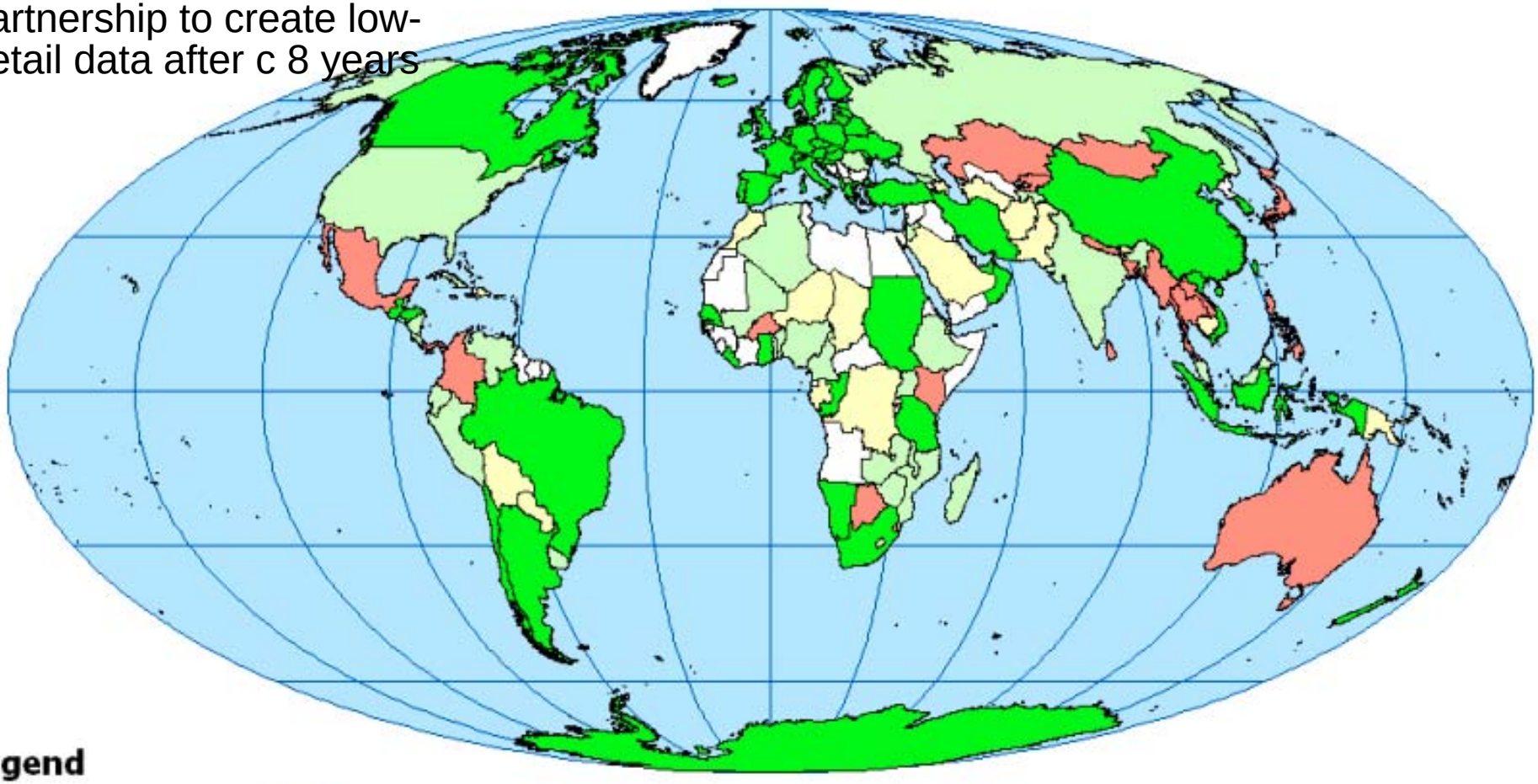
Example of the 'many players' problem

- Many government bodies need addresses
- Lack of adequate quality address lists caused major problems in last (£250m) Population Census in deep urban areas.
- Organisations involved in providing address data:
  - all local authorities (via IDeA), Intelligent Addressing (commercial), Royal Mail, Ordnance Survey
  - Many value-added resellers
- No one definitive address list, continuously up-dated and suitable for multiple purposes
- Charges made for data

ODPM seeking to resolve the problem

Some big questions

- Where is the greater public benefit?
  - Revenue of c £350m into public purse from Trading Funds, better geographic framework data OR (?)
  - Wider, even ubiquitous use, via free government data and commercial exploitation?
- How do we get better 'joined-upness' across government departments in policy objectives, and data integration and supply?
- Trans-national interactions? Possible impact of EU legislation: INSPIRE draft Directive

Progress of Global Mapping Project

Imperfect working together not a solely British problem. This is the result of an international partnership to create low-detail data after c 8 years