

英國公開資料加值推動經驗



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2012年1月18日

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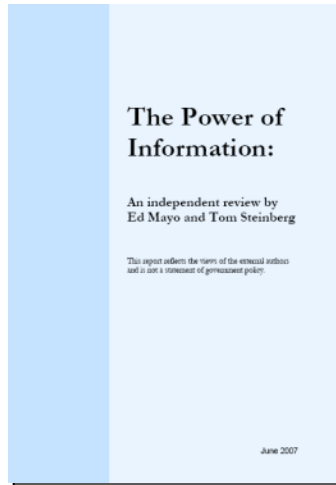


簡報內容

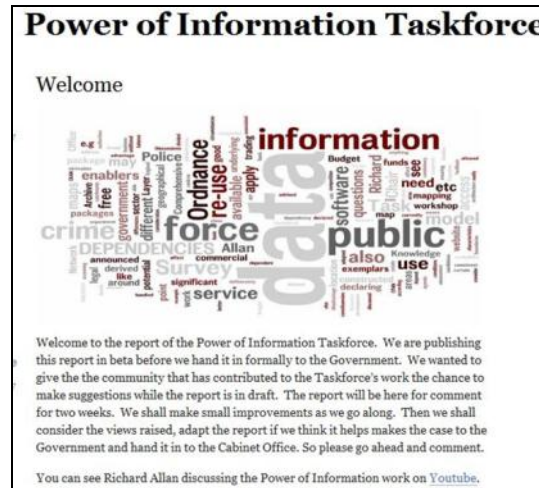
- 制訂英國公開資料政策之驅動因素
- 公開資料之商業模式
- 公開資料再利用系統 (ecosystem)
- data.gov.uk 之開發模式
- 從中學得的經驗
- 意料之外的額外收獲

制訂英國公開資料政策之驅動因素

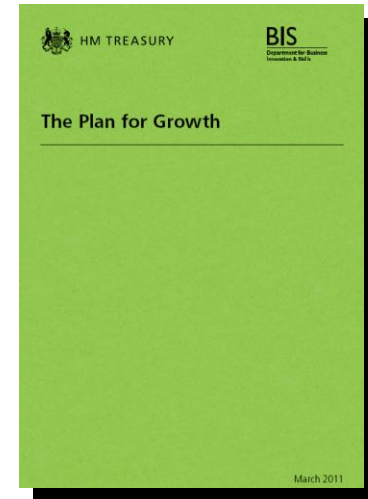
經濟成長與社會價值



↓
2007年6月



↓
2009年2月



↓
2011年3月

全新的經濟與社會價值



新的商業型態



Spikes Cavell
KNOW, KNOW, KNOW

Search [GO >](#)
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DELIVER CASH SAVINGS

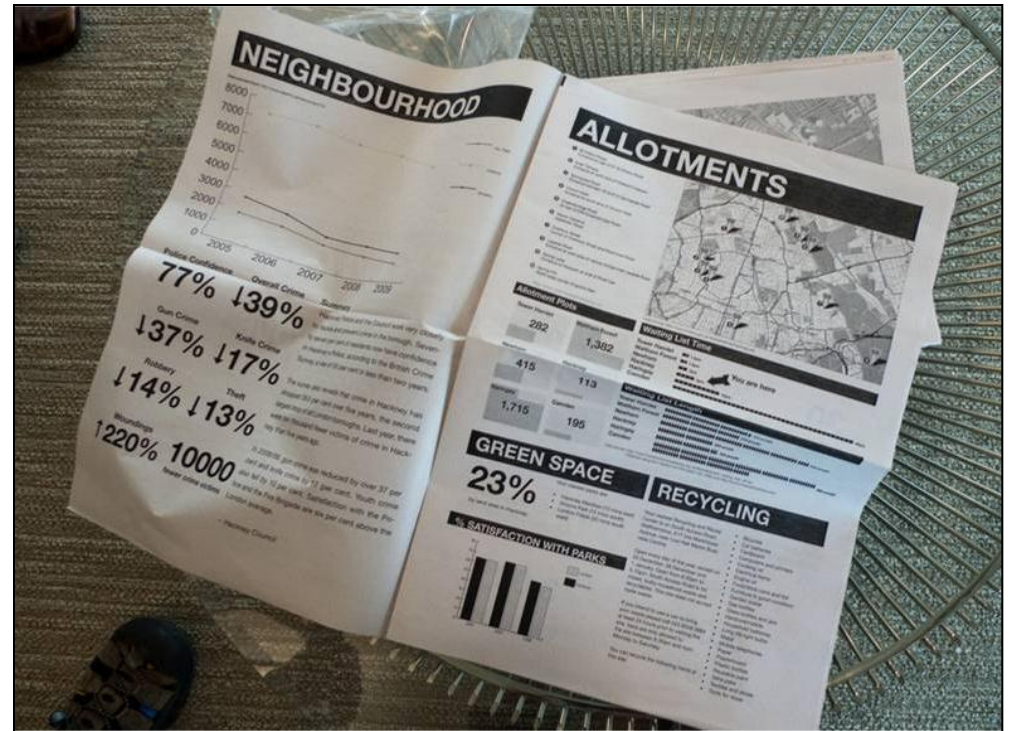
WITHOUT COMPROMISING
FRONT-LINE SERVICES

[A procurement savings blueprint...](#)

- Spend & Contract Visibility**
Profile your spend to find savings, identify opportunities to aggregate...
- Transparency**
Improve the accessibility, relevance and value of the spend data...
- Performance**
Evidence your progress, create context through comparison...
- Sustainability**
Measure and manage CO₂ in the supply chain...

Data Transformation
Our highly experienced team rapidly transform your spend, supplier and contract data into actionable business intelligence regardless of the completeness, accuracy or fitness for purpose of the source.

社會價值與凝聚力



Pits n Pots
Stoke-on-Trent
Political News

home news popular articles blogs our flickr our youtube pnp live! 2011 election
about contact us my account

No New Enterprise Zone For Stoke-On-Trent & North Staffordshire

Stoke-on-Trent & Staffordshire miss out on Local Enterprise Zone

No New
Staff
Stok

Children's Scrutiny Chair Slams Council Report And Demands Urgent Meeting

Dave Conway Slams Quality of Report To C&YPS O&S

Senior Council Officers Shun Stoke-On-Trent

Who Would Live in a City Like This? -Not Officers!

Stoke-on-Trent News & Politics From Pits n Pots

We report the latest and breaking political news from Stoke-on-Trent City Council and the political parties in the city.

user login

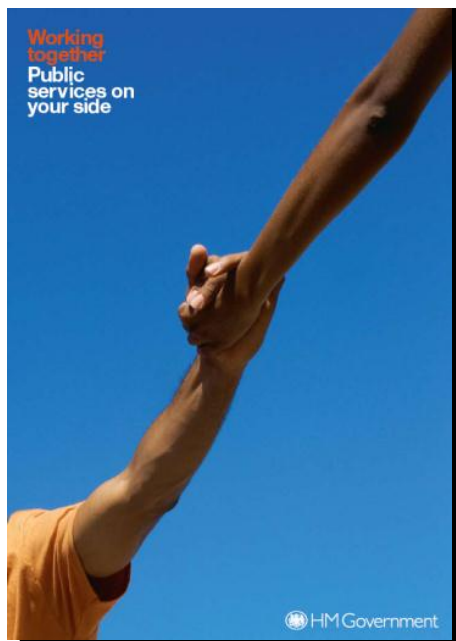
Username: *

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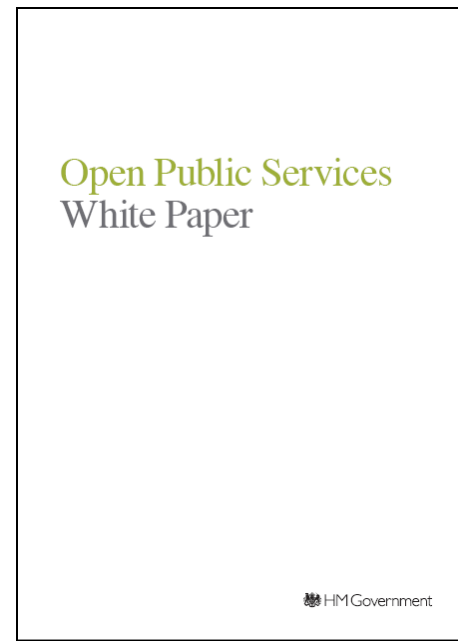


118 people like Pits n Pots.

提升公眾服務並增加選擇性



2009年3月



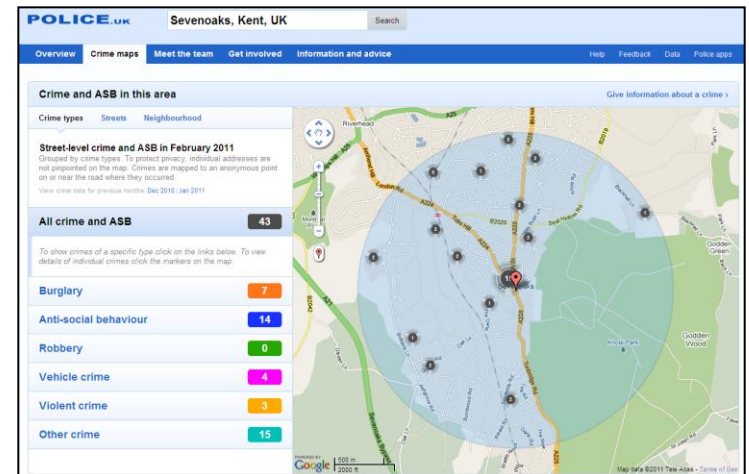
2011年7月

提升公共服務

全新的經濟與社會價值

優點：提升公眾服務品質

- 提供有關服務之“地方”觀點
- 提供有關所有地方服務之“全面性”觀點
- 讓民眾得以提供回應、遊說做出改善、並且參與政策制訂的過程
- 推出新應用程式，讓民眾不連上政府網站也能使用
- 以相關性更高的方式來呈現資訊



透明且負有當責的政府



2009年6月 2010年5月



透明且負有當責的政府

提升公共服務

全新的經濟與社會價值

優點：負有當責的政府

- 透明度讓民眾得以控制政府為其行為負起責任
- 施加更大的壓力來遵守倫理規範－讓決策以及支出都更加公開
- 向供應商施加壓力，使其必須與公平的方式與政府接洽
- 政治人物認為開放比起迴避批評來得更加重要



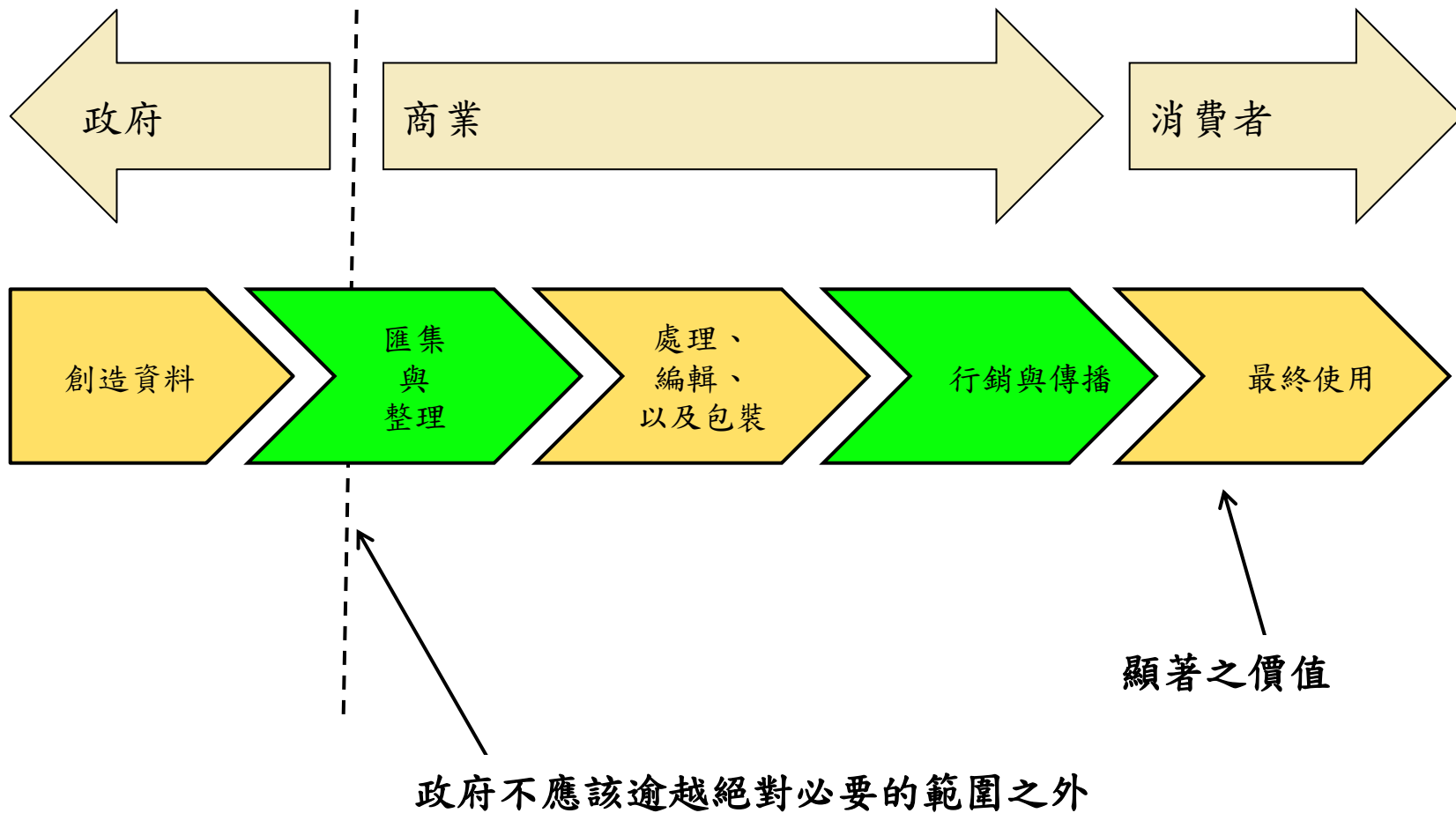
公開資料的商業模式

歐盟公共部門資訊 (EU PSI) 之效益

- 公共部門將資訊完全公開，以供取得運用，可使 EU27 直接得到大約 400 億歐元獲利
- 累積之經濟效益可能更高達大約 1400 億歐元
- 若與使用公共部門資訊直接相關之市場相較，外溢效應 (spillovers) 以及其他新用途將具有更高的重要性
- 由於資訊取得更為便捷，隨之達成的未來創新成果將更加提昇經濟成果與社會利益
- 所需花費之成本與營收為何？大約 10 億歐元

資料來源: Graham Vickery, 資訊經濟學

公共資料再運用之價值鏈



新興之商業模式

清除與整理資料

Spikes Cavell
KNOW, KNOW, KNOW

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DELIVER CASH SAVINGS

WITHOUT COMPROMISING
FRONT-LINE SERVICES

[A procurement savings blueprint...](#)

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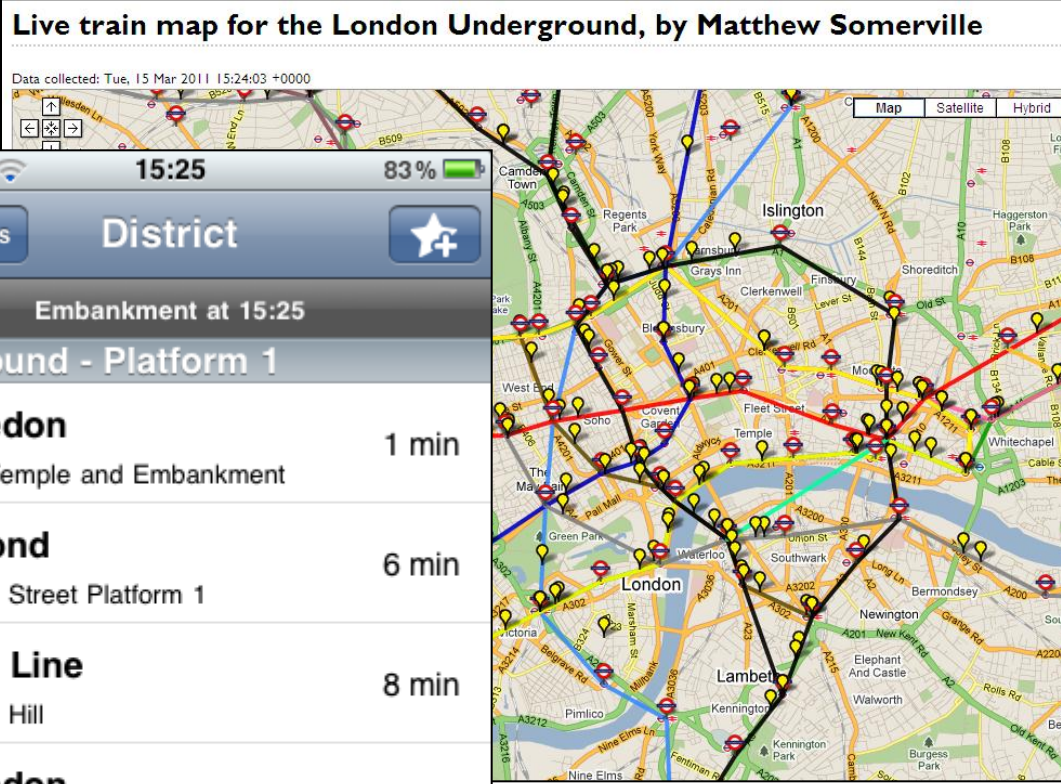
Data Transformation
Our highly experienced team rapidly transform your spend, supplier and contract data into actionable business intelligence regardless of the completeness, accuracy or fitness for purpose of the source.

由產品件數層級之購買資訊所轉換出的商業智能

提供大眾使用之資訊服務

Live train map for the London Underground, by Matthew Somerville

Data collected: Tue, 15 Mar 2011 15:24:03 +0000

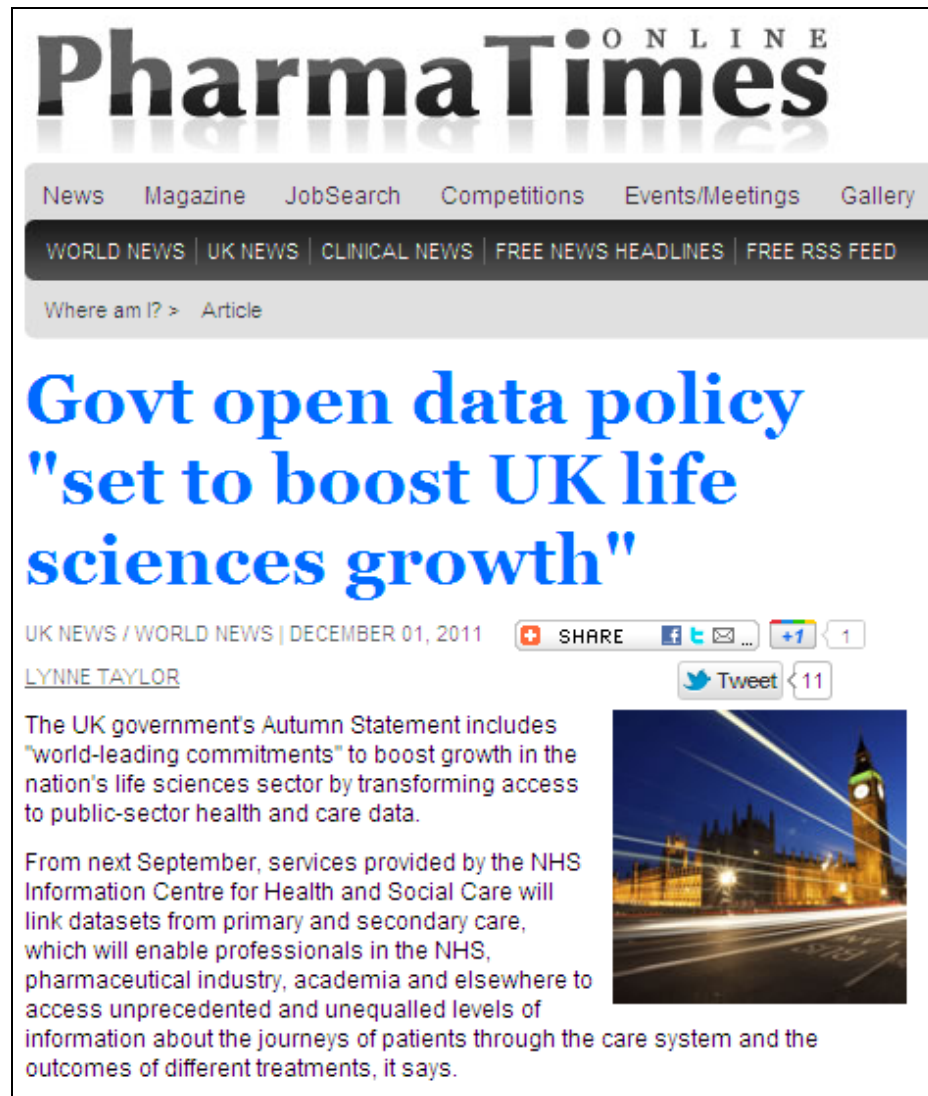


Departures	
District	
Embankment at 15:25	
Westbound - Platform 1	
Wimbledon	1 min
Between Temple and Embankment	
Richmond	6 min
At Cannon Street Platform 1	
District Line	8 min
Left Tower Hill	
Wimbledon	10 min
Between Aldgate East and Tower Hill	
Richmond	19 min
At Stepney Green Platform 1	

Download Flowd - location based app for trance music lovers!

天氣、交通、以及公共設施
都屬於最常被下載使用之智
慧型手機應用軟體

資料探勘 (Data Mining)



The screenshot shows the PharmaTimes website interface. At the top, the logo 'PharmaTimes ONLINE' is displayed. Below the logo is a navigation menu with links for 'News', 'Magazine', 'JobSearch', 'Competitions', 'Events/Meetings', and 'Gallery'. A secondary menu lists 'WORLD NEWS', 'UK NEWS', 'CLINICAL NEWS', 'FREE NEWS HEADLINES', and 'FREE RSS FEED'. The article title is 'Govt open data policy "set to boost UK life sciences growth"'. The author is 'LYNNE TAYLOR' and the date is 'DECEMBER 01, 2011'. The article text discusses the UK government's Autumn Statement and the NHS Information Centre for Health and Social Care's plan to link datasets from primary and secondary care to improve patient care and research. A photograph of Big Ben at night is included on the right side of the article.

PharmaTimes ONLINE





News Magazine JobSearch Competitions Events/Meetings Gallery


WORLD NEWS | UK NEWS | CLINICAL NEWS | FREE NEWS HEADLINES | FREE RSS FEED

Where am I? > Article

Govt open data policy "set to boost UK life sciences growth"


UK NEWS / WORLD NEWS | DECEMBER 01, 2011

SHARE     1

LYNNE TAYLOR  Tweet 11

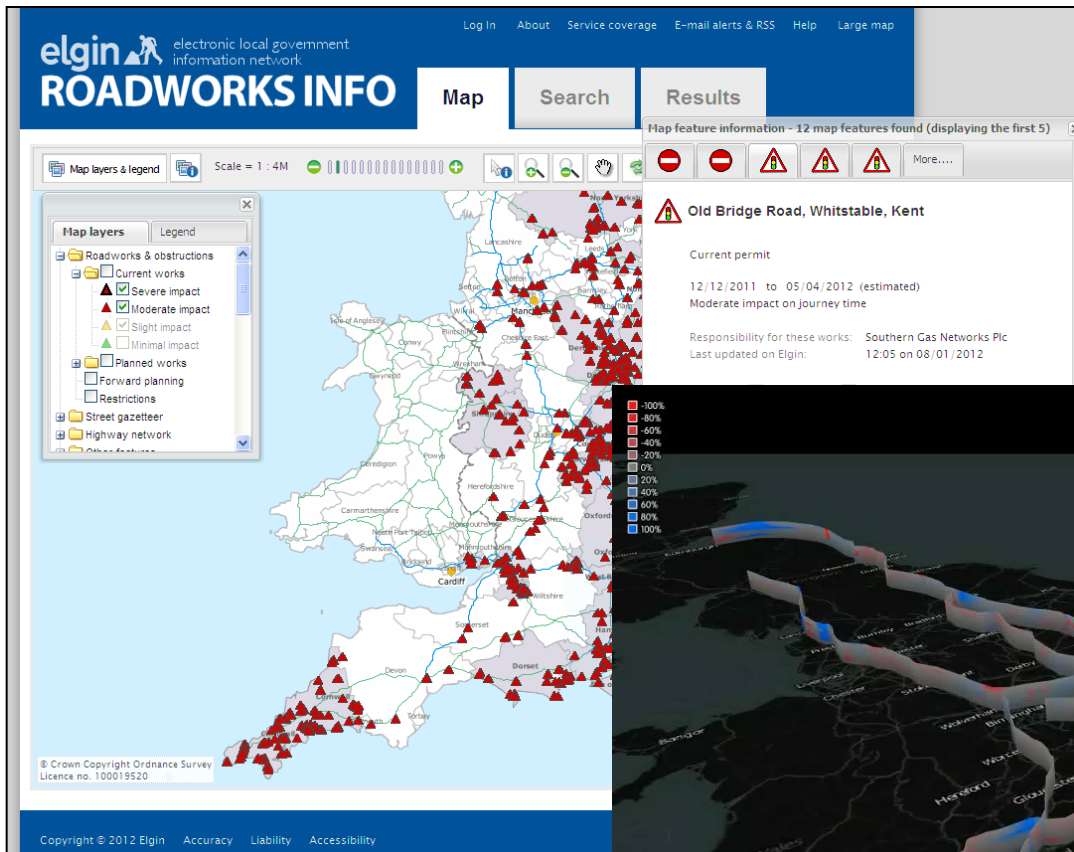
The UK government's Autumn Statement includes "world-leading commitments" to boost growth in the nation's life sciences sector by transforming access to public-sector health and care data.

From next September, services provided by the NHS Information Centre for Health and Social Care will link datasets from primary and secondary care, which will enable professionals in the NHS, pharmaceutical industry, academia and elsewhere to access unprecedented and unequalled levels of information about the journeys of patients through the care system and the outcomes of different treatments, it says.



- 處方資料
- 病患治療成果資料
- 長期健康記錄
- 學童階段之教育記錄

運作效率/最佳化



提供有關壅塞延誤以及道路施工等的即時路況資訊，
更加強化物流效率

金融商品



LLOYD'S

**THE WORLD'S LEADING
INSURANCE MARKET**

- 氣候風險管理
(美國：每年合約價值美金\$40億)
- 根據詳細地形圖以及河川記錄所設計之水災險

消費者之吸引與佇留

Zoopla For sale | To rent | Current values | Sold prices | New homes | Find agents | Overseas | Property advice

Current values

Property details for 1 Chevening Road, Chipstead, Sevenoaks TN13 2RY

Terraced, Freehold, -- Beds, -- Baths, -- Recepts - [Edit](#)
Zoopla Estimate **£356,681**
[Thinking about selling or letting your home? Get a FREE valuation from local agents](#)

Value data/graphs

Zoopla Estimate **£356,681**
[Refine estimate](#)

Value change **£20,091** (6.0%)
from 1 year ago

Rental value **£1,266 pcm**

Confidence level **Low Med High**

Value range **£323,526 - £389,836**

Rental range **£1,141 - £1,392 pcm**

Home values | **Value trends** | Value ranges | Average values | [Compare to another area](#)

Average home values for TN13

£

2007 2008 2009 2010 2011 2012

■ This home ■ TN13 ■ UK average

© 2012 Zoopla Ltd.

[Earn £££ from your holiday home](#)

Useful links for Chevening Road

- [Property for sale in TN13](#)
- [Property to rent in TN13](#)
- [Current home values in Chevening Road](#)
- [Sold house prices in Chevening Road](#)
- [Find agents in TN13](#)
- [Map view of Chevening Road](#)
- [Tempfile homes in TN13](#)
- [Area stats for TN13](#)
- [AskMe Q&A in TN13](#)

Tools/Resources

- [ClaimMyHome](#)
- [Tempfile](#)
- [Monitor area](#)
- [Add to favourites](#)
- [Mortgage deals](#)
- [Need a loan?](#)
- [Home insurance](#)
- [Switch utilities](#)

LOOKING FOR A GREAT BUILDER?

MyBuilder helps you find recommended local tradesmen in a hassle free way!
Connect with **trusted builders in TN13**

不動產仲介/
房地產經紀人

金融服務

建商以及其他
地方服務項目

提供當地房價以吸引潛在客戶

資料仲介 (Data Broking)

The screenshot displays the Windows Azure Marketplace interface. At the top, it shows the 'Windows Azure Marketplace' logo, navigation tabs for 'Learn', 'Applications', 'Data', and 'My Account', and a search bar. The main heading reads 'One-Stop Shop for Premium Data and Applications' with the subtext 'Hundreds of Apps, Thousands of Subscriptions, Trillions of Data Points'. A central featured tile for 'ComponentArt World Data Dashboards' is prominent, showing a world map and various data charts. Below this, there are three columns: 'applications' featuring 'Rutero.net' and 'EzUpData', 'data' featuring 'UNdata' products like 'Gender Info 2007' and 'Millennium Development Goals Database', and 'announcements' with news items such as 'New Self-Service Publishing Wizard' and 'New Windows Azure Marketplace Data Delivers the Latest Weather and Stock Information'.


以客戶為主並且值得信賴之高流量資料服務與應用程式介面

新興商業模式: 總結


已經有下列之相關模式：

- 清除與整理資料
- 提供大眾之資訊服務
- 資料探勘
- 操作效率/最佳化
- 金融商品
- 消費者之吸引與佇留
- 資料仲介

更多創新



OS Ordnance Survey



OS OpenSpace[®] BETA

[register now](#)

[home](#) [pro](#) [web-map builder](#) [developer area](#)

Welcome to the OS OpenSpace API

The OS OpenSpace API is free to access and lets developers create amazing web applications and online projects with Ordnance Survey maps.

But OS OpenSpace API is not just for developers.




Although the API uses JavaScript to make web pages more interactive, anyone can create an application by following our sample code and tutorials.


Get Ordnance Survey maps on your website to enhance the service and customer experience.

step 1
get started and **register now** for your API key

step 2
technical help is available from our **developer area**

step 3
join our **forum** and share your thoughts





Example of OS OpenSpace API displaying Ordnance Survey data

News and information

[Web-Map Builder – the login got lazy](#) NEW

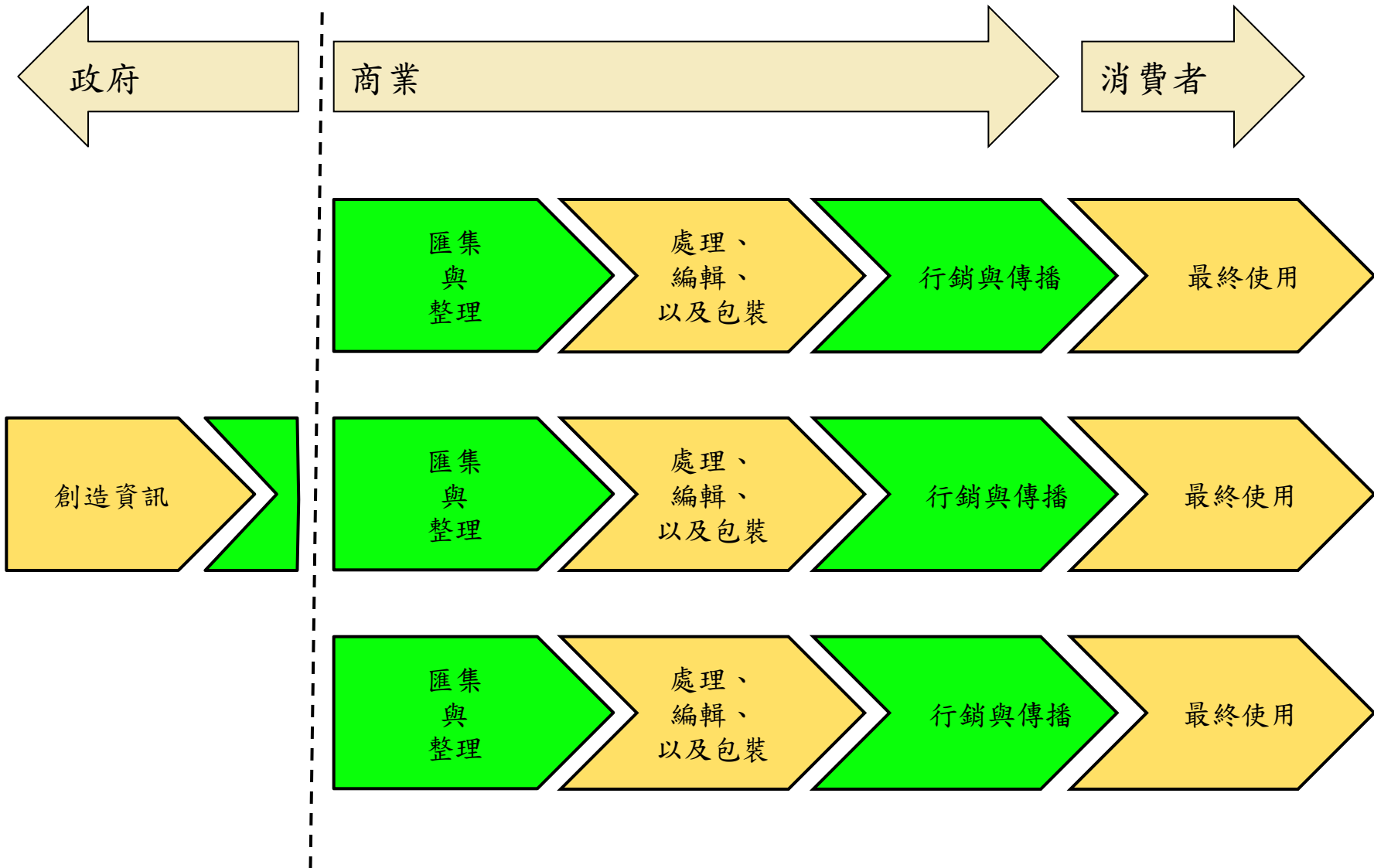
Enter the [GeoVation Challenge](#).

Visit the [OS OpenData website](#).

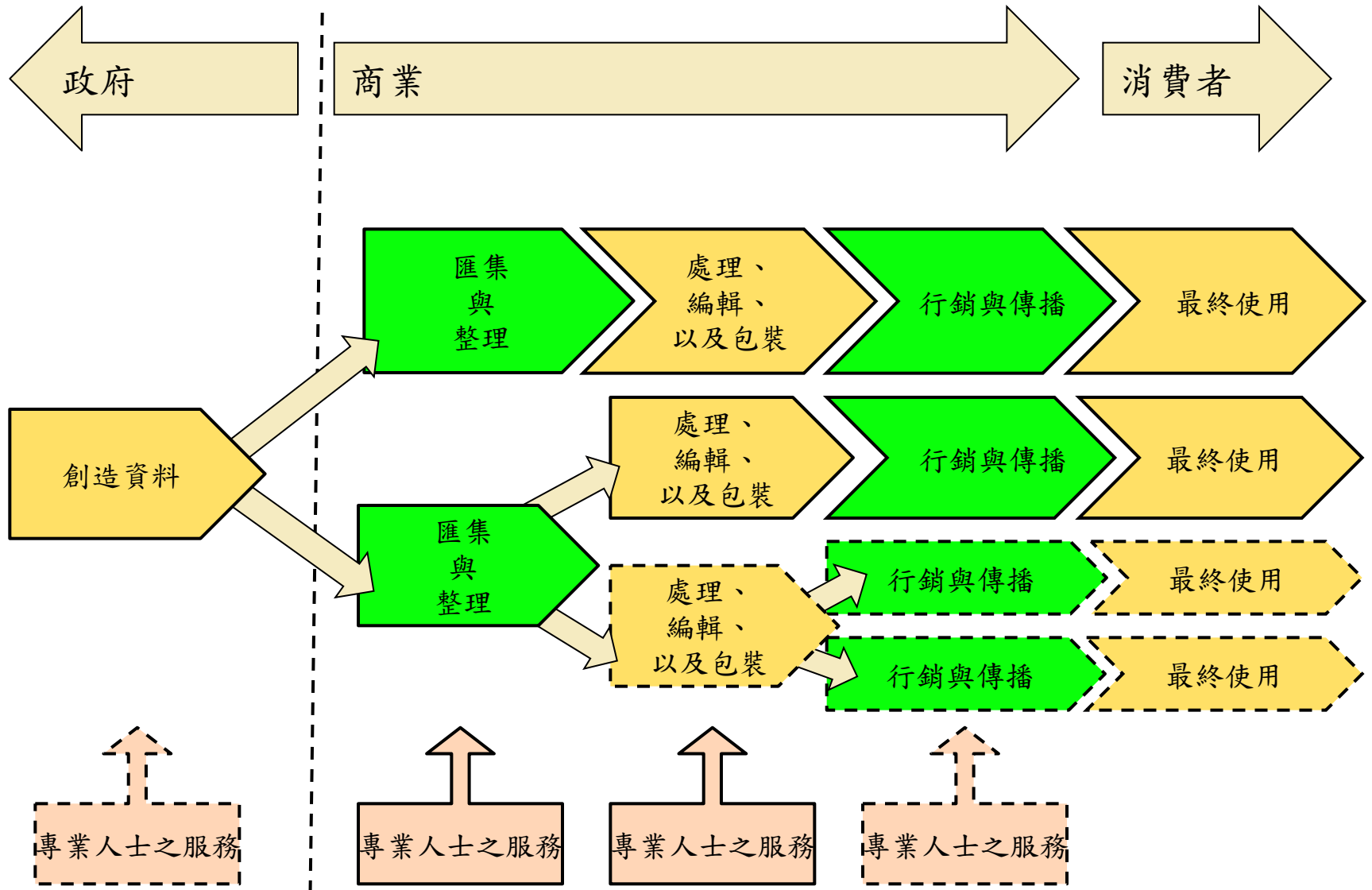
OS OPENSOURCE is a registered trade mark of Ordnance Survey.

開放地圖資料並且提供開發者平台等，均增加了創新機會

公眾資料再運用之價值鏈 (先驅者)



公眾資料再運用之價值鏈 (成熟化)



提供企業公開資料再利用系統

- 可以藉由單一目錄取得資料
- 具有可預期的定價
- 開放授權（Open Licensing）
 - 對於創新不加任何限制
- 通用且開放的格式與本體（ontologies）
- 技術與專業人士服務的可得性
 - 開放資料機構、LinkedGov、語意網（Semantic Web）
- 資料仲介以及其他價值鏈之崩解

不僅與新資料有關

“公開資料”的範圍同時也包括過去曾經“公布”但是屬於下列情況的資料：

- 屬於不可再度利用的格式
- 授權設有限制
- 僅目標特殊族群
- 僅供付款專用
- 僅針對特定要求做出回應
- 難以尋找

data.gov.uk 網站上包括眾多已被公布但無人知曉的資料。

是否收費？

預設方式為免費

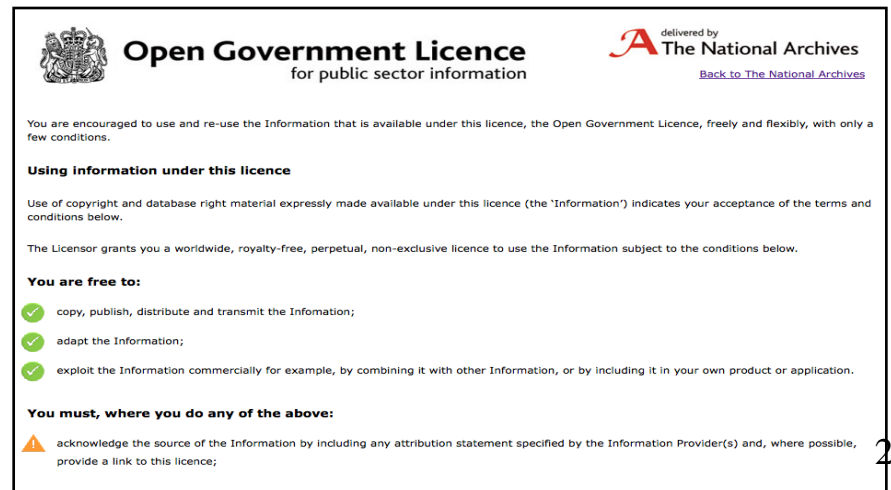
- 納稅人已經為大多數資料支付費用
- 當採用傳播之邊際成本來進行定價時，便能得到最大的經濟效益
 - 免費原始資料
 - 可能會為可靠之應用程式介面收取小額服務費用
- 對於大多數機構而言，實質銷售收入並非關鍵
- 銷售過程之行政作業支出通常佔營收之25%以上

例外：當資料之收集目的便是進行銷售時


- 與“公共任務”有關之資料免費，“具有附加價值”則須收費


清楚且公用之授權方式

- “公開”授權是非限定再利用之重要步驟
- 透明度相當重要，尤其是對於企業而言
- 對於所有具有價值的政府資料均提供公用授權（common licensing）
- 英國政府公開授權（UK OGL）
 - 免費重複利用
 - 設有歸屬（attribution）
 - 並無失實陳述（misrepresentation）
- CC-BY授權模式也是另一種良好的替代方案



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for public sector information

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 **The National Archives**
[Back to The National Archives](#)

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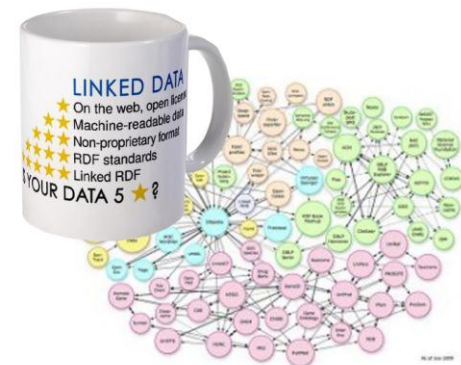
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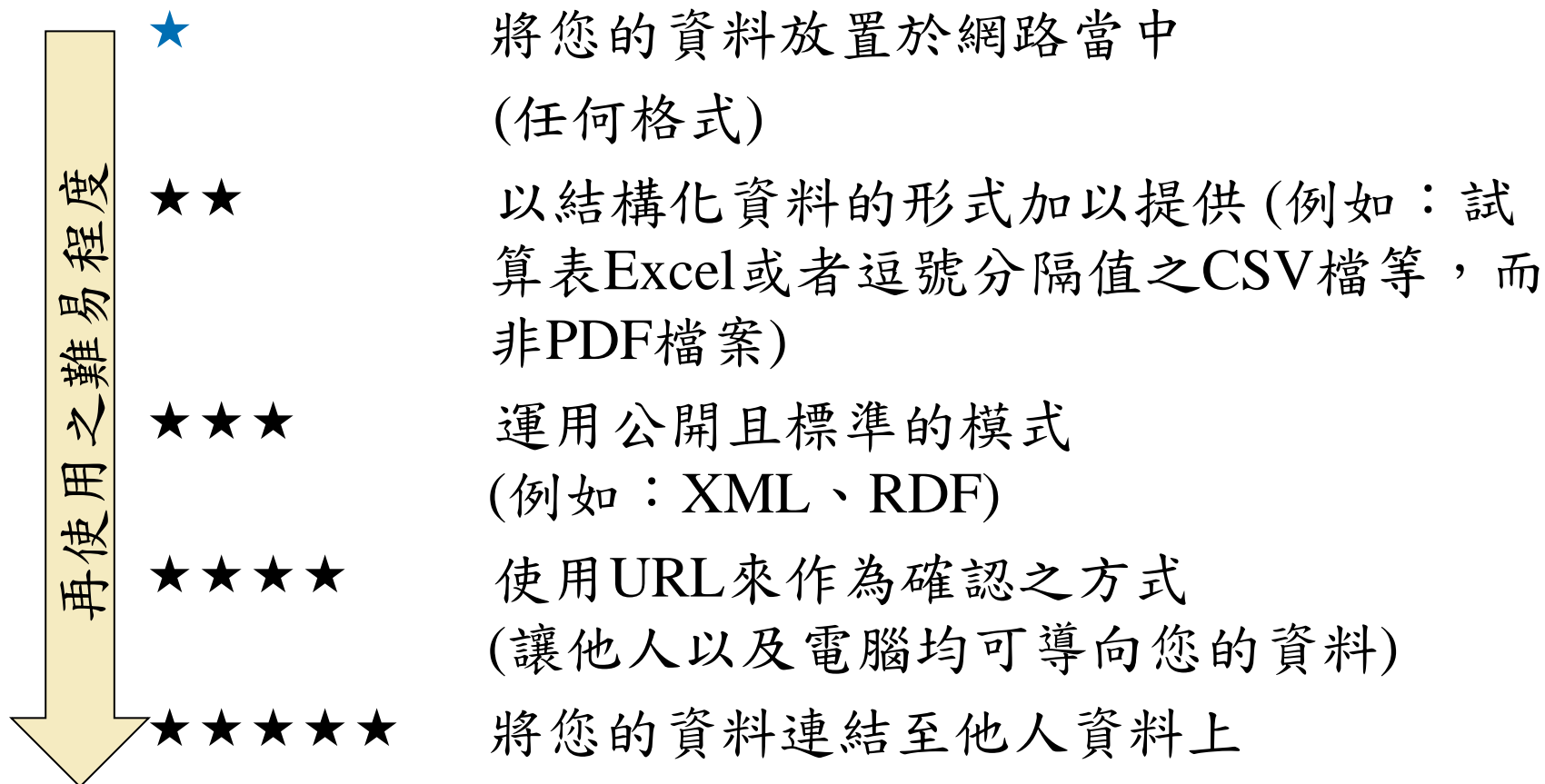
- ⚠ acknowledge the source of the Information by including any attribution statement specified by the Information Provider(s) and, where possible, provide a link to this licence;

政府：參考資料之主要提供者

- 政府登記項目/授權等屬於較大規模經濟之主要參考資料－也就是“國家資訊基礎建設(National Information Infrastructure)”
- 為了要將經濟效益最大化，便需要提供易於再度運用的資料
- 時值今日，其正代表了“鏈結資料（linked data）”－也就是語意網（Semantic Web）的主體架構



資料發佈 – 品質之星等評分



與開發者持續互動



照片提供：@memespring,
@MadLabUK, @paul_clarke

... 並且強調應用軟體的部份，而非資料本身

POLICE.uk Address, postcode or place name Search

Overview Crime maps Meet the team Get involved Information and advice

Police apps

We've made the crime data on this website available in an open and standard web-based applications (apps).

Crime Finder
Imagine if you could see reported crimes that have Reality to give you a visual sense of crime all around you. Using the GPS, camera and compass on your phone using a colourful key of icons.
Available for: iPhone, iPod, iPad.
[View this app >](#)

Crime Map UK
A free iPhone and iPad app showing where crimes of the specific crimes. See how your area compares.
Available for: iPhone, iPod, iPad.
[View this app >](#)

Crimes Near Me
A free Android application showing crime information.
Available for: Android devices.
[View this app >](#)

HM Government

data.gov.uk^{BETA}

Opening up government

Home Data **Apps** Ideas Forum Wiki Blogs Linked Data

Apps

See UK

BUSit London

Carehome Map

UK Post Box

See UK
SeeUK provides visualisations on data from data.gov.uk

PAUSE

公開資料機構：目標

- 發展英國企業之能力，以充分利用公開資料之價值
- 持續與開發者/小型企業保持聯繫，以建立完整的開放資料供應鏈與商業據點
- 協助公共部門更加有效地運用其本身擁有的資料
- 確保學術研究採用公開資料相關技術



data.gov.uk 之開發模式

data.gov.uk 網站計畫之組織原則

- 小型中央團隊 (由4人所組成)
- 各個階段均簡短且具有明確目標
- 能夠快速回應使用者所提出的意見
- 由政府專業人才引進相關資源
- 每個資料集均確實由其擁有者加以控制
- data.gov.uk 網站存有詮釋資料 (metadata) 而非資料本身
- 此計畫並非一項IT資訊專案! 因此請在IT資訊方面保持單純
 - 運用公開原始碼 (CKAN、Drupal等)
 - 運用與特定企業間之既有合約/基礎架構
 - 將資料存放於現有網站上或者公用雲端

data.gov.uk網站計畫之前兩年

The screenshot shows the data.gov.uk website interface. At the top, there is a navigation bar with the HM Government logo and a 'Log in or sign up' link. Below this, the site's name 'data.gov.uk' is displayed with a 'BETA' tag, followed by the slogan 'Opening up government'. A search bar is present with the placeholder text 'What are you looking for?' and a 'Search' button. A secondary navigation menu includes links for 'Data', 'Apps', 'Ideas', 'Forum', 'Wiki', 'Blogs', 'Linked Data', 'Resources', and 'About'. The main content area features a large featured dataset titled 'Cycle Journey' with a description: 'A free app that helps you plan your cycle journey'. To the left of this feature are smaller thumbnails for 'Data unlocking service', 'Emissions data - Defra data', and 'Renewable Energy Map'. Below the featured dataset, there is a section titled 'Facts, figures, apps and more' which contains two sub-sections: 'Find data of interest' and 'Apps'. The 'Find data of interest' section includes a search prompt and a small data visualization. The 'Apps' section includes a search prompt and a small image of a train station. On the right side of the page, there is a list of datasets with a search bar and a 'Search' button. The list includes 'Over 6,200 datasets to view' and several dataset titles with their respective counts: 'Health (2,296)', 'Transparency (1,134)', 'Health and social care (1,298)', 'child (1,208)', 'children (1,134)', and 'local-government (1,134)'. There are also social media sharing options and a 'PAUSE' button.

- 超過 7500 筆資料集
- 37 GB 之地理資料 (geo data)
- 公共資料之主要原則
- 政府公開授權
- 提昇有關薪資、支出、合約、以及管理者等資料之透明度

從中學得的經驗

取得高層政治人士之支持相當重要



“如能於政府機構之間達成更高的透明度，將使大眾能夠要求政治人物以及公共機構負起相關責任”



“公共資訊並非由政府擁有，而是屬於社會大眾，而政府則是代表大眾行事”

具有強勁的“需求面”也相當重要



Home Projects Hire us Get involved



The image shows three overlapping screenshots of web applications. The first is PledgeBank, a platform for crowdfunding social projects. The second is WhatDoTheyKnow, a Freedom of Information request platform. The third is FixMyStreet, a platform for reporting and tracking local issues on a map.




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News > Technology

Give us back our crown jewels

Our taxes fund the collection of public data - yet we pay again to access it. Make the data freely available to stimulate innovation, argue Charles Arthur and Michael Cross



LLOYD'S
THE WORLD'S LEADING
INSURANCE MARKET



Open Knowledge Foundation

Promoting Open Knowledge in a Digital Age

Projects Community Events Donate About Us Blog

Our Vision

We seek a world in which open knowledge is ubiquitous and routine. We promote open knowledge because of its potential to deliver far-reaching societal benefits.

同時也必須擁有熱誠的團隊!



根據經驗制訂政策原則的細節



The screenshot shows the data.gov.uk website interface. At the top, it says 'data.gov.uk BETA' and 'Opening up government'. Below this is a navigation bar with links for 'Data', 'Apps', 'Ideas', 'Forum', 'Wiki', and 'Blogs'. The main content area features a large heading 'Public Data Transparency Principles' and a sub-heading 'Working definition of "Public Data"'. The text under the sub-heading reads: "Public Data" is the objective, factual, non-personal data on which public services run and are assessed, and on which policy decisions are based, or which is collected or generated in the course of public service delivery. Below this is another sub-heading 'Draft Public Data Principles' followed by a bulleted list item: 'Public data policy and practice will be clearly driven by the public and businesses who want and use the data, including what data is released when and in what form – and in addition to the legal Right To Data itself this overriding principle should apply to the implementation of all the other principles.'

data.gov.uk^{BETA}
Opening up government

Home Data Apps Ideas Forum Wiki Blogs

Public Data Transparency Principles

Posted on 25/06/2010 | 27 comments

Working definition of "Public Data"

"Public Data" is the objective, factual, non-personal data on which public services run and are assessed, and on which policy decisions are based, or which is collected or generated in the course of public service delivery.

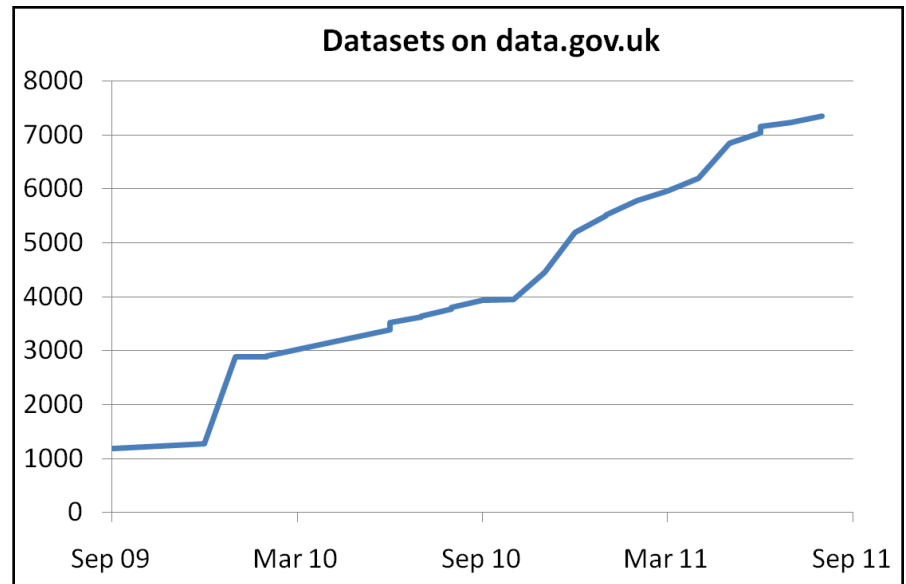
Draft Public Data Principles

- Public data policy and practice will be clearly driven by the public and businesses who want and use the data, including what data is released when and in what form – and in addition to the legal Right To Data itself this overriding principle should apply to the implementation of all the other principles.

<http://data.gov.uk/blog/new-public-sector-transparency-board-and-public-data-transparency-principles>

逐次增量交付（Incremental delivery）

- 允許“資料管路（data pipeline）”被轉換成自動化工具以及可重複進行之過程
- 藉由開發者的回應來訂定未來資料發佈的優先順序
- 創造穩定之“新聞流量”
- 也可將較為困難的案例延後處理



處理資料擁有者之各種考量



- 將資料公開是相當新的構想
- 必須尋求各種方式來管理可預期之風險
- 找出可能之範例與先例
- 在第一階段當中，必須準備將需要妥協資料內容－但並非授權條款
- “Hackdays”計畫能夠顯示可能帶來的益處
- 確保所公開之資料都必須註明擁有者身分

管理期望，並且為可能之錯誤做好準備



“我們將於下星期展開小部分之計畫，然而，最終此計畫將會造成重大的變革”

“我們下星期將要公開的資訊將不是絕對完美，這些資訊將不會總是處於最易於使用的格式，我相信其中也將會有些許錯誤，然而，我已經決心推動此計畫”

英國首相於2010年5月29日所發表之談話

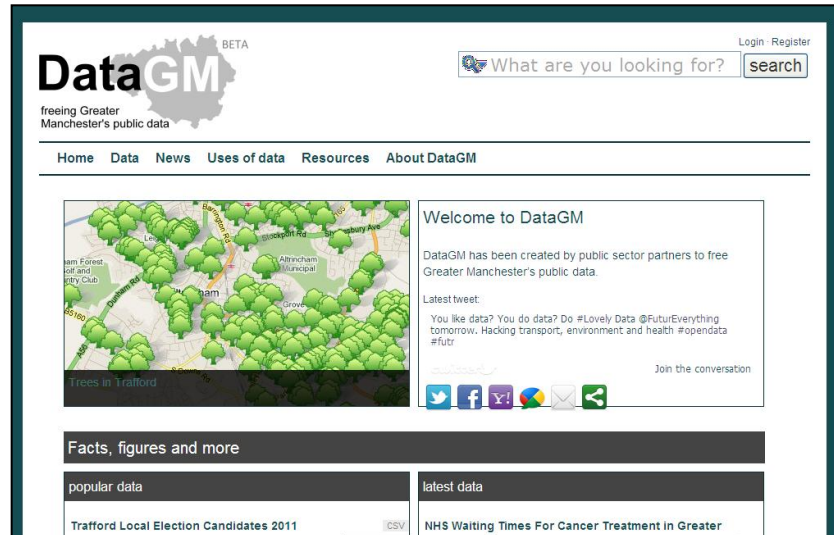
... 由此計畫中所學得的最大經驗便是

必須藉由實際動手操作來克服障礙
而非相互爭論

意料之外的額外收穫

政府本身也是資料之使用者

- 一旦公開資料已開放，其他公共機構也能加以運用
- 每個層級的政府單位將可由不同層級檢視某一領域的所有資料
- 估計於曼徹斯特大都會區當中，由於可縮短搜尋資料所耗費的時間，每年將可望節省英鎊£850萬元



The screenshot shows the DataGM website interface. At the top left is the DataGM logo with 'BETA' next to it, and the tagline 'freeing Greater Manchester's public data'. To the right is a search bar with the text 'What are you looking for?' and a 'search' button. Below the logo is a navigation menu with links for 'Home', 'Data', 'News', 'Uses of data', 'Resources', and 'About DataGM'. The main content area features a map of Greater Manchester with green tree icons representing data points, titled 'Trees in Trafford'. To the right of the map is a 'Welcome to DataGM' message, a 'Latest tweet' section, and social media sharing icons. At the bottom, there are sections for 'Facts, figures and more', 'popular data' (listing 'Trafford Local Election Candidates 2011'), and 'latest data' (listing 'NHS Waiting Times For Cancer Treatment in Greater').

提問?

簡報結束