ESRC Business and Local Government Data Research Centre

Drawing Insights from Data for Policy & Decision Support

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ESRC ECONOMIC & SOCIAL RESEARCH COUNCIL — University of Essex — University of Kent — UEA University of East Anglia — LSE

We live in extraordinary times

Big changes in too little a time

St Peter's Square 2005

Data, Information, Knowledge

(BIG) DATA ≠ (BIG) KNOWLEDGE

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Value

KNOWLEDGE;
INSIGHTS;
DECISIONS - ACTIONS

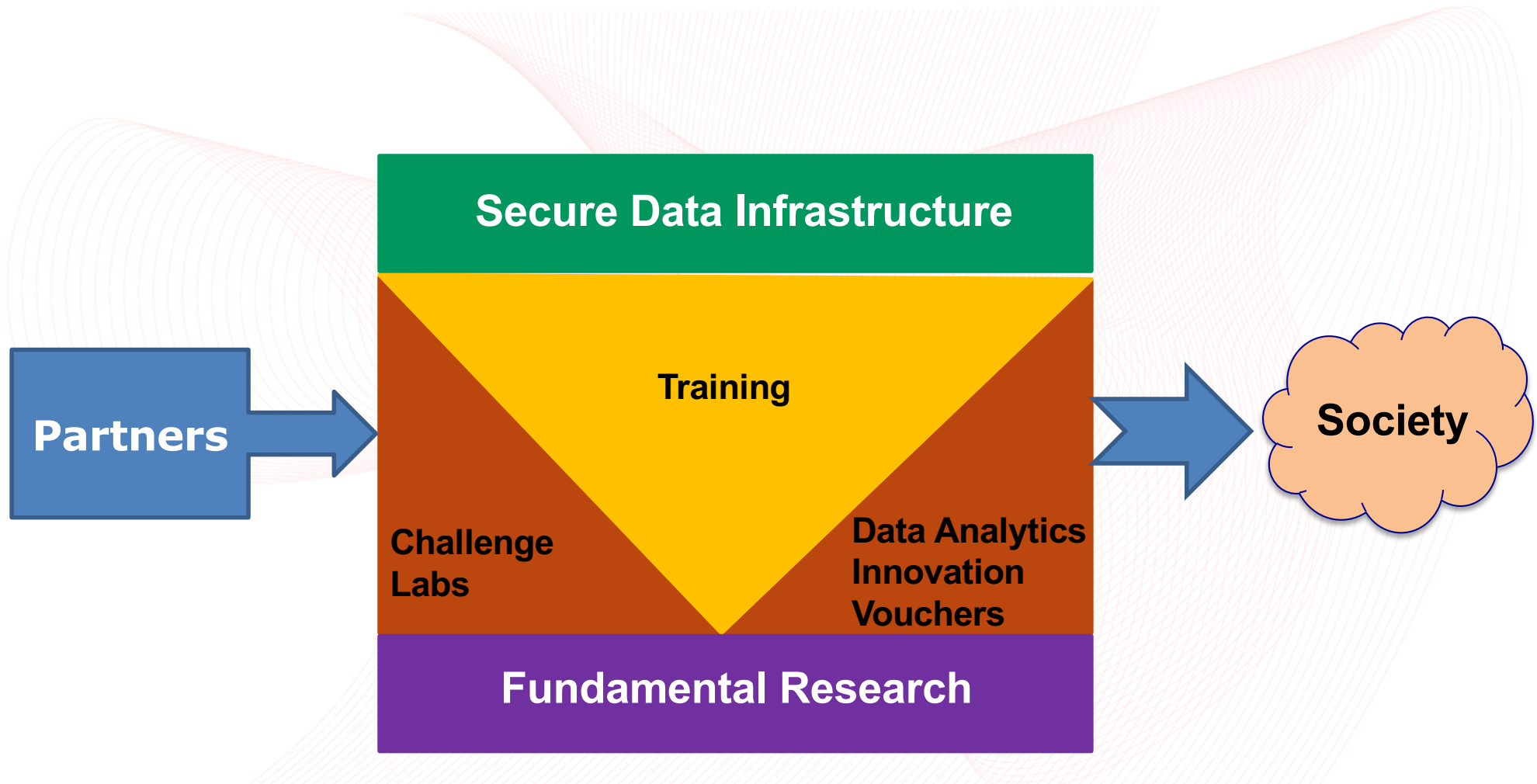Capture

Analysis

Modelling

Challenges

- Organisations of any size, face a number of challenges
  - Bamboozled by terminology & hype
  - Lack of understanding of technologies
  - Lack of understanding of own data needs
  - Lack of skills

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Secure Data Infrastructure

Training

Partners

Challenge Labs

Data Analytics Innovation Vouchers

Fundamental Research

Society

Research

- Local Economic Growth

- Supporting Vulnerable People

- Mapping Green Infrastructures

- New methodologies for Big Data and AI

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Local Economic Growth

- SMEs are the lifeblood of many small towns/cities and are crucial to productivity

- But there are severe funding gaps

- UK is world leading crowdfunding market

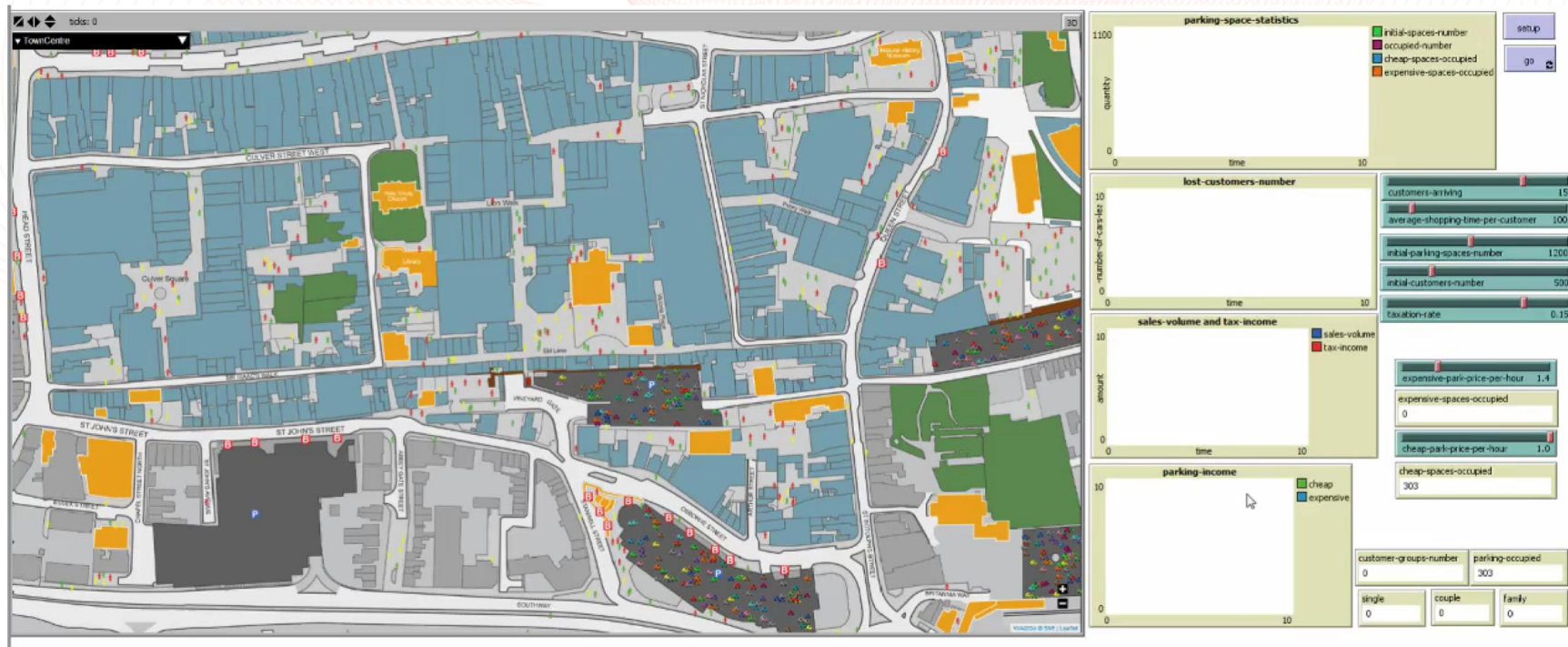| Commercial crowdfunding	
P2P lending	**Invoice finance**
Medium term loans 1-5 yrs Older SMEs 9-10 years Funding Circle	Short term loans <1 yr Accounting software MarketInvoice
Equity Crowdfunding Long term investment for startups (2-3 years old) Crowdcube, Seedrs, SyndicateRooom leading platforms	

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Local Economic Growth

- Understanding interactions in the High Street

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Support for Vulnerable People

Support for Vulnerable People

LAs can use age at entry to care to anticipate numbers of long term care placements they will need to provide
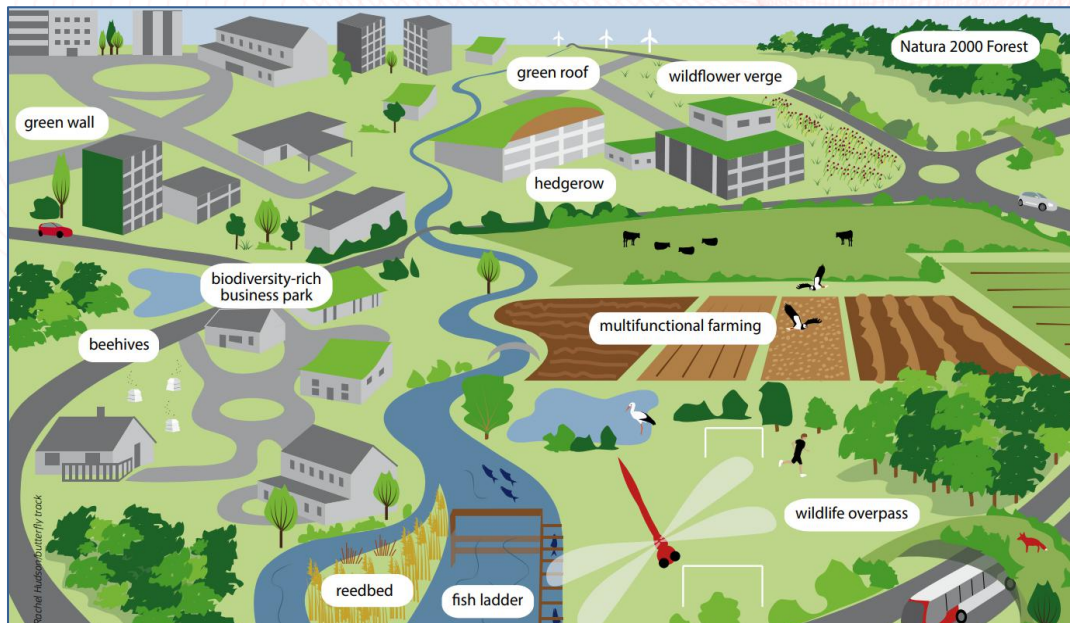

Councils can target resources on tenants who are at most risk of rent arrears, alleged anti-social behaviour or repeated contact with Councils

New measurement for rural deprivation and a composite indicator for identifying deprived rural areas for the purpose of targeting health and care interventions

Mapping Green Infrastructure

Green Infrastructure (GI) is the "network of multifunctional natural and semi-natural features, green spaces, rivers and lakes that intersperse and connect villages, towns and cities and is integral to the quality of life in sustainable communities" Natural England (2009, p.7).

Information on such assets is increasingly important for many planning purposes and the Government 25 Year Environment Plan explicitly encourages more investment in GI.

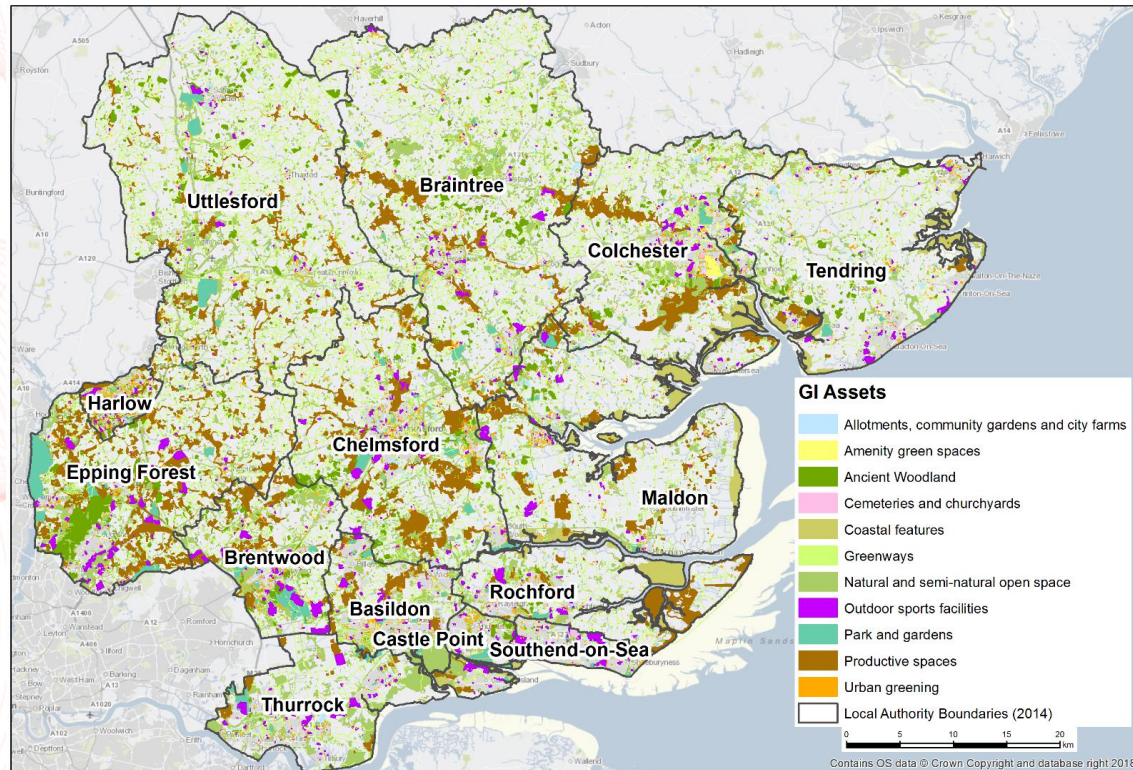Source: European Commission, 2013. Building a Green Infrastructure for Europe.
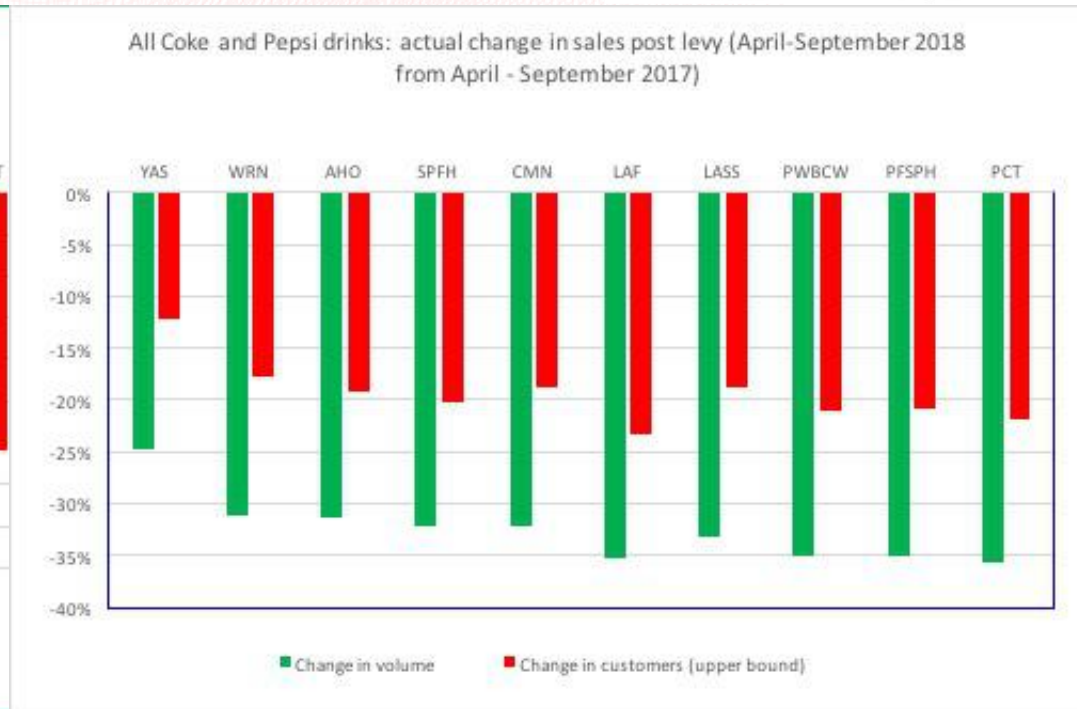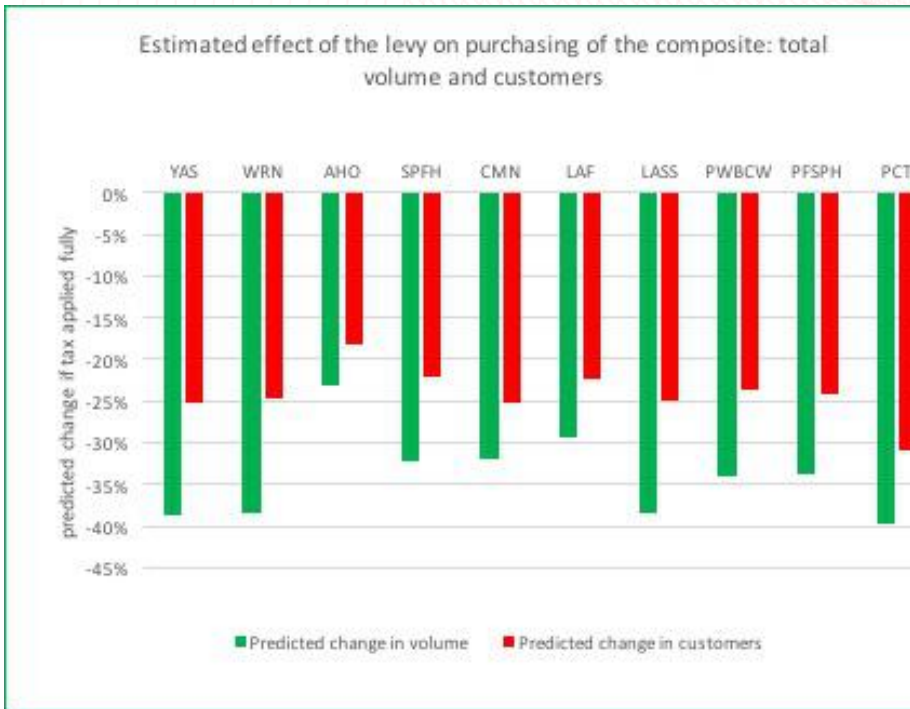
Mapping Green Infrastructure

There is no single dataset that includes all types of GI so BLGDRC researchers at UEA have been investigating methods of combining spatial data sources to map GI over counties or larger regions. For example, this work is currently informing the development of a GI Strategy for Essex.

Methodologies for Big Data and AI

- The impact of "sugar tax" on consumer behaviour

Estimated effect of the levy on purchasing of the composite: total volume and customers

All Coke and Pepsi drinks: actual change in sales post levy (April-September 2018 from April - September 2017)

Methodologies for Big Data and AI

The risk of death after a heart attack is lower than previously thought, and more widespread prescription of beta blockers could further improve survival rates

Modified Pilates classes for women suffering from incontinence as addition to standard physiotherapy can help

How we can help

- Bring together academics and policymakers to tackle difficult challenges

- Inform more effective policy decisions and sustainable planning

- Use predictive analytics to improve services and lives

- Help measure and demonstrate better value for money

- Provide analytics training to enhance skills

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Going Forward

- BLG DRC has been granted another 3 years of funding

- Working closely with our Partners Essex County Council and Essex Police

- Looking to extend collaborations and work nationally and internationally working with researchers in Singapore, USA, China

Contact us

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