West Midlands Police

BIG ISSUES – fewer resources

Identifying Priority Areas

for Police and Partnership Intervention

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Serving our communities, protecting them from harm

The Background

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- October 2010 – govt announces large scale central cutbacks of 20-25% over next 4 years

- March 2011 - start loosing Police staff and compulsory retirement of Police Officers after 30 years service.

- Re-emphasis on Partnership working (cuts too…)

- Do **more**…….. with less

The Challenge

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Identify “challenging areas” for LONG term Police & Partnership action.

How do we identify “common” ground..?

Use Police (DEMAND) data & non-Police (NEED) data

Initial Scanning at Force level – Strategic Assessment has identified 30 general areas

Engagement tool for discussion with Partnerships

Software tools for use by Partners – any point level data

Police data (DEMAND)

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- Serious Acquisitive crime
- Violent crime (including Public disorder & possession of weapons as used in NPIA POLICE.UK)
- Criminal Damage (dwelling, other building, other)
- ASB
- Other immediate and early responses (excl ASB)
- Offender home address (SAC, Violent crime & criminal damage)

What data..?

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Recorded crime - Serious Acquisitive Crime (SAC)

(residential burglary, robbery [person & business], vehicle crime [theft of & theft from]

12 months

55,000 SAC offences (26% of all crime)

What data..?

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Recorded crime - violent crime

(murders, woundings, assaults, sexual offences, public disorder and possession of weapons)

12 months

44,000 offences (20% of all crime)

What data..?

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Recorded crime - criminal damage

12 months 18,000 criminal damage (8% of all crime)

What data..?

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Command and Control – anti-social behaviour (ASB)

12 months

116,000 ASB incidents

What data..?

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Command & Control – requiring immediate or early response

Wide variety of response incident types (160,000 per year)

What data..?

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Offenders - home address (CRIMES database)

Approx 120,000 (all crimes) arrests & charged each year

Approx 50,000 per year for SAC, Violent crime & criminal damage

12% of all offenders are SAC offences

20% aged 17 or under

50% aged 24 or under

5% of SAC offenders (560 people over 3 years) commit 30% of SAC offences

What data..?

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Partnership Data… ?

Lots potentially available

How good ?

What geographical level ?

How accurate ?

How relevant ?

How often collected ?

How consistent across all 7 Local Authorities ?

How willing to give ?

What data..?

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English Index of Multiple Deprivation 2010
(published 24th March 2011)

Developed by Oxford University for Dept of Communities & Local Government

Based on concept that deprivation is more than poverty

Poverty is lack of money, deprivation is a general lack of resources and opportunities

Available for small census areas (LSOA) – approx 1,500 residents , 600 households

Nationally consistent

Nationally recognised measure of deprivation used by central government

What data..?

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English Index of Multiple Deprivation 2010
(published 24th March 2011)

38 separate indicators

7 domain indices measure different aspects of deprivation

- income, *
- employment, *
- health,
- education, skills & training *
- crime,
- access to housing & services,
- living environment

Also use
Concentrations of young people (Office for National Statistics 2009 mid-year estimates)

These are vary similar to the variables used by the Jill Dando Institute (JDI) in the Vulnerable Localities Index (VLI).

The Data Challenge

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6 Police (DEMAND) components

4 non-Police (NEED) components

The METHOD Challenge

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Need to make it applicable to both Police & Partner boundaries

Need for analysis at lower level – neighbourhoods sometimes too large

Need to identify cross-boundary issues for joint prioritisation & action

Most data available at POINT level so can be aggregated

Need for a common understanding

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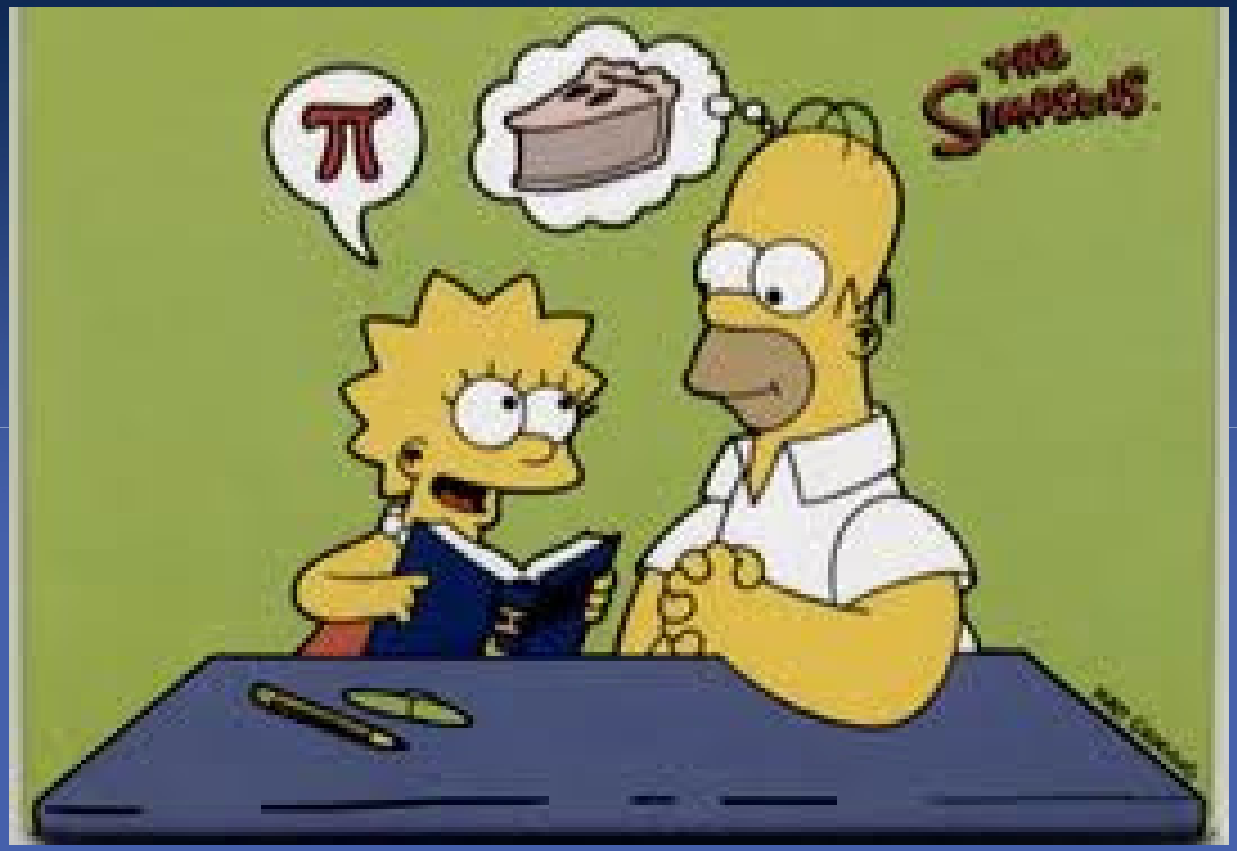
Need for a common language



Scanning tool to identify areas of joint partnership concern

Act as a basis for facilitating Partnership discussion, agreement, intervention & funding

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Methodology – attempt 3

- **simple count hotspots,**
- **index each theme &**
- **calculate an overall index**

For each theme:

Produce simple count hotspots – (50 metre grids & 125 metre search radius)

Calculate the average per grid

Compare the simple count to the average and calculate an index score
- a value of 1 indicates it is at average
- a value of 2 indicates it has twice the number of incidents compared to the average
- a value of 0.5 indicates it has half the number of incidents compared to the average

Add up the themes and calculate an overall index

Step 1 : take an area – Birmingham South pop 280,000
< 29 sq miles

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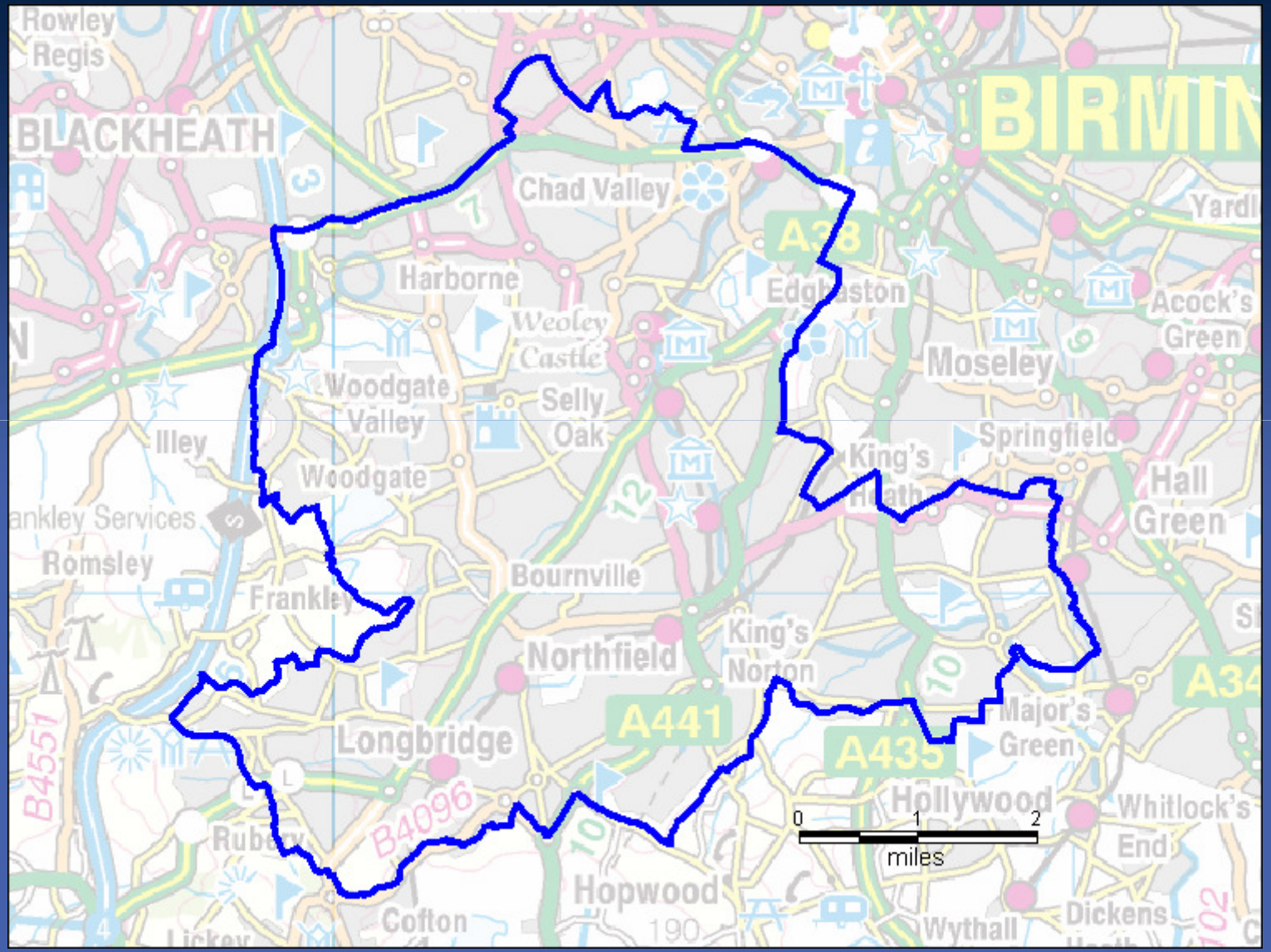

Step 2 : create a set of regular 50 metre grids (30,000)

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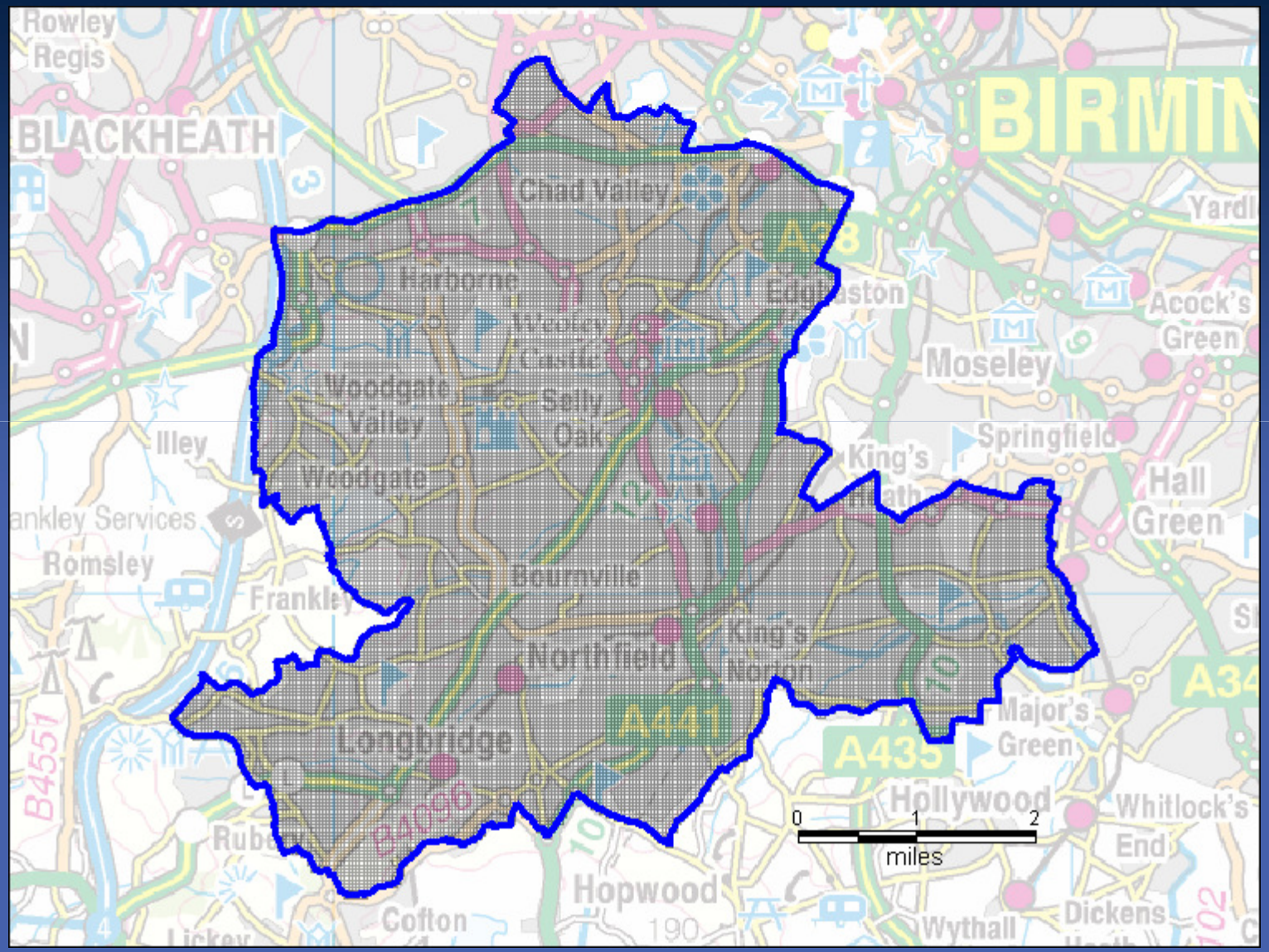

Step 3 : for each grid square

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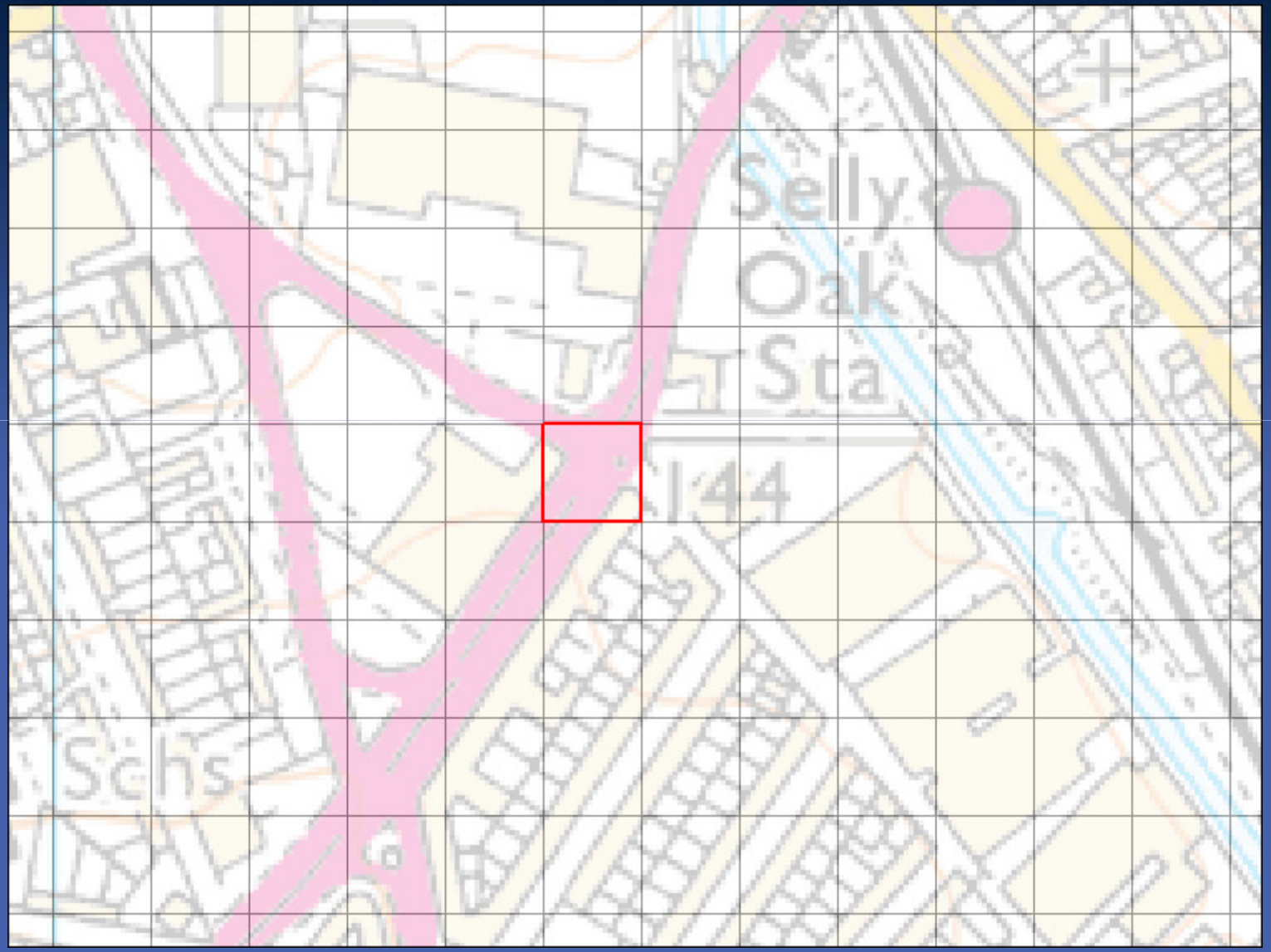

Step 4 : create a circle around the centroid (125 metres)

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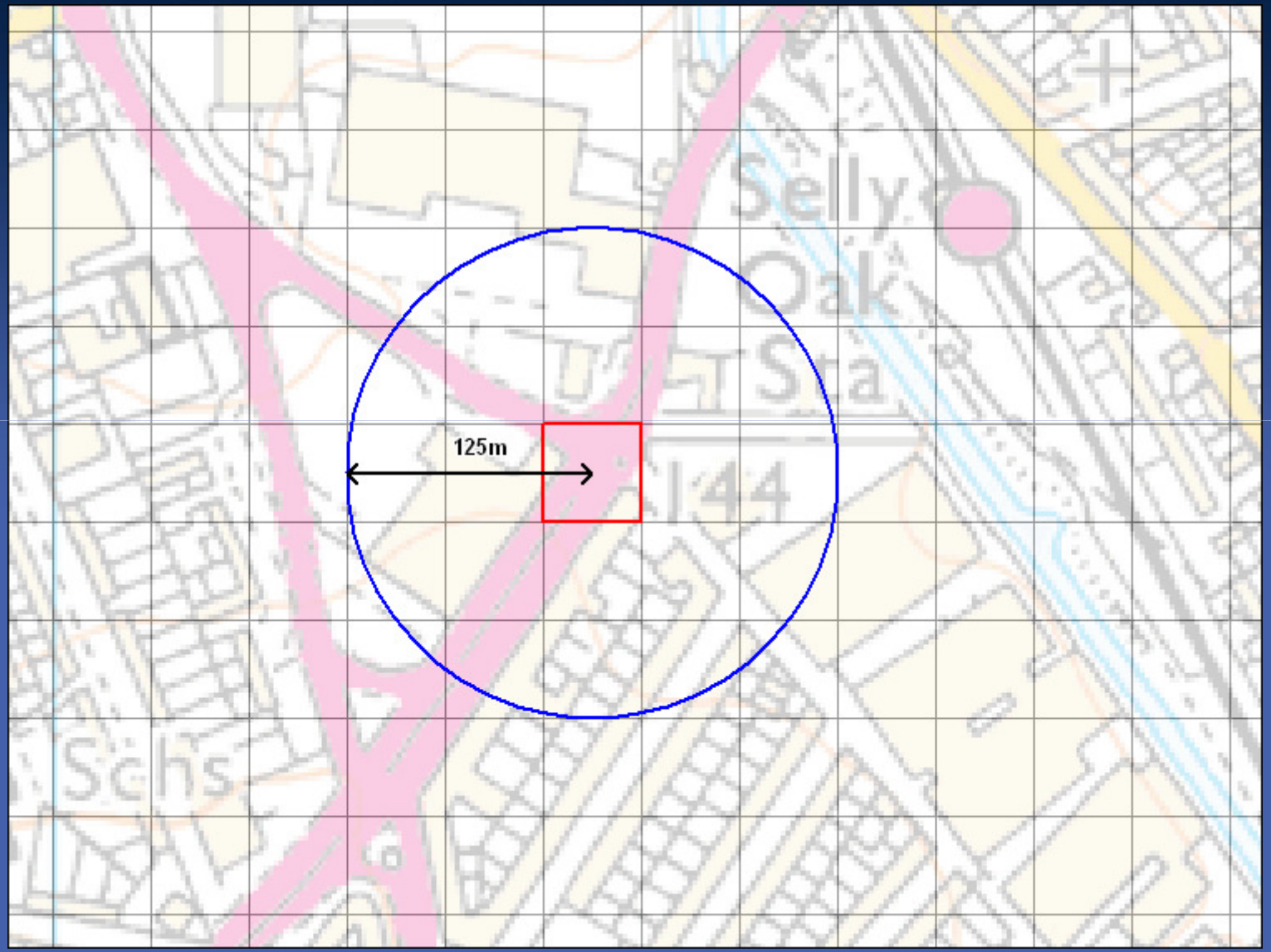

Step 5 : overlay point data set & count the number in the circle

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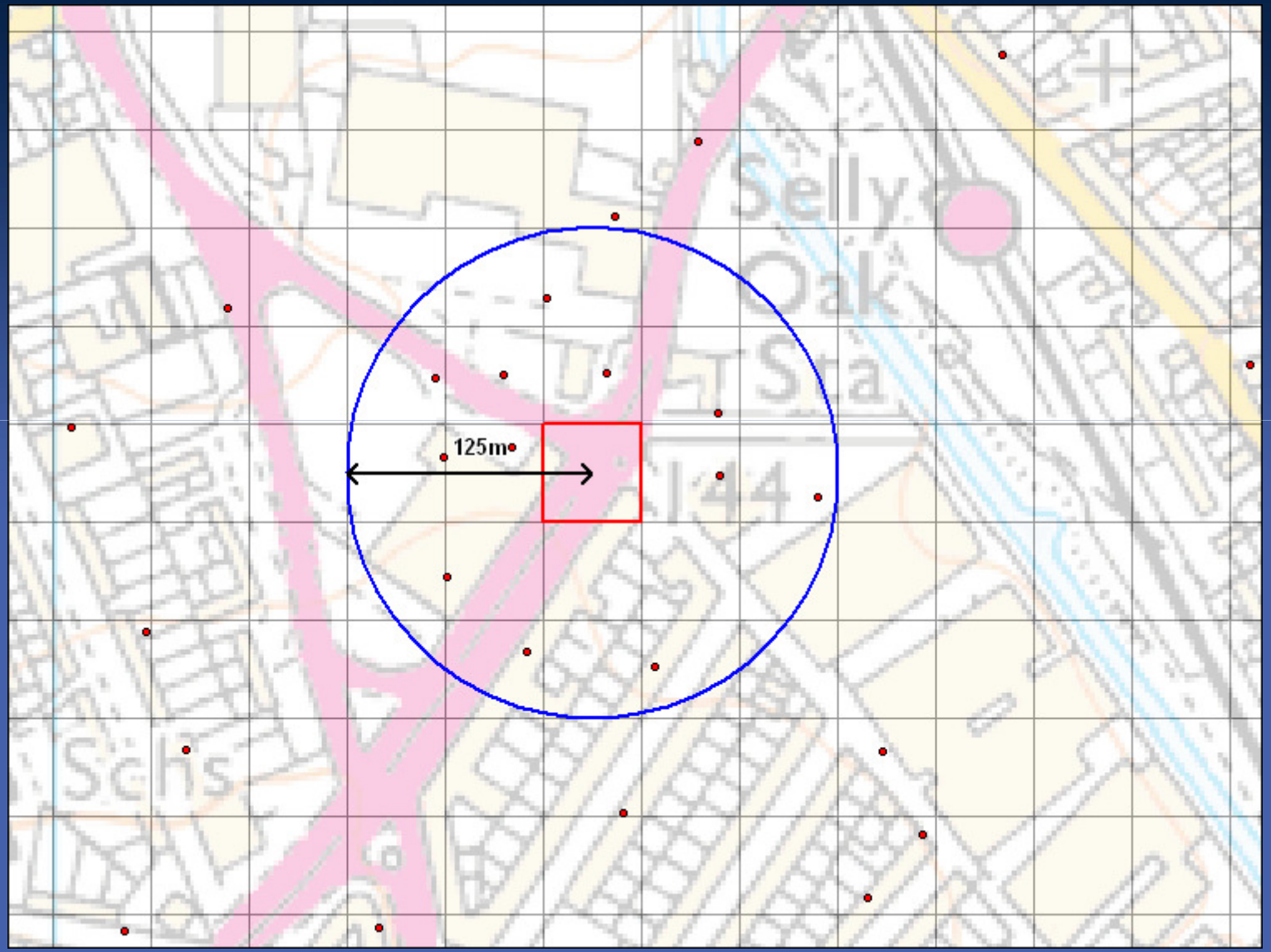

Step 6 : allocate the count to the grid square

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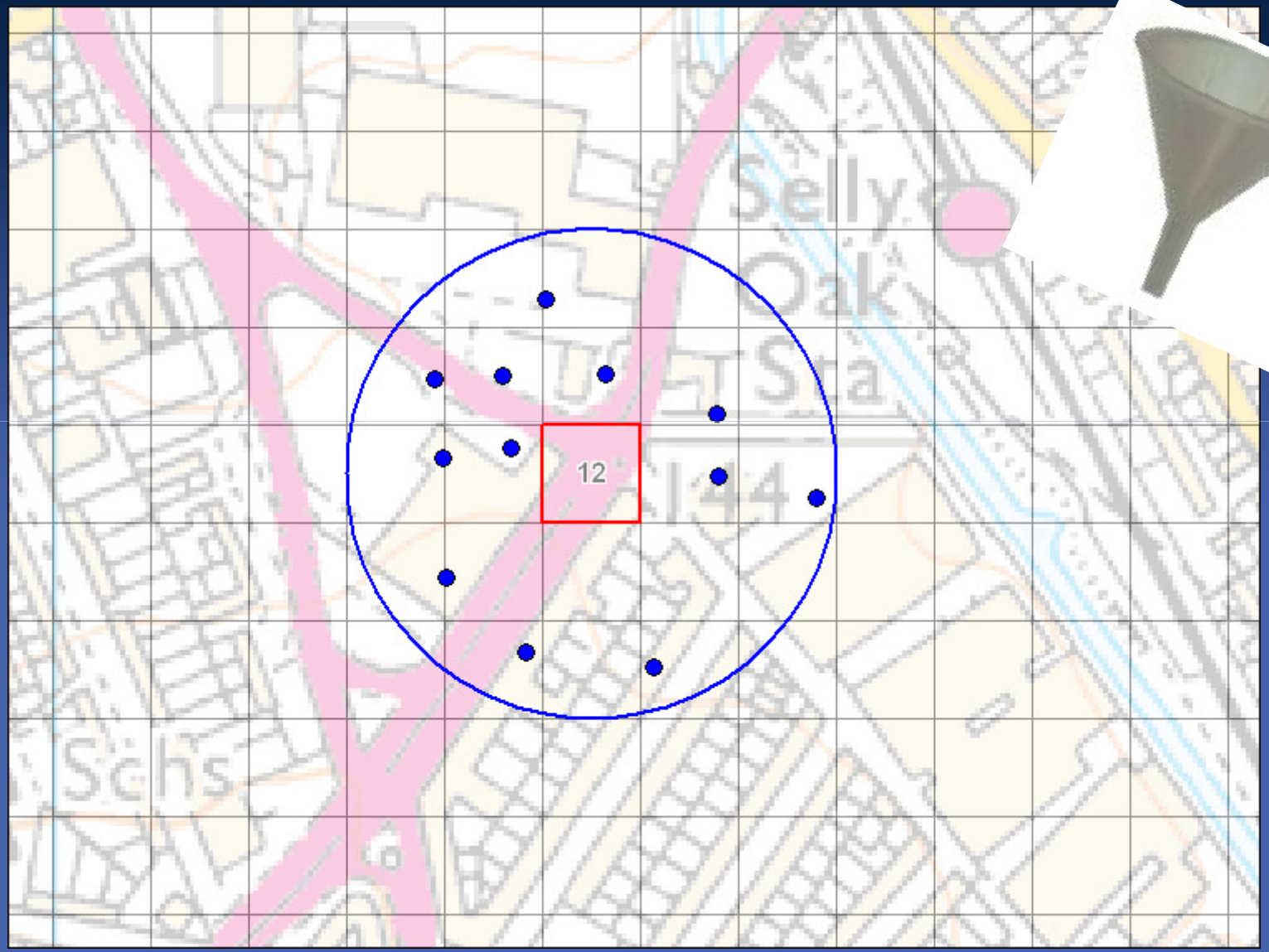

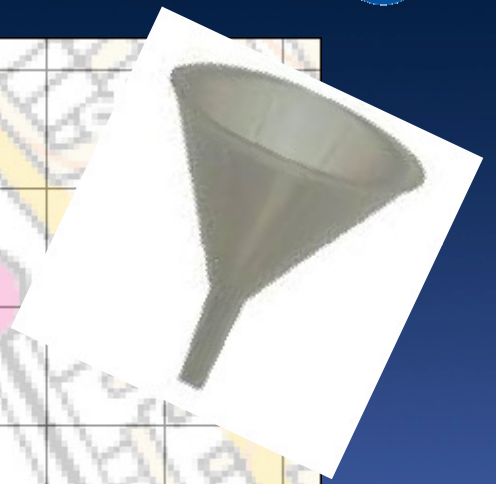

Step 7 : repeat for each grid

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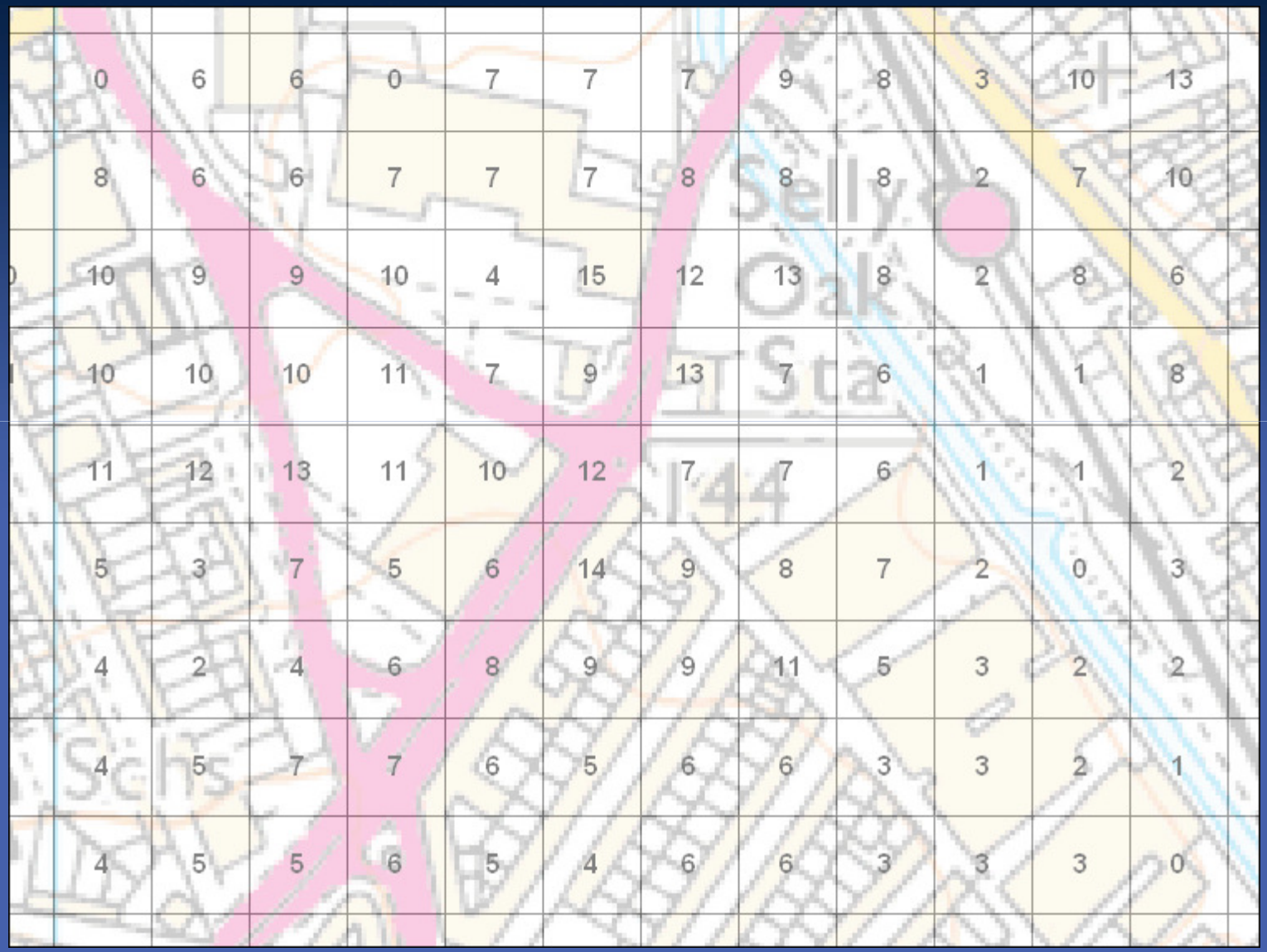

How to create a simple index

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Calculate the average number of incidents in grids where the count > 0

The average for the whole of Birmingham South is 4.7 incidents

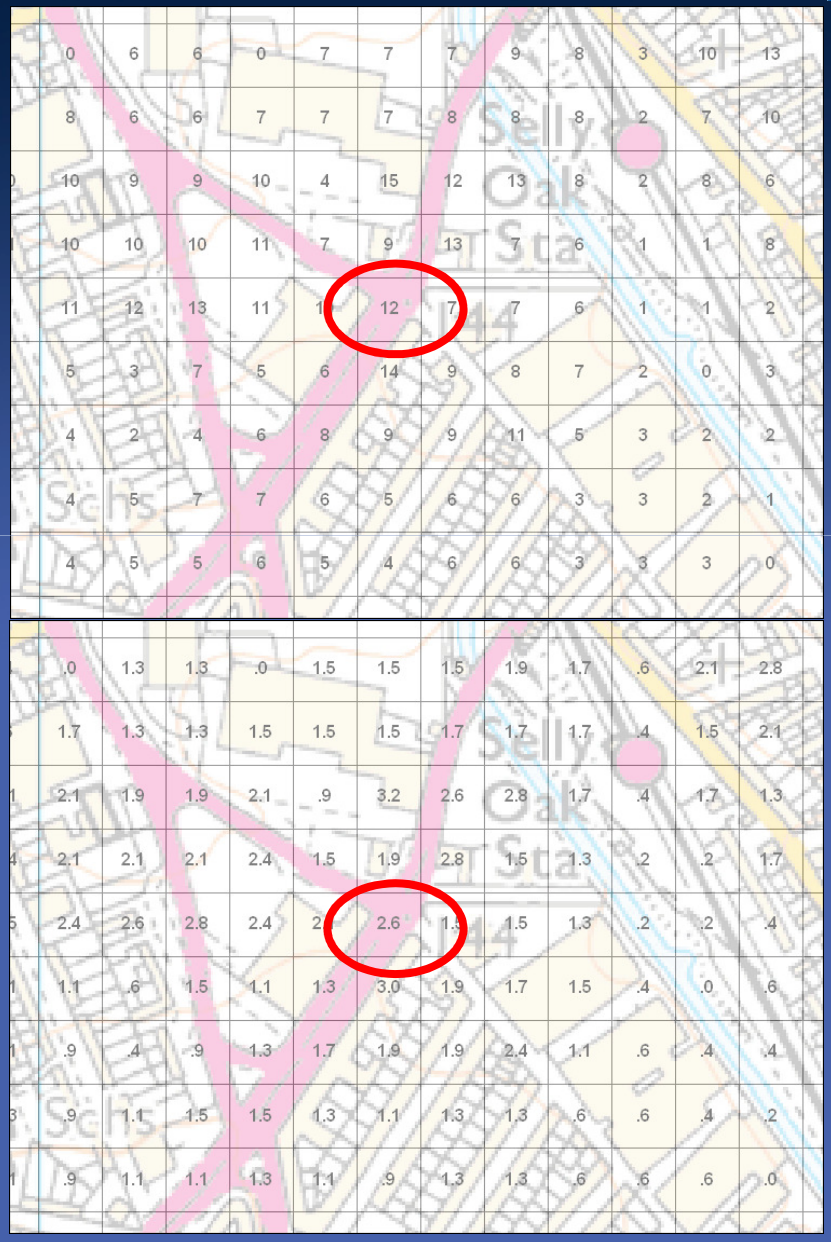
Divide the count in each grid by 4.7 to give an index value

A value of 1 = the average (4.7)

A value below 1 indicates less than the average
0.5 = half the average

A value above 1 indicates more than the Average
2 = twice the average

Location Quotient hotspot



How to create a simple index

Thematically map the index score

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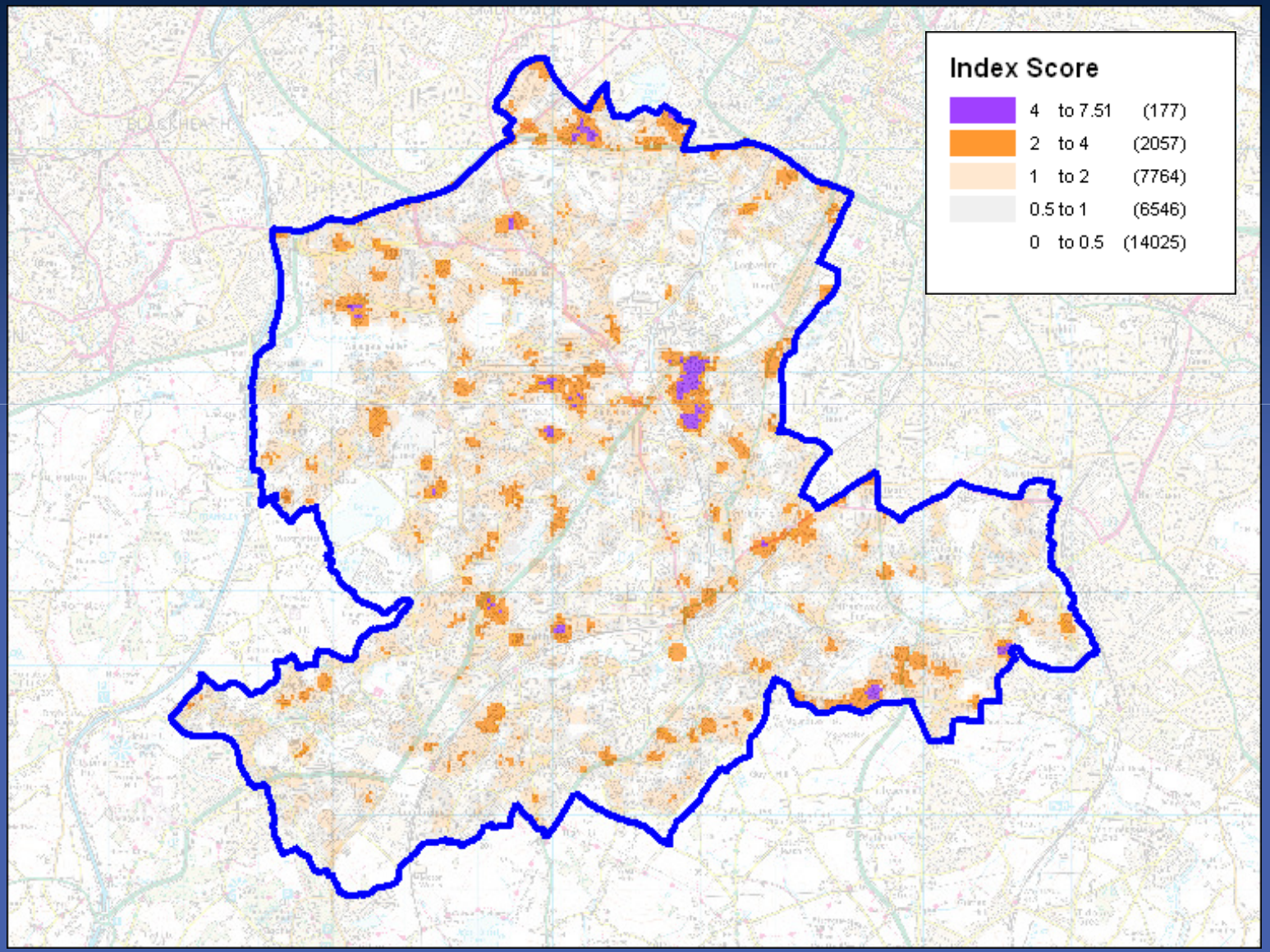

Birmingham South mapping DEMAND

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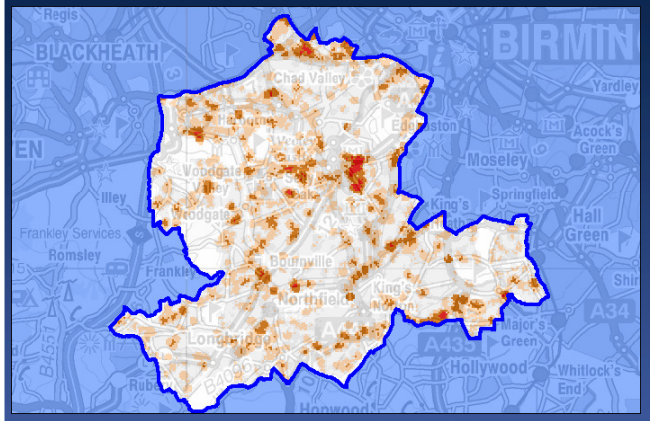
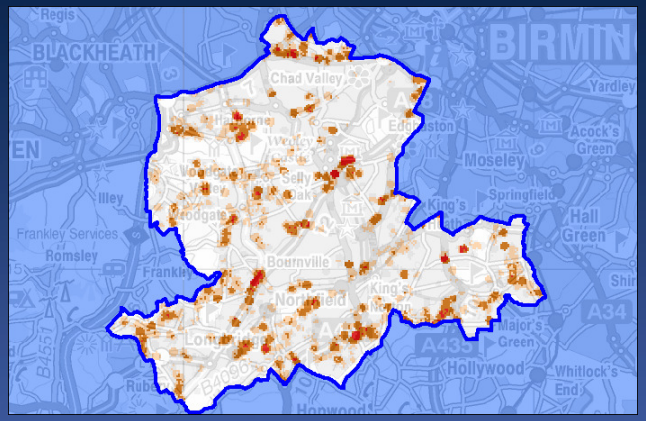
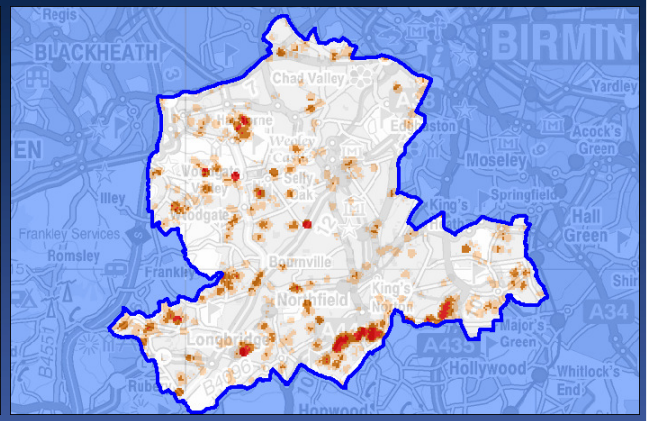
SAC



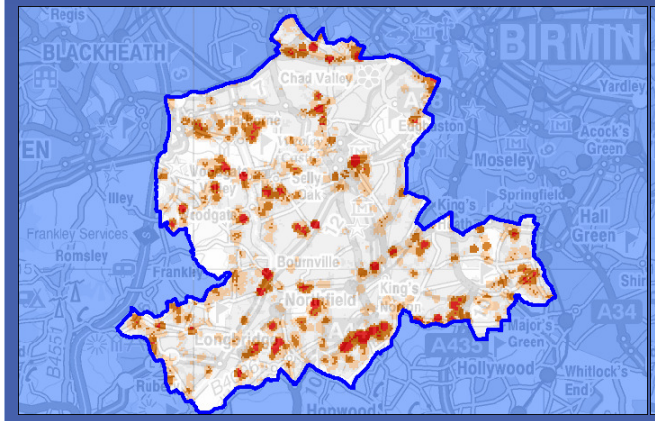
Violent crime



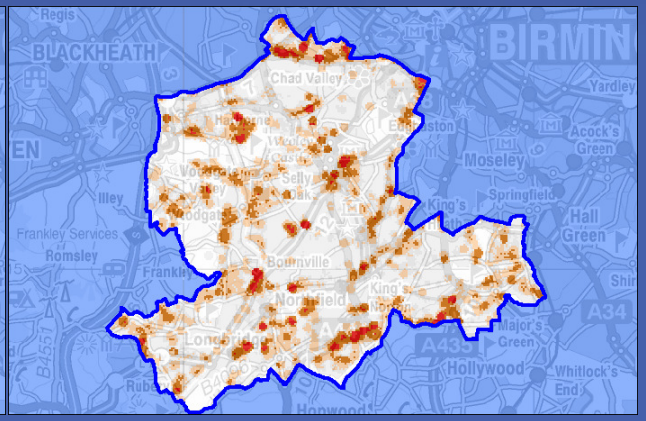
Criminal Damage



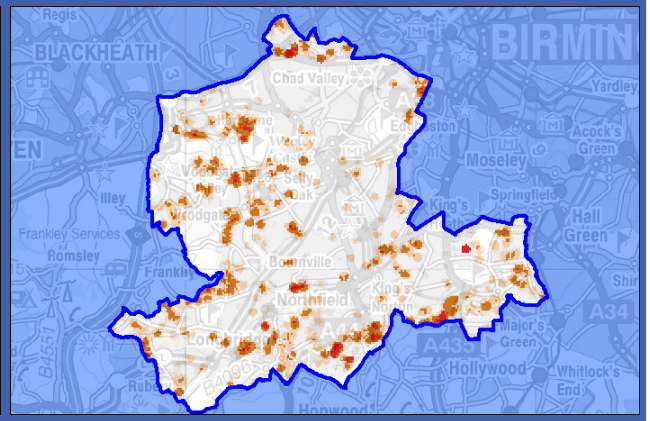
ASB



Immediate & Early responses



Offender home addresses



Very good quick scanning tool – points the finger of suspicion

Birmingham South mapping DEMAND

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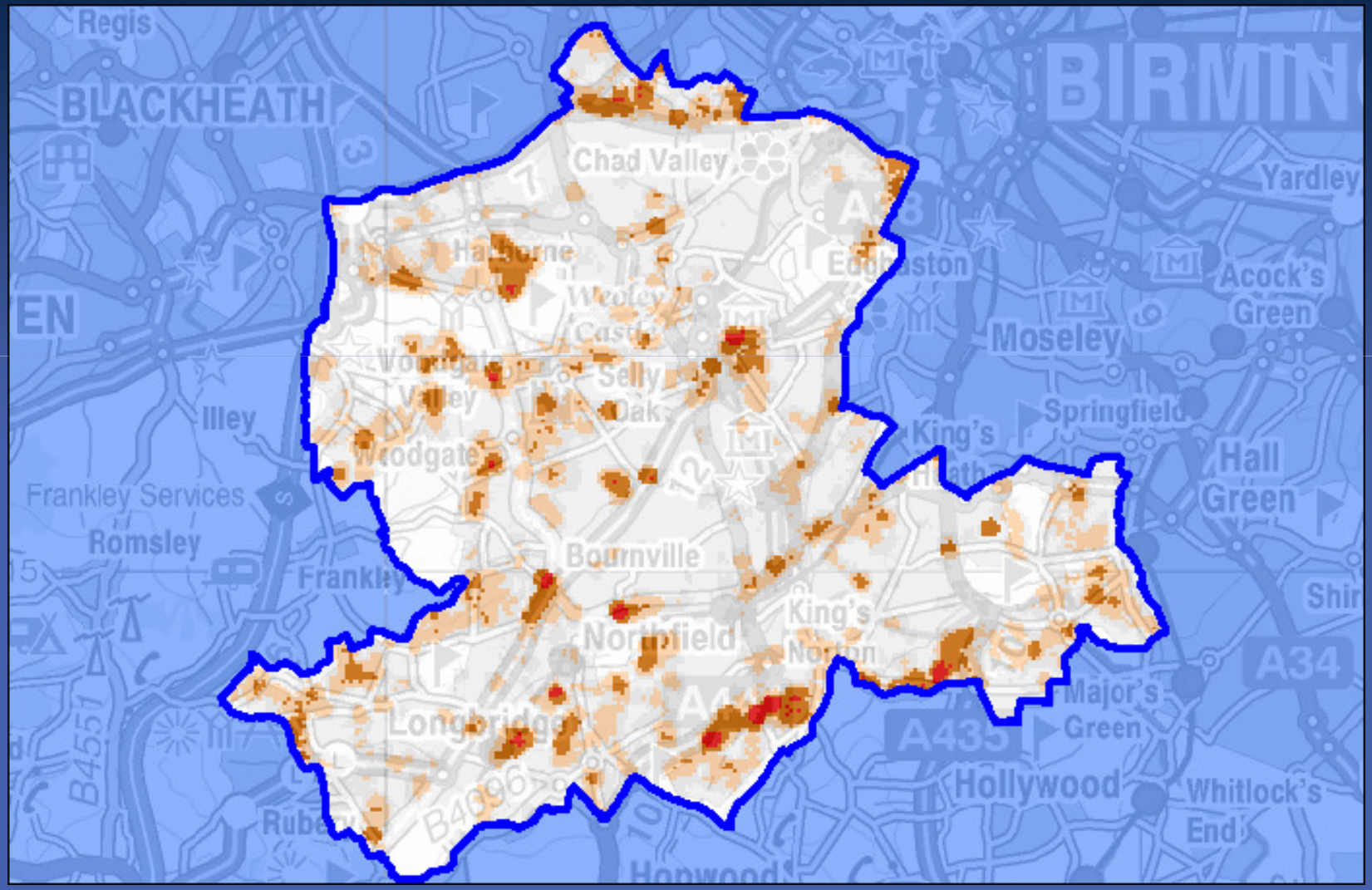
Overall combination of 6 Police components of DEMAND



Birmingham South mapping NEED

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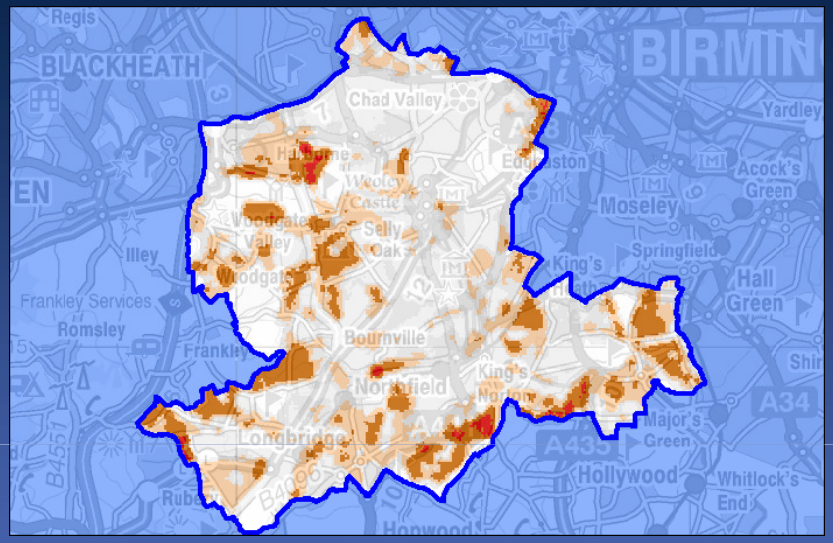
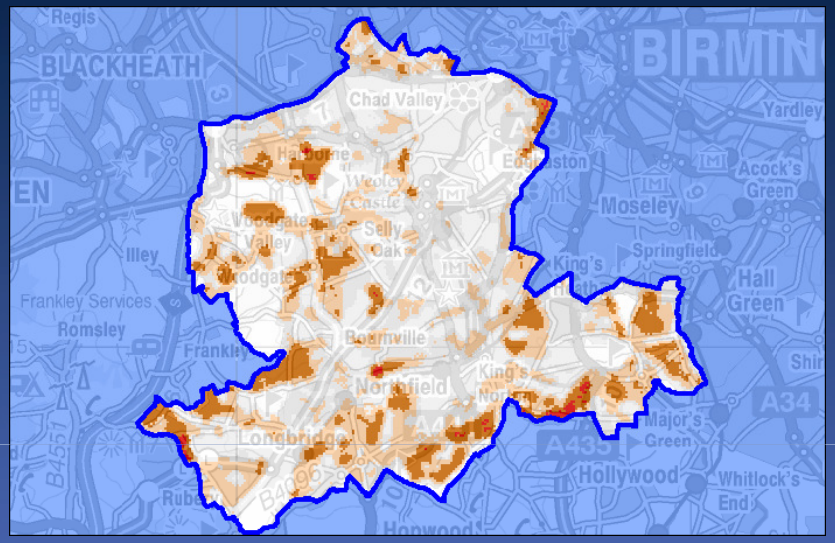
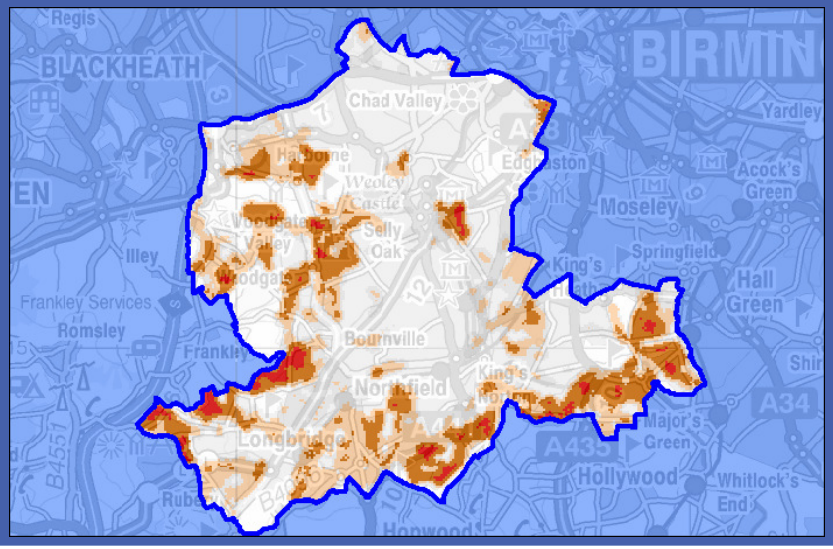
IMD Income domain



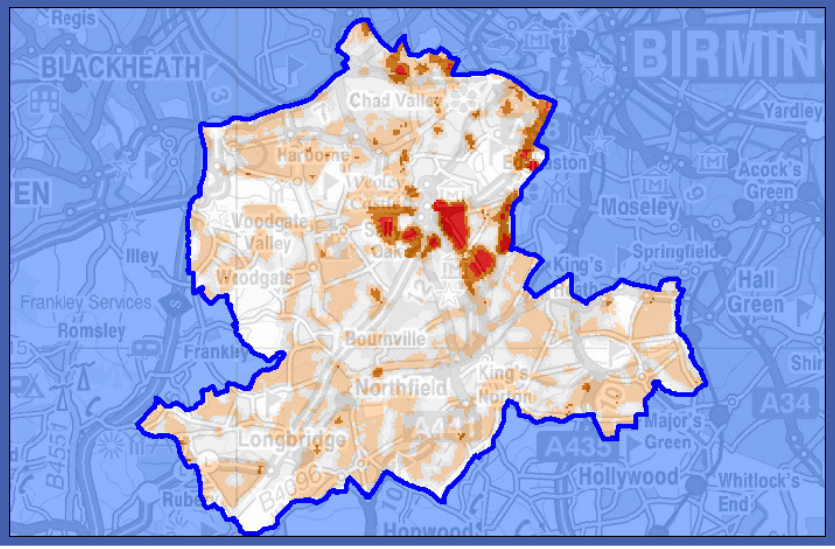
IMD Employment domain



IMD Education domain



Concentration of Young Persons



Birmingham South mapping NEED

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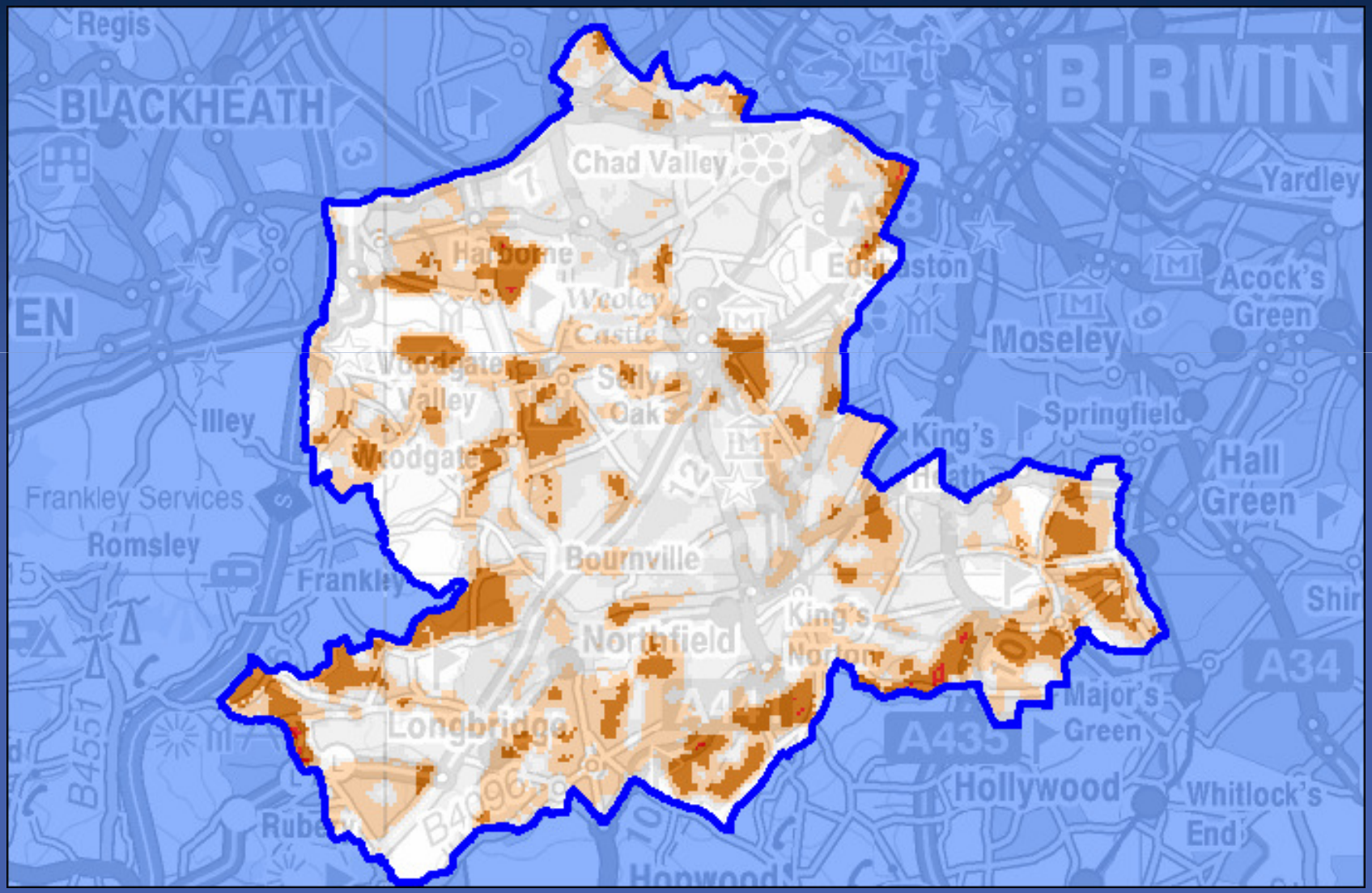
Overall combination of 4 non-Police components of NEED



Birmingham South mapping NEED

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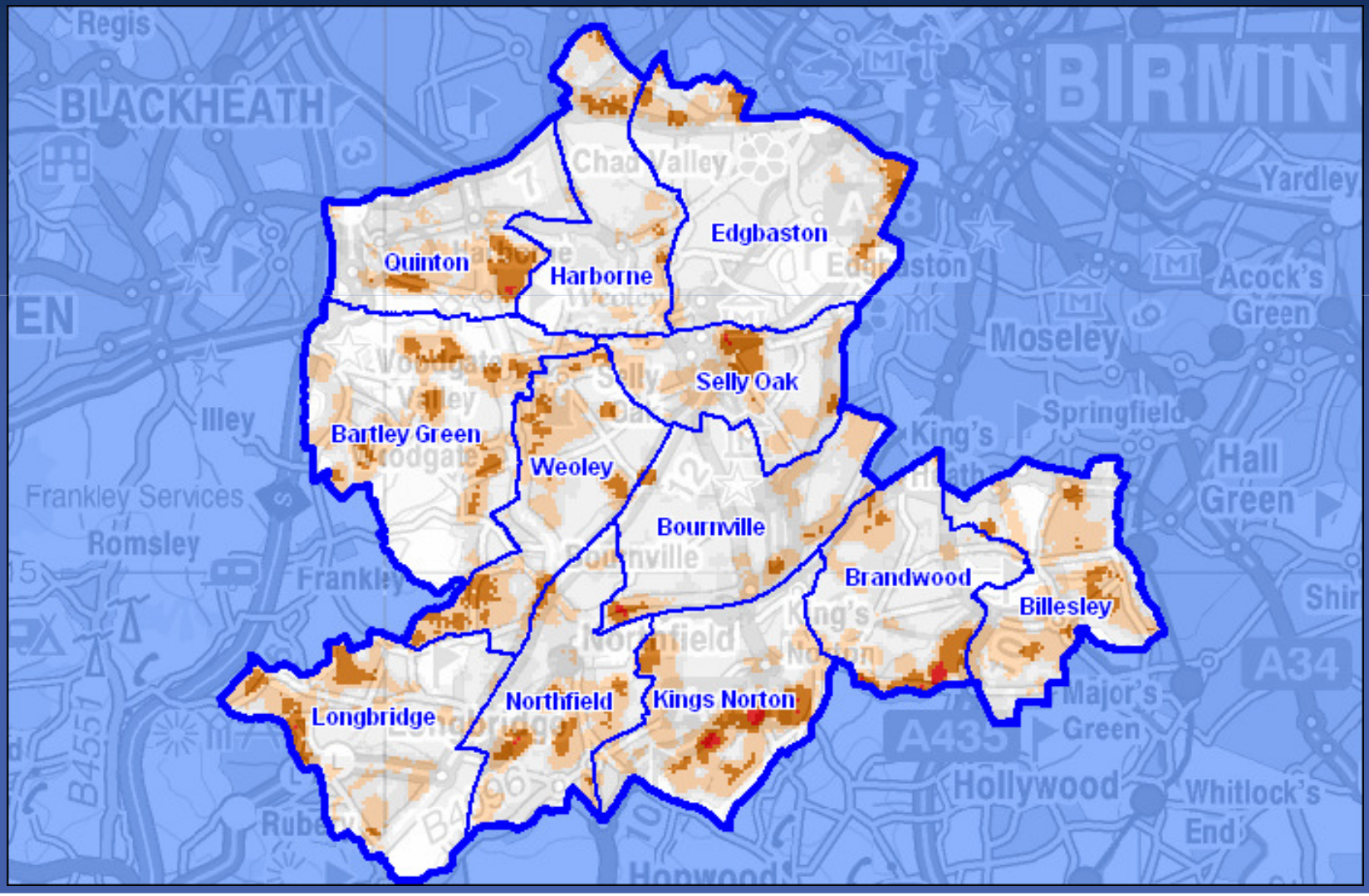
Combine DEMAND and NEED to Identify Challenging Localities

Calculate the sum of the 10 component scores & divide by 10



From spaghetti to shared priorities

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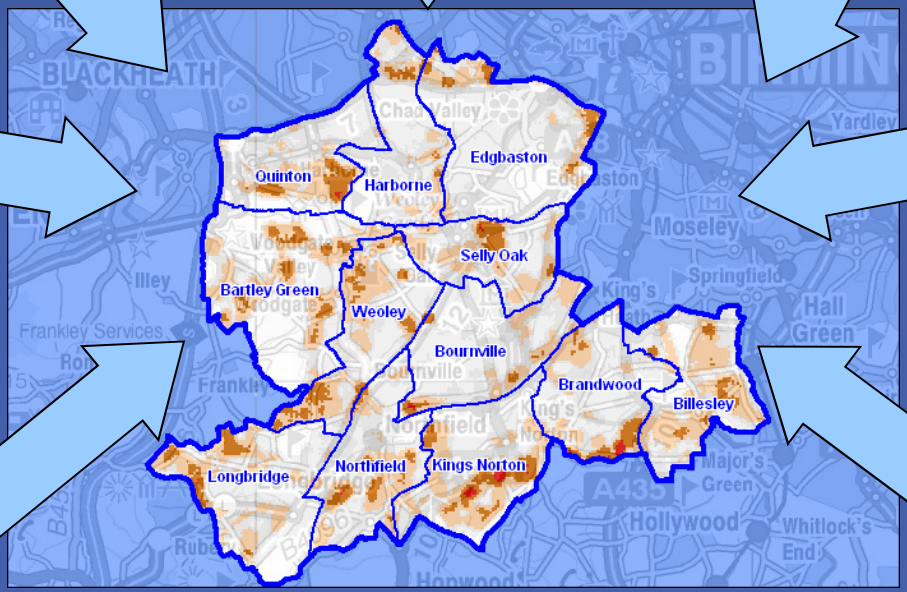
deprivation

offenders

serious crime

Violent crime

ASB



Criminal Damage

immediate response

What then..?

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Cross-checking with
Partnerships “do we agree..?”

Analysis of “Feeling the
Difference” survey data

Geo-demographic analysis

Proper Problem profiles &
Analysis

Strategic Assessment

Health Partners

Youth Service Provision

Prioritisation of budgets
& resources

Automation of analysis

Serving our communities,
protecting them from harm

Thank you for listening…

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