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Transport equity and transport-related social exclusion

Transport for the North
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Transport and social policy evolution

- Economic of transport are understood and have had **a strong influence** on policy decisions and project designs
- Environmental impacts increasingly measured and included within transport appraisal
- The ***social dimension*** of transport (+/-) is increasingly recognised and researched, but still plays a less influential role in transport investment decisions
  - Maybe partly due to a less robust set of methods and data to undertake social assessments on the ground
  - Might be due to the lower value that decision-makers place on social issues – often very localised

(Jones and Lucas, 2012)

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What are social impacts

- Geurs (2009: 71) offers a broad definition
- *"….changes in transport sources [infrastructure, vehicles and movement] that (might) positively or negatively influence the preferences, well-being, behaviour or perception of individuals, groups, social categories and society in general (in the future)."*
- Recognises as:
  - Positive or negative
  - Behavioural and psychological/cognitive
  - Objective and subjective

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What are distributional impacts?

- Distributional impacts are associated with ***assessment of transport equity/justice***
- Distributions may take three forms:
  1. Spatial (e.g. varying locational distribution of air pollution).
  2. Temporal (e.g. varying noise levels by time of day).
  3. Socio-demographic (e.g. differential impacts by age, income group or gender).
- Certain disadvantaged groups or areas may be:
  - »Cumulatively affected by multiple impacts and over time
  - »Interactively affected by multiple impacts e.g. house price increases can lead to displacement effects

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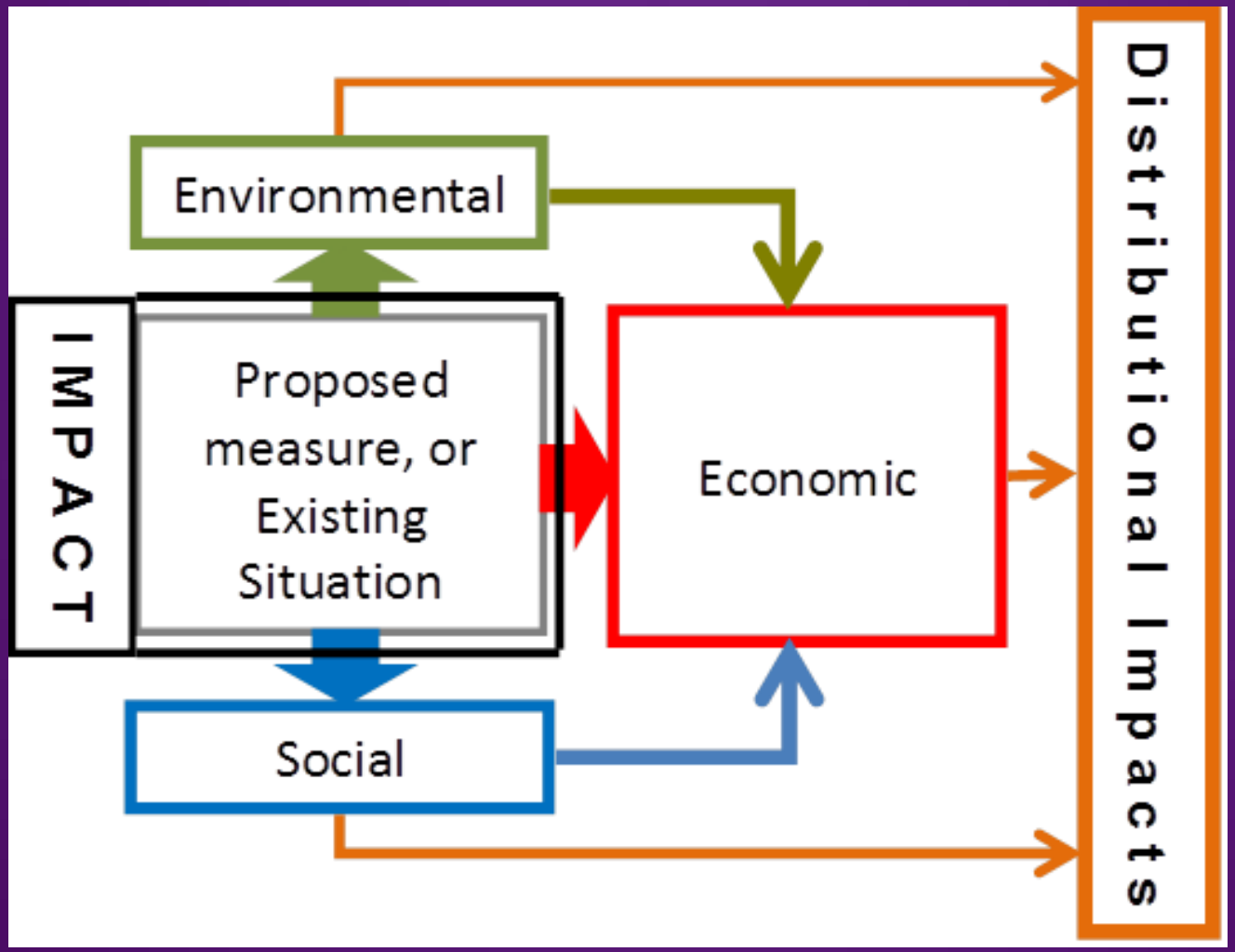
Interactions between impacts



Source: Jones and Lucas, 2012

Transport Appraisal Guidance – Social and Distributional impacts

SDI appraisal aims to:

1. **Measure the impacts** of transport interventions on different groups of people
2. Identify whether there are significant **negative impacts** on particular groups or areas
3. Identify whether expected negative impacts can be **eliminate**d through amendment to scheme design

The identification of potential SDIs is important in determining the ***efficiency of the overall appraisal proces***s (DfT, 2011).

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PRINCIPLES OF TRANSPORT JUSTICE

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The 3 core principles for transport justice

Social progress	Social distribution	Social justice

• Livelihoods:
  • Access to formal and informal transport
  • Access to key affordable services
  • Wider impacts
• Health and safety
• Planning and integration
	• Distribution of costs and benefits
	• Segregation of population groups
	• Identifying thresholds
		• Redistribution of benefits and costs
		• Equality of direct and indirect opportunities and outcomes
		• Potential for policy accountability

Normative social assumptions → Positive transport policy analysis → Framework for socially just appraisal

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Measure what you value and where you want to get to

- Adopt a people-centred livelihoods approach to evaluate performance
- Do you want equality in provision or equality of outcome or both?
  - If improved access to services is the aim the this is what you must measure.
  - If improved social outcomes are the policy goal then measure this.
  - Ideally measure both things repeatedly over time
- Cater for people's actual needs and not what you suppose them to be.
- And it has to be whole systems analysis not project by project.

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There's a hierarchy of *a priori* contextual issues

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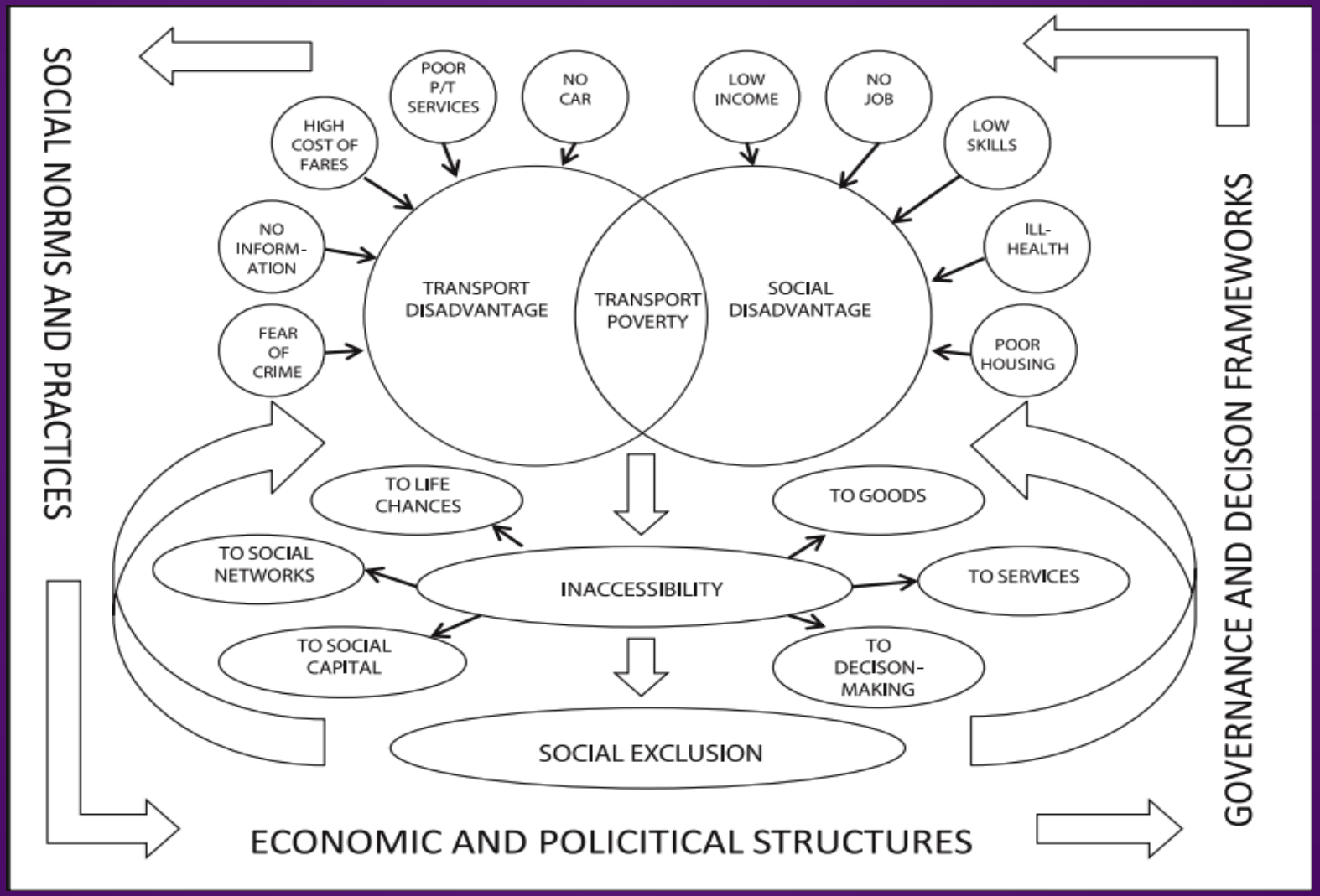
What happens to people when our transport systems don't work?



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Case study

LOWER THAMES CROSSING PROJECT

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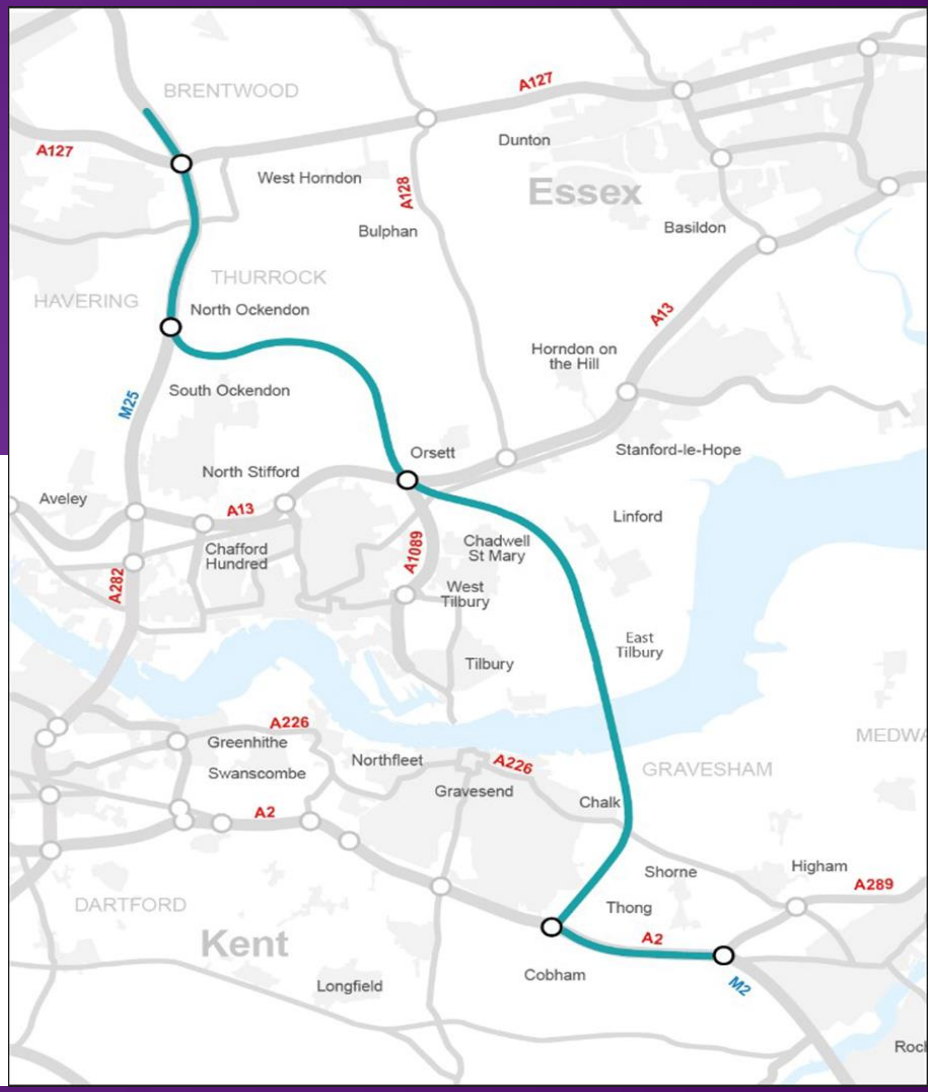
Lower Thames Crossing Project – Combined Community Impact Assessment



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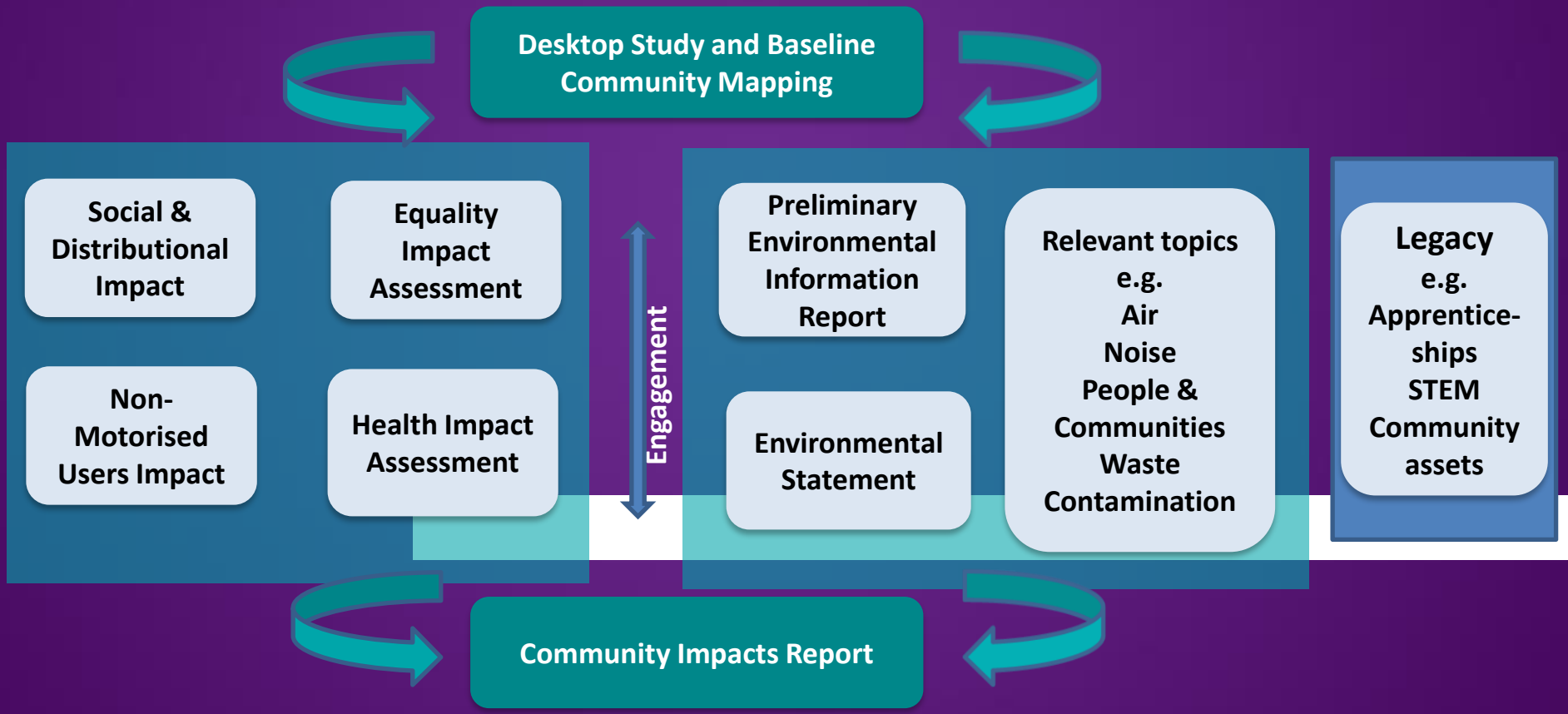
Elements of Community Impacts Work Stream



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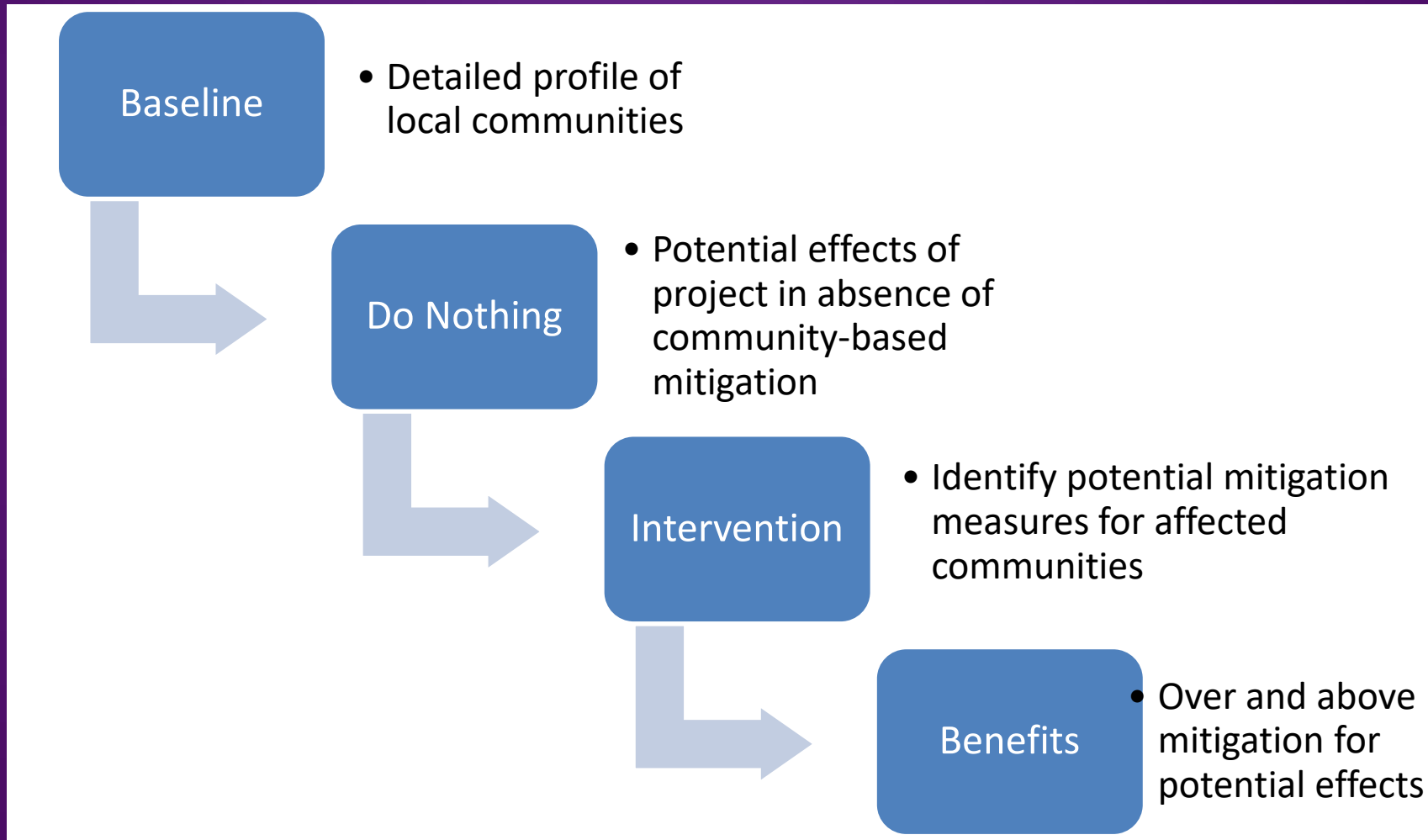

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Baseline Data

- Population numbers and density
- Age structure – children, young people (16-25), the elderly
- Gender
- Ethnicity
- Travellers
- Disability – Census data / benefit claimants / Blue Badge holders
- Economic activity / inactivity / unemployment / worklessness
- Deprivation – all subsets plus IMD
- Car ownership
- Faith

- Health baseline:
  - general health status
  - life expectancy / mortality rates
  - respiratory / cardiovascular
  - obesity (reception / year 6 / adult)
  - health inequalities
  - mental health
- Open space, leisure and recreation
- Location of community infrastructure and catchment areas where possible
- Mode of travel and journey purpose
- Walk / cycle accessibility, desire lines and preferences)

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Topics Scoped into the Integrated CIA

- Access to work, training and education
- Access to community infrastructure, open space and nature
- Air quality
- Noise
- Active travel
- Road safety
- Social capital – social networks, community safety
- Housing – displacement, affordability (property prices/rents)
- Climate change, waste

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Indicator Framework for comparative assessments over time

Impact	Sub- categories	Indicators	Metric	Data source	Catchment area	Disaggregation
Road users +/-	- Cars, - motorbikes - vans	Change in journey times	Minutes	Traffic model	A, B & C roads, TAZs	Car and non-car households
Connectivity/severance (NMUs)	- walk - cycle - bridleways	Change in journey times	Minutes	TRACC	Post code TAZs	All vulnerable groups
Accessibility (bus and rail)	Key destinations - employment - child care - education - health - shops - leisure - community centres - faith centres - green space	Change in journey times	Minutes	TRACC	Post code TAZs Local authority	All vulnerable groups
Road safety	- road users - pedestrians - cyclists	- collisions - casualties - deaths	Number	STAT 19	A, B & C roads	Age, gender, ethnicity
Personal safety	- pedestrians - cyclists - public transport users	- crime rates - perceptions	- number - rank score	- crime stats. - community engagement	- post code - TAZ - local authority	Age, gender, ethnicity
Health	- noise - air quality - obesity - wellbeing		- decibels - NOx & PM levels	- EIA - HIA - PH micro data	- I km - TAZ - local authority	Age, income
Affordability	- travel costs - housing costs	- cost relative to income - rental and property values	£s	- traffic model - TRACC - community engagement		Age, income
Social capital	- volunteering - voting - social support			- Census - community engagement		All vulnerable groups

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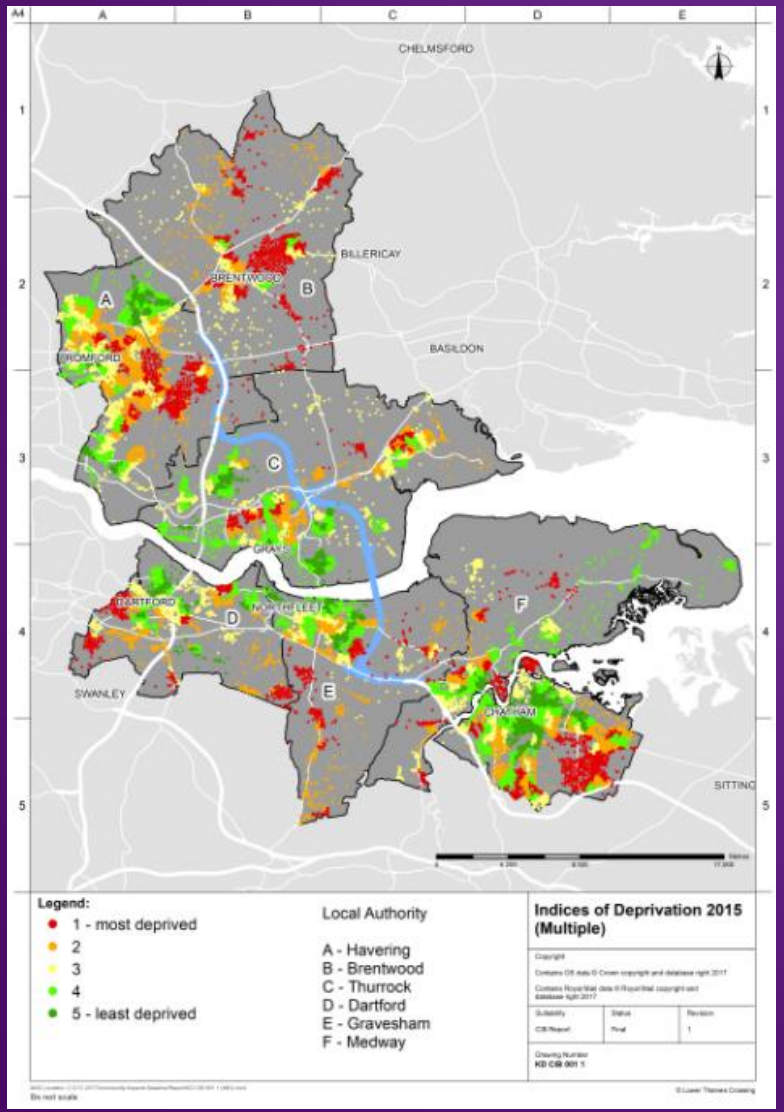
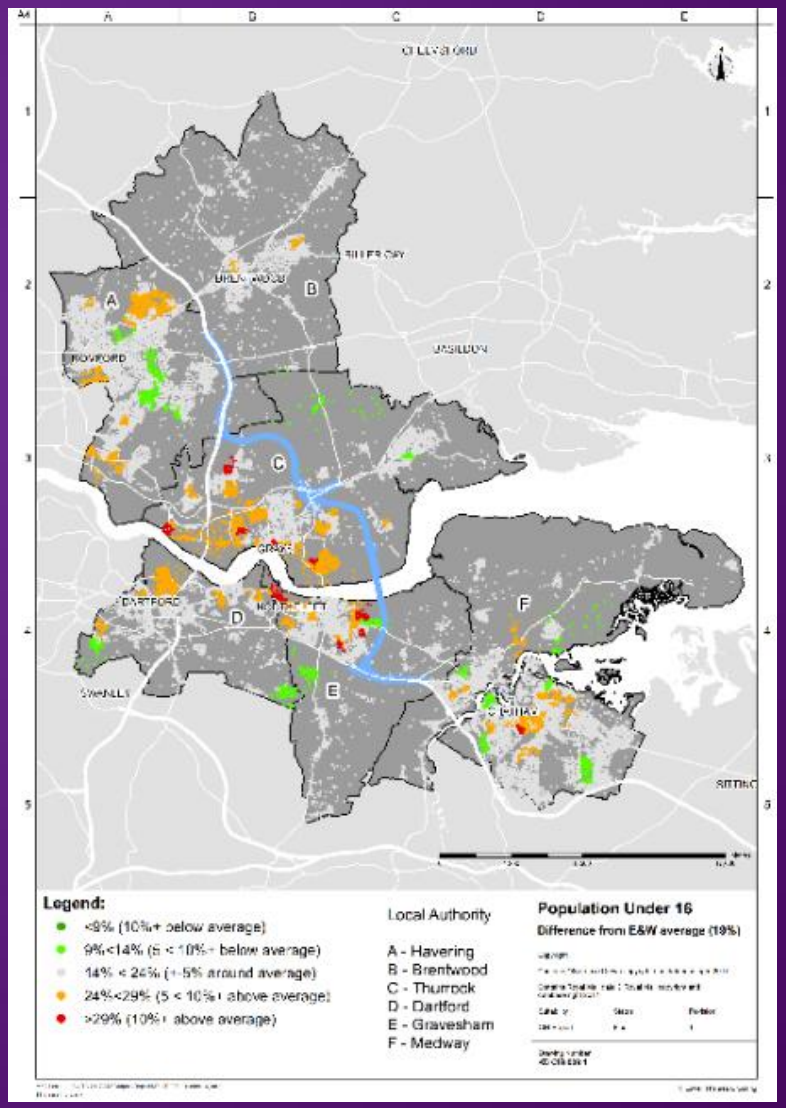
Baseline GIS demographic visualisation tool





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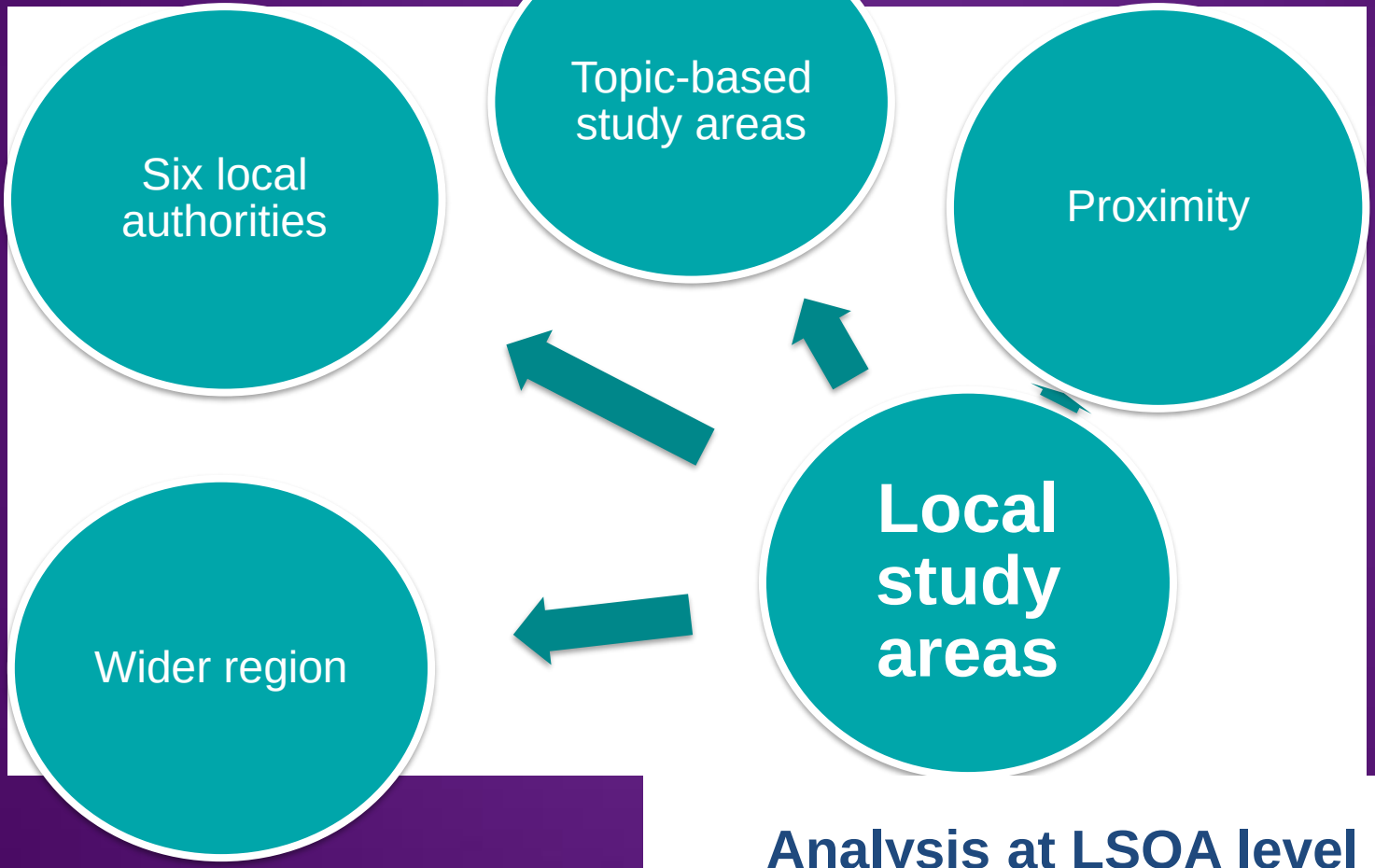
Catchment areas



Analysis at LSOA level

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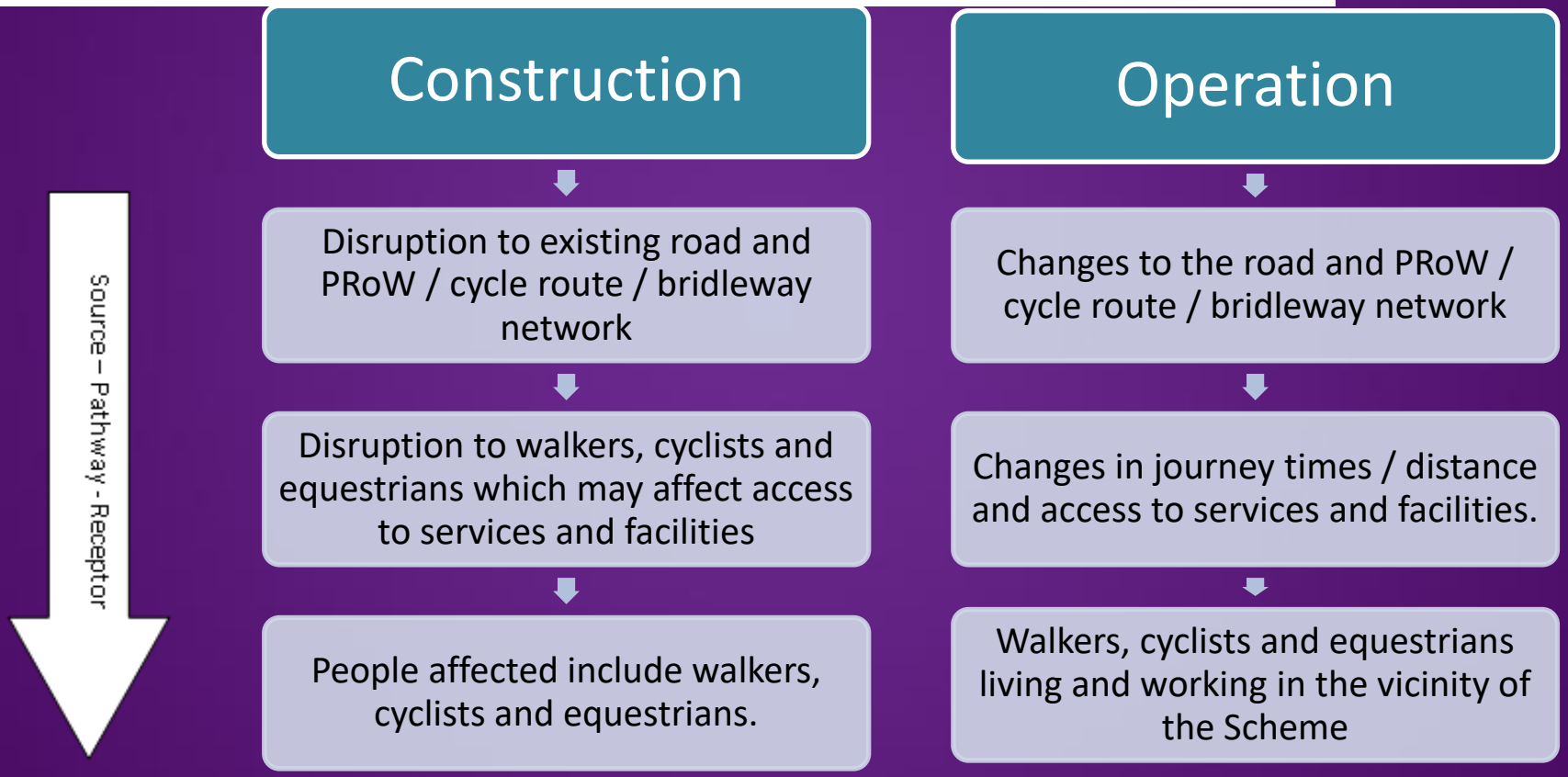
Severance – Source / Pathway / Receptor Model



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Example: Traffic-Related Severance

Assumptions:

- Traffic related severance defined as where there is a forecast flow change >30%
- Only single carriageway roads with speed limit of 50mph or less
- Amenities located within 800m zone

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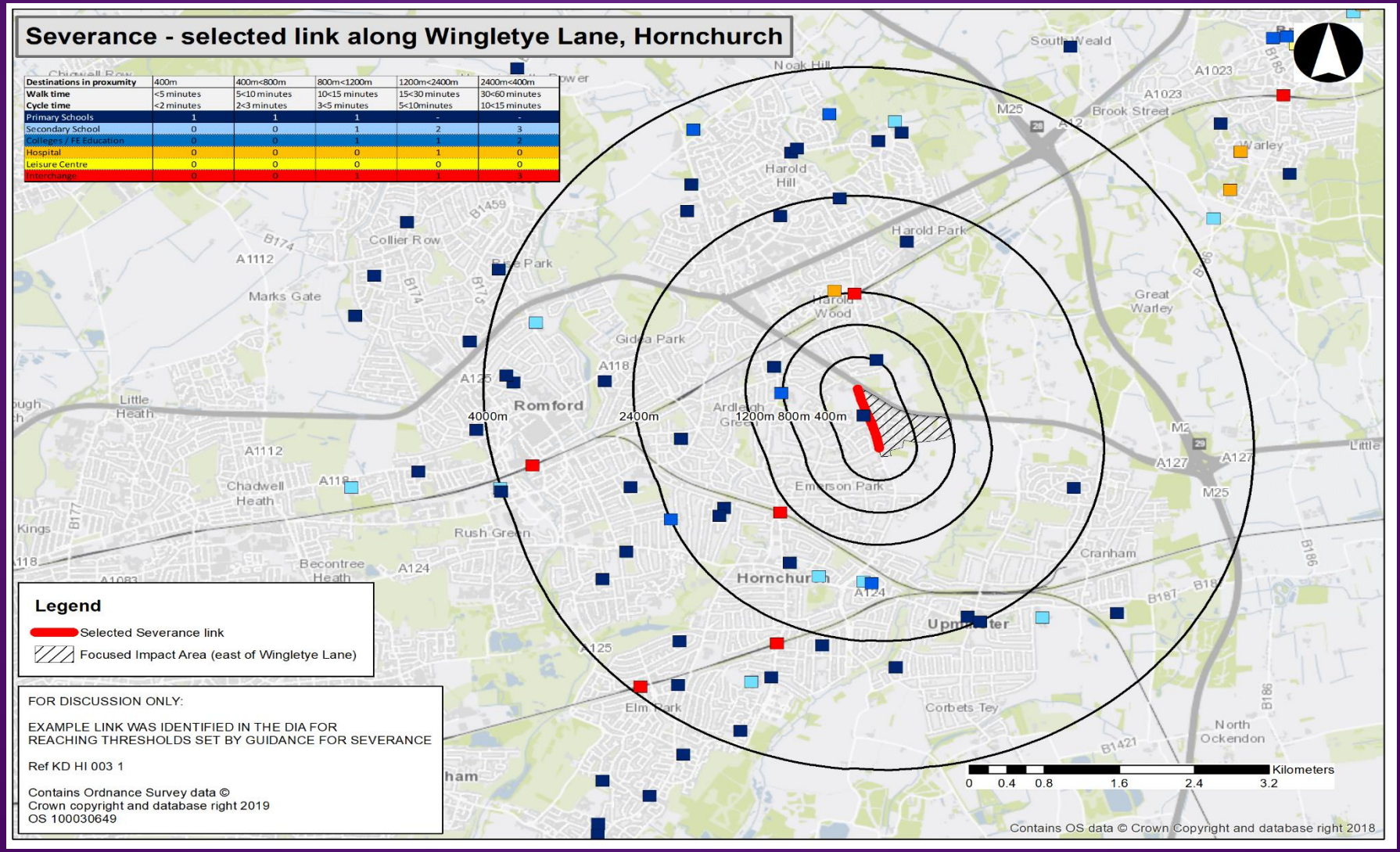

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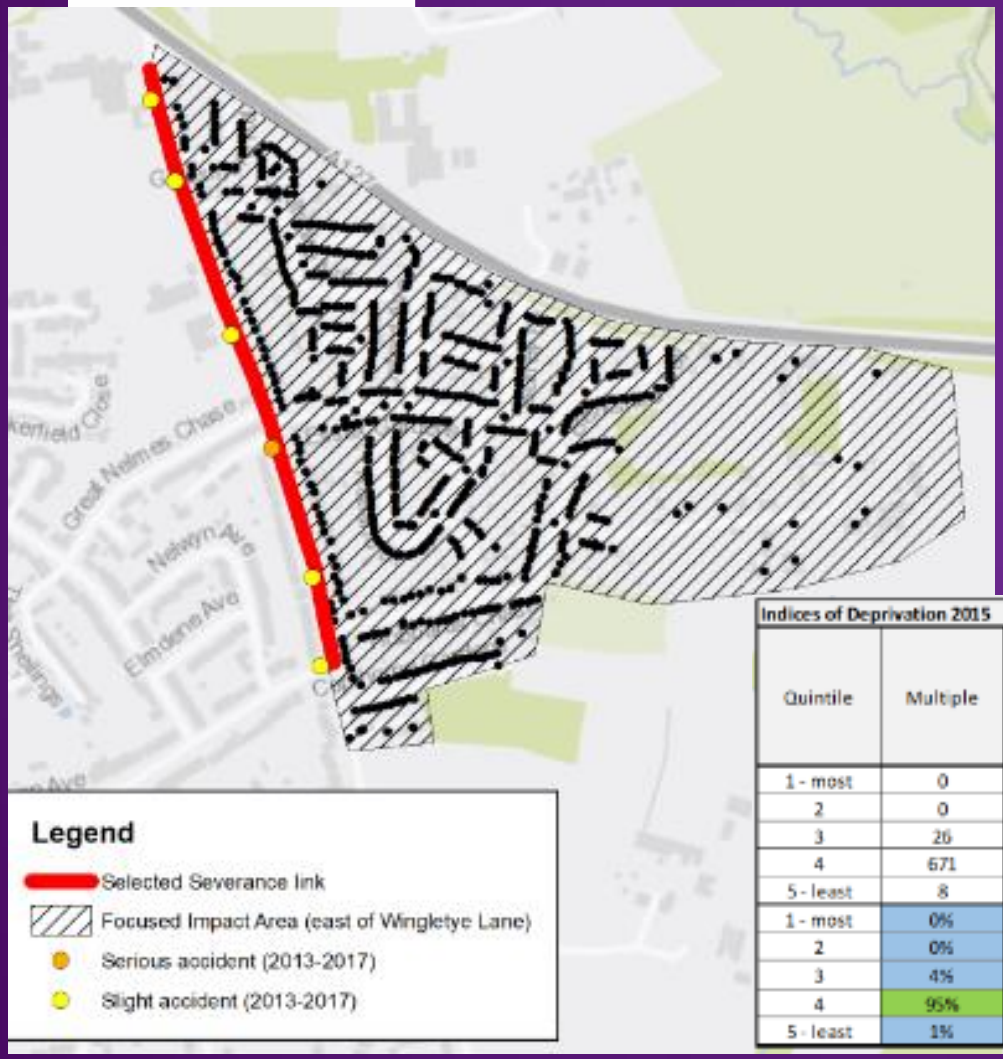
Potential Severance Impact Wingletye Lane, Hornchurch



Indices of Deprivation 2015

Quintile	Multiple	Income	Employment	Education, skills and training	Health and disability	Crime	Barriers to housing and services	Living Environment
1 - most	0	0	0	0	0	8	0	705
2	0	0	0	0	26	671	0	0
3	26	26	697	0	0	26	0	0
4	671	671	8	697	679	0	697	0
5 - least	8	8	0	8	0	0	8	0
1 - most	0%	0%	0%	0%	0%	1%	0%	100%
2	0%	0%	0%	0%	4%	95%	0%	0%
3	4%	4%	99%	0%	0%	4%	0%	0%
4	95%	95%	1%	99%	96%	0%	99%	0%
5 - least	1%	1%	0%	1%	0%	0%	1%	0%

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Additional Focus Groups with Local Communities

- To better understand the activities of **vulnerable audiences** living close to the LTC, with an emphasis on **travel behaviour and preferences**
- To explore how the lives and travel behaviours of vulnerable people may be **affected by the introduction of the LTC scheme**
- To illuminate **any differences between views** of vulnerable and non-vulnerable audiences

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Methodological Issues TAG

- Conflicting instructions between guidance documents – DMRB, TAG, AST, SIA, DIA
- Issues of aggregation of +/- social impacts over whole scheme – trade offs
- Think People – creating person centred metrics – e.g. air quality and noise
- Recording cumulative impacts on communities /places /people

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Specific issues with Distributional Impact Analysis

- Assessment assumes level of change for all indicators is of equal importance & weight
- Issue of consistency and validity on what is measured and included.
- Health thresholds not according to best knowledge e.g. thresholds for noise, air pollution, physical activity not based on WHO recommendations
- Health impacts not properly attributed to affected populations
- Impacts are only measured for current population so future effects not counted
- User benefits and affordability are overlapping/ double counting
- Accidents – poor understanding of the relationship between flow increases and forecast changes in number of accidents
- Severance focus is on physical severance, rather than traffic-related severance and assumes people want to reach particular amenities
- Accessibility - refers to accessibility by public transport not all modes

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Significant data gaps

- Most social impacts are based on traffic model predictions only
- Local travel surveys missing – targeted counts, some anecdotal information
- No data on attitudes perceptions of project or local conditions for quality of life
- Population projects are for whole area only and not currently included in SIA/DIA
- Identifying which destinations locations are relevant locally for determining severance and accessibility is difficult
- Further information required on potential public transport network impacts
- Attitudes and perceptions of the project from statutory consultation is limited and missing voices of ‘hard to reach’ groups
- Further bespoke data collection is definitely required

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Conclusions

- Transport systems are inherently linked with differential social outcomes
- There will always be winners and losers from new projects and high-level policies but some have greater capacity to adapt
- Integrated social assessment are needed to understand the overall impacts of projects on local populations
- Transport justice is about more than SDI analysis:
  - Establishing minimum standards and thresholds
  - Measuring performance to identify spatial and social inequalities
  - Exploring inequalities according to people's basic activity needs and capabilities
  - Delivering restorative projects and programmes to reduce inequalities of outcome
  - Evaluating performance against indicators of social progress and improved distributional benefits

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Further reading

My research pages
https://www.research.manchester.ac.uk/portal/karen.lucas.html

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