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Assessing the cost effectiveness of increasing accessibility for older people

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The policy analysis tool

A

Methodology for

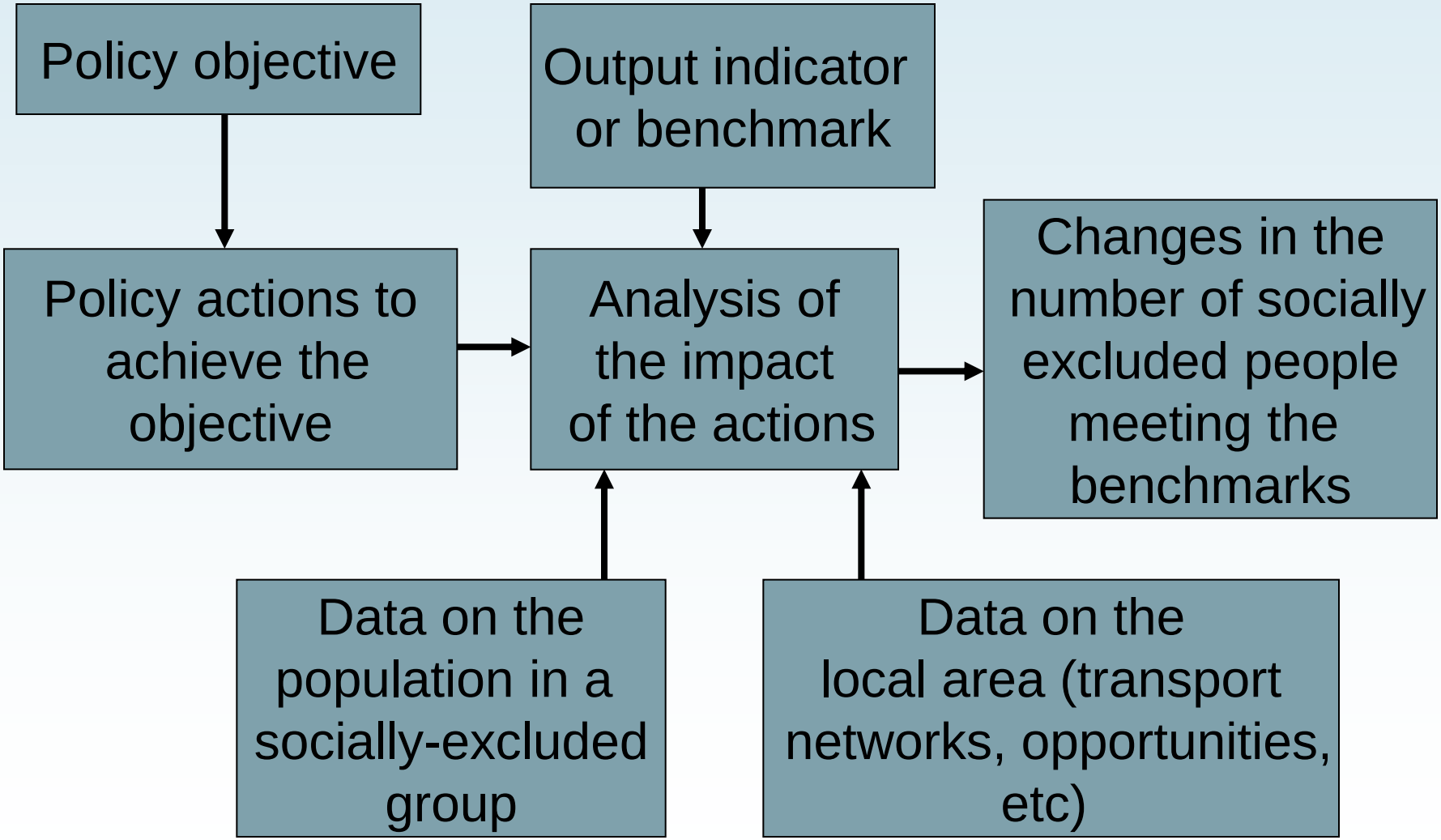
Enhancing

Life by

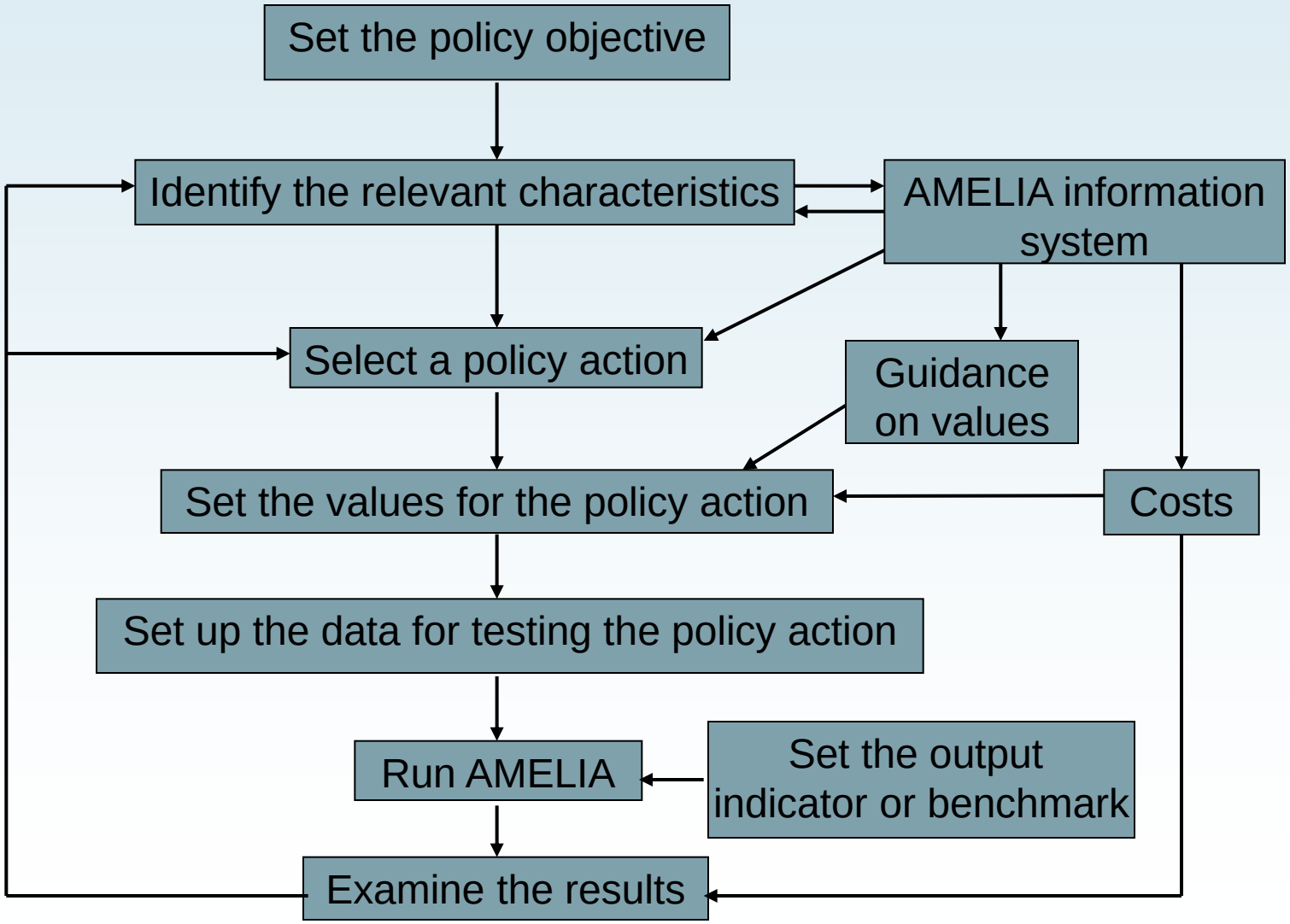
Increasing

Accessibility

The elements of the policy analysis tool, AMELIA



The procedure



Policy analysis with AMELIA

Policy objective: To establish the most cost effective improvements to accessibility for older people in the city centre.

Policy actions to achieve this:

- Providing dropped kerbs at existing crossings;
- Providing crossings every 100 m;
- Providing wider pavements;
- Providing benches every 50 m;
- Improving street lighting;
- Putting more public toilets.

The study area: St Albans.

Policy analysis with AMELIA

Output indicator:

- Increase in the number of people who can reach the city centre from the car parks;

The group being considered:

- The population aged 65+ who own a car based on the Census of Population, 2001 (16275 people)
- Disaggregated into categories according to walking ability using data from the Disability Survey of Great Britain.

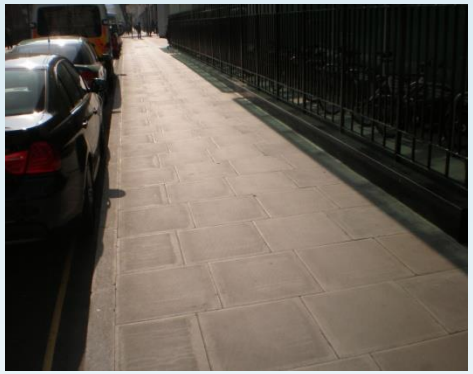
Estimated walking capabilities of older car owners of St Albans

Group	Cannot walk up one step	Can walk up one step	Total
Cannot walk at all or can walk less than 46 m	2116	0	2116
Can walk 46 m but not 183 m	65	911	976
Can walk 183 m but not 402 m	65	586	651
Can walk 402 m	0	12,532	12,532
Total	2246	14,029	16,275

Other assumed characteristics

- Half the adults aged 65 or over would be deterred from moving around the city centre if it means going along poorly lit streets;
- 7.5% of the adults aged 65 or over would be deterred from moving around the city centre if it means being more than 5 minutes from a public toilet.

The costs of the possible actions (in £)



Pavement - £65 per square metre

Benches - £500 each

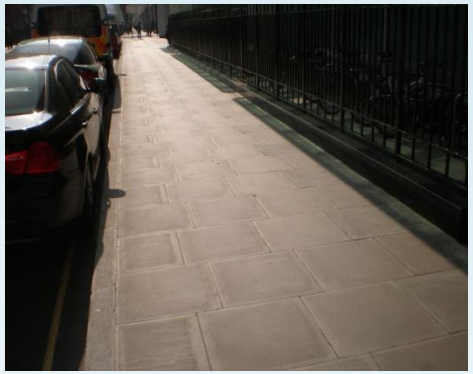
Pedestrian crossings - £25,000 each

Dropped kerbs - £1,000 each side or £2,000 per crossing

Street lighting – £1,600 each new or £450 for an upgrade

Public toilets – £200,000 new or £25,000 for an upgrade

The costs of the possible actions in ($AUS)



Pavement - $108 per square metre

Benches - $833 each

Pedestrian crossings - $41,500 each

Dropped kerbs – $1,660 each side or $3,320 per crossing

Street lighting – $2,656 each new or $664 for an upgrade

Public toilets – $332,000 new or $ 41,500 for an upgrade

Cost of the policy actions

Policy action	Number of units	Unit cost	Total cost
Providing dropped kerbs at existing crossings	8	$3,320	$26,560
Providing wider pavements	1432	$108/m^2	$154,656
Providing crossings every 100m	5	$41,500	$207,500
Providing benches every 50m	148	$830	$122,840
Providing streets with better lighting	20 new, 47 upgraded	$2,656 for new $664 for upgrade	$84,328
Improving the provision of public toilets	2 new 2 upgraded	$332,000 for new $41,500 for upgrade	$747,000

Impact of the policy actions

Policy action	Number of extra older people who can walk to the city centre	Cost per head of policy action	Ranking from cheapest upwards
Providing dropped kerbs at existing crossings	8	$3,320	4
Providing wider pavements	4	$38,664	5
Providing crossings every 100m	0	$∞	6
Providing benches every 50m	1397	$88	2
Providing streets with better lighting	4068	$20	1
Improving the provision of public toilets	320	$2,334	3

Findings

- Improving street lighting, upgrading existing public toilets and providing benches are more cost effective in increasing access for older people than providing more dropped kerbs, wider pavements and more road crossings.
- The results are dependent on assumptions about:
  - The capabilities of people with particular characteristics;
  - The extent to which barriers to access prevent people reaching opportunities.
- AMELIA offers a framework to explore these issues.
- The transferability of these results needs to be explored.

Further information

- AUNT-SUE website: http://www.aunt-sue.info/.
- E-mail: rlm@transport.ucl.ac.uk