Neighbourhoods & Intensification: Measuring Sustainability

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Creating homes and neighbourhoods that work well into the future and don't cost the Earth

Contradictory views around merits of intensification & mixed use:

· Politicise debates on urban structure and land use planning

· Reflect sparse empirical data on household behaviours and build environment impacts

· A lack of tools to systematically assess different permutations of density and use In different situations

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This debate is too important to be:

- Uninformed by evidence

- Undertaken without thinking about neighbourhoods

Cities are built on neighbourhoods

· They are the site for social reproduction

· They are the site for economic production

· They connect the city together

· The way and where neighbourhoods are built impacts:

- Directly on the biophysical environment
- The sustainability of people's behaviours and relationships.

Beacon's Neighbourhood Sustainability Framework & Tools:

- Help us understand neighbourhoods better
- Have a systematic way of assessing new and existing neighbourhoods
- Focus on where a difference can be made in a new or existing neighbourhood to:
  - Optimise the quality of life for those that live, work or play in them
  - Increase the externalised value of a neighbourhood
  - Reduce the externalised costs of a neighbourhood

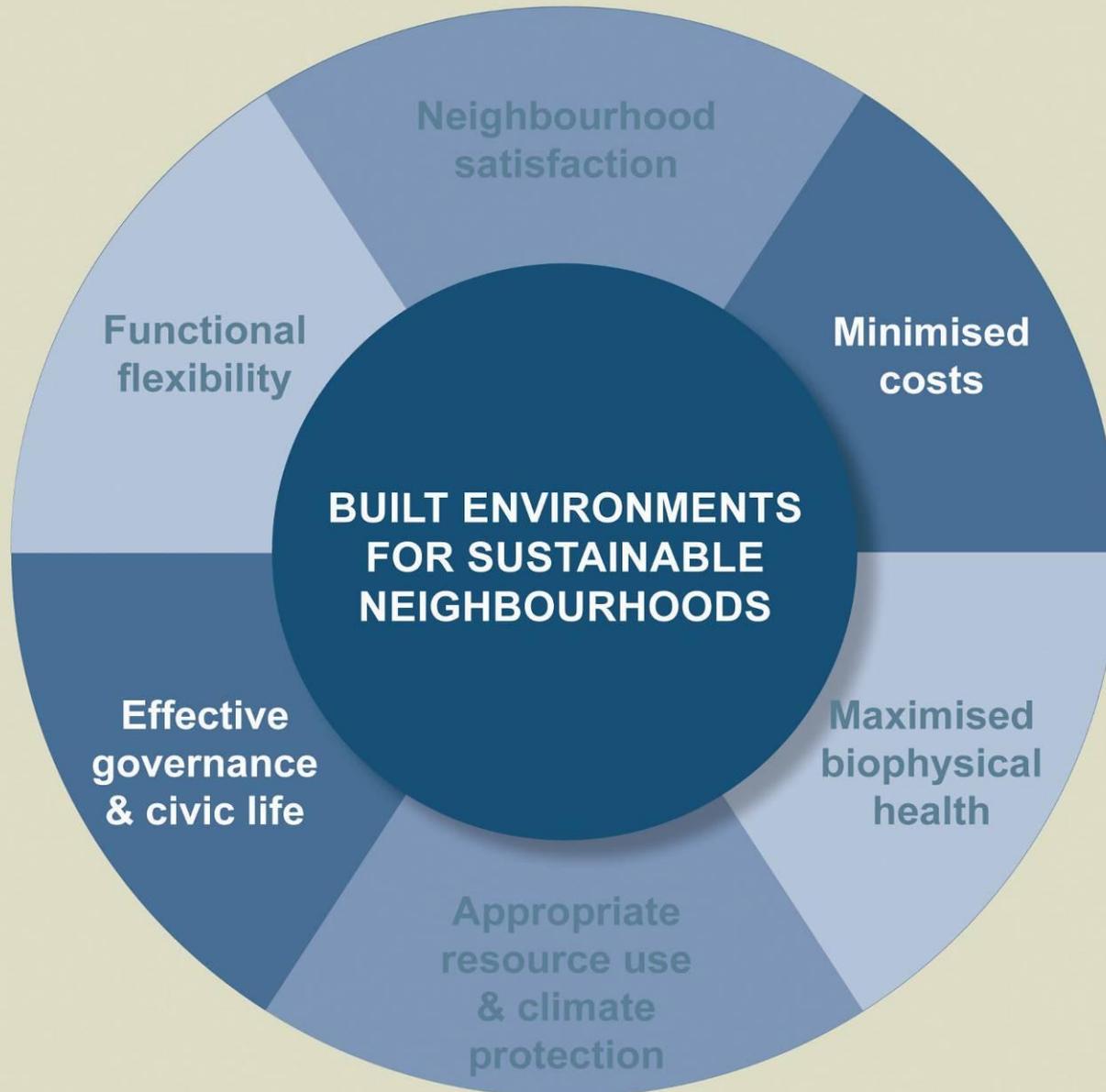**Beacon**

Sustainable Neighbourhoods Can

- Work across the triple bottom line

- Be resilient

- Deliver quality of life

- Attract skilled people to our cities

- Underpin city productivity

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Beacon's Neighbourhood Sustainability Framework

- Is outcome based
- Sets a goal for designing and managing the neighbourhood built environments
- Assesses the performance and potential of neighbourhoods through:
  - The Neighbourhood Built Environment Assessment Tool
  - The Resident Self-Report Tool

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SIX CRITICAL OUTCOME DOMAINS FOR SUSTAINABLE NEIGHBOURHOODS

Neighbourhood satisfaction

Minimised costs

Functional flexibility

BUILT ENVIRONMENTS FOR SUSTAINABLE NEIGHBOURHOODS

Maximised biophysical health

Effective governance & civic life

Appropriate resource use & climate protection

Observational Tool Measures New & Existing Neighbourhoods

- Access to basic every day facilities within walking distance
- Access to and adequacy of public transport within walking distance
- Quality of space
- Efficient use of space and viability of local centres
- Diversity
- Protection and enhancement of the natural environment
- Dwelling level sustainability

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The Resident Self Report Tool

- Measures resident perception and behaviour
- Only used for existing neighbourhoods
- Uses self-reported information
- Neighbourhoods are assessed against a national baseline
- The neighbourhood baseline is a National Survey of 1613 householders

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Residential Self Report Tool – Version 3

Domain	Measure
Functional flexibility	- % intention to move because of housing
	+ % foot/bicycle/public transport for work/study
Neighbourhood satisfaction	- % intention to move because of neighbourhood
	+ % describing house/garden condition as 'very good'
	+ % describing walking in street at night as 'very safe'
	- % describing walking in street at night as 'very unsafe'/'do not go out at night'
	+ % noise disturbance described as 'not a problem'
	- % noise disturbance described as a 'serious problem'
	- % no chat or greeting of neighbours
	- % no neighbours known by name
	+ % knowing many in the neighbourhood
	+ % strongly agreeing that the neighbourhood is friendly
	+ % strongly agree that neighbourhood reflects own identity
	+ strongly agree that has a sense of belonging

Residential Self Report Tool – Version 3

Domain	Measure
Maximised biophysical health	- exceeding average aggregate kms last 4 weeks car use
	+ % use bicycle/walk for work/study
	+ % undertakes composting
	+ % leaves undisturbed area for wildlife
	+ % maintains shrubs and garden
	+ % provides pond
	+ % provides food and water for wildlife
	+ % undertakes organic gardening

Residential Self Report Tool – Version 3

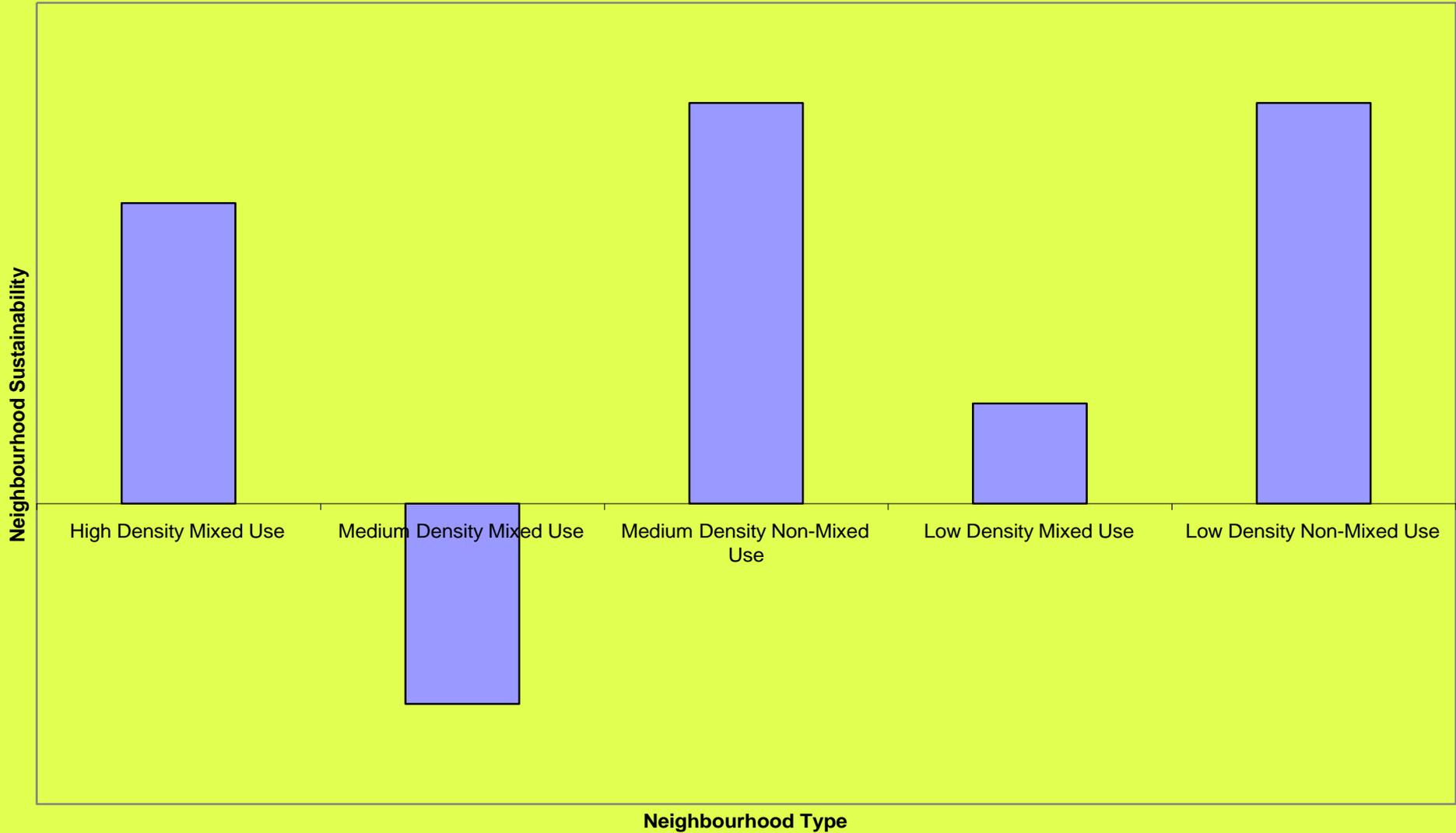| Domain	Measure
Effective governance and civic life	+ % membership and participation in local or neighbourhood groups
	+ % participation in local or neighbourhood group at least once a month
	+ % use of local public spaces at least once a month
Resource use & climate protection	-exceeding average aggregate kms last 4 weeks car use
Minimised cost	+ % who expend more than half of their food expenditure in the neighbourhood

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How has the NSF been used?

- To better understand the potential for new neighbourhoods and their sites.

- To identify retrofitting options for existing neighbourhoods.

- To assess what types of neighbourhoods provide value or expose us to direct or indirect costs.

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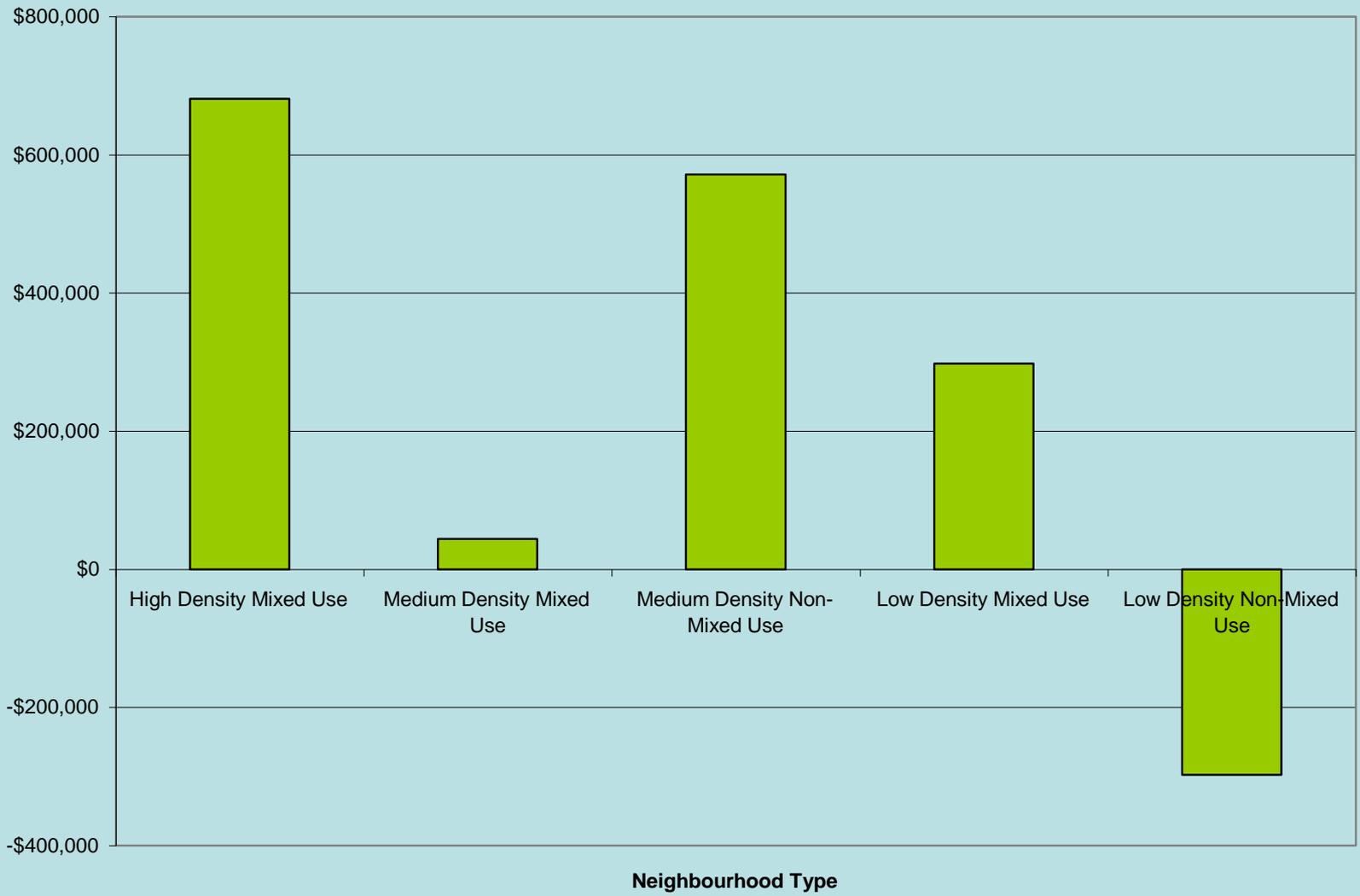# So What Neighbourhood Types Get High Assessment?

- On the Observational Tool:
  - Higher density and mixed use neighbourhoods
- Resident Self Report Assessment shows:
  - Higher density and mixed use neighbourhoods in NZ are not always performing well
- National Neighbourhood Survey data shows:
  - High density mixed use – highest scores
  - Medium density mixed-use – lowest scores

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Monetising Neighbourhood Characteristics

- Impacts of public transport availability and amenities on property prices
- Property value impacts of neighbourhood dilapidation
- Impacts of street and public space design on property values
- The value of walking and the neighbourhood built environment design features that prompt walking
- The impact of environmental degradation on investment, disinvestment and attachment
- The impact of neighbourhood mix, density and street design on crime
- The impacts of connectivity on civic participation
- Neighbourhood transport patterns of road death and injury
- Impacts of crime on health outcomes

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Lessons for the Intensification and Use Debate

- Neighbourhoods are complex and dynamic
- Neighbourhoods have externalised impacts beyond the households that live in them
- Good characteristics may not deliver if implemented poorly
  - Medium and high density neighbourhoods have buildings that are not suited to functions
  - Mixed use neighbourhoods demand different buildings
- Neighbourhood performance is profoundly affected by position in the city system and management
- Single point in time measures have limited value
- City performance reflects the distribution of neighbourhood types and needs to be incorporated in structure planning

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Building on the NSF

- Version 4 recognises some key findings for the 'valuing neighbourhoods' exercise
- Weights more heavily walk- and ride- ability
- Reconfirms the importance of neighbourhood assessment for decision-making
- Moves from simply rating neighbourhoods
- By providing a consistent language and outcomes framework it can inform:
  - City growth and development
  - District planning
  - Identification of priority areas for redevelopment intensification

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NSF and Its Tools

Coming soon in kit form:

- Neighbourhood Sustainability Framework

- Statement of purpose – assessment not rating

- Use guidelines

- Excel interface and calculators

- Data collection instruments

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