

NATIONAL ROADS AND GREENWAYS CONFERENCE 2023

Thursday 28th and Friday 29th September 2023

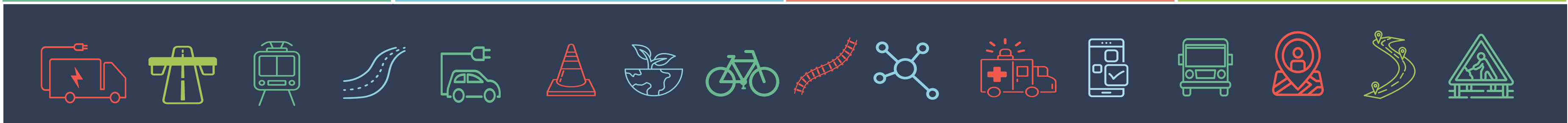


Evaluating the Impacts of National Road Town Bypasses

Kelly McCarthy, TII

Thursday 28th September 2023

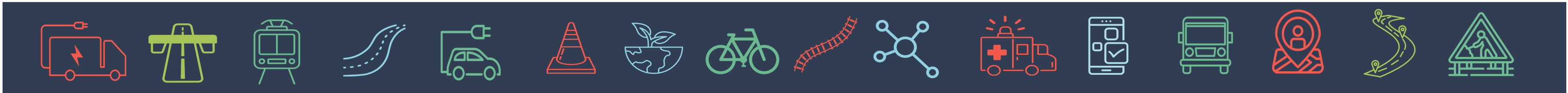
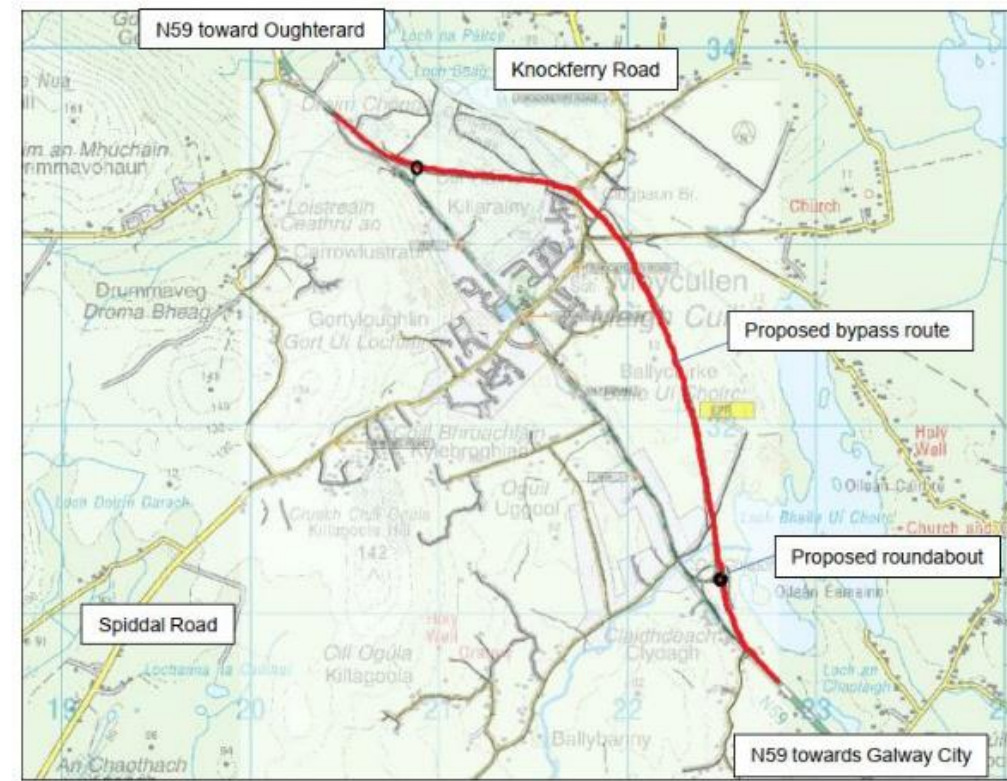
Session 3: Mobility of people and goods in urban areas



Bypass Impact Evaluations - Background

- Comprehensive evidence-based monitoring and evaluation of impacts specifically of bypasses
- Going beyond the scope of Post-Project Reviews (safety, economic, environmental objectives)
- Test hypotheses – ex. Will town centres be revived?

Where are we carrying out studies?





Comhairle Contae Mhaigh Eo
Mayo County Council



Cork
County Council
Comhairle Contae Chorcaí



Comhairle Chontae na Gaillimhe
Galway County Council

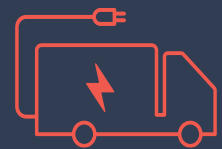


Comhairle Contae Chiarraí
Kerry County Council



Data – sources – desktop

- Census data / POWSCAR
- Geodirectory
- Business cases
- Bus timetables
- Google Journey Times
- Fáilte Ireland visitor accommodation database
- Local and national newspapers
- Amongst others



Data – sources - fieldwork

Quantitative

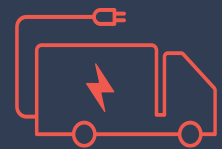
- Resident surveys
- Visitor surveys
- Business surveys (online and calling in)
- Traffic / movement surveys, including active modes
- Air and noise monitoring

Focus group discussions: residents and businesses (qualitative inputs)



Data – what are we looking at?

- Approximately 30 indicators:
 - Safety
 - Economy
 - Accessibility and social inclusion
 - Actives modes
 - Environment
 - plus media monitoring



Safety

- Example – safety perception (residents)

Please rate the following aspects of Moycullen based on your experience of moving around in the town

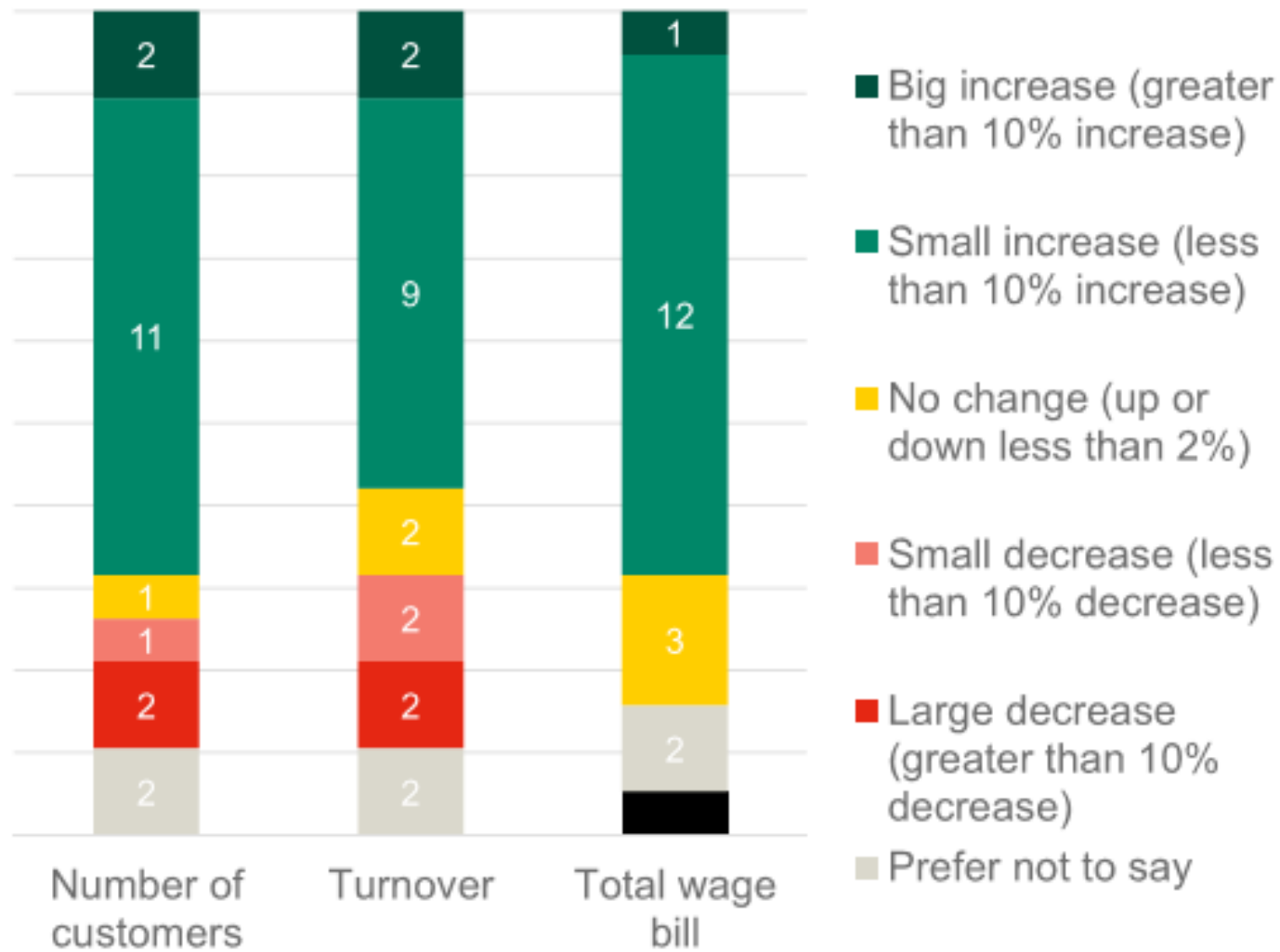
Residents (N=215)	Very poor	Poor	Acceptable	Good	Very good	Don't Know
Road safety for drivers	3%	17%	32%	46%	2%	1%
Road safety for pedestrians	12%	33%	20%	33%	2%	0%
Road safety for cyclists	27%	31%	13%	5%	0%	23%
Feeling of personal safety / security (daytime)	0%	0%	7%	55%	37%	0%
Feeling of personal safety / security (evening/night-time)	0%	0%	8%	58%	32%	1%



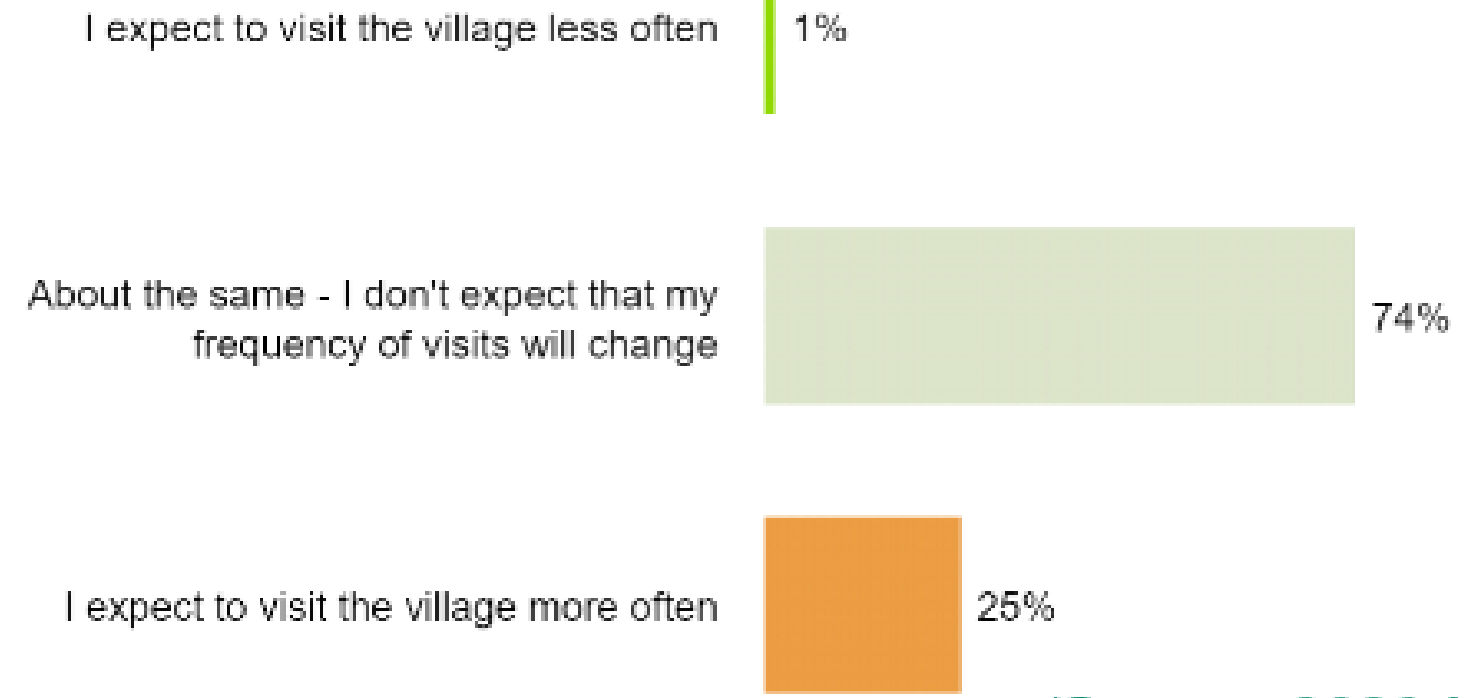
Economy

Example – business sentiment; visitor expectations

Relative to this year, what are your business expectations for next year (2023) regarding(N=19)

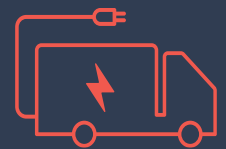


Do you expect to visit Moycullen more often, less often or about the same when the bypass is open? (N=188)

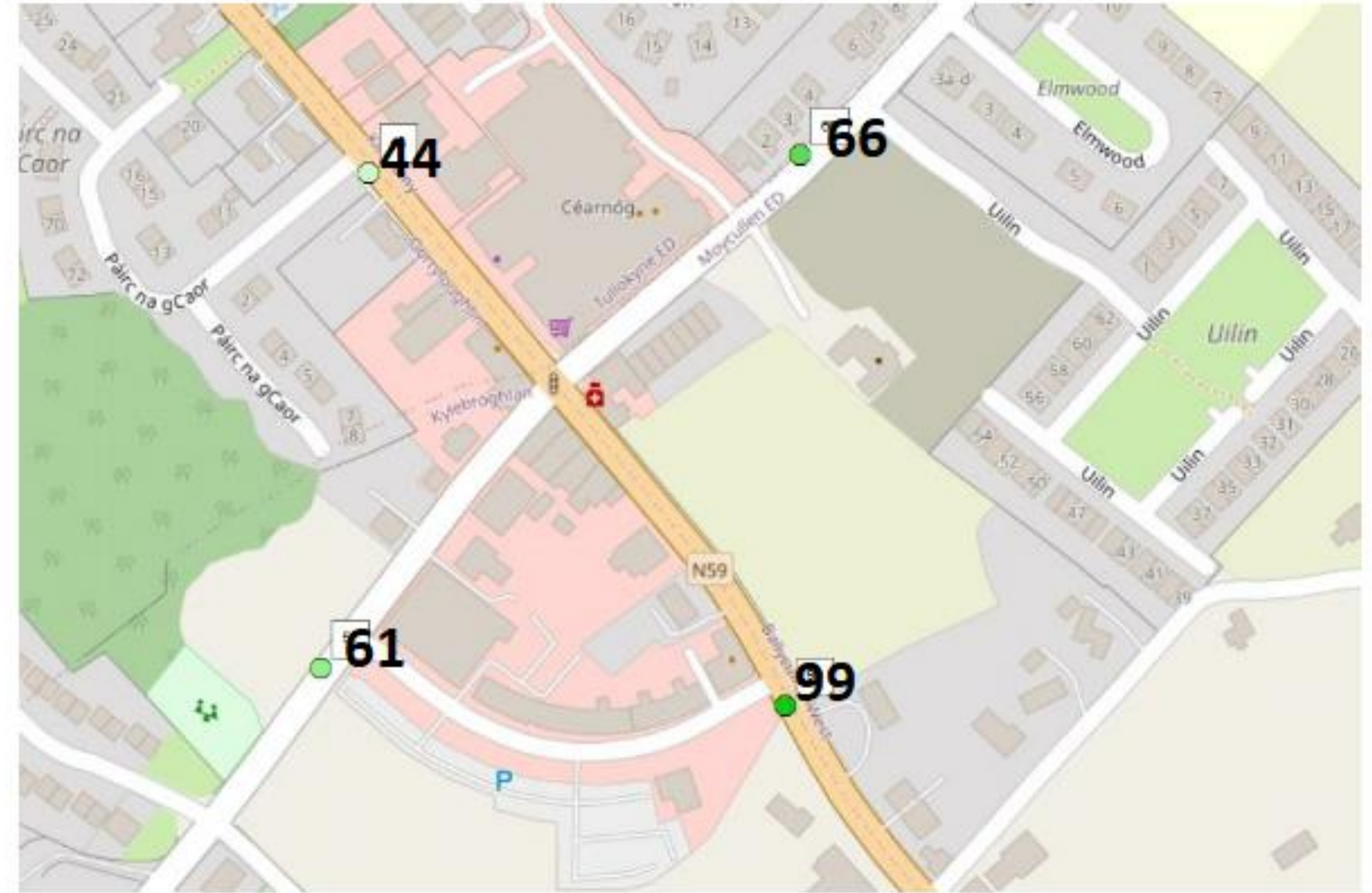


Accessibility and social inclusion

- Car Journey Times to Key Destinations
- Bus Services
- Community Events
- Public and Private Outdoor Seating

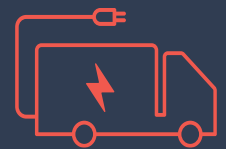


Actives modes - cyclist parking and counts



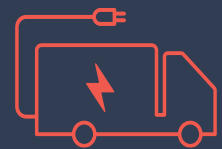
Environment

- Air Quality
- Noise
- Public Electric Vehicle Charging Point Counts



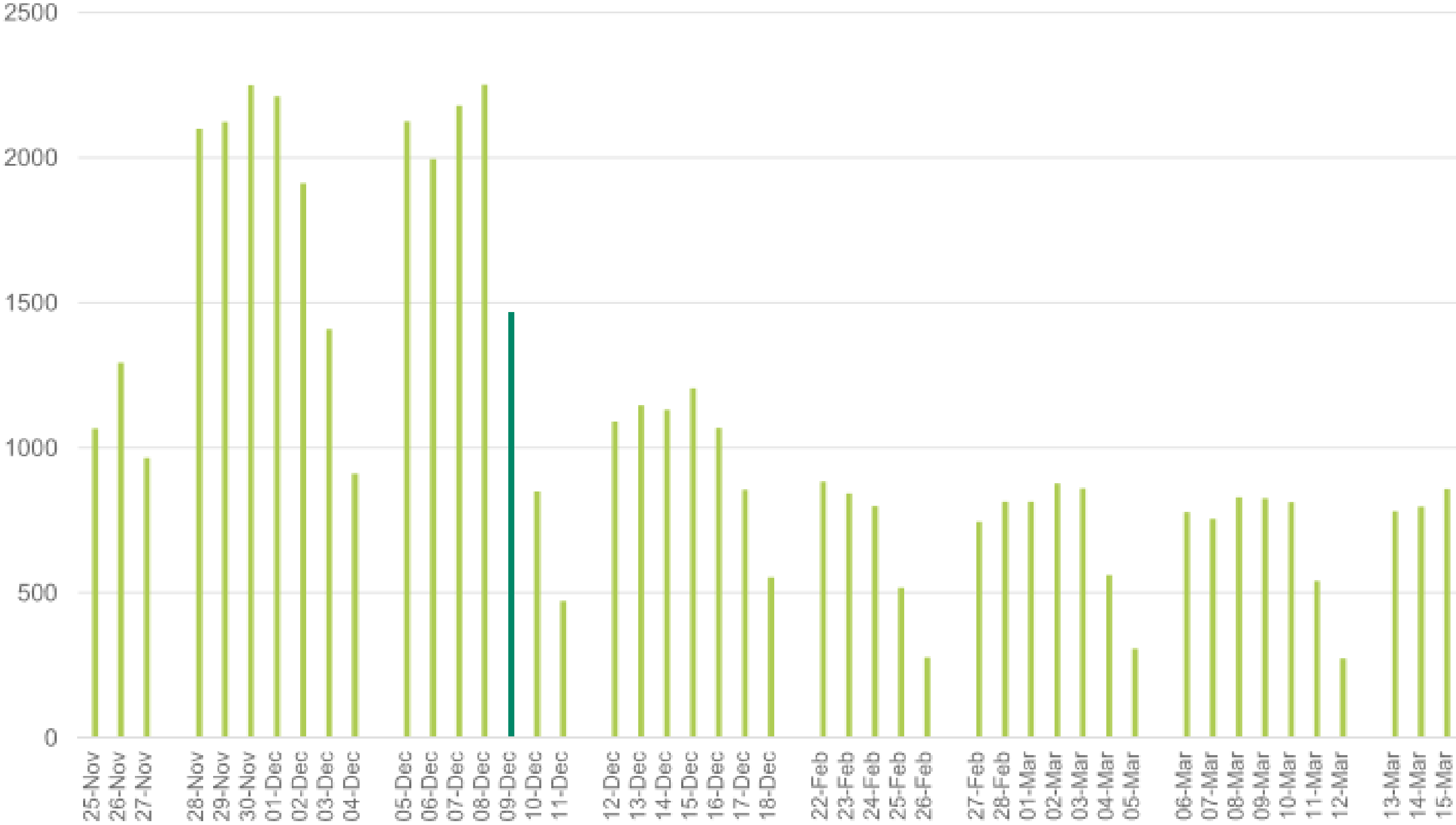
Progress to-date

- **Macroom (N22)**
- **Westport (N5)**
- **Moycullen (N59)**
- **Baile Bhuirne (N22)**
- **Listowel (N69)**
- **...Macroom (N22)**

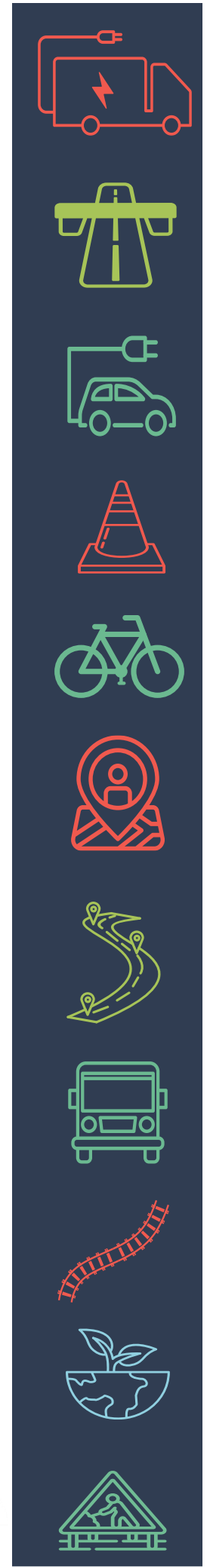


Preliminary Findings - Traffic - Macroom

Macroom West N22 (medium and heavy vehicles - volumes both directions)



Macroom Bypass Opens



Preliminary Findings

Air quality – Macrooom (subject to further verification)

	Pre-Bypass Opening	Post-Bypass Opening
Macrooom East		
Oxides of nitrogen ($\mu\text{g}/\text{m}^3$)	26.4 -- >	11.9
Nitrogen dioxide ($\mu\text{g}/\text{m}^3$)	16.2 -- >	8.1
Macrooom Town Centre / Town Hall		
Oxides of nitrogen ($\mu\text{g}/\text{m}^3$)	48.3 -- >	38.5
Nitrogen dioxide ($\mu\text{g}/\text{m}^3$)	23.2 -- >	14.5



Preliminary Findings

Noise – Macrooom (subject to further verification)

	Macrooom Town Centre / Town Hall	Macrooom East
Average Weekday Reduction in Noise dB(A)	- 3	- 4
Average Weekend Reduction in Noise dB(A)	- 2	- 4



Next steps

- Follow back up in Macroom (on some but not all indicators)
- Draft report on overall findings across the studies, identify trends, as well as lessons learned for carrying out such studies in future

