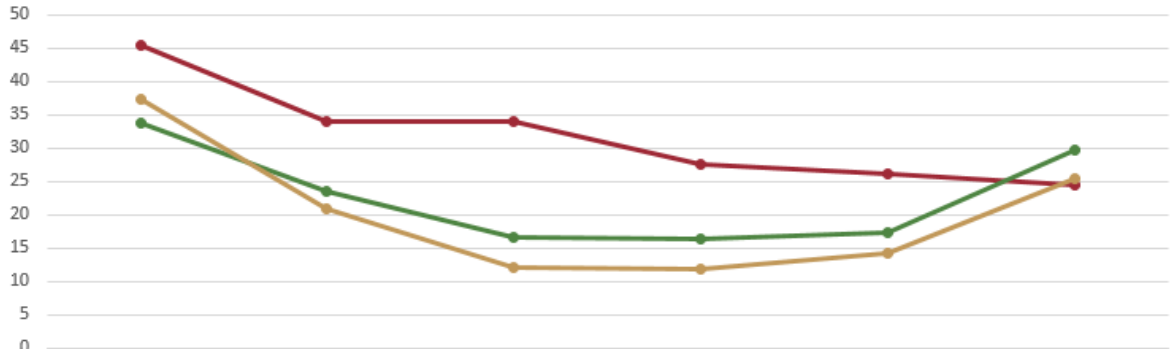


An TAISCE - Air Quality Campaign

What	National program to monitor levels of Nitrogen dioxide in the air from the combustion of fossil fuels mainly from transport & heating activities.	
Where	NO2 Diffusion tubes in 6 key locations:	
	Pre-2020	2020
	School Gate	Cumberland Street
	Sheltered Cathal Brugha Street	Sean McDermott Street Gardiner Street
		3 Residential Volunteers inside M50
Who	<p>An Taisce National Trust for Ireland – Protect Ireland’s Natural & Built Heritage</p> <p>NASA GLOBE – Promote the teaching and learning of science, enhance environmental literacy and stewardship, and promote scientific discovery.</p> <p>LCC – CDET Secondary School D1 – Involved in environmental programmes and projects that promote the awareness of environmental concerns.</p>	
When	14 October 2020	
Why	<p>LCC has taken part four times.</p> <p>An opportunity to extend the work done in the previous 3 years.</p> <p>An opportunity to use the data to take part in the NASA GLOBE Annual Meeting.</p> <p>Part of An Gaisce Challenges.</p> <p>Raising awareness to promote the use of RENEWABLE FUELS.</p>	
Oct 2019	Levels high on Cathal Brugha Street	
	Ambient air quality NO ₂ levels were breached for the busy-road zone at LCC at 45.54 µg/m ³ : 'Very Bad' category of the Curieuzen Neuzen Scale.	
	Sustained breaches of EU guidelines pose a significant risk to public health where it can irritate the airways, aggravating respiratory diseases, particularly asthma, leading to coughing, wheezing and difficulty breathing and increase the risk of cancers, (TCD/EPA research 2019).	
	Recommendations includes continued monitoring at the same locations coupled with further considerations about the urban design of the zones and the flow behaviour of traffic-based NO ₂ .	
	of the zones and the flow behaviour of traffic-based NO ₂ . We would like to investigate the development of a phone app that reports real-time colour-coded air pollutant zones for immediate and easy public use.	
	Unusual patterns include Larkin Community College reporting a higher NO ₂ level at the sheltered zone than the drop-off zone and Central Model Primary with a higher NO ₂ level at the drop-off zone compared to the busy-road zone. The urban design features of a street may facilitate the pocketing of NO ₂ .	
Oct 2020	Due to COVID-19 traffic levels are much lower = lower levels of NO ₂	
Students	Anthony Daza	Karl Harmon
	Alicja Dajwłowska	Pavel Trigub
Science	Mary Conway	
Principal	Thomas Usher	
DPrincipal	Deirdre Doyle	

Nitrogen dioxide - October 2019

Nitrogen dioxide $\mu\text{g}/\text{m}^3$ Levels



	1	2	3	4	5	6
Busy Road Zone	45.54	33.96	33.93	27.7	26.26	24.6
Drop-off Zone	33.84	23.48	16.69	16.42	17.46	29.86
Sheltered Zone	37.43	20.94	12.02	11.96	14.36	25.52

	School Name	School Location
1	Larkin Community College	Cathal Brugha Street, D1
2	The Kings Hospital	Old Lucan Road, D20
3	Christ King Secondary School	South Douglas Road, Cork
4	Monaghan Model School	Monaghan Town
5	Balbriggan Educate Together	Balbriggan, Co. Dublin
6	Central Model	Marlboro Street, D1

Colour Code Description

NO2 concentration ($\mu\text{g}/\text{m}^3$)	Description
50 +	Extremely bad
45 - 50	Very bad
40 to 45	Bad
35 - 40	Substandard
30 - 35	Mediocre
25 - 30	Average
20 - 25	Pretty good
15 to 20	Good
10 to 15	Very good
0-10	Excellent

Curieuzen Neuzen Scale

Nitrogen dioxide Level



Nitrogen dioxide Diffusion Tube