Sustainable Rural Mobility

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TMF event – 19th March 2021

Problem Setting (1)

In a post-covid Ireland transport will have the following issues to examine

- Reluctance to use public transport (due to social distancing)
- The need to reduce our transport emissions by 51% by 2030
- Changes in how and where we work
- An increased focus upon active modes

Problem Setting (2)

Rural transport issues:

- People want frequent, reliable and cost-effective transportation (this is the same for those that live in urban areas as in rural areas)

- In sparsely populated areas it becomes much more difficult to deliver these levels of service for public transport

- In Cork City average time to work/school/college is 22 mins and 27 mins in Cork County

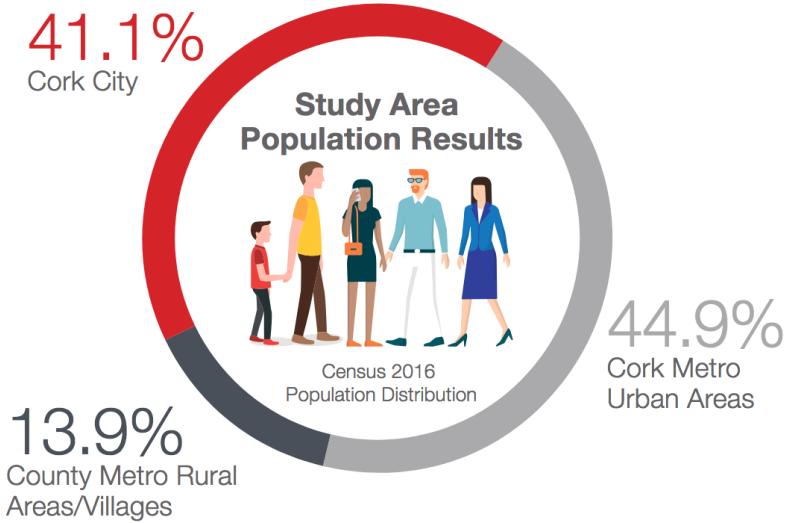
- In Cork City average distance to work/school/college is 8.5 km and 19 km in Cork County

Problem Setting (2)

2016 Census – Means of travel to work, school & college

	Cork City		Cork County	
	N	%	N	%
On foot	20,807	28%	24,831	9%
Bicycle	2,652	4%	1,789	1%
Bus, minibus or coach	7,888	11%	20,419	7%
Rail	271	0%	1,927	1%
Motorcycle or scooter	243	0%	624	0%
Motor car: Driver	24,450	33%	128,943	46%
Motor car: Passenger	11,320	15%	63,901	23%
Van	1,718	2%	13,516	5%
Other, incl. lorry	108	0%	1,422	1%
Work mainly at or from home	1,104	1%	11,881	4%
Not stated	4,103	5%	9,008	3%
All means of travel	**74,664**	**100%**	**278,261**	**100%**

Problem Setting (3)



How do we reach the 13.9% and reduce emissions?

Remote working (1)

This research was conducted with: Frank Crowley, Hannah Daly, Justin Doran Geraldine Ryan from UCC

The research examines potential for people to engage in remote work and social distancing using O*NET data and Irish Census data and calculates the potential emission savings from a switch to remote working and occupational social distancing.

Remote working (2)

Table 5: Percentage of sample and number of workforce that can remote work or social distance by transport type

Description	Auto (driver)	Auto (passenger)	Motorcycle	Bus or tram	Railroad	Total
Remote work (Census 2011)	48.16%	32.57%	41.86%	51.03%	72.22%	47.37%
Social Distancing (Census 2011)	5.58%	5.01%	2.96%	3.53%	1.9%	5.09%
Number in labour force who have high potential for remote work	514084	22527	3534	46782	38095	
Number in labour force who have high potential for social distancing	59564	3465	250	3236	1002	

Remote working (3)

Table 6: Estimated annual reductions in emissions

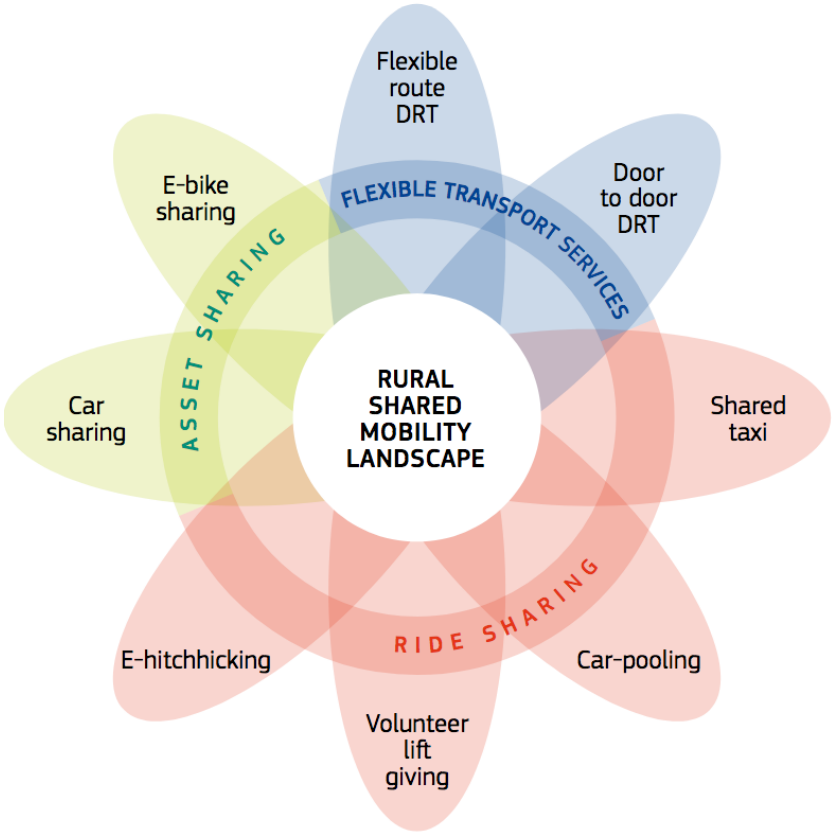
	Drivers & Passengers (kt CO_2)	Bus (kt CO_2)	Rail (kt CO_2)	Total (kt CO_2)
Number who can remote work				
1 day	87.52	0.91	3.15	91.58
2 days	175.04	1.82	6.31	183.16
3 days	262.56	2.72	9.46	274.75
4 days	350.09	3.63	12.61	366.33
5 days	437.61	4.54	15.77	457.91
Number who can social distance				
1 day	10.21	0.06	0.08	10.36
2 days	20.42	0.13	0.17	20.72
3 days	30.64	0.19	0.25	31.07
4 days	40.85	0.25	0.33	41.43
5 days	51.06	0.31	0.41	51.79

Remote working (4)

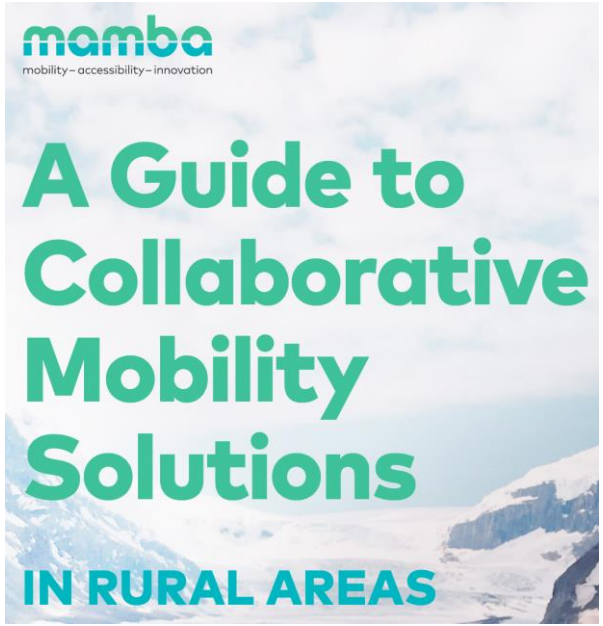
Rural Active modes (1)

Rural Active modes (2)

Smart Rural Shared Mobility (1)



Smart Rural Shared Mobility (2)



Source: http://www.pro-buergerbus-nrw.de/

CASE STUDY

"Pro Bürgerbus NRW e.V." umbrella association — supports projects with knowledge, such as how to build a stakeholder network

Citizen buses are eight-person minibuses driven by volunteers. They operate on a fixed route in the rural and semi-rural areas of North Rhine-Westphalia (NRW, Germany) with a fixed timetable and designated stops. They complement the existing public transport network in other areas and at other times, especially where a regular bus service would not be financially viable.

There are currently over 140 active citizen bus initiatives in NRW, and more are being established every year. A citizen bus scheme is typically supported and financed by the municipality with funds from the Ministry of Transport of NRW, and vehicles are often provided by the local transport operator. This makes it crucial to build each citizen bus scheme around a close collaboration between those stakeholders and citizen groups and volunteers. The "Pro Bürgerbus NRW e.V." umbrella association provides support for this kind of collaboration via its contacts and experience.

Further information:
www.pro-buergerbus-nrw.de

How to achieve sustainable rural mobility

- Citizen engagement
- Technology
- Research and piloting
- Cooperative and sharing assets
- Community

Thank you

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www.tcd.ie