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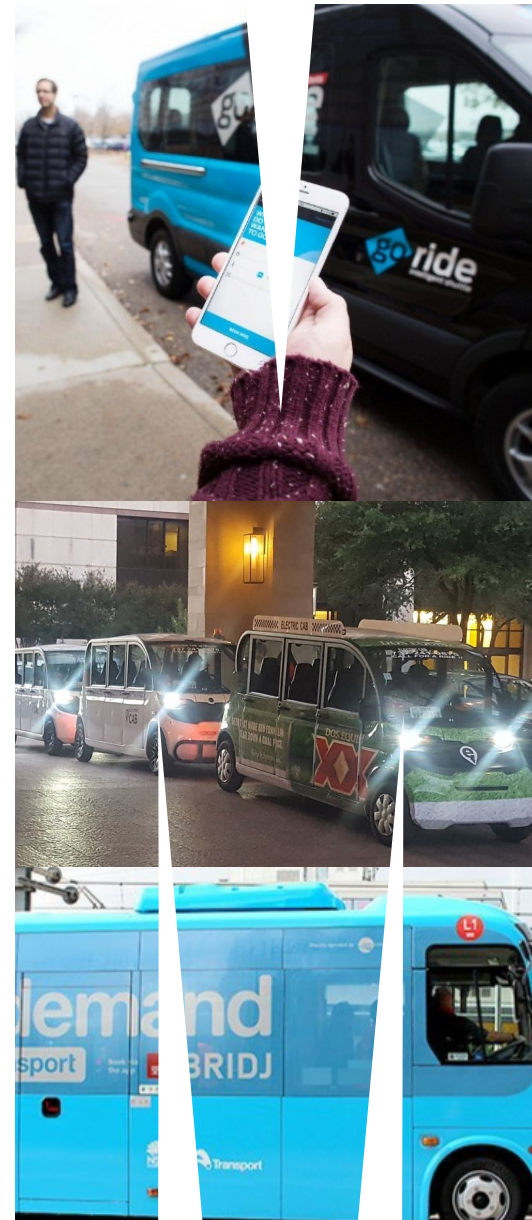
TRANSED 2022 – Mobility, Accessibility and Demand Response Transportation Conference
Closing Plenary Session - Partnerships for Equity in Transportation and Sustainability
Funding – Where Do We Improve Next?
Friday 16th September 2022

Demand Responsive Financial Sustainability

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Closing Plenary Questions

1. How you see **ensuring equity** across the transportation sector for diverse populations across age, disability, cultural heritage, language?
2. What are the **major enablers** of full accessibility for all?
3. What has **worked well** in your experience, and where do we have the most work to do?

Answers Relevant to DRT

DRT systems that survive

DRT systems with good design, low cost, high use & meet needs

Previous research suggests DRT services struggle with financial viability – but there is almost no research on actual failure rates

DRT Outcomes Review – published literature

- **Commercially viable**
 - Very few
- **Acceptable subsidy**
 - Also very few – DRT has same or less subsidy than alternative services
- **Justifiably high subsidy**
 - Specialist niche DRT markets
 - The most common type of surviving service
- **Financially unsustainable**
 - Many in this category

Enoch et al. (2004)

“Most of the services that have stopped have done so because of the high costs in relation to their patronage”

Oxley (1979)

“Increased mobility is rather intangible when compared to the harsh reality of deficits on a balance sheet”

Transport Canada (1978).

114 DRTs were identified in 4 geographies; detailed cost data was found for 33 DRTs

DRT Database Developed from the Research Project

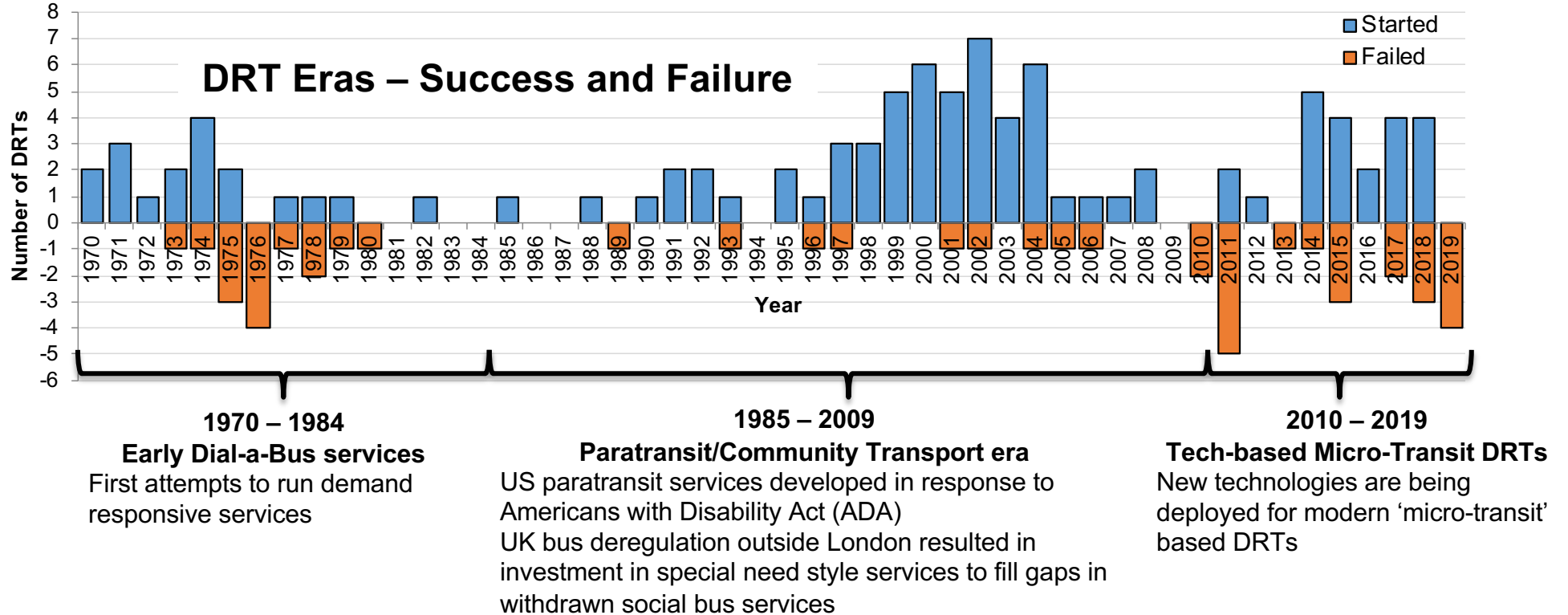
- A database of 114 confirmed public DRT services across 19 countries (4 regions) and over 50 years was developed.
- DRT services spanned from 1970 to 2019
- 33 had operational and cost attributes.
- This ONLY includes public DRTs, not exclusive services with restricted ridership, such as paratransit or community transport. In the US alone, there are an estimated 1,900 paratransit services (*TCRP Report 136*)

DRT Service Database

Region	Total
USA/Canada	34
UK	36
AU/NZ	13
Continental Europe	31
Total	114

Source: Currie G and Fournier N (2020) '[Why most DRT/Micro-Transits fail - what the survivors tell us about progress](#)' RESEARCH IN TRANSPORT ECONOMICS, Volume 83, November 2020

We identified 3 DRT Eras; Early 'dial-a-bus', Para/Community Transport and Tech Based Micro-Transit DRTs



Source: Currie G and Fournier N (2020) ['Why most DRT/Micro-Transits fail - what the survivors tell us about progress'](#) RESEARCH IN TRANSPORT ECONOMICS, Volume 83, November 2020

The Para/Community Transport era DRT's last on average 12.8 years; Tech Based Micro-Transit DRTs 4.13 years and Early 'dial-a-bus' 5.29 years

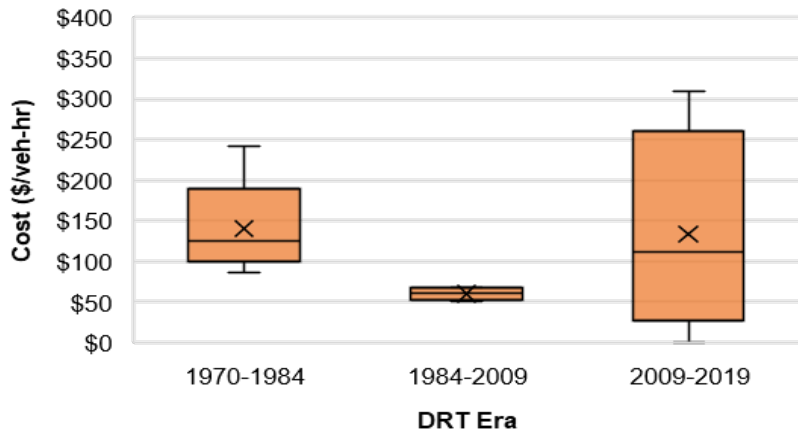
Average DRT Service Length by 'DRT era'

	Early 'dial-a-bus'	Para/Community Transport	Tech Based Micro-Transit
	1970-1984	1984-2009	2009-2019
Av. Service length (Years)	5.29	12.78	4.13

Source: Currie G and Fournier N (2020) ['Why most DRT/Micro-Transits fail - what the survivors tell us about progress'](#) RESEARCH IN TRANSPORT ECONOMICS, Volume 83, November 2020

Contrary to contemporary thought - cost analysis shows Tech Based Micro-Transit DRTs are most expensive and the Para/Community Transport era DRT's the cheapest

Average Cost (\$Aust) by 'DRT era'

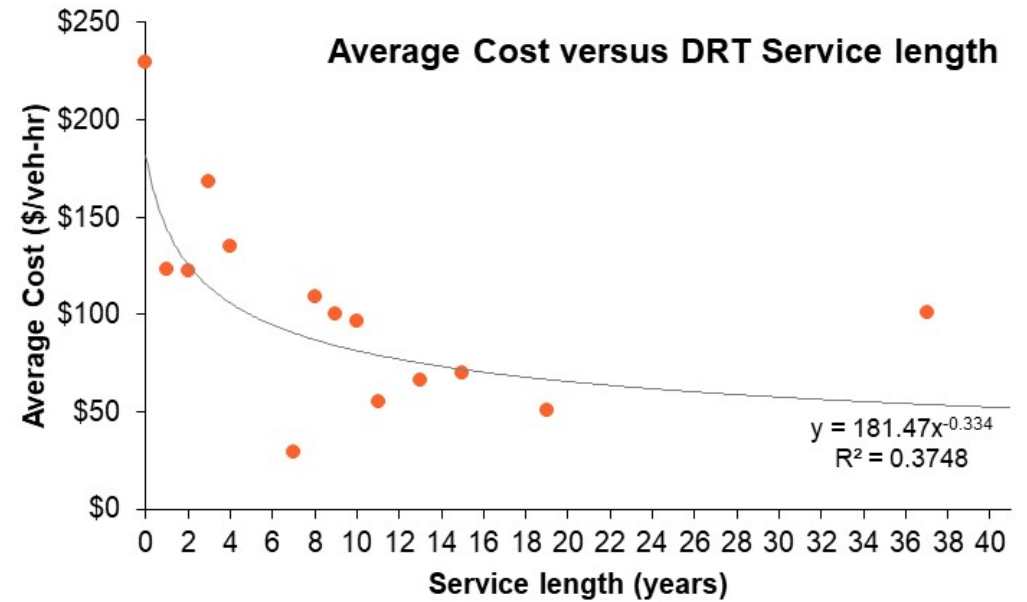
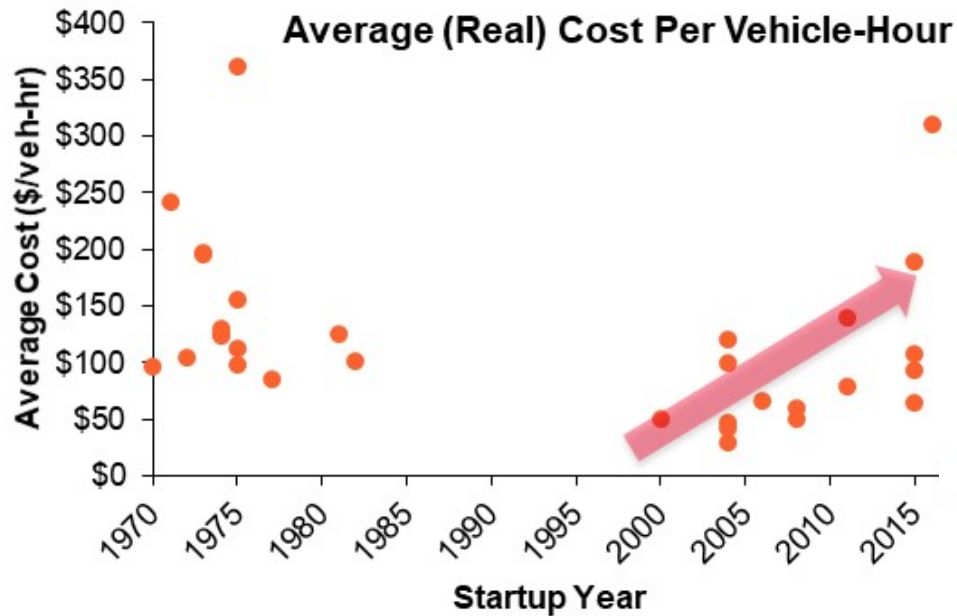


- The 2nd generation DRT systems are actually the cheapest and longest lasting
- This is interesting considering it is the paratransit/community transport era which are supposed to be “justifiably high cost” and Micro-Transit which new technology is said to make cheaper

	Early 'dial-a-bus'	Para/Community Transport	Tech Based Micro-Transit
	1970-1984	1984-2009	2009-2019
Av. Cost \$/veh-hr	150.37	63.07	123.18
Av. Cost \$/pax	21.26	13.8	42.72
n	15	9	8

Source: Currie G and Fournier N (2020) ['Why most DRT/Micro-Transits fail - what the survivors tell us about progress'](#) RESEARCH IN TRANSPORT ECONOMICS, Volume 83, November 2020

Evidence suggests a recent cost rise trend – lower costs systems last longer



Source: Currie G and Fournier N (2020) ['Why most DRT/Micro-Transits fail - what the survivors tell us about progress'](#) RESEARCH IN TRANSPORT ECONOMICS, Volume 83, November 2020