





Ministry of Infrastructure and Water Management

A study to assess and improve operational strategies for the benefit of passengers in rail-bound urban transit systems

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seriously inconvenienced by Passengers can be perspective in rescheduling research and practice.



2. Research objectives

- Apply the developed framework on a case study.



- Use of AVL and smart card data.

Managing disruptions in public transport from the passenger perspective

Reductions in *AGC* per passenger in \in using the best strategy compared with traffic controllers' strategy (matrix with a selection of OD pairs).

	S	Slg	Zpl	Mhv	Rhv	Whp	Lhv	Bre	Shs	,)
Whp	-1.4	-1.4	-1.4	-1.4	-1.5	0.0	-0.6	-0.6	-0.	5
Lhv	-1.4	-1.4	-1.4	-1.4	-1.5	-1.5	0.0	-0.6	-0.	5
Bre	-6.2	-6.2	-6.2	-6.3	-6.3	-6.3	-6.4	0.0	-0.7	7
Shs	-6.9	-6.9	-6.9	-7.0	-7.0	-7.0	-7.1	-7.2	0.0	C
Rcs	-3.1	-3.1	-3.1	-3.1	-3.1	-3.2	-3.3	-3.3	-3.4	4
Ν	-2.9	-2.9	-2.9	-2.9	-2.9	-3.0	-3.1	-3.1	-3.	1
More that	More than 70%			50 to 70%			to 50	%		10
reduction			reduction			rec	reduction			red



Traffic controllers are used to working with timetables and schedules: a punctuality paradigm. During disruptions, passengers benefit more from a **regularity paradigm**. Operators and authorities need to ask themselves whether the **direct** and indirect work environment of traffic controllers is conducive to a focus on regularity when needed. Further research could extend the assessment framework with some non-passenger related impacts (e.g. crews) & investigate the behaviour of passengers during disruptions.





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10 alternative strategies. In the top 3 best strategies, *AGC* decrease: • Between **12% and 35%** compared with traffic controllers' strategy. • For 93% of OD pairs (95% passengers), no change for the rest.

• The operator could save 900 K€ of societal costs on a yearly basis if all similar disruptions were to be addressed like in the best alternative.

5. Conclusions and recommendations

- Contribution of this research: a data-driven approach to take the passenger perspective into account during disruptions.
- Pre-plans have a good basis for but there is room improvement (-12% to -35% in *AGC*).