

AUTOPIA

SITE/VEHICLE MATCHING PROCESS

Ruter# holo



tøi °CICERO sensible⁴



SITE/VEHICLE MATCHING PROCESS

Suggested framework for a site/vehicle matching process between autonomous vehicles and intended public transport route initiatives.

Author: Vebjørn Hole Uleberg

Co-authors: Lars Gunnar Lundestad, Silje Andersen Sævig, Tellef Bakken, and Hans Fridberg
Oslo, August 2021

AUTOPIA

Ruter# holo   tøi °CICERO sensible⁴ 



1st phase

Customer needs

The initial phase will identify customer needs.

2nd phase

Shortlist

A site shortlist will be composed based on identified needs.

Context analyses

Road/vehicle assessment, along with financing and regulation analysis.

3rd phase

Initiative rating

All shortlisted initiatives will be rated based on findings from analyses.

Matching

Site/vehicle matching based on rating model.

Phase 1 - Customer needs and market potential

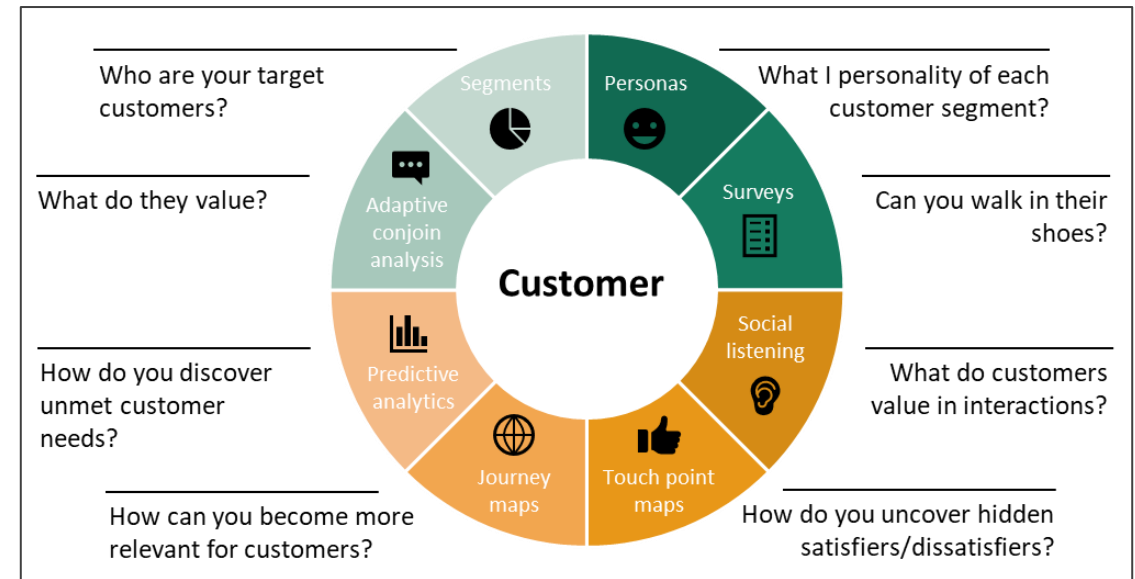


Ruter method

- Public transport customer satisfaction
- Public transport market share

Alternative methods

- Market segmentation process
- Customer needs analyses



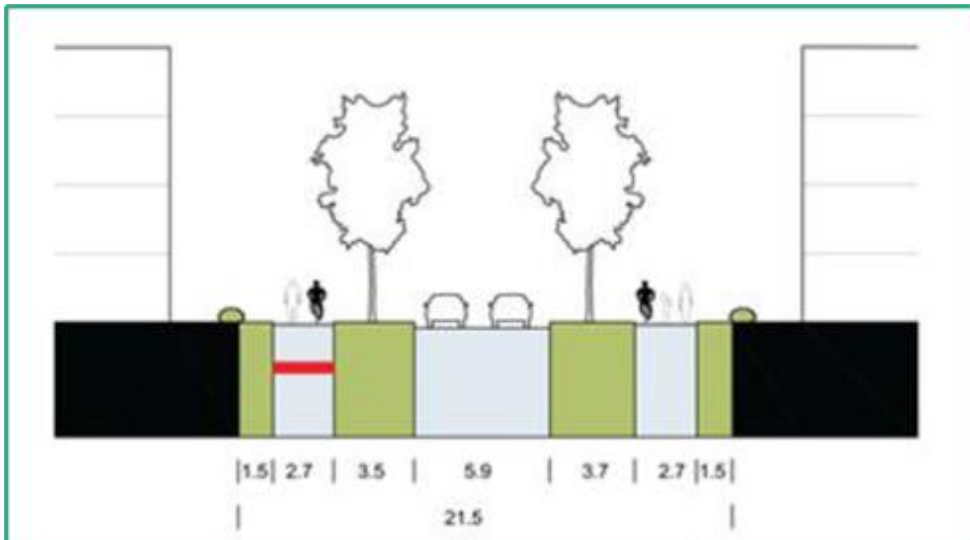
Phase 2 – Shortlist & Context analysis

Shortlist is based on prior phase – focus will be on context analysis



Road/vehicle assessment

- Road and AV capabilities assessment
- Non-AV attributes assessment
- Risk analysis



Financial, regulatory, and publicity feasibility analysis

- Total cost of ownership (TCO)
- Revenue model
- Long-term financial sustainability
- Regulations
- Publicity

Phase 3 – Initiative rating & Matching



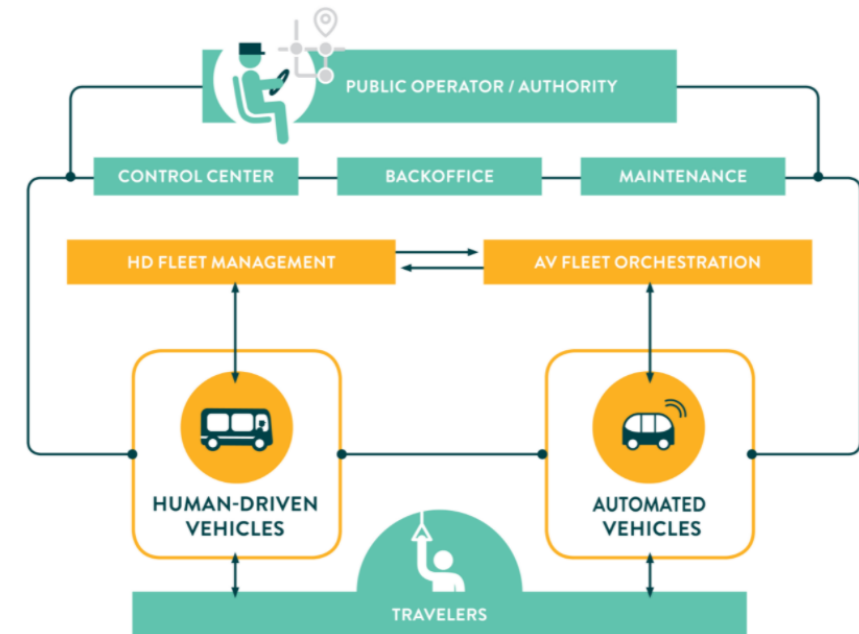
Initiative Rating Model

- Priorities shortlist
- Factors weighted according to priority

Initiative Rating Model (Draft example)				
	Weight	Area X	Area Y	Area Z
Customer value -> customer satisfaction, market share, market potential	25 %	8	7	9
Technical feasibility -> AV and non-AV capabilities, risk evaluation	25 %	5	6	1
Financial feasibility -> TCO, revenue model	15 %	8	5	8
Regulatory feasibility -> Challenges and opportunities	10 %	4	6	5
Publicity -> Media awareness, WoM	10 %	3	7	9
Long-term potential -> Scalability and growth opportunities	15 %	9	5	2
Weighted total	100 %	6,5	6,05	5,4

Matching

- New initiatives must be integrated to allow for scaling later on.



Site/vehicle matching process

A visualisation of each phase and step in the process



1st phase

Customer needs

The initial phase will identify customer needs.

2nd phase

Shortlist

A site shortlist will be composed based on identified needs.

Context analyses

Road/vehicle assessment, along with financing and regulation analysis.

3rd phase

Initiative rating

All shortlisted initiatives will be rated based on findings from analyses.

Matching

Site/vehicle matching based on rating model.