

Case Study 2: DemRes, City of Drais and micromobility

In this simulation students play the role of policy evaluation professionals at a fictional research organisation (DemRes) producing evidence for policy in the fictional Evbaland. To prepare for the simulation students had to read and discuss the contextual information on City of Drais tender opportunity and the tender document.

Background information

Compiled to provide contextual information on City of Drais tender opportunity

A. City context: the City of Drais

Drais (named for the inventor of the bicycle, Karl von Drais) is a medium to large sized city in Evbaland with 1.5 million residents in the greater metropolitan area. Drais has a temperate oceanic climate. Drais operates as a municipal government and assumes policy responsibility for libraries, parks, water systems, local police, roadways, parking and local public transports. Drais has received principal authority for these areas from the Evbaland's national government.

Drais is a city whose population has expanded in recent years. While this has been a net positive for the city there are problems of social accessibility as some communities enjoy better access to infrastructure than others. The city has two contexts – an urban area that contains a sizeable financial and business centre; and the city's suburbs that are home to diverse communities in terms of wealth. There is a growing social problem where not all communities enjoy equal access to infrastructure and connectivity to the urban district.

The existing transport infrastructure of Drais consists of four rail lines and a bus service of around 60 bus lines. This transport infrastructure is adequate with the average commute time between the suburban and urban areas 50 minutes. However some residents face much longer commute times and the connectivity between different suburban areas is not very good.

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B. Future Cities

The national government of Evbaland is running a “Future Cities” funding initiative. This is a competition whereby municipalities submit an application for a pot of funding worth EVBA 100million. Municipalities’ applications should use innovative data approaches and connected technologies to empower their local communities and improve residents’ lives.

Drais is planning on submitting an application that would focus on improving social accessibility by improving the transport infrastructure that would allow residents to move between suburban and urban contexts in a safer and more environmentally focused way. The ambition of Drais’ “Future Cities” application is dependent on the input, engagement and participation of multiple stakeholders. As the initiative relies on a mixture of technologies working together, Drais’ application must show how they plan to use these technologies in a way that engages the needs and values of Drais’ communities.

One such plan, proposed by Drais city councillors, has been the implementation of a micromobility scheme. It is envisaged that a micromobility scheme would provide safe and efficient last mile transport options for all residents. Micromobility schemes have successfully been implemented in many cities around the world (for more information on micromobility see page 3 of this document). These schemes work best when they are connected to smartphone applications that enable residents to plan their routes in conjunction with the city’s existing transport infrastructure.

The Drais city council has put out a Call for Tender to conduct a feasibility research study into how a micromobility scheme could be implemented that meets the needs of residents.

C. What is micromobility?

Micromobility refers to small, single-user vehicles that weigh less than 500kg and are typically used to commute within a 5km distance. There are a variety of models that fall under the umbrella of ‘micromobility’, but most are either station-based or dockless bicycles or scooters, and most are electrically powered. Micromobility devices are a new phenomenon that has grown tremendously over the past half-decade or so, enabled by new technologies, such as GPS tracking and mobile payments. In the United States, for instance, the number of trips taken through shared micromobility doubled in 2017-2018 alone.

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Figure 1 Common Types of Shared Micromobility Services



Station-based Bikesharing



Dockless Bikesharing



Standing Electric Scooter Sharing



Moped-style Scooter Sharing

Source: Shaheen, Susan and Cohen, Adam (2019) "Shared Micromobility Policy Toolkit"
Available at: <https://escholarship.org/uc/item/00k897b5>

1. The Benefits of Micromobility

As the population of cities grow people will have to move around – the demand for urban movement is likely to double between 2019 and 2025.¹ While mass forms of public transport will remain the most efficient and largest means of moving people around, micromobility offers the potential in helping people get to and from mass transport hubs. Around 60% of car trips taken within the US cover less than five miles²– which is the perfect distance for micromobility vehicles. They offer an environmentally sustainable alternative to personal vehicles and will also help to limit congestion.

Micromobility vehicles also offer a cheaper investment option than ride-sharing or electronic vehicles. As Figure 2 demonstrates, the break-even point for investors is likely to be reached relatively quickly, while car-based solutions, particularly ride-sharing, can take significantly more time and can lead to concerns about labour and environmental impacts.

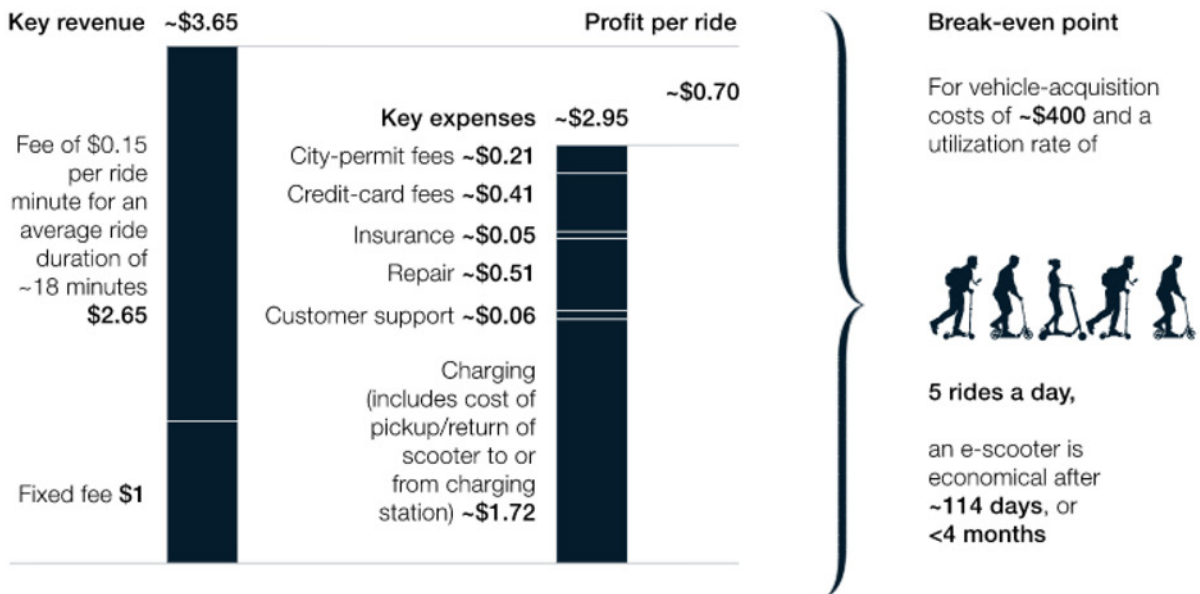
¹ Deloitte. (2019). "Small is beautiful: Making micromobility work for citizens, cities, and service providers".
Available at: <https://www2.deloitte.com/us/en/insights/focus/future-of-mobility/micro-mobility-is-the-future-of-urban-transportation.html>

² Ibid.

Figure 2: E-scooters

An e-scooter is economical after four months.

Revenue-and-expense estimate, per e-scooter ride, \$



Source: McKinsey & Company (2019) "Micromobility's 15,000-mile checkup". Available at: <https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/micromobilitys-15000-mile-checkup>.

2. Potential issues

A range of potential problems have arisen in the way cities have implemented micromobility schemes:

- Retrieving, charging, repairing and balancing the fleet of devices can be costly, labour-intensive. These acts can also have underappreciated environmental costs that may mitigate positive effects.³ Some providers have responded to these challenges by flooding the market with vehicles rather than having to manage or balance vehicle distribution.
- There are obvious safety concerns. Not all providers ensure that users meet city safety requirements like mandated helmets. The increased usage of micromobility vehicles can also make pedestrians feel unsafe. These safety issues mean that the proportion of the population who are likely to use the vehicles may be limited. As Pittsburgh's director of transportation put it, '[razors on steroids](#) [e-scooters] are not a safe way for mum to take her kids to school'.

³ Chester Energy Policy (2018). The Electric Scooter Fallacy: Just Because They're Electric Doesn't Mean They're Green. Available at: <https://chesterenergyandpolicy.com/2018/06/11/the-electric-scooter-fallacy-just-because-theyre-electric-doesnt-mean-theyre-green/>

- In many cities there is not sufficient infrastructure for micromobility vehicles to be used safely. The cost of constructing and maintaining bike lanes to cash strapped city budgets can be quite high and micromobility vehicle companies are reticent to contribute.

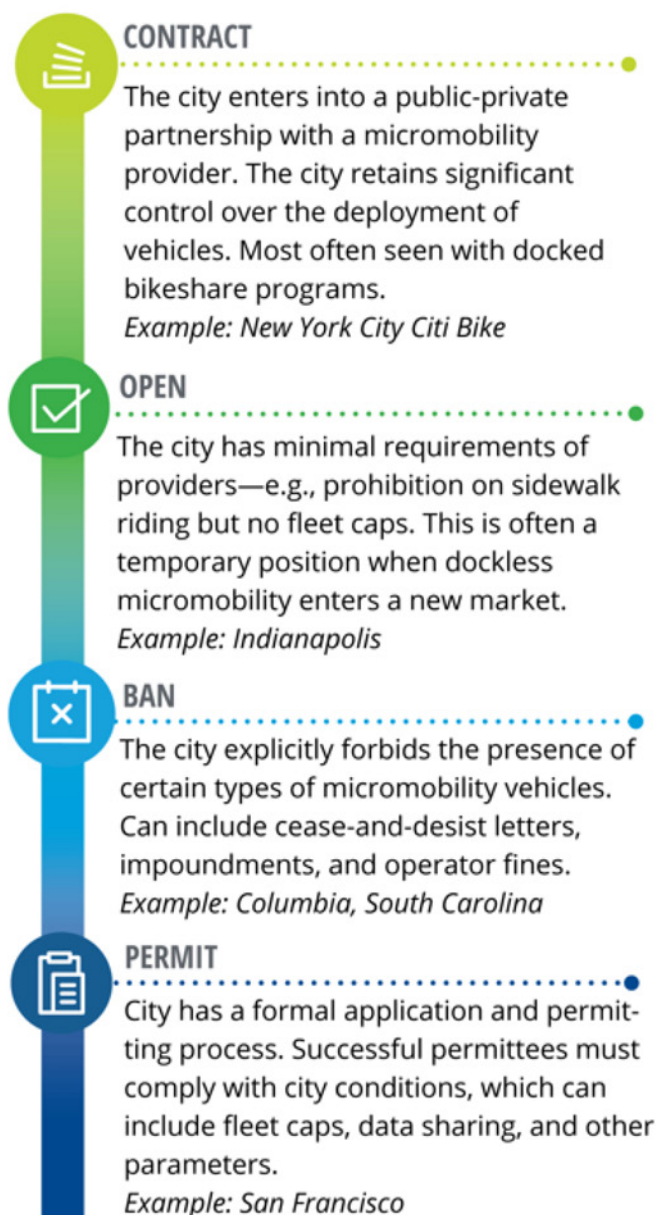
The demographics of micromobility vehicle users tend to be white, under 50, male and with a medium to high household income. This means that the implementation of micromobility schemes rarely occurs in areas of cities with lower quality transport infrastructure.

3. Regulation

Cities have taken a variety of regulatory approaches to micromobility. When first introduced in San Francisco, city officials considered e-scooters ‘litter’. Now, shared micromobility has grown to work in partnership with city and local governments, yet the rules and regulations that define its use vary significantly across urban contexts. In London, for instance, e-scooters are banned both on the road and curb (they are permitted only on ‘private’ land). In Paris, fines have been introduced for using them on pavement and for ‘antisocial’ parking. The question of safety hit home in London when the first reported death associated with an e-scooter was reported. Should e-scooter users be legally required to wear a helmet, have plate numbers and follow the rules of the road? Different regulatory approaches are summarised in the figure on the right.

Source: Deloitte. (2019). “Small is beautiful: Making micromobility work for citizens, cities, and service providers”. Available at: <https://www2.deloitte.com/us/en/insights/focus/future-of-mobility/micro-mobility-is-the-future-of-urban-transportation.html>

Authorities have experimented with a variety of approaches to micromobility



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APPENDIX

City of Drais

Request for Tender

1 Introduction

- 1.1 The City of Drais (the “City”) invites tenders to this request for tenders (“RFT”) from organisations who have expertise in designing and implementing research projects. Specifically, the City is looking to compete in the “Future Cities” initiative and has decided to include an ambitious investment into developing its micromobility infrastructure as the flagship policy proposal of this application. To this end, it is commissioning the present research study.
- 1.2 In summary, the Services comprise: the undertaking of an evaluation study of the City’s transport infrastructure with a view to assessing the available policy options to expand micromobility across all areas of Drais. This would include an analysis of how this micromobility scheme would complement Drais’ existing transport infrastructure; evaluation of cases of Cities similar to Drais that have successfully implemented micromobility schemes that improve social integration; recommendation of potential changes in roadways and cycleways that the city would have to implement; and the overall potential impact of the micromobility scheme.
- 1.3 The City will evaluate all requests for tender that it receives by the Tender Deadline (30 March 2020) and will negotiate a contract with the most qualified and experienced respondent.
- 1.4 This public procurement competition will be conducted in accordance with the open procedure under the Award of Public Authority Contracts Act 2016. Any contract that may result from this public procurement competition will be issued for a term of five months from July 2020 to November 2020.
- 1.5 The City reserves the right to extend the Term for a period or periods of up to one month with a maximum of three such extensions on the same terms and conditions, subject to obligations under the relevant legal provisions.
- 1.6 The City estimates that the expenditure on the Services to be covered by the proposed Services Contract may amount to some \$300,000 over the Term and any possible extensions. Please understand that this figure is an estimate only based on current and future expected usage.

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2 Award Criteria

- 2.1 The contract will be award on the basis of the most economically advantageous tender(s) as identified in accordance with the following criteria

The following considerations will be made under each heading:

Award Criteria	Maximum Marks Available	Weighting
1. Quality and feasibility of the research design	500	50%
2. Cost of tender	200	20%
3. Quality and reliability of project delivery plan	200	20%
4. Previous experience of proposed team members in delivery of research projects	100	10%

1. Quality and feasibility of the research design

- Quality of the proposal and understanding of fit for undertaking and delivering the tasks as set out in Annex 1.
- Demonstrated understanding of the goals of the project including requirements set out in Annex 1.
- Schedule and proposal of programme of works.

2. Cost of tender

- Total cost of services to be provided.

3. Quality and reliability of project delivery plan

- A detailed breakdown of the time allocation and balance of the resources committed to the contract. Respondents should be the main contact person with overall responsibility for the programme and directly accountable to the client. Award CriteriaMaximum Marks Available Weighting
- Proposals for managing project relationships.

4. Previous experience of proposed team members in the delivery of research projects

Quality of the proposed team and its lead including management structure and resources applied; supported by comprehensive CVs for all team members.

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3 Instructions to Tenders

The Contracting Authority reserves the right at any time before the Tender Deadline, to update or amend the information contained in this document and/or to extend the Tender Deadline. Participating Tenderers will be informed of any such amendment or extension through the eTenders website.

Annex 1

Scope of Services to be Delivered by the Successful Tenderer

1. Nature of Services to be Delivered

The purpose of this body of work is carry out the research outlined above and to provide the Contracting Authority with a report outlining the results of research undertaken and recommendations for future policy. It is likely that the study will involve, but will not be limited to, the actions outlined below:

A) Review and analyse the strengths and weaknesses of the current micromobility supply in the City of Drais

Existing data and information will be made available to the winning Tenderer from key stakeholders.

B) Review national and international experience and best practice on measures facilitating the growth and regulation of micromobility markets

There is a lot to be learned from national and international practice in this area. It is not the intention of this study to duplicate work already undertaken, and, accordingly, it is important to look to experience elsewhere to consider how such demand drivers were managed in cities around the world. The successful Tenderer will prepare a literature review, including case studies, of national and international examples of relevant measures, particularly in cities of comparable profiles, and their success, or otherwise.

C) Measure review and analysis

The successful Tenderer will conduct an analysis of various existing and potential measures in the context of the City of Drais, assess their expected impacts, and evaluate their suitability. This analysis should take into account demand projections in each city, accounting for likely changes in population, demographics and technologies, among other variable factors. The successful Tenderers should also review the international research undertaken to identify any successful management measures that would be applicable in the context of our City.

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D) Recommend most the appropriate responses for the City of Drais

It is envisaged that the successful Tenderer will then recommend the most suitable measures for implementation our City, managing the key demand drivers and concerns identified. The policy, legislative and economic implications of implementing such measures should also be identified, including such considerations as, for example, the socio-economic impact of certain measures. The successful Tenderer will prepare a roadmap for the implementation of any identified measures, which would include recommendations for how these Strategies may be amended to reflect the outcomes of this study.

2. Final Report

The successful Tenderer will be required to provide a final report detailing the process and outcome(s) of the domestic and international research undertaken and containing recommendations informed by this research.

The report will include (but is not limited to) the following items:

- ✓ Background and context for project
- ✓ Domestic and international research on the topics outlined
- ✓ Detailed methodology
- ✓ Literature Review
- ✓ Critical analysis
- ✓ Conclusions and Recommendations
- ✓ Implementation Pathways
- ✓ Potential Impact of Recommendations

Based on the research undertaken, the recommendations must indicate the best option(s) for the City of Drais. It is important that the Contracting Authority can be confident that the research undertaken by the successful Tenderer and any subsequent recommendation(s) are verifiable, impartial and fair. The report should therefore be considered of equal weighting to the wider research piece.

3. Timeframe

As part of the tender submission, the Contracting Authority requires a proposed timeline for the work, with particular reference to the submission of the final report. The Future City competition application deadline is 31 January 2021; therefore the final report must be ready for publication no later than end November 2020. The successful Tenderer should give appropriate consideration to the allocation of resources to deliver the proposed services within the timeline as described above.

4. Outputs

4.1. Deliverables

- ✓ Research on the topics outlined in Section 3 of this Annex
- ✓ Final report as detailed above by November 2020

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