



NAVIGOGO

Scotland's first MaaS pilot



We work with
Innovate UK



 **Mudlark**

ROUTEMOKEY
A  Company

SYSTRA



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Introduction

NaviGoGo is Scotland's first Mobility as a Service (MaaS) implementation and has been co-designed by young people, for young people, as part of the Innovate UK funded project called Pick&Mix. NaviGoGo exists to improve how young people aged 16-25 relate to, use, and combine travel modes and transport services to meet their lifestyle needs, without the requirement to own a car.

The six-month pilot ran with 98 young people in Dundee and North East Fife from October 2017 to March 2018. During this period the pilot participants were given access to streamlined and personalised information and payment (where available) for trains, taxis, bike schemes, buses, car clubs and walking – all in one single hub. The pilot aimed to support and help young people to make the most of the transport in their area, make transport easier and to create understanding of, and inform, policy with the intention of being rolled out more widely across the UK in the future. Participants were surveyed at the beginning and end of the trial to provide insight on how NaviGoGo impacted their travel and how the service can be improved for future users.

The partners involved

The Pick&Mix project was a partnership between ESP Group (lead partner), SYSTRA, Young Scot, Mudlark, RouteMonkey, and the Scottish National Entitlement Programme Office (NECPO), and was part funded by Innovate UK. The partners worked together to produce a mobility service for 16-25-year olds that offers choice and flexibility and involved the young people in every stage of the design process.

- ESP Group (Lead): Transport technology supplier already providing elements of the mobility service including smart ticketing, account fulfilment, and multi-channel customer support. ESP group led the management of the project, led the customer support and pilot management and developed the business model and case for commercialisation of NaviGoGo and the platform.
- Young Scot: Young Scot is Scotland's national youth information and citizenship charity. They provide young people, aged 11 – 26, with a mixture of information, ideas and incentives to help them become confident, informed and active citizens. Young Scot led the co-design work package of the project and were heavily involved in recruitment of trial participants.
- SYSTRA: Forward-thinking consultancy delivering high quality, sustainable transport solutions. SYSTRA led the evaluation work in the project including the pre and post-trial surveys and focus groups.
- Mudlark: User interface and user experience designers creating playful experiences with locative and travel data. Mudlark designed the full user experience of NaviGoGo based on the co-design recommendations.
- RouteMonkey: Leading-edge algorithm specialists, based in Livingston, who developed algorithms which drive the Deal Matcher and Journey planner functions of NaviGoGo.
- National Entitlement Card (NEC): run by Dundee City Council on behalf of Scottish Government. In the project NEC led stakeholder engagement and integration of transport services for the pilot.

Scotrail, RDG , ATOC, Carplus, Bikeplus, Fife Council and Dundee City Council also supported the delivery of NaviGoGo.

Aims and objectives

The project aimed to improve how young people aged 16-25 years old relate to, use, and combine travel modes and transport services to meet their lifestyle needs, without the need to own a car.

To be financially sustainable, the service also aimed to offer value for money for the end user, as well as creating economic value for transport providers.

The co-design journey

Co-design was built into the project from the beginning. Initially desk research was carried out by the project team to understand what young people wanted and thought of travel in Scotland. A group of young co-design volunteers, named the National Youth Team (NYT), were then recruited to work with the consortium on the project. The NYT brought together from all over Scotland, were considered as equal partners in decision-making throughout the project: an important part of the process as the NaviGoGo service has been designed by young people, for young people and goes beyond the traditional user consultation methods.

Over a four-month period, there were a variety of design sessions, including two residential weekends. The sessions were designed to gain a deep understanding of the issues to be tackled and to map out young people's transport needs. Several co-design techniques were used, such as stakeholder mapping, engaging 50 extra young people in focus groups and conducting a survey which had responses from over 500 young people.

At the end of the initial co-design sessions, the NYT put together a set of recommendations for the project consortium on what MaaS should look like for Young People. The technical team and other partners then went over the recommendations with the NYT to balance them with the project constraints and firm up the design specifications before the NYT rated and prioritised the tools and concepts by both their value and attractiveness to the target user group of 16-25-year olds this formed the MVP built for the pilot.

Throughout the whole project, and beyond the initial co-design phase, the NYT were heavily involved and asked to feedback and test early prototypes at key milestones of the technical development stages. This was to ensure that the NaviGoGo service was shaping up to be the MaaS implementation that the NYT had envisaged.

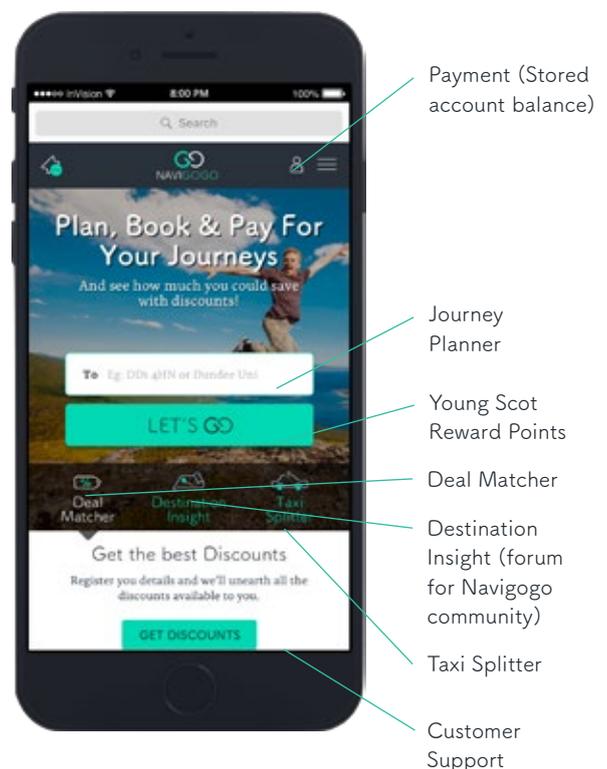
NaviGoGo Service

NaviGoGo is a membership-based service accessed via a WebApp available on mobile, tablet or computer and is underpinned by customer support, and facilitated by the existing Young Scot and National Entitlement Card platforms.

It enables young people to plan, book and pay for their journeys in one place using a stored NaviGoGo account balance which can be topped up by themselves or third parties such as parents or carers.

Key features of the WebApp:

- A personalised journey planner with fare calculator responsive to a user's profile and entitlements
- A journey payment and fulfilment platform
- A forum for users' comments and feedback on transport options
- A 'deal matcher' for intelligently matching individuals to deals and discounts
- A taxi splitter tool to simplify calculating the cost of a taxi journey with friends
- A 'discover a destination' database containing local transport information
- Incentive points for positive/sustainable choices, delivered through Young Scot rewards.



Payment (Stored account balance)

Journey Planner

Young Scot Reward Points

Deal Matcher

Destination Insight (forum for Navigogo community)

Taxi Splitter

Customer Support

The service

Users of the NaviGoGo service can make use of the multi-modal planning facility on the WebApp, which presents them with multi modal journey options and the tailored cost for each. Rail, taxi and NaviGoGo bike hire journeys could be paid for with the stored account balance during the 6-month trial and more transport modes will be integrated with the booking and payment feature in the future.

In addition, weekly bus tickets could be loaded on to the user's existing Young Scots cards during the trial. Furthermore, Young Scot points were available for choosing active and sustainable modes of transport, such as bike hire and train travel with the aim of nudging behaviour.

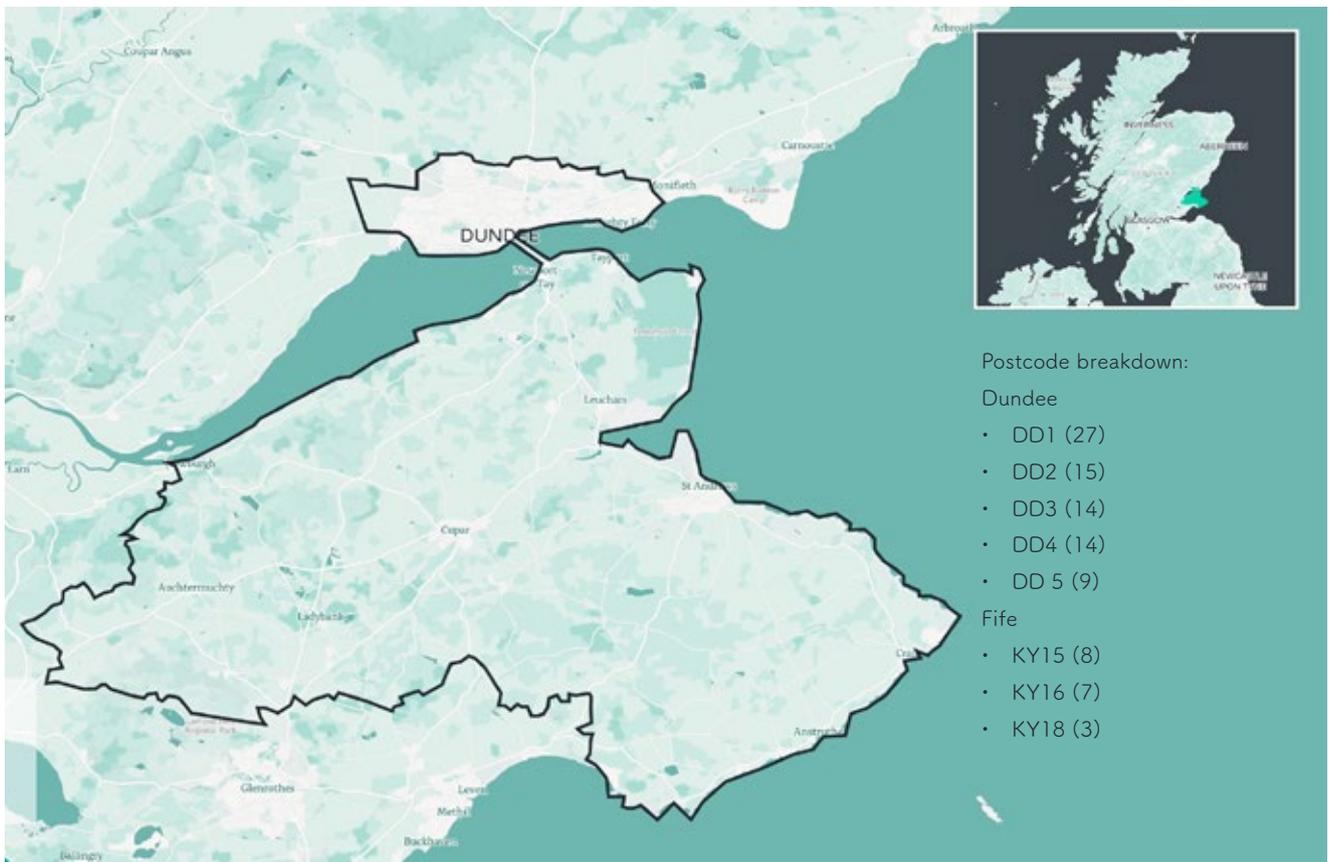
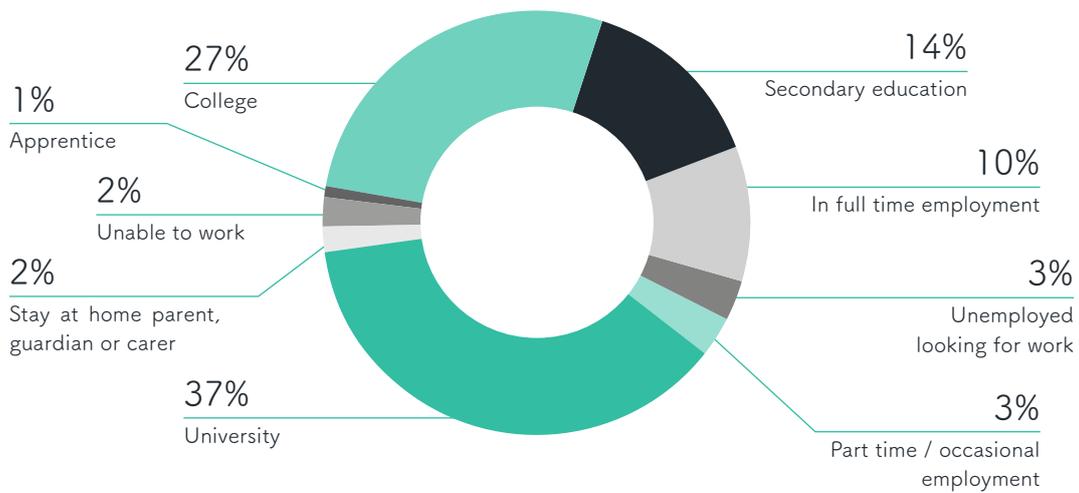
The trial

The trial area of Dundee and North-East Fife was chosen as the NaviGoGo trial area as it provided a good mixture of participants living in urban and rural areas, along with a mixture of transport options across local authority boundaries.

At the beginning of the trial, the area was limited to train travel within Dundee and North-East Fife. However, following feedback from trial participants and in line with demand derived from the journey planner data, this was extended to include travel to major Scottish cities by train.

The trial involved 98 participants, aged 16-25 years old, from a variety of areas and backgrounds.

Employment status:



Results of the pilot

During the trial, the 98 trial participants used the NaviGoGo service to plan over 2,000 journeys with more than 480 journeys booked and paid for using their NaviGoGo stored account balance. Users of the pilot spent more than £3,500 through the platform.

480 plus journeys taken:



This obviously reflects the modes on which the young people could spend their account balance. However, in addition to the account spend, 38% of users said they travelled on bus after finding out the price on NaviGoGo, 29% said they walked after finding out options on NaviGoGo and 14% said they used the car less/a lot less.

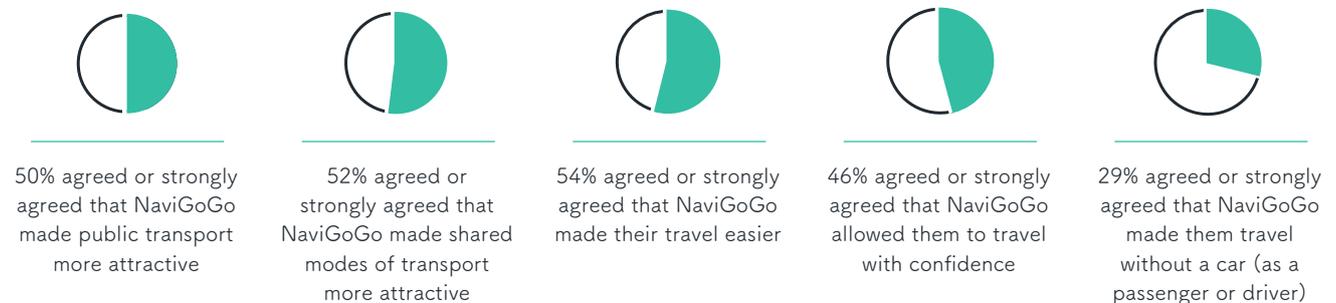
Behavioural impacts

Before and after the trial participants were questioned on their attitudes to understand:

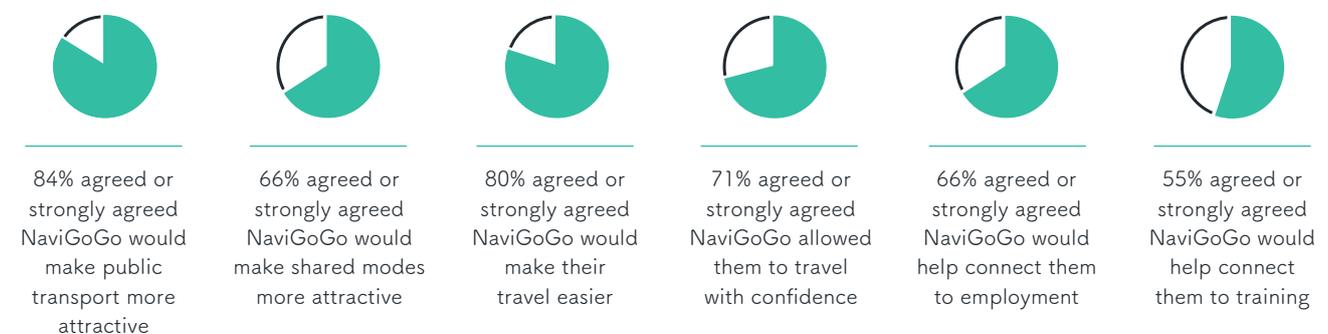
- Participants' views on NaviGoGo
- The impact NaviGoGo had on their travel
- How the NaviGoGo service could be improved for future users

The results showed that the NaviGoGo pilot helped increase young people's confidence and ability to travel.

There were several interesting behavioural changes noted by participants including:

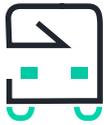


When bus use was fully integrated with the NaviGoGo trial participants said:



All users needed a Young Scot card to join NaviGoGo.
10% applied for, or renewed, their Card in order to participate

Looking at the potential impacts if bus use was fully integrated with a NaviGoGo account trial participants said:



75%

Three quarters would use the bus more/a lot more



39%

Just under two fifths would use the car less, a lot less or never



84%

Over four in five would use NaviGoGo to pay for ALL of their travel.

Overall, when participants were using NaviGoGo during the trial they reported travelling more by all modes except car, and there was a substantial increase in reported taxi use. However, the increase in taxi use is largely believed to have arisen because participants were gifted with incentive credit on their NaviGoGo accounts to be redeemed on travel via NaviGoGo.

At the start of the trial respondents reported liking many of the 'Features' that were designed with the NaviGoGo app, but the journey planner tool proved very useful and was by far the most highly rated feature.

NaviGoGo user Georgia, 22 recently moved to the Broughty Ferry area of Dundee. Since using NaviGoGo, her confidence to travel has significantly increased. She commented: "NaviGoGo helped me – it gave me more confidence to try new things, especially as someone who's new to the area. It helped me discover new modes of transport that I didn't know about and understand the price of travel for different transport options."

NaviGoGo user Nikita, 18, says that the app gave her more freedom over her travel: "I really liked that they had an account balance on the NaviGoGo app, so that if I didn't have money on my debit card I could still pay for it, because my Mum currently pays for a lot of my transport, like taxis and trains. I could see her putting money into it and it would save her time from always transferring the exact amount of money to my account."

Nearly two fifths (39%) said that the journey options presented in the NaviGoGo Journey Planner changed their travel. They reported:

- Transport to be more convenient
- Using different modes
- Being better informed
- Increasing their travel
- Options were more tailored



Policy impacts

At the start of the Pick&Mix project, the consortium of partners agreed several objectives to help inform policy making in this area.

Primary: key policy objectives for the project

- Support and help young people to make the most of the transport services available to them in their area
- Make transport easier within local areas (urban and rural)
- Increase participation in education, volunteering, employment and leisure activities by helping to remove the transport related barriers to access
- Create understanding and data to inform general policy.

Secondary: supporting policy objectives for the project

- Make transport easier between areas (long distance)
- Influence future transport services
- Help improve health
- Create lifelong sustainable transport users.

The headline figures demonstrate that NaviGoGo has already begun to improve how young people relate to, use and combine travel modes and transport services, which was an overarching aim for the project. Over half (54%) of trial participants agreed or strongly agreed that NaviGoGo makes their travel easier, despite the non-inclusion of bus travel in the booking and payment functionality during the Dundee and Fife pilot.

Financial viability was also a central focus for NaviGoGo. While the commercial case continues to progress, the service has driven demand to operators, with respondents reporting an overall increase in use of all modes of transport – including taxi, bus and train.

In addition, 10% of trial participants requested a Young Scot card or renewed their Young Scot card in order to use NaviGoGo, which was an important performance indicator for Young Scot and NECPO.

It is clear from our results and analysis that there is a demand for a tailored MaaS solution for young people, especially once it can be extended to cover all transport (long distance and local) and when there is evidence that this can produce significant benefit for users, policy makers and transport operators.

On a policy level, many of these are long term issues that are harder to track in the short term. NaviGoGo is however a flexible platform which allows a tailored solution to be built depending on the stated objectives. The co-design element of the platform was crucial to the trial's success and meant that the options developed were those that young people wanted to use, while also meeting social objectives around participation and health. Future social policy objectives could include supporting apprenticeships or providing other opportunities for young people to access work or training.

Conclusion

The consortium of partners worked intensively with the 16-25-year-old participants to create, design and develop NaviGoGo. The resounding message from young people in the planning stage is that there was no one-stop shop for the traveller tailored to individuals' own needs and circumstances – thus the idea for NaviGoGo was born.

At the end of the trial period a project close event was held at which the Scottish Government Minister for Transport and the Islands, Humza Yousaf, praised the NaviGoGo initiative and highlighted the need for seamless, integrated transport. He said: "We're on the cusp of a transport revolution, with more young people than ever interested in using public transport. There is a real desire and interest from the Scottish Government in smart interoperable public transport projects like NaviGoGo to take forward our collective ambitions. The collaborative, co-design element with young people has been instrumental to the success of the NaviGoGo pilot, and it's essential we put ourselves in their shoes to understand issues faced by 16-25-year olds."

The revolutionary NaviGoGo pilot, which was Scotland's first ever MaaS pilot, enabled young people in Dundee and North East Fife to successfully plan, book and pay for their travel. This helped increase their confidence to use multi modal transport, keeping them connected to education, training, jobs and their social lives.

The feedback from the trial shows that this is the type of transport that young people want and deserve. It is important that their feedback is taken on board and continuously updated.

With figures like 75% of trial participants saying that they would use the bus a lot more if it were fully integrated in NaviGoGo and 84% saying NaviGoGo could make public transport more attractive, the next step is making sure that young people across the country can experience NaviGoGo and its benefits for themselves.



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