



T H E E N A B L E M a a S P R O G R A M M E

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EXECUTIVE SUMMARY

The Tactran ENABLE MaaS (Mobility as a Service) Programme piloted a model for developing and disseminating journey planning, booking and payment tools to enable users to access destinations and services by sustainable modes of travel, thereby supporting public sector objectives to reduce inequalities and take climate action.

The Tactran ENABLE programme is part of Transport Scotland's Mobility as a Service (MaaS) Investment Fund (MIF) programme introduced to help the Scottish Government understand if and how public MaaS products could be taken forward to support climate change and social inclusion objectives.

The purpose of this report is to highlight the achievements, and share the lessons learned, from the Tactran ENABLE programme to inform future MaaS programmes in Scotland.

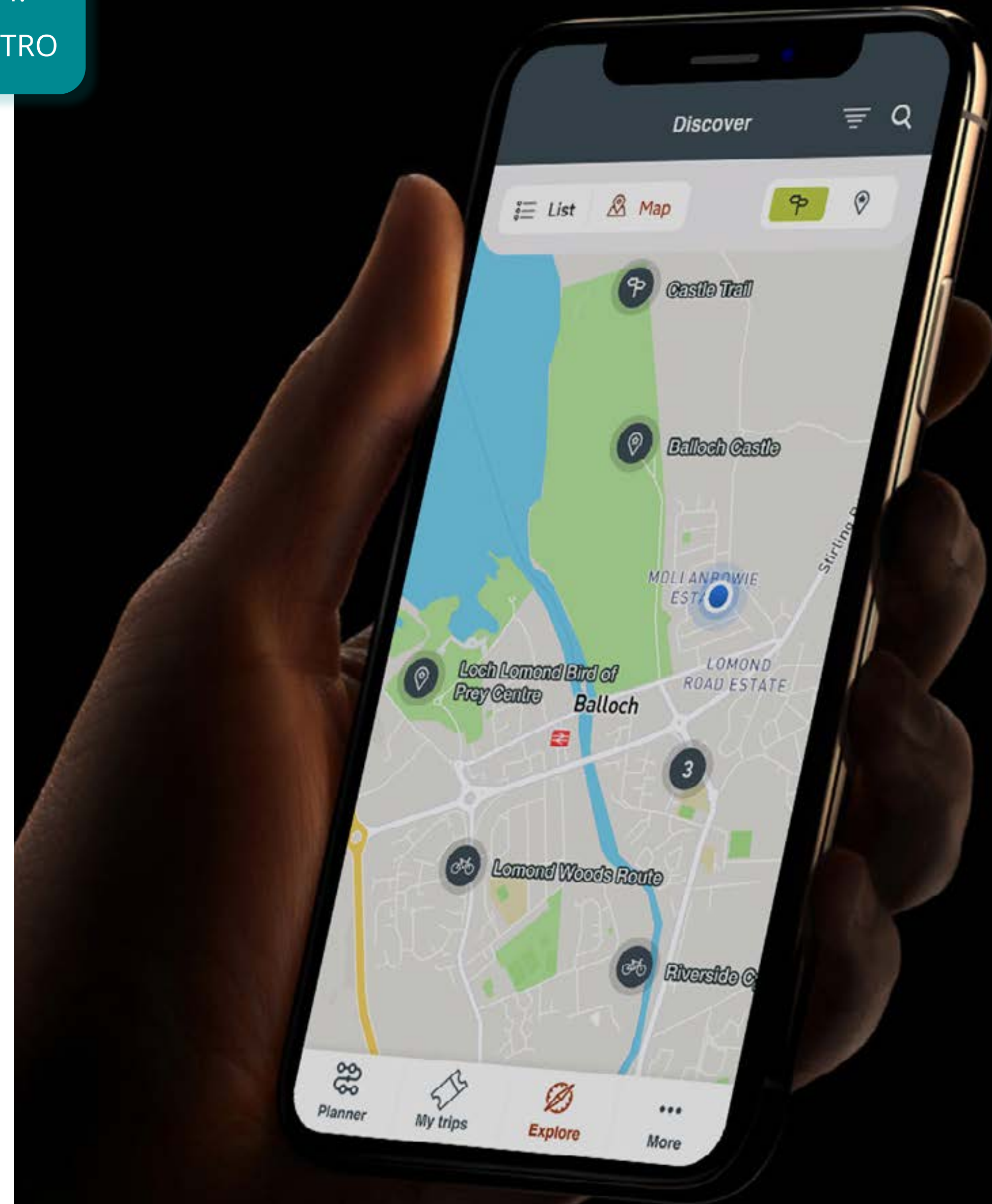


Taking MaaS forward in the Tactran Region

A MaaS tool for the region presents opportunities to promote sustainable travel, enable the digital transformation of booking and paying for services (including demand responsive transport) which support the core objectives for addressing climate change and promoting access to services for those without access to a car.

It is unlikely that the current model would attract sufficient income from booking income and advertising to make it cost neutral. In addition, the costs of providing a public sector MaaS platform are likely to be prohibitive for most services on their own. However, the uses and benefits are potentially widespread, and the more services that the tool is shared across, the greater the benefits, and the smaller the costs to individual services.

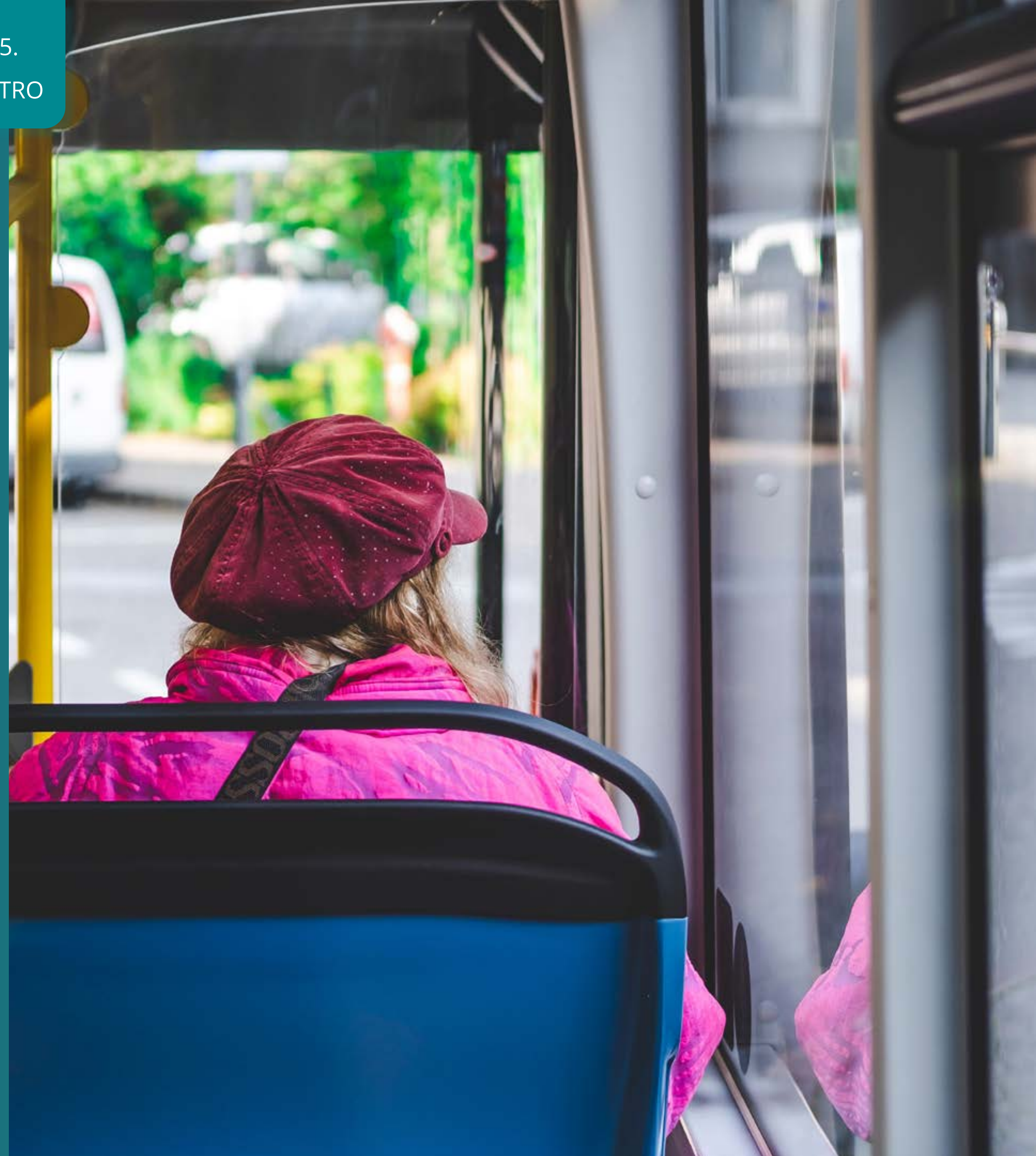
The need to take a collaborative approach to developing and promoting a shared MaaS platform has been adopted by Tactran and SEStran. This approach is going to be extended over 2023/24 to promote and share the learnings of this pilot across the SEStran and Tactran regions and beyond. We will also look to continue to understand what is required by both users and public sector agencies and to further develop the collaborative model in a financially manageable and value for money model for public sector services. This is being taken forward under the name of “Integrated Mobility Partnership (IMP).”



THE PROBLEM

Providing an alternative to the car, whether for those with or without access to such, requires both provision of alternatives for the whole journey, but also information about what alternatives exist for the whole journey.

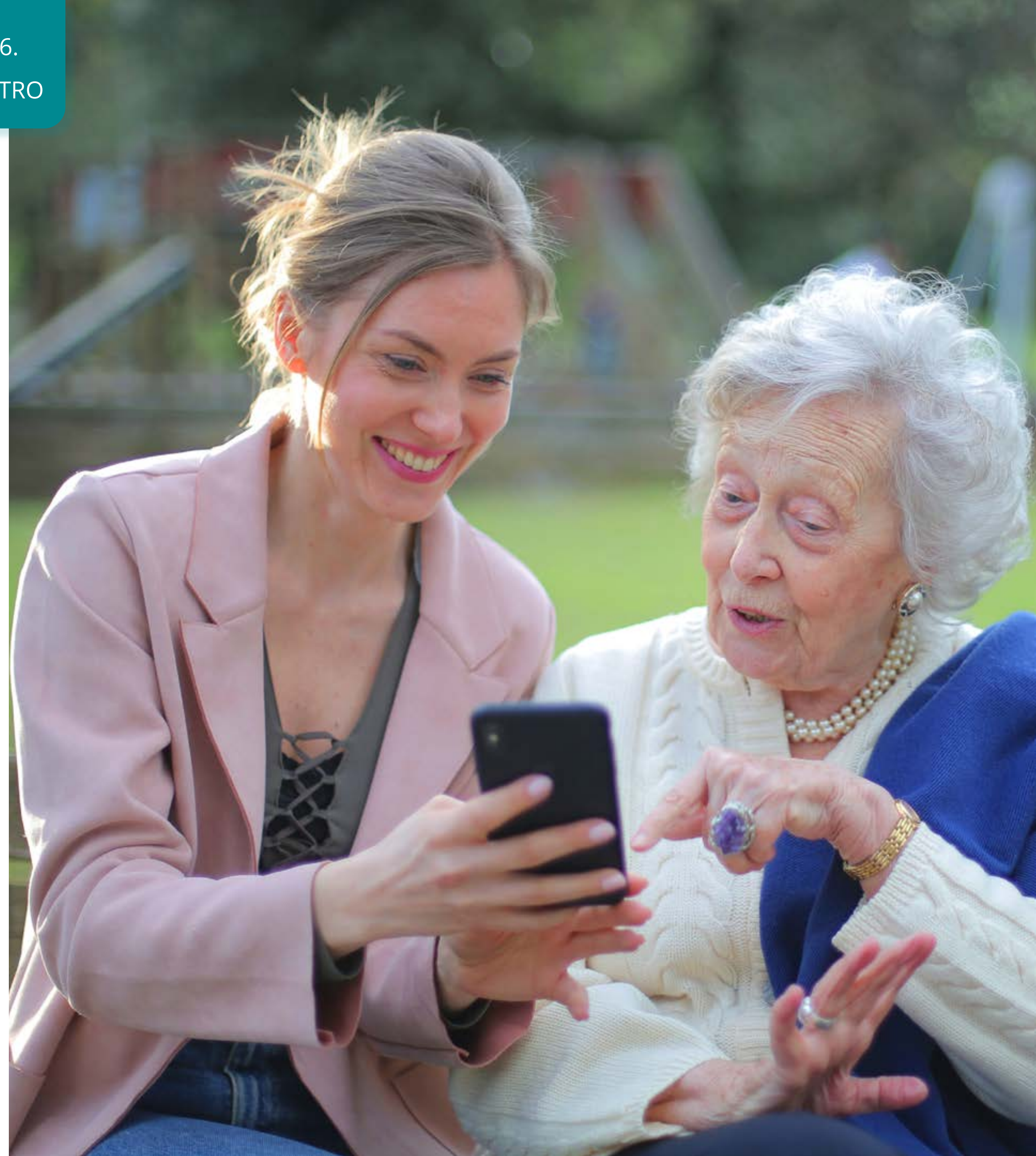
There has never been a single source of journey planner information which gives information about all the travel options in their area (e.g. demand responsive transport, community transport, bike hire etc along with information about bus, rail and car journey times) that enables users to be aware of and informed about all the choices they have.



THE OPPORTUNITY

Mobility as a Service (MaaS) technology enables the co-ordinated planning, booking and paying of the complete range of transport services, enabling users to make the most of whatever services are available.

Transport Scotland's MaaS Investment Fund allowed Tactran to pilot a MaaS programme incorporating some of these features across the Angus, Dundee, Perth & Kinross, and Stirling Council areas.



THE PROGRAMME

The Tactran ENABLE MaaS Programme consists of:

- A MaaS platform: the 'back office' containing the software that enables the planning, booking and paying of a range of transport services
- Interfaces (apps/websites) designed with and for the users of three pilot services:
 - » Dundee and Angus College
 - » Loch Lomond and the Trossachs National Park Authority
 - » NHS Tayside
- Communications and marketing programmes
- Monitoring and evaluation programme



KEY FEATURES

- Bus journey time and cost information (via integration with Traveline Scotland)
- Ability to plan, book and pay for rail journeys (via integration with RailEasy)
- Ability to plan, book and pay for five taxi companies in the region (via the taxi aggregator Karhoo). Plus contact details and estimated fares for local taxis which operate in the region, but are not part of the aggregator
- Walk and cycle journey times
- Information (cost / contact details) for community transport operators appearing as a travel option in journey plan
- Information (costs / contact details) about demand responsive transport services (DRT) in the region linking to the Stirling Council DRT booking webpage powered by Trapeze
- Carbon calculator and days out features for the National Park Journey Planner
- Ability to plan Enterprise Car Club journeys in the Stirling area
- Ability to plan Nextbike bike hire

The programme differs from many MaaS programmes in that it uses multiple user interfaces targeted at specific user groups – compared to the majority of MaaS programmes which produce generic journey planning tools for the ‘whole community’.

These user groups are at the centre of the design, review, improvement, marketing and communications processes. The programme created the eco-system to identify and give users what they need, maximising the utility and benefits of MaaS tools for users and public sector service providers.

The programme was built around the principle that the user journey does not start with, **“where do I catch the bus?”** but **“I want to go to College/to a hospital appointment / to the National Park.”**



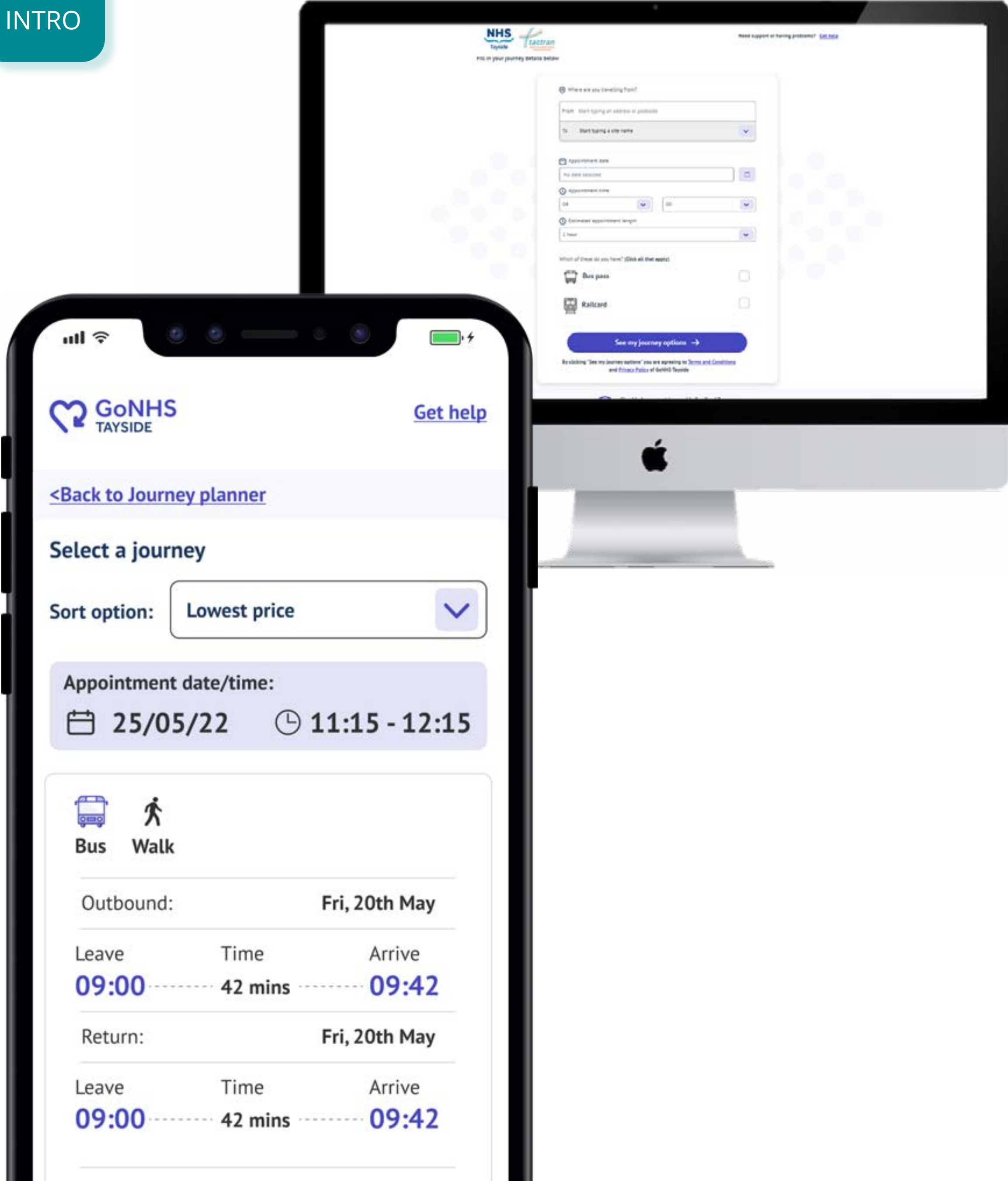
The Tactran ENABLE model focuses on getting the journey planning tools directly to the users via the services / destinations the users are accessing. The interfaces were developed for the users of specific services, and branded and promoted by the services themselves.

It was assumed:

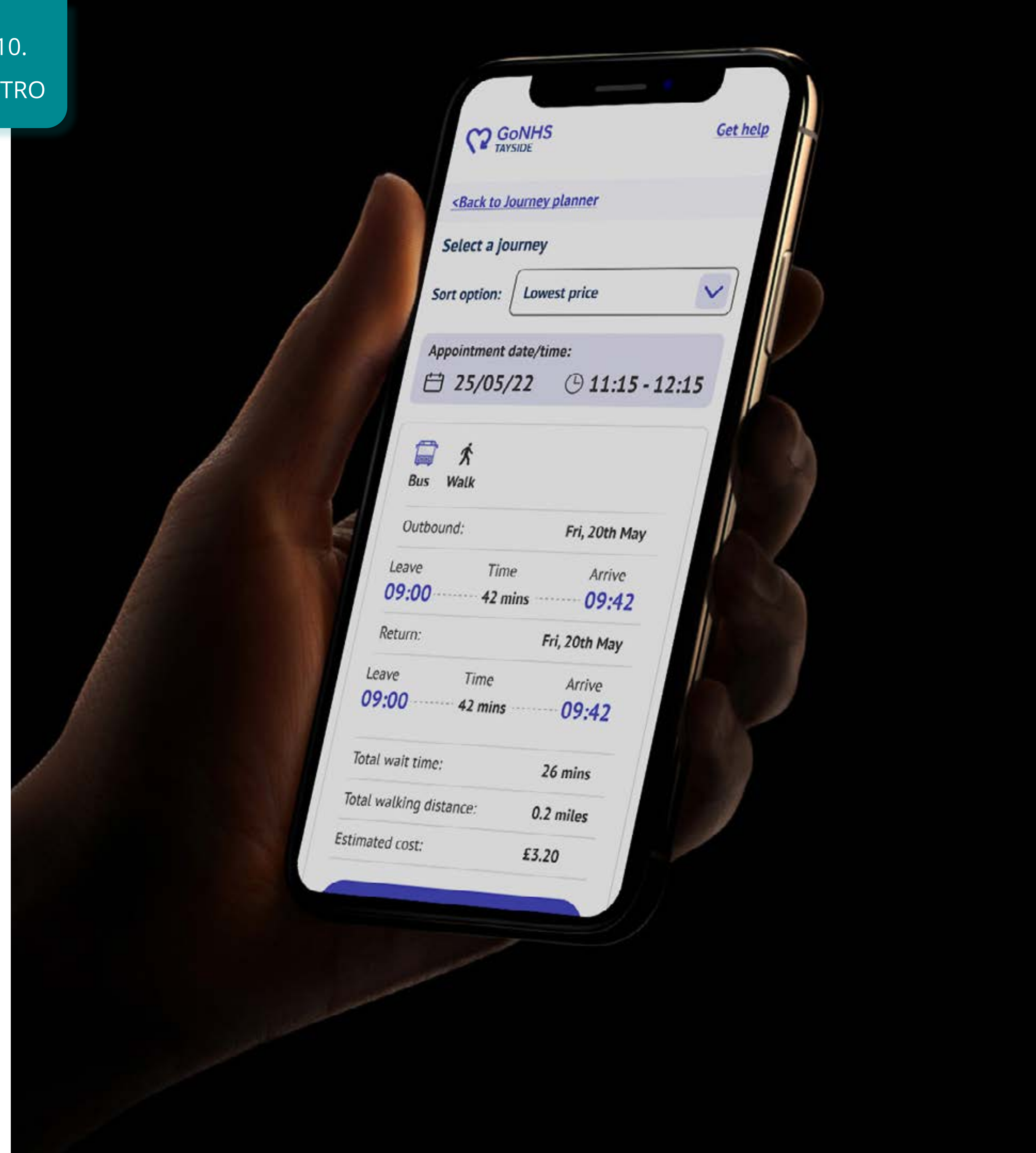
- The services are likely to have the best means for disseminating the tools directly to their users.
- the user has greater trust in a tool which is branded and promoted by a service they use and are familiar with.

Working with the services we promoted the tools through:

- NHS Tayside hospital appointment letters, staff-net bulletin and NHS Tayside social media
- Correspondence from College, D&A college social media and internal comms
- The Loch Lomond and the Trossachs National Park Authority's website ('Getting to the Park')/ marketing, social media/newsletter; use of social media influencers

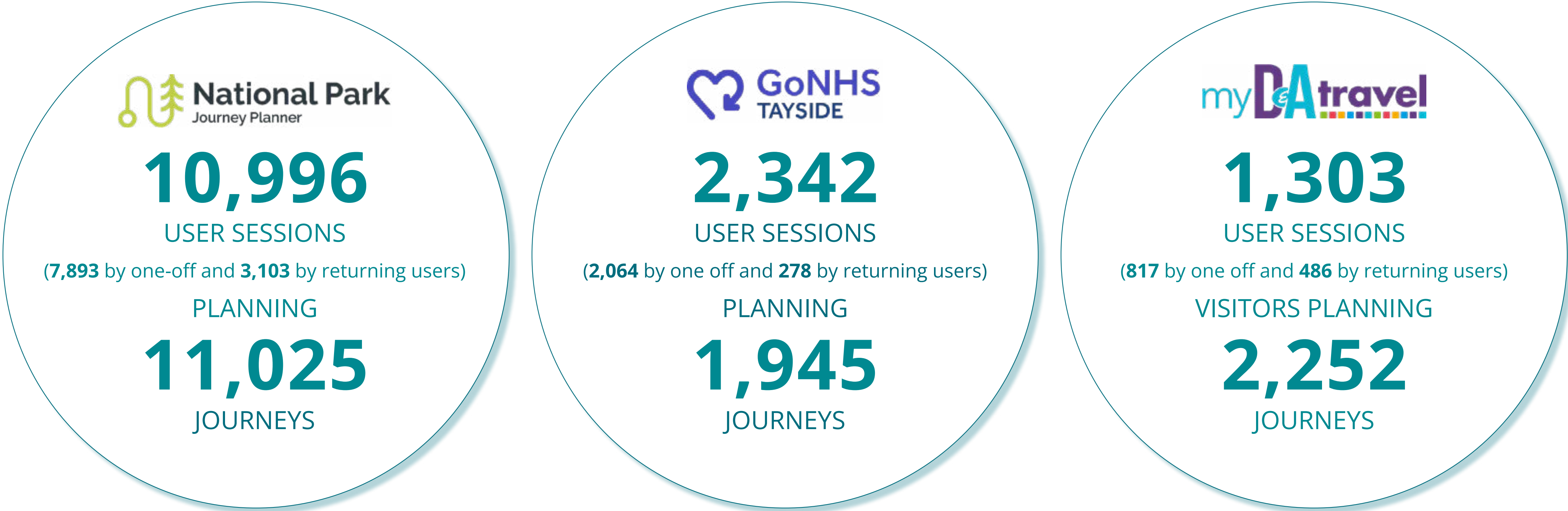


The programme to develop and trial the journey planning tools for the three services commenced in January 2020, but as consequence of the travel restrictions imposed in response to the Covid 19 pandemic, the launch of the live pilots was delayed until August and September 2021.



THE RESULTS

Between the launch in September 2021 and January 2023 the programme resulted in 14,641 user sessions planning 15,222 journeys.



The high proportion of returning users (National Park Journey Planner 28%; GoNHS Tayside 12%; my D&A Travel 37%) suggests user satisfaction with the tools.

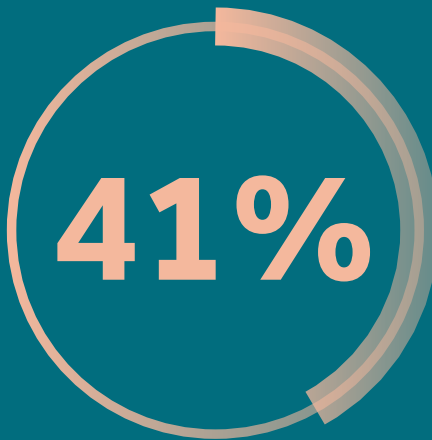
There is a need:

The survey results suggest that users of the apps may be more likely to experience travel difficulties:

Lack of options: e.g.



of myD&A travel users had a reason that limited how they chose to travel, compared to **76%** of non-users, suggesting users were more likely to experience constraints to how they travel.



of myD&A app users stated they had 'no-one to share a lift with' (**26%** for non-users)



of the National Park journey planner users reported having 'no access to a car or driving license' compared with **1%** of non-users

Complexity of journey:

Users had significantly more journey parts to their journey than non-users

Sensitivity to cost:

for example,




of myD&A travel users indicated they could not afford the alternative modes of travel (**17%** for non-users)

Have a disability which affects travel:

Users of the journey planning tools were significantly *more* likely to have a disability which affected how they travel

Sustainable modes:

The modal share of journeys planned suggests the tools promote and support sustainable transport options:




60% of journeys planned were on public transport.

12% were walking and cycling trips.

57% of users suggested the journey planner made it more likely they would use public transport, walk or cycle instead of driving.

After Survey: 319 respondents




61% of journeys planned were on public transport.

10% were walking and cycling trips.

59% of users suggested the journey planner made it more likely they would use public transport, walk or cycle instead of driving.

After Survey: 425 respondents



84% of journeys planned were on public transport.

5% were walking and cycling trips.

27% of users stated the platform had influenced how they chose to travel to campus.

After Survey: 569 respondents

The tools have supported the priorities of the services

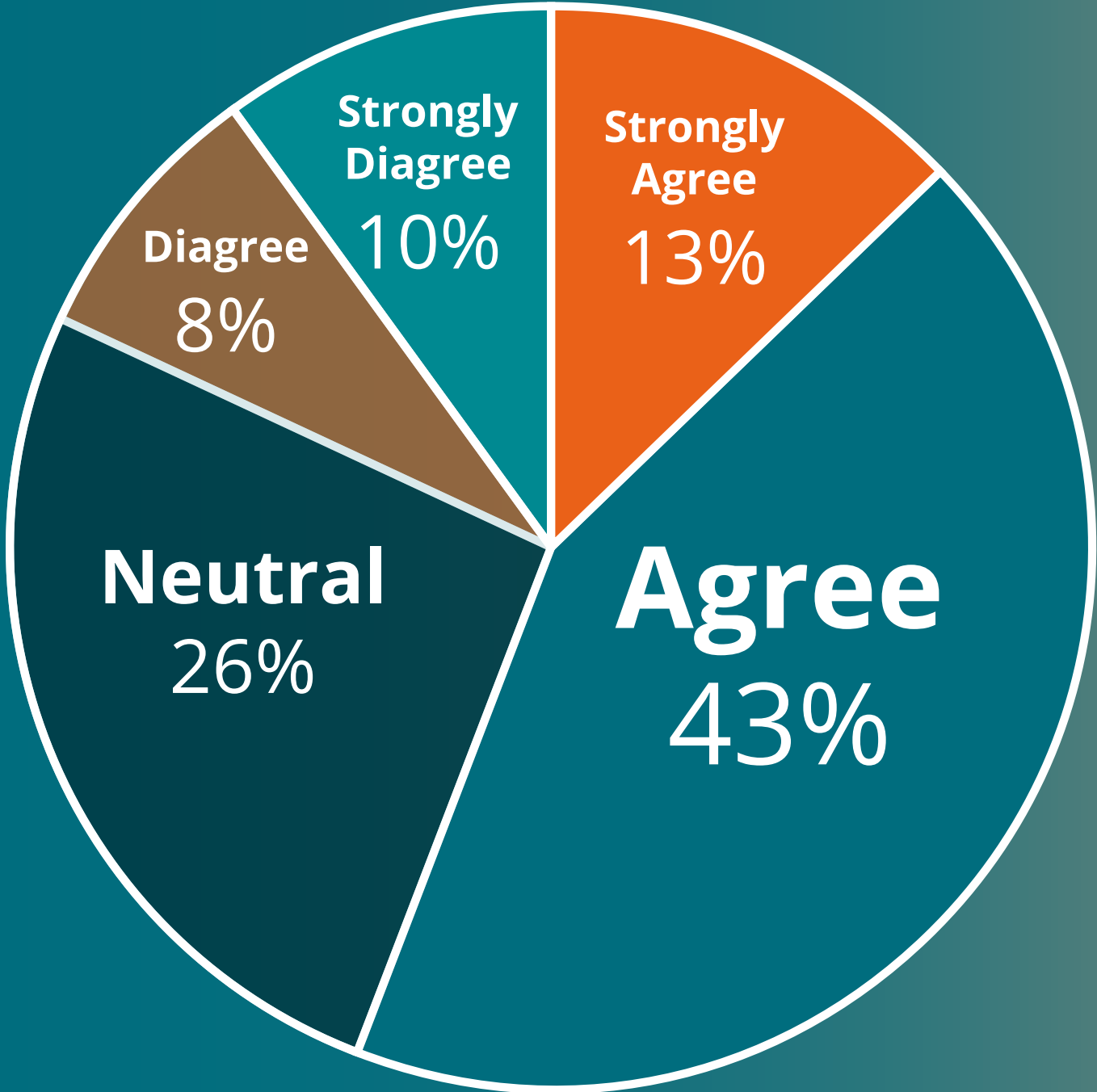
The programme has supported the climate change and social inclusion objectives of the Government, the Councils and Tactran by supporting:

The Loch Lomond and the Trossachs National Park Authority in addressing the impact of visitors accessing the Park by car.

NHS Tayside's aspirations to help users access services as well as help address the parking pressures on site. In addition to the promotion of sustainable modes noted previously:

- **56%** of users suggested the journey planer made it more likely that they would arrive on time and/or not miss a medical appointment.
- Travel is one factor that can affect the proportion of appointments that are missed. 'Do not attends' (typically 11% in Tayside) are a significant cost and inefficiency to NHS service delivery.
- NHS officers noted the anxiety patients have when attending an appointment and how this can be amplified by concerns about how to get to the site.
- Survey results indicated that users of Go NHS Tayside were more likely than non-users to agree that their trip to the hospital was stress free.

"Using the Go NHS Tayside journey planner has made it more likely that I won't miss my medical appointments/I will arrive on time"



15.
RESULTS

Dundee and Angus College provide further education for a large rural as well as urban area. The ability to access the College can therefore be a significant factor in which courses pupils can enrol in.

Furthermore, given the typical age range of the user group, the students are more likely to be reliant on other forms of access (whether that be lifts or regular use of public transport) than those with their own car and require information either on a regular or infrequent basis of how best to access different sites on different days at different times to help ensure attendance.

34% of respondents who had used the my D&A travel app stated that their journey to college played a role in the decision to enrol on a course; whereas for non-app users, only **22%** of respondents stated that the journey influenced their decision.

The headlines from the surveys from the three pilot services are included on the following pages.

“I used the app to get from Perth to D&A college and it gave me plenty of options from the cost of my fuel and the cheaper options of taking public transport. Very handy app.”

Dee, Student

“The D&A Travel app has helped me plan my travels, and it has helped me when I first started college as I was unsure of what bus I should take.”

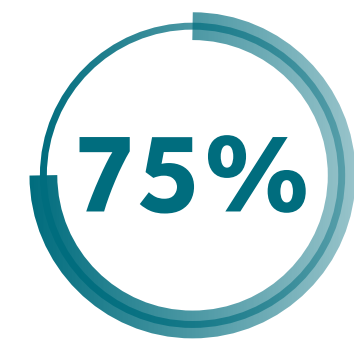
Kayla, Student

“The My D&A Travel App allows our students and staff to see all of the potential travel options available to them and the most sustainable way they can get to college.”

Simon Hewitt, Dundee and Angus College Principal

Have the journey planners been effective?

LIKED



of respondents indicated the app met their travel needs

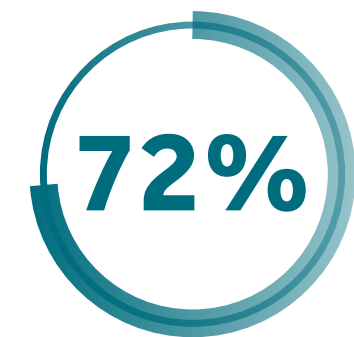
PROMOTES SUSTAINABLE TRAVEL



of respondents indicated that the app had influenced how or when they chose to travel to and from college



of journeys planned were sustainable journeys.



of final journeys viewed being bus journeys

Is there a need?

MORE LIKELY TO HAVE A DISABILITY:

Users are more likely to have a disability which affects their travel arrangements (**14%** users vs **5%** non-users)

17% of users mentioned 'poor health' as a limiting factor to the way they travel (**6%** for non-users)

JOURNEY COMPLEXITY

77% of those who had used the app, travelled by more than one mode of transport (**49%** for non-users)

SENSITIVITY TO COST

31% of users indicated they could not afford the alternative modes of travel (**17%** for non-users)

FEWER TRAVEL OPTIONS

93% of users had a reason that limited how they chose to travel, compared to **76%** of non-users, suggesting users were more likely to experience constraints to how they travel

41% of users stated they had 'no-one to share a lift with' (**26%** for non-users)

23% of users do not have access to a car

USED FOR FORWARD PLANNING

59% of journeys were planned at least one day in advance.

Have the journey planners been effective?

PROMOTES SUSTAINABLE TRAVEL

59% users say the webapp made it more likely they would use public transport, walk or cycle instead of drive

Users were more aware of public transport options. Only 16% users felt there were no practical public transport options (42% for non-users) journeys planned through the app tended to be sustainable journeys. 47% had a bus option as the final journey option viewed

REDUCES DID NOT ATTENDS

56% of users say the webapp made it more likely they would not miss their medical appointment or that they would arrive on time

REDUCES ANXIETY

69% users say that their journey to NHS Tayside was stress-free compared (58% for non-users)

Is there a need?

MORE LIKELY TO HAVE A DISABILITY

GoNHSTayside users were significantly more likely have a disability which affects their travel arrangements (**61%** users vs **9%** non-users)

COST SENSITIVE

87% of users compared the cost of different journey options (**19%** for non-users)

JOURNEY COMPLEXITY

87% of users had more than one journey part for their journey (**39%** for non-users)

17% of users do not have access to a car (**13%** of non-users)

USED FOR FORWARD PLANNING:

93% of journeys were planned at least one day in advance



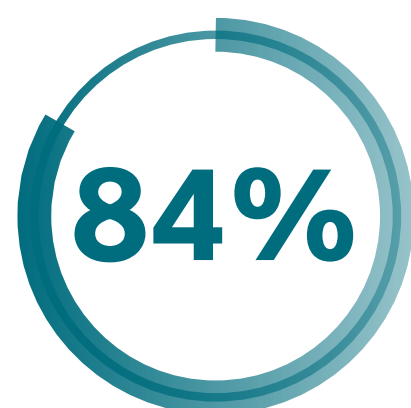
Have the journey planners been effective?

PROMOTES SUSTAINABLE TRAVEL



of users said that the platform made it more likely they would use public transport, walk or cycle instead of driving

Users were more aware of public transport options. Only **14%** of users felt that there were no practical public transport options to the National Park, (**41%** for non-users)



of journey plans were for sustainable modes of travel

Is there a need?

MORE LIKELY TO HAVE A DISABILITY

users were significantly more likely have a disability which affects their travel arrangements (**57%** users vs **7%** non-users)

FEWER TRAVEL OPTIONS

16% of app users reported having 'no access to a car or driving license' compared with **1%** of non-users

COST SENSITIVE

93% of users compared the cost of different journey options (**12%** of non-users)

COMPLEXITY OF JOURNEY

47% of users had more than one journey part for their journey (**24%** of non-users)

USED FOR FORWARD PLANNING

78% of journeys were planned at least one day in advance.

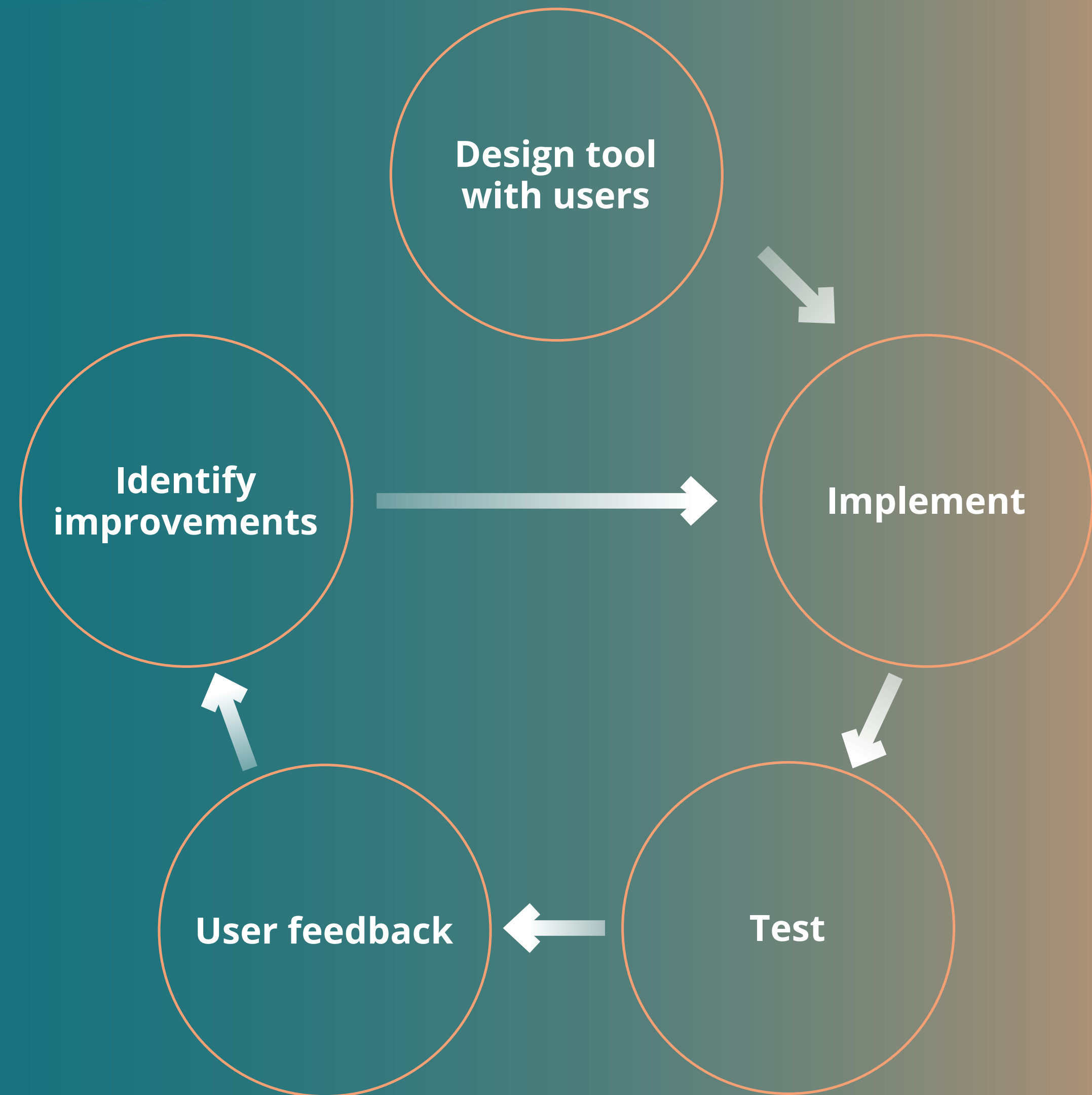
LEARNINGS

Keep it simple: The continual user feedback loop, and especially the audit of the tool by people with disabilities and early onset dementia emphasised that what people want are simple and clear tools.

The design of many MaaS tools is based on making the most of the technology. Is this what the user needs or wants? It is near impossible to present an app which is both simple and does everything.

“It’s great that the feedback, based on disabled users’ experiences, has been acted upon: the NHS site is easier to use and is a giant leap forward for accessibility and easier access to health services in Tayside. Great job.”

Hussein Patwa Making Connections participant and accessibility consultant



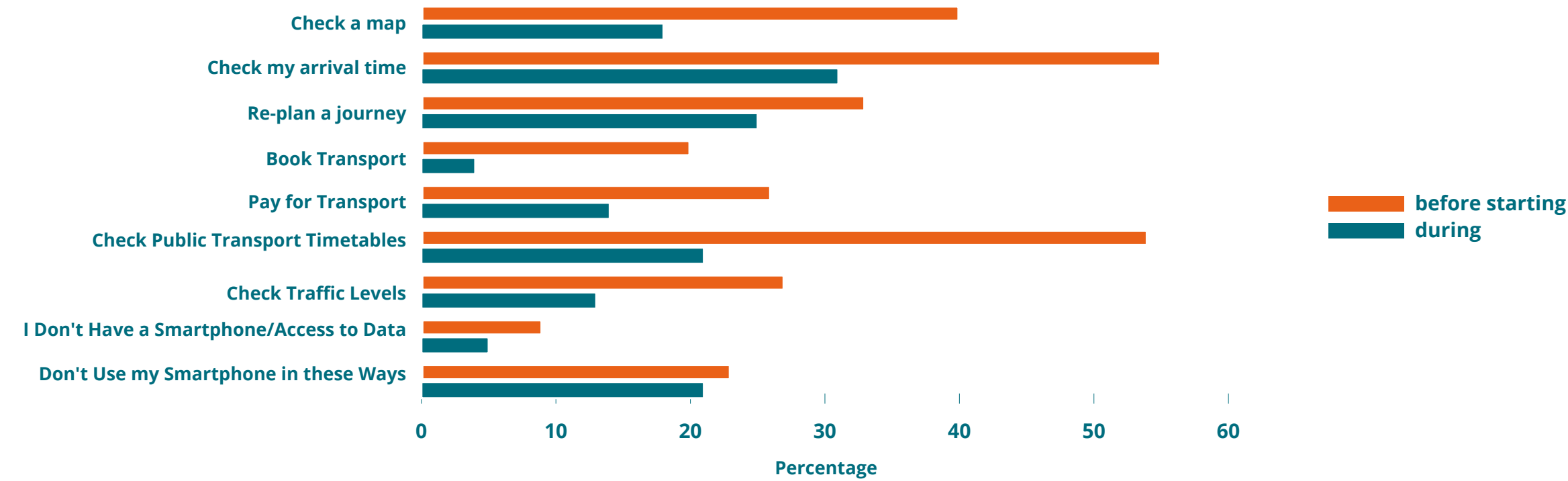
20.
LEARNINGS

What do people need? We should be mindful of the respective problems that people face for planning, booking and paying for journeys when deciding on the content of a journey planning tool.

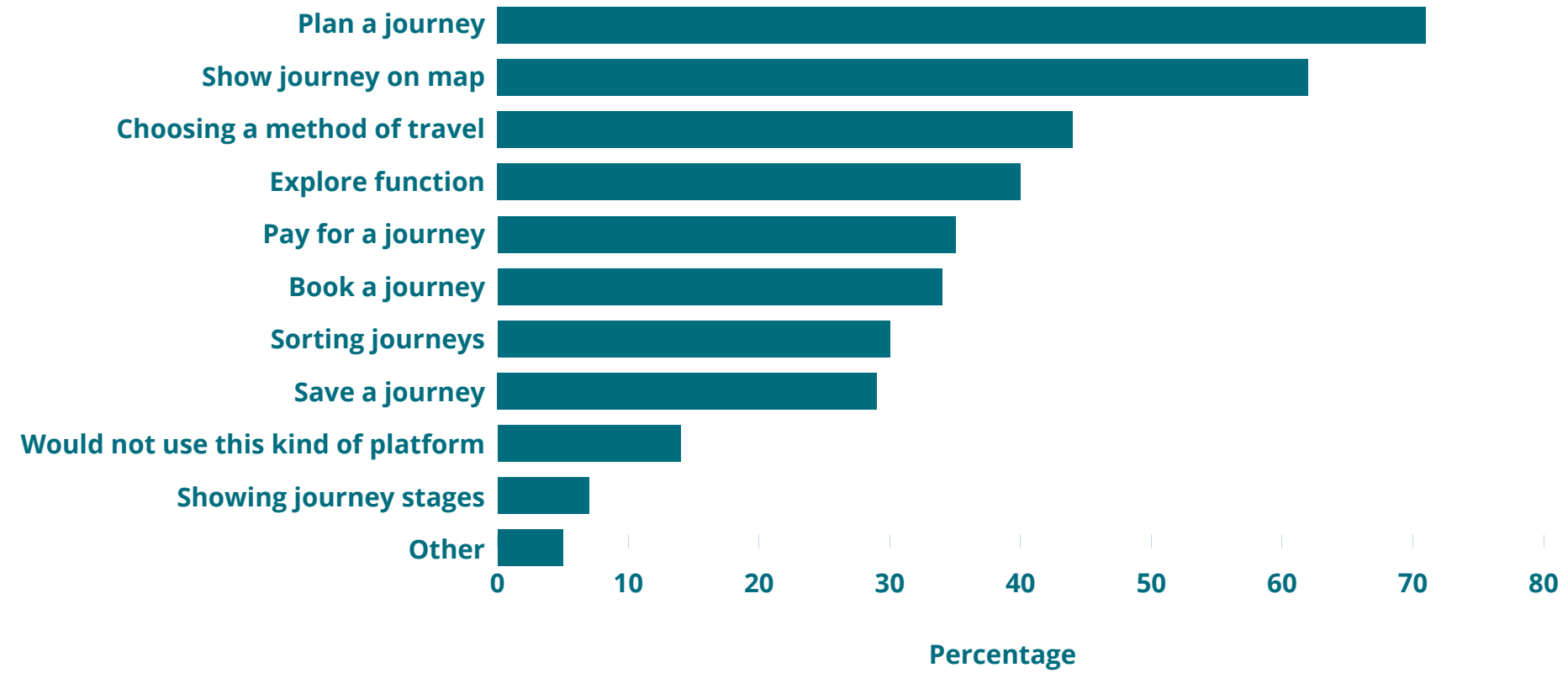
Awareness of transport options is maybe a bigger problem than being able to buy a bus ticket? (especially with the growing prevalence of contactless payment acceptance onboard). The survey results suggest that functions relating to planning a journey are desired more than functions allowing booking and paying. The survey also highlighted that people use their smartphone more to plan a journey than to book and pay for a journey.

The survey data also showed the greatest use of the journey planners was in advance, rather than on the day. This suggests that people used the tool to understand their best options.

As part of your journey to/from D&A have you used your smartphone to do the following



Which of the following functions would you find useful on a single digital platform?
Select all that apply



MY D&A TRAVEL

NATIONAL PARK SURVEY

TAKING MAAS FORWARD

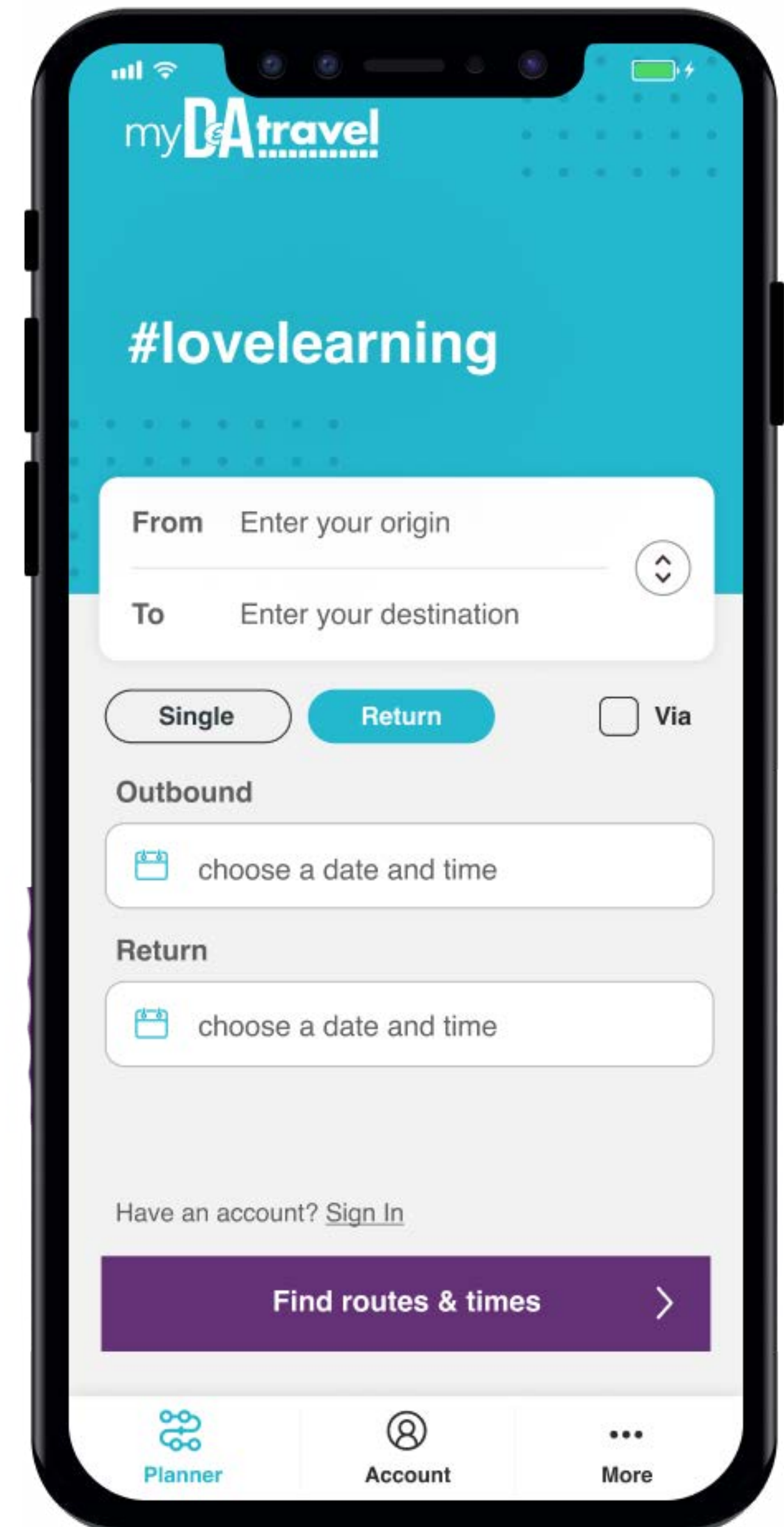
Potential for Growth: All of the pilot surveys contain evidence to suggest that there is an openness to the idea of a multi-functional platform, which indicates that those who had already started to use it were becoming regular users, while the (much larger) cohort of non-users were expressing support for the concept, even if they weren't using it yet.

What is the value to the public purse? Further research indicated that it is unlikely that booking and advertising income will be sufficient to enable a public sector tool to be sustainable. However, the costs of not supporting such a tool are likely to result in the mitigation costs for social inclusion and climate change being greater than the cost of the tool.

Collaboration: A collaborative approach was taken to developing and evolving the project.

For the services, the journey planning tools helped users access the service via sustainable modes of travel. However, other benefits partner services included:

- Continued building of relationships between a Regional Transport Partnership and services, enabling opportunities to support their objectives to be identified, investigated and acted upon
- The data dashboard provided valuable insights into users and their access issues for services, helping inform service delivery
- The journey planners provided another medium for services to communicate and engage with their users



A significant element of programme evolution came with SEStran (South East of Scotland Transport) successfully being awarded monies from the second round of the MaaS Investment Fund.

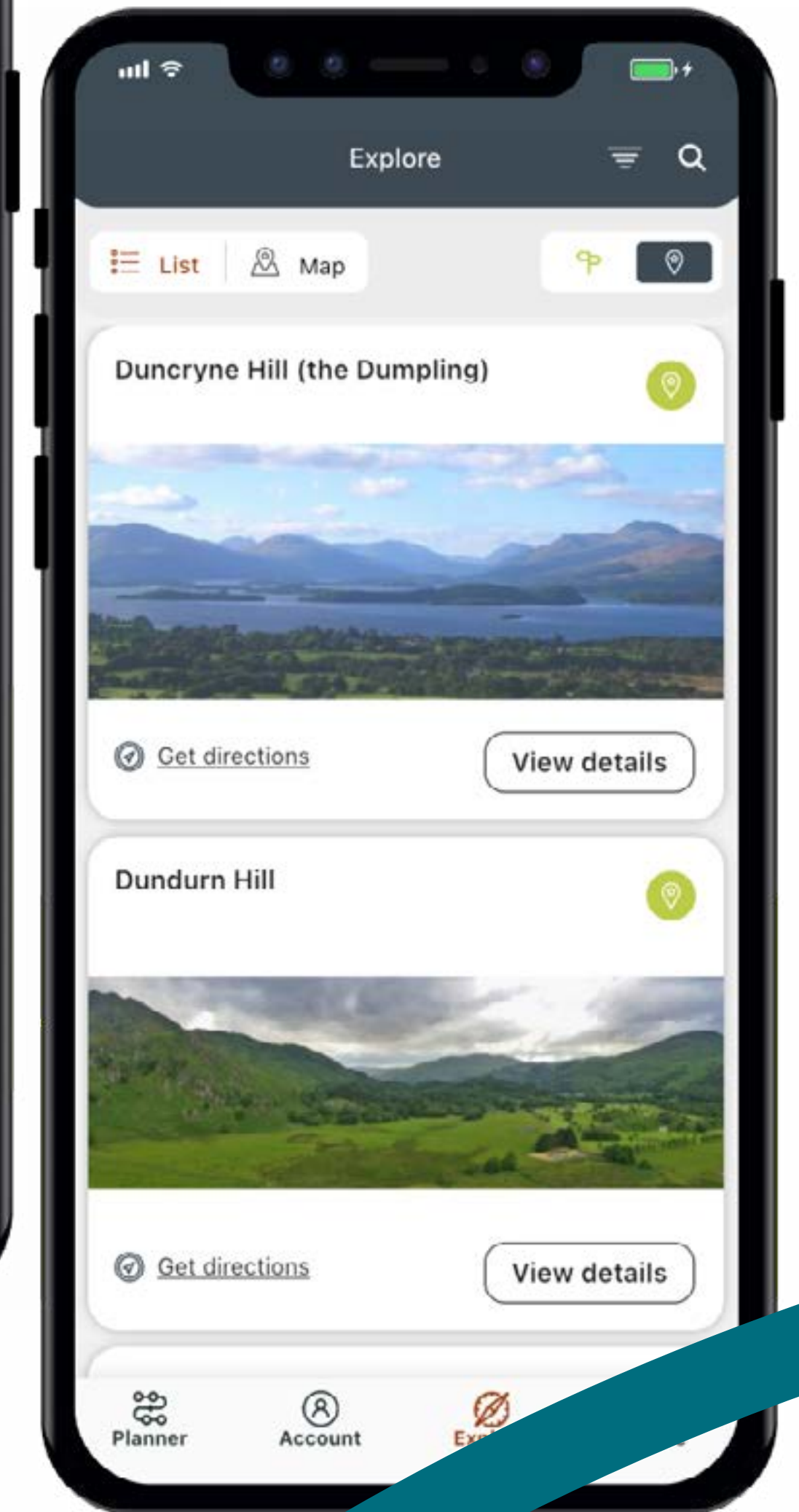
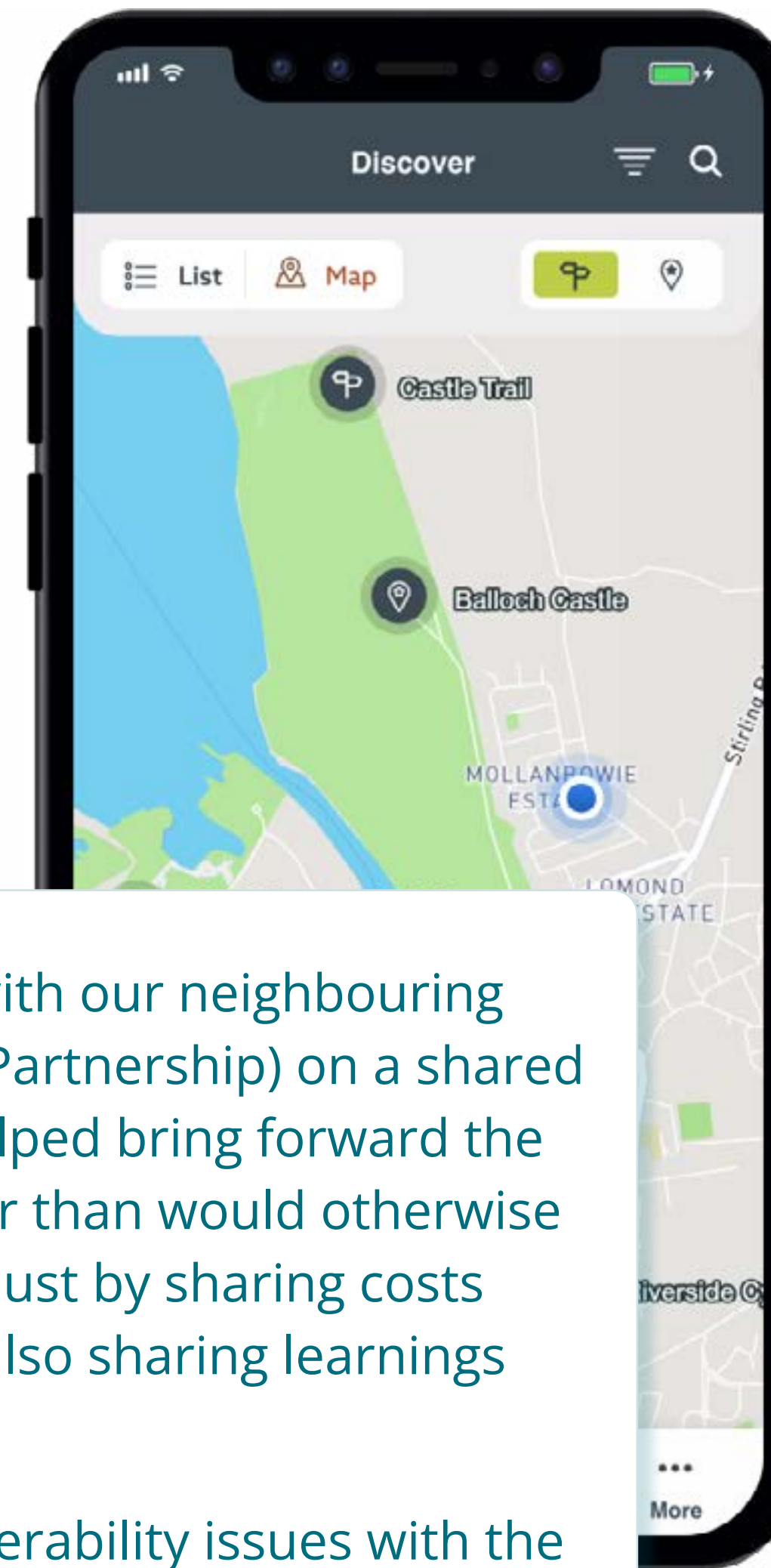
To enable project timescales to be hit and to reduce costs, the MaaS platform developed for the Tactran ENABLE project was shared with SEStran. This enabled SEStran to meet their project requirements but also resulted in a sharing of costs and learning experiences. Direct consequences of this are:

- The intended nine-month trial period for Tactran’s pilots have been able to be extended to eighteen months
- Tactran and SEStran working jointly on developing and promoting the platform and its opportunities

“Working in partnership with our neighbouring RTP (Regional Transport Partnership) on a shared MaaS programme has helped bring forward the GoSEStran project quicker than would otherwise have been achieved, not just by sharing costs and the technology, but also sharing learnings and experience.

It also eliminated interoperability issues with the Tactran ENABLE project.”

Brian Butler, Partnership Director, SEStran



CONCLUSIONS

There IS a need

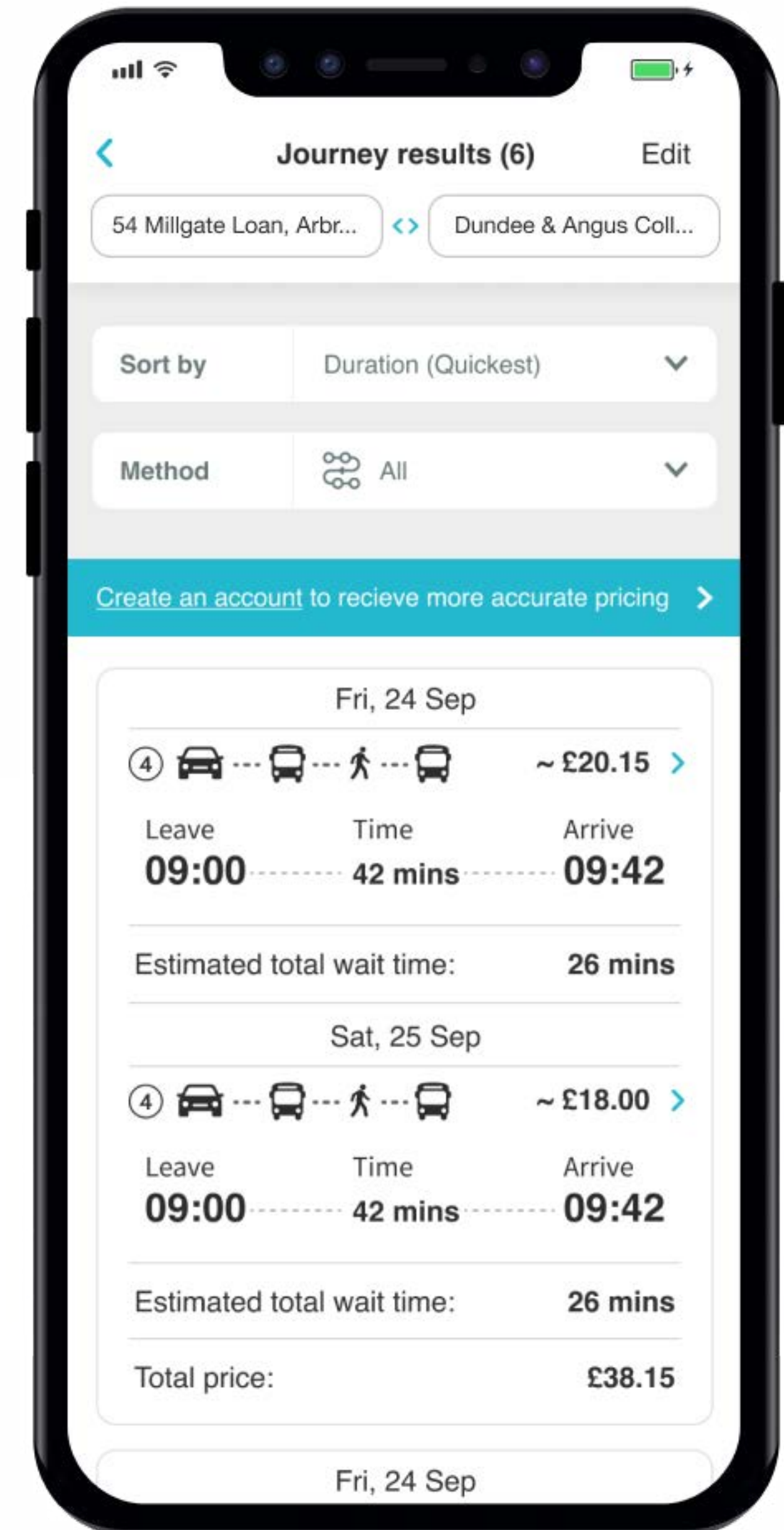
There is a need for effective tools to promote access by sustainable modes.

Users of the tool are more likely than non-users to experience difficulties with travel, whether this be the availability of options, the complexity of their journey or the cost of travel. Hence, users of the tool are more likely to require help with travel planning and understanding the options available to them. Surprisingly users of the interfaces were significantly more likely to have a disability which affects their travel arrangements.

Successes of the programme

The user numbers in comparison with other programmes suggest that a successful model has been developed for designing and disseminating journey planning tools:

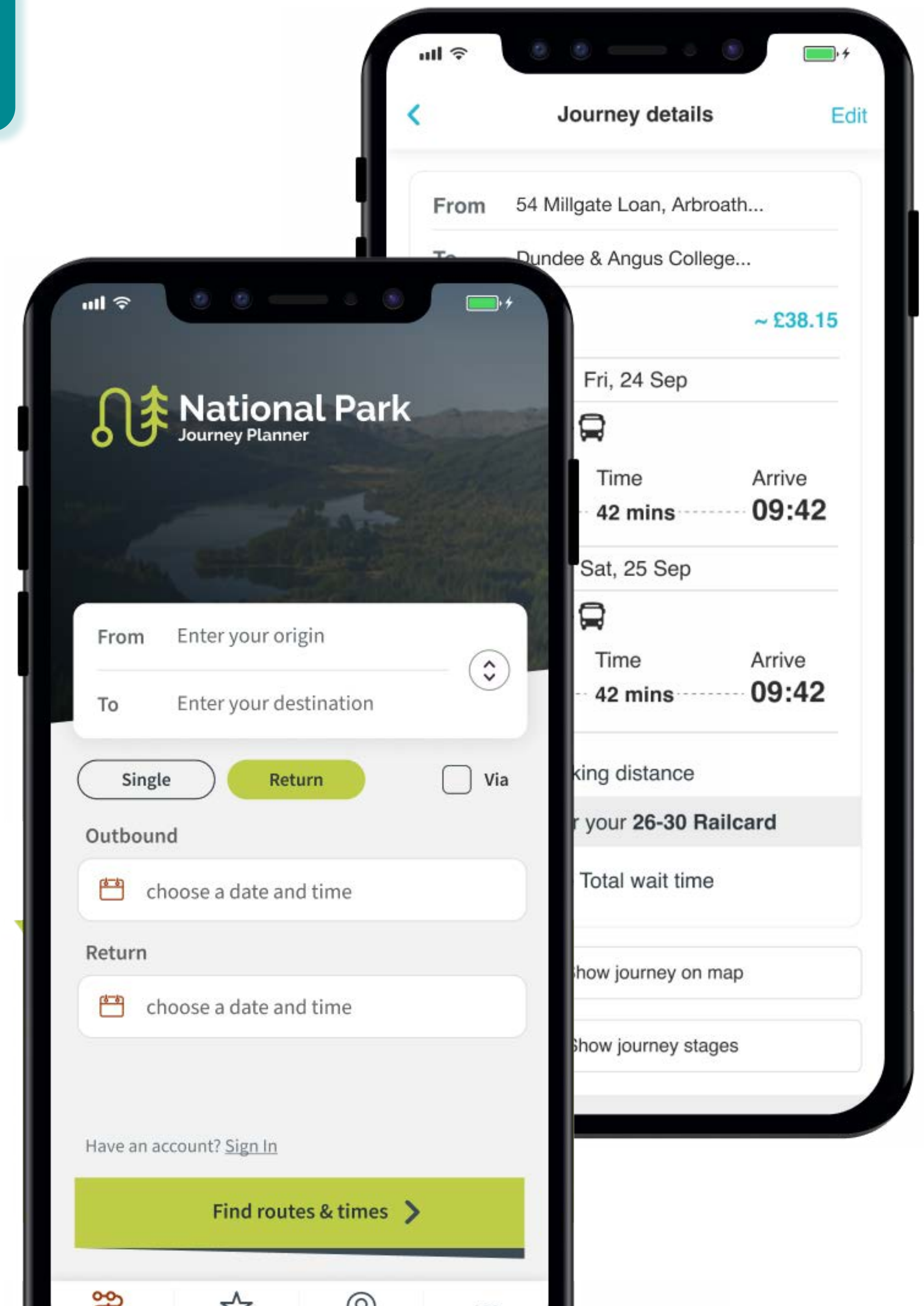
- A bespoke approach has direct value to the users
- Journey planners branded and distributed by the service that the customer is using can be a very effective in disseminating the tool
- There appears to be potential for this type of tool. There also appears to be potential for successfully growing the usage of the Tactran ENABLE journey planning tools



Taking MaaS forward in Scotland

The Tactran ENABLE programme suggests the following should be considered when determining the future of public sector MaaS products in Scotland:

- Public MaaS tools are very unlikely to be financially self sustaining due to the very high number of bookings and advertising revenue required to do so. Private sector tools may focus on mass numbers and may not support rural populations or non-margin generating services such as Community Transport. Public sector organisations are seen as trusted brokers and may find it easier to negotiate desired integrations.
- MaaS journey planning products do come at a cost. But to address climate change and social inclusion objectives we need to both improve transport services as well as making the most of what exists by promoting them as best we can. Not promoting sustainable transport choices will result in further mitigation costs to the public purse.
- We must balance the functions that a journey planner has with making sure it is both simple and easy to use (and enables digital inclusiveness by not putting a burden on an individual's mobile data usage). To get this right, suggest it is useful to be led by what the user needs, rather than by what the technology allows.



FURTHER DETAILS

Integrated Mobility Partnership web address: IntegratedMobilityPartnership.co.uk

Apps available on the App Store and Google Play, Search:



nationalparkjourneyplanner.co.uk | gonhstayside.co.uk

info@tactran.gov.uk

jonathanpadmore@tactran.gov.uk | merrysmith@tactran.gov.uk

steve.cassidy@fusemobility.co.uk | david.smith@fusemobility.co.uk

"The Tactran enable platform has been exemplary in Scotland as well as in Europe. We're delighted to be working with key partners in the region as well as sharing our learnings and future collaborations with Sestran"

Mark Speed, Partnership Director, Tactran

