A SMART MOVE **FOR NORTHAMPTONSHIRE**



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Northamptonshire County Council





ON THE STREET AND ON YOUR PHONE. THE SMARTER WAY TO TRAVEL AND HAVE FUN IN NORTHAMPTONSHIRE.

WHAT, WHY AND HOW?

Smart Commuter Concept

The Smart Commuter concept will bring live and user-focused travel information to Northamptonshire and offer it to people in a way that suits the way they lead their lives and which reflects the growing importance and value of new technology. The initial focus for the concept is Northampton, but it will also be rolled out to other towns and across the county. It is part of the wider Northamptonshire Arc portfolio of initiatives.

Smarter Living

The Smart Commuter project will complement a number of ongoing improvement projects; most notably the Smart Living Programme. This Northamptonshire County Council programme looks at increasing digital fluency within the county and will help a larger percentage of people to utilise the Smart Commuter tools. It will also allow more interaction, meaning that as the project evolves, the services and tools provided can become more accurately tailored to individuals needs and demands.

Growth Plans

Northamptonshire has one of the fastest growing economies in the country. It also has bold aspirations for growth in terms of population and employment with 70,000 news jobs and potentially 80,000 new homes planned over the next 15 years.

Much of this growth will be accommodated in and around Northampton with plans for about 30,000 new homes and a similar number of additional jobs. A key focus for growth, and particularly new employment, is the town centre and the Waterside Enterprise Zone. Indeed, a massive regeneration programme is already underway through the Northampton Alive initiative including new bus and rail stations, the Angel project involving new County Council offices, a new waterside campus for the University, the regeneration of the St Peters/Waterside area, and housing and commercial development around the town. This growth will inevitably put pressure on the existing infrastructure, particularly the transport network. The challenge is to facilitate this development without it leading to congestion and delays on the road network. At the same time Local Authority spending is facing unprecedented cuts, and devolved transport funding is making smaller pots of money available for infrastructure improvements, meaning there is also greater pressure to make the existing network work harder.

What is a Smart Commuter?

¹ According to Ofcom's Communication Marketing Report, in 2013 a quarter of adults and 47% of teenagers were using smartphones.

SMART COMMUTER:

A person who utilises real-time travel information and the latest technology to implement smarter ways of commuting.

With increasing numbers of people having access to smartphones, tablets and the mobile internet, there is a growing expectation amongst travellers that information should be simple to access, live and delivered in a way

ſIJ + 80,000

Northamptonshire is planned to accommodate new homes over the next 15 years with development rates increasing to keep pace with demand.



Northamptonshire has been identified as the most enterprising place in Britain. It is planned to create 70.000 plus new jobs over the next 15 years.





WHAT, WHY AND HOW?

CASE STUDY. WHO WILL THE SMART COMMUTERS BE?

that it can be accessed whilst on the move. They are becoming 'Smarter Commuters' empowered by new and innovative travel information tools; as well as using the internet to engage in online challenges, access live information from Facebook and Twitter and provide feedback on the services that they use. Importantly, given that we will seek to make the best use of the existing road network, we will be seeking to create 'Smarter Drivers' and not alienate the road user.

In a recent Omnibus survey of rail commuters in London, 69% were using smartphone apps, websites or social media to help plan their travel. Ofcom suggests that navigation/travel information apps are the third most popular download amongst adults in the UK. Some of the most visited websites and top selling apps are offering journey planning tools that allow commuters, visitors, school children and many others to get around their town and city in a more efficient and cost effective way. Importantly, these tools are allowing the transport network to be used in a more efficient fashion - commuters can keep an eye on conditions and adjust their plans accordingly.

What do we want to achieve?

Technology has an important role to play in increasing capacity of the transport network and empowering people to make informed travel choices. This will be through measures such as information websites and smart phone apps, as well as the installation of monitoring tools on the road network. and real time information in busy public spaces. This will allow for a greater understanding of what is happening, with the information gathered helping to better manage congestion and delay.

How are we going to create Smart **Commuters?**

We will deliver an integrated group of travel tools and, commuter challenges. These tools will align Northampton and the county with the Smart City philosophy by making better use of its existing infrastructure, empowering citizens to make informed travel choices and creating 'Smart Commuters'. Tools include:

- C Travel information portal and business engagement hub
- C Real time multi-modal journey planner with live updates

- C Location sensitive Smarter Commuter App with incentive scheme
- County-wide Commuter Challenge with Super Commuters leaderboard
- C Information 'totems' with 'live feeds' providing real time information on travel, attractions and local events

In parallel we will seek to:

- C Market the concept using social media and business engagement
- C Roll out wider and more accurate bus real time information
- C Establish a business engagement team to promote the concept and its tools
- C Investigate contactless payment technologies
- C Make data available to app developers



The fictional Wyatt Family, make up one of our target audiences for the Smart Commuter concept. Here we will take you through part of a typical week to show some of the tools and their benefits.

Adam and Kate Wyatt have recently moved to Towcester from Hertfordshire with their two children Lucy, 4, and Dylan, 7. They both work in Northampton: Adam as a business manager at iPSL and Kate as a physiotherapist at Northampton General Hospital. Their children go to school locally at Towcester C of E primary school.



The family own one car, which Adam has access to throughout the week. The family used to have another car, but when they moved, their home welcome pack included lots of useful information about transport in the area. Of particular interest was the Northamptonshire journey planner which they used to see what options they had for getting to work. This coupled with increasing running costs and other expenses meant that they decided to cancel Kate's lease car.

² Omnibus survey, October 2013, commissioned by Steer Davies Gleave



The Northamptonshire Arc embraces the smart city concept with technology enabling better use of the existing infrastructure and empowering people to make informed travel choices.



By planning their journey before embarking on it, a Smart Commuter is able to compare travel options and the benefits of all modes of transport, allowing them to choose the most efficient journey for them.

The Wyatt Family

Adam has downloaded the Northamptonshire Smart Commuter app for this smartphone which knows his regular route to work. He is automatically informed, via push notifications, if there are any disruptions on his route to work and tells him the estimated travel time. On Monday, there are no problems on route, so he can spend more time reviewing a report that needs to be submitted today. Towcester has recently been upgraded with superfast broadband which means that he can download the files he needs and upload the completed report to his company's 'cloud' all from home.



When in his car. Adam listens to BBC Radio Northampton for live traffic updates on the move. The radio station has been given access to a special feed from the County's Traffic Control Centre. This allows them to broadcast accurate information about current road conditions, including





CASE STUDY. WHO WILL THE SMART COMMUTERS BE?

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detailed information about incidents with suggested alternative routes. Unfortunately, on Thursday there has been an accident at a key junction just before work, however, he was informed with enough notice so was able to take an alternative route to work avoiding the slowly building traffic. Priorities at traffic signals were changed by the control room to ensure those people using the suggested alternative routes have a clear run once they are moving. Adam is a 'Smarter Driver'.

As the children go to school nearby, Kate usually accompanies them before catching the bus to get to work. Lucy and Dylan's school is trialling the Traffic Snake game - a campaign to promote walking and cycling to school. Kate read about the game on the Northamptonshire travel information website which she saw advertised on Twitter. Kate has agreed Lucy should try cycling to school with her friends who live on the street in order to lower their carbon footprint and she is keen to try new initatives. It was also appealing as she was able to share the school run with a number of parents nearly - one parent cycles with a small group of children each morning which reduces Kate's number of school runs. Kate likes the health and well-being benefits and it has also worked as a nice ice-breaker with local parents as they are new in town. The Traffic Snake game allows her to leave earlier and either catches a lift with Adam if she has the right shift or she hops on the bus.

Avoiding the school run congestion around the school and driving in with Adam means Kate gets to work an hour earlier. which means she can leave earlier in the afternoons. Kate and Adam enjoy the commute together and have noticed the money they save on petrol by car sharing, something that is highlighted by the new journey planner.

The Northamptonshire Healthcare NHS Trust, where Kate works, have recently set up an electric vehicle car club providing employees access to cars for NHS related travel, with charging points at each of the NHS sites across the county. The Trust has worked with other partners on this scheme to share costs and other benefits and it is saving them money through reduced travel claims. Kate has joined the car club and has used it a lot over the last few weeks as a convenient way to get between the different sites.



Kate and Adam enjoy the commute together and have noticed the money they save by car sharing, something that is highlighted by the new journey planner.

On a weekend, the family like to spend quality time together and they are always interested in trying something different. When Adam gets up on a Saturday morning he looks on the Northamptonshire Smarter Commuter app to see what is happening locally and if there are special concessions or offers available. The app has told him that for Saturday's game, Northampton Saints are offering a free junior ticket with every adult ticket. He has always been a keen rugby fan and has been meaning to take Dylan for some time - this is the perfect opportunity. Knowing that Kate and Lucy will want to do something, he books them on to a crafting course that's taking place at the same time in the town centre. This allows them to get the bus into town and take advantage of a family ticket which not only saves them money, but avoids the hassle of trying to find a parking space on a busy match day. After the crafting course, Kate walks past an information totem outside the shopping centre displaying, via a live feed, a special offer on seats for a concert at the Royal Theatre. They decide to book the tickets via the app.

Adam and Dylan are hungry after the game and the Smarter Commuter app tells them about a special deal on a meal at a nearby pizzeria. He sends the offer to Kate who sees exactly where the restaurant is so they can meet up after the concert and enjoy a delicious family get-together. As they leave the restaurant, they see that their bus is on time thanks to the information screen that has been installed by the shopping centre - they have just enough time to get to the stop ready for the bus to arrive without having to stand in the cold.

SMART DRIVER:

Sensors provide real time information on delays and journey times. The driver receives information to the smart phone, or other device, highlighting delays on the normal route and an alternative route to take or other travel options



As they leave the restaurant, they see that their bus is on time thanks to the information screen that has been installed by the shopping centre - they have just enough time to get to the stop ready for the bus to arrive without having to stand in the cold.



HOW CAN BUSINESSES GET INVOLVED?

As part of the concept, a dedicated Business Engagement Team will be established at the Council, working closely with the Local Enterprise Partnership and other local business groups. This will offer one-to-one sessions with businesses, organisations and employees to discuss current commuting habits and offer suggestions about how they could travel more smartly and the benefits. This could include a personalised journey plan to show the employee what their options are, the loan of a bike to try cycling to work, a free ticket to try a local bus service, or maybe look at signing them up to a local car club, and showcasing the various online tools available.

One of the aims would be to establish a contact within the organisation who would become the 'transport champion' promote the 'smart commuter' concept to staff.

We are also keen to explore sponsorship opportunities as part of the delivery of the concept to local businesses and organisations and would be interested in hearing from businesses who would like to get involved.

What are the key benefits of the concept?

- Enabling commuters and visitors to make informed journey decisions based on live network conditions
- Making it easier for people to access

travel information and get around Helping commuters understand the

- financial, health, environmental and time impacts of travel
- Reducing congestion and delays
- Making better use of existing network, data and systems and reducing operational costs
- Encouraging investment and regeneration
- Promoting local attractions, events and offers to visitors
- Improving footfall at retail areas
- Encouraging modal shift
- Raising the profile of Northampton and Northamptonshire Arc as a Smart City

WHAT MAKES UP THE CONCEPT? A new brand

Building on the Northamptonshire Loves brand identity, we would develop a transport sub-brand that would be dedicated to travel information and improving mobility. This will add value by using existing communication channels as well as establishing new ones, particularly within the business community. It will use the same tone of voice and the same language to appeal to the same target audience as the wider brand, but with a transport focus, newer marketing materials can be developed to appeal to new markets.



The Travel Information Portal

There is an opportunity to bring live and user-focused travel information to Northampton, and offer it to people who live and work in Northampton in a way that suits the way they lead their lives. This could then provide businesses with a smarter workforce and the County with a more efficient transport network.

The overall goal of the portal will be to allow the smart commuter to make more informed decisions on the way the move around. This may be finding a smarter way to drive to work using live information sourced from the road network, or making better use of the bus network via a dynamic journey planner and real time departure information. Importantly, real time and live information already exists in Northampton - it just needs repurposing and made available to the public in a format that is more accessible and useful to them in Northampton.

We will create a branded portal website that has an attractive, lifestyle-driven look and feel and use 'responsive' design technology so it can make the best of smartphone, tablet and desktop technology - without the need for multiple websites and apps.

- Simple and clean design responsive to smart phones, tablets and desktop devices
- - carbon footprint
 - Social media enabled Real time Multi-Modal Journey

is leaving

Key features of the portal would include:

- Easy to use transport information tools, using existing data sources Smart Driver tools, including tips on saving money and lowering your
- Planner with GPS technology
- My Next Bus locate your nearest
- bus stop and find out when your bus

- Interactive travel map showing real time connectivity to key business hubs, employers and attractions (such as Silverstone)
- Business Tools travel plan creation, home-working information, staff survey tool, downloadable marketing materials
- Commuter Challenge with Super Commuter leaderboard
- App Developers page for downloading and accessing datafeeds and downloads
- Support and add value to the existing County Council smartphone App
- Integration of the Car Kraft and Road Safety - Working Drivers online booking system





A The Travel Information Portal

^B The Journey Planner

Whilst the primary focus would be the commuter, there would be information dedicated to local businesses. This would promote any support the Council will be offering businesses to help encourage their employees to travel more sustainably, including discounts on season tickets for local bus services or business travel planning opportunities. There would be a dedicated log in system for business partners where they could request a visit from a member of the Council to come and chat more widely about the business offer, and also the opportunity to download resources that are business specific – such as online travel plan creation, staff surveys etc. The portal will also offer a series of tools that can be downloaded by businesses, attractions, stadia and hoteliers to provide journey planning and live information for staff and clients. For example, a local business may have a nearby bus stop - the portal will provide a live departure board widget for that stop, which could be installed on an intranet website or even in the reception of the business.

The portal will also be useful for people who are relocating to Northampton. The interactive travel map will provide information on transport connectivity to main employment areas, places of leisure and local attractions.

Simply enter a postcode or click on an area and the map will tell you what is within a reasonable commutable distance by bus, car and by foot.

To ensure that the website is well used, the launch would be backed up with a marketing campaign across multiple media channels. The campaign should be based on analysis of local demographics to determine who are the people that a most likely to make use of website and target resources towards them. This should include a comprehensive social media strategy as this is a very cost effective way of engaging target demographics and pushing regular messaging to interested individuals

The Journey Planner

To help the Smarter Commuter in Northamptonshire make more a more informed choice for their journeys within the county and beyond, a journey planner would empower individuals to help themselves. The planner, integrated with the travel information portal, would plan results for public transport, drive, walk, cycle and car sharing with comparisons of cost, CO2, calories and time

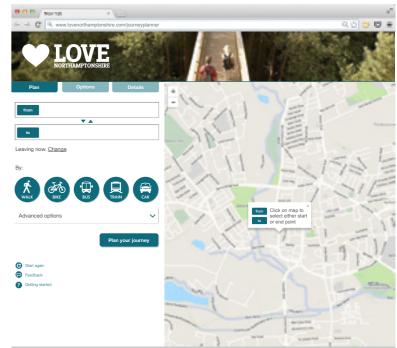
The planner would also include an accessible routing option which will allow those who are less mobile to plan a route across the County which avoids uneven surfaces, steps and uses bus stops and services that are wheelchair accessible.

Real time information would be integrated where available to provide users with live information on their journey whilst on the move. The planner would have a responsive design so that it would work across desktop, smartphone and tablet devices.

This would be seen as a first phase of the journey planner. Any future phase would look to build on real time information sources becoming available such as average road speeds across the road network and then be able to

offer accurate times for drive journeys planned. There would also be the possibility of tying journey planner sign ups with any registration system for a smartcard.

Functionality could be extended further to include a personalised travel planning tool for employers.



BENEFITS:

Repurposing the information available on the main County Council website will make content much easier to find and provide the flexibility to allow for the development of more engaging content. Users are likely to return more regularly if they can find what they are looking for and frequently updated information is presented in a more accessible way. The site will be one of the most important channels of communication between the Council and local businesses. It would be a repository of information about what the Council can offer businesses and employees to encourage them to think about their travel choices. Importantly, it will empower businesses and their staff to manage travel and provide information on the best options available.

Importantly it will be social media enabled, with opportunities to open conversation with local people and involve them in the ongoing development of the Concept.

A SMART MOVE FOR NORTHAMPTONSHIRE. SMART COMMUTER CONCEPT.

BENEFITS:

Whilst Northamptonshire is served by the Traveline regional journey planner, this only displays public transport options and doesn't offer any information about driving, walking or cycling. And whilst Transport Direct offers this functionality, it doesn't provide comparative or live journey information. A Northamptonshire specific journey planner would offer the best of both worlds, allowing users to plan journey across all modes (including car sharing and bike hire) in an intuitive, modern interface that would be responsively designed to ensure compatibility with mobile and tablet devices

Businesses will be offered a customisable widget to incorporate into the website to help people determine the best way to the get there and it will also drive further traffic to the wider website to increase the profile of the Northamptonshire Travel brand. This will also allow drivers to see if they could share their car with another employee either within their organisation, or another business nearby. The personalised travel planning add-on would offer further value to businesses who will likely be trying to encourage their employees to use more sustainable travel modes.

Find out more Iovenorthamptonshire.com 🅦 @love northants A specific output could be developed that would repurpose journey planning results to offer a more persuasive argument for making a change. This could be simply printed out or send to an individual via e-mail.





The Smart Commuter App



The Smart Commuter App

Building on the work to develop a travel portal and journey planner, a Northamptonshire Smart Commuter app would prioritise live information sources to keep the travelling public up to date. Information would be contextualised based on the user's current location and the regular journeys they make.

A public transport dashboard which would initially provide real time information on a stop-by-stop or station basis, but could ultimately give service specific breakdowns of current operation. It would also provide 'push' information on current road conditions and advise if there are any roadworks or incidents affecting travel, as well as the current occupancy of car parks across the county. For those with electric vehicles, a map could show the current availability of charging points and for those making use of the cycle hire scheme, they could see if there is a bike available and if there is space to park their bike at the chosen destination.

In the future this could be extended to include information about local attractions and points of interest. collating reviews and recommendations from other users and third parties. This could be used to push entry fee discounts or money off food and drink at selected partner restaurants to encourage residents and visitors to spend more money.

More than 7 in 10 people in the UK own a smart phone and 29% own a tablet. **Over half of UK smart** phone owners report using their smart phone for day-to-day tasks, including travel - rising to 70% amongst 18-30 years olds.

Smart Totems

Real time information has the power to keep people informed about a current situation, as well as helping them plan their day. Providing information at the places where they need information the most; such as at key decision points (which bus stop do I need and when does my bus leave?) and in retail areas (have I got time to grab a coffee before my train leaves?).

We will deliver a series of smart totems that will provide location specific travel information for travellers, shoppers and the workforce. To begin with we will install totems at the railway station and the new bus station, on the main retail thoroughfares, in the Waterside Enterprise Zone, and the Cultural Quarter. High definition screens will provide bus and rail departure information as well as status updates sourced directly from trusted information providers. These user-focused totems will help people make the decisions outlined above, as well as providing location specific information (such as features and offers at the theatres). The totems will mix cutting-edge digital technologies with more traditional mapped information, such as bus maps and city centre walking routes to key attractions.

BENEFITS:

An integrated smart commuter and attractions application would give residents and users a-like a powerful tool to help them get to/from work but also get the most of their spare time in the County. Users would be encouraged to tell the app what their regular journeys are whether they drive or take public transport, plus what types of attractions, shops and restaurants they are interested in. The aim of the app would be to make use of push notifications so the user would only need to look at the app if there are problems with one of the roads or bus services they use. They would also be able to tell the app their interests so that they are only pushed offers for things they are actually interested in - such as special offers at local shops and restaurants.

A SMART MOVE FOR NORTHAMPTONSHIRE. SMART COMMUTER CONCEPT.

BENEFITS:

Users will be able to spend more time doing what they like the most and businesses will benefit from increased footfall. The information will also make people more confident as travellers and give them the information they need to get from A to B in a timely fashion. There are also opportunities to promote offers and event information on the totems. Importantly, the totems will be modern and will develop Northampton's growing identity as a digital hub.

BENEFITS:

Passengers will benefit from access to real time information for all major operators in the area. It also adds a degree of flexibility should a smaller operator wish to install real time information on its vehicles, as it wouldn't necessarily have to be the same technology.

Businesses could be confident that their employees are being provided with accurate information that helps them make travel to work decisions - for example, if the buses are running late they could use the journey planner to work out alternatives. Real time information gives commuters confidence in the current situation on the network.

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Comprehensive cover of Northampton's bus real time information system

The County already has a comprehensive real time information system installed on the vehicles of two of the three main operators. There are displays installed on-street and information is available online and via SMS. Only one operator is currently not part of the scheme, but has the equipment on board its buses to provide the information that people need. The issue is that the system that they use is not compatible with the system used by the two other operators.

The solution is to set up a central data hub where the information from both systems can be combined. This will be used to power all the on-screen displays as well as the existing web and SMSbased systems. The feed would also be made available to integrate with the travel information portal and journey planner, as well as being promoted on the new travel portal for use by app developers.





Advanced Traffic Management System

The Northamptonshire Commuter Challenge

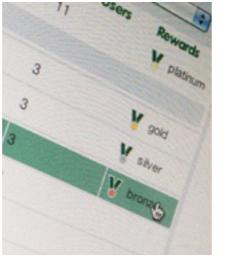
Building on a 'pilot' commuter challenge for Northampton, it is recommended that the challenge would be rolled out across the county to achieve maximum benefits.

A Challenge Coordinator will engage with local businesses and encourage them to sign up to the competition as well as wider promotional activities. They would help establish 'champions' within an organisation, who will recruite using promotional materials which would be made available through the travel information portal.

Rather than being focussed on a particular period of time, the challenge would be ongoing with a cumulative 'Super Commuter' leaderboard as well as monthly competitions to encourage more casual users to take part. To make prizes more appealing, any challenge should be linked with an existing incentive scheme so they can collect reward points and exchange them for a wide range of different rewards.

The challenge will be integrated with the journey planner, so that users can see the number of points they could earn by using a particular mode, with positive messaging and quick links to help encourage them to sign up to the challenge.

The challenge would also offer an opportunity to promote the new website, app and journey planner.



Advanced Traffic Management System

On-street variable message signs have recently been installed across the town centre to provide information about current car park occupancy and road incidents. The concept would take this further and invest in a more advanced traffic management system, which covers not only Northampton, but the rest of the county too including busy inter-urban routes such as the A43 and A45. This could give access to average road speeds through cameras and sensors in the road, live parking information, current disruptions, roadworks and any CCTV cameras that are currently monitoring traffic flow. It would become a wider data broker pulling in bus real time, Highways Agency and National Rail information giving the Council, and importantly the traveller, a much better understanding of what is going on.



FURTHER INFORMATION

BENEFITS:

For further information on the Smart Commuter concept, please e-mail:

bigidea@northamptonshire.gov.uk

housing, which will put further pressure on the road network.

business parks during the AM/PM peaks.

BENEFITS:

Although there are the obvious economic, environmental and health benefits from being a Smart Commuter, it is important that there are a number of incentives to encourage people to take part. As well as being able to challenge other Smart Commuters for 'bragging rights', it will also allow users to qualify for a number of exclusive rewards from partners. The Northamptonshire Commuter Challenge will also allow users to compare journeys, picking up tips from other commuters making similar journeys.

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There are finite resources available to the Council for road improvement schemes to help ease congestion, but there is a large amount of potential investment which will result in more jobs and the need for more

An advanced system would allow Northamptonshire County Council to be smarter and better manage their existing road network and react more readily to disruption without the need to increase capacity through physical modifications to road layouts. It would allow for detailed analysis and allow the Council to better control traffic signals to ensure that traffic flows at its optimum speed and re-route individuals away from incidents. This would be particularly beneficial in the town centres on match days but also around the larger





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