

City of Ipswich iGO Intelligent Transport Systems Strategy Summary Report

July 2019





Ipswich City Council recognises the Traditional Owners of the Ipswich region the Yagara People, consisting of the Jagera, Yuggera and Ugarapul Clans, and pays respect to the Elders past and present. We respect their cultural heritage, beliefs and connection to the land. We acknowledge that they are of continuing importance to the Yagara People living today.

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INTRODUCTION

In 2016, the Ipswich City Council (council) released the **City of Ipswich Transport Plan (branded 'iGO')** – council's masterplan for Ipswich's transport future. iGO sets council's longer-term agenda to advance Ipswich's transport system in a sustainable manner in response to forecast population growth. Its key mantras are "*proper investment*" and "*clever new thinking*".

With the emergence of smart phones and new technology platforms, transport in our cities is on the verge of an extraordinary revolution – from connected, driverless and electric vehicles, car and ride sharing schemes, intelligent traffic and parking networks and interactive travel information systems. Ipswich can be at the forefront of this revolution to dramatically change the way we travel, delivering significant safety, reliability

and environmental benefits for transport users and help delay or even eliminate the need for expensive transport infrastructure.

As part of council's **Smart City Program**, we are actively seeking opportunities for investment and resourcing partnerships to make Ipswich a truly smart city. The roll out of intelligent transport system (ITS) initiatives is an intrinsic part of this goal.

As such, council has developed the **iGO Intelligent Transport Systems Strategy**. It outlines council's tactical approach for the deployment of ITS to Ipswich's transport system over the next decade or so to assist in meeting the sustainability outcomes of iGO from an environmental, social, economic and financial perspective.

DISRUPTIVE TRENDS

Transport is amid a generational shift where the advent of smart phone use has enabled consumers and businesses to drive forward new models within the transport sector. This revolution is evident through:

- Government policy direction;
- Investment on smart mobility initiatives;
- Car manufacturers focussing their efforts on next-generation vehicles; and
- Widening recognition that the "information everywhere" world will utterly disrupt the transport status quo.

The proportion of the world's population who live in urban areas continues to rise faster than transport system capacities. This pressure on transport infrastructure is driving global capital investment, estimated at over a trillion dollars per year. However, building new

infrastructure does not always sustainably create additional capacity and technology will play a crucial role in changing the way we travel.

The digital age has begun, and technology has brought us smart phones, real-time planning, open traffic data and social customer service. This fundamental shift offers consumers real choice based on a picture of alternative routes, comparative pricing and current network status. As transport system providers adapt and fresh entities arrive on the market, new business models will transform the use of user information, payments, integration and automation.



WHAT IS ITS?

ITS is the practical application of new tools, machinery and devices to the transport system based on scientific knowledge and innovation. Whilst this primarily includes the adjacent definition, it can also include:

- New ways of energy production for:
 - Vehicle propulsion and (e.g. electric vehicles); and
 - Infrastructure operation (LED street lighting)
- New platforms for undertaking vocational, economic and educational activities and social interactions

without the need for travel (e.g. home shopping, work from home)

The aim of these applications is to enable transport system users and managers to be better informed and to make transport systems safer, more reliable and resilient as well as more user and environmentally friendly. The 'currency' of ITS is data. The data flow in technology applications is used by transport system managers and users to make timely and informed decisions.

WHY ITS?

Advancement in technology will have a greater influence on the way decisions are made, the way we interact, and the way services are consumed. This is especially true with transport where the way we travel, and how our transport network is designed and operated, will increasingly be influenced by technology. The recent growth in Intelligent Transport Systems (ITS) has the potential to dramatically change the way we travel and deliver significant safety, reliability, resilience and environmental benefits for transport users that in turn can help delay or eliminate the need for expensive transport infrastructure outlay.

There is considerable evidence collected from within Australia and globally that transport technology adoption can deliver substantial reductions in road crash

rates and improvements in transport system reliability and productivity. There are also strong indications that reductions in crashes and improvements in reliability of the transport network will produce significant financial savings to the community, largely through the more focused use of existing transport infrastructure and reducing the need to build more road space.

Ipswich is ideally positioned as a place to live, work and play and a desirable location for businesses due to its proximity to Brisbane with regional road and rail networks and a readily available labour force. As part of the Smart City Program, council is actively seeking opportunities for investment and resourcing partnerships to make Ipswich a truly smart city. The roll-out of ITS is an intrinsic part of this goal.





ASPIRATIONS

VISION

Ipswich City Council harnesses the **use of smart technology** to assist with achieving a transport system for Ipswich that is **safe** and **reliable** and provides for the **sustainable** movement of people and goods for **all travel modes**.

OBJECTIVES

Council's objectives of the deployment of ITS is outlined in the table below and align with the objectives of iGO.

TABLE 1: Objectives

| | 1 | 2 | 3 | 4 | 5 |
|--------------------------|---|--|---|---|--|
| iGO Transport Objectives | Ipswich has a safe, effective, affordable and connected transport systems for all modes. | Ipswich has a convenient and competitive public transport system. | Ipswich is well connected for business, freight and visitors including good connection to and from Brisbane. | Ipswich's transport system provides a platform for sustainable travel choices and the city's dependence on car travel is reduced. | Ipswich's urban form creates high levels of accessibility to key destinations such as employment, education, retail, health care and recreation. |
| ITS Objectives | Deploy and embed ITS technology and digital tools to deliver a safe, effective, affordable and connected transport system for all people and modes. | ITS technology is used to augment the awareness, accessibility and viability of public transport in Ipswich. | Partner with stakeholders to enable ITS to enhance opportunities for economic growth and inter-city and regional connections. | ITS and digital platforms are provided that promote and enable sustainable travel choices. | The planning and design of Ipswich's urban form is adaptable and responds to advances in technology and transport systems. |

DESIRED OUTCOMES

The desired outcomes and values used to develop the Strategy, and its subsequent delivery, are outlined in Table 2 and align with the principles of iGO and the Smart City Program.

TABLE 2: Desired Outcomes / Values

| iGO Transport Plan | | |
|---|-------------------------------------|---|
|  | ONE NETWORK | Using technology applications to manage the movement of people and goods based on an integrated, mode-neutral and bipartisan approach. |
|  | SAFETY | Using technology applications to improve transport user safety. |
|  | RELIABILITY | Using technology to improve dependability and resilience of travel within the network to deliver consistent travel times. |
|  | SUSTAINABILITY | Using technology to reduce emissions and encourages more sustainable and active modes of transport. |
|  | PARTNERSHIPS | Work with public and private sector partners and the community to enable efficient use of data and technology to deliver an affordable, reliable, efficient, accessible and seamless transport service in the region. |
|  | AFFORDABILITY | Use of transport technology to deliver a more equitable and affordable transport system, lowering costs to transport authorities and providers. |
|  | EFFECTIVE INVESTMENT | Use of the transport technology to assist with making sustainable investment choices at the right time to deliver on long term strategic objectives for the transport system. |
| Smart City Program | | |
|  | JOBS, GROWTH and LIVABILITY | Use of transport technology applications to promote economic development and / or liveability outcomes. |
|  | BUSINESS AS USUAL INNOVATION | Use of transport technology applications to enhance council operations, business processes and customer services from a cost, time and convenience perspective. |
|  | OPEN and INTEROPERABLE DATA | Use of data infrastructure underpinning transport technology applications must be open and interoperable across platforms and enable competition and innovation, while ensuring privacy, security and accountability. |

PLANNING AND POLICY ALIGNMENT

Strategic planning and policy instruments in the context of the Strategy are depicted in the figure below.

| Strategy Planning and Policy Instruments | | | |
|--|--|--|--|
|  Australian Government |  Queensland Government |  City of Ipswich |  Industry Bodies |
| <ul style="list-style-type: none"> ▪ Smart Cities Plan ▪ Urban Transport Strategy ▪ Office of Future Transport Technologies ▪ Transport and Infrastructure Council (TIC) ▪ National Policy Framework for Land Transport Technology ▪ National Transport Technology Action Plan | <ul style="list-style-type: none"> ▪ State Infrastructure Plan ▪ Smarter Infrastructure for Queensland Directions Paper ▪ Shaping SEQ ▪ Queensland Road Safety Strategy ▪ Queensland Cycling Strategy ▪ Queensland Electric Vehicle Strategy ▪ SEQ Regional Transport Plan* ▪ Digital Infrastructure Plan* ▪ Queensland Transport Strategy* ▪ Queensland Road Operations Strategy* ▪ Queensland Freight Strategy* <p><i>*currently/soon under development</i></p> | <ul style="list-style-type: none"> ▪ Advance Ipswich** ▪ Corporate Plan 2017–2022** ▪ Ipswich Planning Scheme** ▪ LG Infrastructure Plan** ▪ Asset Management Plan** ▪ Financial Sustainability Plan** ▪ iGO ▪ Smart City Program <p><i>**statutory document required by Queensland Government legislation</i></p> | <ul style="list-style-type: none"> ▪ ITS Australia ▪ Austroads ▪ Australian Roads Research Board (ARRB) ▪ Australian Institute of Traffic Management and Planning (AITPM) ▪ Australian Smart Community Association (ASCA) ▪ Roads Australia ▪ National Transport Commission (NTC)*** <p><i>***Independent body funded by the Australian and state governments</i></p> |



STRATEGY AND ACTION PLAN

ACTION PLAN

Suite of **73**
prioritised actions



10-year
delivery timeframe

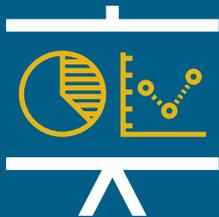


Includes:

- ✓ **PROJECTS**
- ✓ **PROTOCOLS**
- ✓ **PARTNERSHIPS**

SIGNATURE PROJECTS

Our resource focus over the next two years:



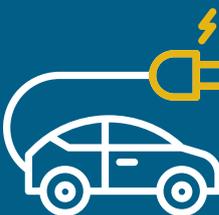
Intelligent Road Operations Team

- Driven by technology
- Data analytics
- Performance monitoring
- Central road data portal



Smart Parking Solution

- Key activity centres
- Monitoring sensors
- Pricing and payment methods
- Customer navigation systems



Electric Vehicles

- Support uptake and schemes
- Alternative parking codes and development incentives
- Dedicated parking spaces and infrastructure



Connected Vehicles (C-ITS)

- Actively support the Queensland Government with their C-ITS initiative

ACTION AREAS

The action plan has been developed based around three action areas as outlined in Table 3 below.

TABLE 3: Actions Areas

| Action area | Description |
|--------------|--|
| Projects | These actions will be led and facilitated by council with supporting partners and include 'on the ground' trials and pilot projects with the view of further investment and deployment if proven practical and feasible. |
| Protocols | These actions relate to council protocols including policies, procedures, systems, standards and specifications. |
| Partnerships | These actions will be led by others but supported by council either directly and indirectly and includes advocacy, public awareness, promotional and sponsorship activities. |

TIMEFRAMES

Each action is given a timeframe that outlines council's ITS priorities. They are defined as:

- **Signature** (resource focus over the next two years)
- Short (within the next 5 years)
- Medium (6-10 years)
- On-going (already underway and/or will occur across all timeframes)

The timeframes have been established based on need, opportunities and alignment with Advance Ipswich, iGO and the Smart City Program. The actual delivery of each action will be subject to resourcing, the establishment of investment and expertise partnerships and the outcomes of prototype design, testing and evaluation processes.



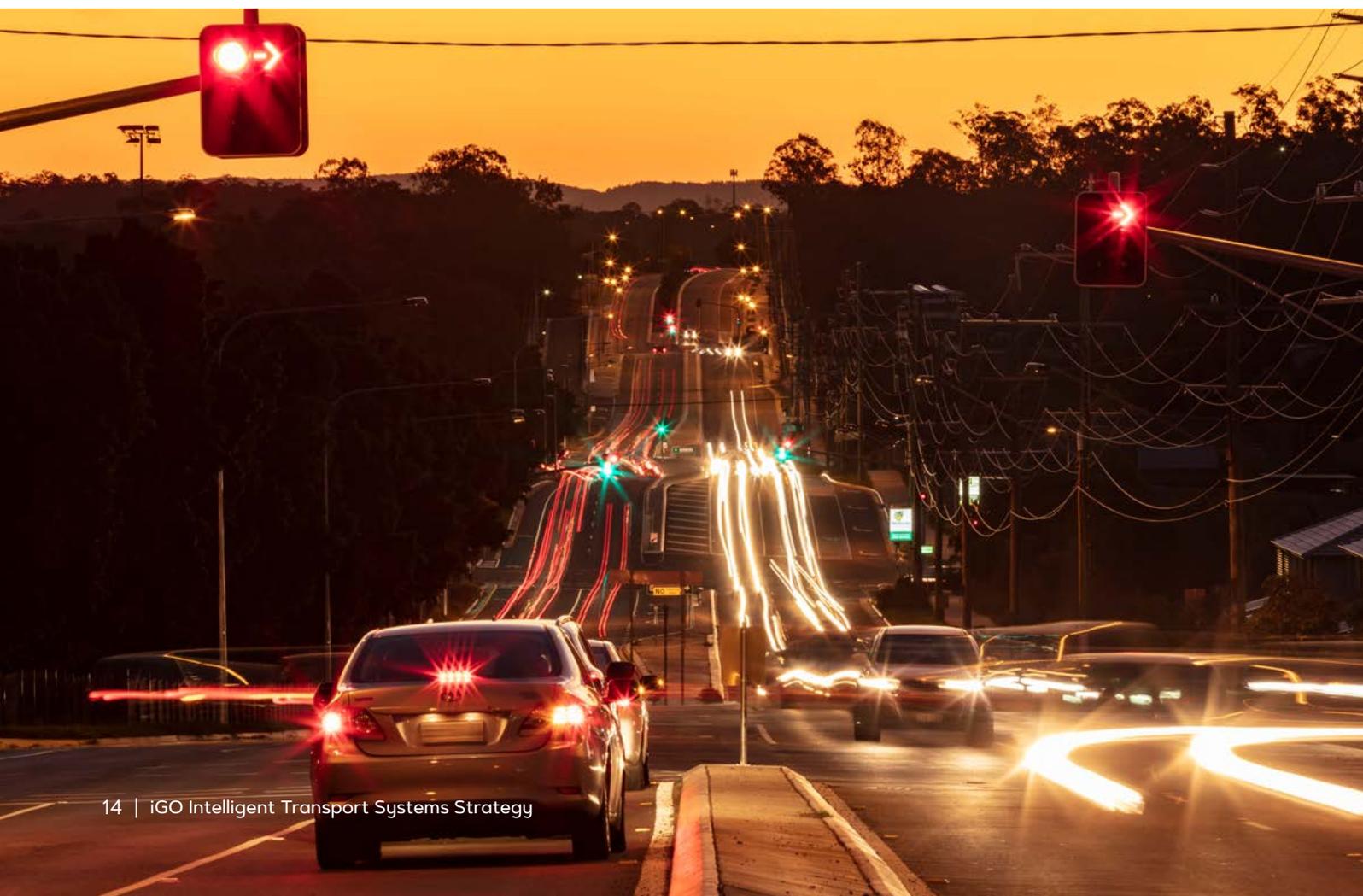
SIGNATURE PROJECTS

Intelligent Road Operations Team

The vision of cities where everything is connected and operated with maximum efficiency is on the near horizon. Holistic citywide transport monitoring and control systems are evolving rapidly, and the individual component parts are available today. Opportunities exist for council to pursue the latest generation of ITS applications to establish an Ipswich 'scale' road operations team that is driven by technology and works collaboratively with the TMR regional scale *Brisbane Metropolitan Transport Management Centre* (BMTMC).

ACTION

| Road Operations | | | | | |
|-----------------|---|---|---------|------------------|------------------|
| ITS | 1 | <p>Establish a road operations data analytics and performance monitoring team that is driven by technology and works in collaboration with TMR to better manage traffic, improve network reliability, enhance the customer experience and inform transport investment decisions.</p> <p>Execution will be over several years as resourcing becomes available and capabilities and partnerships with TMR emerge.</p> <p>The initial rollout will include:</p> <ul style="list-style-type: none"> (a) Assessment of existing systems, gaps and future needs; (b) Preparation of a 'Concept of Operations'; (c) Development of system protocols (operations, security, privacy, communications and maintenance); (d) Development of a resourcing plan (human, capital, expertise and training); and (e) Establishment of a central road data system / portal. | Project | Signature | R1, R5, R7, TDM4 |

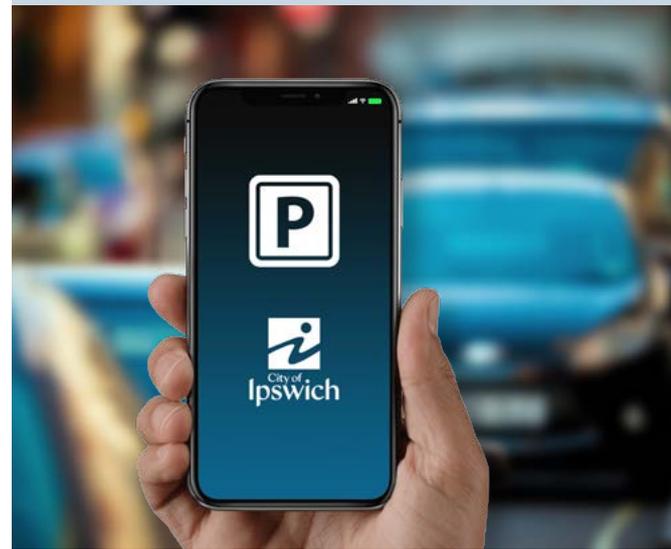


Smart Parking Solution

A core responsibility of local governments is the provision and management of parking in activity centres and at municipal facilities, primarily on-street parking but also emerging off-street amenities, with the objective of facilitating quality city life for residents and business operators (economic activity, social interactions, leisure pursuits and access to jobs, education, goods and services).

The use of kerbside allocation for various forms of on-street parking (passenger and goods loading, short stay, long stay and special needs) and associated time, duration, vehicle type and permit restrictions and the use of parking meters is the traditional form of parking management used by local governments. Through smart technology and data, there is an evolution in the way that local governments can manage city parking going forward.

With a focus on delivering user-centric services, it is important that council recognises the pain-points in the existing parking experience and how a technology solution could make it a more seamless interaction, whilst still using pricing to manage demand.



ACTION

| Smart Parking Solution | | | | | |
|------------------------|----|--|---------|------------------|---|
| ITS | 13 | <p>Investigate the feasibility, develop and implement a smart parking solution.</p> <p>Solutions should include allowance for various pricing methods and kerbside allocation, intelligent payment and ticketing systems and more sophisticated compliance, revenue monitoring and customer information systems about parking locations, types and availability. Potential delivery method may involve starting small-scale by testing a range of sensor types across a 'pilot area' and scaling up as performance and benefits are proven.</p> <p>As part of the development and deployment of the smart parking solution:</p> <ul style="list-style-type: none"> (i) Consider the use of a customer information platform that provides information on parking locations and availability using both mobile device apps, in car navigation tools and on-street dynamic signs; (ii) Provide a platform that allows council to undertake qualitative surveys to obtain customer feedback and thus make informed decisions on parking management; (iii) Undertake a coordinated public awareness and user education campaign; and (iv) Provide a platform that allows council to remove time restriction in some areas and allows various pricing methods. | Project | Signature | R5, P2, P3, P4, P7, P9, P10, P11, P14, TDM4 |

Electric Vehicles

One of the major barriers for the uptake of EVs is the lack of public recharging stations that can give users (or potential user) 'range anxiety'. The widespread adoption of EVs will require a cultural shift in the way we think about our own mobility needs, how we meet these needs, and in turn, how we recharge EVs.

ACTION

| Parking and Infrastructure | | | | | |
|----------------------------|----|---|----------|------------------|--------|
| ITS | 27 | Encourage the deployment and uptake of electric vehicles through: (a) Inclusion of alternative parking codes and development incentives in the Ipswich Planning Scheme; and (b) Investigate, plan and provide dedicated on-street and off-street parking spaces and associated infrastructure in activity centres and in medium and higher density residential areas. | Protocol | Signature | R5, P8 |



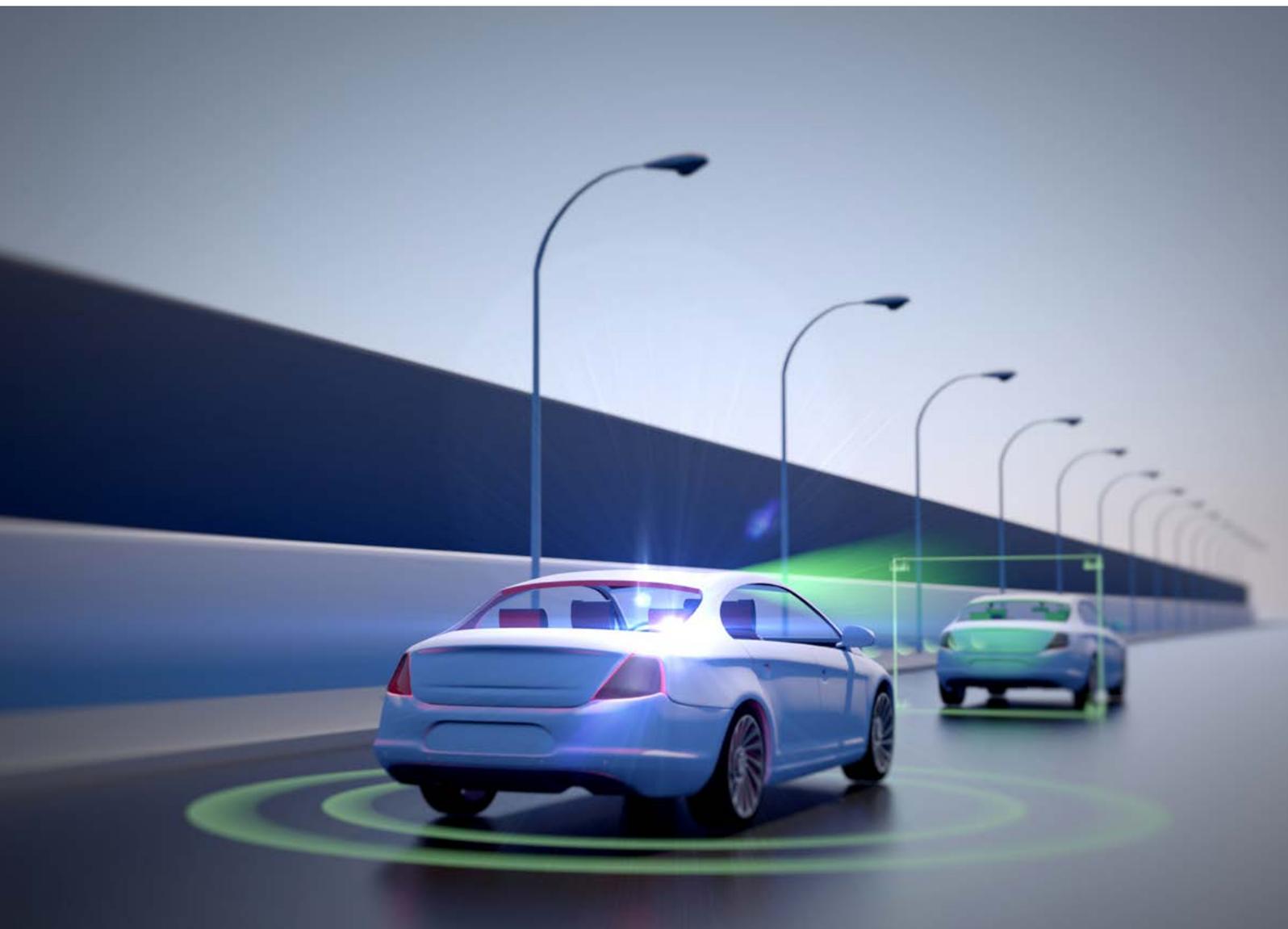
Connected Vehicles

The largest component of the Queensland Government's Cooperative and Autonomous Vehicle Initiative (CAVI) is the *Cooperative Intelligent Transport Systems (C-ITS) Pilot* that is planned to take place on public roads in and around Ipswich from 2019.

The Department of Transport and Main Roads (TMR) and council have signed a Memorandum of Understanding (MoU) to work together to bring the pilot to fruition. Council is providing in-kind support to TMR for the project through road access permits, use of council road and fleet assets, knowledge sharing, employee time and public engagement and education.

ACTIONS

| C-ITS Trial | | | | | |
|-------------|----|---|-------------|------------------|----|
| ITS | 29 | Actively support the Queensland Government's C-ITS trial in Ipswich. | Partnership | Signature | R5 |
| ITS | 30 | At completion of the C-ITS trial take learnings and potentially roll out infrastructure throughout the city for connected vehicles. | Project | Short | R5 |
| ITS | 31 | Support ongoing C-ITS testbeds in Ipswich. | Partnership | Ongoing | R5 |



OTHER ACTIONS

| NO. | ACTION | ACTION AREA | TIMING | iGO LINK | |
|---|--------|--|-------------|----------|--------------------------|
| ROAD AND TRAFFIC MANAGEMENT | | | | | |
| Integrated Corridor Management (ICM) | | | | | |
| ITS | 2 | Advocate for, and partner with, the Queensland Government to trial an ICM project in Ipswich | Partnership | Short | R1, R2, R5, R7, AT9, LU7 |
| Advanced Traffic Management Systems (ATMS) | | | | | |
| ITS | 3 | In line with ITS1 identify, design and deploy ATMS technologies on the road network. | Project | Short | R5, R7, ATAP 3.5 |
| Smart Road Safety Treatments | | | | | |
| ITS | 4 | Investigate and implement low cost smart road safety initiatives across Ipswich. | Project | Short | R5, R6, R7, AT13 |
| Traffic Signal Improvements | | | | | |
| ITS | 5 | Investigate and implement coordinated traffic signal timing optimisation along major road corridors in line with road function and adjacent land uses. | Project | Short | R5, R7, ATAP 3.5 |
| ITS | 6 | Install Next Generation SMART traffic signals controllers. | Project | Short | R5, R7 |
| ITS | 7 | Investigate pedestrian protection technology initiatives at traffic signals to improve pedestrian safety. | Project | Short | R5, R7, AT13, ATAP3.5 |
| ITS | 8 | Investigate and implement bus priority infrastructure at signalised intersections (e.g. bus lanes, queue jumps) to improve journey time reliability and efficiency. | Project | Short | R5 |
| ITS | 9 | Investigate and implement alternative connection and communication methods for the effective operation of traffic signals. | Project | Short | R5 |
| Road and Freight Planning | | | | | |
| ITS | 10 | Consider and incorporate transport technologies into the planning, design, funding and construction of strategic roads and road upgrades including ITS, shared mobility services and EV and AV applications. | Protocol | On-going | R1, R2, F1, F5, AT9, LU7 |
| ITS | 11 | Consider how AV, EV and shared mobility might influence the design of roads and street in new communities. | Protocol | On-going | R5, LU7, PT3, F1 |
| ITS | 12 | Support the development and deployment of integrated corridor management techniques, connected and autonomous trucks and innovative fleet management and smart logistics tools. | Protocol | On-going | R5, F1, F5 |
| PARKING | | | | | |
| Parking Data | | | | | |
| ITS | 14 | Use the data obtained from the deployment of the Ipswich smart parking solution to inform strategic planning. | Protocol | Ongoing | P5, P6, P7, P13, P14, R5 |

| NO. | ACTION | ACTION AREA | TIMING | iGO LINK | |
|-------------------------------------|--------|--|-------------|----------|-------------------|
| SHARED MOBILITY | | | | | |
| Mobility Hubs | | | | | |
| ITS | 15 | Prepare a mobility hub strategy for various areas. | Protocol | Short | LU7, ATAP7.4, R5 |
| ITS | 16 | Leverage opportunities to stage the implementation of these mobility hub strategies in partnership with developers, business operators and industry. | Partnership | Ongoing | LU7, ATAP7.4, R5 |
| Parking | | | | | |
| ITS | 17 | Encourage the deployment and uptake of car and ride sharing schemes | Protocol | Medium | LU4, LU&, PT3, P8 |
| Bicycle Hire Scheme | | | | | |
| ITS | 18 | Support the deployment of a bicycle hire scheme. | Partnership | Medium | LU7 |
| Rideables | | | | | |
| ITS | 19 | Support the uptake, and safe and effective operation, of 'rideables' as sustainable and active forms of transport. | | Short | AT4 |
| Special Events | | | | | |
| ITS | 20 | Consider how on-demand shared mobility options can provide a service capacity "top-up" for special events. | Protocols | Medium | PT20 |
| Planning and Design | | | | | |
| ITS | 21 | Investigate how and where on-demand and shared mobility services might support and enhance the core PT network including the provision of supporting infrastructure and policy. | Protocol | Short | PT7, PT14, PT15 |
| ITS | 22 | Support on-demand shared and micro-transit solutions to fill the gap in Ipswich's public transport network. | Protocol | On-going | TDM7, TDM9 |
| MOBILITY AS A SERVICE (MaaS) | | | | | |
| ITS | 23 | Advocate for the Queensland Government to: (a) Lead and promote MaaS; and (b) Explore prospects for new MaaS business partnerships and functional models in Ipswich that will complement their line haul public transport offerings currently operated by Translink and Queensland Rail. | Partnership | Short | R5, TDM3 |
| ITS | 24 | Advocate for the City Heart Cabs Program and other community transport services to be included in the Queensland Government MaaS solution. | Protocol | Short | PT4, PT5 |
| ITS | 25 | Understand and advocate the opportunity coming with MaaS as tools when travelling to and from schools and other large trip generators. | Protocol | Short | R5, TDM5, TDM6 |

| NO. | | ACTION | ACTION AREA | TIMING | iGO LINK |
|---|----|--|-----------------------|---------|-----------------------|
| ELECTRIC VEHICLES | | | | | |
| Electric Super Highway | | | | | |
| ITS | 26 | Advocate for EV charging stations to be included at key locations in Ipswich as part of Phase 2 of the Queensland Government's Electric Super Highway initiative. | Partnership | Short | R5 |
| E-Bikes | | | | | |
| ITS | 28 | Investigate the concept of purchasing a small fleet of E-bikes for council staff to use when making small trips to test and showcase their capabilities and benefits. | Project | Medium | R5 |
| CONNECTED and AUTOMATED VEHICLES | | | | | |
| Autonomous Vehicles | | | | | |
| ITS | 32 | Support the use of Ipswich's road network as a testbed for Autonomous Vehicle trials. | Partnership | Ongoing | R5 |
| Uncertainty Planning | | | | | |
| ITS | 33 | Undertake uncertainty planning activities and scenario testing to prepare for the upcoming revolutionary nature of Connect and Automated Vehicles and thus position Ipswich at the forefront and better position council's functional responsibilities and service delivery. | Protocol | Medium | R5, LU7 |
| PUBLIC TRANSPORT | | | | | |
| Bus Stop Information | | | | | |
| ITS | 34 | Partner with the Queensland Government, bus service providers and the private sector to test and deploy digital passenger information solutions (such as wireless and solar powered screens and displays) at key bus stops and in major destinations and places of employment located across the city (e.g. Bell Street, shopping centres, universities and railway stations). | Partnership / Project | Short | PT2 |
| On-demand Bus Services | | | | | |
| ITS | 35 | Investigate the merits, and advocate for, the introduction of on-demand bus services. | Partnership | Short | TDM8, PT15 |
| ITS | 36 | Consider the use of an on-demand shared shuttle bus service linking periphery commuter car parks (e.g. Limestone Park) and the Ipswich City Centre core. | Protocol | Short | P12 |
| ITS | 37 | Investigate how on-demand bus services could provide feeder bus services rather than fixed route/timetable. | Protocol | Short | P14, P15 |
| ITS | 38 | Consider the role of ICC in 'first/last mile' on demand community transport services, particularly in existing urban fringe and new greenfield communities. | Protocol | Short | PT21 |
| Railway Station Accessibility Design | | | | | |
| ITS | 39 | Consider CAV, EV and shared mobility services in the accessibility design of all railway station types and functions. | Protocol | Short | PT1, PT18, PT19, PT23 |
| ACTIVE TRANSPORT | | | | | |
| Data Collection | | | | | |
| ITS | 40 | Expand pedestrian and cyclist counters and install dynamic user counter display 'panels' on key commuter bikeways to promote their use and active lifestyles as well as a sense of community pride and ownership. | Project | Short | AT9, ATAP 9.1 |

| NO. | | ACTION | ACTION AREA | TIMING | iGO LINK |
|-----------------------------|----|--|-------------|----------|-------------------------|
| ITS | 41 | Leverage public Wi-Fi, Safe City surveillance and future 5G platforms to understand pedestrian movement patterns in the Ipswich City Centre, Springfield Town Centre and other activity centres to plan and design pedestrian priority zones. | Protocol | Short | ATAP 2.1 |
| Bikeway Lighting | | | | | |
| ITS | 42 | Trial the use of innovative lighting solutions on commuter bikeways including smart lighting and LED pathway lighting to improve delineation. | Protocol | Short | AT9, ATAP 6.5 |
| Public Information | | | | | |
| ITS | 43 | Consider the development and deployment of a mobile device app and web-based solution to provide information on safe walking and cycle practices. This could be incorporated into the My Ipswich app or put through the Smart City Program's Healthy Living Lab and Digital Studio for development as the early makings of a MaaS product for Ipswich. | Protocol | Short | ATAP 9.1 & 9.2 |
| Planning and Design | | | | | |
| ITS | 44 | Incorporate ITS applications in the planning and design of strategic commuter bikeways including delineation lighting, signs, route markers, public facing user counters and end of trip facilities. | Protocol | On-going | AT4, AT9, AT15, ATAP7.4 |
| ITS | 45 | Investigate how cyclists and pedestrians can have priority and 'green by default' at signalised intersections, particularly at cycle track intersections and town centre environments. | Protocol | Short | AT13 |
| ITS | 46 | Consider technology applications such as gamification, activity tracking tools, 'wearables' and end of trip facilities to promote sustainable travel behaviour. | Protocol | On-going | AT16 |
| ITS | 47 | Use transport technology solutions as part of the planning, design and delivery of Active Town projects including wayfinding signage, interactive pedestrian crossings, delineation lighting and mobile device apps to enhance the user experience and active travel environment. | Protocol | Medium | ATAP 8.2 |
| COUNCIL OPERATIONS | | | | | |
| 5G Mobile Network | | | | | |
| ITS | 48 | Support appropriate deployment of 5G technology in Ipswich using public assets and municipal facilities such as smart street light poles. | Partnership | Short | R5 |
| Safe City Program | | | | | |
| ITS | 49 | Explore avenues to potentially expand the capabilities of council's Safe City Program to monitor road operations, traffic conditions, pedestrian and cycling movements and parking surveillance both in terms of technology capabilities and geographical reach. | Project | Short | R5 |
| Waste Services Fleet | | | | | |
| ITS | 50 | Investigate the merits of installing sensors on council's Waste Services fleet to measure and record road asset data and conditions. | Project | Medium | R5 |
| Light Vehicle Fleet | | | | | |
| ITS | 51 | Trial and evaluate EVs as part of council's light vehicle fleet and if successful look at expanding EVs across the entire fleet. This will include the provision of supplementary infrastructure (workplace charging station) and enhancing council's operational and maintenance expertise. | Project | Short | R5 |

| NO. | | ACTION | ACTION AREA | TIMING | iGO LINK |
|--|----|--|-------------|---------|-----------------------|
| Seamless and Contactless Payment | | | | | |
| ITS | 52 | Explore opportunities to incorporate access to council related transport services (e.g. payment of parking fees, City Heart Cabs Program, bike hire scheme, shared and fleet vehicles) etc. | Partnership | Medium | R5 |
| Unmanned Aerial Vehicles (UAVs) | | | | | |
| ITS | 53 | Build capacity to use UAVs (drones) to undertake council business. | Project | Medium | R1, R2, R5, P3, F1 D5 |
| CORPORATE | | | | | |
| Planning and Operational Frameworks | | | | | |
| ITS | 54 | Incorporate the outcomes of ITS Strategy, and transport technology generally, into the upcoming development of the following council planning and operational frameworks: | Protocol | Short | |
| ITS | 55 | Incorporate the outcomes of Strategy, and transport technology generally, into the next update to the following council planning and corporate frameworks. | Protocol | Ongoing | |
| ITS | 56 | Research, benchmark and include appropriate monetary amounts for the maintenance (routine and programmed) and rehabilitation of ITS infrastructure in future council budgets. This includes on-going software licence fees, telemetry, computing and data storage costs. | Protocol | Ongoing | n/a |
| Governance | | | | | |
| ITS | 57 | Convene a cross functional and multi-disciplinary Technical Working Group to oversee the planning, design and staged implementation of various projects. | Protocol | Short | n/a |
| ITS | 58 | Investigate and establish an appropriate formal governance structure for the planning, design and deployment of ITS initiatives, trials and activities. This includes both strategic, operational and technical decision-making frameworks to ensure transparency, accountability and collaboration. | Protocol | Short | n/a |
| Procurement | | | | | |
| ITS | 59 | Use the Smart City Program's procurement framework where practical for the execution of the ITS Strategy and associated initiatives. | Protocol | Ongoing | n/a |
| Standard Drawings | | | | | |
| ITS | 60 | Prepare, and regularly update, a suite of standard drawings relating to road based ITS applications using best practice innovation in design and specification. | Protocol | Ongoing | R1, R5, LU6 |
| Urban Planning and Design | | | | | |
| ITS | 61 | Investigate ITS applications that can assist council in achieving the Complete Communities urban model ("10-minute neighbourhood" and "20-minute city"). | Protocol | Short | LU3, TDM1 |
| ITS | 62 | Consider how services like EV charging, bike share docks etc are designed and implemented in streetscape and urban design to maintain quality pedestrian environments. | Protocol | Short | LU6, PT3, R5 |
| ITS | 63 | Advocate for TMR to enhance the Land Use and Public Transport Accessibility Index (LUPTAI) tool by including shared mobility and on-demand transport options. | Protocol | Medium | LU10 |

| NO. | | ACTION | ACTION AREA | TIMING | iGO LINK |
|---------------------|----|--|--------------|---------|------------------|
| iGO Delivery | | | | | |
| ITS | 64 | Use the ITS Strategy to help advocate the 'clever new thinking' and 'proper investment' mantras as part of a sustainable transport agenda for Ipswich. | Protocol | Ongoing | D1, R5 |
| ITS | 65 | Use the ITS Strategy as an advocacy tool to attract investment and funding partnerships. | Partnerships | Ongoing | D4 |
| ITS | 66 | Use ITS and modern technologies to assist with stakeholder engagement to ensure informed transport decisions can be made. | Protocol | Ongoing | D5 |
| ITS | 67 | Use the iGO 'brand' as part of the delivery of the ITS Strategy. | Protocol | Ongoing | D6 |
| ITS | 68 | Capture opportunities to partner with universities, research organisations (e.g. ARRB), the Smart City Program's Healthy Living Lab and Digital Studio and industry bodies (e.g. ITS Australia, Austroads, AITPM, ASCA) to undertake and sponsor research and development of transport technology initiatives. This should focus on an integrated road and travel data platform; road operations centre and smart parking solution in the short term. Other research elements could be the impact of AVs on urban function and form and the development of a MaaS product for Ipswich. | Partnership | Ongoing | D7 |
| ITS | 69 | As part of the ITS Action 1 (Road Operations), collect real time data on transport system use and performance to assist with the prioritisation and programming of network investments and the development of the annual 10 Year Transport Infrastructure Investment Program . | Protocol | Ongoing | LU7, D8, ATAP7.4 |
| ITS | 70 | Include the execution of the ITS Strategy in the production of the iGO Annual Report Card . | Protocol | Ongoing | D10 |
| ITS | 71 | Undertake a minor review and adjustments to the ITS Strategy every two years. | Protocol | Ongoing | D11 |
| ITS | 72 | Incorporate ITS and transport technology risks in the development of the iGO Risk Management Plan to ensure it integrates with other identified risks and the associated mitigation strategy for the execution of iGO. This should include risk associated with data security and privacy, redundancy in technology, integration and interoperability. | Protocol | Ongoing | D12 |
| ITS | 73 | Incorporate the outcomes of the ITS Strategy into the next major review of iGO. | Protocol | Short | D15 |



WHAT IS THE NEXT STEP?

COUNCIL'S ROLE

It is recognised that technology will influence an extraordinary degree of change to Ipswich's transport future. But the unknown extent of what transport technologies, how they will be deployed and their level of uptake, is also significant.

Given the evolutionary nature of technology, with the continual emergence of new and updated platforms, council will position to be **future ready** by enhancing our **expertise**, developing **protocols**, establishing **investment** frameworks, advocating for government policy and regulatory reform and creating strategic **alliances**.

Council will take the following approach to the iGO ITS Strategy.

AGILITY

We will be agile by being open to market led proposals that align with city aspirations, and short-term investment on projects that will provide tangible benefits to our core local functions of **roads, safety and parking**.

TRIALS

We will use trials to test **reliability** and measure **performance** before wider deployment including the support of industry proposals using Ipswich as a **'testbed'**.

ENABLER

We will be an 'enabler' not just a provider. Council may be a project **leader, supporter or sponsor**.

Success will require **collaboration** and **partnerships** with government, innovators and the community. The Strategy will also help us **advocate** for funding and sponsorship deals.



WHAT YOU CAN DO

Council does not have the financial capacity, resources or expertise to implement the outcomes of the Strategy on its own. The successful delivery of the Strategy will require collaboration and partnerships with other levels of Government, innovators, industry, business operators, community groups and residents.

How you can get involved?

If you have any questions about the iGO Intelligent Transport Systems Strategy or wish to discuss any potential opportunities further please feel free to contact council at:

Phone 3810 6666

Email igoipswich@ipswich.qld.gov.au

Post iGO Project Team
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[Link to the iGO Intelligent Transport Systems Strategy](#)



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