2025

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Innovation Challenge

Frequently Asked Questions

NSW GOVERNMENT

Transport Open Data

My proposed solution only addresses one aspect of a context-aware solution and doesn't include all the features or thought starters. Can I still apply?

Yes, you can still apply! Our key focus is understanding how to deliver contextually relevant information to passengers at the right time and place, particularly for those who don't use the network often, may not have the latest transport apps, or aren't regular travellers. Additionally, we're looking for solutions that can alert routine travellers when an unexpected disruption affects their usual journey. Whether your solution addresses just one area of this challenge or multiple aspects, it can still provide potential solutions.

What is a context-aware solution in public transport?

A context-aware solution customises real-time information to passengers based on their individual preferences, needs, and surroundings. It uses data such as location, time, weather, and passenger history to provide the most appropriate information at the right time. For example, it could suggest alternative routes during disruptions, highlight accessible stations, or notify passengers of delays due to an event in the area.

How is a context-aware solution different from a journey planner or apps like Google Maps?

Unlike a journey planner, which broadcasts general route information, a context-aware solution micro-targets passengers with personalised updates. While journey planners focus on point A to point B navigation, context-aware solutions dynamically adapt based on real-time conditions like disruptions, personal preferences, and events. It's about delivering specific, relevant information to individual passengers when they need it. Citymapper, in cities like London and Paris, uses context-aware principles through its "live operation room", which uses real-time data from a variety of sources to provide users with up-to-date information on transit disruptions and reroute them using a mix of transportation modes to ensure the smoothest possible travel experience.

What is an unexpected disruption, and how can a context-aware solution help?

An unexpected disruption is any unplanned event that interferes with normal transport services. These can include:

- Network Disruptions: Issues including accidents, weather events, or technical failures affecting the transport network.
- Access Disruptions: Sudden changes in facilities such as lifts or restrooms being unavailable.
- Activation Disruptions: Large crowds or congestion caused by events like festivals, protests, or sports games.
- Personal Disruptions: A change to an individual's circumstances, such as rain making cycling less ideal or a missed train requiring alternative travel plans.

A context-aware provides real-time alerts, suggesting alternative routes or modes of transport, and offers personalised updates relevant to the type of disruption.

How do context-aware solutions handle real-time disruptions?

Context-aware solutions can quickly assess data from across the transport network, weather, events, and passenger location to offer real-time, alternative travel options when disruptions occur. Whether a service is delayed, cancelled, or affected by traffic, the solution will notify passengers and suggest different transport modes or routes to help keep their journey on track.

What kind of personalised features can a context-aware solution offer?

A context-aware solution can offer a variety of personalised features, including:

- Tailored travel options based on individual needs and preferences such as cost savings, carbon footprint reduction, or health-conscious choices (e.g., cycling routes).
- Customised alerts for passengers with specific needs, such as accessible routes for those with disabilities or family-friendly options for those travelling with kids.
- Real-time updates on disruptions, delays, and alternative transport options, ensuring passengers stay informed and can adjust their journey smoothly.

Can a context-aware solution predict and prevent disruptions?

Yes, many context-aware solutions use AI-driven predictive technologies to analyse historical data, weather patterns, and passenger flows to predict potential disruptions before they occur. For example, the context-aware solution could alert passengers about anticipated delays due to incoming bad weather or scheduled maintenance, allowing them to adjust their plans proactively.

How does a context-aware solution address accessibility and inclusion?

Context-aware solutions are designed to cater to specific user preferences, including accessibility needs. For instance, passengers with mobility challenges can receive updates on the availability of lifts or accessible platforms. The system can also provide information for passengers without transport apps, or those who prefer to receive updates via Near-field communication (NFC) tags, digital displays, or voice assistants.

What are some examples of context-aware technologies that might be used?

Context-aware solutions can utilise a range of technologies, including:

- Near-field communication (NFC) tags: Allowing passengers to tap their phone to receive personalised travel information at stations or bus stops.
- Geofencing tools - Sending location-specific updates about disruptions or service changes based on where a passenger is located.
- AI-driven tools: Offering predictive suggestions and alternatives to prevent passengers from getting stuck in delays.
- Digital displays and voice assistants: Providing real-time updates at stations or transport hubs to keep passengers informed without relying on smartphones.

Can a context-aware solution help during large events or unexpected crowds?

Yes, during major events such as festivals, protests, and sports games, context-aware solutions can detect increases in passenger volume and provide real-time advice on less crowded routes or alternative travel options. Passengers are notified ahead of time about possible disruptions and given suggestions to avoid congestion.

How do context-aware solutions handle disruptions to facilities and amenities?

Context-aware solutions monitor the status of key facilities such as lifts, restrooms, or parking areas and provide real-time updates when they become unavailable. Passengers with accessibility needs, or those relying on specific amenities, will receive personalised notifications and alternative options to ensure their journey remains smooth.

How do context-aware solutions handle sudden weather changes?

If sudden weather changes occur, such as rain or extreme heat, a context-aware solution can suggest adjustments to a passenger's journey. For instance, a cyclist might be notified of an approaching storm and advised to switch to public transport, with the system recommending nearby bus or train options based on their location.

What if a service is cancelled or there is an unexpected delay?

When a transport service is cancelled or delayed, a context-aware solution immediately sends an alert to affected passengers, offering alternative travel options such as the next available bus or train, nearby ride-sharing services, or walking routes to keep them on schedule. The system helps passengers navigate these changes quickly and efficiently.

Where can we source data about weather, carbon footprint, and the health benefits of walking for our context-aware public transport solution?

To enhance a context-aware solution with personalised and relevant information, various open data sources can provide essential insights. Here are a few key sources:

- Weather Data: The Bureau of Meteorology (BOM) provides real-time weather updates, forecasts, and historical weather patterns. This data can be used to inform passengers about current weather conditions, helping them adjust their travel plans (e.g., switching from cycling to public transport during rain). BOM offers Application Programming Interfaces (APIs) for integrating weather data into apps and services.
- Carbon Footprint Data: Several organisations offer carbon emissions data that can be incorporated into transport solutions. You can use Open Government Data portals or consult resources like the National Greenhouse and Energy Reporting Scheme (NGER) for data on emissions related to transport modes. This helps provide passengers with eco-friendly route options, showing them the environmental impact of their travel choices.
- Health Benefits of Walking: The World Health Organization (WHO) and local health agencies often provide open data and studies on the health benefits of active travel, such as walking or cycling. Additionally, local health departments or research may offer resources that quantify the health benefits of walking, which can be integrated into travel suggestions that encourage active, healthier commuting options.

Where can we find information on travel options for passengers with prams or bulky items, station amenities, and how weather disruptions impact train services?

You can find detailed information about travelling with prams, bulky items, station amenities, and how weather impacts transport services on the Transport for NSW website. Visit this link for comprehensive guidance on using public transport, including advice on accessibility, available facilities, and tips for dealing with weather-related disruptions. This resource is helpful for understanding how different needs are accommodated across the network.

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What is being offered as part of the challenge?

Transport for NSW (TfNSW) is offering Innovators, developers, entrepreneurs and the public an opportunity to collaborate with Transport and industry partners to provide customer solutions for the people and communities of NSW.

Benefits for successful Innovation Challenge teams includes options for seed funding, product endorsement from TfNSW, access to subject matter experts, data, APIs and significant commercial opportunities that stem from solving a real transport problem.

Further details about the benefits of the Innovation Challenge will be provided during the Information Session.

How will the Innovation Challenge work?

A virtual information session will be held on 5 February 2025 will be recorded and published on the Innovation Challenge webpage. This session is designed for interested parties to ask questions and get information before the due date for applications.

Applications will open 12:00pm 22 January 2025 and close at 11:59pm on 19 February 2025.

Potential applicants will have the opportunity to meet key subject matter experts at the information session and gain useful information to help develop their submission. Once applications close, they are assessed and ranked by a screening panel.

Teams will be selected to progress to the next stage of the challenge where they will be invited to pitch their ideas to the judging panel as part of the Pitch Day. Successful teams will be invited to incubation.

Incubated teams may receive funding and access to subject matter experts. Teams who successfully complete the incubation stage will then be assessed for endorsement.

Who can participate in the Innovation Challenge?

We welcome all submissions that meet the challenge statement. It is expected that teams are incorporated and are able to engage in legal and/or commercial terms with Transport for NSW.

Employees and the immediate families of employees of the Department of Transport, Newcastle Port Corporation or Transport Asset Holding Entity of NSW are not eligible to enter the innovation challenge.

When does the product have to be launched?

The product will need to be trial ready by mid April 2025.

When do applications open?

Applications open on 22 January 2025.

When do applications close?

Applications close at 11:59pm on 19 February 2025.

Where do I apply?

Applications will be open on the official Innovation Challenge website from 12:00pm 22 January 2025. Please ensure you register and attend the information session for important details, timelines as well as an opportunity to ask questions about the challenge.

What format are submissions expected to be in?

We use Microsoft Forms to collect submissions. The form allows you to provide extra content such as videos, a pitch deck, and any other relevant documents to support your submission.

Will any TfNSW data be available to help develop ideas?

Yes, applicants are welcome to use the data currently available on the Open Data Hub to help develop ideas. Nothing further is set to be released specifically for this challenge.

What seed funding is available for the Innovation Challenge?

If seed funding is required, applicants must indicate an amount from $5,000 up to $50,000 excluding GST. Solutions will be evaluated against the selection criteria and must provide evidence of value for money.

Do we have to cover all of NSW or a particular area?

Your solution should be trialled within a particular area. Refer to the Innovation Challenge Brief for possible locations. Applicants may also select a location of their choosing.

Are there any restrictions on who can enter?

Applicants from across Australia as well as those located Internationally are welcome to apply. Pitch Day will be via video conferencing ensuring applicants from far and wide are able to participate. Employees and the immediate families of employees of the Department of Transport, Newcastle Port Corporation or Transport Asset Holding Entity of NSW are not eligible to enter the innovation challenge. Please reach out to our team if you wish to discuss your eligibility to participate further.

Is there a process for approaching potential partners that might complement our skills?

We do encourage you to partner with others if you wish. We recommend using the Open Data Forum to connect with potential partners for this challenge.

What happens to the IP which has been developed during the innovation challenge?

With all third-party products developed through our Innovation Challenges, they are the IP of the original proponents. We will provide guidance and co-design feedback, but the IP is owned and run by you.

How many solutions will be accepted?

We haven't determined that yet. We're open to more than one, and there are no restrictions on the final number.

How many applicants will be shortlisted to the pitch day?

There is no limit. We usually have up to 10, however if we have many great ideas we will include more.

Can multiple submissions be made by the same person/company/group?

Absolutely. The same person or group can submit multiple ideas, however, please ensure they are put forward as separate submissions.

Is there a guarantee of a contract with TfNSW for successful organisations/solutions?

We encourage innovative solutions that can be commercially sustainable without the need for ongoing funding. As part of your submission, we ask you to explain how your solution will be made commercially viable such as in-app purchases, advertising, or subscription. If your proposed solution requires Transport for NSW to be the customer, please clarify this in your submission. Approved Applicants who progress to the Incubation phase may be required to enter into an agreement with TfNSW. Any such agreement will include the provision of any seed funding to deliver the trial. Approved Applicants may be required to join the whole-of-government ICT Services Scheme. If the trial involves the procurement of ICT/digital goods and services a Core& contract may be required.

Are there TfNSW digital guidelines available for UX/UI usability?

Proponents are expected to demonstrate adherence to best practice design and accessibility principles. The Digital NSW Accessibility and Inclusivity Toolkit can help you build your solution for everyone. Further information on our design system can be found in our brand toolbox.

Are there any guidelines for using artificial intelligence?

When proposing solutions that incorporate emerging technologies like artificial intelligence (AI), there are important considerations that must be considered. Any ideas that involve the use of AI would need to undergo the NSW Artificial Intelligence Assessment Framework before being pursued further.

Which NSW Government laws and regulations should we consider when building our solutions?

When developing technology for transport customers it is important to ensure the solution is safe, legal and complies with relevant regulations.

What other opportunities are there to participate in developing solutions with Transport for NSW?

Transport for NSW regularly runs Hackathons and Innovation Challenges. Information about upcoming events will be posted in the innovation section of the Open Data Hub.

I have questions about the challenge. Who can I contact?

You can post your question on the Open Data Forum - where there is a thread dedicated to the Innovation Challenge.