

SMART CITY



About Us

Global leaders at AI

- Strong experience with public and private sector
- Multiple level of clearances and strong ethical foundation
- Leading research and development



Leaders in Asia Pacific for AI with offices in New Zealand, USA and Singapore.

Partnerships



Trusted locally and globally

From smart cities to manufacturing



What is a digital twin

Smart Cities Digital Twin

is a virtual object of the city, which collects information (via sensors, drones or other IoT and Industrial IoT tools) alongside existing data sources and applies advanced analytics, machine-learning (ML) and artificial intelligence (AI) to gain real-time insights about the performance, operation or profitability.



Embedded data: Live alerts are displayed real time within the Digital Twin allowing a single portal of exploration and event management.



Immersive and Reporting: Data can be explored and discovered from within the digital twin by engaging with its objects.



Consuming and using a digital twin

Reporting | 25%

“To make improvements in an analysis capability to improve decision making”

Immersive | 25%

“Immerse into a scenario for greater visual exploration or decision making functions.”

Embedded | 50%

“As an active part of a process or task that is performed in Realtime”

Types

Sensor



- Sewage
- Rubbish
- Fire
- Public transport
- Building
- Temperature
- Air quality

Infrastructure



- Traffic system
- Power
- Water
- Sprinklers

Cameras



- Security
- Utilisation
- Object count
- Behavior
- Safety and risk

Building



- Asset
- Spend
- Water
- Electrical
- Ventilation
- Repairs and Issues

Mobil



- Road conditions
- Violations
- Water
- Rubbish and recycling
- Park conditions
- Water way conditions

Externa



- Emergencies
- Volunteered data

What is vision and audio AI

Vision or Audio AI

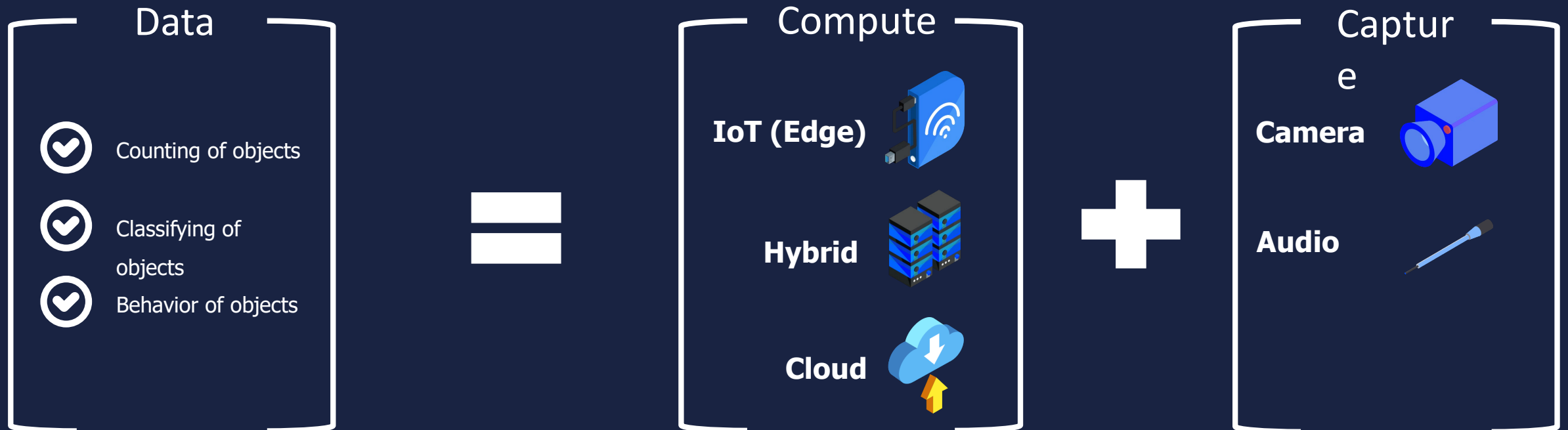
In a smart city, you essentially use pretrained "classification" models to identify through a camera or audio sensor what an object or noise is. This data is then consumed for counting and behavioral analysis purposes.



Vision data is created through the classification of an object through a camera.



Audio data is created through the classification of noises through an audio sensor.





Stage 1 2 weeks

This stage would involve:

1. Determining use case scoring mechanism.
2. Meeting with different business units through City to educate on technology possibilities and identify the most high value benefits that could be met through AI.
3. Quantify each of these options alongside with City staff against scoring method.
4. Produce ranked list to steering group to evaluate trial cases.

Outcome:

1. List of defined use cases that have been scored.
2. Information gathered to proceed to stage 2 – Create strategy of Data Generation through AI.



Stage 2 3 weeks

This stage would involve:

1. Reviewing existing City policy documents.
2. Developing the framework for Vision and Audio AI with City Council.
3. Developing the ethical framework and guidelines for City Council to review on Vision and Audio AI pre-adoption.
4. Developing trial project plan for Stage 3 including costings.

Outcome:

1. Draft Vision and Audio AI Framework
2. Draft Vision and Audio AI Ethical Framework.
3. Costings and Project Plan for Stage 3 trials



Stage 3 TBD

This stage would involve:

1. Survey of trial sites within city for site selection.
2. Set up of trial sites throughout the city alongside business owners at City for hardware.
3. Implementation of trial collection.
4. Implementation of trial modelling.
5. Review of results of trial against expected ROI.
6. Trials meeting requirements would go through for city rollout plan.

Outcome:

1. Trials set up, ran and results created.
2. Report outlining results and Stage 4 plan submitted to Council for City Rollout Planning.



Stage 4 TBD

This stage would involve:

TBD

Outcome:

1. City rollouts of Vision and Audio data collection.
2. Smart City Digital Twin.