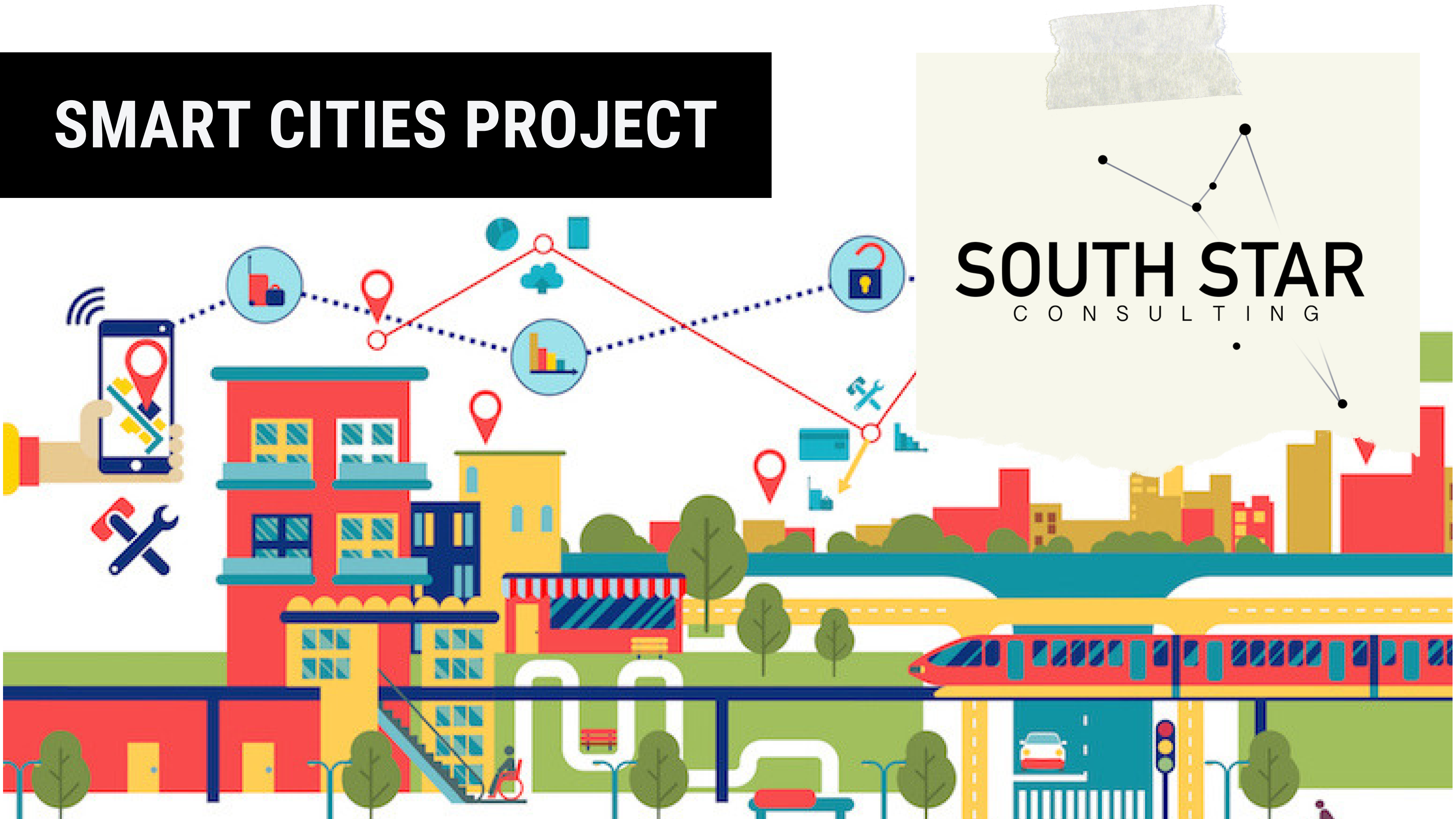


# SMART CITIES PROJECT

**SOUTH STAR**  
CONSULTING



# MEET THE TEAM



Jacob Butterick



Prabhavi Munaweera Thanthirige



Kira Adams



Stephanie Zeniou



Horacio Paz Soldan



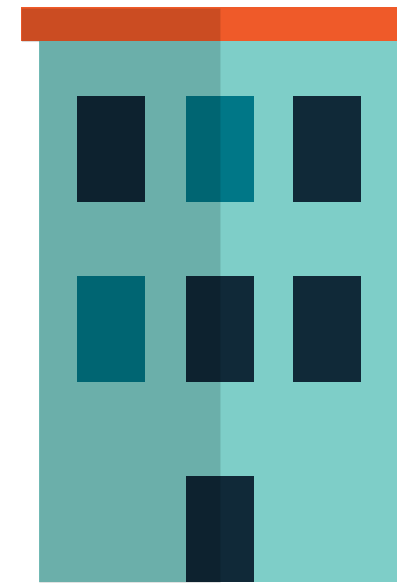
Will Joyce

# PROBLEM OUTLINE



## QUALITY OF LIFE

Increase the quality of life for residents



## ECONOMIC ACTIVITY

Increase economic activity through smart city infrastructure

# AGENDA

## SMART CITY ECOSYSTEM

# #1

Ecosystem Map  
Trends & Opportunities  
Survey Findings  
Recommendations

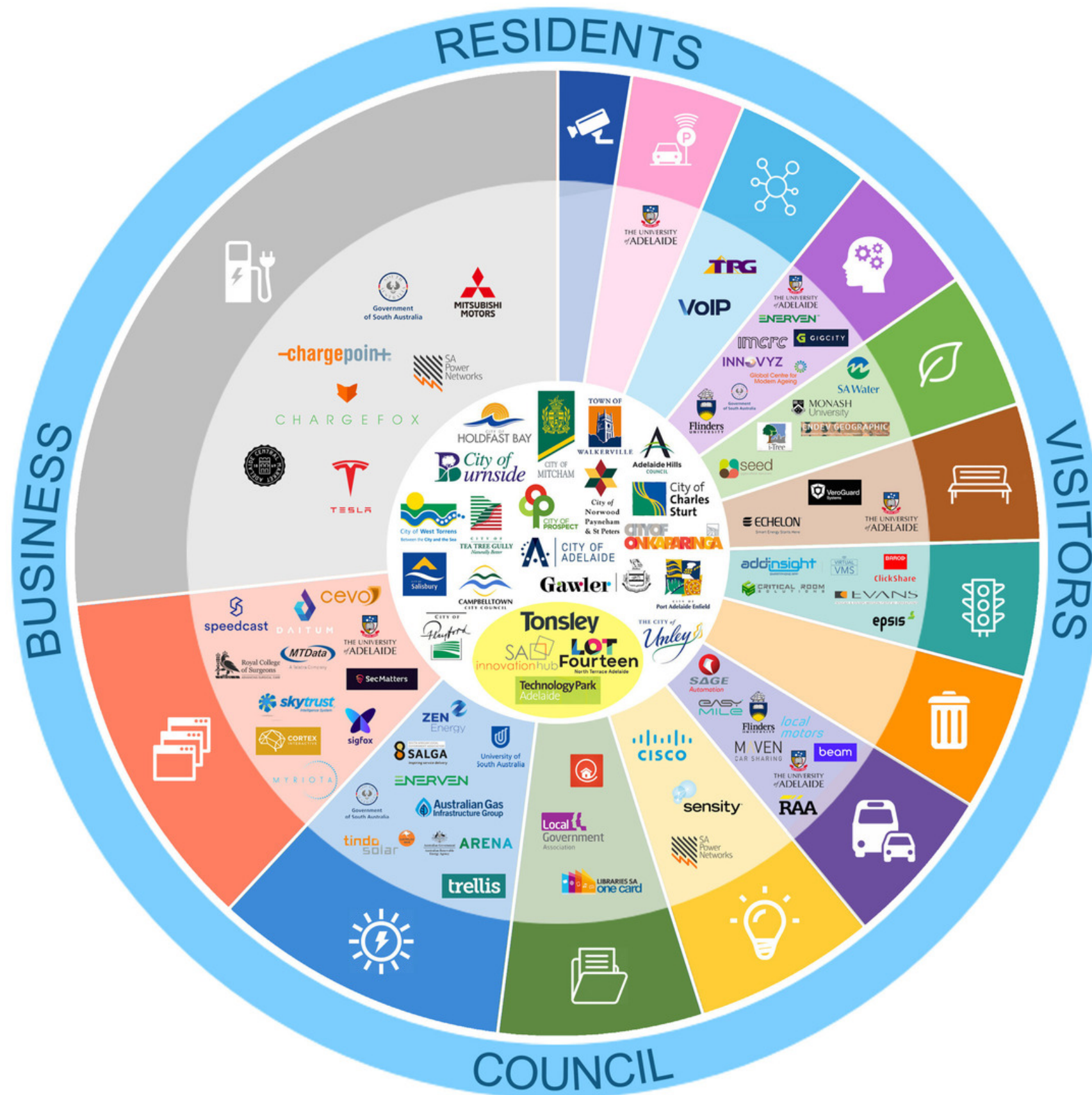
## OPEN DATA

# #2

What is Open Data?  
How do we manage it?  
What should we open?  
How do we engage?

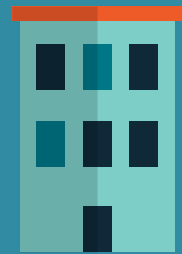


# ECOSYSTEM MAP



# ECOSYSTEM MAP

## DRIVERS



Metropolitan Councils



Innovation Hubs

- Key decision-makers
- Plan & Implement a Smart City



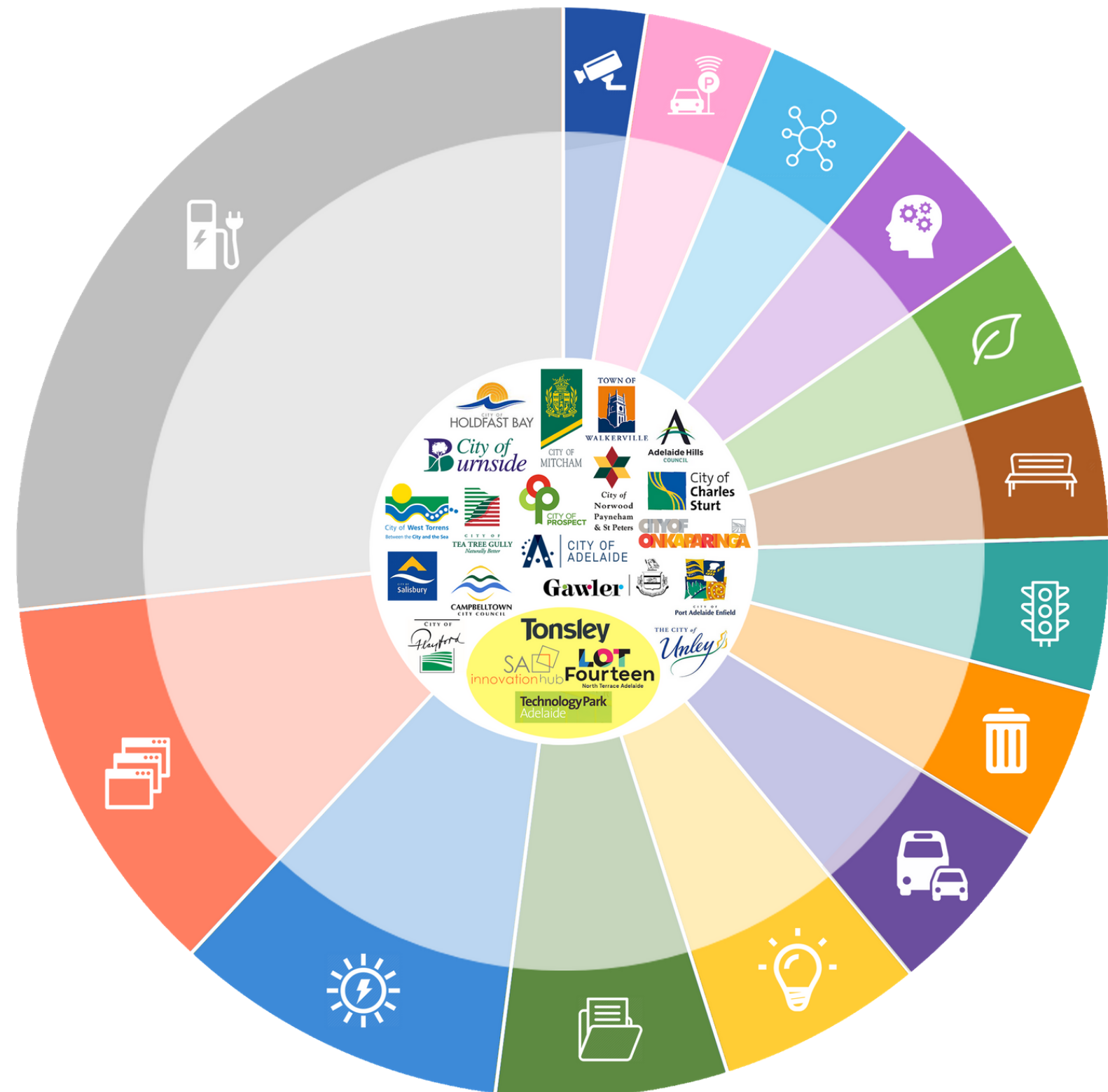
# ECOSYSTEM MAP

## SMART CITY INNOVATIONS

**129** Innovations

**14** Smart City categories

- Ordered by prevalence in ecosystem
- Categories overlap & interrelate





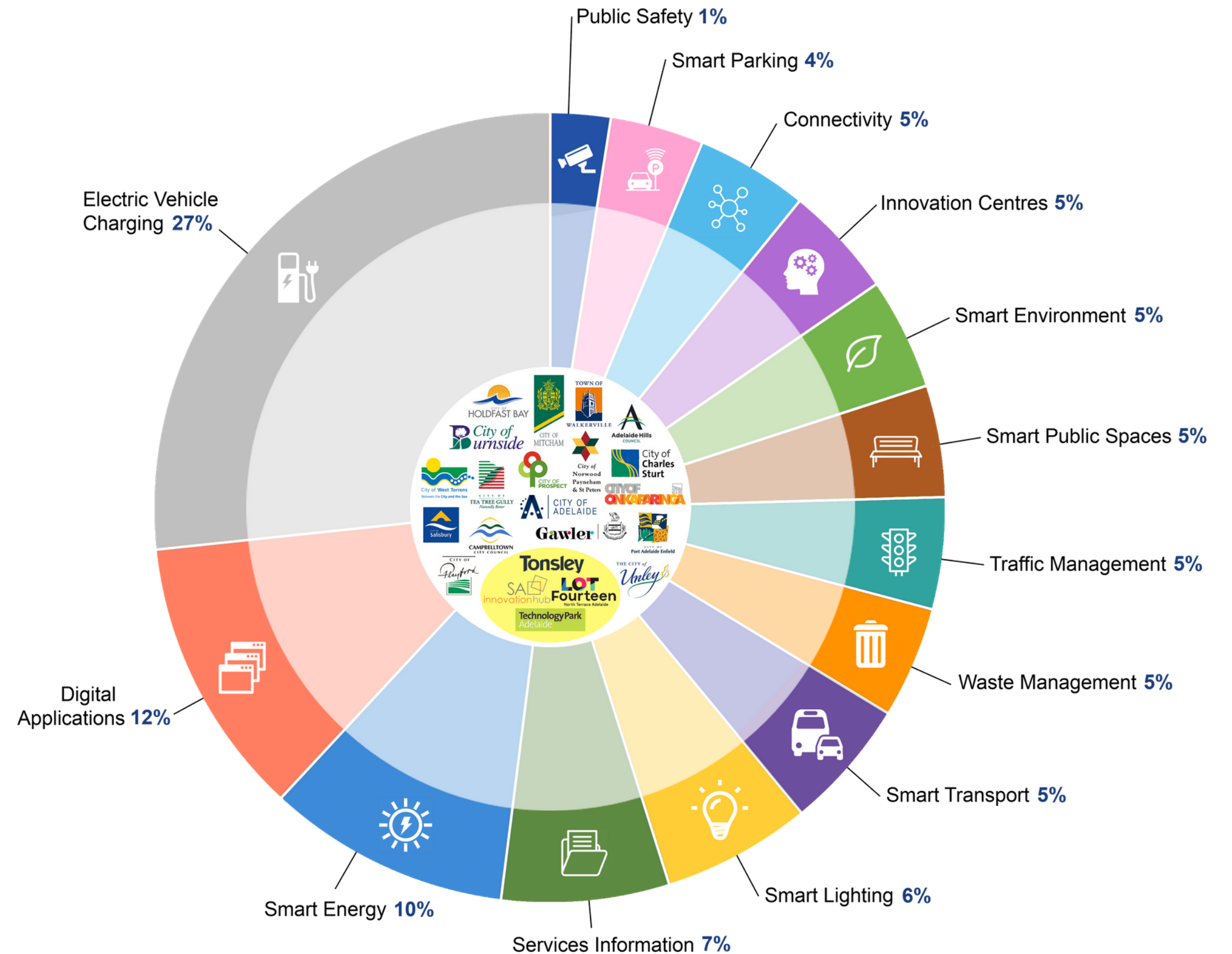
# ECOSYSTEM MAP

## SMART CITY INNOVATIONS

**129** Innovations

**14** Smart City categories

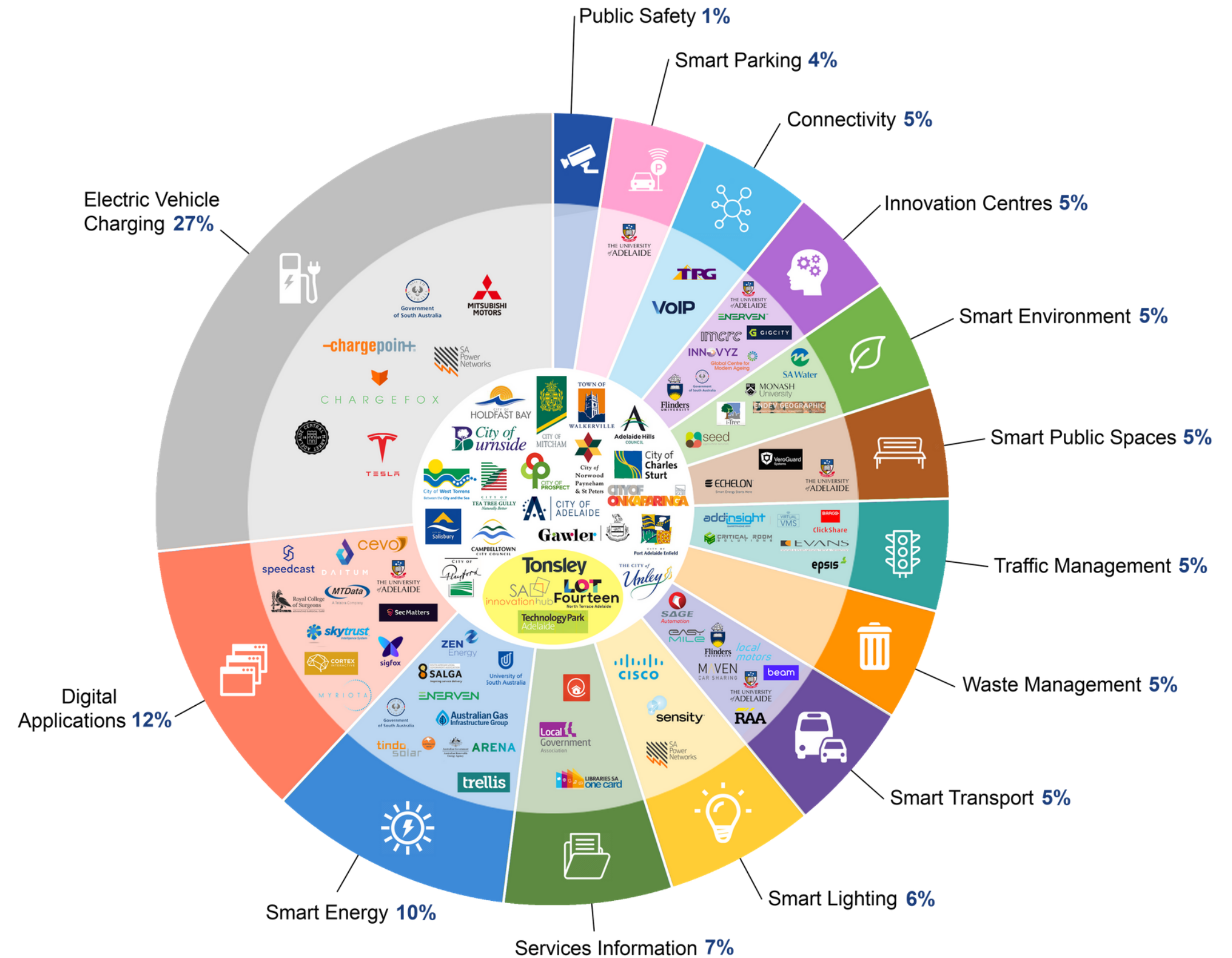
- Ordered by prevalence in ecosystem
- Categories overlap & interrelate





## PARTNERS

- Ordered by relevance to Smart City Category



# TRENDS



**EV Charging**

**27%**



**Digital  
Applications**

**12%**



**Smart  
Energy**

**10%**

# TRENDS

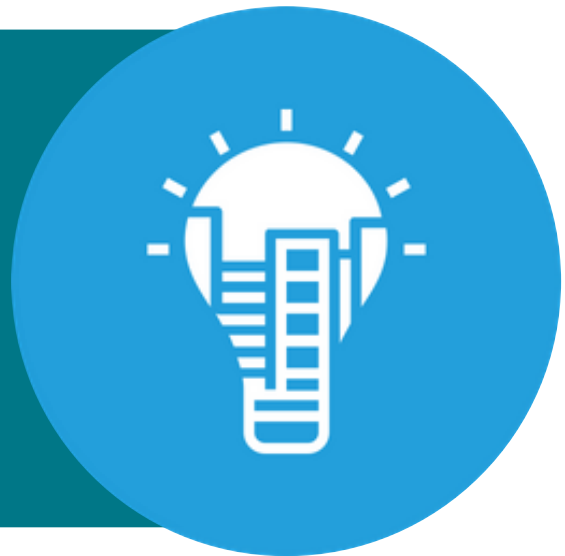
EV  
Charging



Smart  
Lighting



Smart  
Energy



43%

Energy Efficiency



# GAPS



**Traffic  
Management**

**5%**



**Waste  
Management**

**5%**



**Smart  
Parking**

**4%**



**Public  
Safety**

**1%**

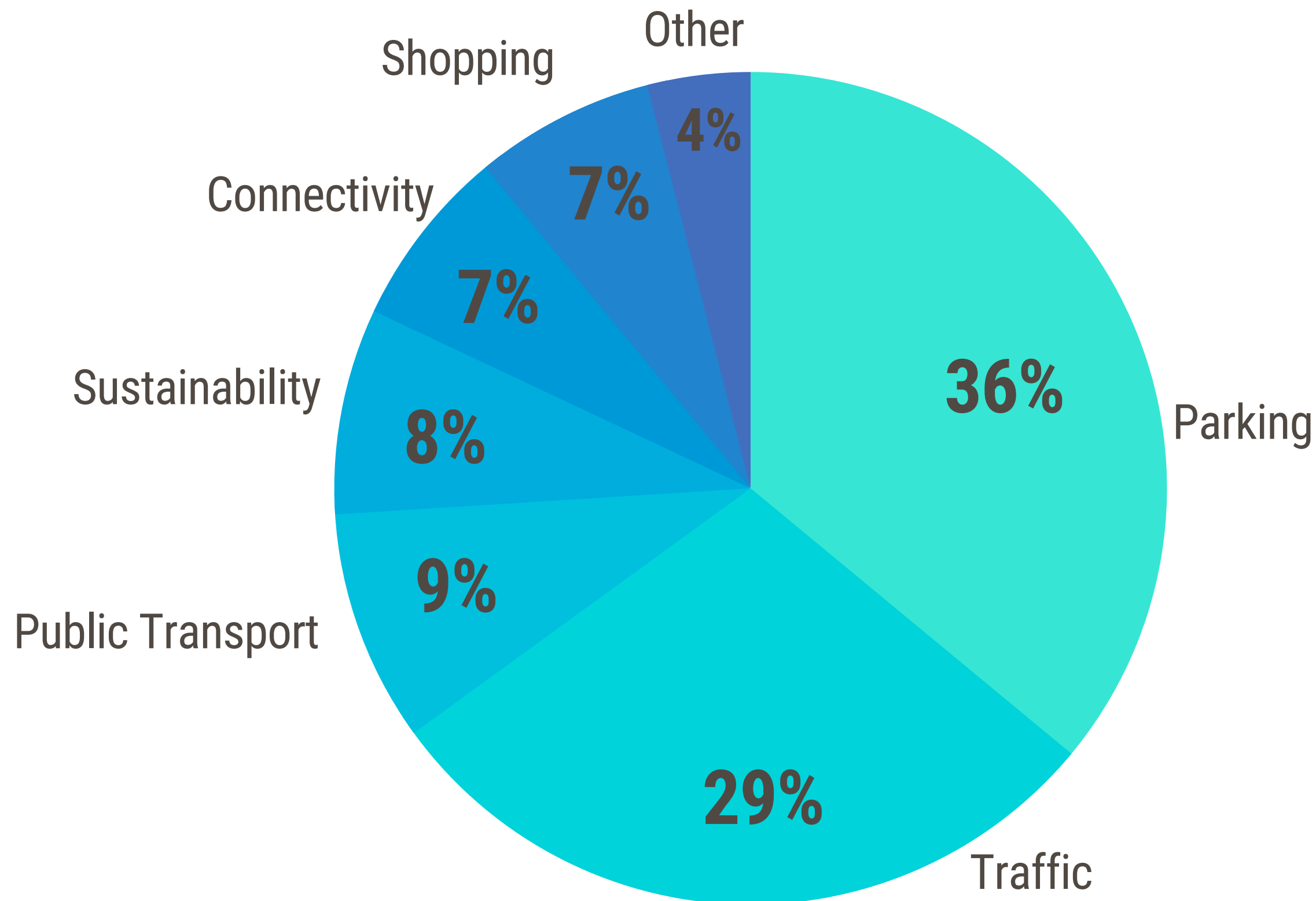


**Modern  
Ageing**

**0%**



# SURVEY FINDINGS



Which of the following is the biggest issue for the city of Marion ( All Residents )

# SURVEY FINDINGS



## RESIDENTS

Traffic	37%
Parking	37%
Public Transport	19%



## VISITORS

Traffic	35%
Parking	25%
Sustainability	13%

# SURVEY FINDINGS

*(Results through age profiles)*



## 18-34

Traffic	32%
Parking	32%
Connectivity	12%



## 35-54

Parking	40%
Traffic	23%
Sustainability	15%



## 55 and over

Parking	36%
Traffic	25%
Public Transport	16%

# RECOMMENDATIONS

## Waste Management

15%

**Compact**

**Cost Effective**

**Sensored**

**Positive Impacts**





# RECOMMENDATIONS

## Smart Lighting & Public Safety



**8 Innovations**

### Current Trend

Replacing Mercury lights with LED

Reducing energy usage and maintenance

### Opportunity

Data gathering ,monitoring and real time decision making

CISCO - Adelaide Trial

# RECOMMENDATIONS

## Ecosystem Management



**Define Roles**



**Standardise  
Smart Cities  
Concepts**



**Define a  
Timeframe**



**Collect**



**Data Analysis**



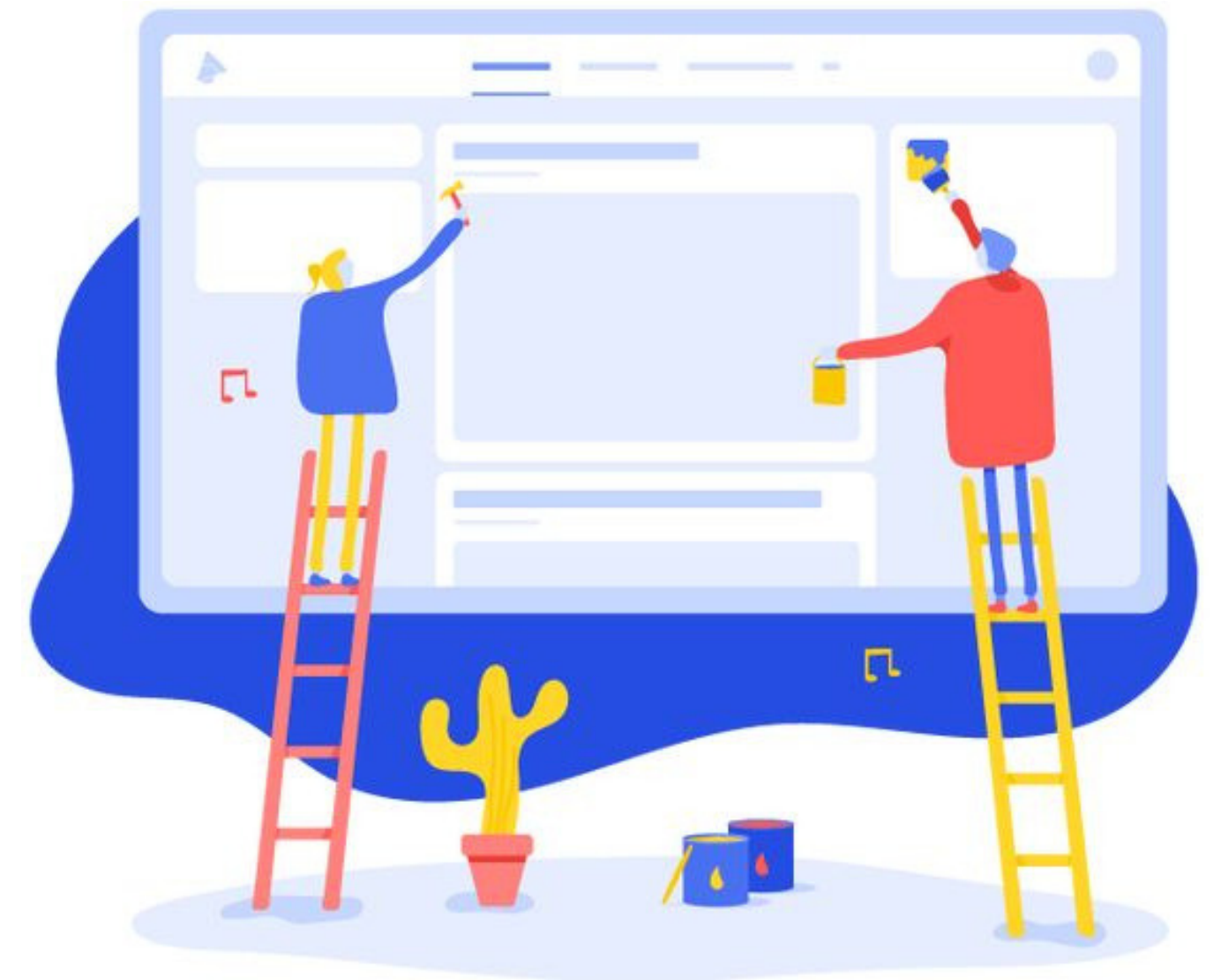
**Publish**

# WHAT IS OPEN DATA?

“ If I had to express my views about the digital future – that of Europe or indeed, of the whole world – I could do it with one word: data.” – Andrus Ansip

Open Data is information that is :

- Available, Free and Accessible
- Re-usable and Redistributable
- Driven by the Participation of People



# HOW DO WE MANAGE IT



## RESOURCES

Framework, Legislation, Licensing

OPEN DATA PORTAL



# WHAT DATA IS MADE OPEN

Public bodies start by  
opening data that is  
already publicly available

**Low Risk**

**162/1577**

data sets

**11**

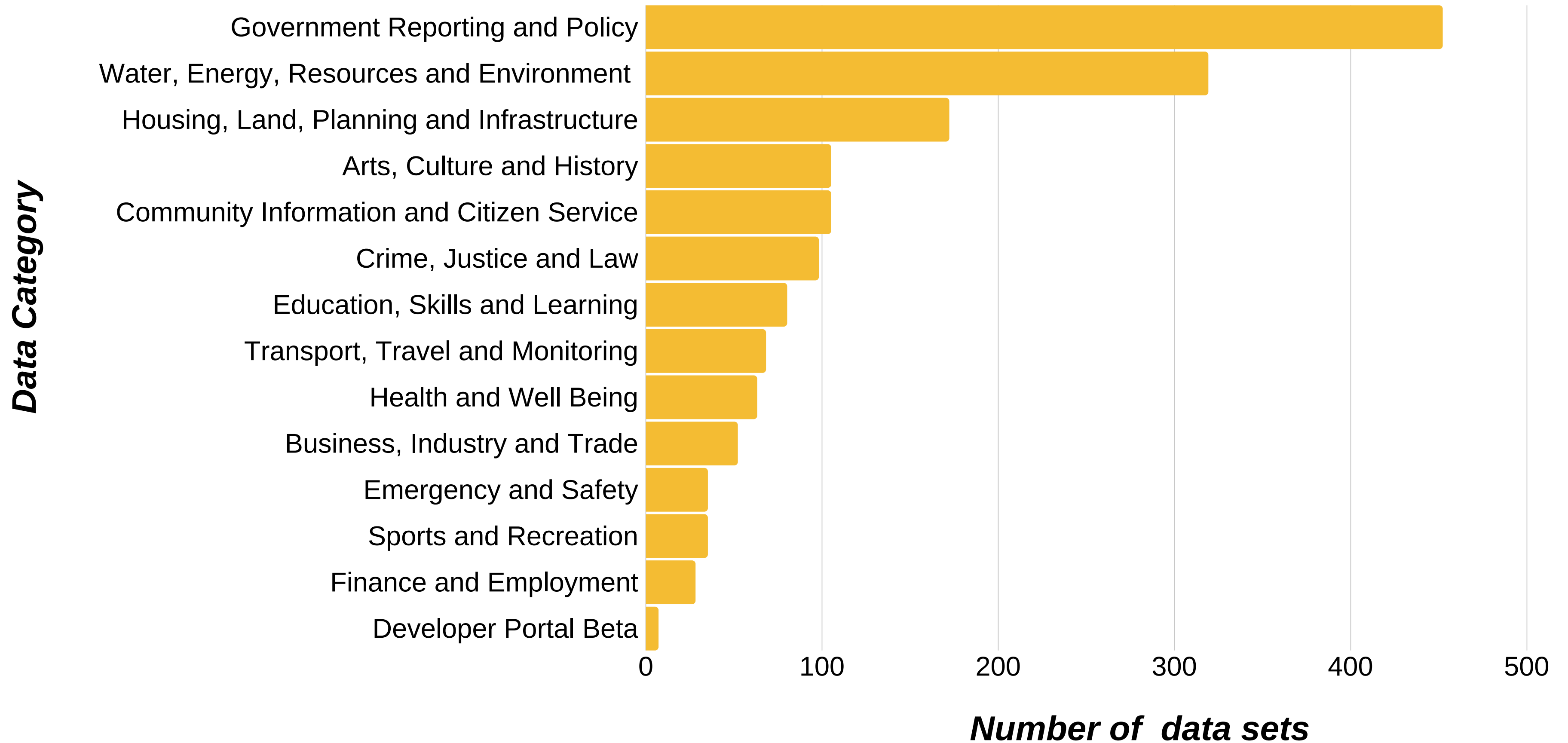
Metropolitan councils

**3**

Country councils

**Location Driven**

# WHAT DATA IS MADE OPEN ?



# POPULAR DATASETS



Cats and Dogs



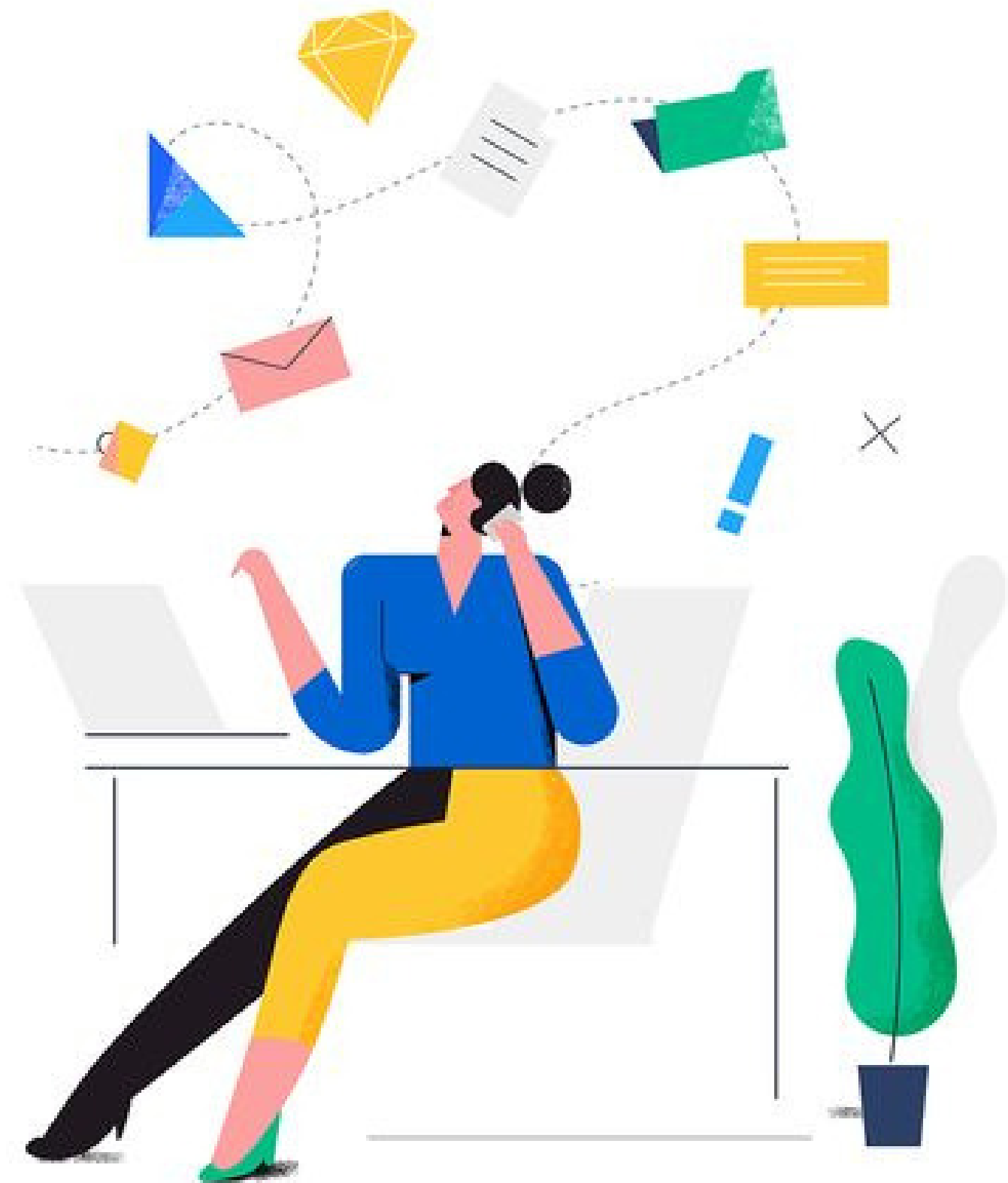
Waste Management



Parks and Facilities

# CREATING VALUE

- High percentage of data is not used.
- Data in itself is not valuable, as data is seen and used by more and more people the more valuable it becomes.
- As more people are exposed to the data more potential valuable outcomes occur.





# CREATING VALUE



Transparency and  
Accountability



Council Strategic  
Goals



Businesses and  
People Needs

# DATA FOR PEOPLE



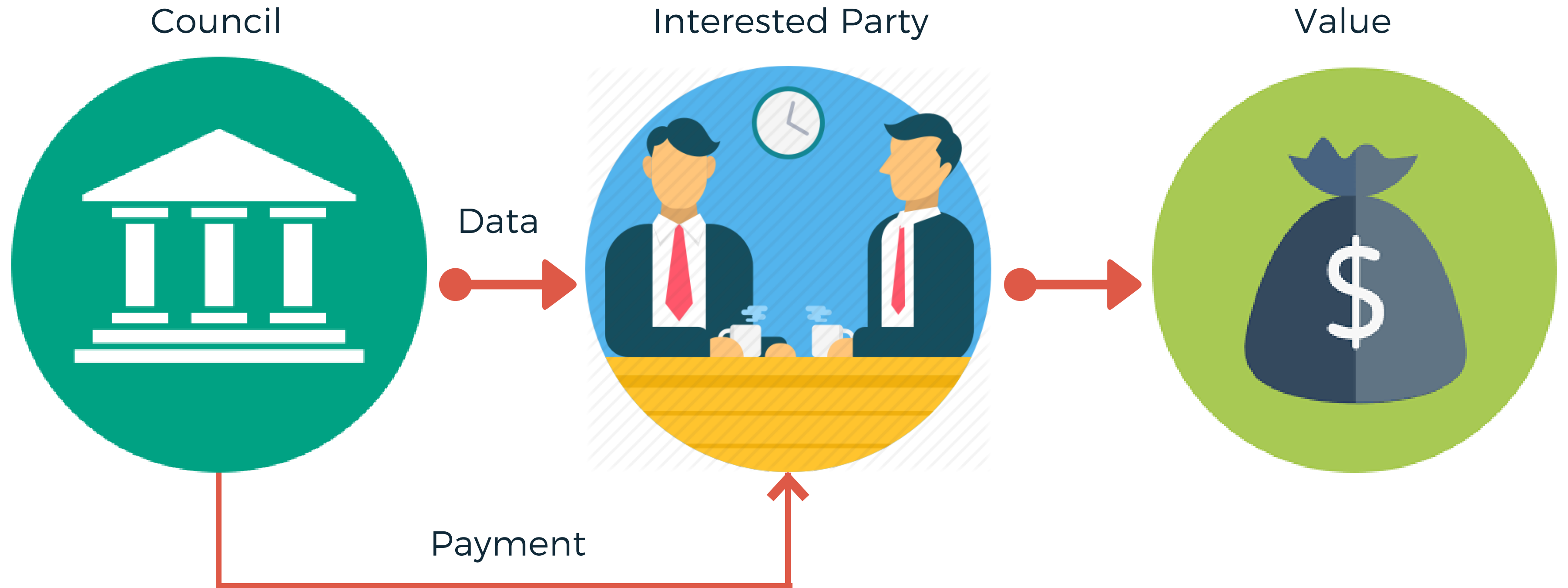
Council Demographics and Economics

Community History

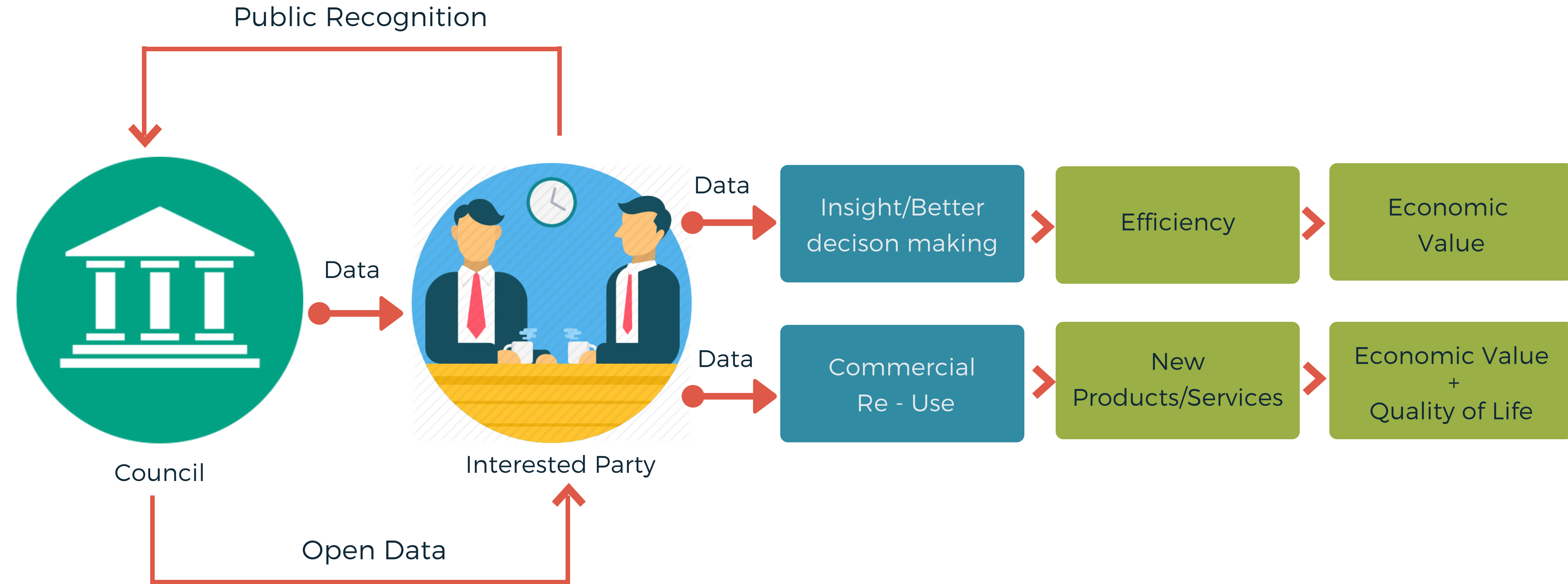
Local Government and Politics

Local Services, Facilities, Institutions and Groups

# COMMERCIALISATION



# COMMERCIALISATION



# DATA FOR BUSINESS

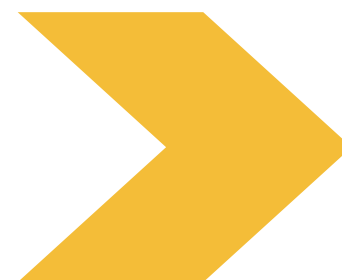
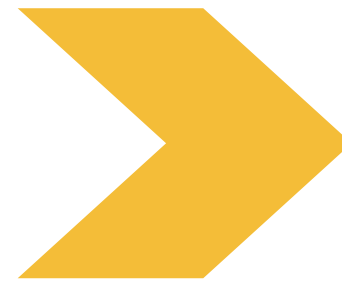
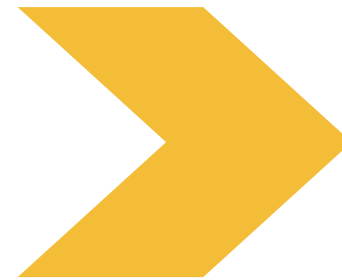
Policy Information

Business & Economics

Council Demographics &  
Population Densities

Labour Market  
Characteristics

Real-Time Foot-Traffic  
Data



Adherence and business  
policy development

Operate more confidently  
& effectively

Select target markets &  
locate customers

HR Management

Select target markets &  
locate customers



# COMMERCIAL REUSE OF DATA

1. Geographic Information

2. Meteorological & Environmental Information

3. Economic & Business

4. Social

5. Traffic & Transport

**HIGH POTENTIAL  
DATA SETS**

# COMMERCIAL REUSE OF DATA

## CASE STUDY

Braille representation of the word "BlindSquare" above the word "BlindSquare" in a serif font.



# WHAT SHOULD WE OPEN ?

## #1 Gain Experience

**Dog Registrations**

**Waste Management**

Waste Collection Zones

**Mapping Facilities**

Parks and Reserves

Public Libraries

Sports & Leisure Facilities

## #2 Service Needs

**Both People & Business**

Demographics & Economics

**People Needs**

Local Services & Community History

**Business Needs**

Policy Information & Labour Market

# WHAT SHOULD WE OPEN ?

## High Involvement and High Value Data Sets

### Playground Usage

Distribute further investment based on usage

Monitor unused playgrounds for maintenance



### Open the Data

Unique data set on Data.SA

City of Adelaide – Parkland  
Usage Visitation Estimate

# WHAT SHOULD WE OPEN ?

## High Involvement and High Value Data Sets

### Urban Activation Project

Compare before and after usage

Determine success of infrastructure & use in future



### Open the Data

Successful Outcomes  
- Publicity

Attracts business engagement



# WHAT SHOULD WE OPEN ?

## High Involvement and High Value Data Sets

### Traffic Intersection Volumes

Measuring hourly traffic volumes

Sydney Coordinated Adaptive Traffic System (SCATS)

Control and improve traffic flow - cost-effective and measurable

### Open the Data

City of Adelaide currently publishes this data

Influences State Government decisions

Collaborate with Department of Planning, Transport and Infrastructure



# WHAT SHOULD WE OPEN ?

## High Involvement and High Value Data Sets

### Thermal Imaging / Heat Mapping

*Tree Management Framework 2018 - ‘...aims to establish a strong, diverse and clearly defined tree character with quality, functional and sustainable trees that are appropriately managed.’*

Measuring heat in urban areas

Identifying hottest parts = tree planting & greening programs

### Access Current Open Data

9 Metropolitan Councils are currently involved

Partners: Seed Consulting / Endev Geographic / Monash University



# ENGAGEMENT-PUBLISHING

## How data is currently published?



My Local Services App

9 COUNCILS



Council Websites

3 COUNCILS



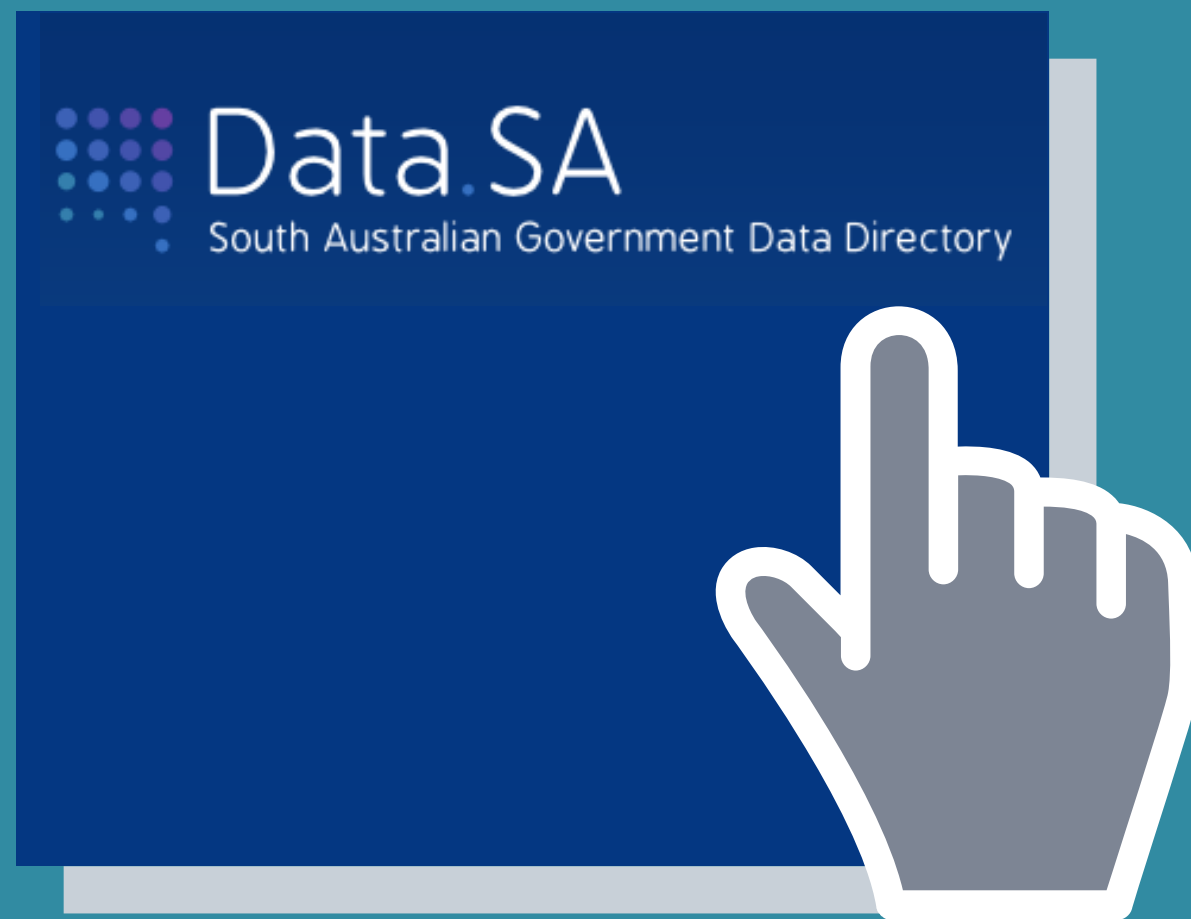
Data SA

14 COUNCILS

# DATA.SA

## What

Help people, businesses, entrepreneurs and industry to transform it to ideas, applications to benefit the community



## Why

Easily discoverable

Built in analytics

Own assigned URL

Creative Commons

# ENGAGEMENT-PUBLISHING

## Most commonly used data formats



### PDFs

Portable Document Format  
Reports or Articles  
Cannot be edited



### SHP & GEOJSON

Open standard formats  
Geographical data  
Interactive



### EXCEL

Tabular data  
Machines and Individuals  
Own proprietary software



### CSV

Comma Separated Values  
Tabular data  
Better than Excel

# ENGAGEMENT-PUBLISHING



## PDFs

Generic information  
Data is locked-up  
Residents



## CSV, EXCEL

Machine readable  
Manipulate data  
Business



## RDF LINKED DATA

Discoverable  
Manipulate data  
Business



# ENGAGEMENT-PROMOTION

## PROVIDER

Capture information electronically  
Release data publicly and regularly  
Identify ways to improve data quality

## CATALYST

Build an Open Data Culture  
Convene Stakeholders  
Champion the movement

## USER

Apply sophisticated analytics to improve  
decision making, offerings and  
accountability.  
Invest on people, tools and systems

## POLICY MAKER

Makes rules for internal and external use  
Establish standards for data quality and  
format

# Thank You

**SOUTH STAR**  
CONSULTING

