Scenario Tool

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Evaluating concept designs and technology/policy
Water Sensitive Cities Scenario Tool

- Assesses multiple benefits of green infrastructure solutions
- Supports scenario planning and testing
- Supports collaborative planning and decision-making
- Provide the basis for robust water sensitive policies and business cases
- Integrates and bridges the gap between existing data and modelling tools across spatial scales
Digital Twin

Base Data
• Urban From
Digital Twin

Base Data
- Urban From
- Elevation and soil data
Digital Twin

Base Data
- Urban From
- Elevation and soil data
- Socio – demographic data
Digital Twin

Base Data
- Urban From
- Elevation and soil data
- Socio – demographic data
- Climate data
Digital Twin

Base Data
• Urban From
• Elevation and soil data
• Socio – demographic data
• Climate data

CRCWSC Data
• Heat vulnerability mapping
• Future climate data
• Design typologies

Own Data
• Land use zoning
• Asset data
• …
Digital Twin

- Melbourne
- Adelaide
- Brisbane
- Perth
- Sydney
Models

Urban Development

• Greenfield and Infill
Digital Twin - Models

Urban Development

- Greenfield and Infill
- Urban Form Typologies

Existing  BAU  WSUD Typology I
Digital Twin - Models

Urban Development
• Greenfield and Infill
• Urban Form Typologies

Infrastructure Placement
• Green Technologies
• Trees
Digital Twin - Models

Performance Assessment
- Heat Island Effect
  - Land Surface Temperature
  - Air Temperature (TARGET)
  - Thermal Comfort
Digital Twin - Models

Performance Assessment
- Heat Island Effect
  - Land Surface Temperature
  - Air Temperature (TARGET)
  - Thermal Comfort
- Urban Water Cycle
- Urban Metabolism
Digital Twin - Models

Performance Assessment
- Heat Island Effect
  - Land Surface Temperature
  - Air Temperature (TARGET)
  - Thermal Comfort
- Urban Water Cycle
- Urban Metabolism
- Storm Water Treatment and Harvesting
Digital Twin - Models

Performance Assessment

- Heat Island Effect
  - Land Surface Temperature
  - Air Temperature (TARGET)
  - Thermal Comfort
- Urban Water Cycle
- Urban Metabolism
- Storm Water Treatment and Harvesting
- Flooding
Analytics

- Scenario planning and testing
- Diagnostic tools
Collaboration

- Collaborative planning and decision-making
- Easy to use and accessible interface
Collaboration

- Collaborative planning and decision-making
- Easy to use and accessible interface
- Visualisations