

SCIP Annual Report Card – Financial Year 2017

The first annual Smart City Framework Report Card provides council with a high-level indication of progress and a lens to identify and shape resourcing to assist in the effective implementation of the program. A digital version of the report card will be developed and publicly released following the acceptance of this paper.

The SCIP forward program has been updated following the progress and learnings from the first year of implementation. Some minor modifications have been made to the activities. The major change has been the addition of a targets and comments column introducing, where feasible, specific targets.

To provide a high level indication of the program performance progress and success, the 10 highest value target areas have been profiled below.

	Description/Target & Result	Target	Result	Target	Result	Target	Result
1	Capital and Operational Projects with SCIP consultation	20	22	40		80	
2	Specific solutions in Council Projects – planned and/or implemented	25	40	60		90	
3	Total number of IoT devices and sensors	200	225	400		650	
4	Smart Centre visitor numbers	1300	1450	2,000		2,500	
5	Solution ideas processed to Solution evaluation	-	-	50		100	
6	Solutions evaluated and reported to the Smart City governance groups	3	3	10		20	
7	Solutions approved for Branch deployment at scale through normal capital works	2	2	7		16	
8	Smart Region Management Platform connections and integrations	-	-	8		15	
9	Data analytics platform available for Council and region access - number of users + number of data sets	-	-	100		200	
10	Australian and International recognition	2	3	5		5	

Overall progress has been good. With a full SCIP team from the last quarter of the financial year, progress has ramped up significantly.

Years two and three show significant growth against most indicators with the exception of initiative evaluations and deployments at scale. The time required for both of these processes is significant and additional resources are required to increase the rate of progress here.

Below are key highlights from each of the six key areas showcasing the significant progress that has been made with the implementation by the whole of council.

Leadership

Council has good progress in the area of Smart City Leadership. Two out of three actions are completed. Highlights include:

- We continue to be recognised internationally and nationally, specifically as a world-wide Smart 21 region, selected from over 400 cities and regions, and one of the leading smart cities in Australia;
- Our communications plan is operational and achieving successful recognition. The partial progress in this category is with the development of a region wide identification system for smart cities, which is expected to be completed in FY18; and,
- Selection of Councils first non-human recruit, Cassie the robot, has continued the leadership team, challenging staff understanding and implications of robots in the workplace.

Governance

The two governance related actions are completed and operational. Highlights include:

- Overhauled Smart City partnership program to provide advanced evaluation and pre-procurement trials; and
- Increased number of Smart Centre displays, providing more interaction and learning opportunities.

Development of organisational capacity and capability

The two organisational capacity and capability related actions are completed and operational. Highlights:

- 23 SCC teams have visited the Smart Centre with many more scheduled or in planning; and,
- Draft Smart City Selection Guide (formerly Standards, Tech specs and pricing guide).

Engagement with stakeholders and partners

There are seven activities against the Engagement with Stakeholders and Partners category. Six are complete and the seventh relates to partnerships with other external organisations such as Unitywater. Every effort has been made to involve Unitywater in the SCIP program. Despite meetings and emails to the contrary, no actual outcome has been realised. Currently there is no additional action council can take to progress this. Otherwise progress is reflected in the following two highlights:

- The Smart Centre has proven to be very successful with 1,537 visitors over 14 months to end of August 2017; and,
- Council has partnered with the Australian Smart Communities Association in an application to the Smart Cities and Suburbs funding program. Successful projects are expected to be announced October 2017. If successful Council will benefit from an additional \$175,000 in Smart Cities project funding.

Foundation and Solution Systems

The 24 Foundation and Solution Systems represent the largest activity area of the SCIP. Eleven of the activity areas have made substantial progress and a further 10 have partial progress. Some of these areas are behind target time-frames whilst others are ahead. Highlights:

- Design, installation and operation of optic fibre in Bulcock Street, Caloundra to create Australia's Smart Street;
- Smart Wi-Fi, irrigation sensors, street bollards, initial parking, LED lighting, public waste bin sensors, vacuum waste systems, solar farm, business intelligence (live open data), nine Living Lab evaluations; and,
- Selection of the integrated management platform, Visitors to the Smart Centre and the use of the SCC App over the coming years.

In the sections below, there are learnings and proposed improvements to the governance, structure and evaluation of new initiatives that will accelerate the implementation of the SCIP.

The biggest challenge reporting this area moving forwards will be recognition that change of these activity areas need to be broken down into individual initiatives. For example, transport includes possibly 25+ initiatives in its own right.

Projects

A distinct hallmark of the Sunshine Coast Council approach to Smart Cities, is the embedding of the SCIP team in Infrastructure Services and specifically in the Project Delivery Branch. As the Project Delivery teams are already funded to implement significant region making capital projects, adding and embedding Smart City Solutions and Foundations is becoming part of the processes. There is still significant progress to be made and the development of the Smart City Selection Guide (see SCIP Team enabling tools and resources below) will help enormously by guiding the concept and early design stages. This is the crucial point to embed technology rather than adding an additional layer on top.

Of the 20 project areas identified in the report to Council last December, the SCIP team have managed to actively work with project managers on 13 of 20 projects. Over the course of FY18 the list of projects contributed to will increase substantially.

Smart City in capital works projects – constructed and or designs:

- Maroochydore City Centre - Evans Street;
- Bulcock Street, Caloundra;
- Palmwoods Town Centre;
- Mooloolaba Foreshore;
- Stockland Aura; and,
- Nambour Showground.

As the team has the opportunity to meet with project owners and Project Managers at the early stages, more capital works projects will have smart solutions built in from the ground up.

Detailed Report Card

Smart City Implementation Program FY17 to FY19	FY17 Q1	FY17 Q2	FY17 Q3	FY17 Q4	FY18 Q1	
1. Leadership						
International recognition and communications						● SCIP is well recognised nationally and internationally. Visits from 6 international groups over FY17 and recognition for 3 times in 4 years as a world-wide Smart21 community. Sunshine Coast recognised in an international publication alongside Melbourne and Boston; one of seven Australian cities/regions at Australian Smart Communities Conference.
Develop and implement Smart City Communications Program		❖				● Communications Plan developed, endorsed and being implemented – ongoing.
Develop region wide identification system for Smart City Solutions			✓	✓	✓	● Partial implementation with Smart Wi-Fi. Additional work required to brand and identify Smart City projects. To be progressed in FY18.
2. Governance						
Smart Centre vendor partnership program			❖	❖		● Revised Agreement now in trial implementation. Full use from FY18 Q2.
Smart Centre (operations, leases lease – Shop 3, 63 Bulcock Street, Caloundra)						● Smart Centre Lease etc. Extended to end June 2018.
3. Development of organisational capacity and capability						
Smart City Program awareness and training		✓	✓	✓	✓	● 23 SCC teams have visited the Smart Centre with many more scheduled or in planning.
Solutions System opportunity identification training		✓	✓	✓	✓	● All visitors to the Smart Centre are provided training in opportunity identification. Opportunities can be captured by cards in the smart centre, the intranet or on council's website.
4. Engagement with stakeholders and partners						
PPPs with infrastructure providers – Unitywater, Energex etc		❖	❖	❖	❖	● Little to no progress. Despite regular meetings with Unitywater, no actual progress has been made. Action required by Unitywater to progress
Smart Centre						● Council's Smart Centre has proven to be very successful with:

Smart City Implementation Program FY17 to FY19	FY17 Q1	FY17 Q2	FY17 Q3	FY17 Q4	FY18 Q1	
						<ul style="list-style-type: none"> 1,537 visitors over 14 months to end of August 2017: <ul style="list-style-type: none"> 23 SCC teams 17 other council / government groups 722 members of the public 13 school groups 6 international group visits A second centre under consideration for Maroochydore City Centre – subject to confirmation and budget.
Smart City Living Lab						<ul style="list-style-type: none"> Smart City Living Lab progressing 11 experiments undertaken: <ul style="list-style-type: none"> Waste bin sensors and Smart Region Management Platform progressed 5 written up Most ongoing Round 2 experiments not yet confirmed for FY17/18.
Traditional stakeholders and regional innovation entrepreneurial to drive jobs and business growth						<ul style="list-style-type: none"> SCIP Team run meet-ups at the Smart Centre have attracted strong numbers and continued interest. Ongoing program every quarter. Access to Council data via the management platform: <ul style="list-style-type: none"> 75+ static data layers available now No live data sets available yet
Leverage partnership and joint funding opportunities		✓	✓	✓	✓	<ul style="list-style-type: none"> Council has partnered with the Australian Smart Communities Assn in an application to the Federal Government's Smart Cities and Suburbs funding program. If successful, \$175,000 of council's existing spend will be matched by a further \$175,000. Results of this application are expected in October 2017.
Using Smart Solution Systems to develop Smart City apps in collaboration with innovation and entrepreneurial sectors						<ul style="list-style-type: none"> Council SCC APP developed and implemented: <ul style="list-style-type: none"> Current version V1.3 Android: 1,000 – 5,000 downloads Apple: 4,000 – 5,000 downloads

Smart City Implementation Program FY17 to FY19	FY17 Q1	FY17 Q2	FY17 Q3	FY17 Q4	FY18 Q1	
						<ul style="list-style-type: none"> Additional work required to expand opportunity for collaboration with innovation and entrepreneurial sectors
Drive new investment and job creation opportunities	❖	❖	✓	✓	✓	<ul style="list-style-type: none"> Council is continuing to explore ways to help drive new investment and job creation opportunities. Initial progress has been made through: <ul style="list-style-type: none"> Council's Gov Hack and Hack Fest initiatives seek to drive new entrepreneurial investment and job creation opportunities. Sunshine Coast Innovation Program funded by Council, the region and state government, is strongly aligned with the SCIP and will be able to draw on open data, Living Lab and the Smart Centre information and resources.
5 Foundation and Solution Systems						
Smart Region Management Platform	✓	✓	✓	✓	✓	<ul style="list-style-type: none"> Following evaluation in the Living Lab, and selection via a procurement process, the Urban Pulse platform has been contracted for 2 years. Development of these platforms will continue rapidly in this emerging market and require ongoing consideration of best solution for Council. <ul style="list-style-type: none"> Data feed and integration continues: <ul style="list-style-type: none"> nil live publicly available feeds nil integrations active
The Smart City Selection Guide (formerly - Technical Specification, Standards and Pricing Guide)		❖	❖	✓	✓	<ul style="list-style-type: none"> The Smart City Selection Guide is in draft and road-tested with core user groups prior to wider (internal circulation). <ul style="list-style-type: none"> Readers will be able to identify at a glance the recommended, not recommended, under evaluation and not yet tested ideas and solutions for use in their projects. Important recommended solutions will include high-level information about the solutions, pricing and other relevant considerations. Recommended solutions will have been peer reviewed by the lead branch and other relevant areas of council.

Smart City Implementation Program FY17 to FY19	FY17 Q1	FY17 Q2	FY17 Q3	FY17 Q4	FY18 Q1	
						<ul style="list-style-type: none"> Still in its formative stages, the ongoing development of this document will serve to inform capital and operational solutions as the selection options increase.
Fixed Telecommunications Connectivity networks for Smart City requirements in major urban developments, key Council developments and wirelessly across the region	✓	✓	✓	✓	✓	<ul style="list-style-type: none"> Significant progress in this critical connectivity element of the SCIP. Ongoing activities and new sites scheduled and in planning. Fibre: <ul style="list-style-type: none"> 3 active locations 7 pit/conduit only regions 27.8 kilometres of cabling installed 2.9km of conduit installed Low Power (IoT): <ul style="list-style-type: none"> 2 technologies live 1 antenna for each Omrah Street Caloundra Meshed evaluation planned Desktop radio network planning due by mid-Sep
Carrier Licence administration	✓	✓	✓	✓	✓	<ul style="list-style-type: none"> Carrier licence functioning for council with ongoing reporting.
Network Audit, future expansion plan and ongoing operational governance and management plan		✓	✓	✓	✓	<ul style="list-style-type: none"> Carrier Network Audit completed Future Expansion Plan to be completed by end FY18 Q2.
Business Plan development and implementation	❖	❖	✓	✓	✓	<ul style="list-style-type: none"> Carrier Business Plan to be finalised when Network Audit, future expansion plan and operational governance plan completed. Then ongoing.
Smart Electrical Services	✓	✓	✓	✓	✓	<ul style="list-style-type: none"> Smart Electrical Services progressing well with supply, network, switchboards all to provide Smart City capability designing for both electrical and communications requirements.
Smart Urban Infrastructure Includes smart poles and urban infrastructure connected to power and communications networks	✓	✓	✓	✓	✓	<ul style="list-style-type: none"> Significant learnings over the last 12 months have resulted in clear specifications: <ul style="list-style-type: none"> 2 access panels (to allow non-electricians to access the safe part of the pole)

Smart City Implementation Program FY17 to FY19	FY17 Q1	FY17 Q2	FY17 Q3	FY17 Q4	FY18 Q1	
						<ul style="list-style-type: none"> • Hardwired power for Smart infrastructure on it's on metered circuit • Suitable for Rate 3 luminaires Deployment numbers have been slow but are now increasing with: <ul style="list-style-type: none"> • 16 Smart Poles installed – Bulcock Street • 74 Smart Poles planned – Maroochydore City Centre (65), Palmwoods (4), and Stockland Aura Baringa Town Park (4)
Smart Public Waste	✓	✓	✓	✓	✓	<ul style="list-style-type: none"> ● Smart Public Waste Solutions operational or under construction: <ul style="list-style-type: none"> • AWCS being installed in Maroochydore City Centre. • Waste bin sensors in use and expanding. Branch is exploring the use of other public waste bin systems to inform the future waste contract. Ongoing • The solution portfolio project by Accenture includes recommendations for progressing this area.
Smart Business Intelligence (data analytics)		✓	✓	✓	✓	<ul style="list-style-type: none"> ● Commercial branch originally managed this from a commercial perspective. Responsibility for implementation has moved to ICTS. <ul style="list-style-type: none"> • Dedicated data analytics staff members now provide whole of organisation outcomes including smart cities. • The solution portfolio project by Accenture includes recommendations for progressing this area.
Smart Wi-Fi		✓	✓	✓	✓	<ul style="list-style-type: none"> ● The first Smart City Framework solution area to go live – March 2016. <ul style="list-style-type: none"> • End FY16 - 55 Access points and 23 locations. • End FY 17 - 178 Live Access Points & 41 locations across the region. • FY18 - 5 Scheduled sites Stockland Aura - Baringa, Palmwoods Town Centre, Timari St, Mudjimba, Dicky Beach Park, and Nambour Tram.

Smart City Implementation Program FY17 to FY19	FY17 Q1	FY17 Q2	FY17 Q3	FY17 Q4	FY18 Q1	
						In Planning and design – Maroochydore City Centre.
Smart parking			✓	✓	✓	<ul style="list-style-type: none"> Smart Parking has been developed previously for Birtinya around the SCUH. Integration and accuracy of the systems remains an issue for resolution. The Clever Citi parking sensor has been evaluated by the Living Lab. Accuracy and maintenance issues together with incompatibility with vegetated streetscape remains an ongoing concern for wider deployment. Upgraded sensors are currently being deployed and tested. The Maroochydore City Centre needs Smart Parking Solutions and the Caloundra parking machines need to move to a smarter technology. Investigations on the preferred user experience and technologies will progress into year 2. The solution portfolio project by Accenture includes recommendations for progressing this area.
Transport			✓	✓	✓	<ul style="list-style-type: none"> The solution portfolio project includes recommendations for progressing this area.
Tourism and events				✓	✓	<ul style="list-style-type: none"> The solution portfolio project includes recommendations for progressing this area.
Smart lighting					✓	<ul style="list-style-type: none"> MCC and Aura will both have Smart LED lighting. Originally scheduled for year 2
Smart Water Program				✓	✓	<ul style="list-style-type: none"> Digital water meter evaluated by the Living Lab. Interest by several business units in understanding water facility usage efficiency. Parks and Gardens exploring ability to manage irrigation systems remotely and efficiently through digital connectivity.
Smart Closed Circuit Television (CCTV) & Vision	✓	✓	✓	✓	✓	<ul style="list-style-type: none"> Originally scheduled for year 2 Digital CCTV under evaluation in the Living Lab 5 different scenarios from face recognition to vehicle

Smart City Implementation Program FY17 to FY19	FY17 Q1	FY17 Q2	FY17 Q3	FY17 Q4	FY18 Q1	
						counts to inform future CCTV options for Council from year 2 onwards.
Smart Digital Signage				✓	✓	<ul style="list-style-type: none"> Originally scheduled for year 2 Commercial Branch exploring revenue models from digital advertising in various locations. Council is developing digital wayfinding (combined with static wayfinding for the wider Maroochydore City Centre. Stockland seeking digital signage to display smart city information – real time weather etc – to be installed in the Town Centre Park.
Smart Building Information Modelling (BIM)				✓	✓	<ul style="list-style-type: none"> Originally scheduled for year 2 Sun Central Maroochydore are using BIM for the design and as constructed underground assets in Maroochydore City Centre. Commercial Branch are exploring revenue models form digital adverting in various locations.
Smart Power and Energy	✓	✓	✓	✓	✓	<ul style="list-style-type: none"> Originally scheduled for year 3, Councils Solar Farm is now live and the Commercial Branch is investigating energy storage and generation systems for aquatic centres and other strategic locations such as the Stadium.
Smart Sound						Scheduled for year 3
Smart Sensors			✓	✓	✓	<ul style="list-style-type: none"> Originally, scheduled for year 3. In response to the need for testing connectivity options, the SCIP and Living Lab teams are evaluating smart sensors connected to wireless Low Power Wide Area Networks to confirm connectivity options for Smart Cites. Sensors include temperature, humidity, barometric pressure, soil moisture and may also extend to waste bin sensors, water level and rainfall gauges.
Smart Health						Scheduled for year 3 due to the limited scope to influence.
Smart Education						Scheduled for year 3 due to the limited scope to influence.

Smart City Implementation Program FY17 to FY19	FY17 Q1	FY17 Q2	FY17 Q3	FY17 Q4	FY18 Q1	
6. Projects						
Smart Urban Demonstration and Testing Facility - Bulcock St Streetscaping – Australian first	❖	✓	✓			<ul style="list-style-type: none"> ● Significant progress in this demonstration facility with more solutions to be added and evaluated ongoing. <ul style="list-style-type: none"> ● Located in the heart of the Smart City Living Lab ● Smart connectivity – optic fibre to each pole and in a low power wide area network evaluation area ● Smart Electrical services supporting all Smart City services for the poles ● Smart Wi-Fi live on the street ● Smart Vision CCTV installed testing digital analytics ● Smart Water - irrigation using sensors to control timing and duration ● Smart Tourism – SCC App self-guided walking tour of the Smart City Living Lab ● Smart Centre – aligned with Council's Smart City experience centre and first robot recruit – Cassie Sanbot ● Business Intelligence (Data analytics) from Wi-Fi and other sensors ● LED lighting to each pole ● Smart Bollards (permanent use in finalisation stages)
Maroochydore City Centre	❖	✓	✓	✓	✓	<ul style="list-style-type: none"> ● SCIP & ICTS are working with SunCentral Maroochydore to ensure the maximum Smart City solutions can be delivered from day one and allowing for additional features to be added at later stages.
Palmwoods Town Centre Streetscaping	❖	✓	✓			<ul style="list-style-type: none"> ● Smart City solutions identified for inclusion in the design.
Mooloolaba Foreshore	❖	❖	✓	✓	✓	<ul style="list-style-type: none"> ● Smart City solutions identified for inclusion in the design.
Stockland Aura Civic Square	❖	✓	✓			<ul style="list-style-type: none"> ● Smart City solutions identified for the Civic Square to be delivered in FY18.
Palmview – Smart City Solutions	❖	✓	✓			<ul style="list-style-type: none"> ● Smart City solutions – Consultation planned for FY18Q2.
Aura – Baringa Environmental Park	❖	✓	✓			<ul style="list-style-type: none"> ● Smart City solutions identified for the Environmental Park to be delivered in FY18.

Smart City Implementation Program FY17 to FY19	FY17 Q1	FY17 Q2	FY17 Q3	FY17 Q4	FY18 Q1		
Aura – Baringa Recreational Park	❖	✓	✓			●	Smart City solutions identified for the Recreational Park to be delivered in FY18-FY19.
Alex Skate Park 16/17 – 17/18			❖	❖	✓	●	Smart City solutions identified for inclusion in the design.
Sunshine Coast Stadium		❖	❖	✓	✓	●	Smart City solutions identified for inclusion in the design including Smart Wi-Fi, use of LED lighting and energy and power solutions guided by the Commercial Branch.
Caloundra – Honey Road Sports Project				❖		●	Smart City solutions identified for inclusion in the design including Smart Wi-Fi,
Nambour – Diddilbah Road Sports Complex						●	No specific Smart City solutions identified for inclusion in the design. Consultation was not completed in the timeframe required to include solutions in the design.
Coolum Library extension			❖	❖	✓	●	No specific Smart City solutions identified for inclusion in the design. Consultation was not completed in the timeframe required to include solutions in the design.
Mooloolaba Holiday Park works				❖	✓	●	Smart City solutions identified for inclusion in the design – additional Smart Wi-Fi installed.
Nambour Tram Project				❖	✓	●	Smart City solutions identified for inclusion in the design – Smart Wi-Fi proposed for the Tram and both ends subject to budget.
Nambour Resource Recovery Centre						●	No specific Smart City solutions identified for inclusion in the design. Consultation was not completed in the timeframe required to include solutions in the design.
Bli Bli Streetscape						●	No specific Smart City solutions identified for inclusion in the design. Consultation was not completed in the timeframe required to include solutions in the design.
Pacific Paradise Streetscape 16/17 – 17/18		❖	❖	✓	✓	●	Smart City solutions identified for inclusion in the design.
Minyama-Mooloolaba cycleway				❖		●	No specific Smart City solutions identified for inclusion in the design. Consultation was not completed in the timeframe required to include solutions in the design.
Evans St lane / road upgrade			❖	❖	✓	●	Smart City solutions identified for inclusion in the design, including smart Wi-Fi.
Sippy Downs Drive lane / road upgrade			❖	❖	✓	●	Smart City solutions identified for inclusion in the design.

Smart City Implementation Program FY17 to FY19	FY17 Q1	FY17 Q2	FY17 Q3	FY17 Q4	FY18 Q1		
Bus stops				❖	✓	●	Smart City solutions identified for inclusion in the design. Unfortunately, the scope of works has not been able to accommodate proposed solutions.
Mooloolaba Temporary Car park				❖	✓	●	A digital sign displaying number of empty spaces available
Consultation on other significant capital works projects				❖	✓	●	Smart City solutions have been proposed for other capital works projects. The Smart City Selection Guide with help to increase the number of projects routinely including the solutions without additional consultation.
Planning Scheme requirements for Smart City				❖		●	Not yet progressed. Scheduled for FY18.