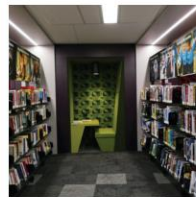
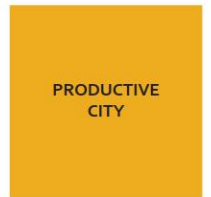
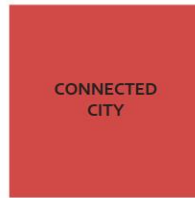


# GREATER SPRINGFIELD

360 CITY SCAN  
SHORT REPORT

TRACTEBEL  
ENGIE



# 1. EXECUTIVE SUMMARY

Springfield City Group (SCG) are a private City Builder with plans to build Brisbane's second central business district (CBD), 30 minutes south-west of Brisbane. It will be Australia's largest planned city (the first city of its kind since Canberra) and has been recognised with "nation building project" status. SCG have approximately 3,000 hectares of land and have spent AU\$15B to date on the project with the total spend expected to be approximately AU\$85B in the coming decades. The development already has a population of approximately 40,000 residents with the plan to grow to 150,000 within the coming 20 years. Facilities already in place are a hospital, university, data centre, two train stations, shopping centre, Greg Norman golf course and over 20 schools.

SCG's vision is driven by innovation and education, making a lasting and positive contribution to both Greater Springfield and the broader South-East Queensland community. Philanthropy and promoting social and environmental sustainability are integral to the way SCG do business. At Greater Springfield, this commitment is delivered through partnerships with highly respected corporations. As this community grows and matures SCG remains committed to adding both human and social capital and to furthering an environment where it is genuinely possible to live, learn, work and play.

Springfield City Group and ENGIE have formed a 50-year strategic alliance to achieve the following outcomes:

- Greater Springfield will be Zero Net Energy by 2038
- Greater Springfield will become Energy Secure
- Greater Springfield will be Powered by Green Energy
- Greater Springfield will embrace Hydrogen as part of its Energy Solution; and
- Greater Springfield will be a world leader in innovative and smart city solutions and a leading regional demonstration of the implementation of ENGIE Group's Better Cities Today.

The Zero Net Energy vision for Greater Springfield means that by the year 2038 the Greater Springfield Community will generate more energy than it consumes. In addition to being energy neutral, Greater Springfield will be generating and storing their energy using leading green technology solutions. A key element of this solution is likely to be the use of hydrogen as an energy storage medium. The final part of the vision will enable Greater Springfield to become a leader in embracing technological solutions to create comfortable, safe and efficient environments for its residents. With Greater Springfield forecast to triple its overall resident and working population within the next 20 years and develop within the central business district (CBD) up to 2.6 million square meters of mixed-use buildings and 22,850 apartments, the challenge of delivering the vision is even greater.

However, what comes with greater challenges is greater possibilities and with the unique 50-year partnership formed between Springfield City Group (SCG) and ENGIE the emerging CBD of Greater Springfield will also be the location for ENGIE's 13<sup>th</sup> global research center, focusing on Better Cities and New Energies.

The Greater Springfield community today is already an inclusive community living in an attractive and thriving city development. The outcomes of achieving the above vision for the community encompass energy security as well as energy price security along with being a part of an intelligent and clean city development.

Tractebel has been requested to perform a 360 City Scan of the Greater Springfield, in order to assess the actual characteristics of the city development in a holistic way. The City scan has been provided to support identification of development needs with the final goal of balancing the city sustainability performance and highlighting current values that should be secured in further city development.

This report presents the results of this scan as completed between 25<sup>th</sup> November and 5<sup>th</sup> December 2018 on site. The performed 360 City Scan revealed strengths of Greater Springfield, but also provided some further development needs. After 25 years of development, the city is ready for a new phase in its existence.

## 2. RESULTS



Figure 1: Greater Springfield, ENGIE 360 City Scan @, performed in Nov-Dec, 2018.

### Key highlights:

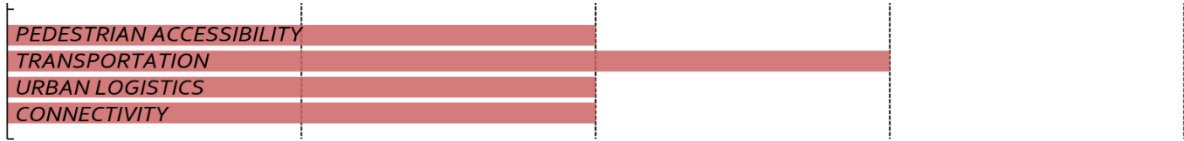
- Springfield is a developing city with a strong community feeling. Basic infrastructure is in place and state-of-the-art.
- Springfield has a diverse, but on average young population that feels strongly involved in the development of the city.
- Springfield is considered as a good place to live. Not too expensive, well connected and with good amenities and services. The green areas and the ample recreation and shopping facilities play a crucial role.
- Newcomers are attracted by the schools and facilities for children. The average household is far larger than average.
- Springfield is developing into a real city. More and more people from the surrounding areas make use of the amenities and services in the city.

### Key values:

- Easy life – proximity, time savings: proximity and accessibility mean that there is more time left for the family, leisure etc.
- Green & safe: a green and safe environment are appealing to all inhabitants. The masterplan is a guarantee that, even with the upcoming developments, the city will stay green and open.
- Fast developing: Inhabitants and business owners buy in to the dream. They are part of the dream and feel responsible for the realisation.

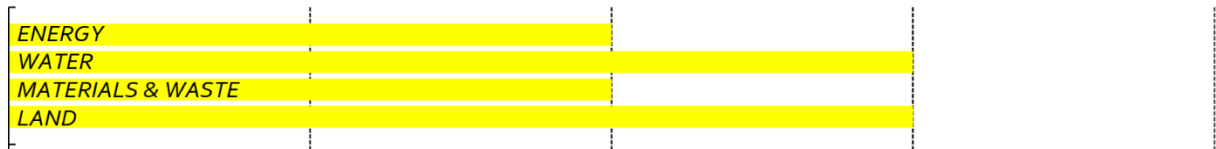
### 3. MAIN CONCLUSIONS FOR EACH PERSPECTIVE

#### Connected



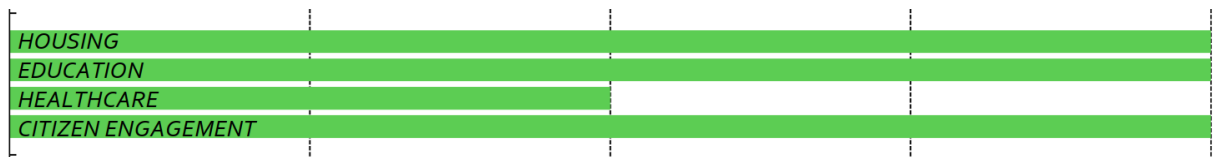
- Springfield has modern transportation and data infrastructure. These include railway with two stations serving Springfield (non freight), a direct highway to Brisbane with the airport and the harbor connection, modern internal roads and state of the art data networks. The main services of the city center are inter-connected by dedicated pedestrian paths.
- The performance of the road network is considered good, however congestions occur (as well towards Brisbane as internally) and the use of alternative transport modes (walking, bike, bus) is limited.
- Biking paths are interlinked with main roads.
- Freight transport is done by trucks. Other modes are not available, although there is a railway line available next to the shopping area.
- Springfield has no open data available.
- There is only limited use of data for city management (parking, energy,...) and traffic management.

#### Circular



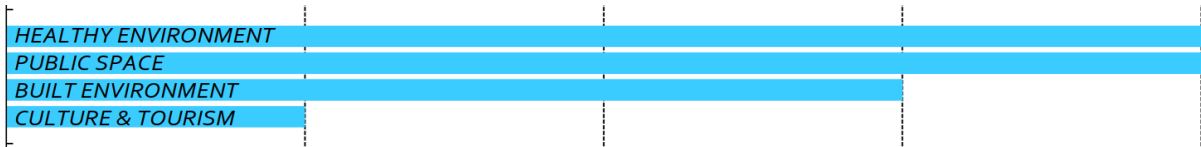
- Springfield has good basic infrastructure (water, energy). The city's infrastructure is well planned and is designed for a far larger population than is now present.
- The city is characterized by high consumption and low production especially when it comes to energy. Above 30% of the buildings have solar. Production on average does not cover consumption needs.
- Water is partially recycled and re-used, Orion being a good example, but not on a local (household) level.
- Waste collection is selective. A large part of the waste is transported to landfills.
- Due to the incomplete development of the city, most settlements are low density. The high density developments will start next year. Due to the clear distinction between the different precincts ('cities'), a lot of buildings sit alongside large vacant areas. Spatial performance is therefore low.
- The city is largely dependent on external services for the water supply, water treatment, waste,... and the provision of energy and materials.

#### Inclusive



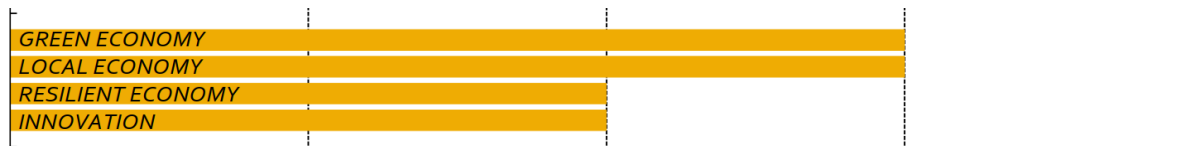
- The city of Springfield has good basic infrastructure (Schools, housing). This is one of the starting points for the development of the city.
- Healthcare services are in development phase. Some medical specialists are missing.
- Housing is affordable, compared to nearby Brisbane
- All amenities are accessible to all inhabitants of the city. Schools are linked to precinct development. Social housing is not available in Springfield.
- The city is inclusive for its own residents with a great social variety. Visitors are attracted mainly by Orion shopping center.
- Residents feel part of a community and are organized around schools and churches.

## Attractive



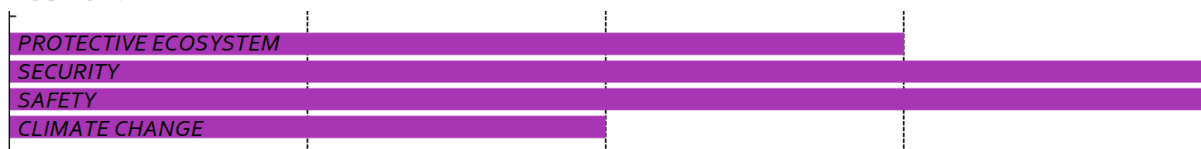
- Springfield has good basic infrastructure. Much attention was given to the development of public and greens spaces, especially in the center of the city (Robelle, Circle,...). The green infrastructure is the backbone of the city and is well equipped for all types of use.
- Distances in the city center are walkable. Due to the large open spaces between settlements, often arranged as temporary parkings, walking is rather unpleasant.
- The development follows a Masterplan that makes clear choices and serves as a benchmark for future developments. However, new housing developments do not reflect the same quality as the initial design. Housing quality is average and almost no attention was given to qualitative architecture, especially in public buildings.
- Culture is mostly absent, as well in infrastructure as in activities within the city.
- Springfield has an average environmental quality. Car traffic is the most important source of noise and pollution. Polluting industry is absent.
- Apart from being a green city with lagoon facility, Springfield lacks city identity that would differentiate it from other Brisbane suburban cities.

## Productive



- Although much attention was given in the masterplan to places where people can work (schools, health city, idea city), the development of economic activities somehow stayed behind compared to commercial and housing developments. There is only a limited number of larger employers. Local employment is important but not yet sufficient. The majority of people work outside Springfield.
- The focus on innovation is as yet not translated into high-end jobs in e.g. research or production.
- The impact on the environment of the economy is limited, due to the absence of production facilities or polluting industry. The economy of Springfield is not divers and therefore vulnerable. The main sectors are education and care. Both sectors rely heavily on government financing.
- Local economy is mostly limited to shops (franchises) and services (banks, real estate).
- Springfield is a consumers' city. Production is mostly absent.

## Resilient



- Springfield has low crime rates and emergency services are available and close by.
- Attention has been given to the development of resilient infrastructure, especially concerning the prevention of flash-flooding in the city centre. The natural creek has been integrated in the landscaping of the city and precincts such as The Lakes.
- More recent developments do not give the same attention towards resilience than their predecessors. Buildings and allotments take no measures towards retaining water, economizing energy or preventing heat islands. All city precincts are developed with 30% green areas. The mere surface however is no guarantee as to the impact on resilience.
- Springfield is at the edge of the metropolitan area and has direct access to the surrounding ecosystem. This however also brings risks e.g. bush fires.
- Large surfaces of solid materials (e.g. streets and parkings), alongside with roof surfaces enhance the risk of creating a heat island.