




Incorporating Climate Risk into a LSPS

Presentation to the LGNSW workshop on climate change adaptation

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We acknowledge the traditional custodians of the land and pay respects to Elders past, present and future.

The Department's Aboriginal Community Land and Infrastructure Program (ACLIP) team focus on improving planning outcomes for Aboriginal communities.

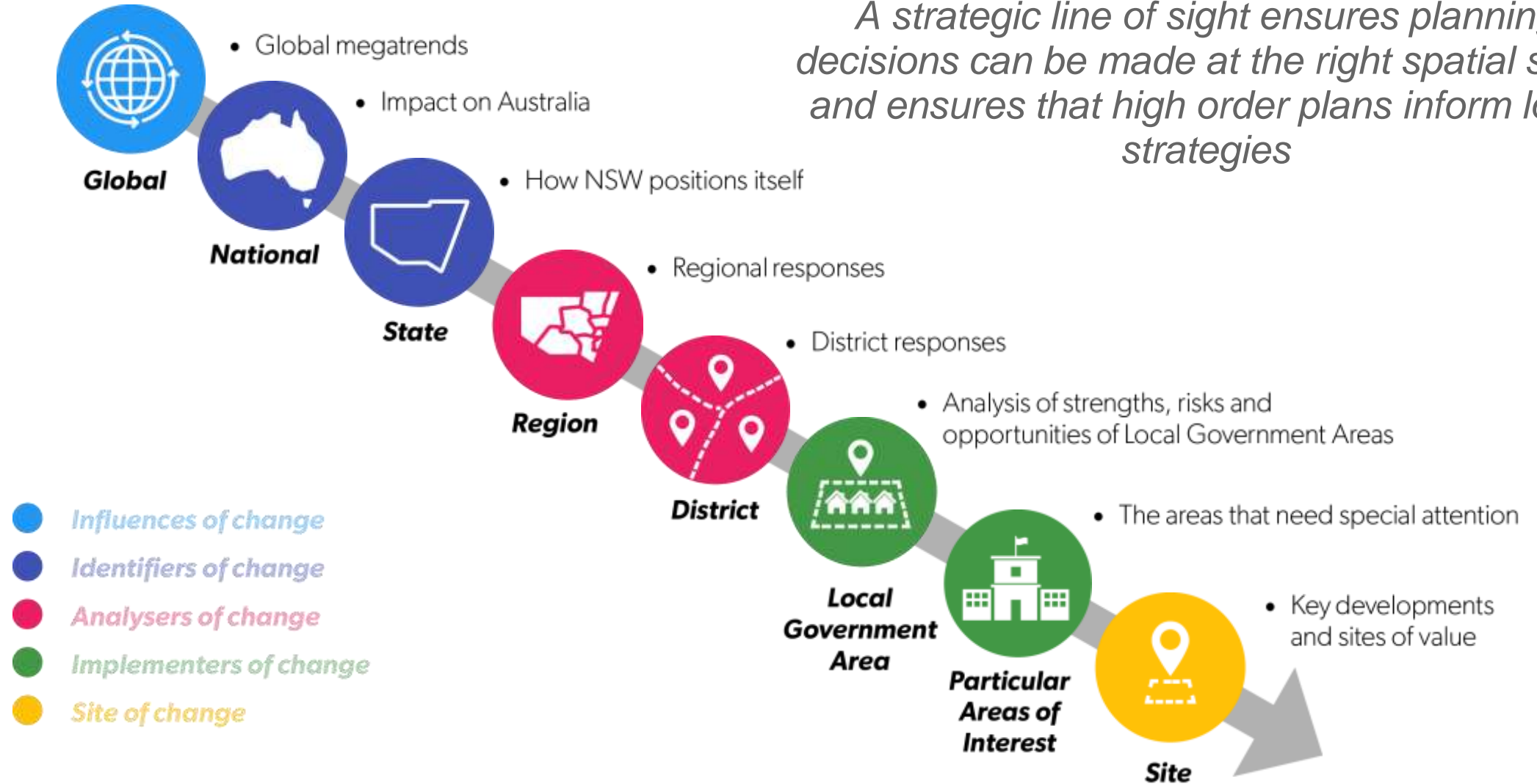
They have partnered with artist Jordan Ardler, who painted the original artwork that inspired the branding throughout this presentation.

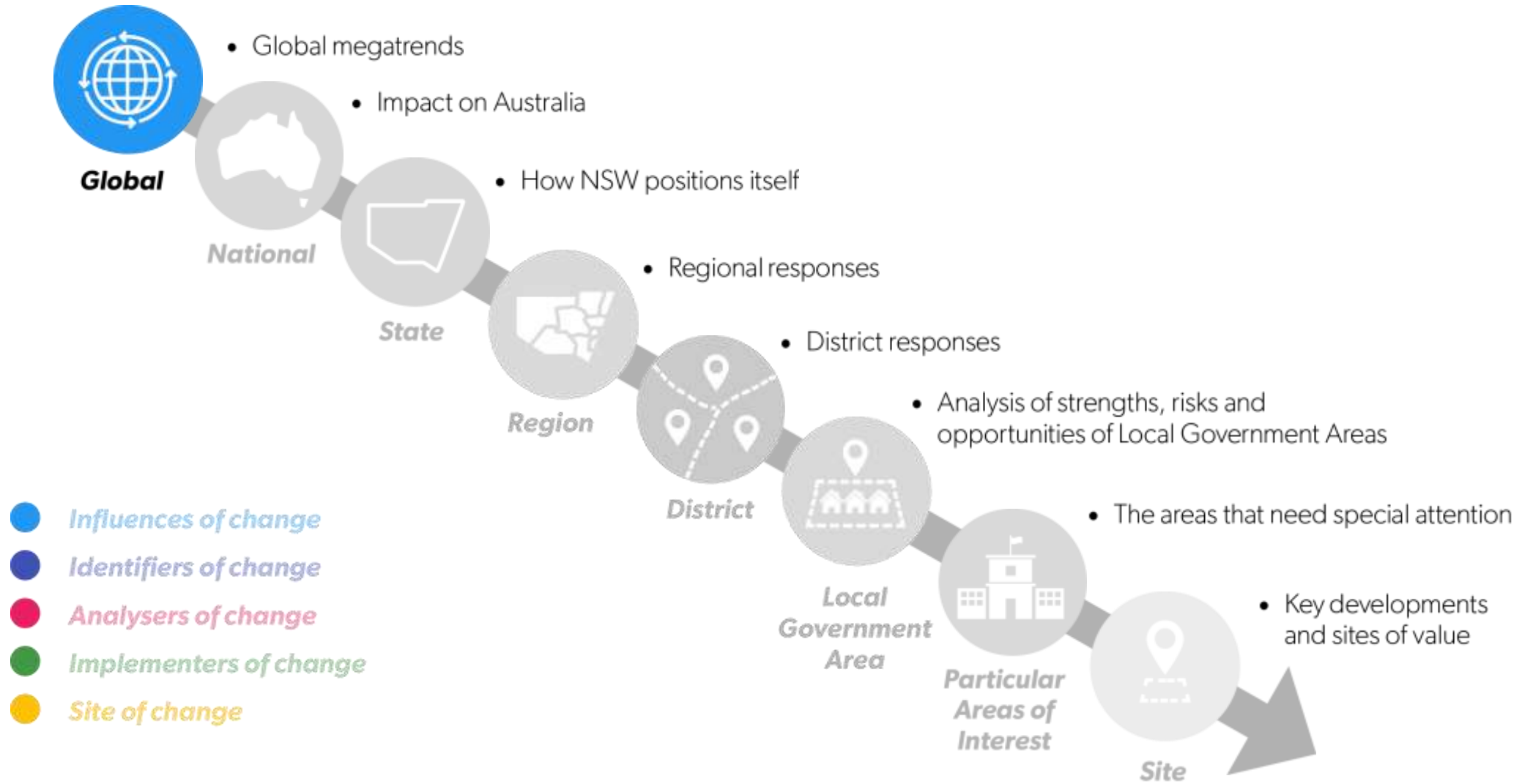
Contents

- 1. Identifying change – Megatrends*
- 2. Managing change – Strategic planning*

Identifying change – Megatrends

A strategic line of sight ensures planning decisions can be made at the right spatial scale and ensures that high order plans inform local strategies





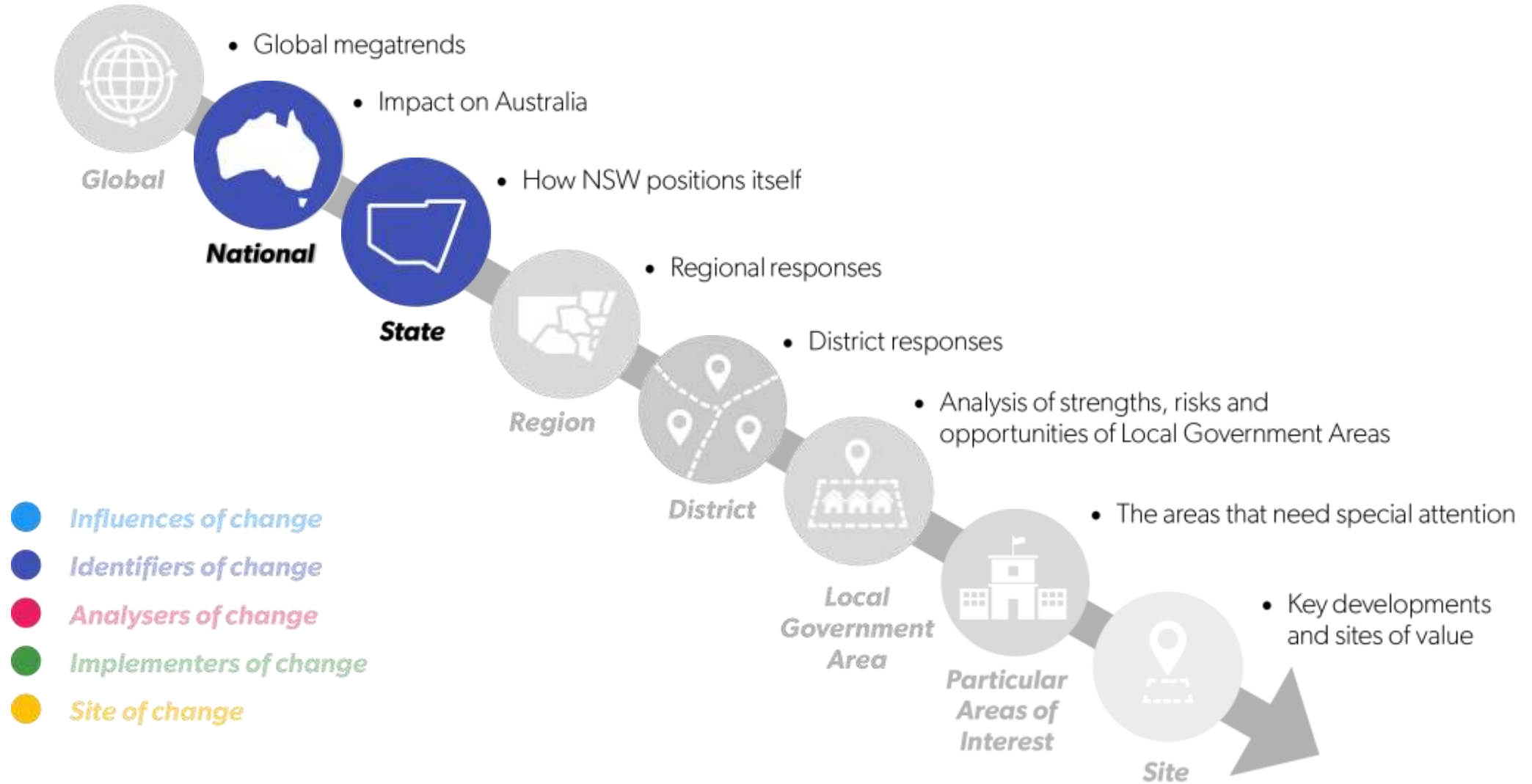


Increasingly global change is being experienced with local impacts

Unquestionably the world is being transformed at a breathtaking pace, fuelled by a highly complex set of megatrends which are deeply changing the way we live.



(Megatrend Watch Institute 2018)



At the national level the CSIRO has identified seven megatrends that will impact the future.



1. More from less
Increasing demands for limited resources



2. Great expectations
Rise of the individual consumer



3. The silk highway
Rapid economic growth and rise of the middle class



4. Forever young
An aging population and changing patterns



5. Digital immersion
An increasingly technologically connected society



6. Porous boundaries
Technology and globalisation are changing global relationships



7. Planetary pushback
Protection of biodiversity and the global climate

(CSIRO 2012)

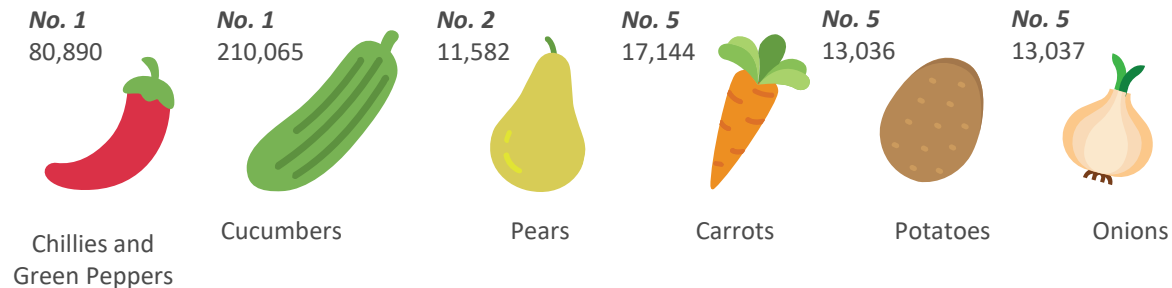
1. More from less

For instance:

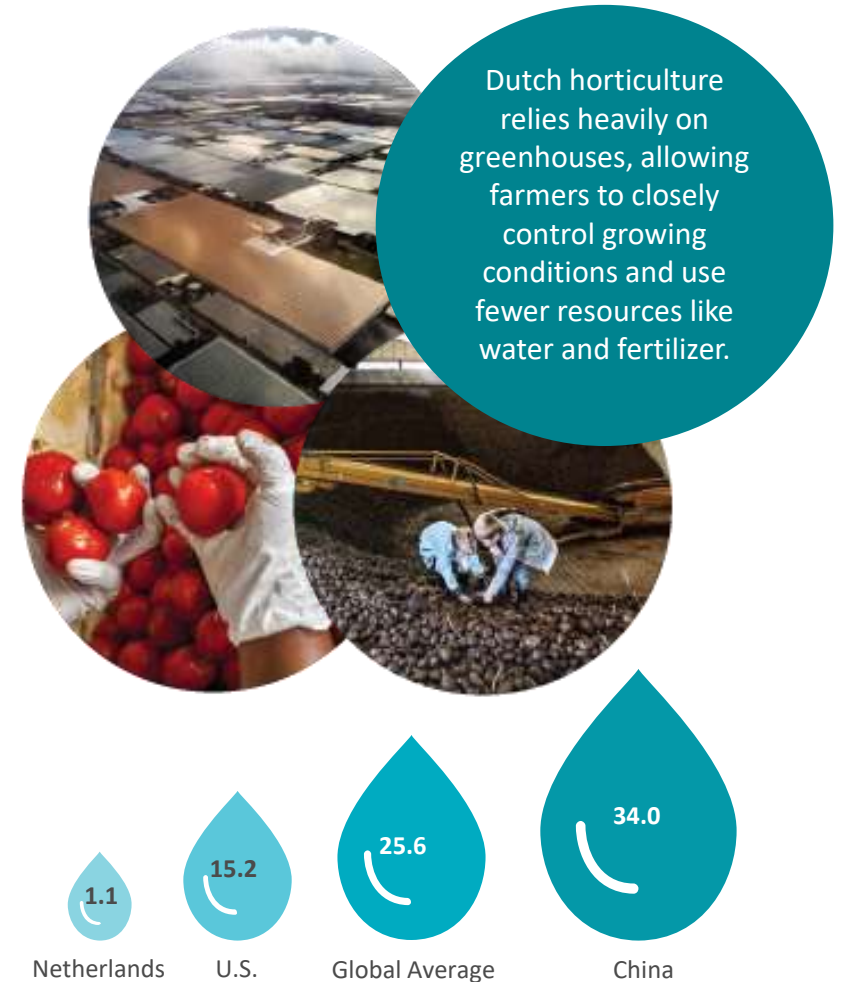
Globally the Netherlands is the second largest food exporter (by value)

For 20 years the Dutch have been working towards the achievement of “twice as much food using half as many resources”.

This is being achieved through partnership between Wageningen University (research), the market and local producers.



Netherlands - out of the top 25 producers by yield
In tons per square mile, 2014



Total water footprint of tomato production
Gallons per pound, 2010

2. Great expectations

For instance: 4 hour delivery of bulky goods

People are living longer and enjoying a more extravagant lifestyle. There has been a growing expectation by the consumer for a higher quality of goods and services, particularly the fast delivery of goods facilitated by technology.

A Koala mattress can be delivered in 4 hours if you're located in a city, and within 24 hours in regional areas.

As on demand products and services increase, distributing goods in congested urban environments becomes a challenge.



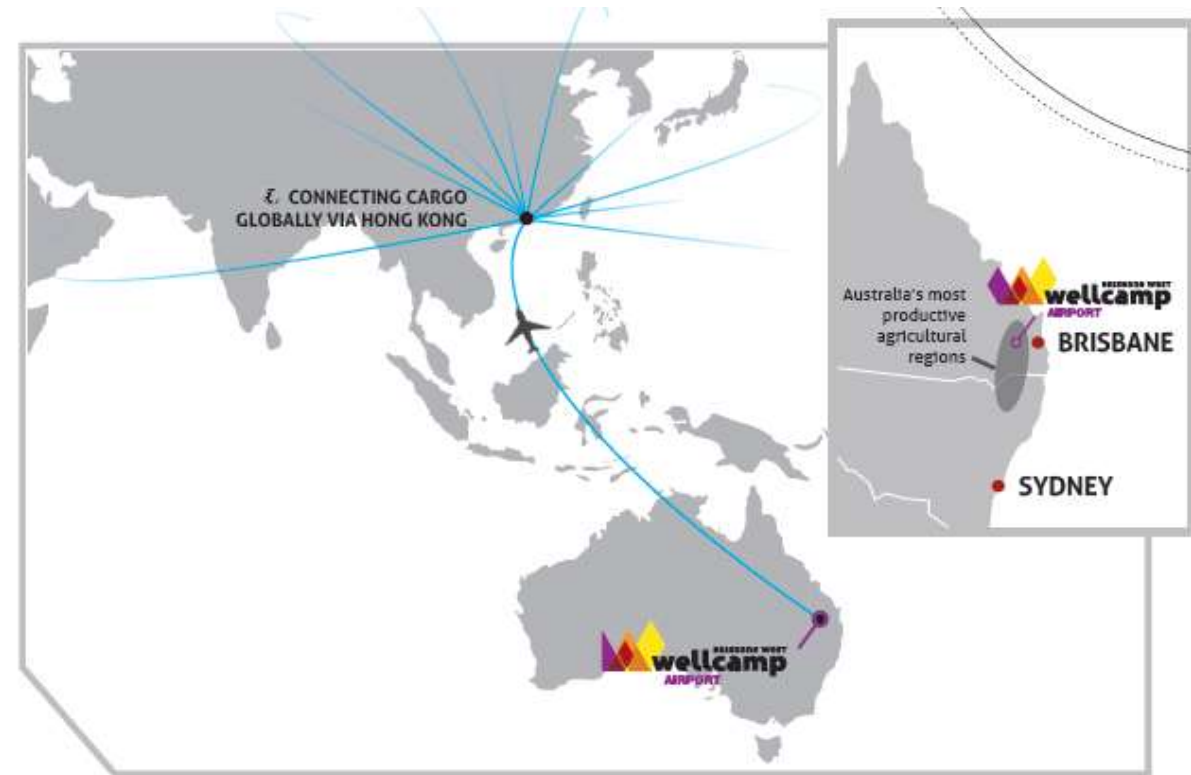
3. Silk highway

For instance: Meeting the demands of the high end gift market in South-East Asia

Australia cannot be South-East Asia's agricultural supplier, instead our high food safety standards and global image has supported the development of Australia as a delicatessen.

Australian farmers sell smaller quantities of high-value product.

The challenge for planning is to facilitate a seamless freight transport network and logistics industry that can transport perishables into South East Asia in a timely manner.



38%
of NSW cherry
production is in
the South East
Tablelands region.

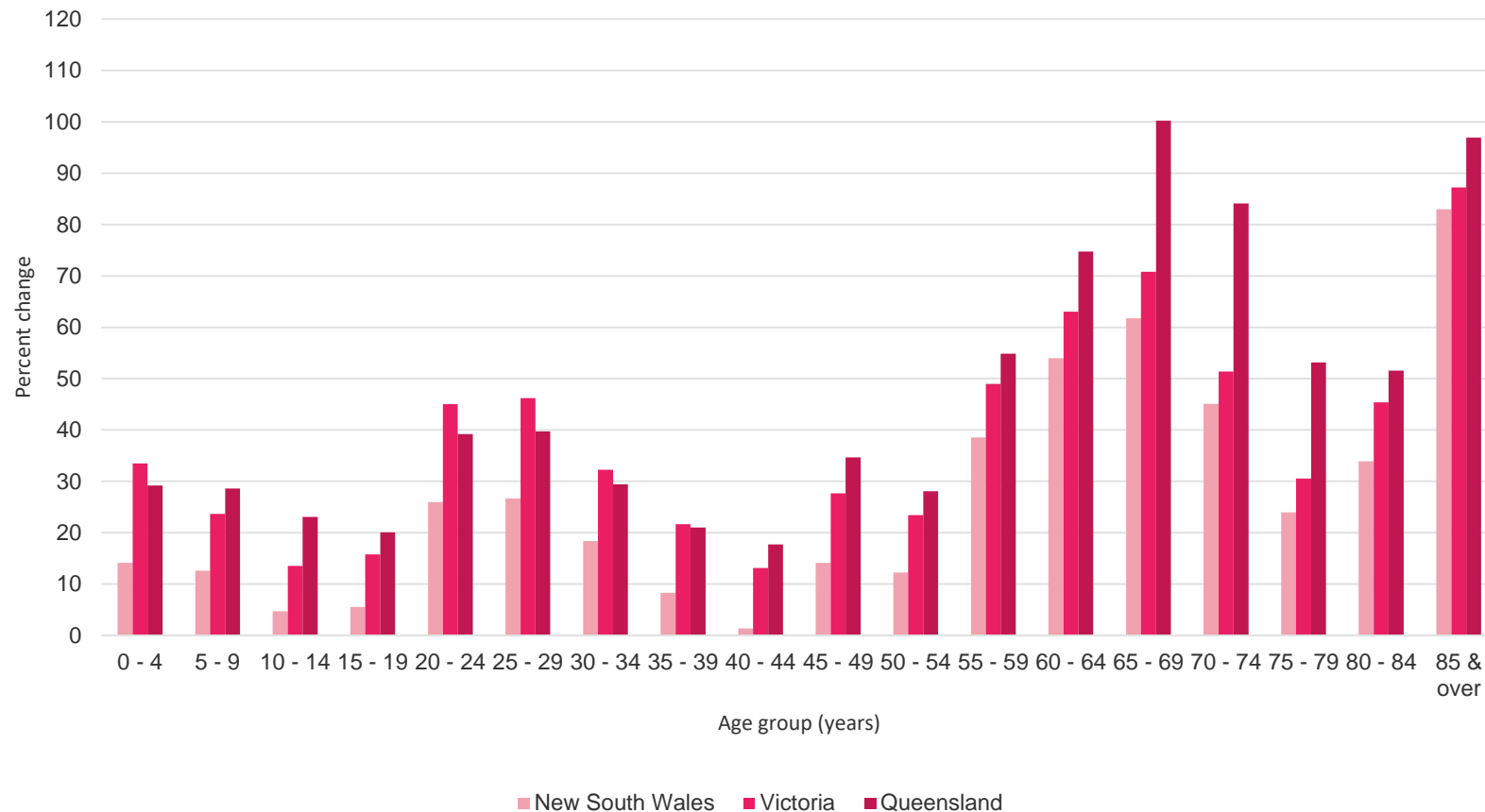


Air freight
connections allow
cherries to be
delivered to China
within 48 hours of
picking.

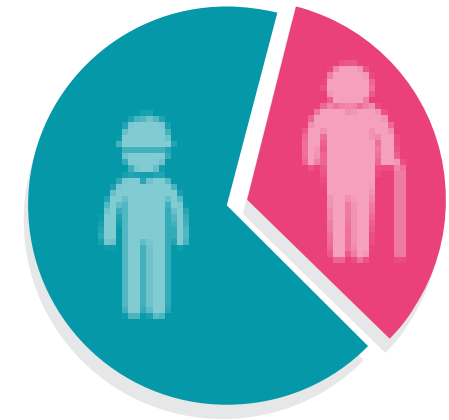
4. Forever ageing

Australia's population is now over 25 million, of which 1/10 are over 65 years of age

Population change 2001-2017



In NSW



From: 25 retirees to every 100 people of working age in 2017

To: 34 retirees to every 100 people of working age in 2036

Sources:

- ABS, catalogue no. 3101.0
- NSW Department of Planning and Environment Population Projections, 2016
- Victorian Department of Environment, Land, Water and Planning, 2016
- Queensland Treasury, 2015

5. Digital immersion

Digital technologies are changing the way we live, work and play. They are changing information flows and decision-making behaviours.

Digital is associated with the birth and rapid ascendance of entirely new cultures, markets and societal norms.

The exciting and daunting reality is that we are in the early phases of this transformation. If industrial revolutions happen over centuries we're still in the first quarter of the information era.

The most significant change lies ahead.





*For instance:
Data is becoming more
important in driving decisions*



clim	
climate change	48,200,000 results
climatesmart	170,000 results
climate change australia	23,200,000 results
climate change skeptics	786,000 results
climate technologies	22,600,000 results
climate	111,000,000 results
climate change facts	6,100,000 results
climatesmart home service	14,300 results
climate institute	11,800,000 results
climb lyrics	3,040,000 results
	close

Amid the political impasse in much of the world, big data can help reveal how society feels about environmental issues at a grassroots level.

Researches have found that Google search histories can be used as a barometer of social awareness – measuring communities awareness of climate and their ability to adapt to it.

6. Porous boundaries



For instance: Re-imagining transportation

Autonomous technology goes beyond car-based mobility to autonomous mass public transit and to other transport sectors, such as shipping.

For instance, the YARA Birkeland will be the **world's first fully electric and autonomous container ship** with capacity for 120 TEU (twenty-foot container equivalent units)

Due for delivery in 2019 and expected to be fully operational by 2020.

7. Planetary pushback



Countries across the globe are experiencing extreme weather events that are resulting in catastrophic impacts to humans and infrastructure, both of which are extremely susceptible to climate variability. Many communities at risk of such events could be left without access to transport, communications, electricity and basic services.

Climate change threatens both physical and natural infrastructure. Just as physical infrastructure is fundamental to the functioning of society, natural infrastructure plays a key role in protecting populated areas from inundation by flooding and coastal erosion.

In recent decades, degradation of ecosystems has exceeded damage to physical infrastructure increasing the impacts of heavy flooding or natural disaster.

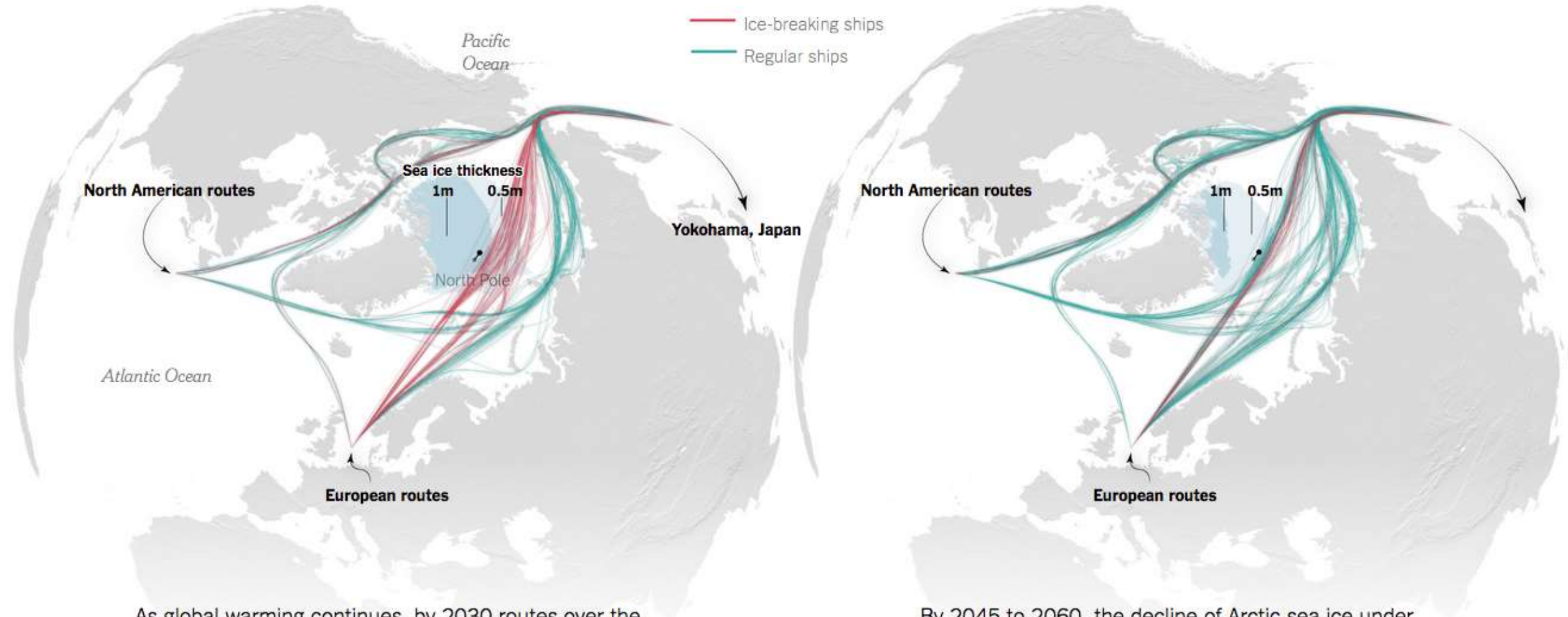
For instance: Melting sea ice opens new trade routes across the Arctic

2015 to 2030

Predicted fastest shipping routes through the Arctic

— Ice-breaking ships
— Regular ships

2045 to 2060



As global warming continues, by 2030 routes over the North Pole could open for **ice-breaking cargo ships** capable of operating in ice up to four feet thick.

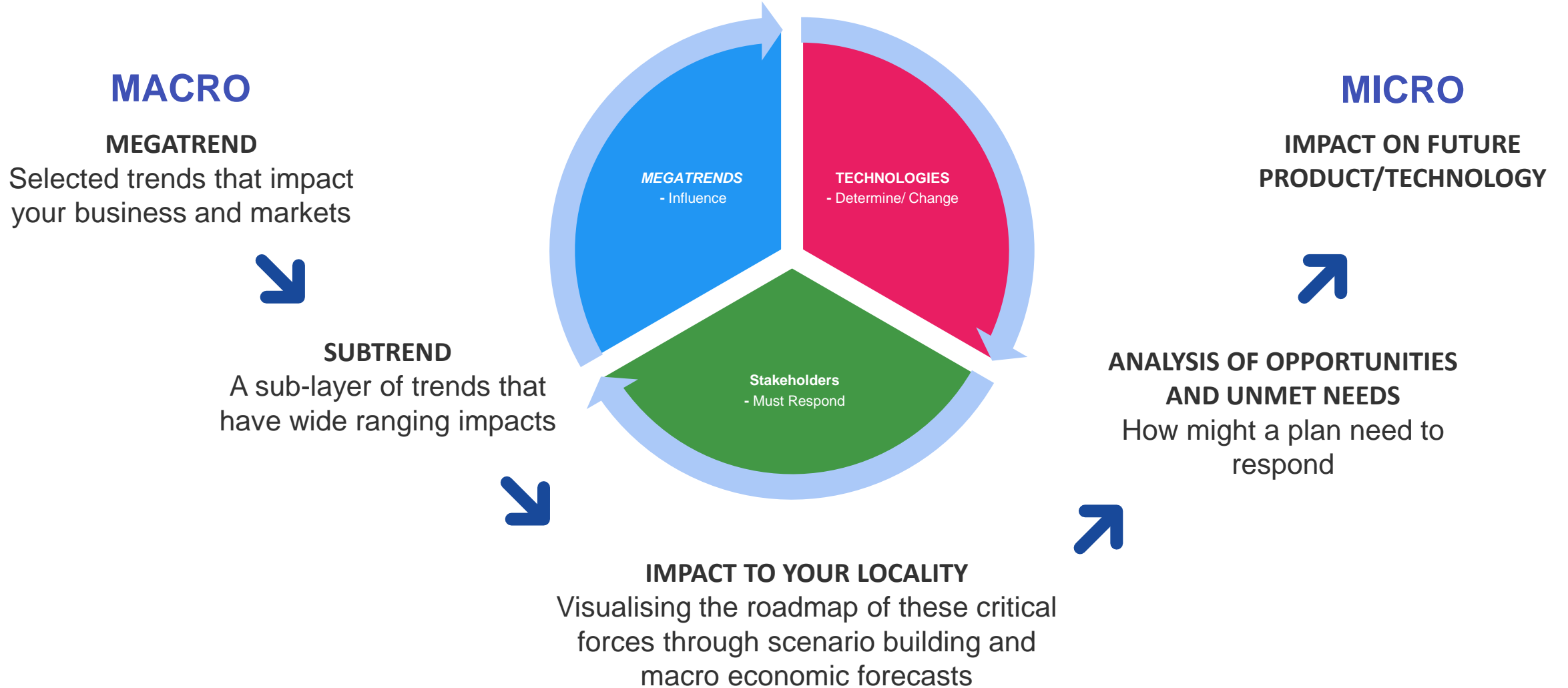
By 2045 to 2060, the decline of Arctic sea ice under moderate warming could allow even **ordinary cargo ships** to journey directly over the North Pole.



Megatrends have helped us understand life for
EVERYONE, EVERYWHERE in the future.

Planning needs to analyse future scenarios to inform decision making on future land uses.

Addressing uncertainty and risk



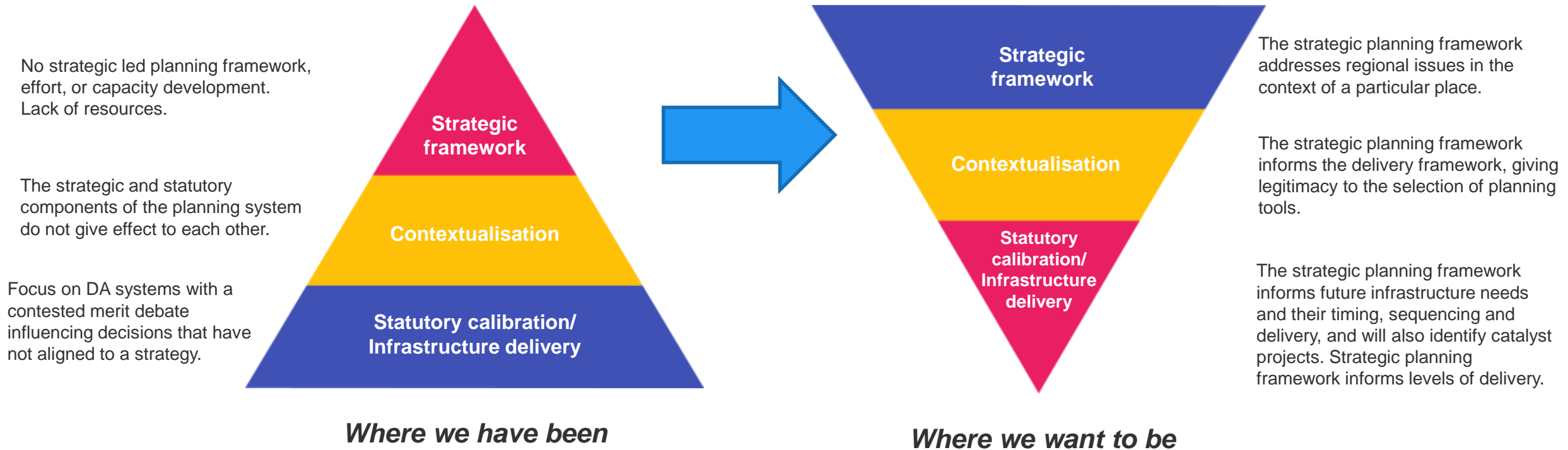
Collaboration between all stakeholders is essential to achieving a strategy.

A strategic led, outcomes focused planning system has better capacity to address change factors as it is more flexible and responsive.

It can acknowledge and plan for a range of outcomes in alignment to a vision.

Managing change – Strategic planning

A refocused perspective for the planning system – prioritising upfront strategic planning



A refocused planning system that builds capacity to better deal with change

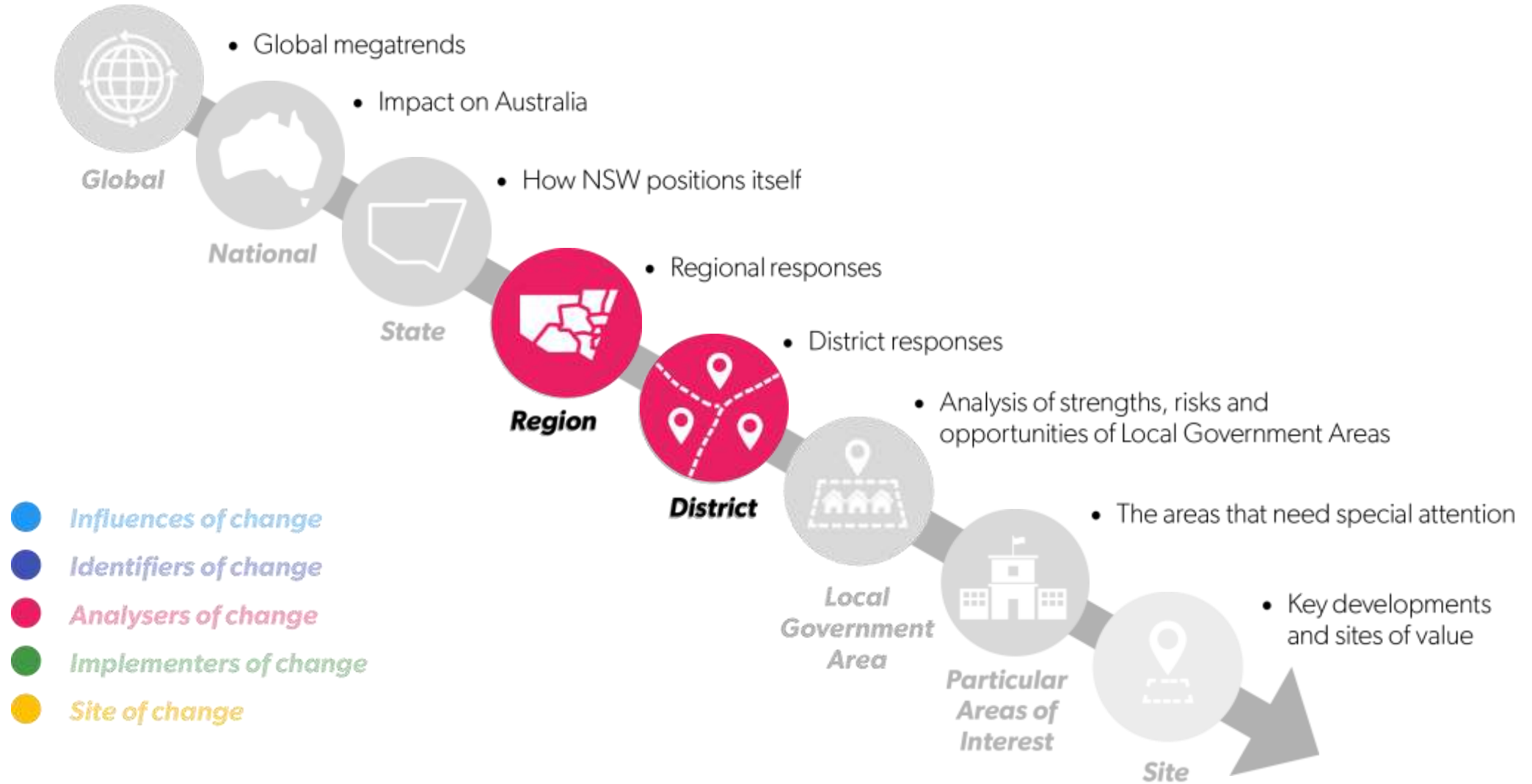
1

Updates to the **Environmental Planning and Assessment Act**
(Local Strategic Planning Statements)



2

For the first time in NSW there are **Regional Plans** for the whole state



2036

**North
Coast**

**Regional
Plan**

The regional vision and goals

Vision: The best region in Australia to live, work and play thanks to its spectacular environment and vibrant communities.

The most stunning environment in NSW

A thriving, interconnected economy

Vibrant and engaged communities

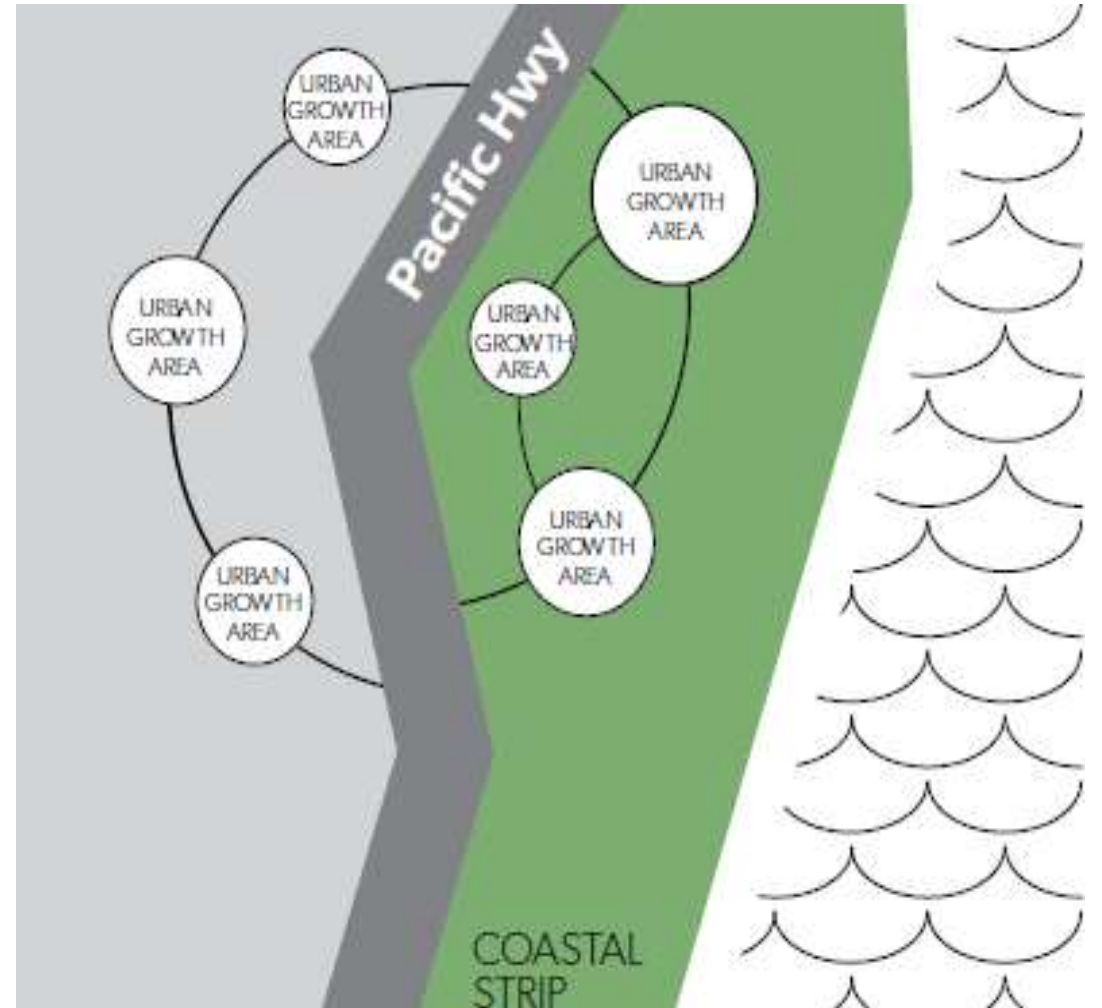
Great housing choice and lifestyle options

PLANNING PRINCIPLES - GUIDING GROWTH ON THE NORTH COAST

PRINCIPLE 1: DIRECT GROWTH TO IDENTIFIED URBAN GROWTH AREAS

PRINCIPLE 2: MANAGE THE SENSITIVE COASTAL STRIP

PRINCIPLE 3: PROVIDE GREAT PLACES TO LIVE AND WORK IN A UNIQUE ENVIRONMENT



North Coast Regional Plan 2036

Direction 3: Manage natural hazards and climate change

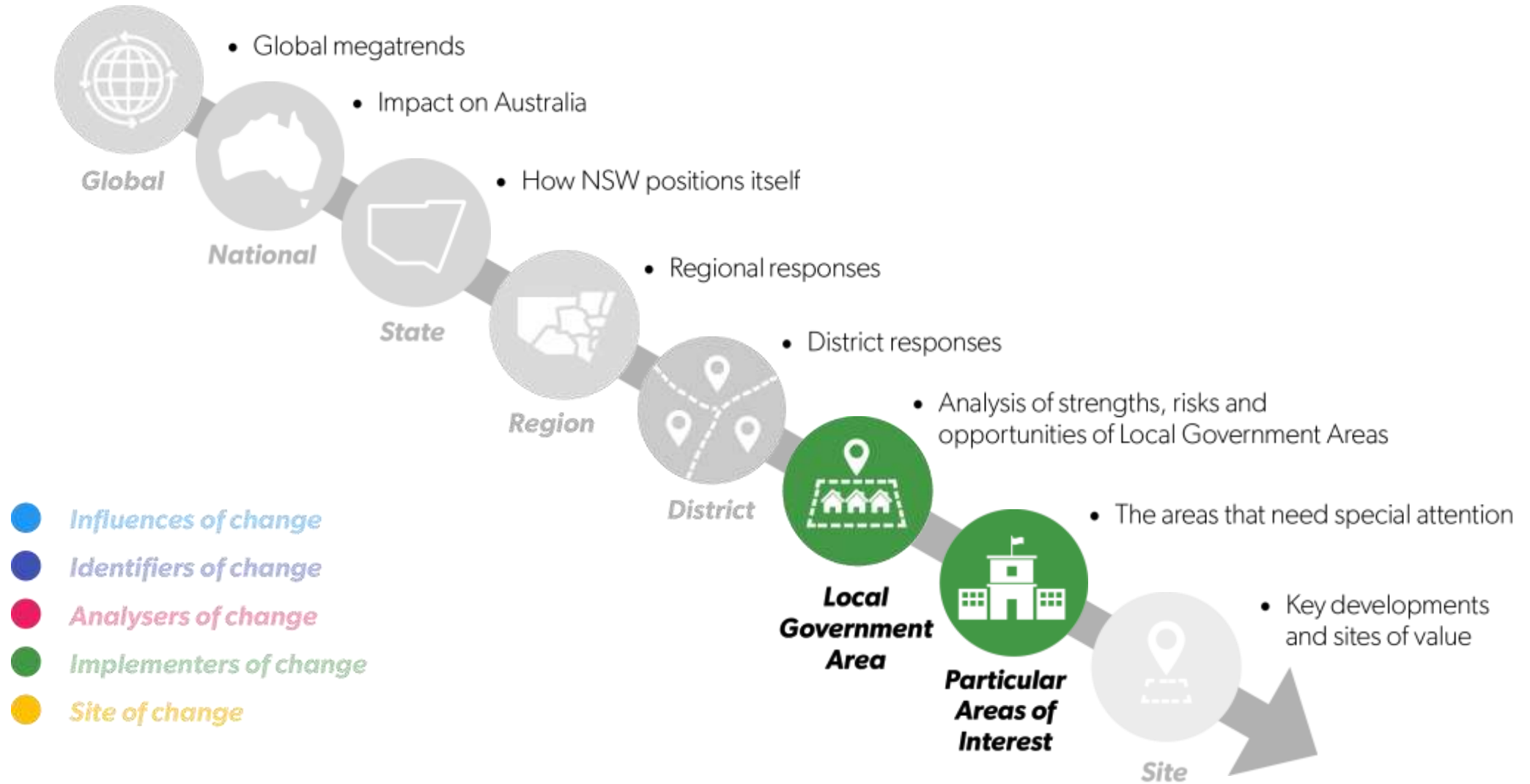
Action 3.1 Reduce the risk from natural hazards, including the projected effects of climate change, by identifying, avoiding and managing vulnerable areas and hazards.

Action 3.2 Review and update floodplain risk, bushfire and coastal management mapping to manage risk, particularly where urban growth is being investigated.

Action 3.3 Incorporate new knowledge on regional climate projections and related cumulative impacts in local plans for new urban development



Local planning will implement the actions of regional plans





Local
Government
Area

Local Strategic Planning Statement - the overarching local strategic plan

An overarching local strategic plan that will guide planning at the local level, including updates to a local environmental plan. It will include:

- a **land use vision** that describes the future direction of a local government area over a 20 year planning horizon (and builds on the 10-year vision in a Council's Community Strategic Plan)
- a succinct **planning context** of a locality, including significant economic, social and environmental attributes that inform and/or require a response from local strategic planning
- the key land use **planning priorities** that will help materialise that vision of the planning horizon and **actions** to deliver those planning priorities
- **monitoring and reporting program**

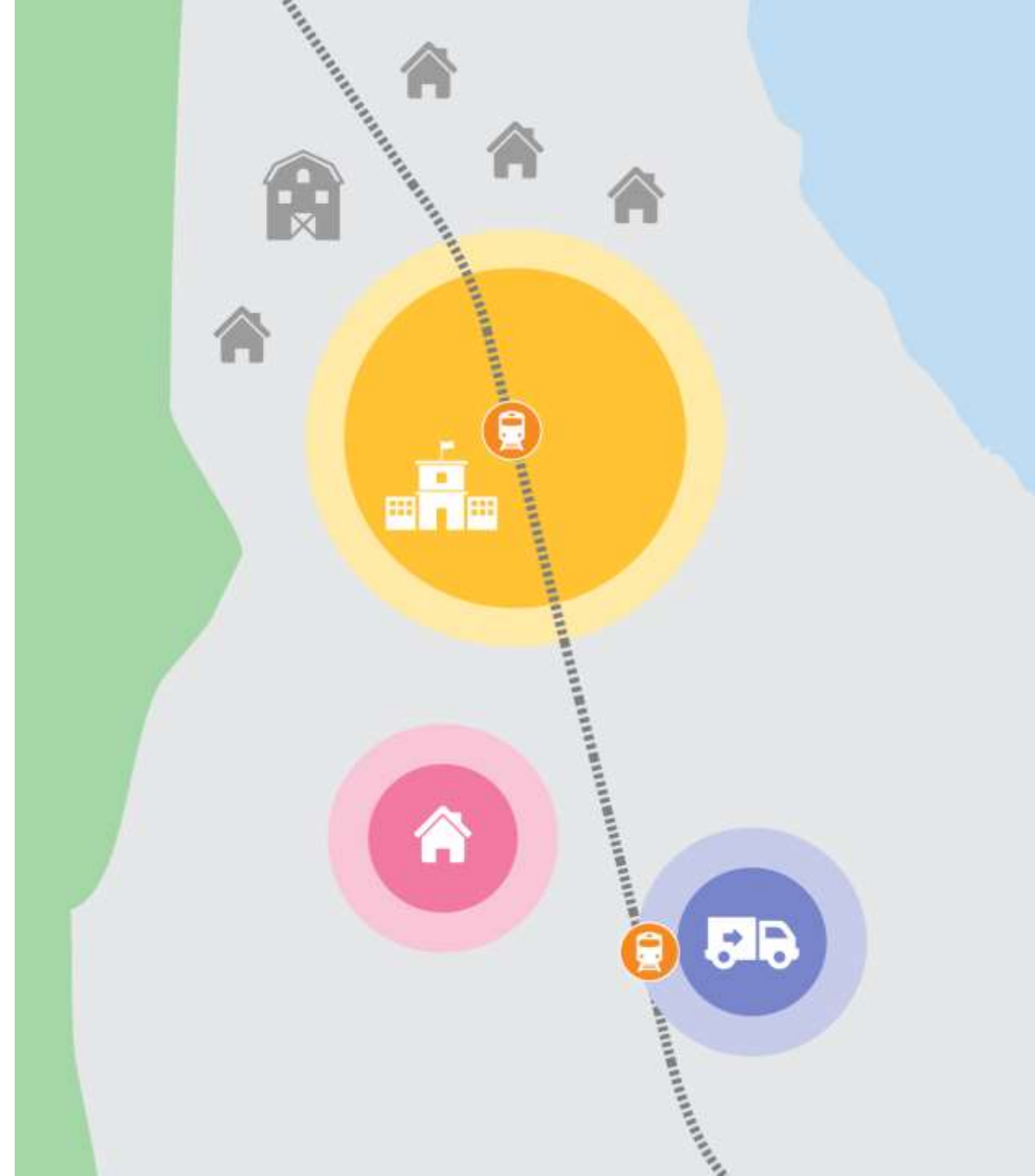
A new opportunity for the community to engage with and have a say on the plan that will shape the future of their localities and places

– in the context of a regional and/or district planning framework

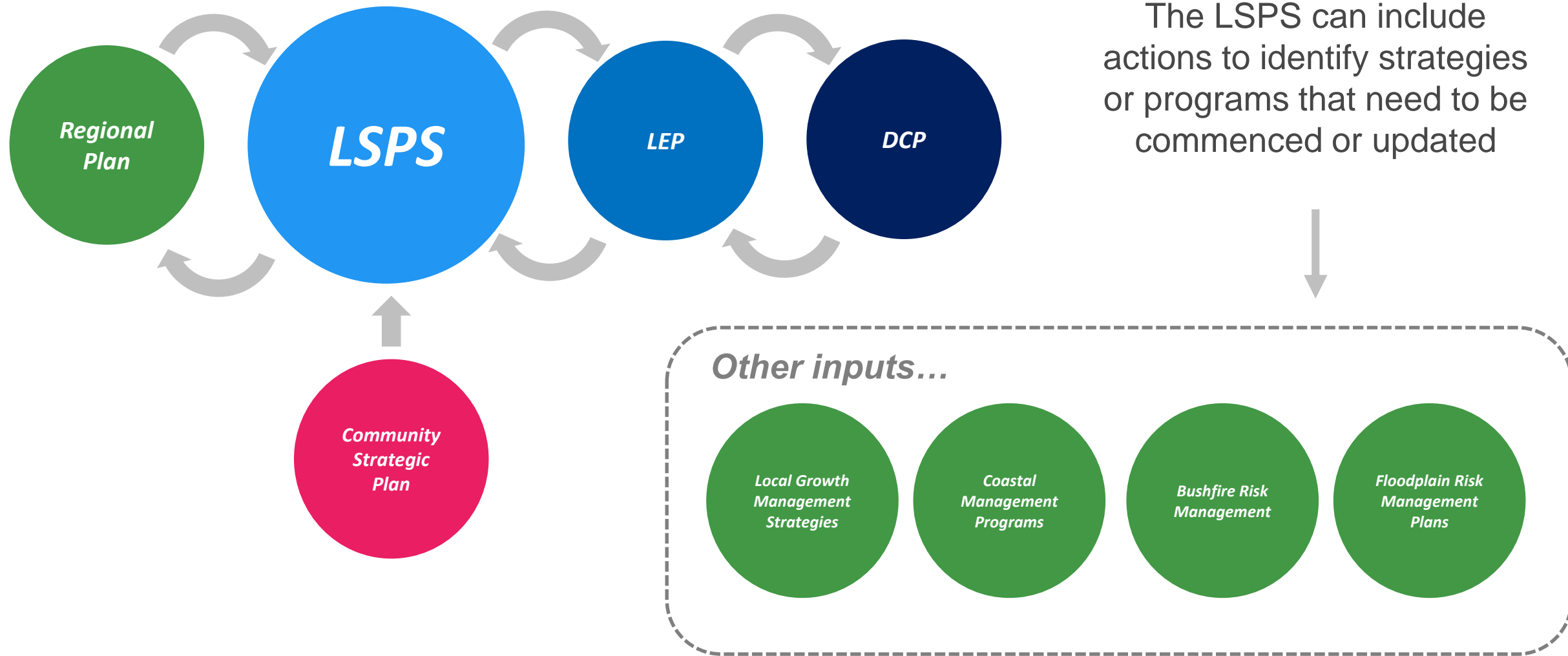
For instance, a local strategic planning statement may...

Set the strategic narrative about a local government area that will identify the key spatial elements such as:

- The existing town centre with a village character on a train line
- Respond to the regional plan in providing for additional housing in identified urban growth areas
- A new employment precinct within the urban growth boundary to provide jobs to the growing population
- An identified coastal character (east) and environmentally sensitive corridor (west)
- Vulnerable areas subject to the predicted effects of climate change



The LSPS will be informed by, and acknowledge existing strategies, reinforcing their strategic importance



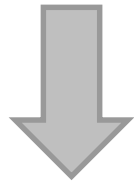


Particular areas of interest

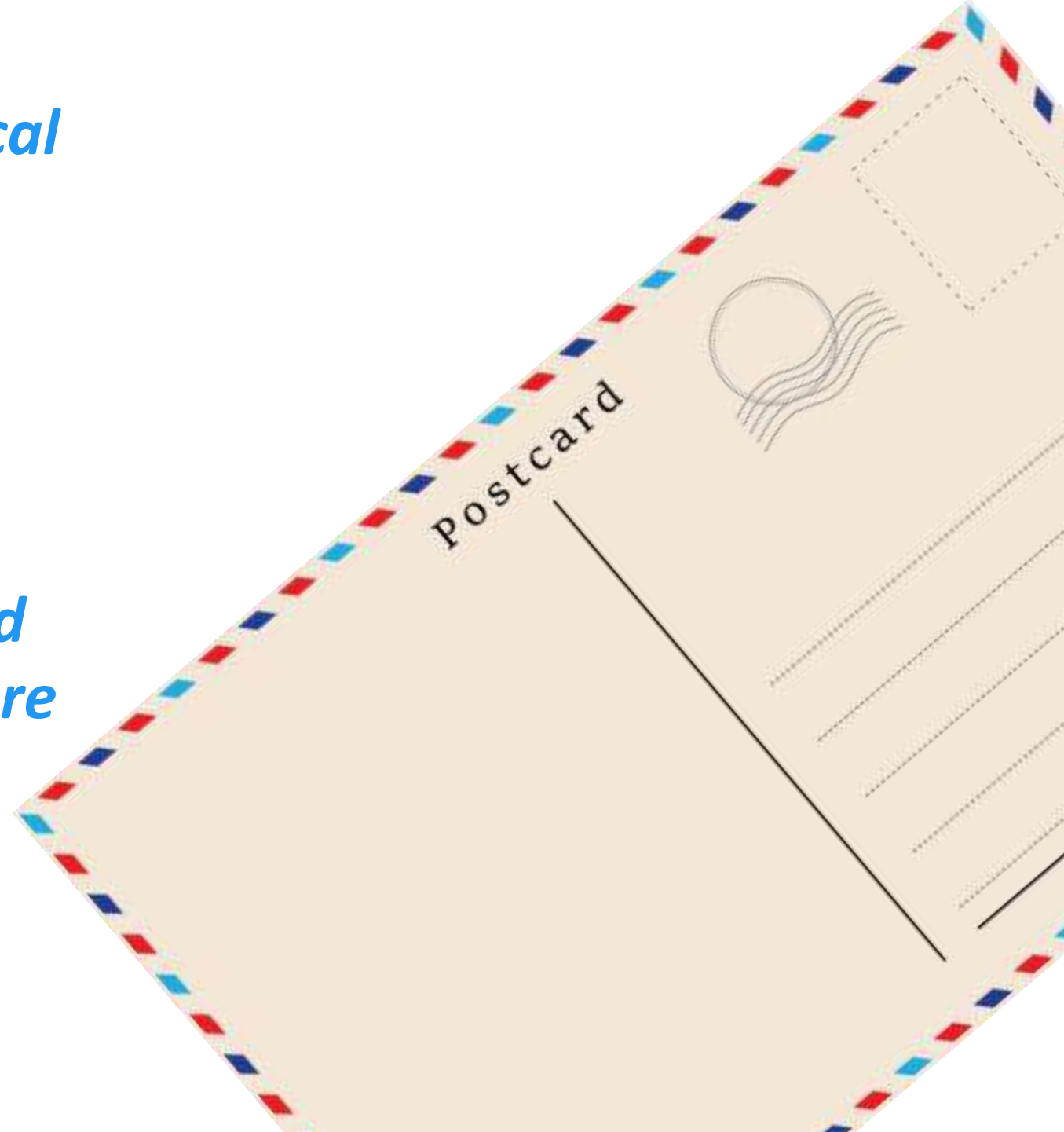
The LSPS should identify those areas that require a finer grain analysis, such as a town centre, precinct or other area requiring further strategic planning investigation, development control plan or other tailored response.

This can include areas particularly vulnerable to climate change impacts in order to inform further investigations, future growth areas or correctly calibrated statutory controls .

What is the vision for your Local Government Area?



What climate adaptation and risk management strategies are required to get there?



Next steps for the LSPS?

- Councils are required to have a LSPS by:
 - 1 July 2020
- Assistance, resources and data will be provided by the Department
- Contact the Department if you have a questions
- Look at the LSPS Guide, available on the Department's website and tune into the Planning Connects 10th October 2018

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