

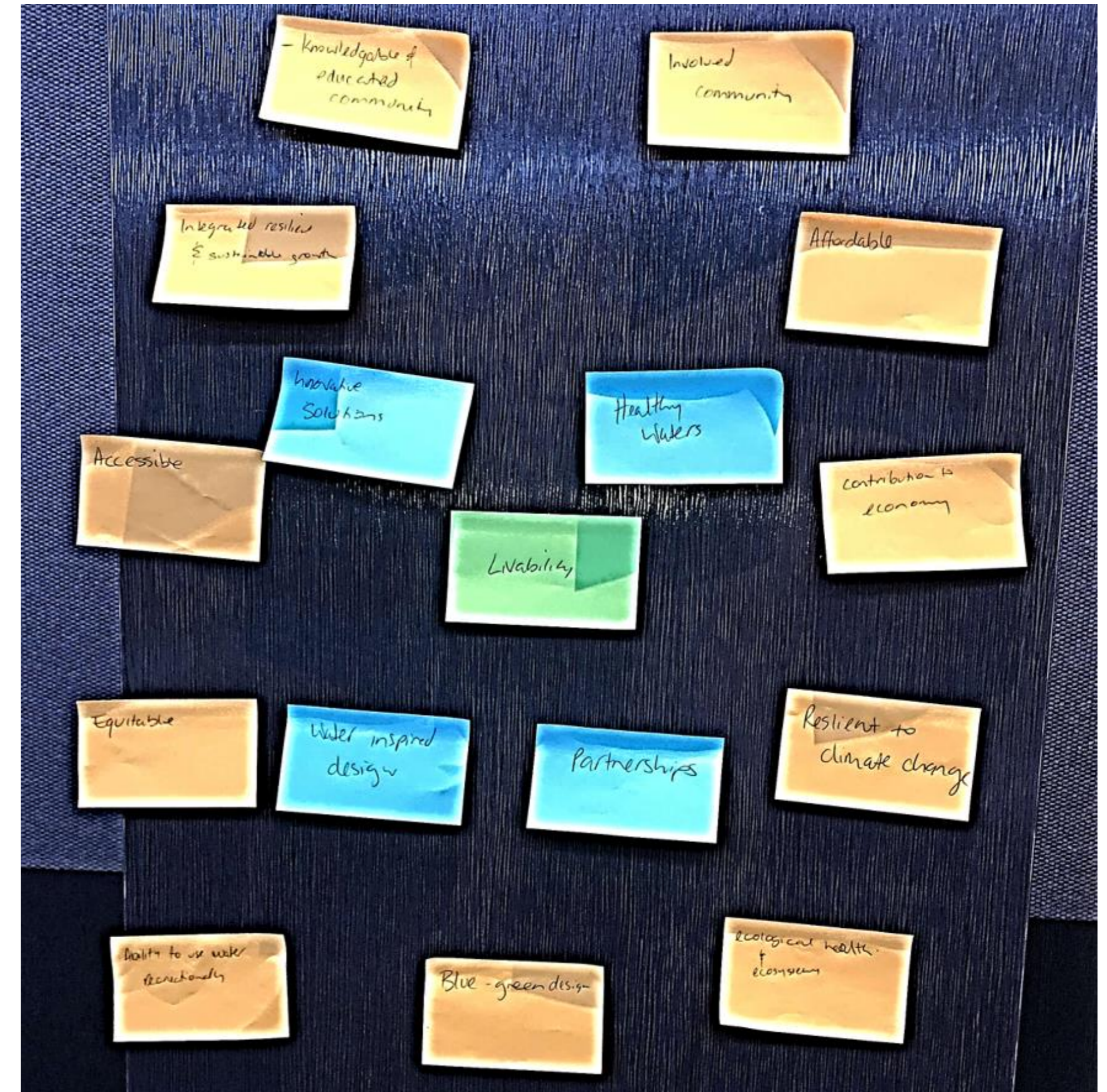
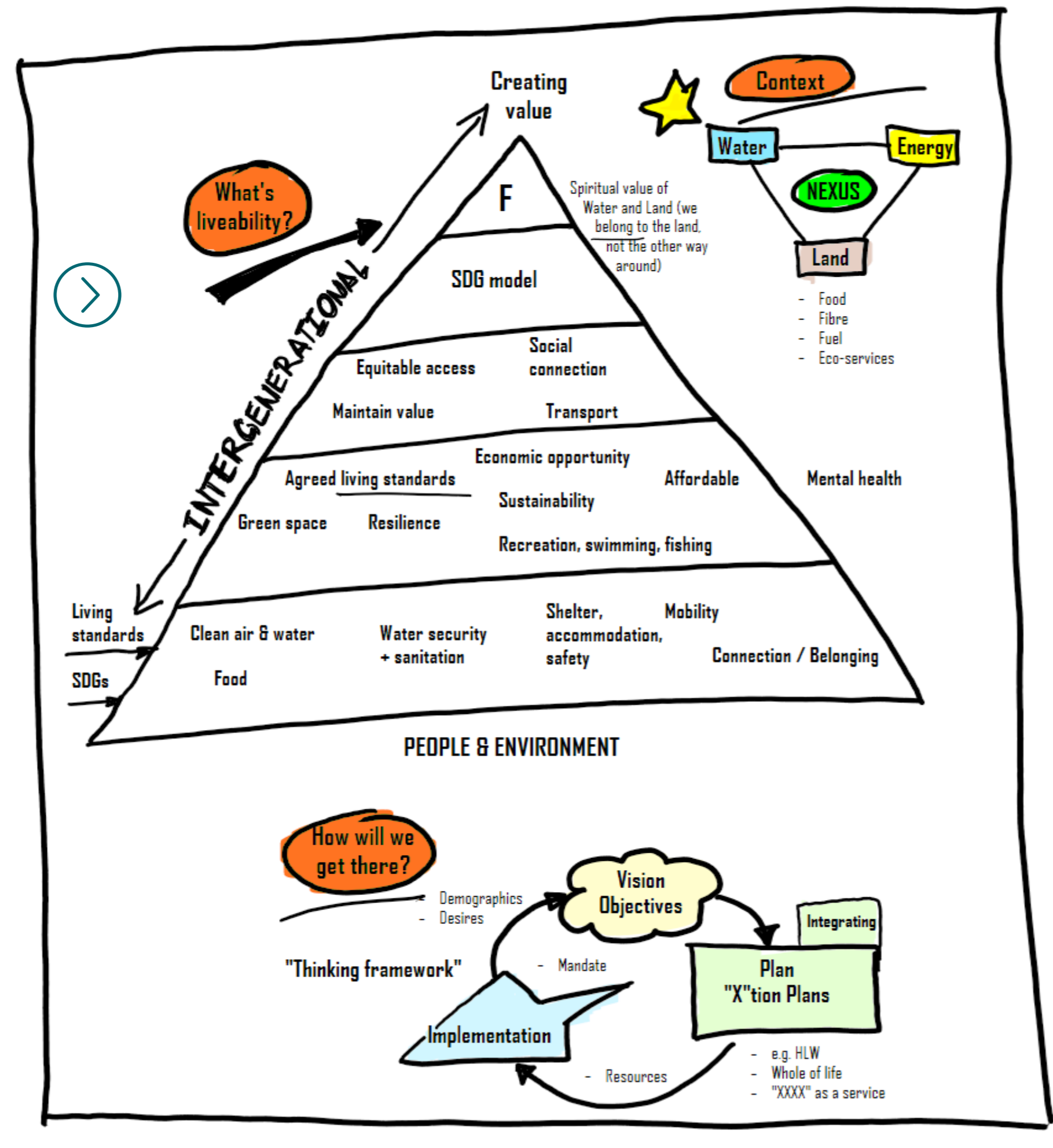
An aerial photograph of a city, likely Brisbane, Australia, showing a wide river (the Brisbane River) flowing through the urban landscape. In the foreground, a large, circular stadium with a white roof is visible. The city skyline with various high-rise buildings is in the background under a clear blue sky.

# Integrated Water Management and the role of water models

Chris Tanner 26<sup>th</sup> June 2019

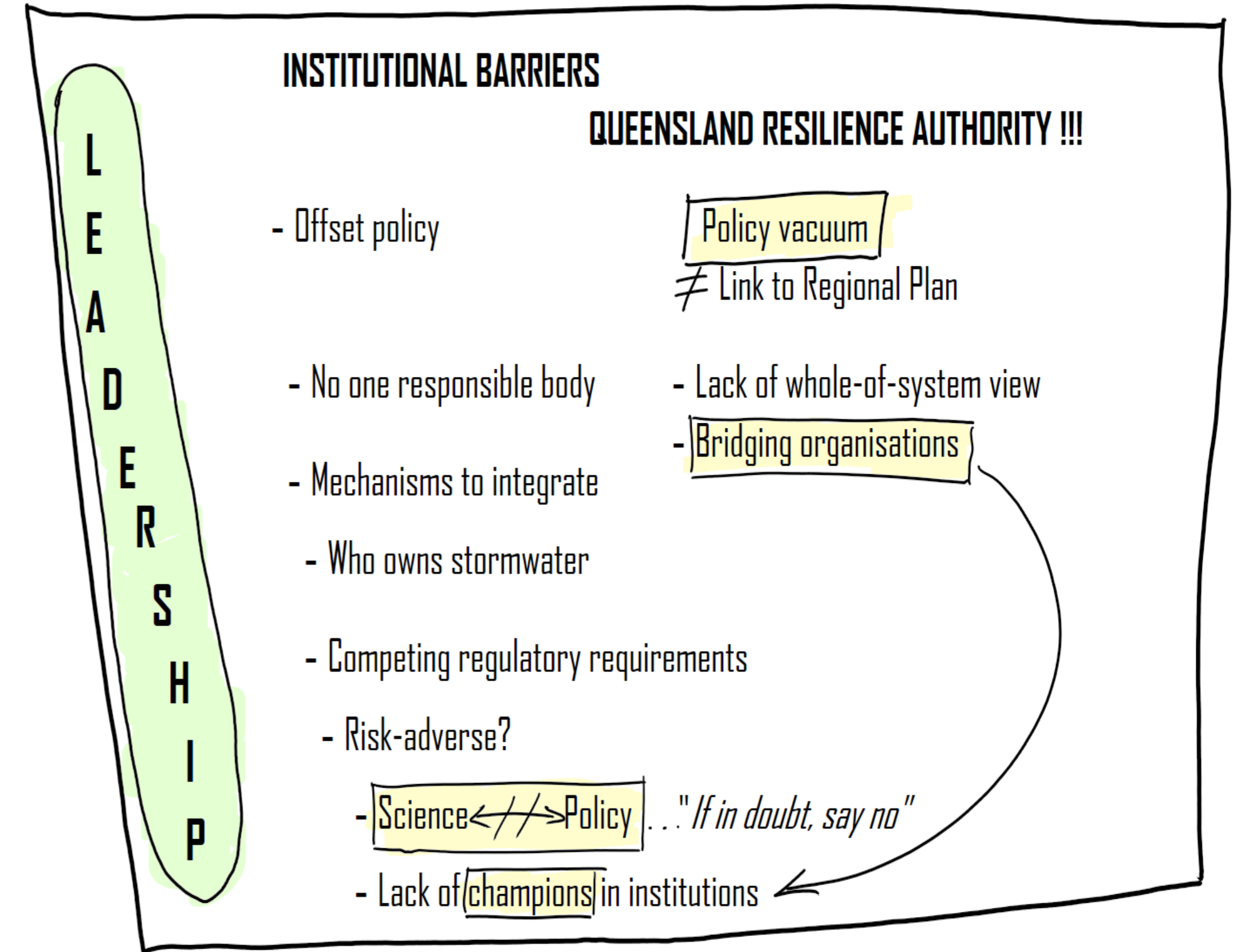
[watersensitivecities.org.au](http://watersensitivecities.org.au)

# What drives integrated water management



# What are the institutional mechanisms

	INSTITUTIONAL MECHANISMS	TOOLS TO INFORM PLANNING & ACTION	SCIENCE TO UNDERPIN TOOLS
<b>WATER SECURITY</b>	<p><b>Seqwater</b></p> <ul style="list-style-type: none"> <li>- Water resources plans, good for surface &amp; ground water. ✓</li> <li>- No stormwater or wastewater as resource. ✗</li> </ul> <p><b>DNRME</b></p> <ul style="list-style-type: none"> <li>- Agric. water security ✓</li> <li>- No wastewater as resource ✗</li> </ul> <p>Mechanism for IWRP needed?</p>	<p>Need tool that has ALL resources spatially in relation to uses</p> <p><b>Existing</b> - WATNET / MEDLI</p> <p><b>Need</b> - Water efficiency agric. Model</p> <p>Water balance model</p> <p>Overarching water balance tool</p>	<p><b>Got</b></p> <ul style="list-style-type: none"> <li>- Climate science</li> </ul> <p><b>Need</b></p> <ul style="list-style-type: none"> <li>- Full regional water balance sciences</li> </ul>
<b>LIVEABILITY</b>	<p><b>Got</b></p> <ul style="list-style-type: none"> <li>- Regional Plan</li> <li>- Council Plan</li> </ul> <p><b>Need</b></p> <ul style="list-style-type: none"> <li>- Better understand who provides liveability (services)</li> <li>- Better definitions / mechanisms for delivering</li> <li>- Planning instruments that have power</li> </ul>	<p><b>Got</b></p> <p>???</p> <p><b>Need</b></p> <ul style="list-style-type: none"> <li>- Tools to properly engage communities in discussion of liveability impacts from development</li> </ul>	<p><b>Got</b></p> <ul style="list-style-type: none"> <li>- Limited understanding of liveability</li> <li>- Water &amp; sewerage</li> <li>- Utilities</li> </ul> <p><b>Need</b></p> <ul style="list-style-type: none"> <li>- Better understanding of what liveability is &amp; how to "grow it"</li> </ul> <p>Community based</p>
<b>ECOLOGICALLY SUSTAINABLE DEVELOPMENT</b>	<p><b>Got</b></p> <ul style="list-style-type: none"> <li>- Regional plan</li> <li>- Council planning &amp; DA</li> <li>- HLW &amp; EHMP</li> </ul> <p><b>Need</b></p> <ul style="list-style-type: none"> <li>- Councils to walk the talk</li> <li>- Carrots and sticks</li> <li>- To stop Council Plan being circumvented</li> </ul>	<p><b>Got</b></p> <ul style="list-style-type: none"> <li>- Water quality offsets process</li> <li>- Simple bank stability models</li> </ul> <p><b>Need</b></p> <ul style="list-style-type: none"> <li>- Community consultation tools</li> <li>- Inhouse monitoring / feedback / smart</li> </ul>	<p><b>Got</b></p> <ul style="list-style-type: none"> <li>- ...</li> </ul> <p><b>Need</b></p> <ul style="list-style-type: none"> <li>- More / better monitoring of benefits to environment outside of end-of-pipe water quality models</li> </ul>
<b>ECONOMIC VIBRANCY</b>	<p><b>Got</b></p> <ul style="list-style-type: none"> <li>- EDQ</li> <li>- State Gov. Departments</li> <li>- Waste service utilities</li> </ul> <p><b>Need</b></p> <ul style="list-style-type: none"> <li>- Better ways of valuing full cost &amp; trade-offs</li> </ul>		<p><b>Need</b></p> <ul style="list-style-type: none"> <li>- Better science about impacts and trade-offs across different used of water</li> </ul>



# Outcomes

- ① **Common focus on liveability: a case study on water enabled design for liveability**
- ② **Highlighted a lack of a regional sustainability vision: Road map to Sustainable Equitable Queensland water**
- ③ **Better understanding of the urban/rural water nexus in regard to water security and sustainable land use**

# Contact us

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