



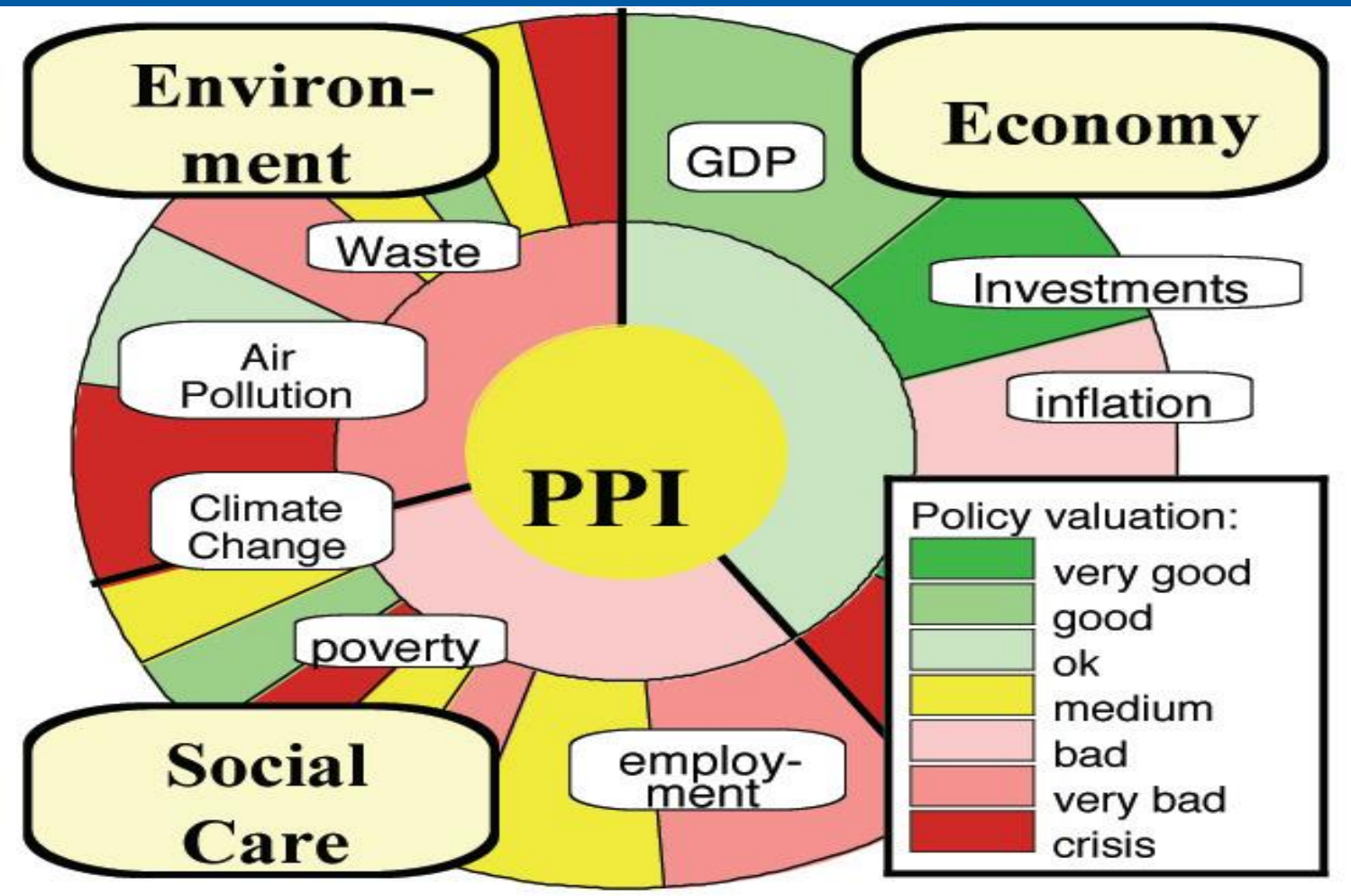
# Defining indicators and developing Dashboards:

*South West Sydney Regional  
Innovation Dashboard*

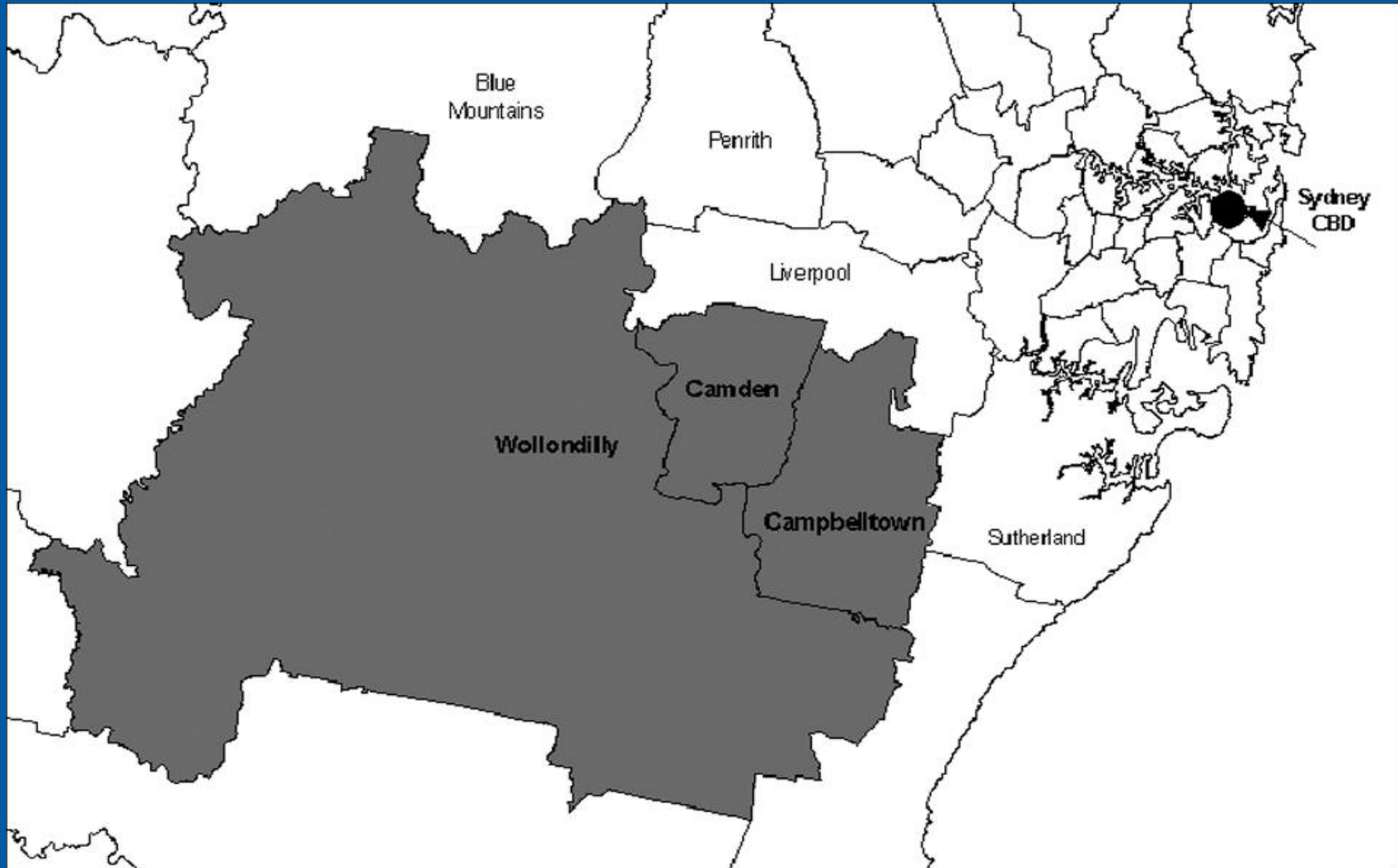
FIELD Seminar – Paris, 21 June 2010

Dr Cristina Martinez-Fernandez

# Why a Dashboard?

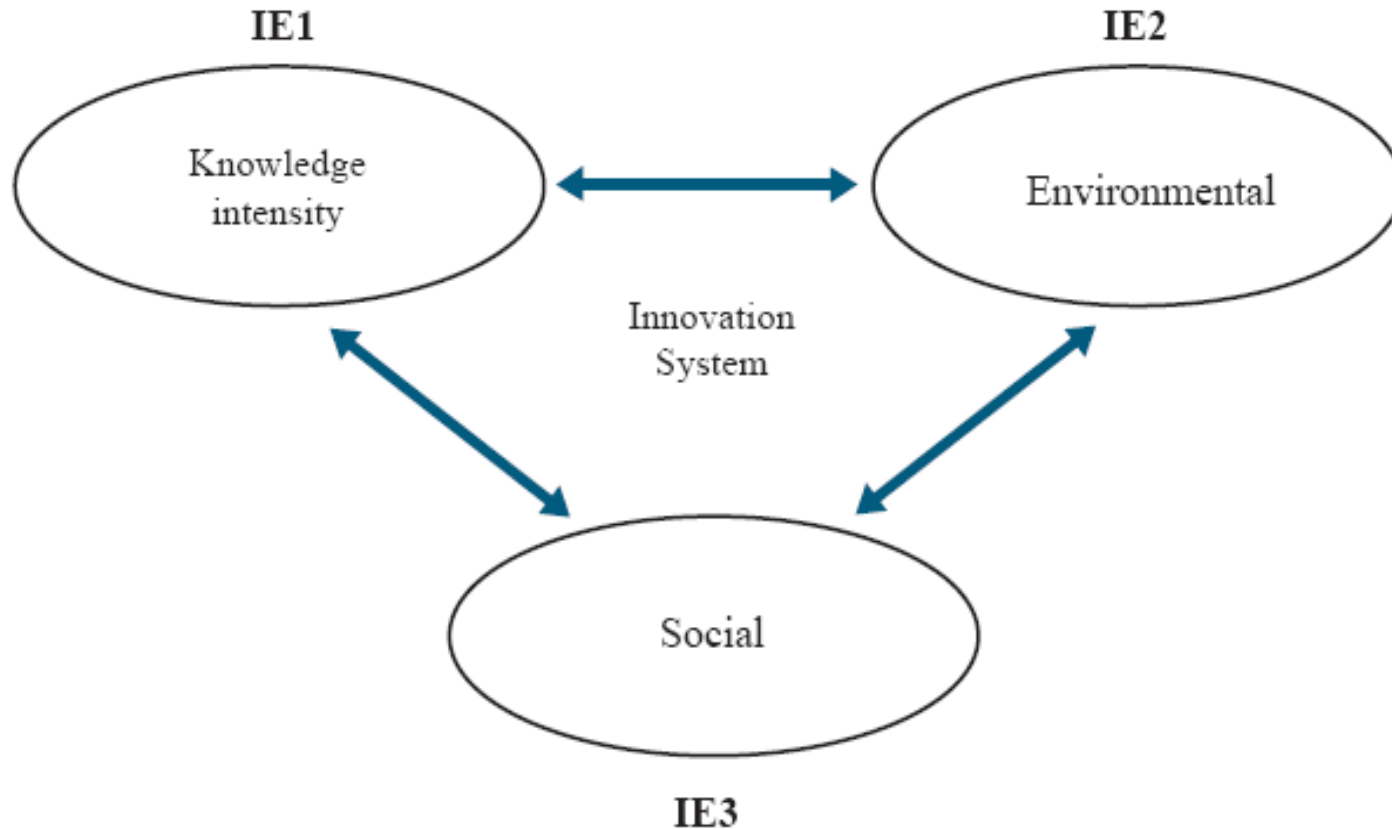


# Addressing Local Complexity



# Step 1 – conceptual understanding

Figure 2: Innovation-Ecosystems (IE)



# Step 2 – identify drivers

Table 3: Innovation Ecosystems Drivers (IED)

Innovation Ecosystems Drivers	
1.	Industry Knowledge intensity
2.	Connectivity
3.	Knowledge Generation, Transfer and Integration
4.	Entrepreneurship
5.	Environmental Dynamics
6.	Community Engagement
7.	Liveability
8.	Accessibility

		IE1
	IE2	
		IE3



# Step 3 – identify indicators

**Table 4: Innovation Drivers' Indicators for Metropolitan Regions**

Innovation Ecosystems	Drivers	Indicators
<b>Knowledge Intensity</b>	1- Industry knowledge intensity	<ul style="list-style-type: none"> <li>- Percentage of employees in manufacturing;</li> <li>- Percentage of employees in knowledge intensive business services (KIBS);</li> <li>- Percentage of employees in cultural and recreational industries;</li> <li>- Percentage of employees in health.</li> </ul>
	2- Connectivity	<ul style="list-style-type: none"> <li>- Number of business networks;</li> <li>- Number of industry clusters;</li> <li>- Number of development networks.</li> </ul>
	3- Knowledge generation, transfer and integration	<ul style="list-style-type: none"> <li>- Number of Master and PhD students in the regions;</li> <li>- Proportion of science / engineering / IT based postgraduates;</li> <li>- Number of students from UWS cooperative programs working in industry;</li> <li>- Number of university – industry partnerships.</li> </ul>
	4- Entrepreneurship	The mean number of business start-ups 1999-2004.
<b>Environment</b>	5- Environmental dynamics	<ul style="list-style-type: none"> <li>- Waste Generation per capita;</li> <li>- Recycling per capita;</li> <li>- Commercial water use;</li> <li>- Residential water use;</li> <li>- Total water use;</li> <li>- Greenhouse gas emissions;</li> <li>- Pollution licences &amp; breaches;</li> <li>Local Government Expenditure in Environment Management</li> </ul>



# Step 3 – identify indicators

Innovation Ecosystems	Drivers	Indicators
Social	6- Community engagement	<ul style="list-style-type: none"> <li>- Number of council funded community organisations;</li> <li>- Funding attached to these organisations.</li> </ul>
	7- Liveability	<ul style="list-style-type: none"> <li>- ABS Socio-economic index;</li> <li>- Mortgage stress;</li> <li>- Museums and libraries;</li> <li>- Recreational expenses per capita;</li> <li>- Community service expenses per capita;</li> <li>- 10-year population growth;</li> <li>- Crime index;</li> <li>- Unemployment;</li> <li>- National parks in LGA.</li> </ul>
	8- Accessibility	<ul style="list-style-type: none"> <li>- Internet use at home;</li> <li>- Hospitals and Community medical facilities;</li> <li>- GPs in LGA;</li> <li>- Share of available jobs in MACROC region;</li> <li>- Percentage of people who use cars to get to work;</li> <li>- Percentage of people who use trains to get to work;</li> <li>- Percentage of people who use buses to get to work.</li> </ul>



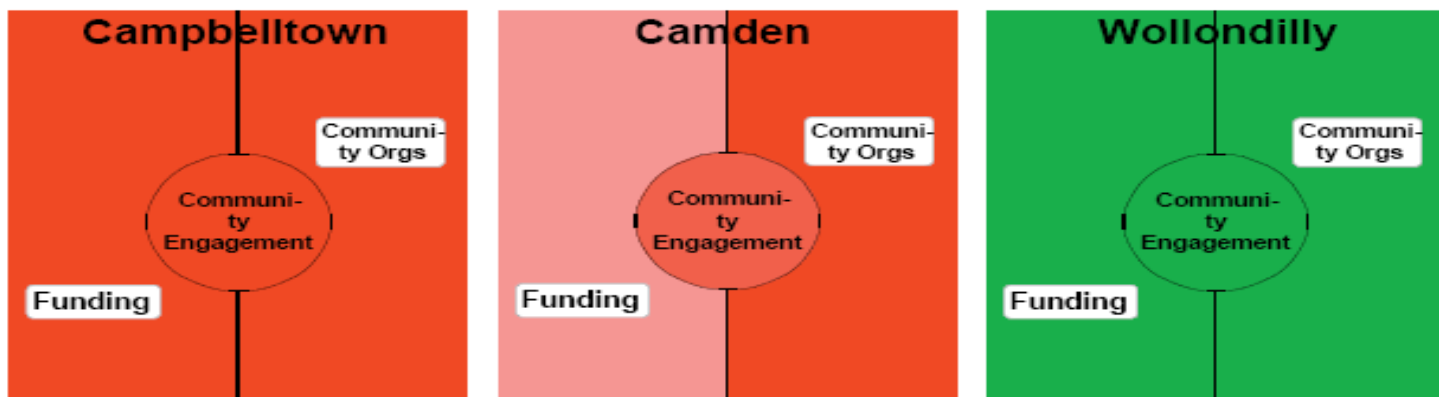
# Step 4 – Build Dashboard (S-CE)

**Table 10: Community Engagement**

Indicator	Number of council funded community orgs (org/LGA)	Community org funding (\$/LGA)
Source	AEGIS Survey 2004	Annual Reports 2002/03
<b>Wollondilly</b>	56.0	42000.0
<b>Camden</b>	17.0	25724.0
<b>Campbelltown</b>	16.0	19450.0

Source: Local Government Annual Reports 2003 and AEGIS Survey 2004

**Figure 9: Community Engagement Dashboard**



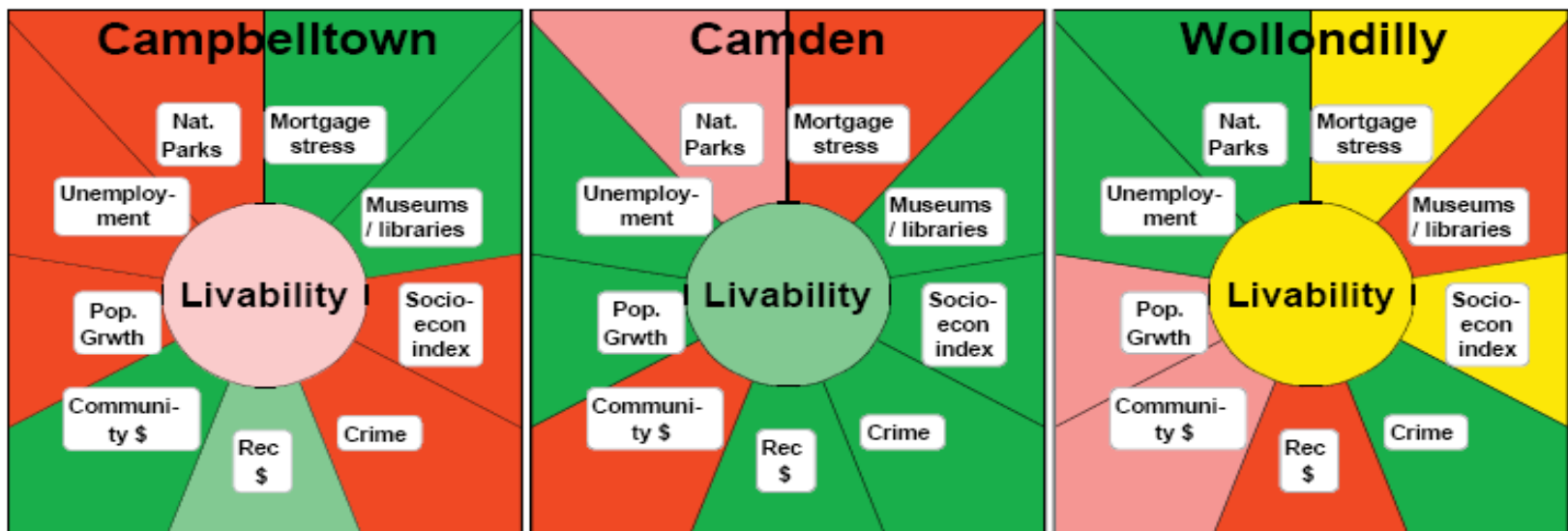


# Step 4 – Build Dashboard (S-L)

**Table 11: Liveability Indicators**

Indicator	Mortgage stress	Museums / libraries	Socio-econ index <sup>28</sup>	Crime	Recreation \$	Community \$	Pop. Growth	Unemploy't	Nat. Parks
Source	Census 2001	AEGIS Survey 2004	ABS Regional Profile 2001	Lawlink 2003	DLG 2002	DLG 2002	ABS Regional Profile 2001	DEWR 2004	Greenweb 2004
Unit	Mortgage stress	Number of museums / libraries	ABS socio-economic index	Crimes in LGA	recreational expenses	community services expenditure	10 year pop growth	Unemployment	National parks in lga
<b>Wollondilly</b>	38.80	4.00	1003.10	2201.00	44.70	34.80	2.01	4.60	58.50
<b>Camden</b>	41.10	9.00	1042.90	2344.00	51.70	27.30	6.24	3.60	16.70
<b>Campbelltown</b>	36.90	8.00	969.50	5155.00	49.40	57.80	0.25	10.20	1.60

**Figure 10: Liveability Dashboard**

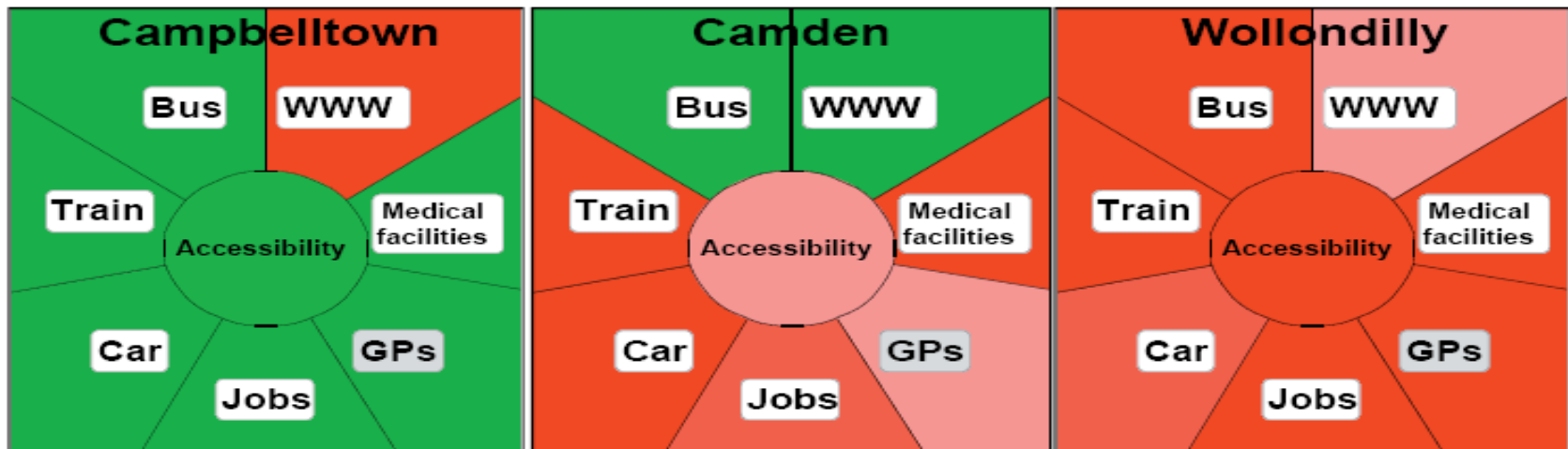


# Step 4 – Build Dashboard (S-A)

**Table 12: Accessibility Indicators**

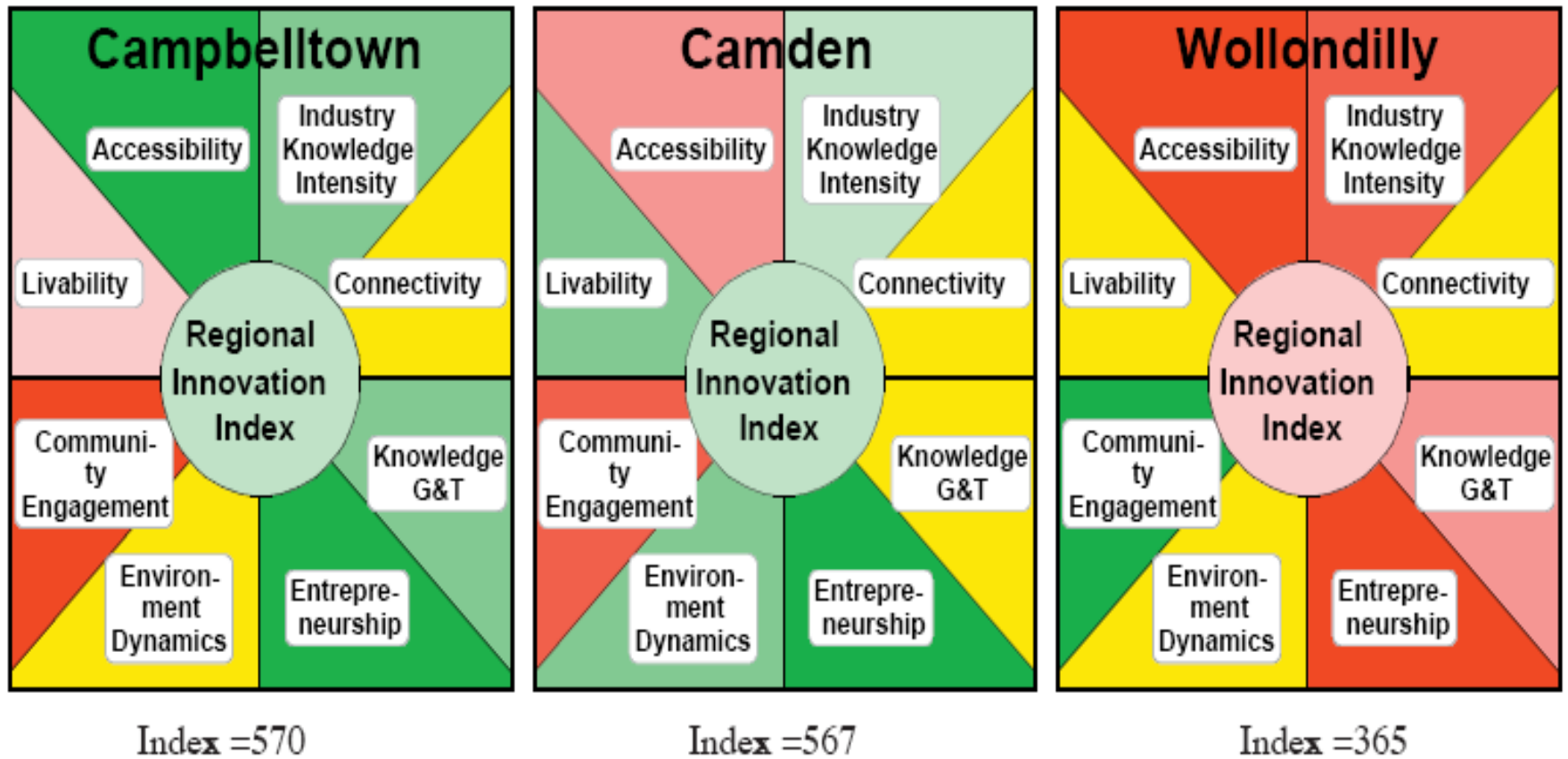
Indicator	Internet use at home	Hospitals and health centres	GPs in LGA	Share of jobs for MACROC residents	Car to work	Train to work	Bus to work
Source	Census 2001	NSW Health 2004	Macarthur General Practice 2005	Journey to work 2001	Journey to work 2001	Journey to work 2001	Journal to work 2001
Unit	%	# in LGA	# in LGA	%	%	%	%
<b>Wollondilly</b>	18.80	2.00	8.00	5.70	68.40	1.70	0.30
<b>Camden</b>	20.00	2.00	41.00	9.40	69.60	1.90	0.70
<b>Campbelltown</b>	18.40	5.00	118.00	26.50	61.80	10.0	0.80

**Figure 11: Accessibility Indicators Dashboard**



# Regional Innovation Dashboard

Figure 11: Regional Innovation Index for Campbelltown, Camden & Wollondilly



# Lessons and Challenges

- Visual tool for policy discussion
- Highlights issues of data systems
- Limitations of small number of cases
- Examining policy fields and generating indexes
- The issue of scale for analysis
- Horizontal analysis versus vertical analysis
- Resources

