



Indicative monitoring of water-related SDGs

Proposal for a National Blueprint Framework for EU Member States

City Blueprint®



Bryony Essex

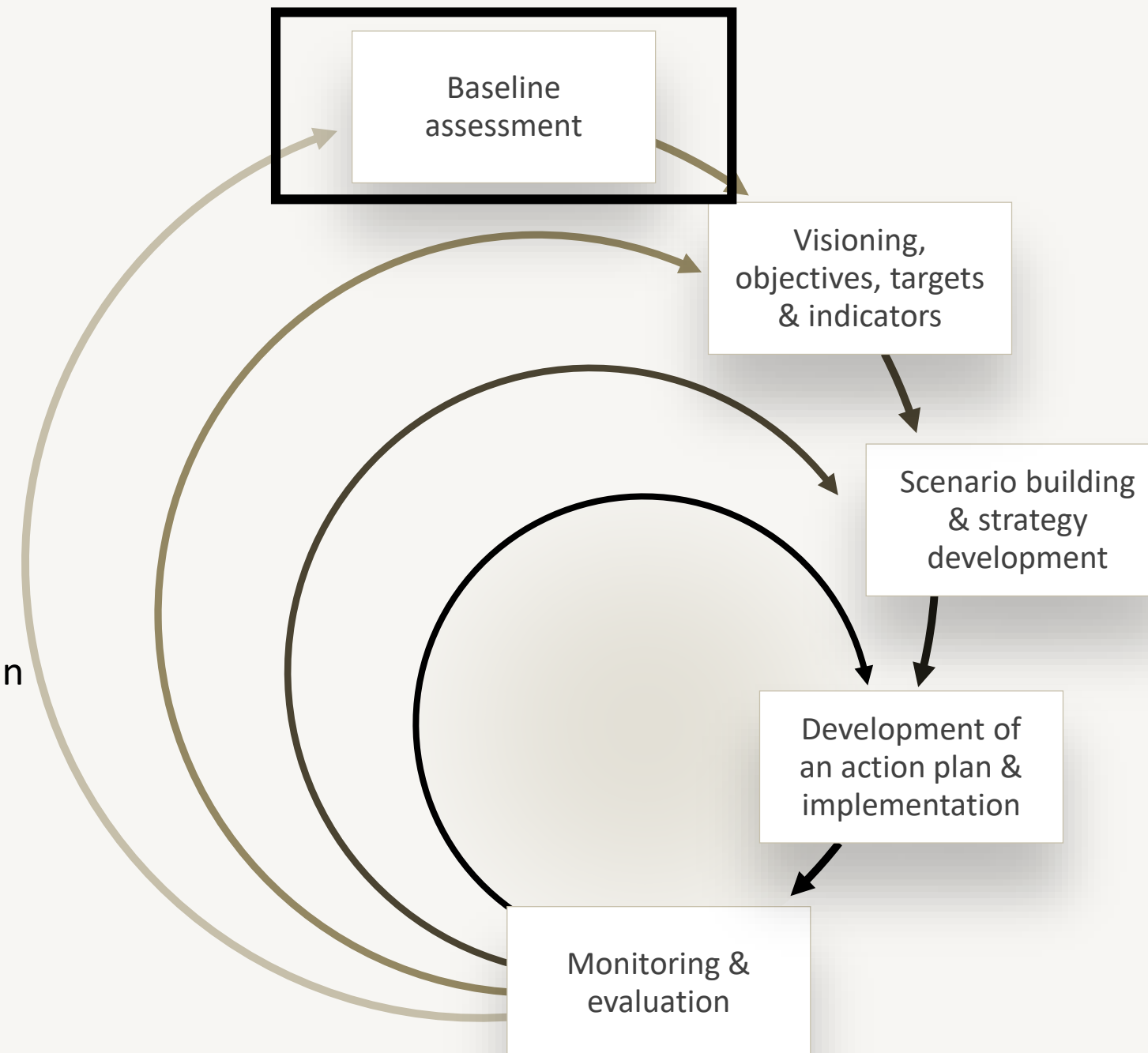


Stef Koop

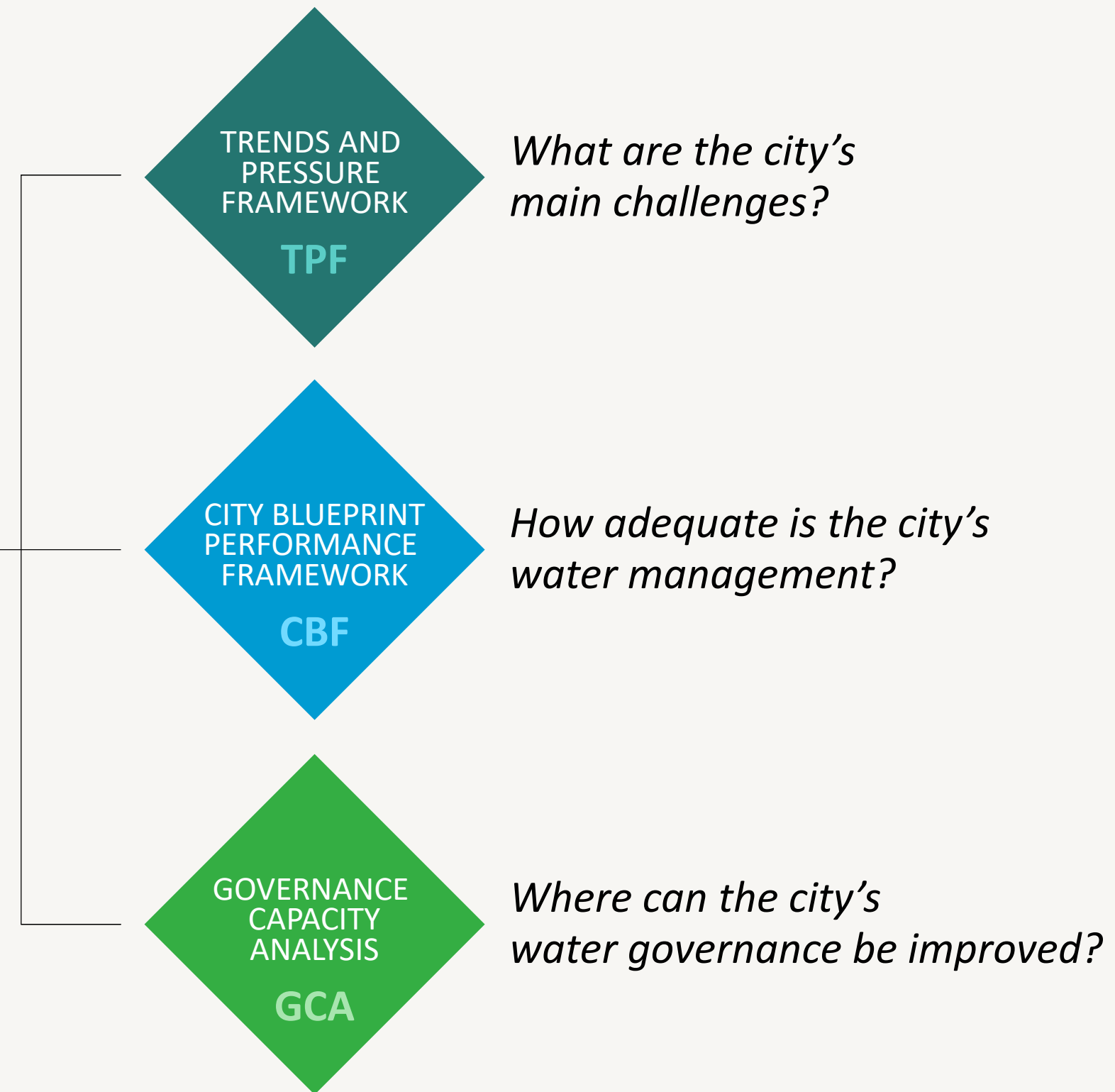


Kees van Leeuwen

KWR Watercycle Research Institute
Utrecht University

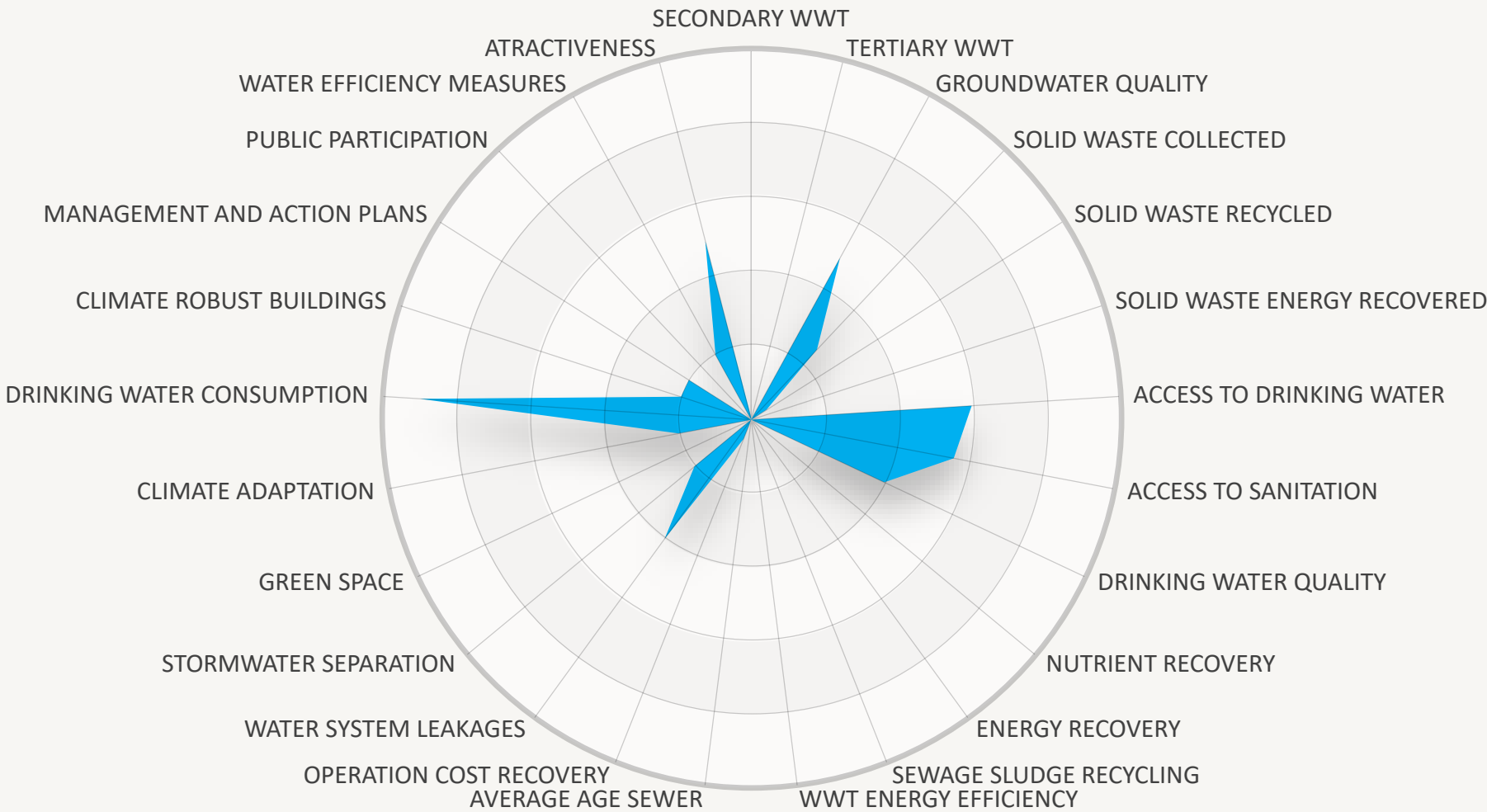


CITY BLUEPRINT APPROACH



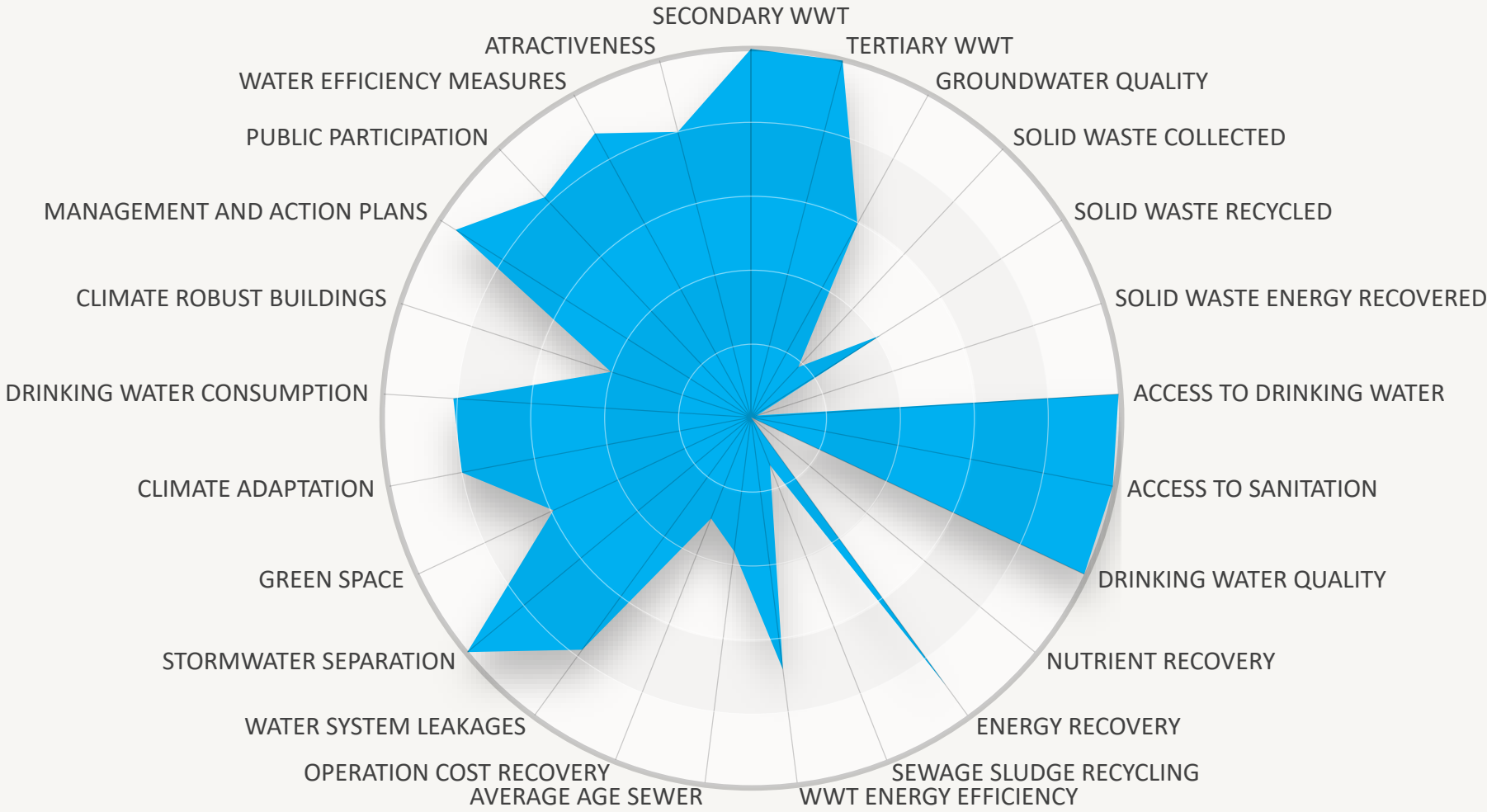
BCI 1.3

Dar es Salaam



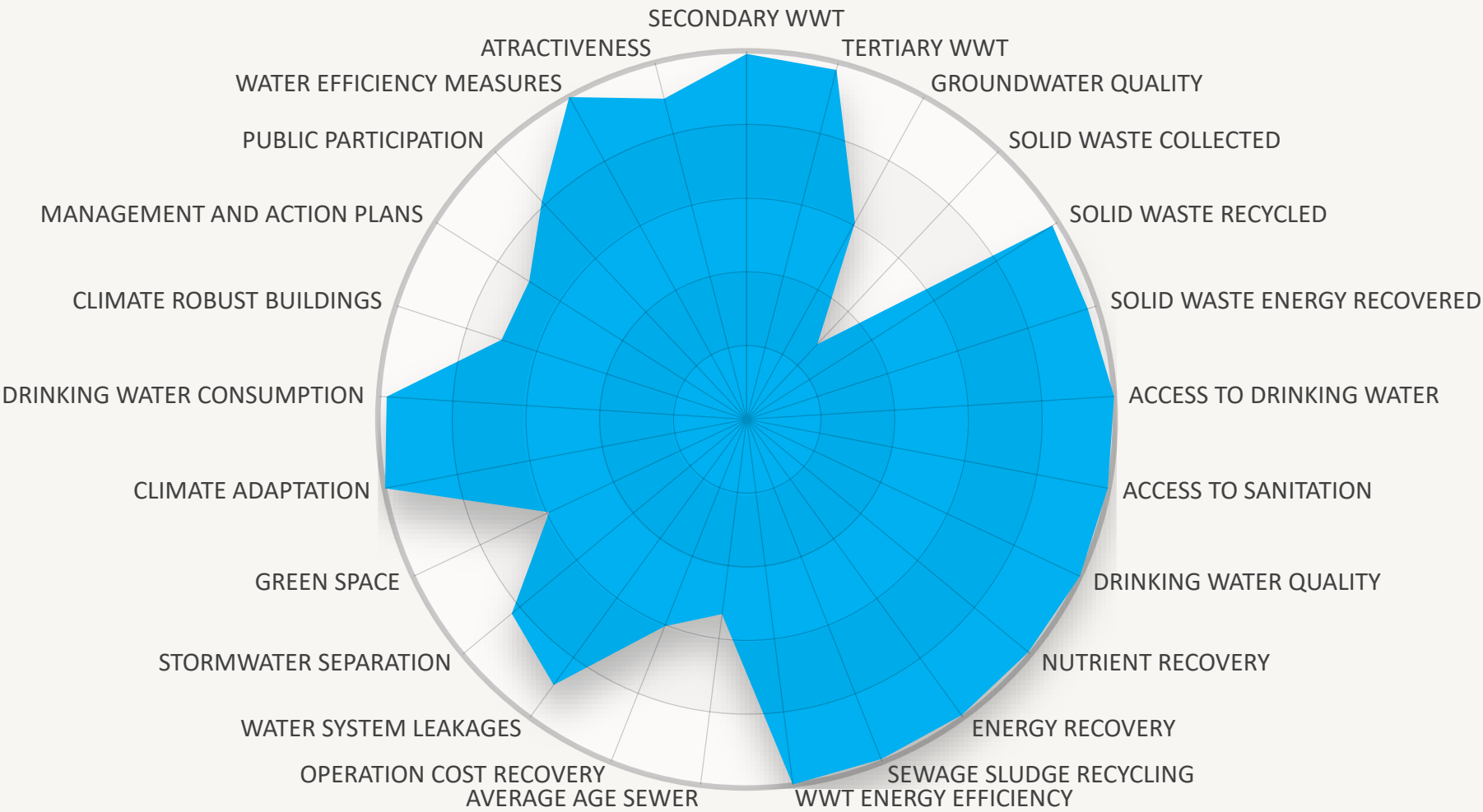
BCI 5.4

Melbourne

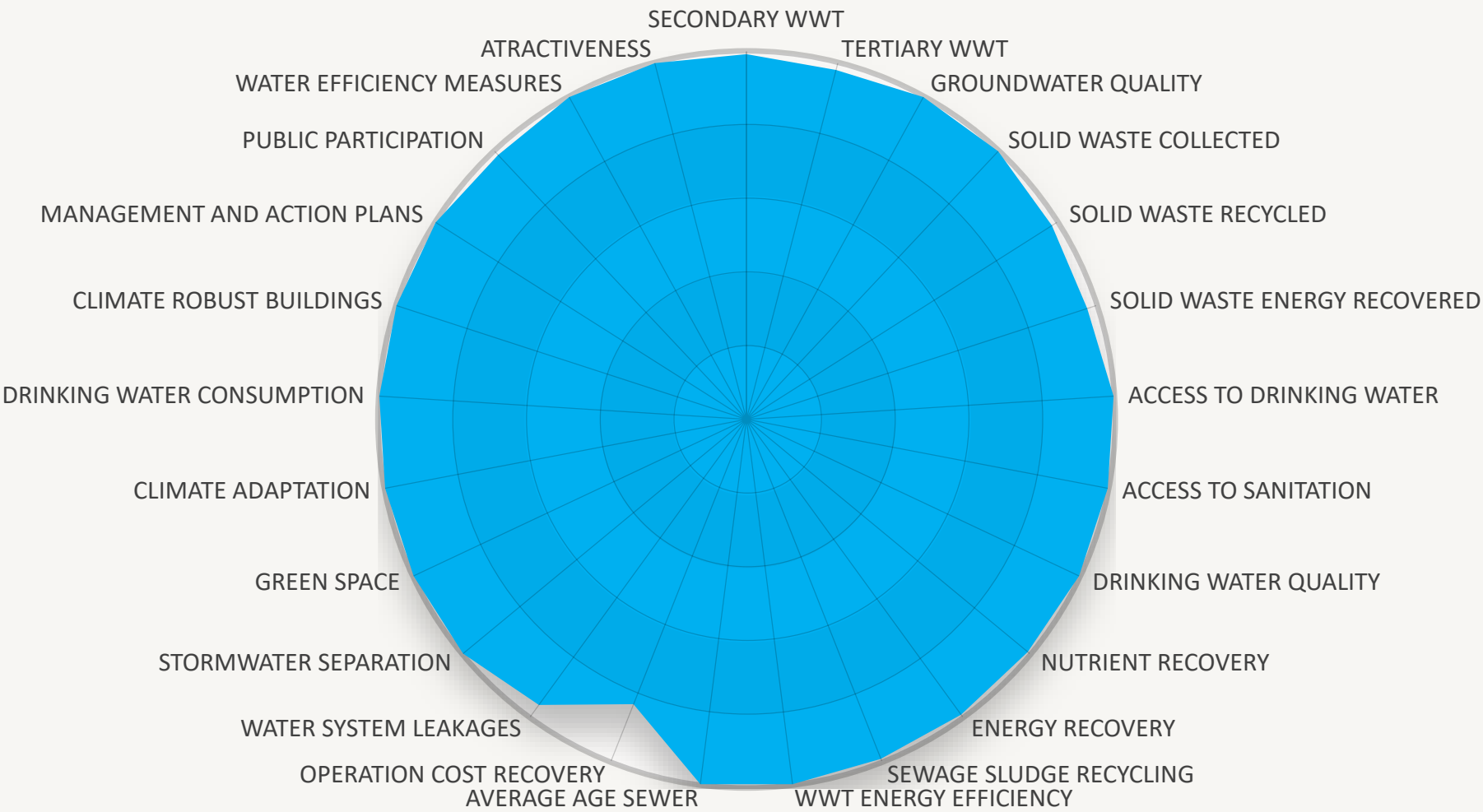


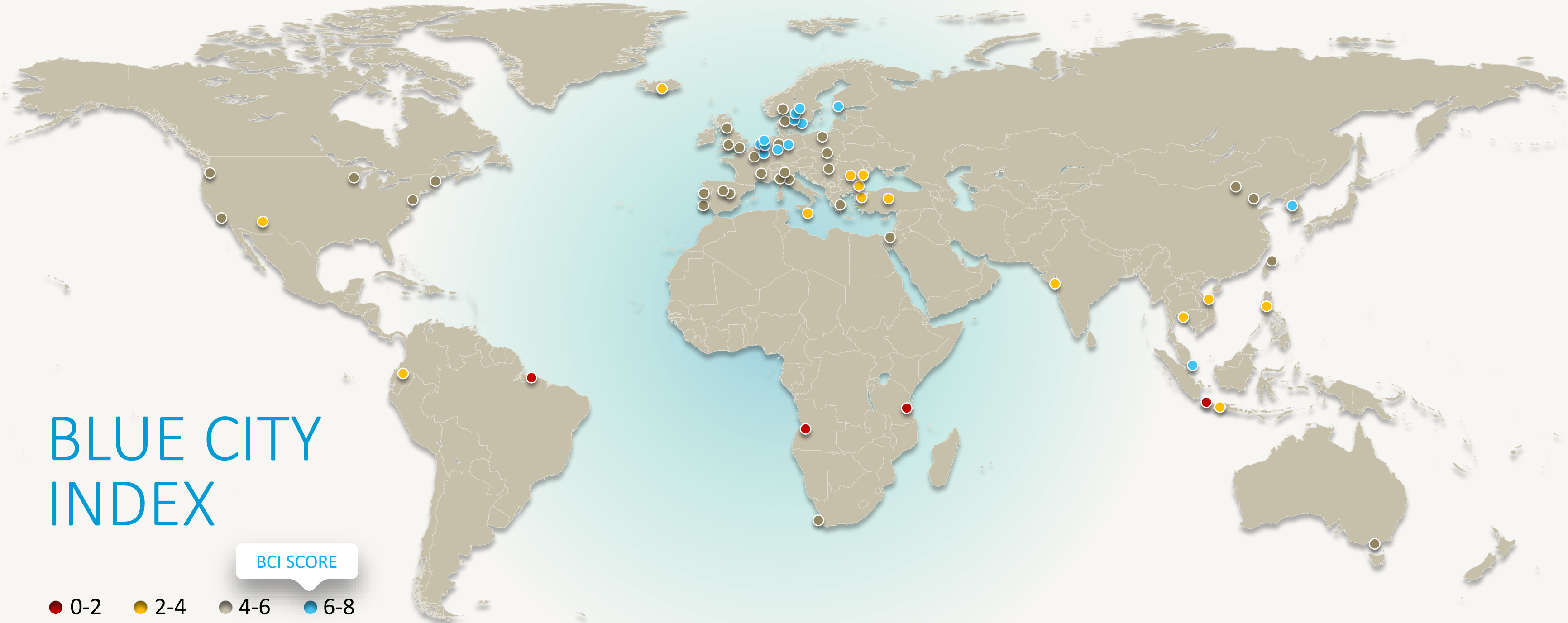
BCI 8.3

Amsterdam

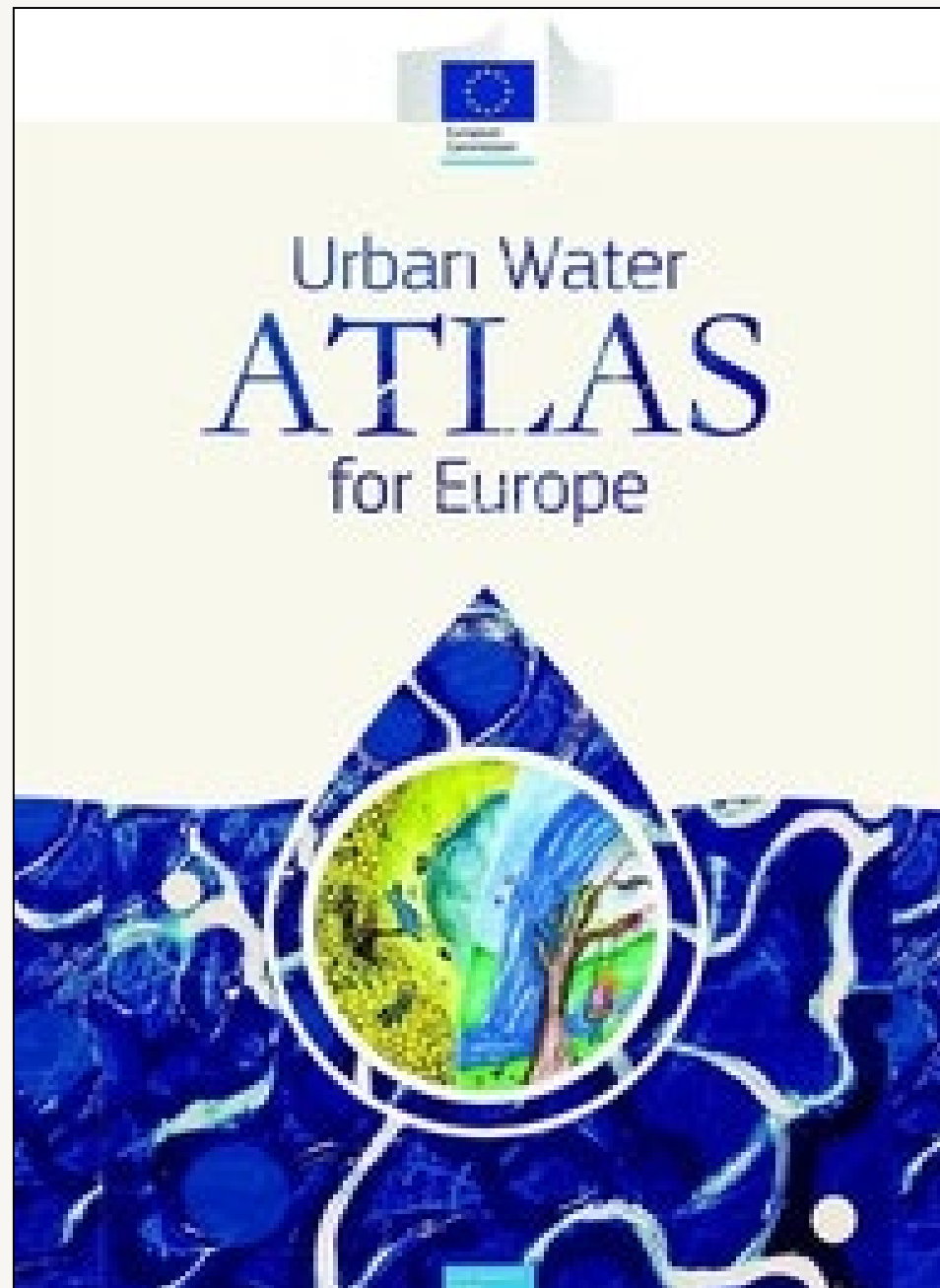


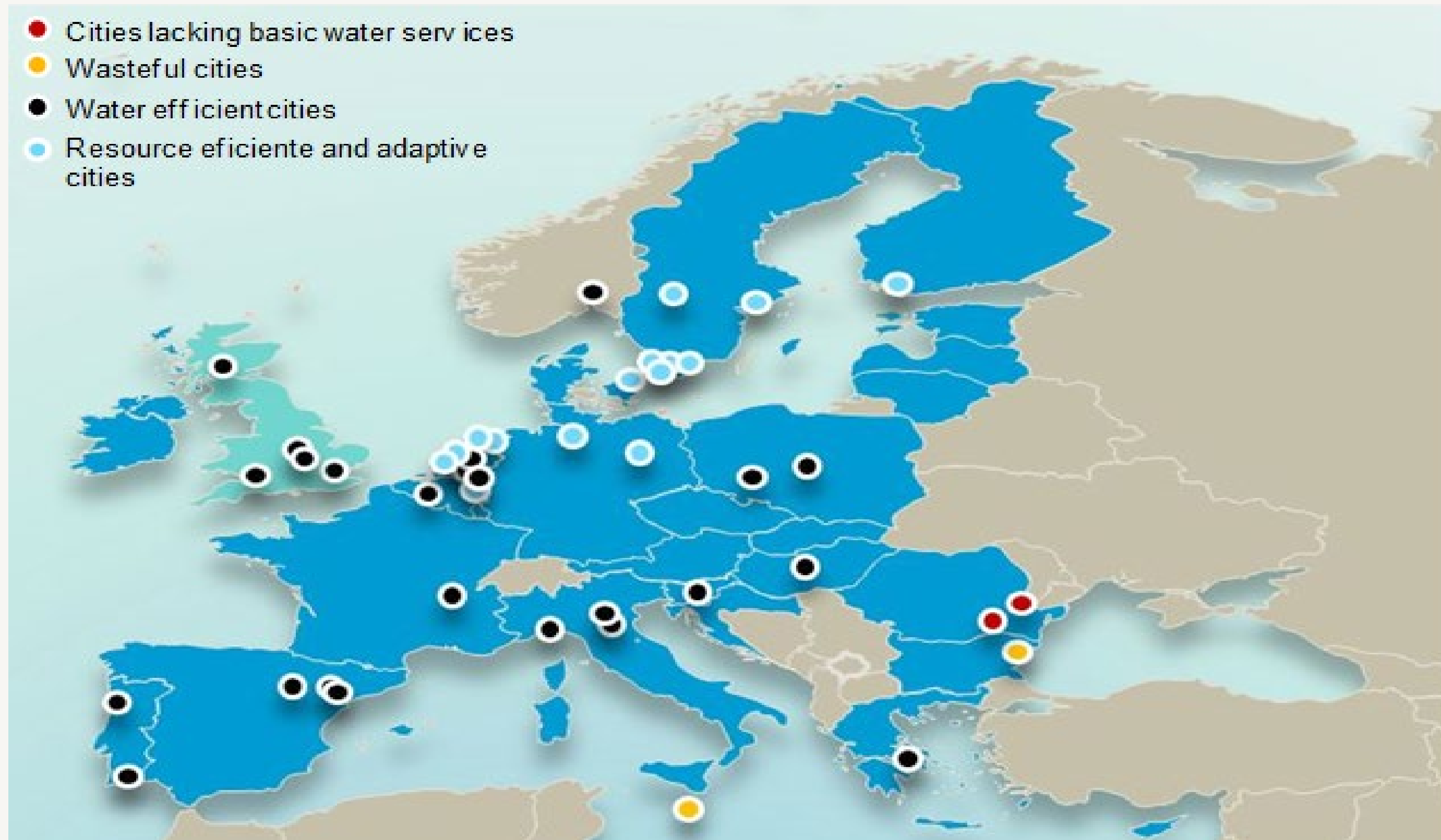
THE BEST SCORES FOR EACH INDICATOR OF 74 CITIES





Urban Water Atlas for Europe



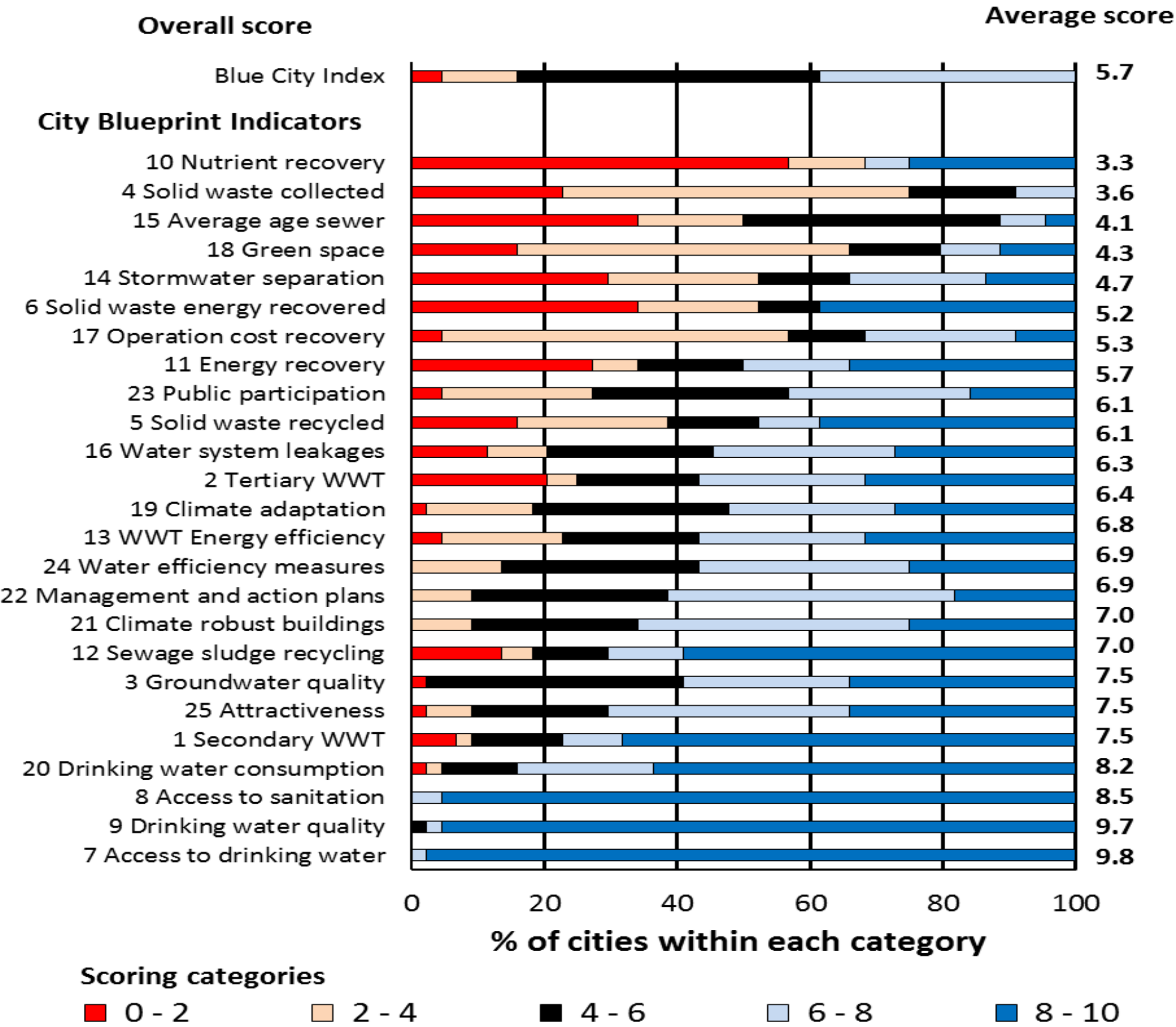


Indicator scores of 44 municipalities and regions in Europe.

The bars in red, pink, black, light blue and dark blue represent indicator scores between 0-2, 2-4, 4-6, 6-8, 8-10, respectively.

Trommsdorff, Koop & Van Leeuwen in:

European Background Report WWF8



Goal of AIWW:

Monitoring of water-related
SDGs at national level
in Europe.

Status: **A Proposal**

Many of the SDGs
are not yet “smart”



The Steps:

1. General policy goals (SDG 6)



2. Assessment endpoints



3. Measurement endpoints



4. Data quality and availability



Kofi Annan Foundation

“Without good data, we’re flying blind. If you can’t see it, you can’t solve it.”



Proposal for a national water- related SDG Performance Framework



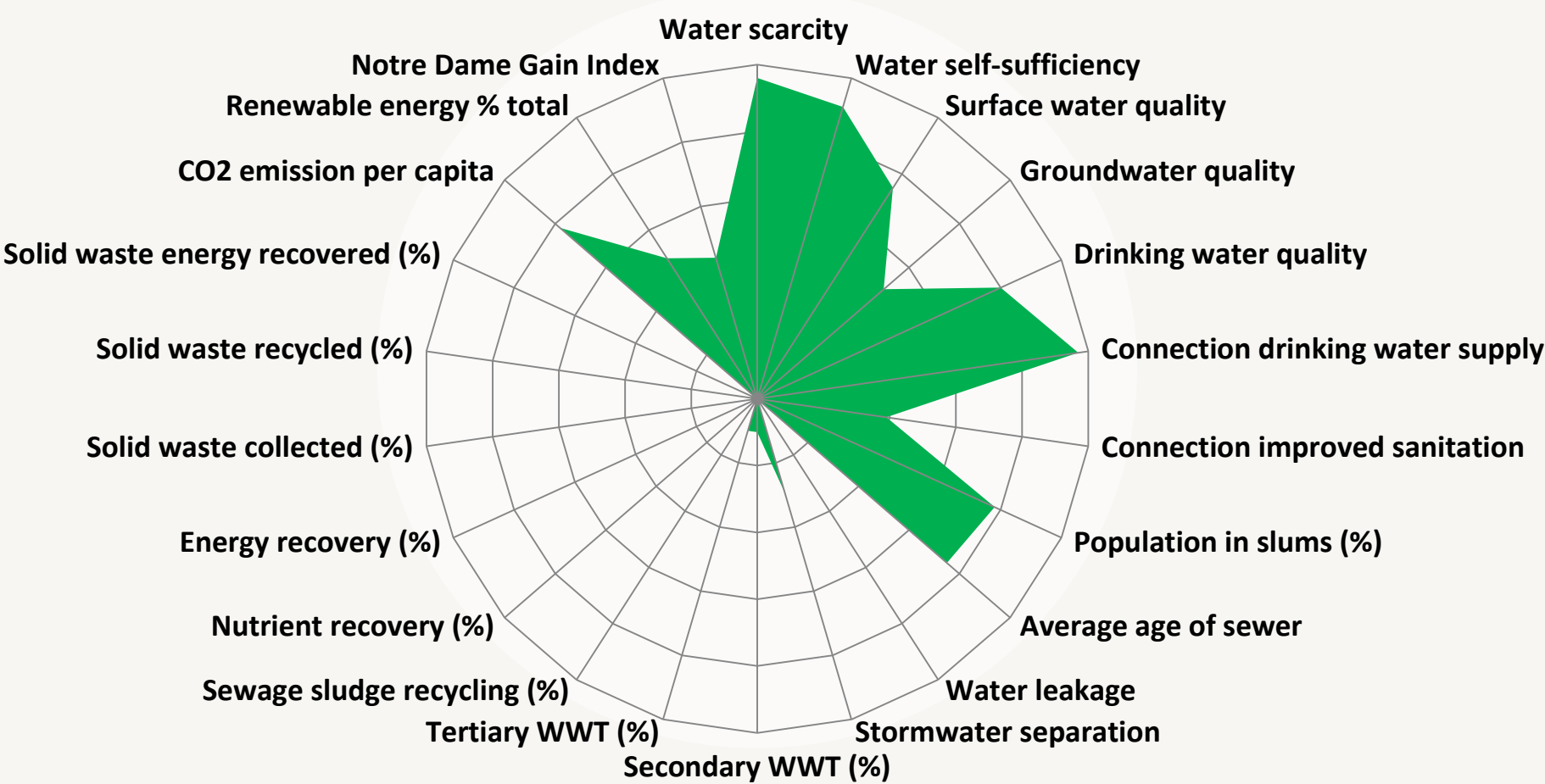
Goal	Baseline assessment of National Water Resources Management
Indicators	<p>Twenty-two indicators divided over seven categories:</p> <ol style="list-style-type: none"> 1. Water stress 2. Water quality 3. Basic water services 4. Infrastructure 5. Waste water treatment 6. Solid waste treatment 7. Climate adaptation
Data	Public data (UN, World Bank, OECD, Eurostat, EEA, national authorities, scientific community) or other data from stakeholders based on a questionnaire
Scores	0 (concern) to 10 (no concern)
BNI	Blue National Index, the geometric mean of 22 indicators which varies from 0 to 10
Stakeholders	e.g. AIWW, European Commission, national authorities, WssTP, companies, NGOs,
Process	Interactive with all stakeholders involved early on in the process

National Blueprint performance Framework (NBF). A proposal

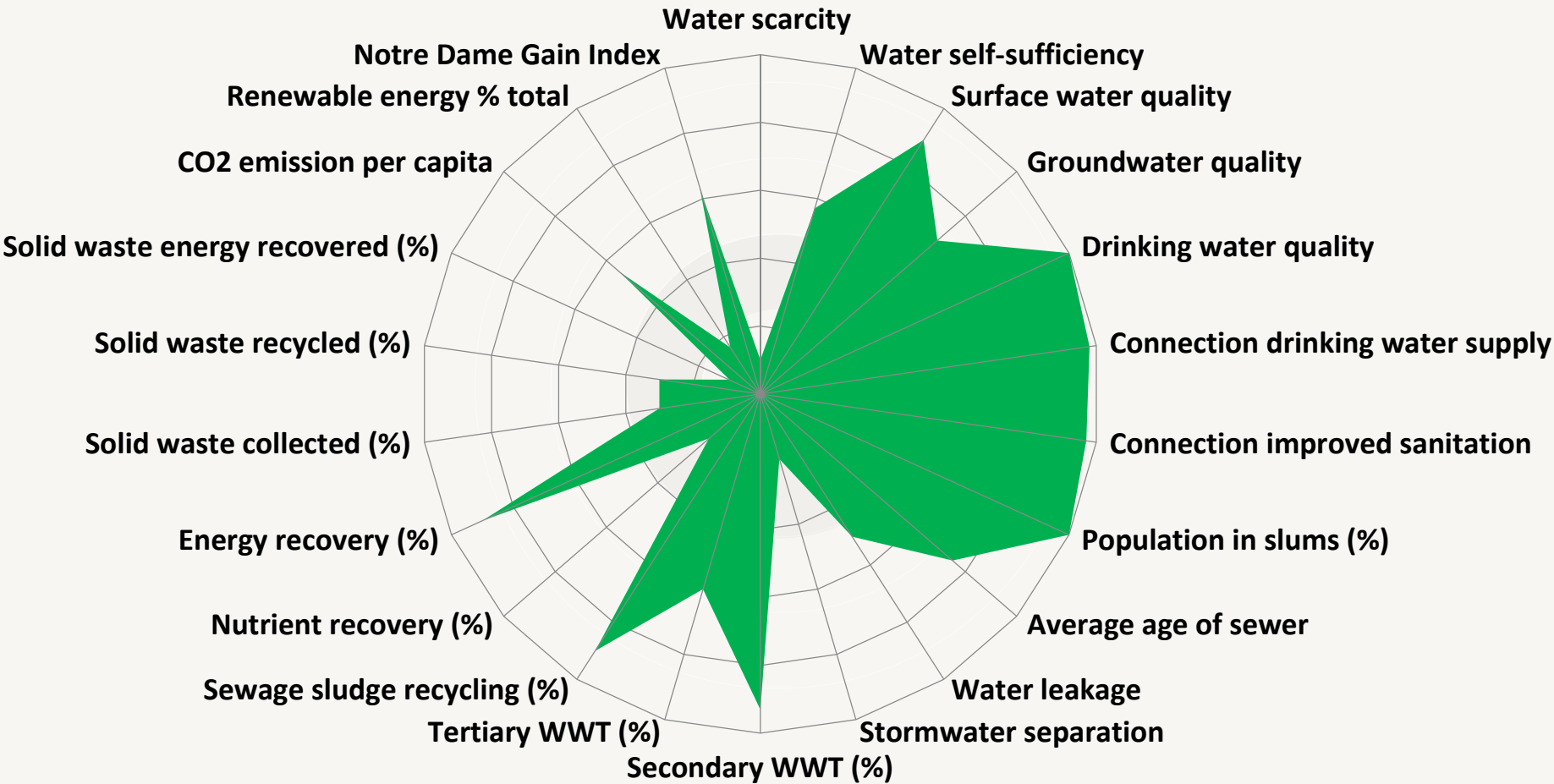


Category	Indicator
1. Water stress	1. Water stress (AquaStat)
	2. Water self-sufficiency
2. Water quality	3. Surface water quality
	4. Groundwater quality
	5. Drinking water quality
3. Basic water services	6. Connected to drinking water supply (%)
	7. Connected to improved sanitation (%)
	8. Population in slums (%)
4. Infrastructure	9. Average age of sewer (y)
	10. Water leakage (%)
	11. Stormwater separation
5. Waste water treatment	12. Secondary WWT (%)
	13. Tertiary WWT (%)
	14. Sewage sludge recycling (%)
	15. Nutrient recovery (%)
	16. Energy recovery (%)
6. Solid waste treatment	17. Solid waste collected (%)
	18. Solid waste recycled (%)
	19. Solid waste energy recovered (%)
7. Climate adaptation	20. CO2 emission per capita
	21. Renewable energy % total
	22. Notre Dame Gain Index

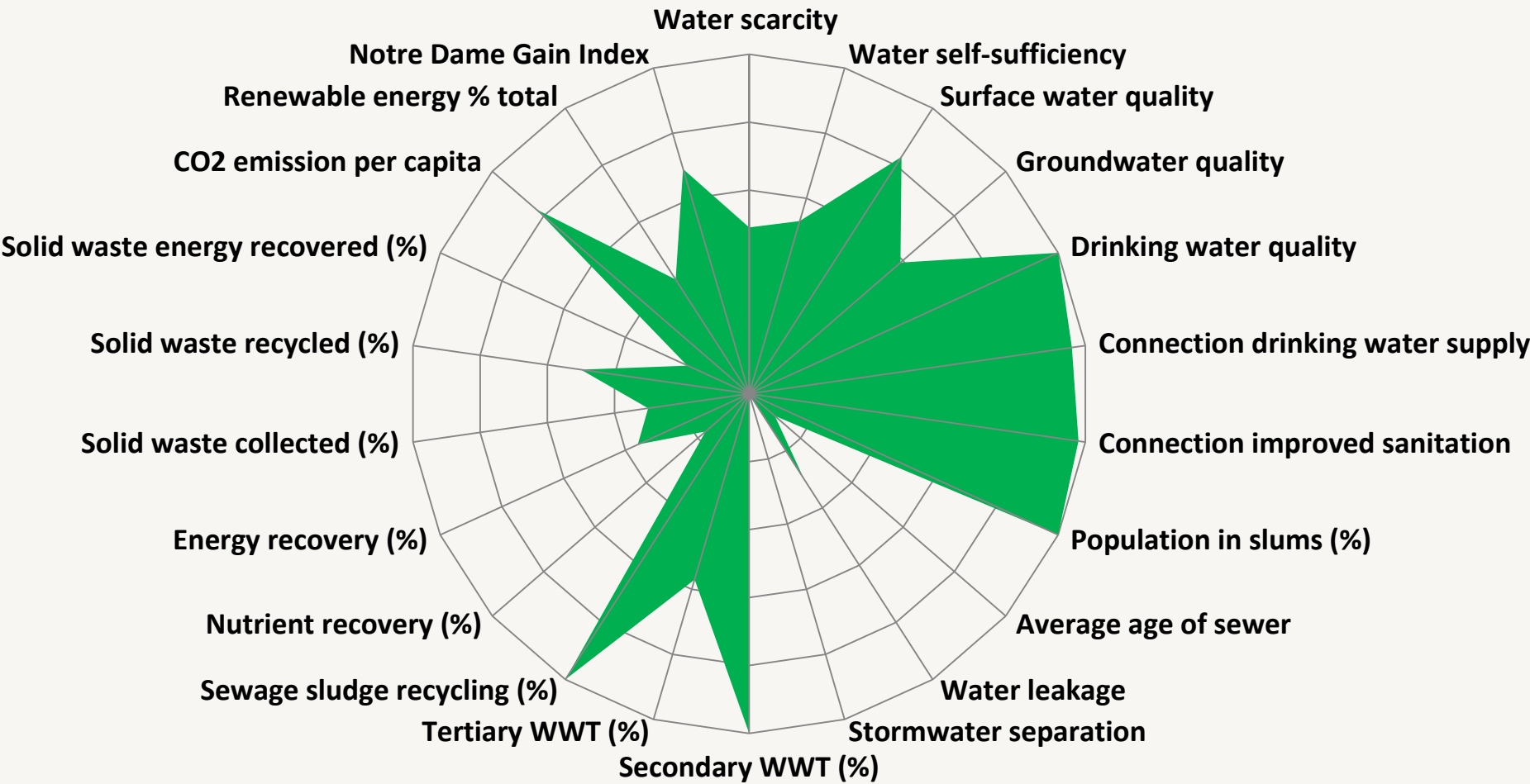
Brazil



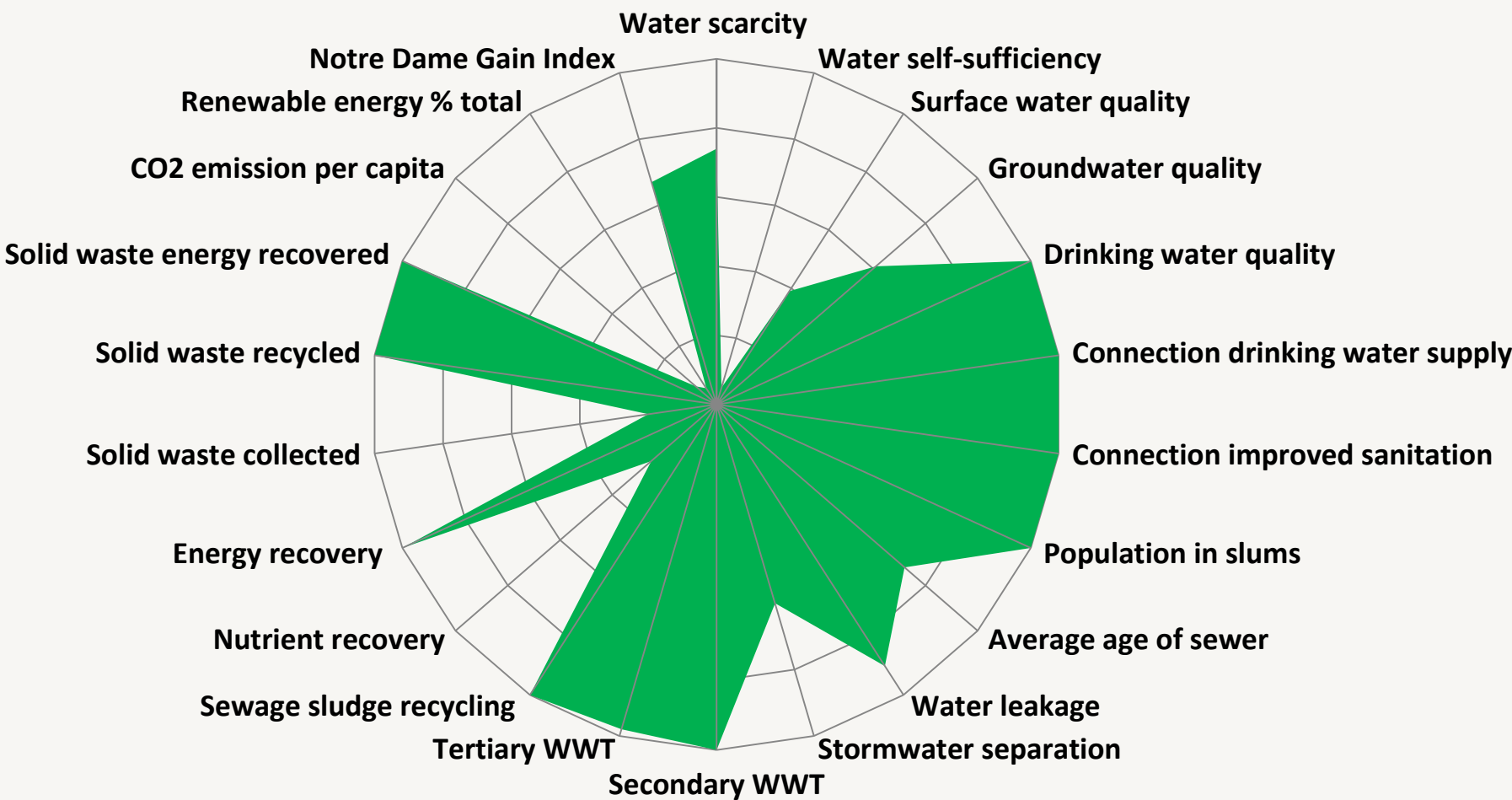
Spain



United Kingdom



Netherlands



Conclusions

- The National Blueprint Framework is work in progress.
- Water is not a political priority in Europe, whereas it is our most expensive infrastructure
- City Blueprints and National Blueprints may facilitate the monitoring of progress on resilience management of water, waste and climate change in municipalities, regions and countries
- Data collection is both a bottleneck and challenge....
- Potential collaboration between e.g. WssTP, European Commission, JRC, EEA, AIWW, national authorities.

UNEP (2013). City-level decoupling

- **PLAN OR WASTE YOUR MONEY**

“Sooner or later, the money needed to modernise and expand the world’s urban infrastructure will have to be spent. The demand and need are too great to ignore. The solutions may be applied in a reactive, ad hoc, and ineffective fashion, as they have been in the past, and in that case the price tag will probably be higher than USD 40 trillion. After all, infrastructure projects are notorious for cost overruns. But perhaps the money can be spent proactively and innovatively, with a pragmatic hand, a responsive ear, and a visionary eye. The potential payoff is not simply the survival of urban populations, but the next generation of great cities.”

- **REGRETTABLE TRANSITIONS**

“Cities in developing countries may be able to engage in large-scale investments in alternative urban infrastructure technologies to leap frog towards more sustainable solutions rather than wasting valuable resources to implement what must later on be dismantled”

For more information: https://www.eip-water.eu/City_Blueprints

For questions please contact: Kees.van.Leeuwen@kwrwater.nl

Key publications

- **Atlas:** Gawlik B, Easton P, Koop S, Van Leeuwen K and Elelman R (2017) The European Urban Water Atlas, European Commission, Publication Office of the European Union, Luxembourg, 160 pp. :
<https://publications.europa.eu/en/publication-detail/-/publication/c296a413-24cc-11e7-b611-01aa75ed71a1/language-en/format-PDF/source-31420221>
- **Governance Capacity Analyses:** Koop SHA, Koetsier L, Van Doornhof A, Van Leeuwen CJ, Brouwer S, Dieperink C and Driessen PJ (2017) Assessing the governance capacity of cities to address challenges of water, waste, and climate change. Water resources management 31:3427-3443 <http://link.springer.com/article/10.1007/s11269-017-1677-7>
- **City Blueprint:** Koop SHA, Van Leeuwen CJ (2015b) Application of the improved City Blueprint Framework in 45 Municipalities and Regions. Water Resources Management 29:4629-4647
<https://link.springer.com/article/10.1007/s11269-015-1079-7>