

GREEN INFRASTRUCTURE CITYLAB



Green Infrastructure Citylab 5 (Thursday 19 June 2014): REPORT

On 19 June 2014, the Gauteng City-Region Observatory (GCRO) held its fifth Green Infrastructure (GI) Citylab. The Citylab builds on the foundations laid by the 'State of Green Infrastructure in the GCR' report (SGIR), launched in July 2013. The Citylab provides a platform for the co-production of policy relevant knowledge between government practitioners and researchers. The aim of this Citylab is to collectively develop, over the course of two years, a Green Infrastructure Plan for the Gauteng City-Region (GCR). This will feed into the Gauteng Integrated Infrastructure Master Plan (GIIMP) being developed by the Gauteng Planning Commission (GPC).

The fifth session focused on exploring the opportunities and barriers for implementing a combined green-grey engineered solution as part of a green infrastructure approach. This session also continued the discussion on defining a process towards completing a Green Infrastructure Plan for the city-region. In this session, a guest expert Stuart Dunsmore (Fourth Element) presented on the design and uptake of combined grey-green engineered solutions at the municipal level, with a specific focus on his experiences in Ekurhuleni. His presentation was based on a scoping paper that Fourth Element is currently completing for the Citylab process.

Attendance

Stuart Dunsmore	Fourth Element
Theo Bernhardt	JCPZ
Budu Manaka	SANBI
Thinus Prinsloo	City of Tshwane
Mahlodi Tau	SANBI
Mokgema Mongane	GPC/Office of Premier
Anne Fitchett	Wits Civil Engineering
Susan Stoffberg	WRDM
Graeme Gotz	GCRO
Kerry Bobbins	GCRO
Christina Culwick	GCRO

Meeting proceedings

The fifth Citylab meeting began with a brief update on the status of commissioned work to be included in the Green Infrastructure Plan Framework/GCRO Occasional Paper. The following experts have been commissioned: Anton Cartwright (ACC) & Gregg Oelofse (City of Cape Town); Myles Mander (Futureworks); and Stuart Dunsmore (Fourth Element). Final drafts completed by Anton Cartwright and Gregg Oelofse and FutureWorks have been received. The first draft of the commissioned piece completed by Fourth Element has been received and will undergo edits before the final draft is submitted for inclusion in the GCRO's Occasional Paper.

Stuart Dunsmore presented key findings from the scoping paper that Fourth Element has been commissioned to do. The presentation drew on interviews with various municipal officials (CoJ and EMM) and included perspectives on the role of GI and how it aligns with existing infrastructure design and planning approaches. He discussed perspectives on ecosystem services and the need for a GI asset register to form the basis for GI planning. Dunsmore highlighted some of the opportunities and challenges related to GI planning and funding, as well as a range of possible GI projects for the GCR. The presentation concluded with reflections on the Atlasville Spruit upgrade project. Dunsmore's presentation led to a discussion on a GI asset registry, design standards and life cycle costing. This was followed by a discussion on various projects and framing case studies to be incorporated into the next phase of the GI Citylab.

Key points that emerged from the session include the following:

- The definition of GI is important and this will determine the ecosystem services that are identified as significant within particular contexts. GI already aligns with various design and planning standards (e.g. water sensitive urban design (WSUDS)); however these design and planning standards do not always link with GI objectives, as they are not necessarily linked to ecological systems.
- GI needs to be afforded a status similar to traditional grey infrastructure. Identifying the services that green infrastructure provides starts with identifying and capturing green features in an asset register.
- Green and grey infrastructure need to be planned as an integrated network and not just at a project scale. This is because the benefits of a GI system are far greater than the benefits from individual GI components in engineered solutions.
- There are some international design standards that can be applied to Highveld conditions; however this is not the case for all green infrastructure options and thus research is required to understand how these options function in the local conditions.
- The need for co-operative governance and effective coordination between departments is critical. This is because departments that are required to undertake maintenance on GI projects may not necessarily be the same as the department that developed the project. At present, departments tend to adapt projects and plans so that they do not need to rely on other departments for input and/or maintenance.
- The maintenance budget for GI projects is often not sufficient. This is partly due to the fact that there is no asset register for GI, on which budgets can be based.
- Budgeting for GI projects should include lifecycle costs (including maintenance), and not just investment costs. Lifecycle costing needs to be the basis for comparison when deciding between GI and grey infrastructure approaches.
- The Atlasville Spruit project highlighted the need for inter-departmental coordination and for the same design team to be involved in the entire project from start to finish. Initially in the Atlasville project, the roads and stormwater department was not convinced of the GI approach, but at the end of the project they had become strong proponents of the approach. However a weakness was that the landscape architect was not a permanent member of the team, and was not available when key GI choices requiring specialist knowledge had to be made.

- A GI asset register would help not only with allocating budget for maintenance, but also in the planning of the GI network. For planning traditional infrastructure, the existing assets are identified and captured in the asset register. In planning for new infrastructure, the gap between what is on the existing asset register and projected future requirements can be compared.
- There are two approaches to developing a GI asset registry, namely to identify the services that are provided by GI and/or to identify the green assets and then analyse what services are attributed to these assets.
- GI projects have the potential to involve communities and provide opportunities for creative labour options to ensure continued maintenance over the long term.

Action items

Note: Bold text indicates who is responsible for each item.

1. Participant list – ensure the right people are included (**ALL PARTICIPANTS WITH GCRO**)
2. Comment on 3rd commissioned piece when circulated (**ALL PARTICIPANTS**)

Upcoming Citylabs

	Proposed Dates	Topic
1	14 Aug 2014	Occasional Paper Presentation & Agreement on work for 2014/15
2.	16 Oct 2014	Preliminary presentations on Case Study work
3.	22 Jan 2015	Presentation of Case Studies
4.	5 Mar 2015	Agreement on work in 2015/16 (budget discussion)