Bringing ideas to life

HEFMA Scoping Workshop **Write-Up**

Co-creating the future of the university campuses of southern Africa

BUILDINGS OF THE FUTURE

People at the centre

aurecon

Facilitated by:

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Attendanc

Name	Organisation
John de Wet	Stellenbosch University
Zodwa Mavhungu	UNISA
Hestelle Melville	UWC
Sefako Motaung	CPUT
Caxton Manyumwa	CPUT
Manelisi Rarani	CPUT
Peter Peters	NMMU
Vanessa Ranjit	TUT
L Mthethwa	TUT
J Manyaka	UJ
Desleen Saffier	UCT
Anton Kriel	Stellenbosch University
David Naude	Stellenbosch University
Charin Skeen	Stellenbosch University
Phumlani Mathebula	Stellenbosch University
Maggie Walters	Stellenbosch University
Heinrich Arends	Stellenbosch University
SF van der Linde	Aurecon
Martin Smith	Aurecon
Francois Joubert	Aurecon
Ryan Alexander	Aurecon
Gerhard Gous	Aurecon

Martin Smith

is a Technical Director in the Built Environment in Aurecon and has been a pioneer in the space of transitioning from the importance of Green Buildings to Green Precincts.

Martin presented an overview of some of the promising technologies and thinking that could be used to inspire the participants of what they could imagine for their facilities. He began his talk highlighting how the world as we know it has changed with technology. Demonstrating how not so long ago it would have taken weeks to get through 100 letters, but today most of us get through 100 emails or WhatsApp messages before 11am!

Optimistic predictions of the future suggest that as technology improves, we might be able to create more value out of shorter work hours, and time will therefore become a commodity. How does this affect the built environment?

How will our future generations live, learn, work and play?

- Latest trends in the Built Environment should always focus on a human centred design
- Technology should be "in the background" enabling people
- Different tools to rate sustainable designs: EWC, Green Star, NABERS Energy rating , WELL Building Standard
- Elements that differentiate a Smart campus from the rest: "Smarts", Active Living and Wellness, Sustainability, underpinned by integrated, efficient water, energy, transport and waste management systems

SF van der Linde is the Client Director for Property, Africa at Aurecon. Building on from Martin's presentation, SF highlighted that the objective of the day would be the start of a conversation into how we could start to build a sustainability framework for university campuses across South Africa. He began with a simple question: **Where do we start?**

We recognise that at the centre of a sustainable campus, are the people. We therefore need to begin by identifying all the stakeholders in the process, and understand why this matters to them. From there we can start to identify the elements that differentiate a "Smart" campus from the rest, examples of these "Smarts" include designing the following concepts into the campus:

- Green buildings – understanding that these are not necessarily more expensive than traditional builds, they can in fact be more cost effective, especially over the long term.
- Smart control of precincts – gather data generated by the different systems in a coherent, integrated way, and use those in a feedback loop to adjust certain parameters to optimise efficiencies
- Integrated systems – ensure that all infrastructure such as transport, water, energy, waste and communication are all well integrated
- This can be done through apps that place the relevant information in the hands of the stakeholders and user, e.g.:
  - Parking solutions, traffic warnings, security issues, disaster management processes, etc.

Outcome:

Serving as an icebreaker, this game achieved exactly what was hoped. The teams all rushed in to create a game and after 2 minutes it was evident that although the instructions said "design ME a game", no one considered Zoë as the stakeholder and what she would have liked.

This provided a clear demonstration of what design led thinking is all about – the end user.

Diagramming | Brainstorming

WHAT IS IT?

A process to access deep memory

- Short term memory only holds 4 things at once

- One word triggers another

- Cognitive association/Associative learning

- **Captures thinking at the speed of thought**

Outcome:

Diagramming is a brainstorming tool for creative writing. Similar to mind mapping, it captures divergent thinking at the speed of thought.

The attendees learnt to use it by practising two rounds, limited to 2 minutes each, between which they shared their insights.

Laughing encouraged the attendees to let their thoughts flow freely in the second round, seeing how far they could get from the original seed word.

Tip: This tool is a great way to quickly generate and map multiple ideas and also to clarify and align a team's thinking.

Outcome:

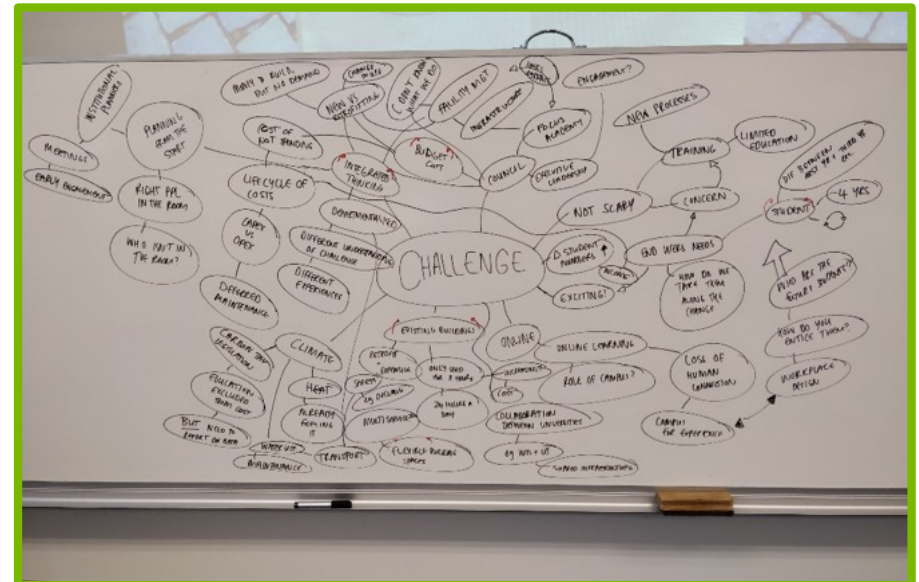Exploring the challenge as a group four main themes stood out:

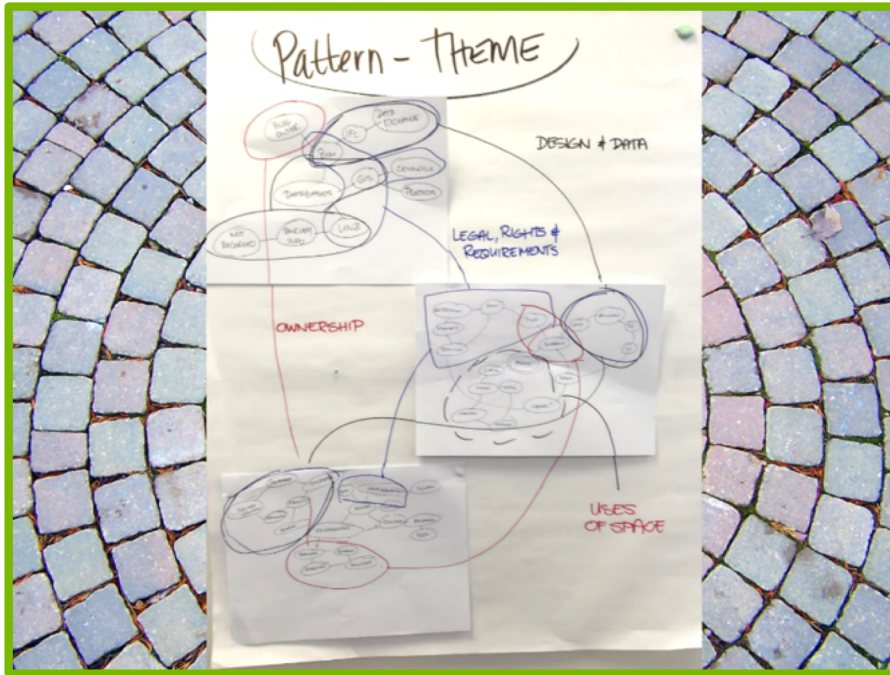**Budget** (the funding and stakeholders involved in making campuses future ready).
Physical Buildings (the utilisation, flexibility and maintenance of).
Students (their needs, the future student and relevancy)
Integration and Communication (between management teams, communication and multi-use of buildings)
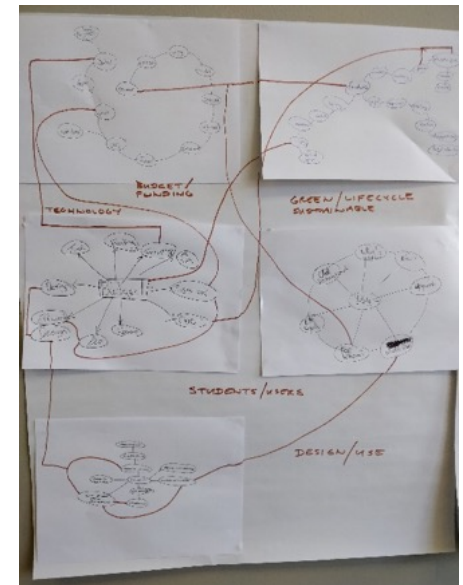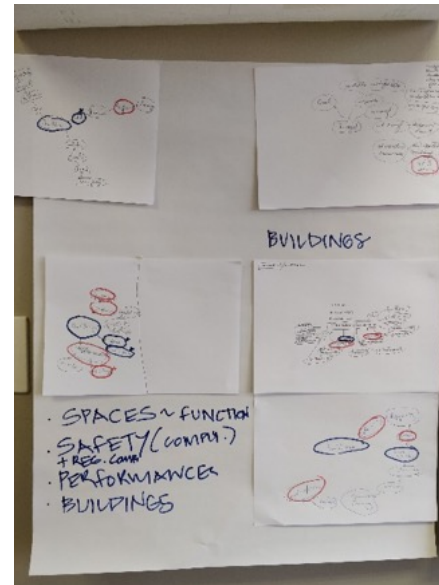

Let's explore our challenge

Outcome:

After exploring the challenge as a group, the attendees were then asked to use diagramming to explore their thinking about a seed word identified from the challenge. Thereafter they moved into working in groups of five where they were able to identify four to five themes.

Outcome:

From the themes, project sentences were then derived as follows:

\# Planning to meet expectations and create awareness can result in new funding sources.

\# Collaboration will ensure flexible infrastructure is optimised and energy efficiency will lead to sufficient. funding being available for investment into future ready initiatives.

\# We need to create highly efficient building spaces which are safe and compliant.

\# Utilise students to generate budget to design a technologically advanced and sustainable campus.

\# How do we build a flexible organisation that meets the needs of stakeholders in a sustainable manner, whilst complying with legislation.

Let's explore our challenge

From patterns... to themes... to your

PROJECT SENTENCE

Statement:

How too we ⭐ build a resilient flexible organisation that meets the needs of stakeholders in ⭐ sustainable manner whilst complying with legislation?

Statement:

& DESIGN
→ PLANNING BASED ON THE FUNDS AVAILABLE AND SOUND INFO/DATA, CAN LEAD TO IMPROVED AWARENESS TO MEET EXPECTATIONS

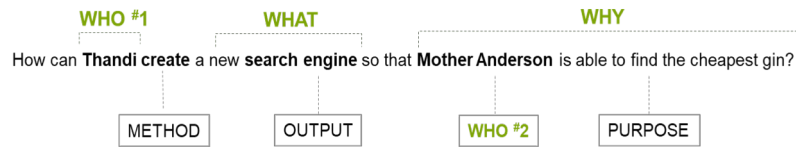PLANNING TO MEET EXPECTATIONS AND CREATE AWARENESS CAN RESULT IN NEW FUNDING SOURCES

Statement:

HIGH PERFORMING BUILDINGS AND SPACES ARE SAFE + COMPLI:

WE NEED TO CREATE HIGHLY EFFICIENT BUILDINGS SPACES WHICH ARE SAFE + COMPLIANT.

Statement:

a green, technologically-advanced student spaces within available budget.

use Utilize students to generate budget to design a technologically advanced & sustainable campus.

A Focal Question is a single sentence that, when done properly, becomes a design brief in a sentence. It acts as an anchor, giving clarity on a problem and a fence demarcating the scope. It's an approach to unpack a problem, and confirms who is accountable to solve it. It also identifies and clarifies the true beneficiary of the solution and importantly, why it matters to them.

Tip: There is usually more than one Focal Question within a standard problem statement, depending on the number and needs of the key stakeholder on whose behalf you're solving the problem. The key is to choose SPECIFIC beneficiaries.

FOCUS. Focal Question

WHO #1   WHAT   WHY

How can **Thandi create** a new **search engine** so that **Mother Anderson** is able to find the cheapest gin?

METHOD   OUTPUT   WHO #2   PURPOSE

Follow the structure:

- Always use **HOW** to direct action
- **WHO** identifies 'who' is accountable to delivering the 'what'
- **WHAT** is the project/action/outcome you want to work on
- **WHY** specifies the stakeholder and the value/purpose

REMEMBER: The Project sentence is your 'WHAT' so start the conversation around the WHY.

Outcome:

The first attempt at a focal question:

\# How can FM's create awareness and meet expectations so that students get value for money?

\# How can executive management ensure flexible infrastructure is optimised and energy efficient so that Stephen Hawkins can have the best future ready exposure?

\# How can facilities management create highly efficient building spaces which are safe and compliant so that students can be attracted to university?

\# How can Heinrich design a green tech advanced student space within budget so that the contemporary tech savvy student can receive education?

\# How can facilities managers maintain and provide lifts and ramps so that Caxton can access academic facilities in his wheel chair?

Focal questions are essentially a brief for someone to do something for someone else, for a reason that is important to them. To understand what might be important to the beneficiary (Who 2), the participants were asked to conduct interviews. Each team was asked to select an interviewee (representing Who 2), an interviewer, an observer and a scribe (written and illustrator scribes).

Lesson Learnt: It's important to prepare for an interview, and to know what you want to learn from the person you are interviewing, otherwise it loses impact.

INTERVIEWING

Stories reveal important issues and opportunities that may be hidden in everyday experiences. Asking the right questions can elicit rich stories, information, unmet needs and hidden meaning.

How to use it?
- Ask participants or stakeholders to tell a story about an actual event in their past: "tell me about a time when *you last went to a shopping mall*"
- Use the "five why's" technique: ask why questions in response to five (or as many as necessary) consecutive answers to get stakeholders to examine and express underlying reasons for their behaviours and attitudes
- Ask participants or stakeholders to show you the things they are talking about or that they interact with
- Ask naïve questions, encouraging people to explain how they think or perform a particular task can give you a deeper understanding
- Ask participants or stakeholders to 'think out loud' while they perform tasks

Helpful hints
- Keep your mind open – do not ask questions with assumptions in mind
- Bring someone else along to listen and scribe, they might hear something you missed or pick up on different needs
- See page on *Eight Ways to Improve a Question* for more help!

OBSERVING

First hand observation of people in context to understand people's behaviours, perceptions and needs. This enables us to understand the discrepancy between what people say and what people do and identify unarticulated needs.

How to use it?
- Step into the user's environment to capture the full context
- Set the scene you are observing - time, date, location, and who is present
- Observe the physical space – what does the space look like, any smells, the temperature, sounds, and so forth.
- Observe the people – who is there, what they look like, what they are wearing. If you know them, include names.
- Observe group interactions – are people standing in groups, is there always one person first to talk? Etc.
- Observe non verbal behaviours such as laughter, smiling, body language, eye contact
- Make factual observations – **just the facts**. An observation: Two women are facing each other, laughing, and relaxed body language. An interpretation (what we try to avoid) would be the two women are friends and one just said something funny.
- Take photos or use other recording devices to help you with your notes later
- Highlight things that jump out at you / any unexpected observations

Helpful hints
- Keep your mind open – it is important to observe without interpretation or judgement
- Bring someone else along to observe, they might notice different things to you. This is important to eliminate our own biases.

Stakeholder-centric

- Who is "Mother Anderson?"

Stakeholder-centric
- Place "Mother Anderson" in the centre of page
- Add additional stakeholders relating to action
- Show their connection – close or distant
- Prioritise
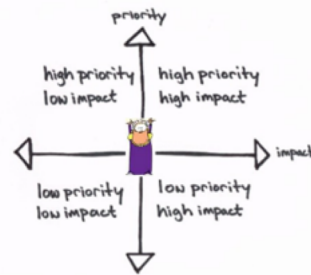
Outcome:

Ecosystem maps visualise and highlight connections between stakeholders, both internal and external, within a complex environment.

They help to create a clear, comprehensive picture of the people in a stakeholders' world and their relationships as a network of interactions and how they influence and/or impact one another.

By using a stakeholder ecosystem map, the teams were able to identify the key roleplayers in the lives of their "Who 2". The stakeholders identified in the top right corner, indicate the people who have a high priority to the user, and could generate high impact in terms of the action.

The following "Who 2's" were explored by the teams:
- #   A disabled student in a wheel chair
- #   A tech savvy student
- #   A 60 year old student with a family
- #   A highly intelligent academic focussed student
- #   A student having financial difficulties
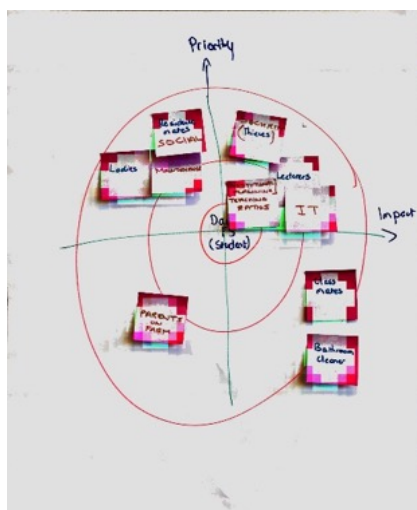
Outcome:

Reframed focal questions;

\# How can the facilities manager create great free on campus experiences so that Thandi get value for money?

\# How can VC ensure flexible infrastructure is optimised and energy efficient so that Stephen Hawkins be a Nobel laureate?

\# How can facilities management create highly efficient building spaces which are safe and compliant so that Trudie can be attracted and have accessibility to university?

\# How can Heinrich create a safe, trending and learning environment so that David can have a personalised, enjoyable and academic student experience?

\# How can facilities manager maintain and provide lifts and ramps so that Caxton can access academic facilities in his wheel chair?

REFRAME. Focal Question

WHO #1   WHAT   WHY
How can Thandi create a new South African based search engine so that Mother Anderson is able to search quickly for the cheapest locally produced gin?

METHOD   OUTPUT   WHO #2   PURPOSE

South African, locally produced SPECIFICITY

Your turn!

- Place your project sentence in the 'WHAT'

How can _____ _____ so that _____ ?
WHO #1   WHAT   WHO #2 & WHY

All truths are easy to understand

once they are discovered;

the point is to discover them.

- Galileo Galilei

Way Forward

This Scoping Workshop, held on 22 November 2018, was the first of four workshops that will be used to design a sustainability framework that the universities within HEFMA can use to become future ready.

The purpose of this workshop was to introduce Aurecon's Design to Innovate methodology, explore the problems currently facing facilities managers, and demonstrate the importance of designing for the end user.

Over the next three workshops, participants will work through the Design Wave (shown alongside).

The four workshops each coincide with the board meeting of the HEFMA executive committee, and will therefore occur at a different university each time.
As such, there will be a different pool of attendees, with only the facilitators and executive group acting as the golden thread.
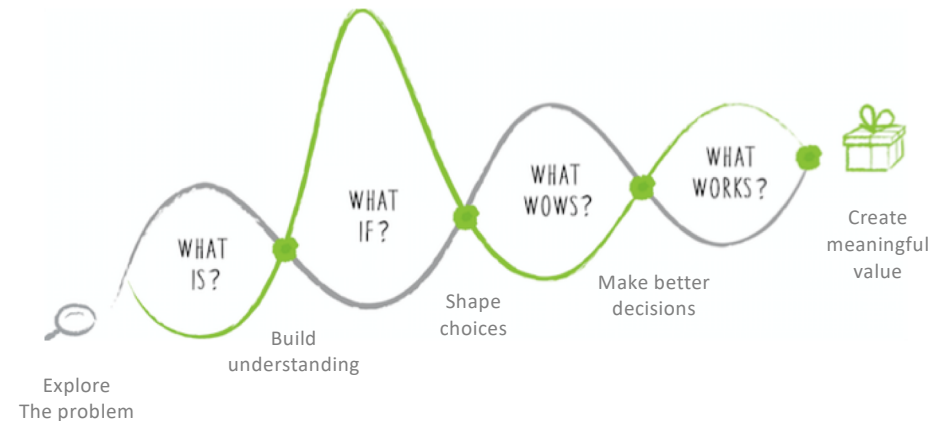
In the next workshop, (21 February 2019 at the University of Johannesburg), we will explore "*What Is?*".
In preparation we will ask attendees to undertake a few interviews to explore the insights of the people who use their facilities.

This exercise will be fully communicated to all invited in the new year, along with confirmation of the workshop date and venue.

WHAT IS?

WHAT IF?

WHAT WOWS?

WHAT WORKS?

Explore The problem

Build understanding

Shape choices

Make better decisions

Create meaningful value

Thank you!

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