A living lab Living Lab





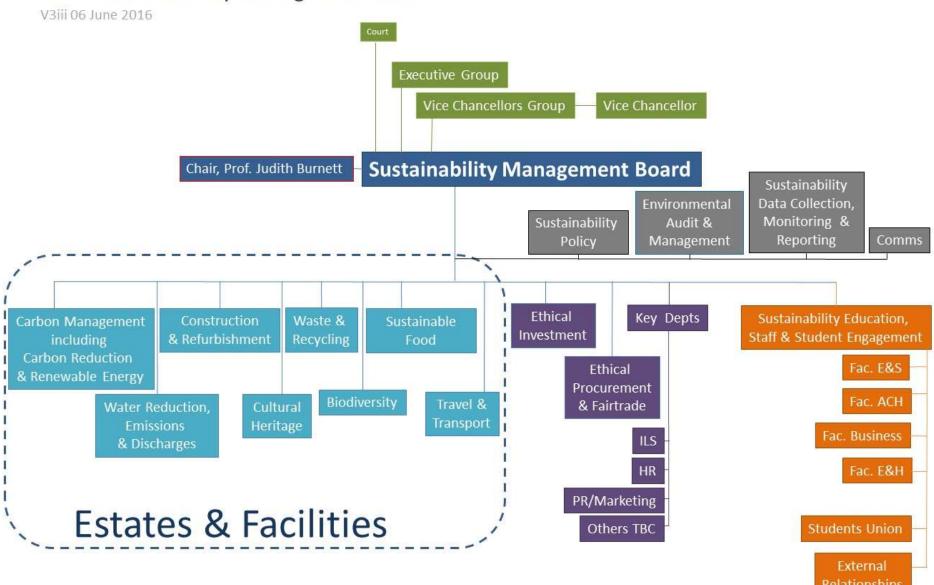
University as a 'Living Lab':

Living Labs are applied research opportunities which can improve the estate and solve practical problems. Research can be applied in other areas of the institution's operations and activities.

Leading Living Lab practitioners include the following universities MIT, <u>Cambridge</u> and <u>Manchester</u>.

Organisational and Reporting Structure of the Sustainability Management Board





'Living Lab' Faculty Opportunities

	FACH	FBus.	FES	FEH
Estates:				
Energy & water data	$\checkmark\checkmark\checkmark$	$\checkmark\checkmark$	$\checkmark\checkmark\checkmark$	✓
Energy & water saving ideas	$\checkmark\checkmark\checkmark$	$\checkmark\checkmark$	$\checkmark\checkmark\checkmark$	\checkmark
Renewables	$\checkmark\checkmark\checkmark$	$\checkmark\checkmark$	$\checkmark\checkmark\checkmark$	$\checkmark\checkmark$
Building design	$\checkmark\checkmark\checkmark$	\checkmark	$\checkmark\checkmark$	$\checkmark\checkmark$
Construction & Refurbishment	$\checkmark\checkmark\checkmark$	$\checkmark\checkmark$	$\checkmark\checkmark\checkmark$	\checkmark
Building use	$\checkmark\checkmark\checkmark$	\checkmark	$\checkmark\checkmark\checkmark$	/ /
Waste & recycling	$\checkmark\checkmark$	$\checkmark\checkmark$	\checkmark	$\checkmark\checkmark\checkmark$
Emissions & Discharges	$\checkmark\checkmark$	\checkmark	$\checkmark\checkmark\checkmark$	\checkmark
Transport & Travel	\checkmark	$\checkmark\checkmark\checkmark$	\checkmark	\checkmark
Behaviour change	$\checkmark\checkmark\checkmark$	$\checkmark\checkmark$	\checkmark	$\checkmark\checkmark\checkmark$
Wellbeing	$\checkmark\checkmark\checkmark$	$\checkmark\checkmark$	$\checkmark\checkmark\checkmark$	$\checkmark\checkmark\checkmark$

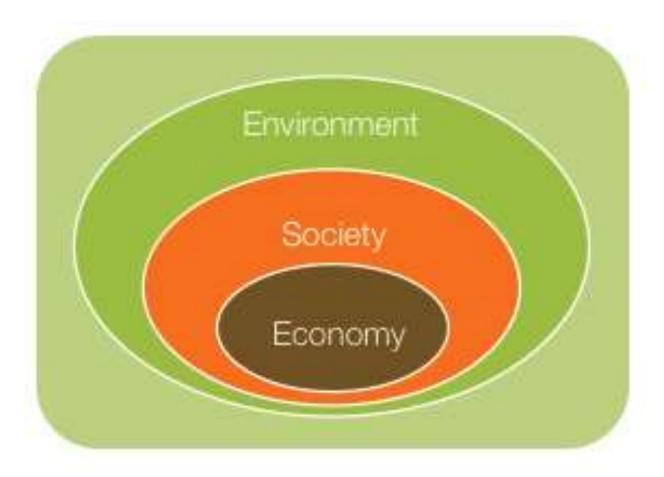
'Living Lab' Faculty Opportunities

	FACH	FBus.	FES	FEH
Estates:				
Landscape	$\checkmark\checkmark\checkmark$	\checkmark	$\checkmark\checkmark\checkmark$	$\checkmark\checkmark\checkmark$
Biodiversity	$\checkmark\checkmark\checkmark$	\checkmark	$\checkmark\checkmark\checkmark$	$\checkmark\checkmark\checkmark$
Food	$\checkmark\checkmark\checkmark$	$\checkmark\checkmark\checkmark$	$\checkmark\checkmark\checkmark$	$\checkmark\checkmark$
User experiences and needs	$\checkmark\checkmark\checkmark$	$\checkmark\checkmark$	✓	$\checkmark\checkmark$
Environmental Management Systems	$\checkmark\checkmark\checkmark$	$\checkmark\checkmark$	$\checkmark\checkmark$	\checkmark
Faculties				
Education for Sustainable Development	$\checkmark\checkmark\checkmark$	$\checkmark\checkmark\checkmark$	$\checkmark\checkmark\checkmark$	$\checkmark\checkmark$
Research for Sustainable Development	$\checkmark\checkmark\checkmark$	$\checkmark\checkmark\checkmark$	$\checkmark\checkmark\checkmark$	$\checkmark\checkmark$
Business case for Sustainable Development	$\checkmark\checkmark\checkmark$	$\checkmark\checkmark\checkmark$	$\checkmark\checkmark\checkmark$	/ /

'Living Lab' Faculty Opportunities

	FACH	FBus.	FES	FEH
Directorates				
Finance: Ethical Investment		$\checkmark\checkmark$		
Finance: Sustainable Procurement	$\checkmark\checkmark$	$\checkmark\checkmark\checkmark$	$\checkmark\checkmark$	\checkmark
Other Directorates:				
HR	✓	$\checkmark\checkmark\checkmark$	\checkmark	✓
ILS	$\checkmark\checkmark\checkmark$	$\checkmark\checkmark\checkmark$	$\checkmark\checkmark$	\checkmark
Marketing & Recruitment	$\checkmark\checkmark\checkmark$	$\checkmark\checkmark\checkmark$	\checkmark	\checkmark
Other areas:				
Strategy/Policy	$\checkmark\checkmark\checkmark$	$\checkmark\checkmark\checkmark$	\checkmark	
Reporting & Communications	$\checkmark\checkmark\checkmark$	$\checkmark\checkmark\checkmark$	\checkmark	✓
Community engagement	$\checkmark\checkmark$	$\checkmark\checkmark$	$\checkmark\checkmark$	$\checkmark\checkmark\checkmark$
Awards	$\checkmark\checkmark\checkmark$	/ / /	$\checkmark\checkmark\checkmark$	$\checkmark\checkmark\checkmark$

Defining Sustainability:



https://youtu.be/FFCNCQleCuk

Sustainability 'lens'

- Meeting the goal of a sustainable (restorative) society
- Understanding the consequences (and unintended consequences) or work (sustainability and systems thinking)
- Emergent & new ways of thinking (constraint's, backcasting from success)
- Having clear principles to help guide thinking, decisions & actions
- Having a common language for success

Sustainability helps

- Overcome different understandings
- Can turn complexity to simplicity
- Defined and applicable
- A shared language
- A connector
- A lens to understand the world & create solutions
- The concept that helps enable a successful future society
- Meet key organisational drivers

Consider applying the

SUSTAINABLE G ALS





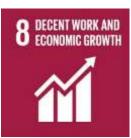






























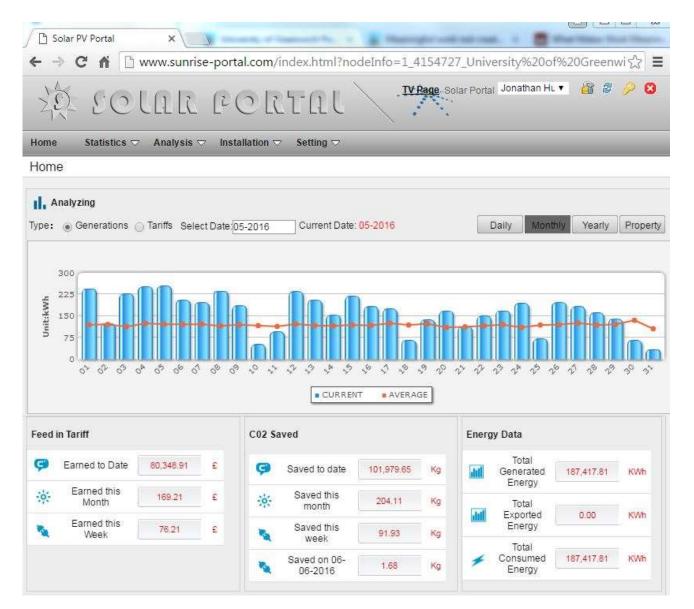
Matching Challenges with Opportunities

- Performance gaps of new buildings
- Energy & water waste
- Improvements to recycling rates
- Sustainability engagement, action, behaviours
- Design, build and use of sustainable buildings

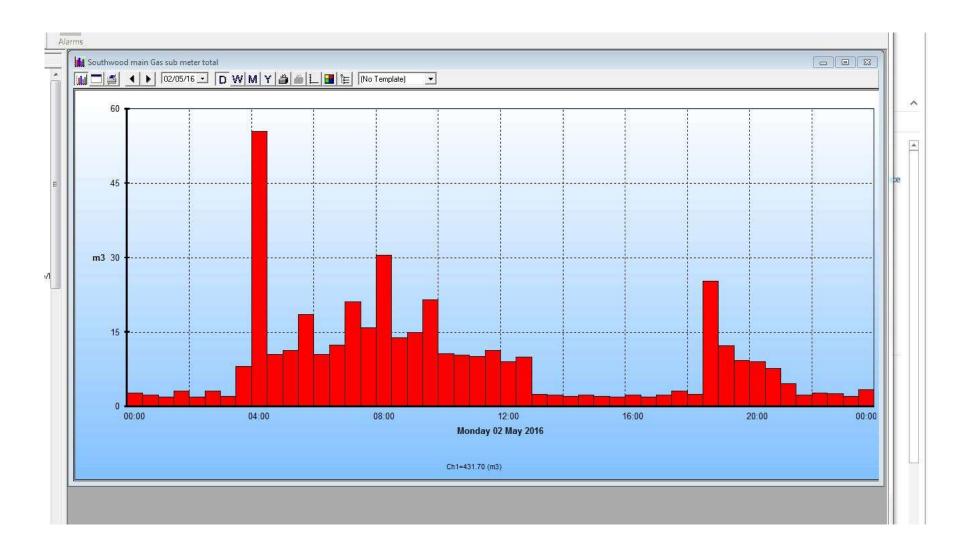
Examples to Apply Now

- Half hourly meter data electricity, gas & water,
- Waste & recycling PV generation & travel data sets
- Behaviour change/psychology waste, recycling, litter, travel, energy use, relationships, etc. etc.

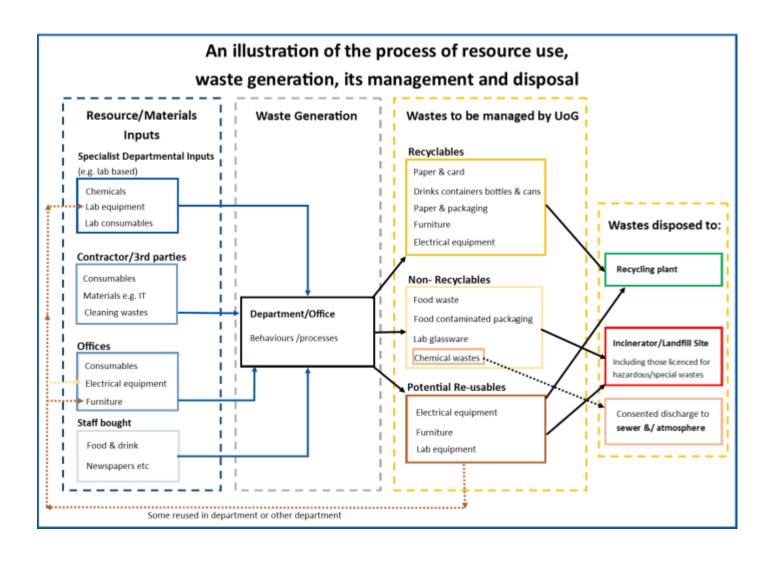
Solar PV Generation



Gas/electricity/water use



Waste & Recycling



Behaviour change





Bright out?
Then lights
out. Thanks.

For more sustainable ideas & actions visit:

http://blogs.gre.ac.uk/greengreenwich/

Look after your health.

Take the stairs.



Actions & Opportunities











Working with



Version number: v1

Owner: Sustainable Development Manager

Approved by University Court on 28th March 2011

Funding

- Potential to bid into Carbon Management Plan for projects that save carbon with good payback period
- Proposals to Biodiversity Steering Group for landscape
 & biodiversity related projects
- Proposals for research on waste & recycling projects
- Research pots from faculties
- Funding bodies
- Commercial organisations

What next?

- Contact the Sustainable Development Unit
- Suggest interest/support to DVC Research for SD as a priority area
- Support concept of Living Lab at Greenwich
- Engage your academics & students
- Capture benefits
- Showcase outcomes

The

Sustainable Development Unit

- Strategy & Policy
- Teaching & Education for Sustainable Development
- Research
- Sustainability Communications & Reporting
- Living Lab
- Staff engagement & behaviour change
- ISO 14001 (Environmental Management)
- Projects, Collaborations & Connections (Internal & External)
- Contact Simon Goldsmith, <u>gs15@gre.ac.uk</u>, <u>Website Link</u>, Twitter:
 @sust_Greenwich









