



Dublin City University

**Campaign toward a Sustainable
Campus/University**

25/11/2015

DCU Strategic Plan & Sustainability

Transforming Lives and Societies

- Develop and implement a comprehensive Environmental Sustainability Strategy.



PROPOSAL:

DCU Sustainability Council is drawn from all parts of the University and should represent all Academic and Operational Areas in the University



Teaching and Learning Out/In Reach

Business School

M.Sc. in Business Management
Graduate Certificate/MSc in
Sustainable Energy Finance
MG334 : Business & Society

Humanities and Social Science

B.Sc in Education & Training
MA in Education & Training
Management
MA in Development
MA in Ethics

Teaching and Learning @ DCU

Science and Health & Oscoil

BSc in Horticulture
BSc in Environmental Science
M.Sc. in Management of Clean
Technologies
M.Sc. in Manage. for Sustainable Dev.
M.Sc. in Manage. of Operations

Engineering and Computing

Grad Cert/M.Eng. in Electronic
Systems

Regional Centre of Expertise (RCE) Dublin in Education for Sustainable Development (ESD)



UNITED NATIONS
UNIVERSITY



THE GREEN WAY
DUBLIN'S CLEANTECH CLUSTER

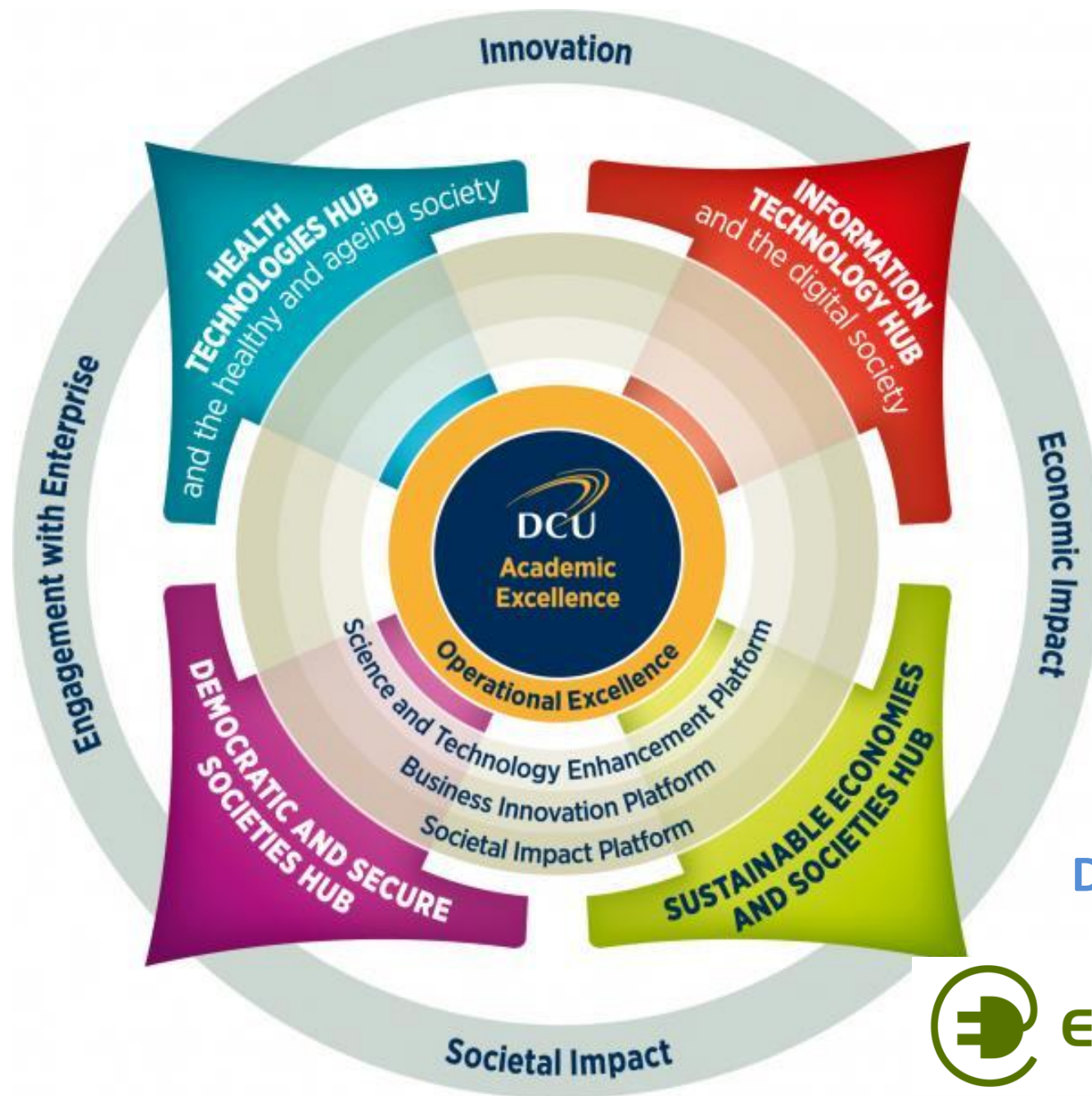


Educate
Together



An Taisce
The National Trust for Ireland

FIGHTING WORDS
THE WRITE TO RIGHT



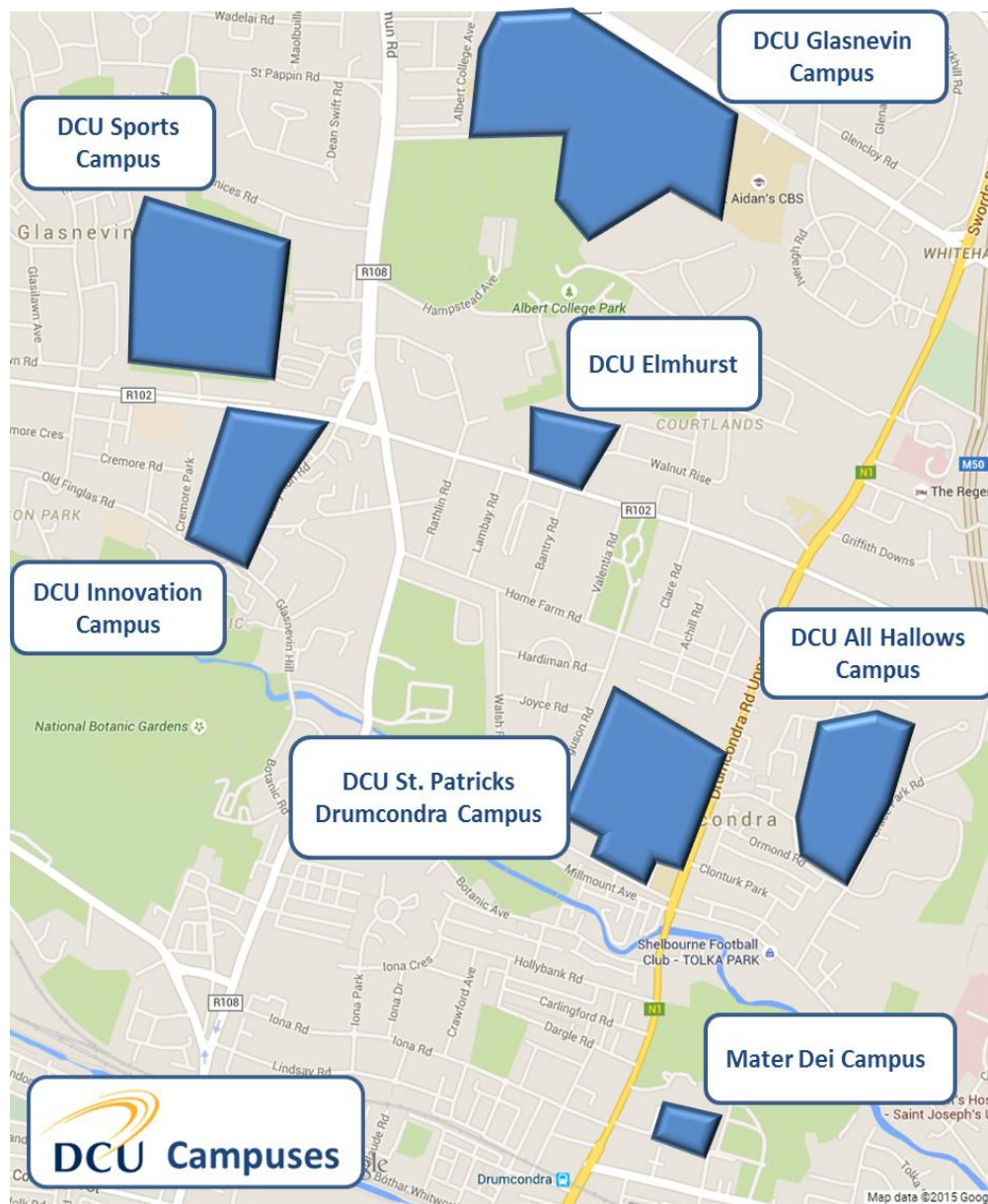
DCU Innovation
Cleantech Campus

DCU Water Institute



Energy Design Lab

Campuses



**Post Incorporation
Sept 2016**

**Students : 16,000
Staff : ca 1,600**

Campaign toward a Sustainable Campus



- Green Campus Programme
- Energy Water Waste Biodiversity & Transport
- Awarded in July 2014, renewed June 2015



Sustainability Motion

The DCU SU amended its constitution to include sustainability :2.1.6 To promote an ethos of environmental sustainability within its operations.



2020 Energy Targets

No SIM

10:18

psmr.seai.ie

26%

Energy Costs

EnPI
Benchmarking

Savings
Benchmarking

Renewable
Energy

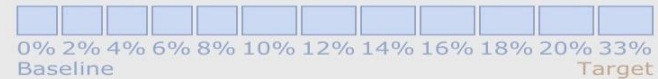
CO2 Emissions

Project Energy
Savings

Energy Savings: 30.7% improvement



Change in Energy Consumption: 6.4% lower



30.7%

Energy Performance Indicators - 2014

2014 EnPI = 321 $\frac{\text{kWh}}{\text{Equivalent Floor Area (m}^2\text{)}}$

Target EnPI = 311 $\frac{\text{kWh}}{\text{Equivalent Floor Area (m}^2\text{)}}$



2.7% better than 2013



30.7% better than baseline



3.3% improvement required by 2020



10.5% better than target 'glidepath'



Level 2 Energy Performance Indicators (2014)

Electricity = 3,705 $\frac{\text{kWh}}{\text{FTE Students}}$



Thermal = 1,604 $\frac{\text{kWh}}{\text{FTE Students}}$



Transport = 13 $\frac{\text{kWh}}{\text{FTE Students}}$



Tell me more

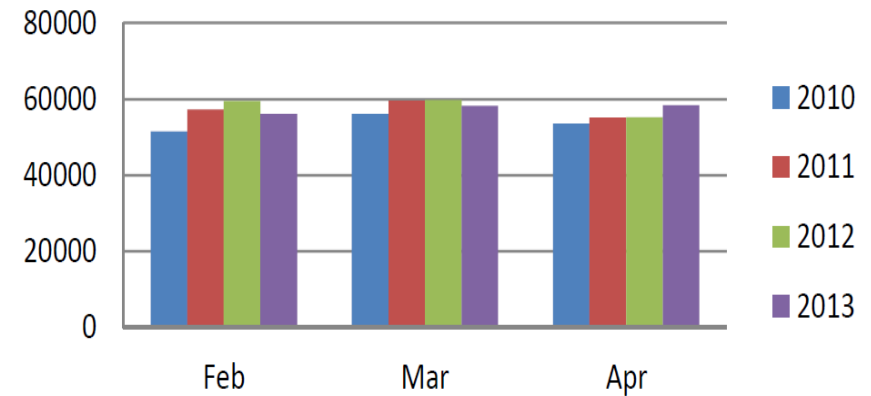


SensorCIS

Energy



HUB Monthly Electricity Usage (kWh)



Demonstration in DCU Community Garden

- Solar
- Urban Wind Turbine
- Biogas
- Hydrogen !



Waste



Bin your Butt!



Cigarette butts leach toxic chemicals into the soil and waterways that are used to produce our food and water. Please don't litter your butts – they are NOT biodegradable!

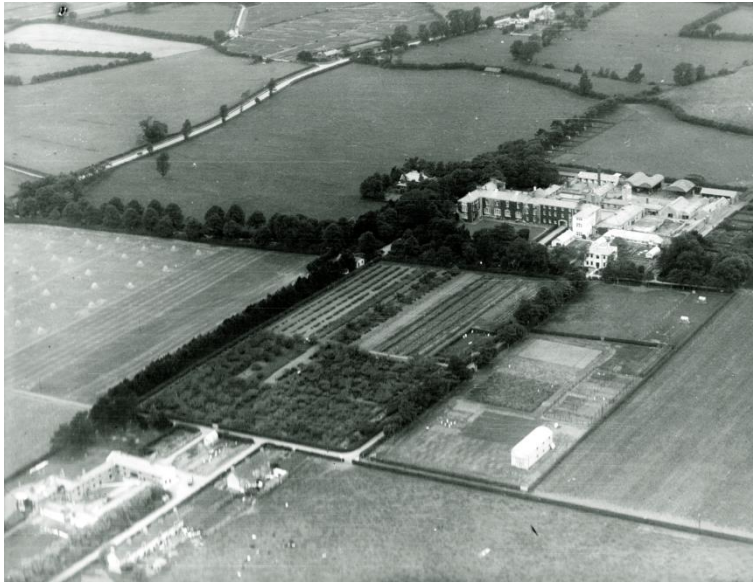
Thank you from the DCU Green Committee



Water



DCU Community Garden



The DCU Community Garden aims to

- Open inclusive community garden
- Opportunity for education and training
- Space for joint and shared learning across communities
- Living lab garden for the demonstration of new and innovation solutions to local and global issues, social, cultural, economic and environmental.



Current Engagements

- **Community Employment x 3 (Ballymun Welfare Rights)**
- **Tus Placements (TAP) x 5**
- **Membership** – Student/Staff & Community - small but growing – all time based
- **Marks and Spencers** – Spark Something Good (Sept 2015)
 - 6/8 Volunteers (€500)
 - Clearing fruit bushes, mulching, herb plots, garden map
- **Deloitte** (June & Sept 2015)
 - w/ An Taisce Green Communities
 - 15/20 Day 1 10/15 Day 2
 - Pond, Digging beds, planting beds, clearing, mulching...
 - Possibility help with skin for second poly tunnel next time (2016)
- **An Taisce Green Communities**
 - Moth Night (Sept 2015)
- **Central Remedial Clinic (Clontarf)**
 - Under discussion

Current Engagements

- Research/Final Year Projects
 - Soil Analysis : James Platt w/ School of Chemistry
 - Garden App : Kevin Mc Mahon w/ School of Computing
 - Solar panels : Alex Conlon w/ School of Electronic Engineering
 - Honey Bees : Saorla Kavanagh w/ School of Chemistry
 - Horticulture Histories w/ RCE Dublin
 - Site for Bio-refinery (seaweed) application under consideration by EI Commercialisation Fund : Silvia Tedesco w/ School of Mechanical Engineering
- DCU Restaurant
 - Food from the DCU Community Garden used for ASU visit
 - Need to agree longer term engagement rules

Transport

- DCU Mobility Management Plan
 - 90% sustainable commuting
 - Efficient high capacity public transport service
 - Sustainable inter-campus commuting
 - What we would like/need :
High capacity efficient direct campus service – Metro North



Transport Target : Mobility Management Plan

smartertravel>>>
>>>campus



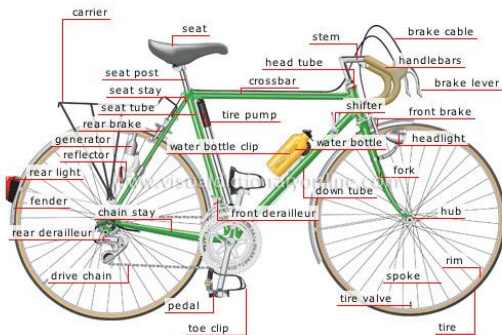
Active Transport



Inter Campus Bicycle Scheme

- For University Staff
- For Intercampus commuting
- For free

www.dcu.ie/info/walking_cycling.shtml#DCUICBS



Transport – Public Transport

- Dublin Bus – increase buses & frequency
- Private buses – Newbridge/Naas, North Dublin



ICCC – COP21 – Paris 2015



United nations conference
on climate change

COP21/CMP11

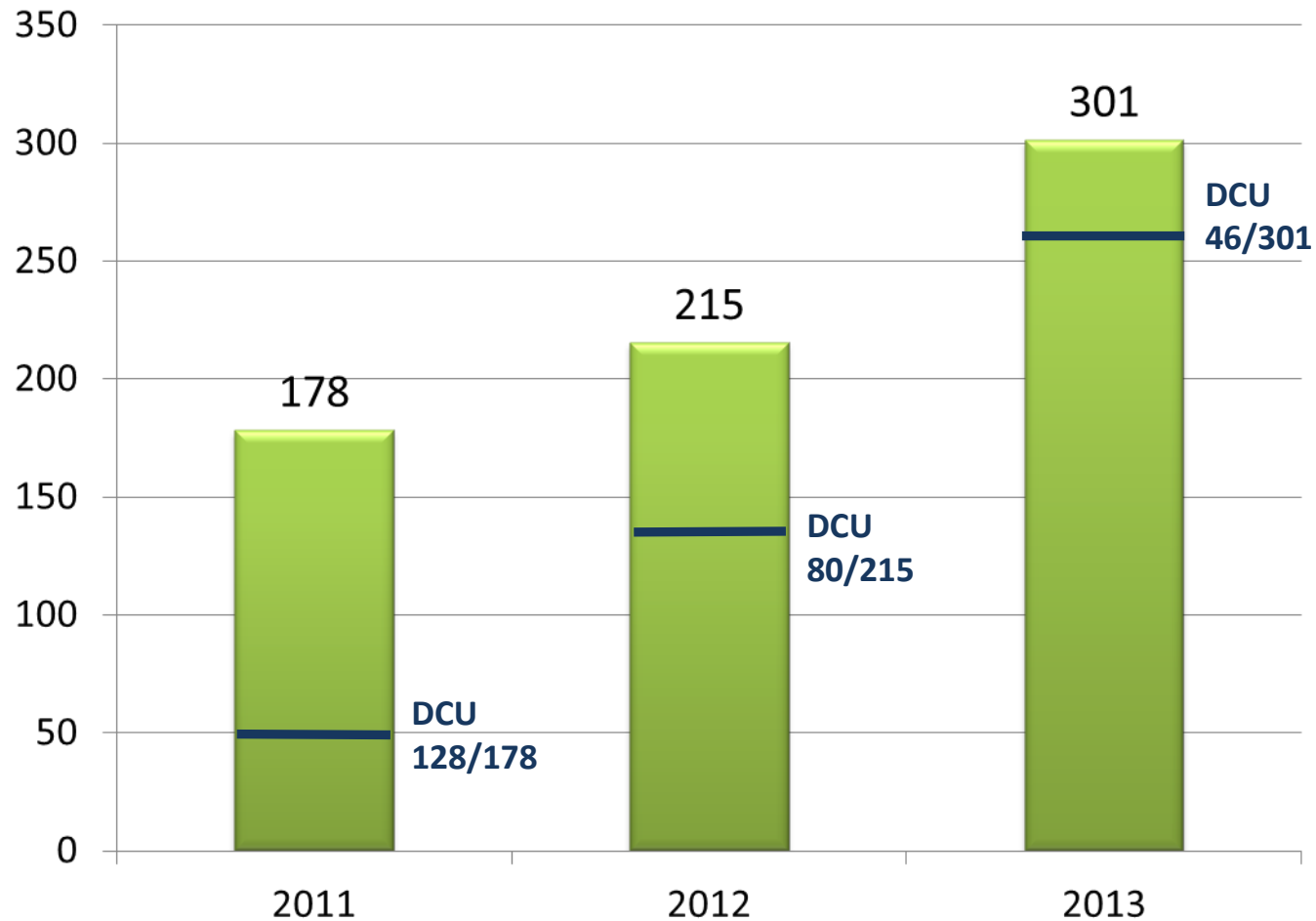


- Incorporation COP Simulation
- Climate Chats
- Sustainability public event (Q1 2016)

Thank you

Contact : sustainability@dcu.ie

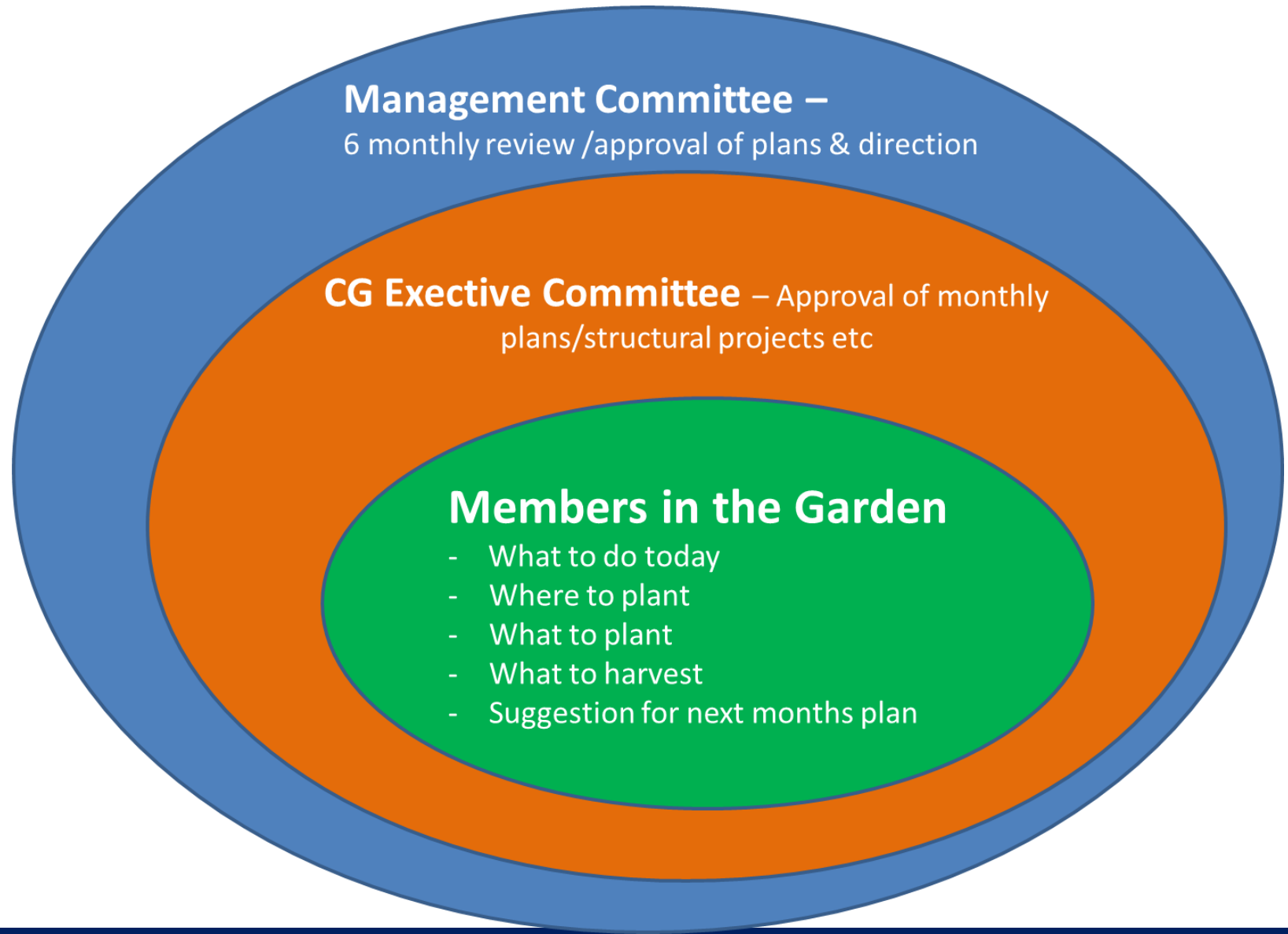
DCU in UI Green Metrics



DCU Objective



Management of the Garden



DCU Programme Projects

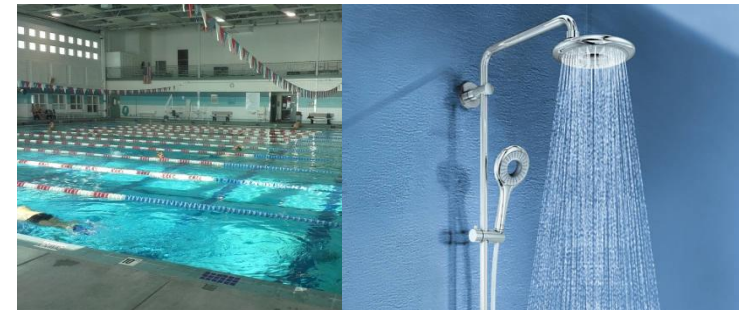


- Biodiversity Database



- Waste in Residences

- Water in Sports Complex



- Community Garden