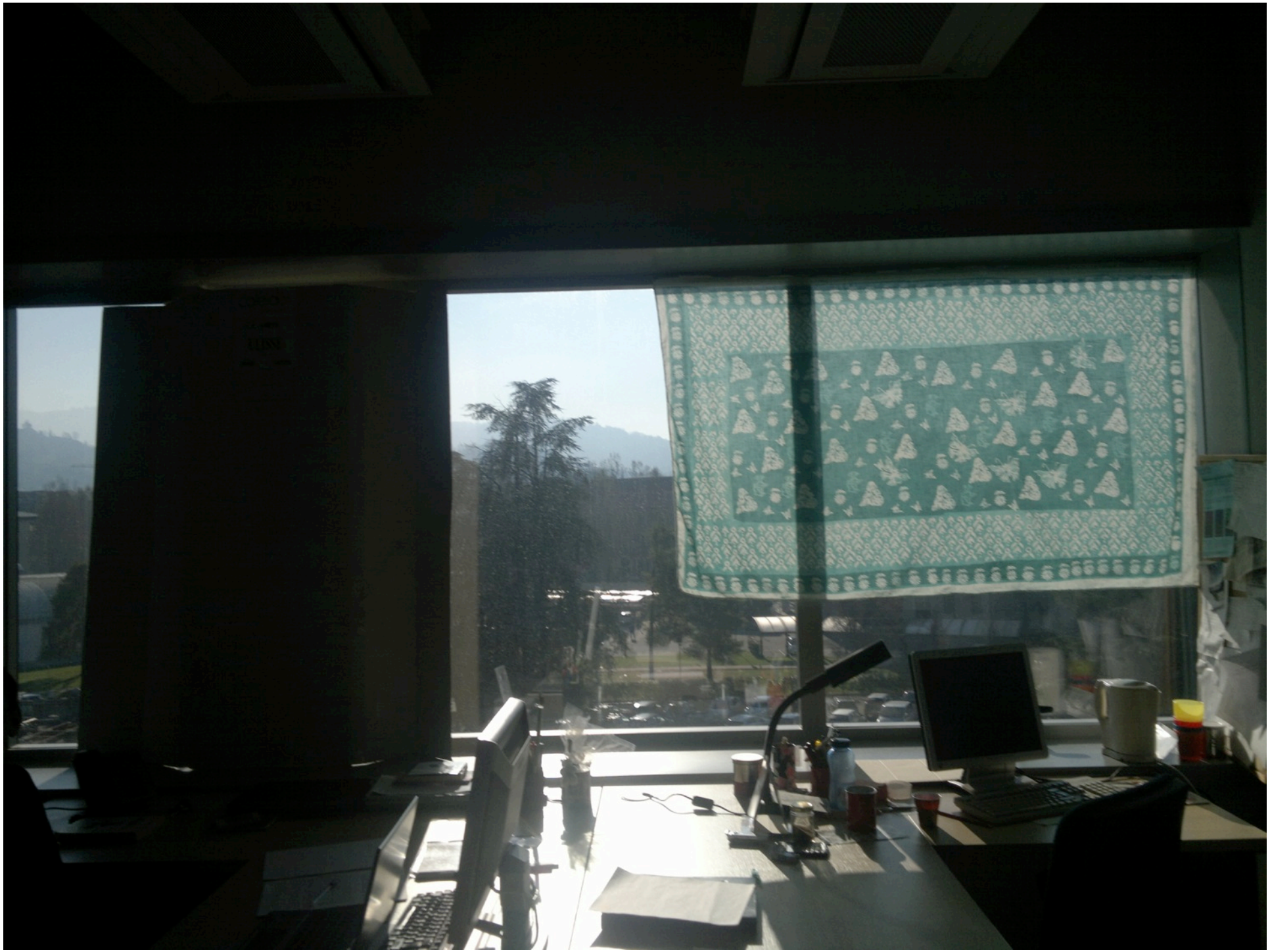
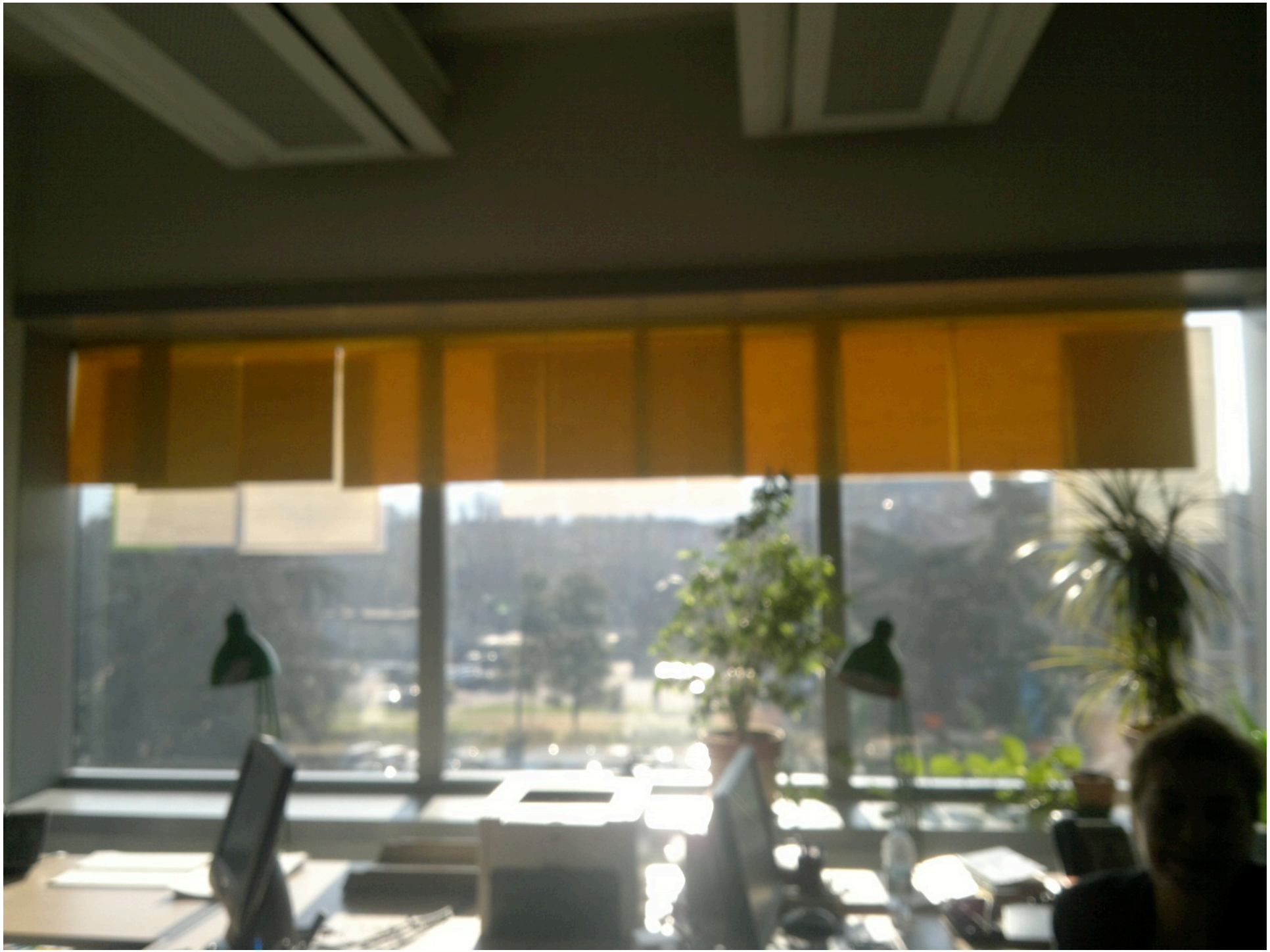
Università e sostenibilità: *luci e ombre*

Egidio Dansero

Dipartimento Culture Politica Società





Safari File Composizione Vista Cronologia Preferiti Finestra Aiuto 91% ven 10:09

World's 10 most spectacular university buildings - CNN.com

edition.cnn.com/2014/02/19/travel/spectacular-university-buildings/ Reader

ASN | Abilit...ca Nazionale 4C4D_FOOD_...MODEL.pdf CPS-Didattica Apple iCloud Facebook Twitter Wikipedia Yahoo! Notizie I più conosciuti

Posta in arrivo (1) - egidio.dansero@gmail.com - Gmail | World's 10 most spectacular university buildings - CNN.com

World's 10 most spectacular university buildings

By **CNN Staff**

February 19, 2014 -- Updated 0502 GMT (1302 HKT)

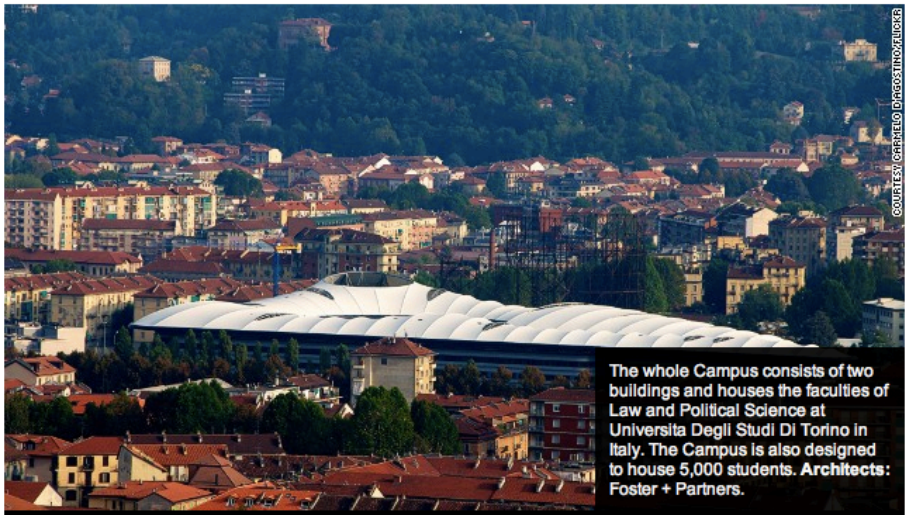
SHARE THIS

Recommend 15k

Print

Email

More sharing



The whole Campus consists of two buildings and houses the faculties of Law and Political Science at Universita Degli Studi Di Torino in Italy. The Campus is also designed to house 5,000 students. **Architects:** Foster + Partners.

HIDE CAPTION

Campus Luigi Einaudi (Italy)

<< < 1 2 3 4 5 6 7 8 9 10 > >>

STORY HIGHLIGHTS

- New report details most beautiful university buildings in world

(CNN) -- If the memory of your university is a somewhat hazy mix of missed lectures, cheap food, empty beer cans and cold, concrete classrooms, you won't recognize this list.

Part of complete coverage on

CNN Travel

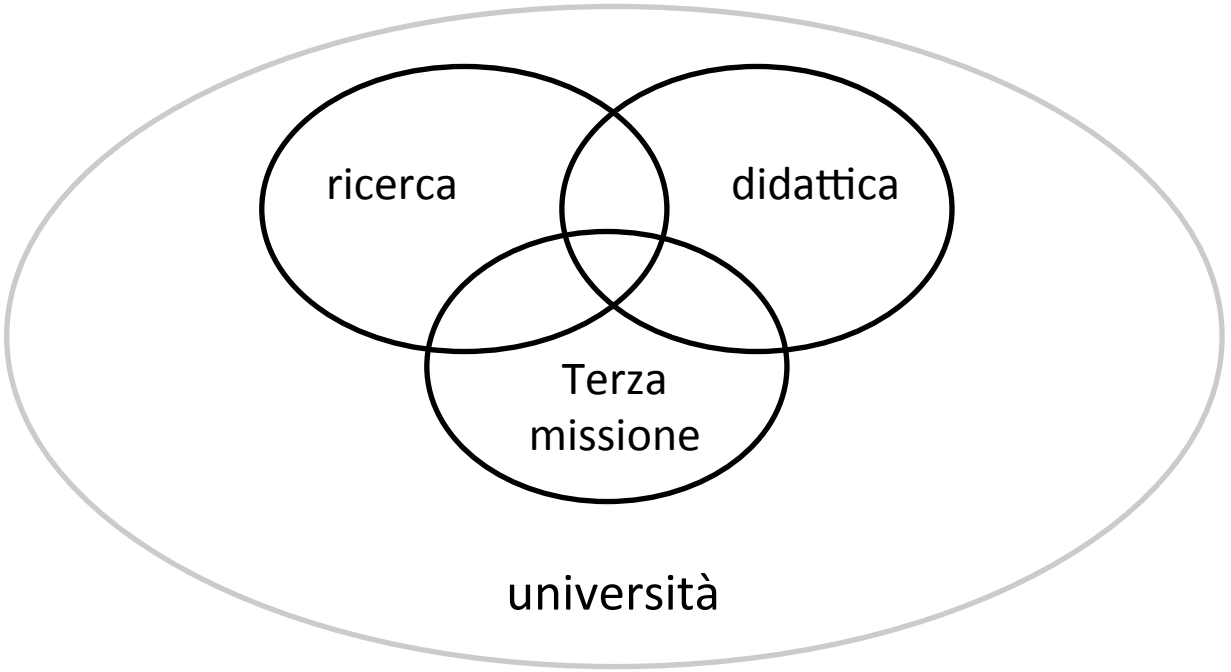
13 gorgeous NZ spots

February 12, 2014 -- Updated 0628 GMT (1428 HKT)

New Zealand's Travel Photographer of the Year in 2013 shares his picks for best photo spots.

Università, Ambiente e Territorio

L'università come sistema integrato



La sfida della sostenibilità

- Le dimensioni della sostenibilità (ambientale, economico, sociale, politica, culturale, geografica…)
- Università e sostenibilità: nella ricerca, nella formazione,
- la III missione (insieme delle attività con cui le Università entrano in relazione con la società:
  - Valorizzazione economica della conoscenza
  - Culturale e sociale
  - Organizzazione e Attore territoriale (organizzazione territoriale alle diverse scale)

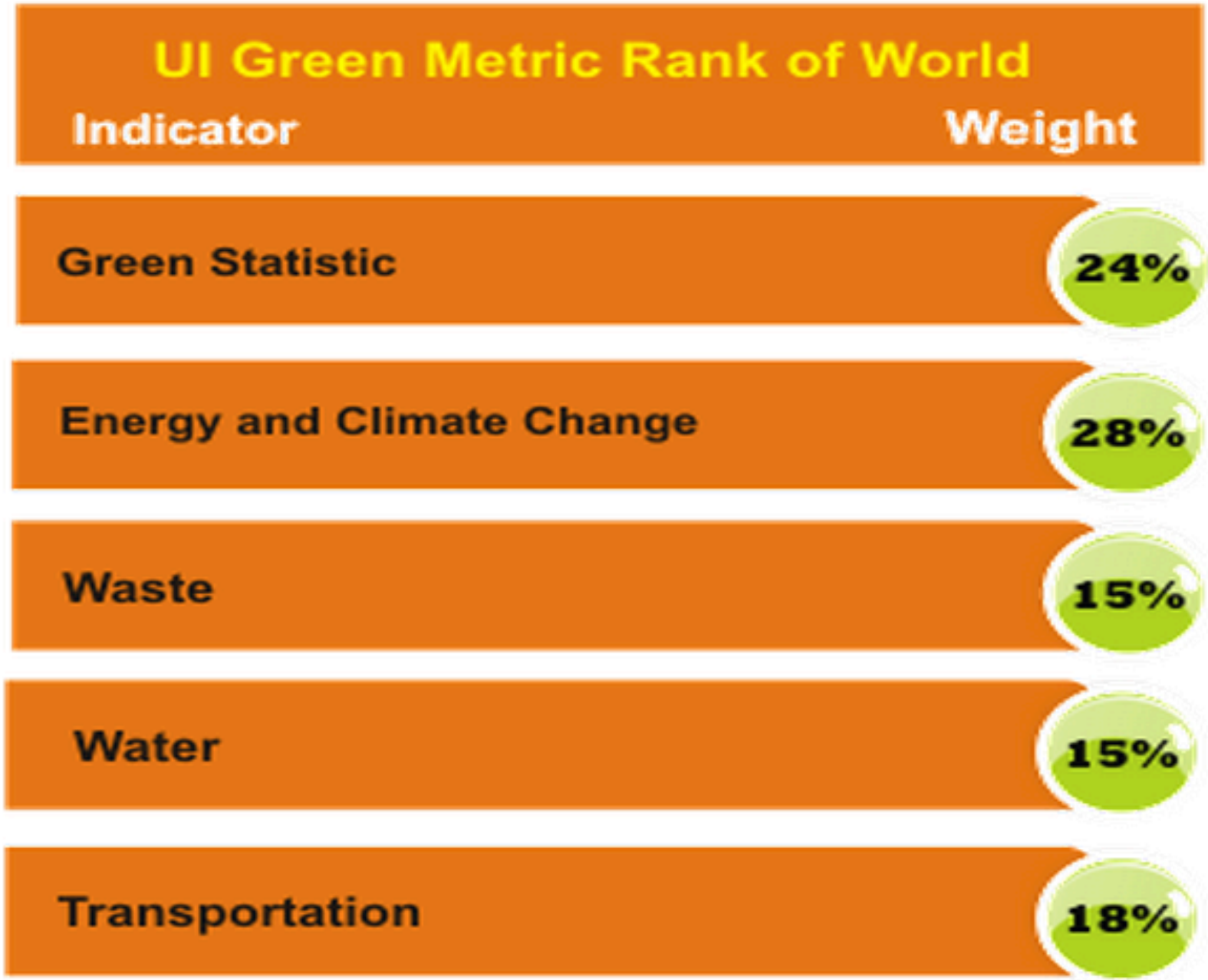
L'UNIVERSITA' E LE POLITICHE AMBIENTALI

TRE TIPOLOGIE DI POLITICHE E AZIONI AMBIENTALI

- Politiche ambientali esplicite: *L'ambiente è al centro dell'iniziativa pubblica.*
- Politiche ambientali "indirette": *L'ambiente è parte di politiche urbane settoriali incentrate su altri comparti economici e sociali.*
- Politiche ambientali "emergenziali": *Risposte a situazioni di particolare criticità ambientale.*

LOGICA CONFORMATIVA O PERFORMATIVA?

UI GreenMetric World University Ranking


UI Green Metric Rank of World
Indicator
Weight
Green Statistic
24%
Energy and Climate Change
28%
Waste
15%
Water
15%
Transportation
18%

Setting and Infrastructure (SI) (15%)

The campus setting and infrastructure information will give the basic information of the university consideration towards green environment. This indicator also shows whether the campus deserve to be called Green Campus. The aim is to trigger the participatinguniversity to provide more space for greenery and in safeguarding environment, as well as the development of sustainable energy.

The indicators are:

1.Campus Setting
2.Type of higher education institution
3.Number of campus sites
4.Total campus area (meter square)
5.Total ground floor area of buildings (meter square)
6.Number of students
7.Number of academic and administrative staff
8.Percentage of area on campus covered in vegetation in the form of forest.
9.Percentage of area on campus covered in planted vegetation (include lawns, gardens, green roofs, internal planting)
10.Retention : non-retentive surfaces on campus as percentage of total area for water absorption
11.Percentage of university budget for sustainability effort

Energy and Climate Change (EC) (21%)
The university's attention to the use of energy and climate change issues be the indicator with the highest weighting in this ranking. In our questionnaire we define several indicators for this particular area of concern, i.e. energy efficient appliances usage, renewable energy usage policy, total electricity use, energy conservation program, green building, climate change adaptation and mitigation program, greenhouse gas emission reductions policy. With this indicator, universities are expected to increase the effort in energy efficiency on their building and to care more about nature and energy resources.

The indicators are:
1.Energy efficient appliances usage
2.Renewable energy resources
3.Electricity usage per year (Total KWH)
4.Energy conservation program
5.Green building elements
6.Climate change adaptation and mitigation program
7.Greenhouse gas emission reductions policy

Waste (WS) (18%)

Waste treatment and recycling activities are major factors in creating a sustainable environment.The activities of university staff and students in campus will produce a lot of waste, therefore some programs and waste treatments should be among the concern of the university, i.e. recycling program, toxic waste recycling, organic waste treatment, inorganic waste treatment, sewerage disposal, policy to reduce the use of paper and plastic in campus.

The indicators are:

1.Recycling program for university waste
2.Toxic waste recycling
3.Organic waste treatment
4.Inorganic waste treatment
5.Sewerage disposal
6.Policy to reduce the use of paper and plastic in campus

Water (WR) (10%)

Water use in campus is another important indicator in Greenmetric. The aim is that universities can decrease water usage, increase conservation program, and protect the habitat. Water conservation program, piped water use are among the criteria.

The indicators are:

1.Water conservation program

2.Piped water

Transportation (TR) (18%)

Transportation system plays an important role on the carbon emission and pollutant level in university. Transportation policy to limit the number of motor vehicles in campus, the use of campus bus and bicycle will encourage a healthier environment. The pedestrian policy will encourage students and staff to walk around campus, and avoid using private vehicle. The use of environmentally friendly public transportation will decrease carbon footprint around campus.

The indicators are:

1.Number of vehicles owned by your institution
2.Number of cars entering the university daily
3.Number of bicycles that are found on campus on an average day
4.Transportation policy designed to limit the number of motor vehicles used on campus
5.Transportation policy designed to limit or decrease the parking area on campus
6.Campus buses
7.Bicycle and pedestrian policy on campus

Education (ED) (18%)

Iin 2012 questionnaire, one new criterion added to the questionnaire: education. This criterion has 18% of the total score. This expansion of the criteria based on the thought that university has an important role in creating the new generation concern with sustainability.

The indicators are:

1.Number of courses related to environment and sustainability offered
2.Total number of courses offered
3.Total research funds dedicated to environmental and sustainability research
4.Total research funds
5.Number of scholarly publications on environment and sustainability published
6.Number of scholarly events related to environment and sustainability
7.Number of student organizations related to environment and sustainability
8.Existence of a university-run sustainability website

University	Country	Country Name	Ranking	Total Score	Setting And Infrastructure	Energy and Climate Change	Waste	Water	Transportation	Education
University of Nottingham	UK	UK	1	7,521	687	2,025	1,575	990	1,65	594
University College Cork National University of Ireland	Ireland	Ireland	2	7,328	619	1,89	1,575	1	1,625	619
Northeastern University	US	US	3	7,17	691	1,83	1,65	1	1,425	574
University of Bradford	UK	UK	4	7,112	666	1,88	1,575	995	1,575	422
University of Connecticut	US	US	5	7,028	942	1,62	1,35	1	1,475	641
Universite de Sherbrooke	Canada	Canada	6	6,948	809	1,62	1,575	1	1,375	569
University of Plymouth	UK	UK	7	6,808	303	1,82	1,425	1	1,5	760
University of North Carolina, Chapel Hill	US	US	8	6,794	490	1,68	1,575	980	1,525	543
University of California, Davis	US	US	9	6,779	759	1,68	1,425	750	1,5	664
North Carolina Agricultural & Technical State Univ	US	US	10	6,775	1,028	1,285	1,5	1	1,375	587
University of California, Los Angeles	US	US	11	6,762	602	1,57	1,575	1	1,475	540
Universidad de Alcala	Spain	Spain	12	6,748	643	1,905	1,5	850	1,325	524
York University	Canada	Canada	13	6,744	498	1,71	1,575	1	1,45	512
University of California, Berkeley	US	US	14	6,729	471	1,62	1,425	1	1,55	663
University of Bath	UK	UK	15	6,712	855	1,695	1,425	1	1,25	486

University	Country	Country Name	Ranking	Total Score	Setting And Infrastructure	Energy and Climate Change	Waste	Water	Transportation	Education
Universita Ca Foscari Venezia	Italy	Italy	105	5,499	232	1,56	1,35	750	1	607
Politecnico di Milano	Italy	Italy	121	5,321	535	1,22	1,425	625	800	716
Universita degli Studi di Bari Aldo Moro	Italy	Italy	133	5,178	688	1,285	1,425	250	1	530
University del Salento	Italy	Italy	161	4,881	395	1,195	1,5	125	1,15	516
Scuola Normale Superiore di Pisa	Italy	Italy	170	4,786	536	800	1,425	500	1,3	225
University of Bologna	Italy	Italy	182	4,689	654	960	1,425	125	1,2	325
University of Turin	Italy	Italy	211	4,372	584	1,325	975	500	800	188
Universita degli Studi Mediterranea Reggio Calabri	Italy	Italy	231	3,948	569	1,155	975	0	1,05	200
Polytechnic University of Turin	Italy	Italy	241	3,817	349	1,245	450	750	525	498
Universita Politecnica delle Marche	Italy	Italy	266	3,547	369	835	1,425	500	250	168
Universita degli Studi di Trieste	Italy	Italy	270	3,439	353	585	900	750	706	145

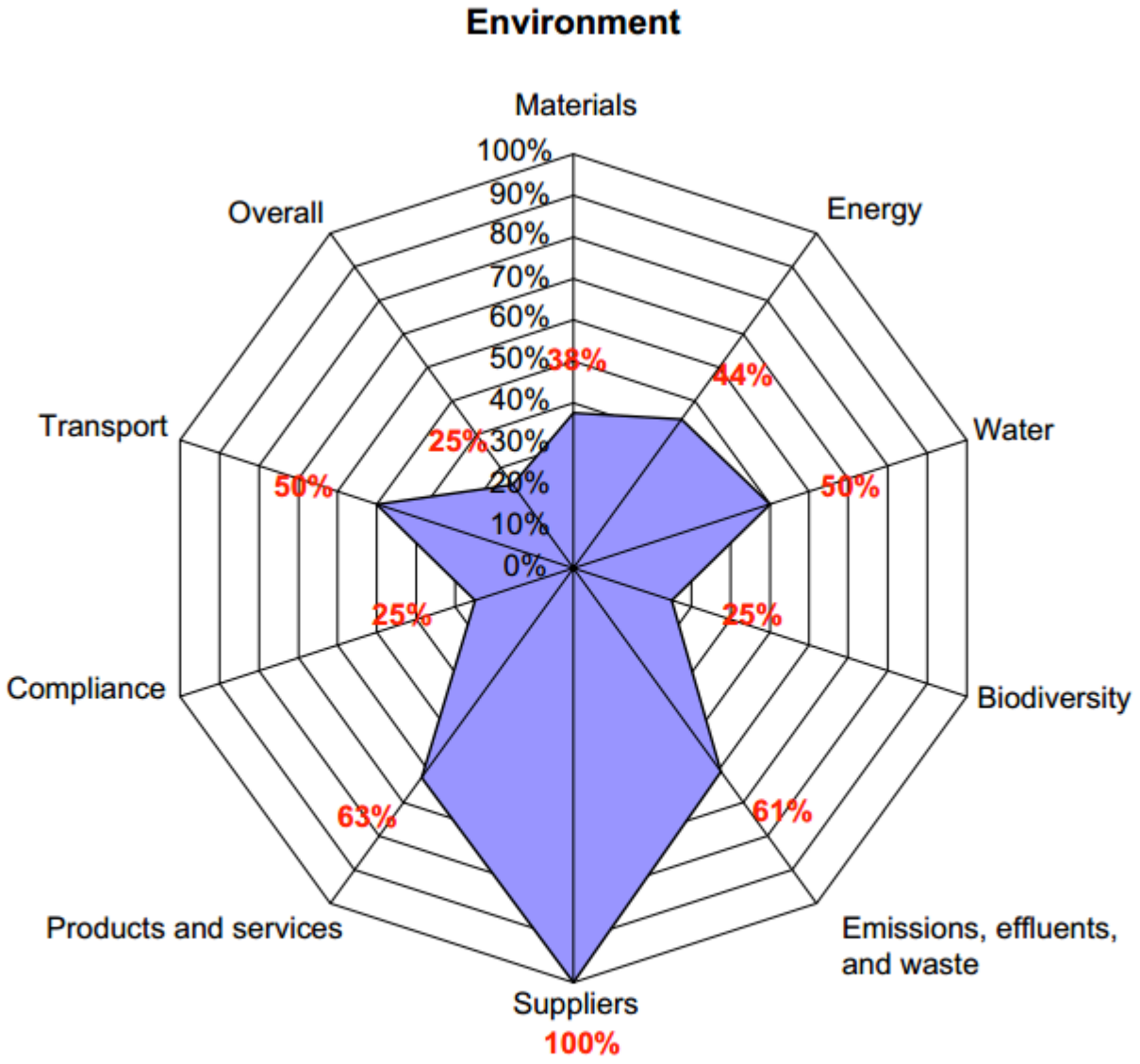
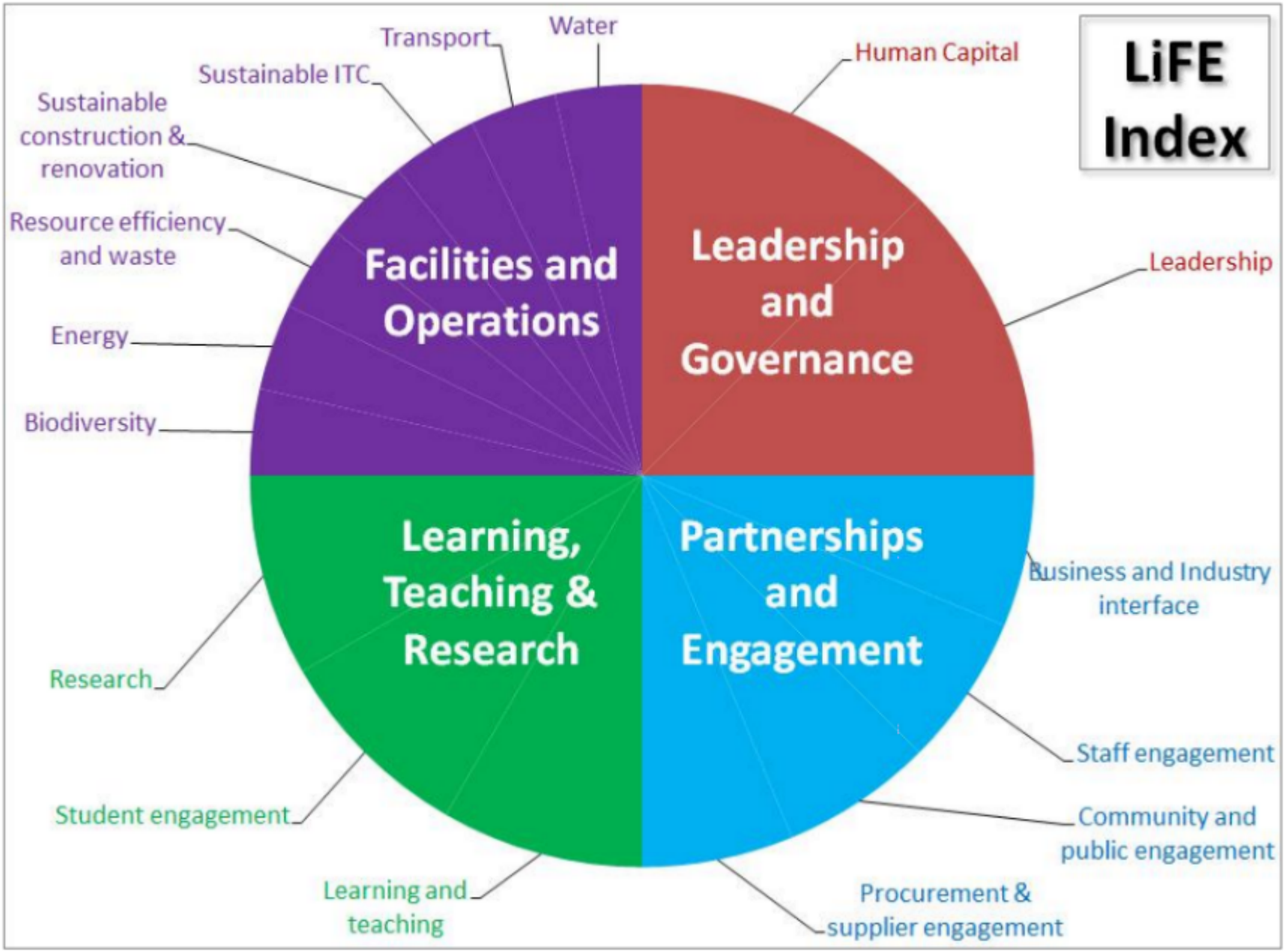


Fig. 2. Hypothetical graphical representation of the Environmental Dimension of the GRI for universities. Source: This author.

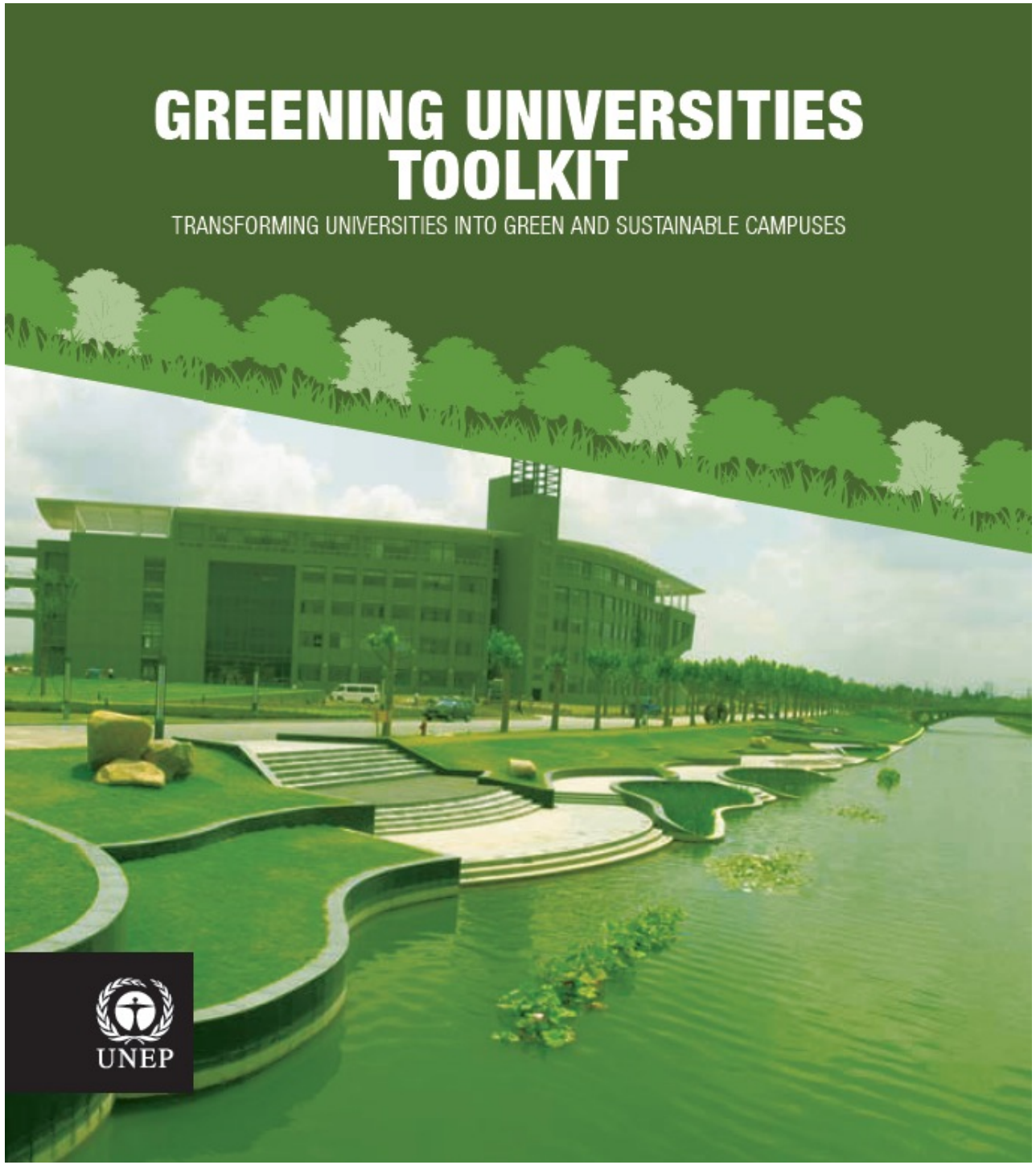
R. Lozano / Journal of Cleaner Production 14 (2006) 963-972

The Learning in Future Environments (LiFE) Index



GREENING UNIVERSITIES TOOLKIT

TRANSFORMING UNIVERSITIES INTO GREEN AND SUSTAINABLE CAMPUSES



UNEP


GREENING UNIVERSITIES TOOLKIT
DEFINING SUSTAINABILITY
STRATEGIES
TOOLS FOR TRANSFOR-MATION
RECOGNITION AND REWARDS
RESOURCES FOR CHANGE
GREENING YOUR UNI BROCHURE
GLOBAL EXEMPLARS
TECHNICAL APPENDIX

SCOPE OF RESPONSIBILITY

** Adapted From Euromed Management /Kedge 2009*

Figure 2.1: The "virtuous cycle" of stakeholder engagement. Modified from The Guide to Practitioners' Perspectives on Stakeholder Engagement [42]

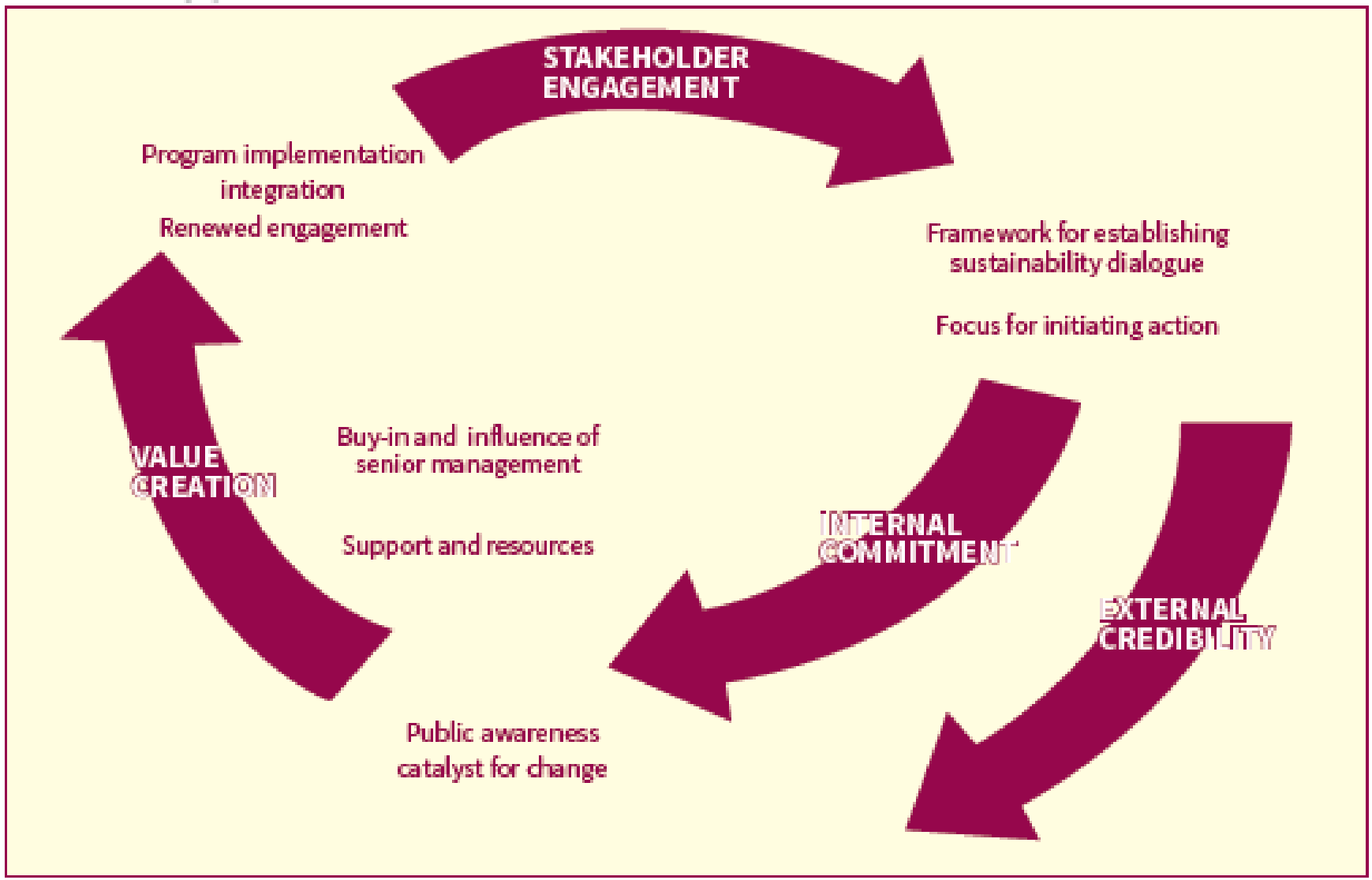
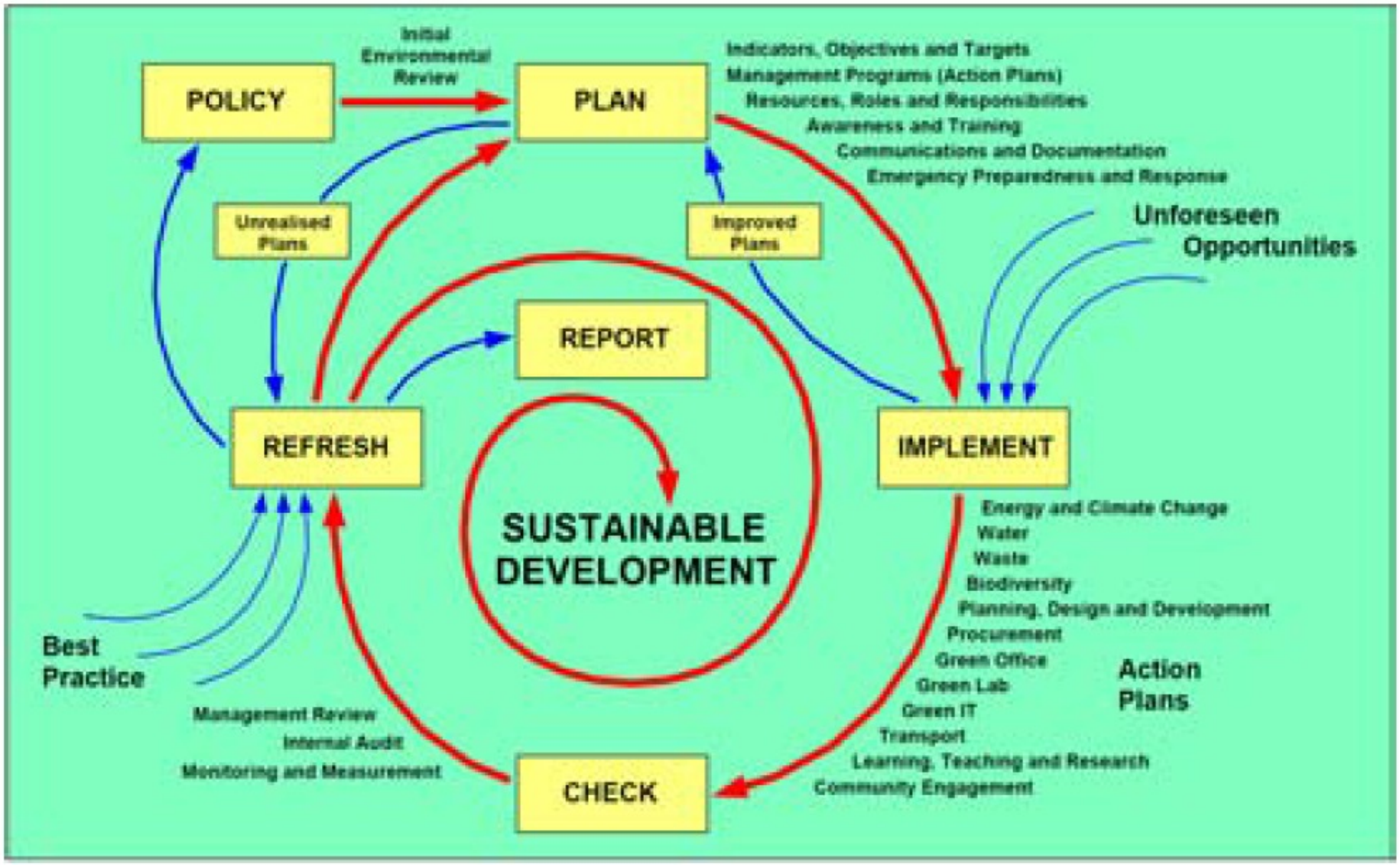


Table 2.3: University sustainability prompts for community engagement, adapted from ULSF Sustainability Assessment Questionnaire [44].

DIMENSION	TOPIC FOR DISCUSSION
Curriculum	Courses which address topics related to sustainability Integration of sustainability into traditional disciplines Learning about the campus as a socio-environmental system
Research and scholarship	Staff and student research and scholarship relating to sustainability Interdisciplinary structures for sustainability research, education and policy development
Fabric and operations	Building construction and renovation Energy and water conservation Waste minimisation Sustainable food programs Sustainable landscaping Sustainable transportation Green purchasing Minimisation of toxic materials Environmental / sustainability auditing Integration of operational practices with learning and teaching
Staff development and rewards	Sustainability criteria for hiring and promotion Staff development opportunities
Outreach and service	Sustainable community development at regional, national and international levels Partnerships with schools, local government and local business
Student opportunities	Orientation on sustainability for students Student environmental centre Student groups with sustainability focus Career counselling focused on sustainability Student involvement in campus sustainability initiatives
Administration, mission and planning	Commitments to sustainability in terms of reference for university organisational units Positions and committees dedicated to sustainability issues Staff orientation programs Socially responsible investment practices Regular environmental audits Sustainability related events

Figure 3.2: The university sustainability continual improvement cycle [45-49, 56-58]. The red spiral represents the main plan-do-check-act sequence, the blue arcs indicate secondary feedback loops and information inputs.



Strategie e azioni interne a Unito
-elementi pregressi (Agenda XXI, vari studi e piani di localizzazione degli insediamenti universitari, altri ….)

-Linee strategiche di Ateneo 2014: in particolare i punto 1.6 e 1.7, ma anche altri punti di possibile aggancio

1.6 Partecipazione all'elaborazione di strategie di sviluppo e della competitività del territorio	1.6.1 Fornire contributo scientifico alla progettazione strategica a livello territoriale	Numero di persone dell'Ateneo coinvolte nella progettazione strategica	
1.7 Sostenibilità sociale, economica ed ambientale dell'Ateneo	1.7.1 Elaborare una piattaforma di supporto alla gestione della compliance normativa sui temi della sicurezza sui luoghi di lavoro	Disponibilità della piattaforma per la gestione condivisa dei contenuti normativi	
	1.7.2 Attivare servizi in comune con altri atenei in ambito regionale	Numero di servizi in comune	Cfr. art. 2.3.II b del Decreto Carrozza
	1.7.3 Avviare interventi di contenimento dei consumi e di risparmio energetico	Avviamento dei progetti di contenimento dei consumi, risparmio energetico e salvaguardia dell'ambiente	
	1.7.4 Analizzare i contratti di locazione e ridurre gli oneri per i canoni di affitto	Importi dei contratti di affitto risolti	Miglioramento indice ISEF

1.6

Partecipazione all'elaborazione di strategie di sviluppo e della competitività del territorio

- 1.6.1
  - Fornire contributo scientifico alla progettazione strategica a livello territoriale
  - Numero di persone dell'Ateneo coinvolte
  - nella progettazione strategica

1.7 Sostenibilità sociale, economica ed ambientale dell'Ateneo

1.7.1

- Elaborare una piattaforma di supporto alla gestione della compliance normativa sui temi della sicurezza sui luoghi di lavoro
- Disponibilità della piattaforma per la gestione condivisa dei contenuti normativi

1.7.2

- Attivare servizi in comune con altri atenei in ambito regionale
- Numero di servizi in comune Cfr. art. 2.3.II b del Decreto Carrozza

1.7.3

- Avviare interventi di contenimento dei consumi e di risparmio energetico
- Avviamento dei progetti di contenimento dei consumi, risparmio energetico e salvaguardia dell'ambiente

1.7.4

- Analizzare i contratti di locazione e ridurre gli oneri per i canoni di affitto
- Importi dei contratti di affitto risolti
- Miglioramento indice ISEF

UNITO verso una maggiore sostenibilità: iniziative in corso o future

- Piano di risparmio energetico (punto 1.7 linee strategiche) (aspetti tecnici; aspetti di policy, sensibilizzazione, coinvolgimento, responsabilizzazione, partecipazione); Energy manager
- Bilancio in ottica partecipata (punto 4.5 linee strategiche)
- Adesione attiva al protocollo Acquisti pubblici ecologici (problema di policy per una organizzazione complessa e a struttura decentrata come l'Università)
- Possibilità di pensare a strategia di mobilità sostenibile tra le diverse sedi (Mobility Manager)
- Vari centri e gruppi di ricerca, tra i quali: IRIS (Centro Interateneo) e Cattedra Unesco "Sviluppo sostenibile e gestione del territorio
- Pluralità di iniziative, riflessioni e azioni alla scala di Unito (Hackunito, CraftLab… + sicuramente altre che non conosco) o delle singole sedi (CLE, Grugliasco, Palazzo Nuovo, Medicina, Poveri Vecchi ….): in corso o attivabili (a partire da problemi opportunità…)
- Strategie per diritto allo studio, ospitalità universitaria, collegamento Edisu, CUS con il territorio (vari punti di aggancio con linee strategiche)