Assessing sustainability in higher education institutions holistically

Rodrigo Lozano (PhD)
email: rodrigo.lozano@hig.se & rodlozano@org-sustainability.com

October, 2018
Madrid, Spain
Higher Education Institutions’ system elements

- 'Educating the educator's'
- On-campus life experiences
- Institutional framework
- Assessment and reporting
- Collaboration with other universities
- Campus operations
- Research
- Campus operations
- Community outreach

(Lozano et al., 2013)
Sustainability Reporting

• A voluntary activity with two general purposes:
  • (1) to **assess** the current state of an organisation’s economic, environmental and social dimensions, and
  • (2) to **communicate** a company’s efforts and Sustainability progress to their stakeholders (Dalal-Clayton and Bass, 2002; Hamann, 2003)

• It can be used for:
  – assessing sustainability **performance** over time,
  – **benchmarking** against other companies or organisations, and
  – **demonstrating** how the organisation influences and is influenced by stakeholders
  – **Planning changes** (Daub, 2007; GRI, 2011; R. Lozano, 2006a; Schaltegger & Wagner, 2006)
SR challenges

- **Gaining knowledge**, experience, and understanding of sustainability (Adams & McNicholas, 2007)
- Providing the **extra resources** needed to gather data and engage stakeholders (Lozano, et al. 2013)
- Keeping a **balance** between the details and core information (Lozano, 2006)
- In many cases data is **selectively reported** (Gray, 2006)
- Many of the reports **fall short** of the GRI/SR guidelines (Andersson, et al., 2005; Hussey, Kirsop, & Meissen, 2001; Wilenius, 2005)
- SR guidelines do not provide a framework to address or report upon **possible synergies** within, between, and among Sustainability issues (Lozano & Huisingh, 2011)
HESD assessment and reporting tools

- Graphical Assessment of Sustainability in Universities (GASU) based on the GRI guidelines (Lozano 2006, 2011; Lozano, et al. 2013)
- Sustainability Tool for Assessing UNiversities Curricula Holistically (STAUNCH®) (Lozano 2009, 2010, 2013)
- National Wildlife Federation’s State of the Campus Environment (Shriberg, 2002)
- Sustainability Assessment Questionnaire (Shriberg, 2002)
- Higher Education 21’s Sustainability Indicators (Shriberg, 2002)
- Auditing Instrument for Sustainable Higher Education (AISHE) (Roorda, 2001)
- STARS (AASHE, 2010)
Graphical Assessment of Sustainability in Universities

- Allows an **easy comparison** of Sustainability performance of reports
- Based on [the GRI guidelines](GRI, 2002b), with two additional dimensions: Educational and Inter-linking indicators
- **Indicators for GASU 2011** (Lozano, Llobet, Tideswell, 2013):
  - 43 for the profile
  - 9 for the economic
  - 30 for the environmental
  - 40 for the social part
  - 29 for the educational
  - 23 for the Inter-linking issues and dimensions
GASU outcome

- Eleven charts (combining indicator coverage and indicator performance in):
  - **General chart** (performance with respect to Profile, Economic Dimension, Environmental Dimension, Social Dimension, Educational Dimensions, and Inter-linking issues and dimensions)
  
- **Profile**
  - **Economic Dimension**
  - **Environmental Dimension**
  - **Social Dimension (5 charts)**: Overall, Labour Practices and Decent Work, Human Rights, Society, and Product Responsibility

- **Educational Dimension**

- **Inter-linked issues and dimensions**
University of Gävle

• The University of Gävle has **17,000 students**
• Over **700 staff**
• More than 50 study programmes (bachelor level) and second-cycle programmes (Masters level)
• 500 freestanding courses
Data collection

• The information was collected between April and August 2017
• Most of the information gathered was for the academic year 2014-2016
• The first step was to review the university’s web pages to try to obtain as much available information as possible
• The second step was to locate who was the owner or responsible for the information not available on the web pages, and to carry face-to-face or phone interviews to acquire the data
Populating the indicators (1)

- The indicators for Profile and Economic Dimensions were obtained mainly from secondary sources and department of economy and purchasing.
- The indicators for the Environmental Dimension were mainly obtained through from the intranet and campus Support Services, with additional input for the Biodiversity indicators.
- The indicators of the Labour Practices and Decent Work category were acquired from people in different departments.
Populating the indicators (2)

• The information for the Society category was provided by University’s joint administration (HGA)

• The Product Responsibility’s information was obtained from University’s joint administration and department for communication

• There was no information found or the indicators do not apply in a Swedish university context for the Human Rights category

• The Educational Dimension indicators were obtained through the intranet
Sustainability Report Exercise
Results: Overall chart
Comparison against other university SR

<table>
<thead>
<tr>
<th>Institution</th>
<th>Economic</th>
<th>Env.</th>
<th>Social</th>
<th>Educational</th>
<th>Inter-linking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birmingham</td>
<td>7.95%</td>
<td>7.22%</td>
<td>3.54%</td>
<td>3.92%</td>
<td>NA*</td>
</tr>
<tr>
<td>BOKU</td>
<td>11.93%</td>
<td>28.89%</td>
<td>10.63%</td>
<td>3.92%</td>
<td>NA*</td>
</tr>
<tr>
<td>UBC</td>
<td>13.07%</td>
<td>32.78%</td>
<td>5.78%</td>
<td>22.29%</td>
<td>NA*</td>
</tr>
<tr>
<td>Florida</td>
<td>27.84%</td>
<td>5.00%</td>
<td>7.46%</td>
<td>0.00%</td>
<td>NA*</td>
</tr>
<tr>
<td>Gothenburg</td>
<td>11.93%</td>
<td>10.00%</td>
<td>12.69%</td>
<td>3.01%</td>
<td>NA*</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>9.09%</td>
<td>28.89%</td>
<td>2.99%</td>
<td>0.00%</td>
<td>NA*</td>
</tr>
<tr>
<td>Leuphana</td>
<td>15.90%</td>
<td>10.00%</td>
<td>8.02%</td>
<td>6.63%</td>
<td>NA*</td>
</tr>
<tr>
<td>Michigan</td>
<td>25.00%</td>
<td>20.50%</td>
<td>11.75%</td>
<td>17.47%</td>
<td>NA*</td>
</tr>
<tr>
<td>PUCP</td>
<td>4.55%</td>
<td>6.67%</td>
<td>1.49%</td>
<td>0.00%</td>
<td>NA*</td>
</tr>
<tr>
<td>USC</td>
<td>15.91%</td>
<td>30.00%</td>
<td>22.57%</td>
<td>11.75%</td>
<td>NA*</td>
</tr>
<tr>
<td>Singapore</td>
<td>0.00%</td>
<td>17.78%</td>
<td>8.40%</td>
<td>13.25%</td>
<td>NA*</td>
</tr>
<tr>
<td>Turku</td>
<td>26.14%</td>
<td>26.67%</td>
<td>18.66%</td>
<td>8.73%</td>
<td>NA*</td>
</tr>
<tr>
<td>University of Gävle</td>
<td>63.89%</td>
<td>59.67%</td>
<td>80.00%</td>
<td>59.30%</td>
<td>44.71%</td>
</tr>
</tbody>
</table>

Averages 17.44% 20.39% 11.02% 8.40%
Sustainability Tool for Assessing UNiversities’ Curricula Holistically (STAUNCH®)

• Developed with two objectives:
  1. to **assess systematically** how universities curricula contributes to SD
  2. to facilitate **consistent and comparable** auditing efforts

• Based on two combined equilibria:
  • **cross-cutting** themes’ dimension
  • **SD contribution**, looking for the balance among the four SD dimensions
## STAUNCH© criteria

<table>
<thead>
<tr>
<th>Economic</th>
<th>Environmental</th>
<th>Social</th>
</tr>
</thead>
<tbody>
<tr>
<td>• GNP, Productivity</td>
<td>• Policy/Administration</td>
<td>• Demography, Population</td>
</tr>
<tr>
<td>• Resource use, exhaustion</td>
<td>• Products and services (inc. transport)</td>
<td>• Employment, Unemployment</td>
</tr>
<tr>
<td>(materials, energy, water)</td>
<td>• Pollution/Accumulation of toxic waste/Effluents</td>
<td>• Poverty</td>
</tr>
<tr>
<td>• Finances and SD</td>
<td>• Biodiversity</td>
<td>• Bribery, corruption</td>
</tr>
<tr>
<td>• Production, consumption patterns</td>
<td>• Resource efficiency and eco-efficiency</td>
<td>• Equity, Justice</td>
</tr>
<tr>
<td>• Developmental economics</td>
<td>• Global warming, Emissions, Acid rain, Climate change, Ozone depletion</td>
<td>• Health</td>
</tr>
<tr>
<td></td>
<td>• Resources (depletion, conservation) (materials, energy, water)</td>
<td>• Social cohesion</td>
</tr>
<tr>
<td></td>
<td>• Desertification, deforestation, land use</td>
<td>• Education</td>
</tr>
<tr>
<td></td>
<td>• Ozone depletion</td>
<td>• Diversity</td>
</tr>
<tr>
<td></td>
<td>• Alternatives</td>
<td>• Cultural diversity (own and others)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Labour, Human rights</td>
</tr>
</tbody>
</table>

### Cross-cutting themes

- People as part of nature/Limits to growth
- Systems thinking/application
- Responsibility
- Governance
- Holistic thinking
- Long term thinking
- Communication/Reporting
- SD statement
- Disciplinarity
- Ethics/Philosophy
Calculations of contributions to SD

- Strength and relative percentages in the four criteria groups:
  - Economic strength
  - Environmental strength
  - Social strength
  - Cross-cutting themes strength

- Contribution for each Course, Degree, School, and University
Universities that have used STAUNCH®

• **Cardiff University** (Lozano, 2010; Lozano & Peattie, 2011)
• **Leeds University** (Lozano and Young, 2013)
• **Georgia Institute of Technology** (Watson & Lozano, 2014)
• **Tecnológico de Monterrey** (Lozano & Lozano, 2014)
• Worcester University
• All Welsh universities (through Higher Education Funding Council for Wales (HEFCW) funding)
Contributions to SD (Cardiff University)
EU sustainability courses
Curricula assessment discussion

• **Facilitate discussions** with the schools’ and university leaders about the curricula contribution to SD

• **Highlight** each course, degree, and school’s **contribution** to sustainability, including its **relevance** and its **proportionality**

• **Redesign and develop** courses and programmes to be more **sustainability** oriented

• **Make the links** between modules and SD more **explicit** and **clear** in the course aims
Conclusions (1)

• Comprehensive Sustainability assessment and reporting can help to communicate the university’s efforts more systematically and effectively to its stakeholders, to assess coverage and performance, and benchmark against other institutions.

• Sustainability assessment and reporting results can help to focus on coverage and performance weaknesses, thereby highlighting where remedial action is to be taken and better plan sustainability changes.
Conclusions (2)

• Sustainability assessment and reporting requires expertise, sufficient time, access for data collection, and stakeholder engagement.

• Sustainability reporting is a necessary step for universities and their leaders to detect current efforts and plan future ones.
Implementing SD at HEIs

• Adopt a **holistic perspective** that includes:
  • Making SD the ‘**Golden Thread**’ in policies and frameworks
  
  • Performing thorough and regular **assessments and report them**
  
  • Becoming more more **proactive** in engaging with SD
  
  • **Recognising** those **engaged** with SD
  
  • Fostering **multiplier effects**

  • **Planning and undertaking changes** throughout the **university system**
Thank you!

Rodrigo Lozano, PhD
Email: Rodrigo.lozano@hig.se & rodlozano@org-sustainability.com

Please fill in our survey on delivering sustainability competences: https://lnkd.in/eJAQ8xm