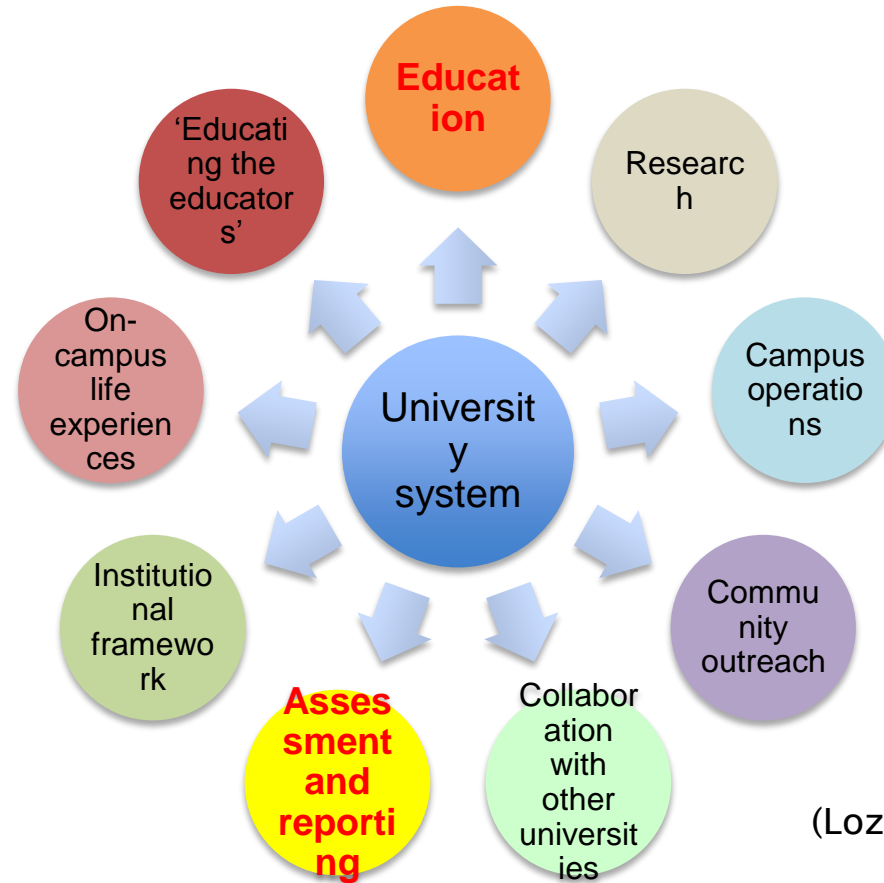


Assessing sustainability in higher education institutions holistically

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Higher Education Institutions' system elements



(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

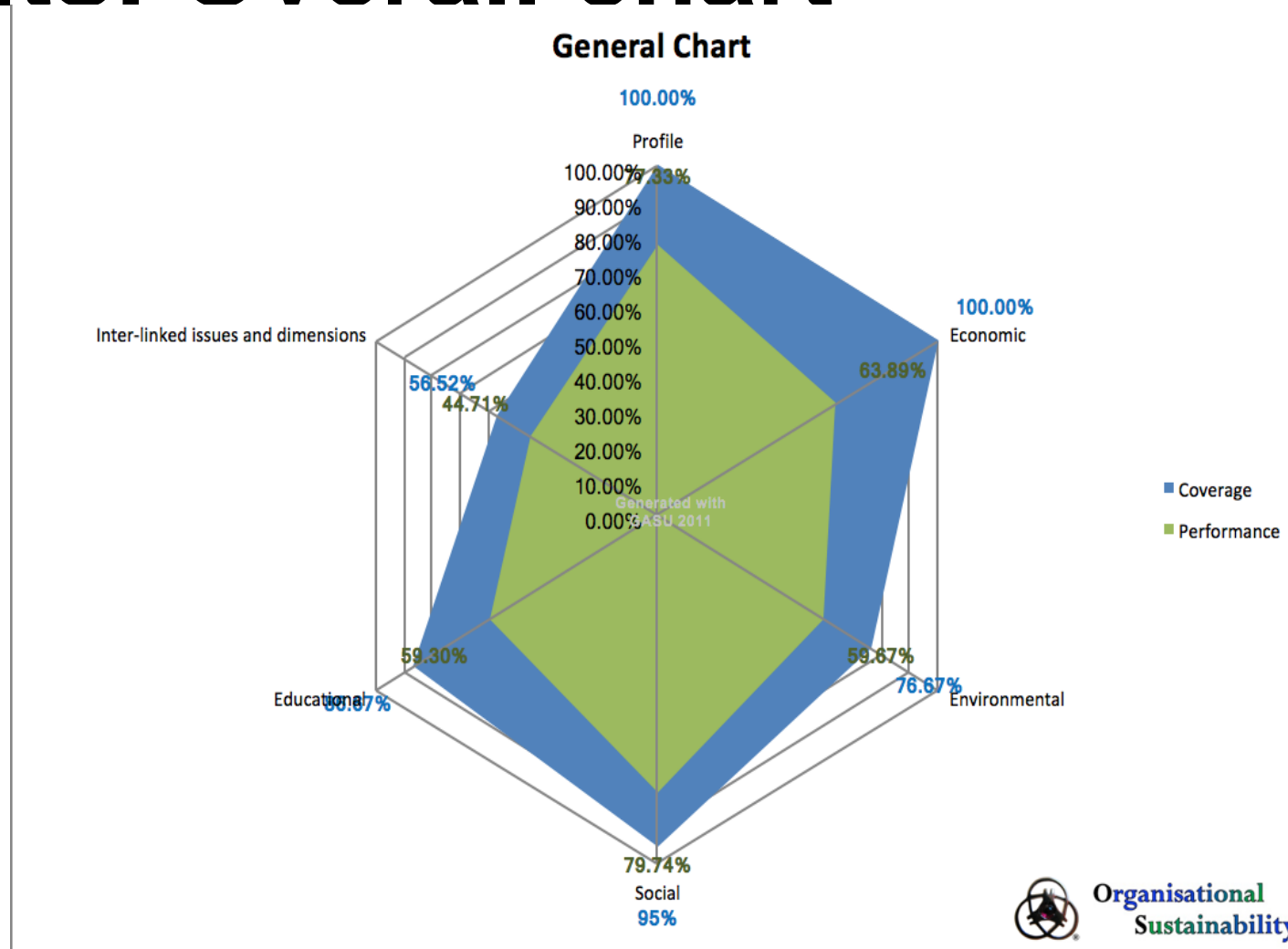
Populating the indicators (1)

- 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

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

<i>Economic</i>	<i>Environmental</i>	<i>Social</i>
<ul style="list-style-type: none"> • GNP, Productivity • Resource use, exhaustion (materials, energy, water) • Finances and SD • Production, consumption patterns • Developmental economics 	<ul style="list-style-type: none"> • Policy/Administration • Products and services (inc. transport) • Pollution/Accumulation of toxic waste/Effluents • Biodiversity • Resource efficiency and eco-efficiency • Global warming, Emissions, Acid rain, Climate change, Ozone depletion • Resources (depletion, conservation) (materials, energy, water) • Desertification, deforestation, land use • Ozone depletion • Alternatives 	<ul style="list-style-type: none"> • Demography, Population • Employment, Unemployment • Poverty • Bribery, corruption • Equity, Justice • Health • Social cohesion • Education • Diversity • Cultural diversity (own and others) • Labour, Human rights
<i>Cross-cutting themes</i>		
<ul style="list-style-type: none"> • 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 		

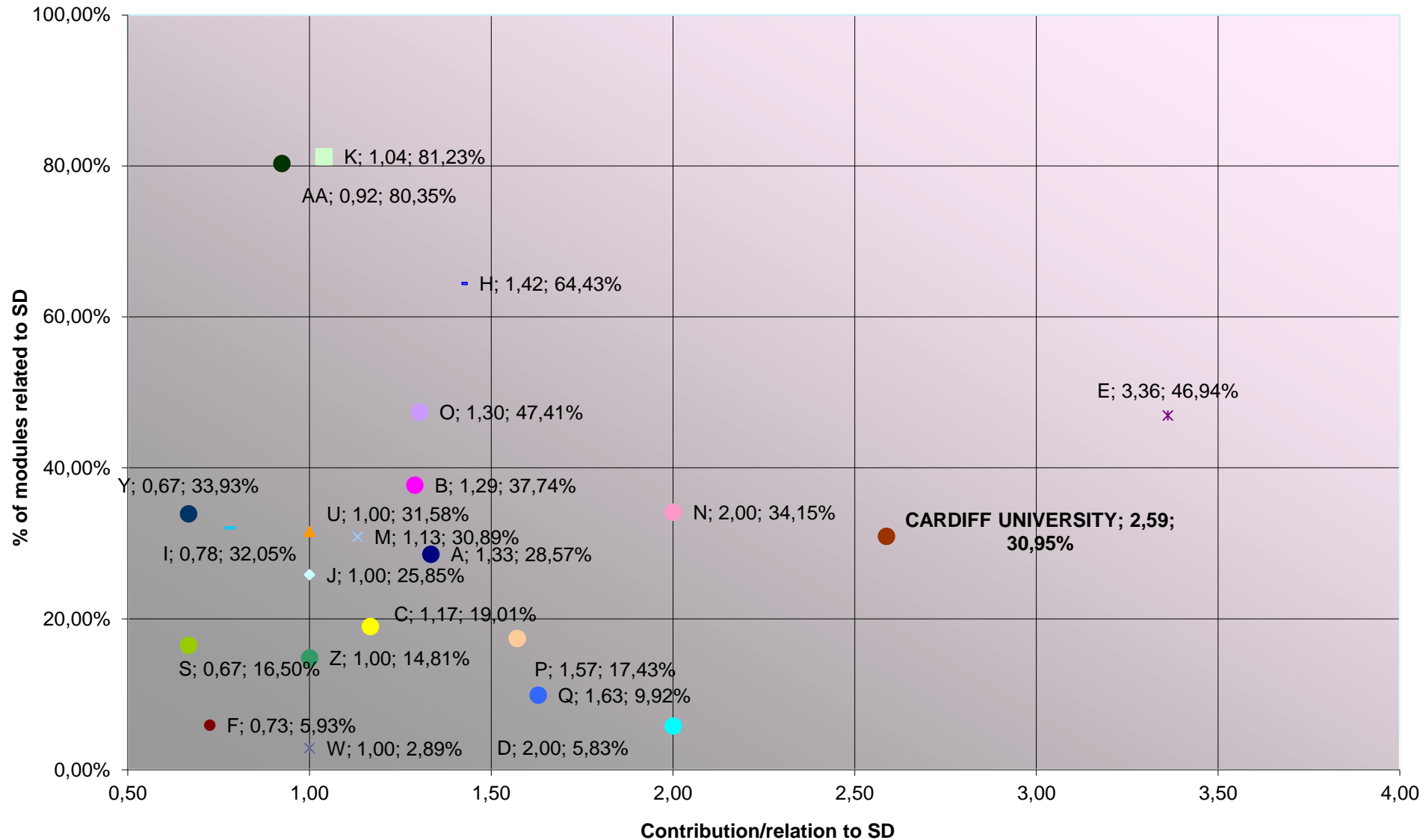
Calculations of contributions to SD

- 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®

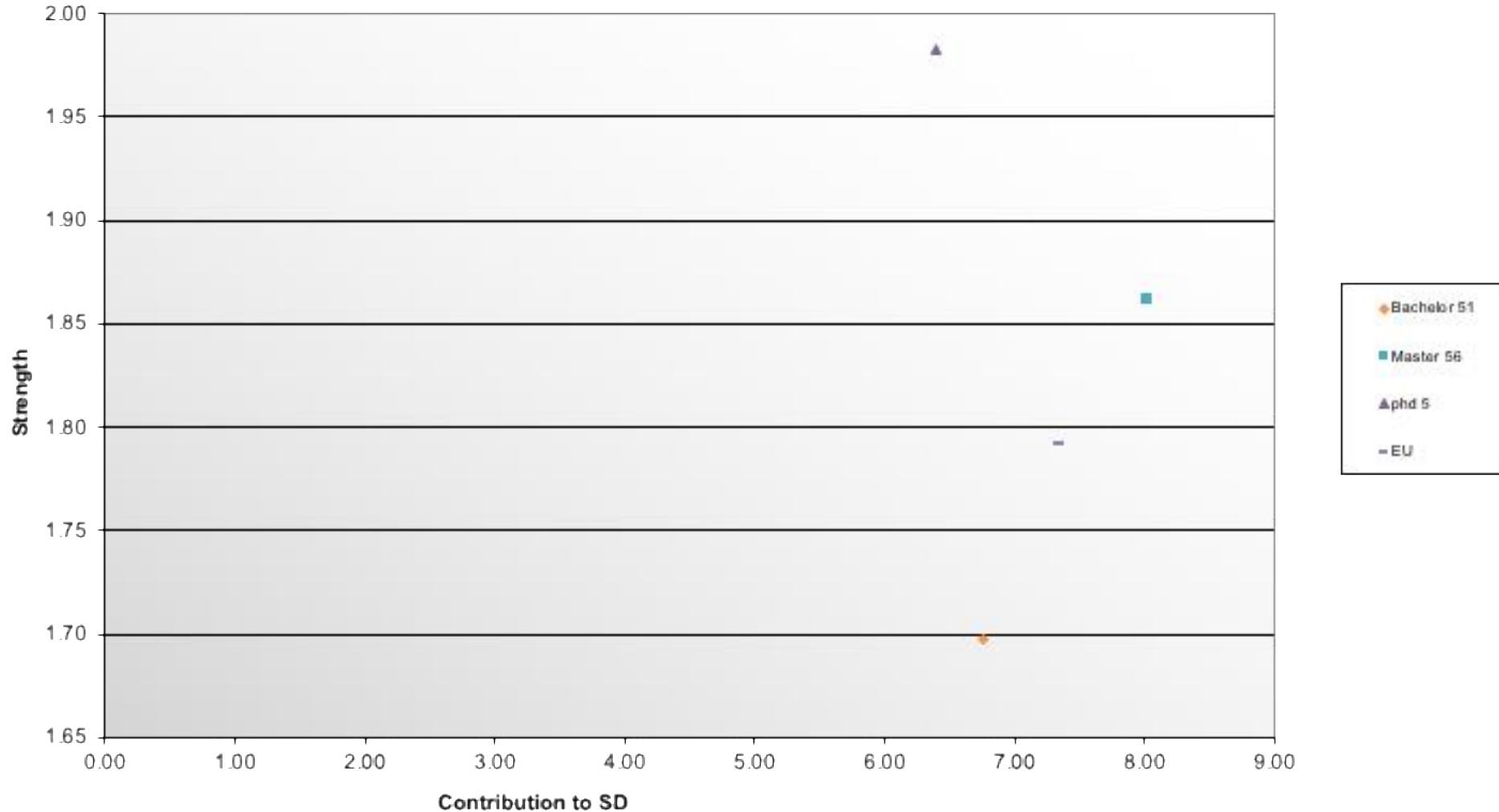
- **Cardiff University** (Lozano, 2010; Lozano & Peattie, 2011)
- **Leeds University** (Lozano and Young, 2013)
- **Georgia Institute of Technology** (Watson & Lozano, 2014)
- **Tecnológico de Monterrey** (Lozano & Lozano, 2014)
- Worcester University
- All Welsh universities (through Higher Education Funding Council for Wales (HEFCW) funding)

Contributions to SD (Cardiff University)



EU sustainability courses

EU
courses' SD contribution vs. strength



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)

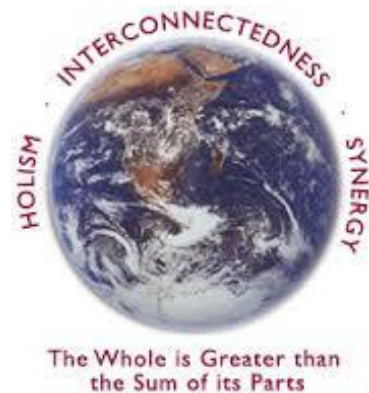
- Comprehensive Sustainability assessment and reporting can help to **communicate the university's** efforts more systematically and effectively to its stakeholders, to **assess coverage and performance**, and benchmark against other institutions
- Sustainability assessment and reporting results can 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!

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