



Auditing the Contributions of Cardiff University Curricula to Sustainable Development

Rodrigo Lozano

email: lozanor@cf.ac.uk

8-10 June 2009

**Joint Actions on
Climate Change**
Aalborg, Denmark





Overview of this presentation



- Cardiff University overview
- STAUNCH ©
- Results from auditing Cardiff University curricula
- Limitations
- Conclusions



Cardiff University

- Around **25,000** students and **5,500** staff
- SD **efforts** including: incorporating SD the university's policies, certifying the Univ with ISO14001, and audit of curricula contributions to SD
- **21 schools** (from 28) participated in the audit
- Done with the help of the Sustainability Tool for Auditing UNiversity Curricula in Higher-Education (**STAUNCH©**)



Pilot group (21 out of 28)



- **Architecture**
- **Biosciences**
- **Business, including Economics**
- **Chemistry**
- **City & Regional Planning**
- **Computer Science**
- **Earth sciences**
- **Engineering**
- **English, Communication and Philosophy**
- **European studies**
- **History and Archaeology**
- **Journalism, Media and Cultural Studies**
- **Law**
- **Lifelong Learning**
- **Mathematics**
- **Music**
- **Optometry and Vision Sciences**
- **Physics & Astronomy**
- **Psychology**
- **Religious and Theological Studies**
- **Social Sciences, including Criminology and Education**



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:



Traditional 'SD' dimensions

<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



STAUNCH© Criteria: Cross-cutting themes



- People as part of nature/Limits to growth
- Systems thinking/application
- Responsibility
- Governance
- Holistic thinking
- Long term thinking
- Communication/Reporting
- SD statements
- 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 Module, Degree, and School**



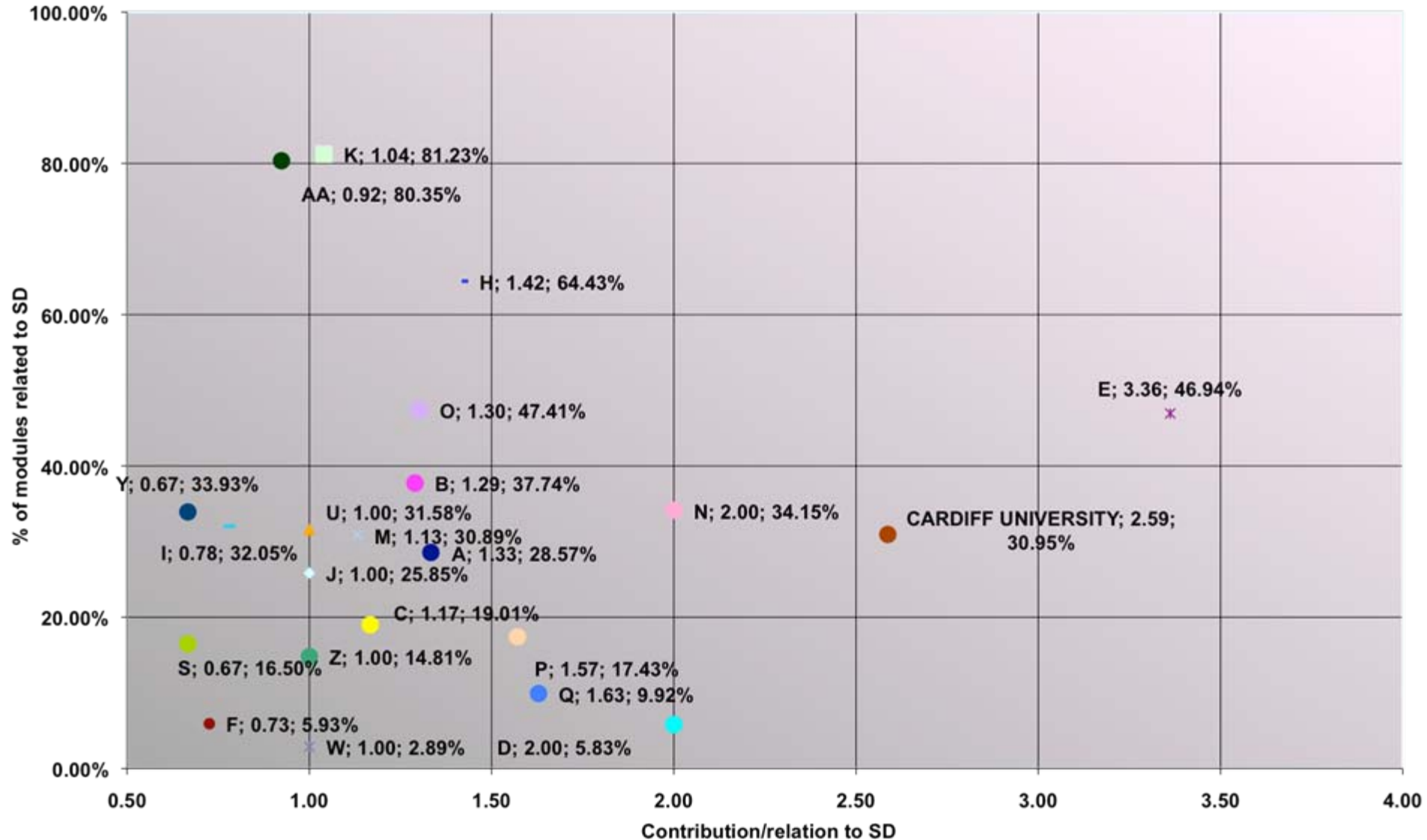
Cardiff University

key findings

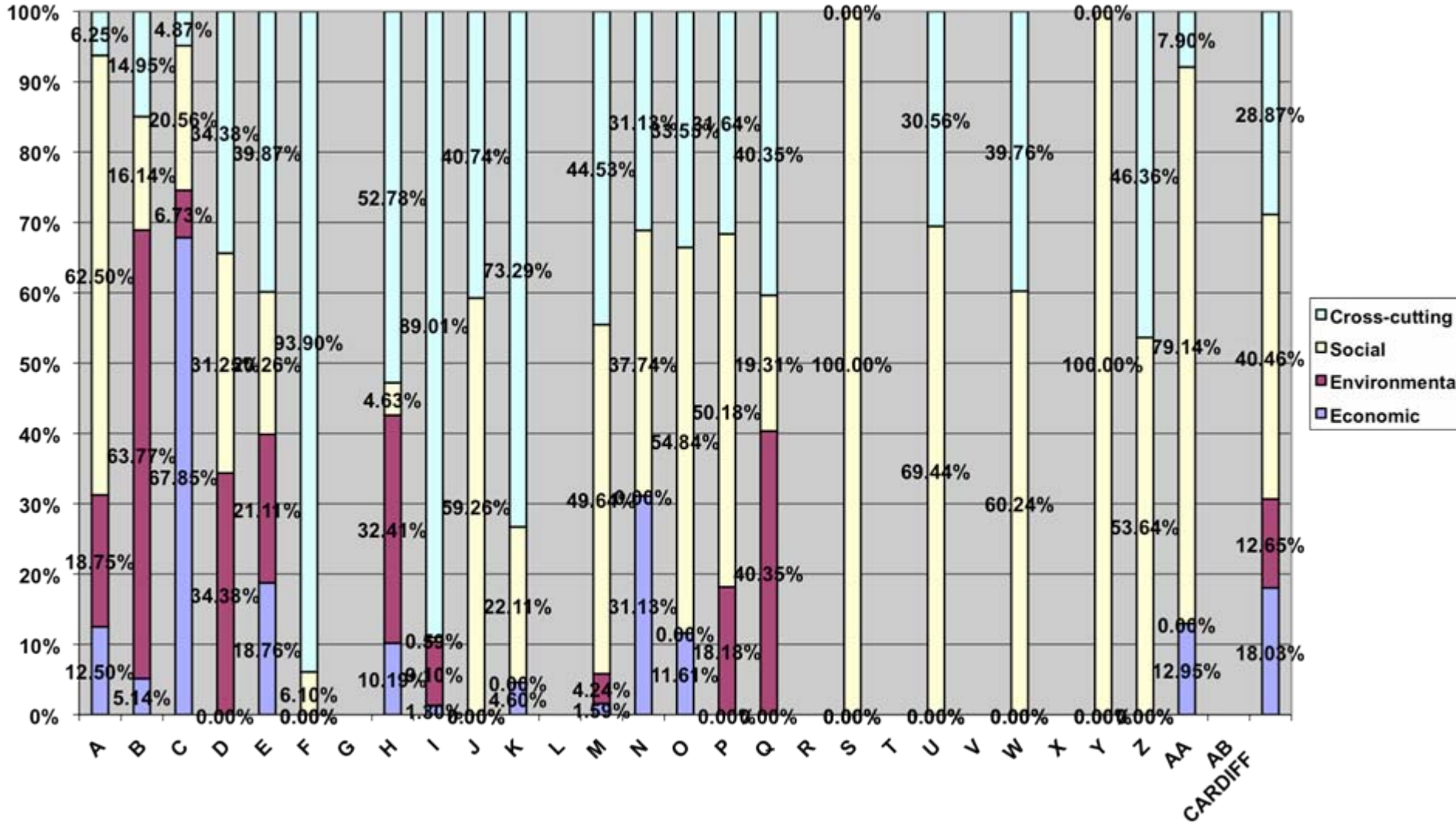


- From **5,848** modules analysed 1,810 relate to SD
- Contributions to SD are **predominantly** high
- **Strength** of contributions to SD are mainly low (69%)
- **Main focus** of the courses is on Social aspects (40%)
- **Least focus** of the courses is on Environmental aspects (12%)

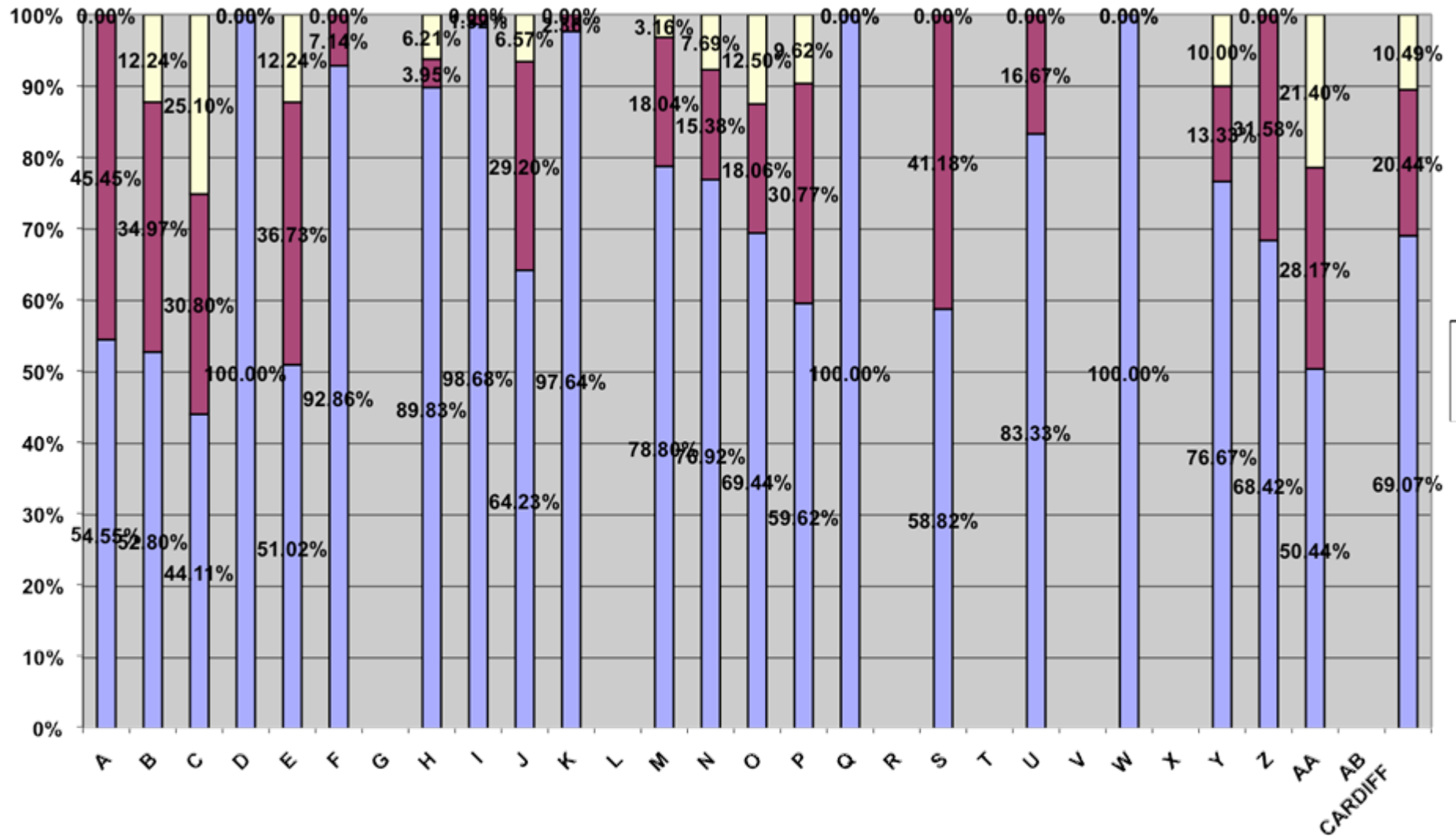
Contributions to SD



Balance of aspects



Contribution strengths



Conclusions (1)

- **Discussions** with the schools' and university leaders need to take place to address the schools and university contributions to SD to address each school's **relevance** and its **proportionality** to its number of modules
- There are opportunities for the schools to make **more** of their **modules** and **degrees** relate to SD. This can be achieved by **making the links** between modules and SD more **explicit** and **clear** in the module aims

Conclusions (2)

- CU is probably in an **initial** phase in which SD issues are reasonably well covered for the University on a '**portfolio**' basis
- However, most of the schools have **opportunities** to increase the depth of coverage of SD topics and to better **balance** and **integrate** their contributions to SD to **go beyond** a portfolio approach and to integrate it throughout our teaching