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CAMPUS BRUSSEL

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ASSESSING THE SUSTAINABILITY OF HIGHER EDUCATION CURRICULA:

A CASE STUDY EMPLOYING THE STARS TOOL AND CRITICAL REFLECTION

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Sustainability in Higher Education

- Higher education institutions (HEIs) must take **responsibility** as agents in promoting sustainable development principles (Lukman and Glavič, 2006).
  - Educating future leaders and decision makers
  - Influence on public policy
  - HEIs' role in society

Conceptualizing Sustainability

- Conceptualization of “sustainability” and its intended manifestation in HEIs differs greatly among stakeholders (Wright, 2010; Sylvestre *et al*., 2014; Urbanski and Filho, 2014)
  - **objectivists** - something can be labelled “sustainable”
  - **subjectivists** - “sustainability” is a construct that is in the process of perpetual (re)creation

Roots of ESD in EE

- The roots of ESD are often credited in the environmental education movement (Monroe, 2012).
- Current paradigm for sustainability in HE calls for an interrelated integration of:
  - economic
  - social
  - environmental
- The historic roots in environmentalism creates a **tendency to resort back to environmental-focused rhetoric** (Lindstone *et al.*, 2014).

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Assessment of SD integration in HE

- Curricular assessment can offer university leaders a **starting point for change** (Lozano and Young, 2013)
- Examples of assessment tools:
  - Auditing Instrument for Sustainability in Higher Education – AISHE (Roorda, 2001)
  - The Graphical Assessment of Sustainability in Universities – GASU (Lozano, 2006)
  - The Sustainability Tracking, Assessment & Rating System – STARS (AASHE, 2016)

Which tool to use?

- Saadatian *et al*. (2011) evaluate 18 sustainable higher education assessment tools from 1998-2011, and they conclude that **STARS was one of the strongest assessment approaches** based on:
  - novelty
  - comprehensiveness
  - and popularity

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STARS Credit AC 1 – Course content

- STARS Technical Manual calls on institutions to conduct an inventory of
  - 1) "**sustainability courses**" (courses for which the primary and explicit focus is on sustainability and/or understanding or solving one or more major sustainability challenge), and
  - 2) "**courses that include sustainability**" (courses that are focused on a topic other than sustainability, but incorporate a unit or module on sustainability or a sustainability challenge, include one or more sustainability-focused activities, or integrate sustainability issues throughout the course)

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Horizontal v Vertical ESD Integration

- Integration of sustainability into curricula:
  - **vertically** – sustainability integrated in an explicit way via specific sustainability-related courses
    - Example: *Corporate Social Responsibility* course inserted in management program – entire course on the theme of CSR
  - **horizontally** – sustainability integrated implicitly within different regular courses of the curriculum
    - Example: integrating modules or cases on ethical investment in finance course

(Ceulemans *et al*., 2011; Figueiró and Raufflet, 2015)

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Example

- **Sustainability courses** – ***vertical integration***
  - *Corporate Social Responsibility* or *Sustainable Development* course(s) inserted in management program – entire course on the theme of CSR
- **Courses that include sustainability** – ***horizontal integration***
  - Integrating modules or cases on "ethical investment" in *Finance* course
  - Integrating modules or cases on "stakeholder engagement" in *Management* course
  - Integrating modules or cases on "market failure (i.e. environmental/social externalities in *Economics* course

STARS Credit AC 1 – Course content

- The STARS guidelines:

  "Each institution is free to choose a methodology to identify sustainability courses that is most appropriate given its unique circumstances"

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Methods for assessment

- The first, and commonly used, method for curriculum assessment is a **scan of ECTS files** looking for specific terms (Ceulemans *et al.*, 2011; Glover, 2011; Lozano, 2010; Mälkki *et al.*, 2015).

ECTS scan terminology

- AASHE STARS guidelines - *sustainability*
- Ceulemans *et al*. (2011) - *sustainable development*, *sustainability*, and *corporate social responsibility*.
- EQUIS (business school accreditation) – *ethics*, *responsibility*, *sustainability*

ECTS scan terminology:

- 1) sustainability (*sustainability*, *sustainable development*)
- 2) corporate social responsibility (*responsibility*, *corporate social responsibility*, *CSR*)
- 3) and ethics (*ethic(s)*, *ethical*)
- 4) stakeholder inclusiveness (*stakeholder*)
- 5) market failure (*market failure*, *externalities*, *common resources*)
- 6) environment-related terms (*ecology*, *environment*, *planet*, *green*)
- 7) society-related terms (*socio-economic*, *society*, *social welfare*, *human rights*, *labor* [in the context of labor rights], *[un]employment*, *[in]equality*, *diversity*).

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Case Study: KU Leuven MIBEM

- KU Leuven Master of International Business Economics and Management (MIBEM) program is a one-year master's program (with a six-month preparatory track of eight courses) that prepares students for a career in the international business world by developing students' (business) economic acumen, knowledge, and management skills.

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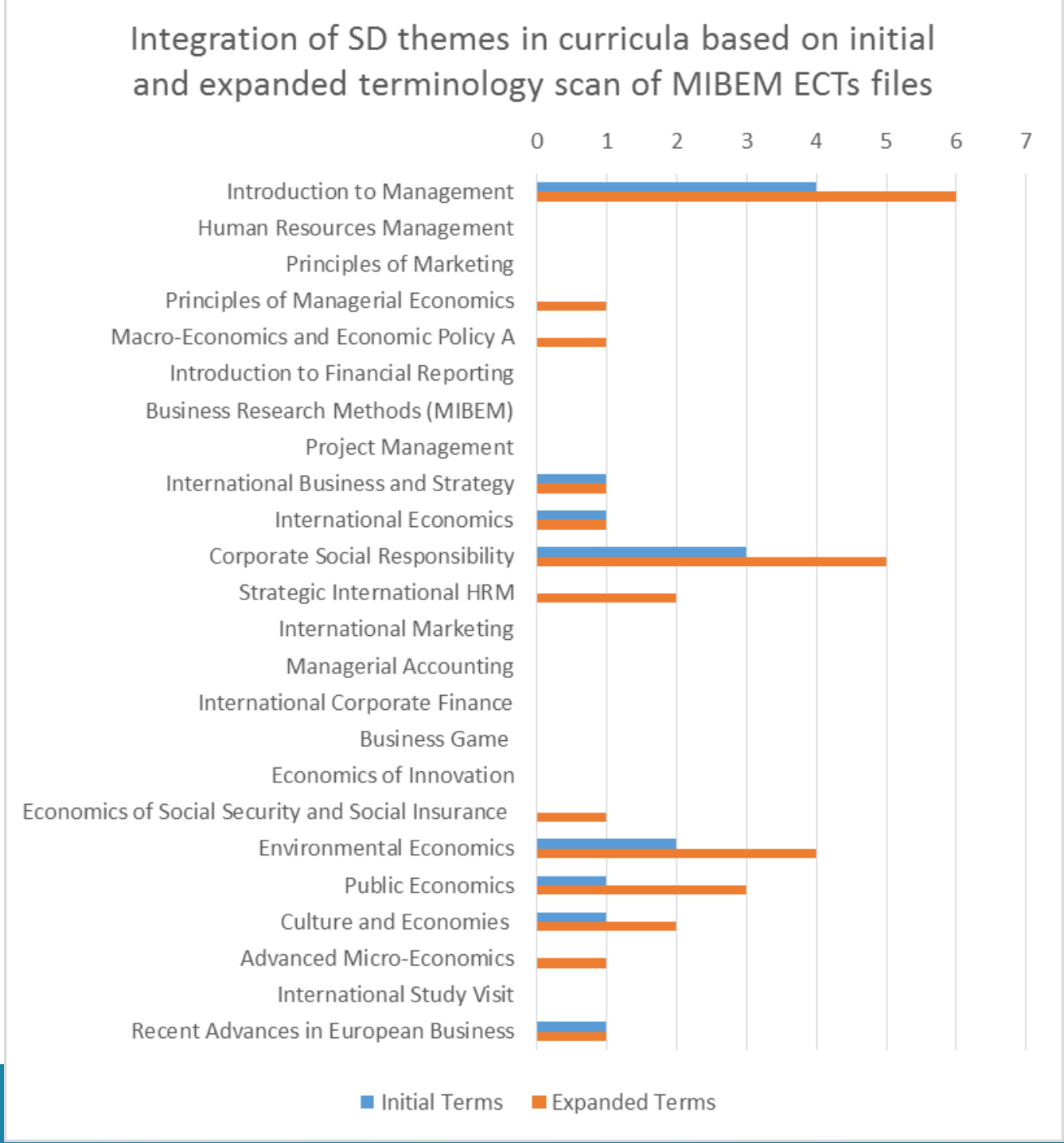
Results


Integration of SD themes in curricula based on initial and expanded terminology scan of MIBEM ECTs files
0
1
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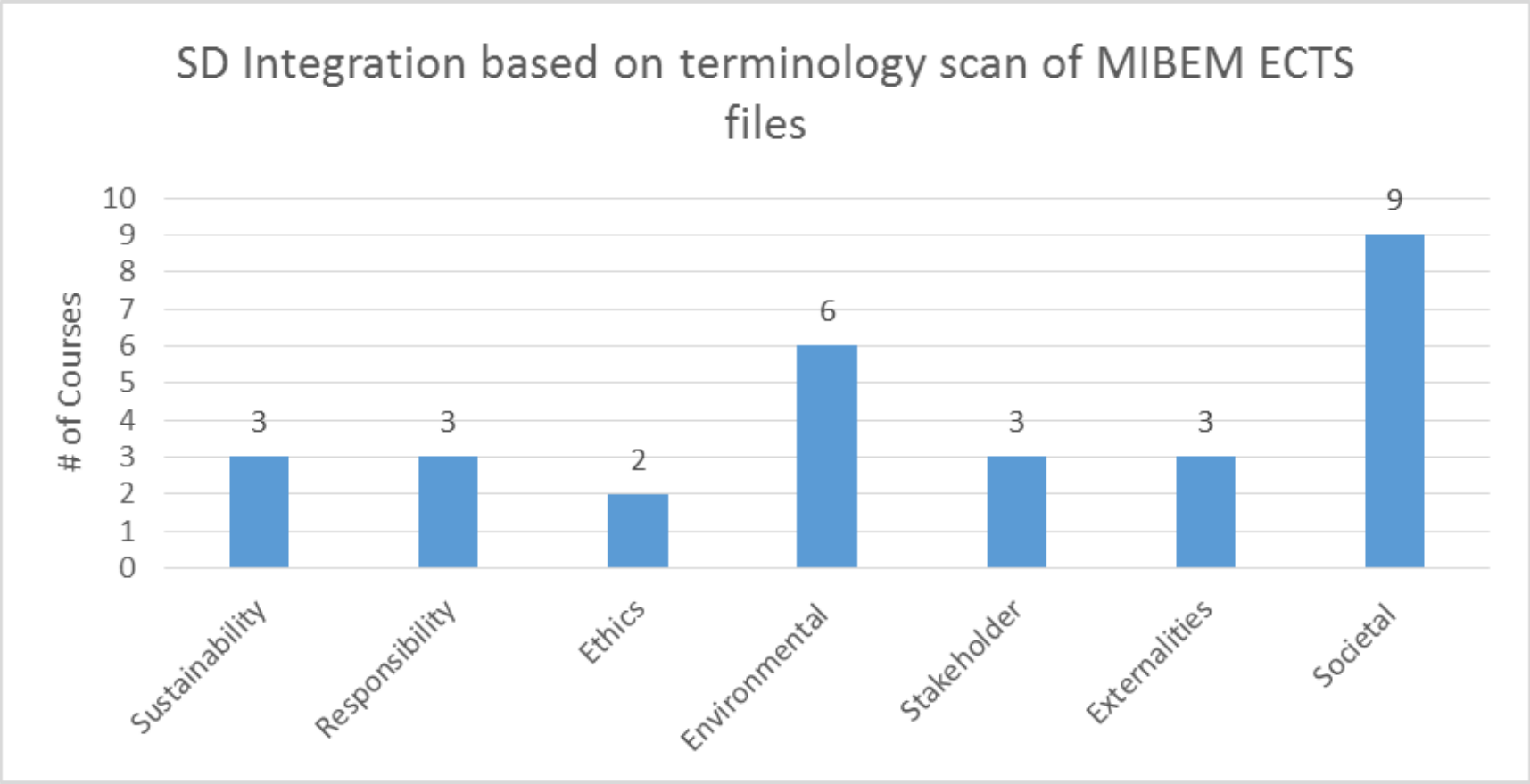
5
6
7
Introduction to Management
Human Resources Management
Principles of Marketing
Principles of Managerial Economics
Macro-Economics and Economic Policy A
Introduction to Financial Reporting
Business Research Methods (MIBEM)
Project Management
International Business and Strategy
International Economics
Corporate Social Responsibility
Strategic International HRM
International Marketing
Managerial Accounting
International Corporate Finance
Business Game
Economics of Innovation
Economics of Social Security and Social Insurance
Environmental Economics
Public Economics
Culture and Economies
Advanced Micro-Economics
International Study Visit
Recent Advances in European Business
Initial Terms
Expanded Terms

Results



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Limitations of ECTs scan approach

- Assessment forces a pre-determined conceptualization of "sustainability"
  - Can overemphasize environmental issues
- External assessors (researcher "interprets" ECTS files)
- ECTS files vary in terms of depth and quality

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MIBEM Course File

- In academic year 2013-2014, the MIBEM program head developed a holistic course file template. In addition to describing the course content, learning outcomes, credits, and evaluation found in traditional ECTS files, the course file includes information about how the course fits into the overall program, teaching methods, and other supplementary information.

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MIBEM Course File

- Aspects of sustainability were integrated into the MIBEM course file:
  - 1) sustainability competencies (Rieckmann, 2012) (holistic in nature and aim to re-orientate education)
  - 2) pedagogical approaches (have an impact on the degree to which students gain competencies for ESD)
  - 3) **themes related to ethics, responsibility, and sustainability** (34) have been included for teachers to link the content of their course to

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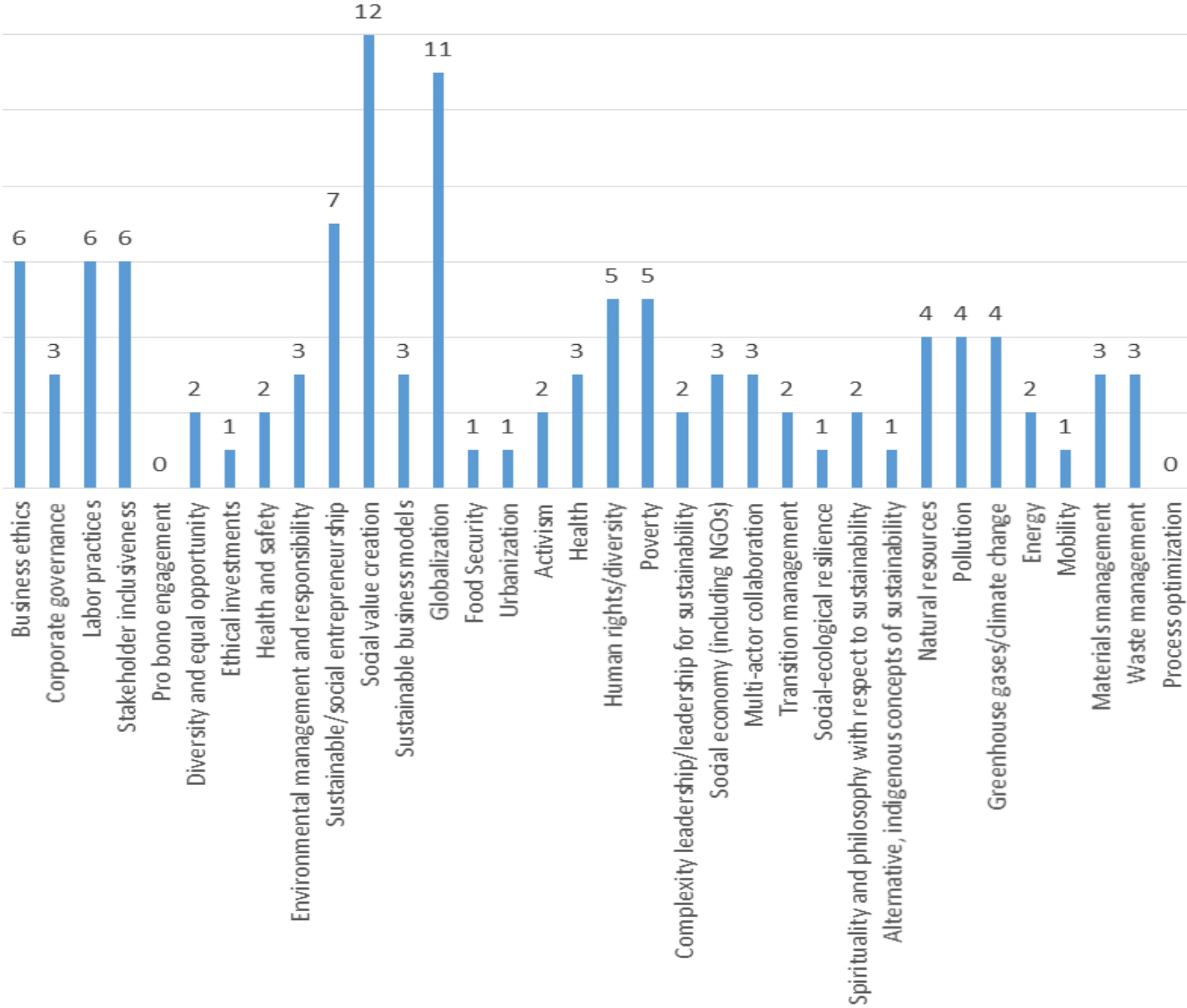
Prevalence of SD themes in curricula; based on course files



ECTS Scan v Course File

- ECTS scan (24 course):
  - 8 “courses that integrate sustainability” (initial terms) – 33%
  - 13 “courses that integrate sustainability” (expanded terms) – 54%
- Course file (21 courses – 3 excluded because to course file completed):
  - 19 “courses that include sustainability” – 90%

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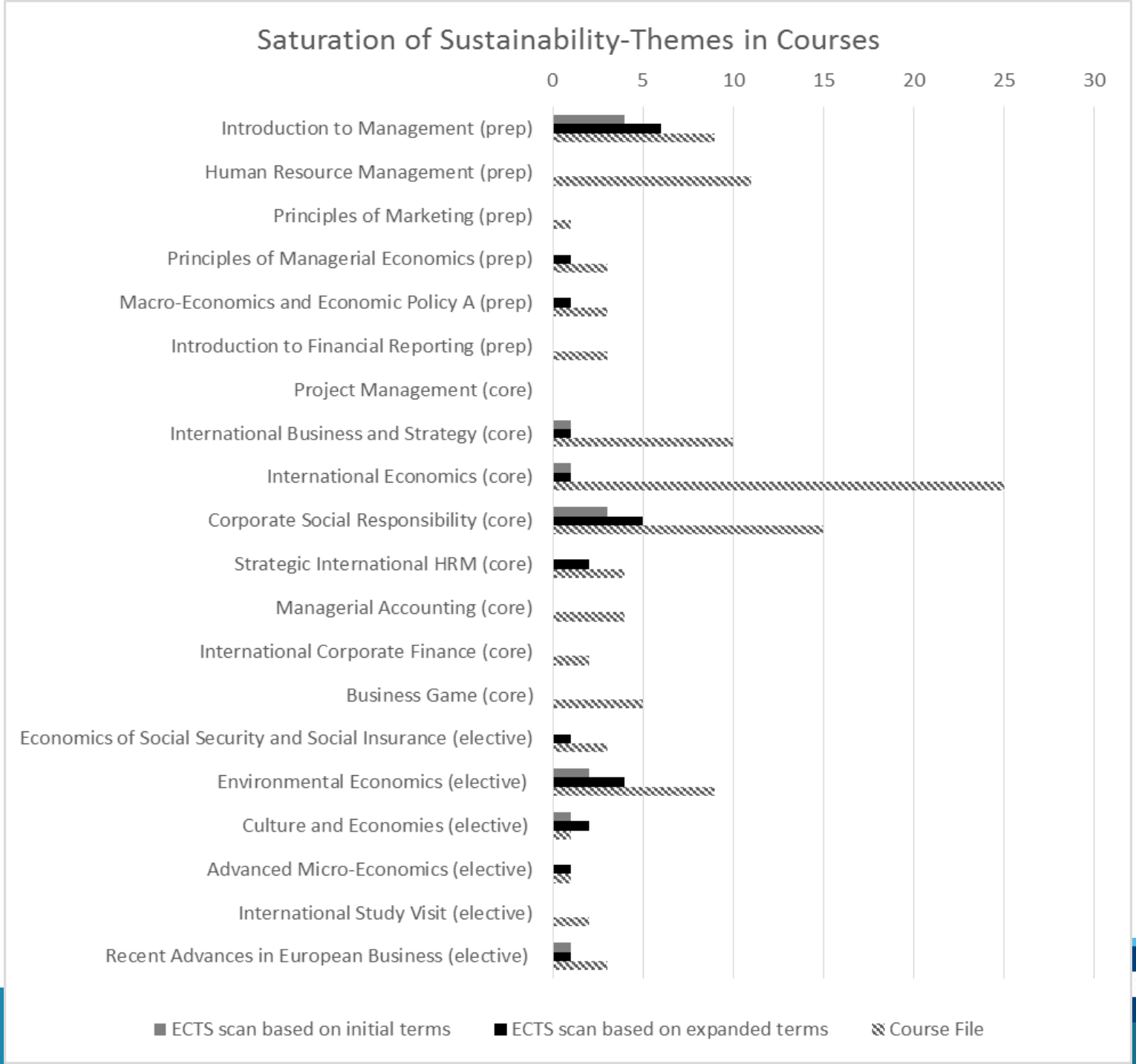
Saturation of Sustainability-Themes in Courses
0
5
10
15
20
25
30
Introduction to Management (prep)
Human Resource Management (prep)
Principles of Marketing (prep)
Principles of Managerial Economics (prep)
Macro-Economics and Economic Policy A (prep)
Introduction to Financial Reporting (prep)
Project Management (core)
International Business and Strategy (core)
International Economics (core)
Corporate Social Responsibility (core)
Strategic International HRM (core)
Managerial Accounting (core)
International Corporate Finance (core)
Business Game (core)
Economics of Social Security and Social Insurance (elective)
Environmental Economics (elective)
Culture and Economies (elective)
Advanced Micro-Economics (elective)
International Study Visit (elective)
Recent Advances in European Business (elective)
ECTS scan based on initial terms
ECTS scan based on expanded terms
Course File

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Beyond just increased terms

- Course file approach more inclusive even when dealing with specific topics
- Example: Ethics
  - Course file – 6 courses (29%)
  - ECTS scan – 2 courses (8%)
- *Benefits of teachers self assessing?*

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Strengths & Weaknesses of Course File

- Strengths
  - Teachers can self assess
  - More holistic
    - Room to include more explicit SD themes
    - Competencies
    - Pedagogies
  - More time efficient for researcher/analyzer
- Weaknesses
  - Resistance to more files
  - Still requires a preconceptualization of SD

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Conclusions

- Course files can remove some potential biases from assessment
  - teachers' lack of intrinsic linking of their course to sustainability-related themes
  - assessor biases/inability to fully understand the course based on the limited content of ECTS files.
- Giving teachers the ability to explicitly link their course to sustainability themes might also act as a **method of sensitization and motivation for educators** (see also Ceulemans and De Prins, 2010)—helping them overcome the barrier of "my course doesn't have to do with sustainability" described above.

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Conclusions

- Regardless of the approach used:
  - 1) the broadness of sustainability-related themes included in the assessment better captures the horizontal integration of sustainability into curricula
  - 2) the conceptualization of "sustainability" during the assessment impacts the extent to which sustainability is perceived as being integrated in the curricula.
    - While a relatively intuitive notion—that increased terminology yields increased inclusion—the process of re-examining the terminology based on the contents of the ECTS files forces the re-conceptualization of sustainability as it exists in the specific context of a program, faculty, domain, etc.

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Conclusions

- Understanding the contribution of programs to the concept of "sustainability" can help to better formulate the **context-specific conceptualization** of "sustainability"
  - Example: social elements of sustainability are strongly integrated into the MIBEM program.
- A context-specific conceptualization of sustainability may lead to more successful integration efforts—focusing on elements of sustainability that have more association with the content of a program **allows teachers to more readily link their course** to this overarching concept of "sustainability".

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Additional (Flemish) Resources

- Overview of sustainability integration in higher education:
  - http://www.lne.be/doelgroepen/onderwijs/ecocampus/kennis-en-instrumentenhub/literatuur
- Teacher's Manuel for sustainability integration "Het IVOOR"
  - http://www.competento.be/ivoor
- Sustainability in management/economics education:
  - http://www.lne.be/doelgroepen/onderwijs/ecocampus/kennis-en-instrumentenhub/edge-kit
- Sustainability in design education
  - http://www.lne.be/doelgroepen/onderwijs/ecocampus/kennis-en-instrumentenhub/eho-kit

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