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**IMPORTANCE OF EMPLOYERS' INVOLVEMENT IN THE
LEARNING OUTCOMES OF TRANSATLANTIC DOUBLE
AND JOINT DEGREES IN ENGINEERING**

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SOURCES OF DATA AND INFORMATION ON THE ROLE OF EMPLOYERS IN THE REFORM OF HIGHER EDUCATION DEGREES IN THE BOLOGNA PROCESS

✘ Bologna Process Stocktaking Report 2009

Working Groups (especially Employability Working Group) appointed by the Bologna Follow-up Group to the Ministerial Conference in Leuven/Louvain April 2009.¹

Analyses were performed using a uniform scorecard and template for the national reports of each of the 46 Bologna signatories.

✘ Trends V- The latest report of the series preceding the biennial Ministerial meetings in the Bologna Process on behalf of the European University Association.²

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- ✘ Analysis of 908 questionnaires sent to the higher education institutions of the Bologna signatory countries. Data also accumulated from 15 site visits to institutions in 10 countries.
 - ✘ Bologna Ministerial Communiqués especially Leuven/Louvain (2009).³
 - ✘ Proceedings of the European Association for International Education (EAIE) annual meetings: 2003-2009.

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- ✘ Association of American Colleges and Universities (AAC&U) 2008. Executive summary with employers' views on Learning Outcomes & Assessment Approaches.⁴
 - ✘ AAC&U commissioned Peter Hart Research Associates to do a survey 305 U.S. businesses employing bachelor's degree employees on the skills and knowledge required for success in the 21st century.
 - ✘ Five surveys on the Status and Issues regarding Joint and Double Degrees in Europe and the U.S. (2006-2009).⁵

THE EUROPEAN SIDE OF THE TRANSATLANTIC JOINT OR DOUBLE DEGREES

✘ An original goal of the Bologna Declaration as Operationalized in the Bologna Process was to ensure that the reform of European higher education would be more responsive to the labor market.

✘ Official Bologna Process Website⁶

Bologna Stocktaking Report

- ✘ “The National Reports demonstrated the ***employability*** of graduates is seen by higher education institutions and governments as ***one of the most important focal points higher education.***”

Trends V Survey

- ✘ “The responses to the Trends V questionnaire suggest that employability has grown in importance as a driver of change. 67% of institutions consider the concern for **employability of graduates** as “**very important.**”

DEGREE OF INVOLVEMENT OF EMPLOYERS IN THE REFORM OF BOLOGNA DEGREES IN ALL CYCLES

Bologna Stocktaking Report

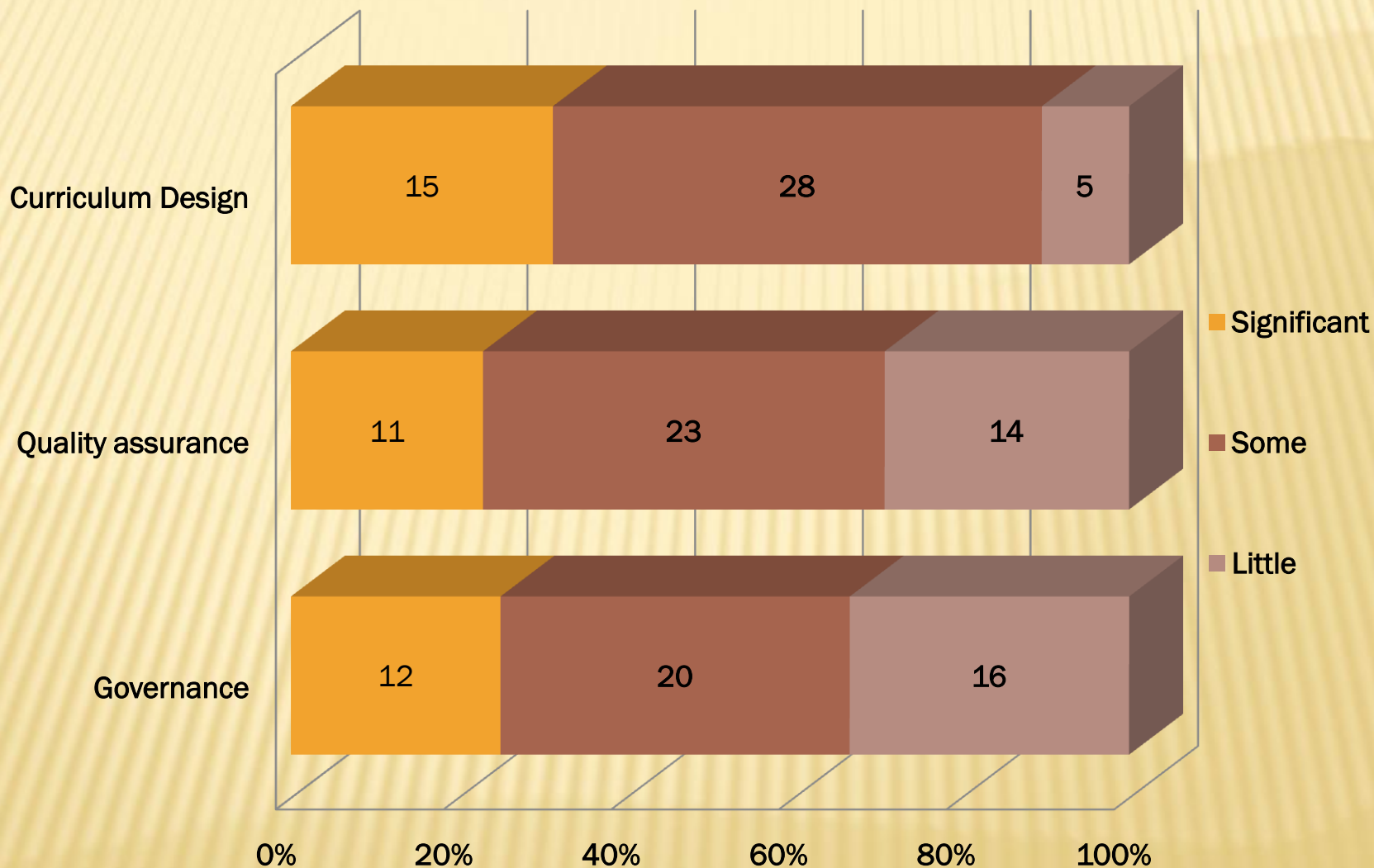
- ✘ The Employability Working Group of the Stocktaking Group “indicated that some universities query **whether employability should be a part of their mission and purpose.**”¹
- ✘ “Employers and institutions still have to learn how to work together in order to improve the employability of graduates.”
- ✘ “The 2009 national reports’ most frequently mentioned measures to improve employability of graduates included involvement of employers in **curriculum design and development, quality assurance, governance, and professional standards.**”

Trends V

- ✘ “A key finding: While considerable change is taking place in the first cycle (bachelor’s degree), ***employers are rarely involved in the curriculum reform processes***, and many other stakeholders are equally unaware of the nature of reforms.”
- ✘ Lack of employer awareness of reforms appears to be a key issue in this respect.” Employers on the whole are unsure what to expect from a university bachelor graduate.

“This issue needs to be urgently addressed if the Bologna Process is to be a sustainable success.”

Involvement of employees in curriculum design, quality assurance and governance of HEIs (number of countries giving each answer)¹



**THE U.S. SIDE OF THE TRANSATLANTIC
JOINT OR DOUBLE DEGREE:**

U.S. BUSINESS EMPLOYERS

AAC&U/LEAP SURVEY BY HART & ASSOCIATES⁴

(305 U.S. BUSINESSES)

Highlights

- ✘ Employers are dissatisfied with skills and abilities of recent college graduates.
- ✘ Employers reject any trend toward narrow technical training at the college level; they believe that to succeed in the global economy students need more liberal education, not less.

LEAP SURVEY⁴

- ✘ Fully 63 percent of employers believe that too many recent college graduates do not have the skills they need to succeed in the **global economy**.
- ✘ A majority of employers believe that only half or fewer recent graduates have the skills and knowledge needed to advance or be promoted in their companies.
- ✘ In none of twelve skills and areas of knowledge tested—from writing to global knowledge to ethical judgment—do a majority of employers rate recent graduates as “very well prepared.” Only eighteen percent of employers rate college graduates as “very well prepared” in the **area of global knowledge**. More than 45 percent rate them as “not well prepared” at all in this area.

Skills and Areas of Knowledge a Majority of Employers Would Like Colleges and Universities to Emphasize More in LEAP Survey as Percentage of Businesses Responding⁴

Concepts and new developments in science and technology.....82%

Teamwork skills and the ability to collaborate with others
in diverse group settings.....76%

The ability to apply knowledge and skills to real-world settings
through internships or other hands-on experiences.....73%

The ability to effectively communicate orally and in writing.....73%

Critical thinking and analytical reasoning skills.....73%

Global issues and developments and their implications for the
future.....72%

The ability to locate, organize, and evaluate information from multiple sources.....	70%
The ability to be innovative and think creatively.....	70%
The ability to solve complex problems.....	64%
The ability to work with numbers and understand statistics.....	60%
The role of the United States in the world.....	60%
A sense of integrity and ethics.....	56%
Cultural values and traditions in America and other countries.....	53%

Source: How Should Colleges Prepare Students To Succeed in Today's Global Economy? AAC&U/Peter D. Hart Research, 2007

MAJOR CHALLENGES IN ESTABLISHING TRANSATLANTIC JOINT AND DOUBLE DEGREES

**(SURVEY OF TRANSATLANTIC DEGREE PROJECT 2008,
IIE, EU, et, al)⁷**

EU Respondents	US Respondents
1. Securing funding	1. Securing funding
2. Ensuring sustainability	2. Ensuring sustainability
3. Different requirements for general education	3. Securing institutional support
4. Designing curriculum	4. Recruiting students
5. Agreeing on credit transfer	5. Different requirements for general education

“COMMON GROUND” IN CREATING TRANSATLANTIC JOINT AND DOUBLE DEGREES: LEARNING OUTCOMES

- ✘ The paradigm shift in the higher education systems of the U.S. and Bologna countries is the ongoing curricular reform geared toward the development of **student learning outcomes**.^{1,2,4}
- ✘ A major goal of the AAC&U’s LEAP initiative (College Learning for the New Global Century) is the integration of the learning outcomes of U.S. general education with the academic majors. Example: Engineering fields with accreditation standards of the Accrediting Board for Engineering and Technology that adopt student learning outcomes strategy for accreditation *in Engineering Criteria 2000*.⁴

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