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**Bologna and MEng
“Sleepwalking” Bill Rammell**

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The Bologna Process (1)

“Towards the European Higher Education Area (EHEA) by 2010”

- Background: Italy, Germany France and many New Accession States have economically unsustainable, grossly inefficient, HE systems
- Bologna: Magna Charta Universitatum 1988
 - Open, transparent, European HE system



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The Bologna Process (2)

- 1998 Sorbonne Declaration
 - Harmonisation of European education
 - France, Italy, Germany & UK
- **1999 Bologna – 29 Nation States**
 - Reaffirmed Sorbonne
- 2001 Prague
 - Reaffirmed Bologna
 - “Appreciated” role of EUA
- 2003 Berlin
 - Quality assurance
 - Two cycle degree process
 - Recognition of degree and periods of study (ECTS)





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The Bologna Process (3)

Towards the European Higher Education Area (EHEA)

- 2005 Bergen
 - Reaffirmed Berlin
 - Third cycle of degrees (PhD ONLY)
 - Integration of EHEA & ERA
- Glasgow Declaration 2005
 - “Strong Universities for a Stronger Europe”
 - Largely Apple Pie and Motherhood
 - The knowledge society through higher education and research
 - Refocusing The Bologna Process Midway To 2010
 - Enhancing Research and Innovation





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Summary of Bologna Cycles

- First Cycle “Mobility Degree”
 - 180 ECTS (3 years)
- Second Cycle
 - 90-120 ECTS (2 years)
 - 60 absolute minimum (one year)
- Third Cycle
 - As yet undefined
 - 3 to 4 years?
 - Salzburg could not agree on ECTS in Third Cycle
 - Some Nations already have this





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Bologna principles

- Transparent EU wide system of degrees and definitions permitting wide exchange and collaboration of Nation States
- Entry to First Cycle based on National criteria
- Entry to second cycle – **completion of Bologna First cycle**
- Entry to third cycle – **completion of Bologna Second cycle**
- Output Standards (LO's) orientated



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European Credit Transfer System (ECTS)

- 60 credits = one full (?) academic year
- Was/is a “time served” measure?
 - LO’s need linking to standards (time?)
- Becoming a “volume” measure of LO’s
- Changing to output standards and “Levels” by linking to “Dublin Descriptors” (Copenhagen)
- Dublin Descriptors are levels of attainment after First, Second and Third Cycles.



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Started as academic process, BUT

“In the lead by 2010”

- **Lisbon/Barcelona:** to increase the average research investment level from 1.9% of GDP today to 3% of GDP by 2010, of which 2/3 should be funded by the private sector.
 - Industry not prepared to fund gap
 - Now re-examining targets – to become **“aspirations”?!***





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EU motivation - Economic Competitiveness Not Pedagogy!!!!

- **Research Investment gap**
 - EU 1.9% and stagnant
 - FP7 budget under pressure
 - Even more so after UK EU Presidency
 - US 2.7% and growing
 - Japan 2.9% and growing
- **“Twin Pillars”**
 - European Research Area (ERA)
 - European Higher Education Area (EHEA)
- **Bologna – the instrument to integrate the EHEA and ERA**
 - Good: piggy back academia on economic goals
 - Bad: pedagogy could be lost in economics





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General Climate

- Bologna similar to EU Constitution
 - Political elite moving far faster than VC's
 - Vice Chancellors moving faster than academics
 - “UK sleep walking into Bologna” – Bill Rammell 2005
- 3+2+3 seen as “Anglo Saxon Solution”
 - Has been for at least 5 years
 - Partly right/wrong we have 3+2 MPhil
- Output standards seen as “Anglo Saxon Solution”
 - “Anglo Saxon” standards seen as low
 - “we read the THES!”
 - Nations moving from 5 year degrees to 3+2 have deep concerns as to what is the use of the First Cycle degree
 - US: significant % not accepting 3 Year FC degree for PhD study
 - 3 year PhD anathema to many in EU





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Defence of MEng (1)

- Defence document by UUK, EC^{UK}, EPC
- Problems
 - Clearly not 3+2
 - Award BEng and MEng emphasises 3+1
 - Not now “integrated” as permit 3+1 for accreditation
 - Actually 4-1 but politically difficult
 - Can’t claim high input standards – now dropped
 - Can claim universal selection at Level 2
 - Can claim high output standards – BUT the EU are moving to the same descriptors now





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Defence of MEng (2)

Bolster MEng

- 30 credits levels 3/4 as credit bearing industrial placement, gives 90 credits i.e. minimum
 - Be careful of ECTS may only be 60 credits
- A further 30 credits post 4th year as extended project? Or credit bearing industrial placement?
 - Clumsy solution
 - Delays award of degree
- MEng's may not be accepted in Europe for entry to Third Cycle degrees
 - Some evidence of this already (UUK)





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Defence of MEng (3)

- Any admission of inequality of MEng could have serious repercussions on International Accreditation
 - FEANI, EUR-ACE, Washington Accord?
 - Already under pressure with FEANI
- BERGEN “Stocktaking”
 - Some fields of study remain outside the two-cycle system in a number of countries: in particular, **medicine and related fields, engineering, architecture and law.**





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Defence of MEng (4)

- Bergen Trends IV
 - “Universities in Belgium, the Netherlands and Sweden consider their 60 ECTS Masters, following a 180 ECTS Bachelor, as too short and not internationally competitive”.
 - Sweden withdrew from one years masters degrees in 2005
 - EUA Register of Masters Degrees contains many one year degrees from European countries
 - Only Cranfield in UK offering 2 year Masters
 - “In Ireland and Scotland a few examples of a move towards five-year integrated Master programmes were also found, for example in nursing, midwifery, dentistry, medicine and in sciences and engineering while the model of a four-year “Integrated Masters” also exists in the UK. It is difficult to see how this model in its present form could be integrated as a *second* cycle qualification to the overarching European higher education qualifications framework”





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Defence of MEng (5)

- CESAER/SEFI
 - The 3+2 model has become a standard reference in engineering. This should not exclude other possible paths towards the second-level degree, such as an integrated 5 years curriculum or a 4+2 or a 4+1 model”.
- Politics
 - **Bologna always seen as Anglo-Saxon solution**
 - **Post Constitution and Budget fiascos – little chance for MEng?**





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- **Bologna is a mainstream academic process**
 - Applicable to all fields of study
- In Europe a “University” means high level teaching and research
 - There are no “non-research” Universities in Europe
- Third cycle degrees are seen as academic research
 - In Europe many see students with doctorates leaving universities to go into industry as a “brain drain”



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Are we confusing objectives?

“A conversation should be more than an exchange of words”!

- Problem areas are
 - medicine and related fields, engineering, architecture and law
 - **THESE ARE ALL PROFESSIONS**
 - **EU do not understand “Accreditation” as we know it**
- Therefore the fundamental conflict is between professional recognition in UK and Bologna in EU





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- Should we play the “Professional Exemption” Card
 - Medicine will, Law will, why shouldn’t we?
 - Political problems FEANI etc.
- **Define MEng as a “Professional” Masters Degree**
 - It actually is in all but name already
 - We could claim it requires fewer ECTS credits than a “full Bologna compliant Second cycle Degree for Research” because its purpose is professional practice not research
 - International Professional accreditation is much more mature than Bologna
 - Partial precedent “Professional Doctorates” EngD” etc



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- **UK could then claim to be fully Bologna compliant as:**
 - Bachelor's degrees are clearly Bologna First Cycle
 - **Declare the 2 year MPhil/MA as the UK Bologna Compliant Second Cycle degree as suitable for progression to research**
 - MEng is a “Professional Masters Degree” and stands alongside Bologna
 - Malaysian BoE equates our MEng with their BEng!
 - Significant % of USA not admitting BEng to higher degrees
 - Third Cycle degrees are already largely Bologna compliant
 - “Professional Doctorate” EngD stands alongside Bologna?
 - Already problems about EngD ≠ PhD
- MEng candidates for Bologna Third Cycle degree will/may require additional study
 - In UK register them for MPhil and change regulations after one year
 - Some Universities do this already with Bachelors candidates



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Possible ways forward (1)

- **Plan A:** Defend MEng as Second Cycle Bologna Degree
 - Problematic but vitally necessary
 - May not win
- **Plan B:** Bolster MEng to comply with Bologna?
 - Extra 30 credits possible (be careful of definitions)
 - Extra 60 credits difficult
 - Fee problems
 - Delays award of degree
 - Two degrees emphasises 3+1
 - One University goes down this route all will need to follow





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Possible ways forward (2)

- **Plan C:** Claim professional exemption?
 - Knock on effects SEFI, FEANI, EURACE?
- **Plan D:** A 3+2 Bologna Compliant MEng?
 - Many academics favour this
 - Maintain traditional standards
 - Counters Maths and Physics problem
 - Difficulties with funding and top up fees
 - Pie in the sky
- **It's been very quiet for the last 6 months**
 - Sleepwalkers of the EU unite
 - 2010 only 4 years away!
 - Are you ready???

