



ENAAE: CTI experience

KU Leuven, Faculty of
Engineering Science

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Characteristics

- An old University (1425)
- A comprehensive university (16 faculties, covering ...)
- A large university (today > 55.000 students)
- A research-oriented university
 - Member of LERU, League of European Research U.
- Rankings
 - Times Higher Education: 12th in Europe
 - 1st in Reuters Europe's most innovative universities
- Student participation
 - Students represented In all levels of decision making
 - Very active in our faculty

Faculty funding in 2014:

Tier 1 €	Tier 2 €	Tier 3 €	Tier 4 €	Total €
25,583,010	13,082,634	28,724,657	4,651,178	72,041,480

More than 100 spin-offs
of our faculty

Spin-Offs FirW

± 3 / year



Faculty of Engineering Science

7 DEPARTMENTS

- Architecture
- Chemical Engineering
- Civil Engineering
- Computer Science
- Electrical Engineering
- Mechanical Engineering
- Materials Engineering

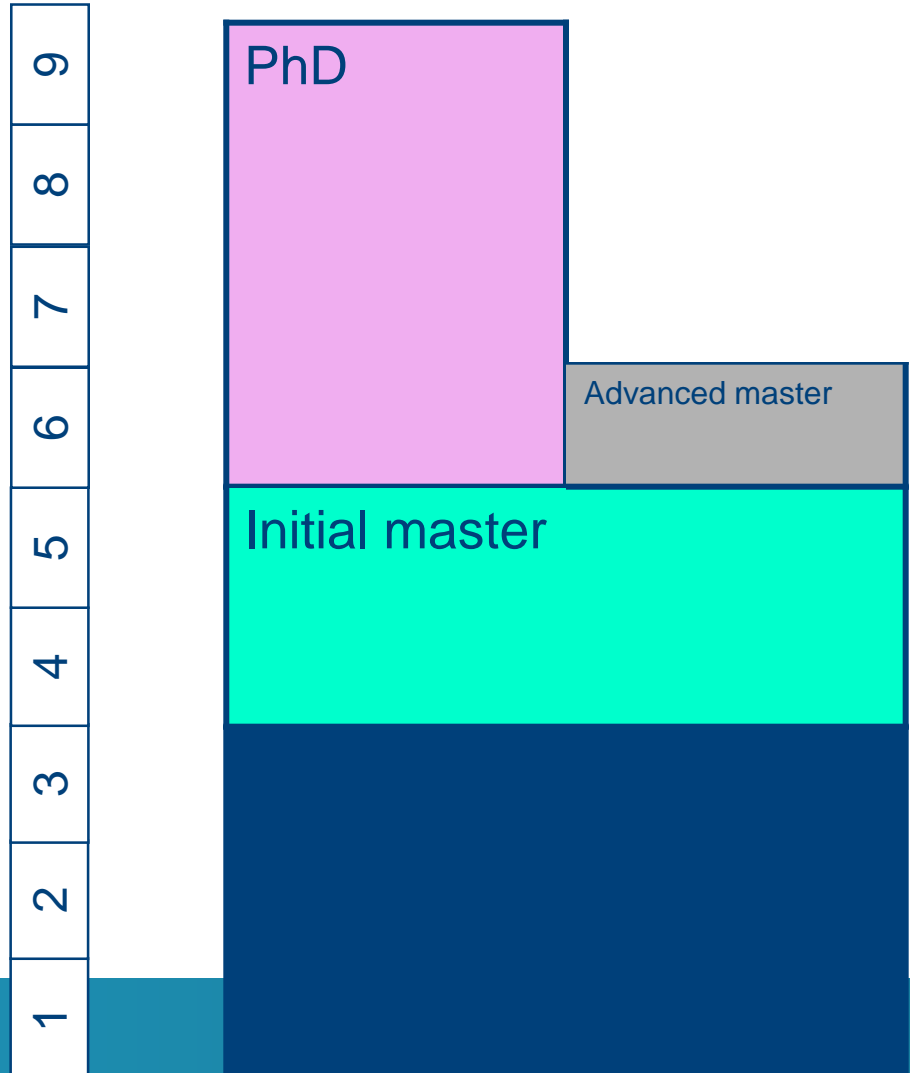
~4500 students

1500 bachelor students
 1600 master students
 300 advanced master students
 1000 PhD students

Of which 1200 international students



KU Leuven : the educational system



Bachelor-Master structure

5	Master	Master of Science in engineering		
		architecture	computer science	mechanical engineering
		chemical engineering	electrotechnical engineering	civil engineering
		materials engineering	energy ^{em} – EIT KIC	biomedical technology
		nanoscience and nanotechnology ^{em}	mathematical engineering	traffic engineering and ITS
4	Bachelor			
		main	complementary	general education
3	Bachelor	<ul style="list-style-type: none"> civil engineering geotechnics/mining chemical technology computer sciences materials engineering electrotechnical engin. mechanical engineering 	<ul style="list-style-type: none"> selection of 6 main's management Technology of living systems 	P&O
		common courses =90 stp (3 semesters)		
2	Bachelor	<ul style="list-style-type: none"> material and energy information mathematics problem solving and design (P&O) general education (economics, philosophy, ..) 		
1	Bachelor			

Context of visitation

- Before CTI
 - By decree (law): mandatory since 90's
 - Organized by Flanders / Netherlands
 - Organized by programme, every 8 years

 - Burden on faculty was high
 - Every year / two years some programmes
 - Reuse of texts was low
 - Burden on programmes was high
 - Every 8 years – no continuity
 - Long reports

Context of visitation

- Opportunities by CTI
 - One visitation for whole of faculty
 - Requested documents more concise
 - 40 pages for faculty (48 ...)
 - 4 pages per programme
 - Resulted in agreement with CTI, NVAO, 3 faculties ENG
- Opportunity for faculty
 - Development of vision, strategy, objectives
 - Development of faculty wide texts
 - Strengthening culture of quality assurance

Context of visitation

- New situation end 2014
 - Visitations no longer required
 - Faculties decided to keep on going with CTI
 - To keep momentum going
 - To finish what had been started
 - To acquire the EUR-ACE label
 - Not everybody believed this to be a good idea ...

Approach followed / actions taken

- One extra person was hired for 2.5 years
- One person per programme responsible (liaisons)
- Revisiting all ECTS files (by all lecturers)
- Update / rewriting of all Learning outcomes
 - All in ACQA framework
 - All following same standard
 - Extensive curriculum maps
- Faculty wide in depth questionnaire for students
- Faculty wide in depth questionnaire for alumni
- Installation of industrial advisory boards per programme

Approach followed / actions taken

- Writing of text started in summer 2014
- First time vision, objectives, ...
 - Were actively discussed in faculty
 - Were actively discussed in Senate (captains of industry)
- 40 pages is not much
 - Need to focus
 - Possibility of writing annexes where with information

Positive elements for faculty

- Timing excellent: new education vision of university (2014)
 - We could adapt our texts to this vision
- Global enthusiasm for quality of education
- Faculty wide texts, could be reused
 - Good table of contents of CTI!!
- Texts per programme:
 - written to be reused in brochures, on website, ...
 - SWOT per programme
 - Can be used now in new university-wide actions

Experience of Research-Oriented Univ.

- Role of education in research-oriented university
 - Research-driven education
 - Good education -> excellent students -> researchers
 - Quality mentality
 - Excellent researchers: often most excellent teachers

Research-oriented ...

- Top researchers = managers
 - Know how to delegate
 - Are ready to follow well-designed plans
- Are ready to innovate
 - But not to rethink their education every 6 months
- Education not always their main focus
 - Tend (not all of them) to see their own contribution
 - And not the whole of the programme
 - Favours the “content approach” (comment by CTI)

Outcome of CTI for KU Leuven

- Report:
 - Very sharp analysis of faculty level elements
 - Level of feedback for each programme varies
 - Often not content-oriented but more process-oriented
- Main benefit is in the preparation
 - SER
 - = mirror
 - Common time for reflection
 - Strong momentum!!
 - Need for something mandatory

What brings the future?

- Unclear ...
- University has set up its own quality assurance system
 - COBRA
 - Regular reflection meetings of primary actor
 - Outcomes are either solved locally
 - ... or given to higher level (faculty, university)
 - Role for external peers (every 4 years)
- Faculty does not want 2 systems of quality assurance

What brings the future?

- Unclear ...
- EUR-ACE label could be extra motivation
 - Not known enough
 - Compared to EQUIS
 - world's leading international accreditation for business schools

- Questions ?