



# THE PROFESSIONALS INVOLVEMENT IN THE ACCREDITATION OF ENGINEERING STUDIES

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THE ENGINEERING SUPPORTED IN MANY WAYS BY THE BASIC SCIENCES IS PARAMOUNT TO INCREASE THE QUALITY OF LIFE OF THE PEOPLE WORLDWIDE

THE MORE DEVELOPED COUNTRIES WERE THE ONES HAVING THE BEST PREPARED TECHNICAL PROFESSIONALS.

THE EUROPEAN ENGINEERS WORKING FOR THEIR GOVERNMENTS AND COMPANIES CREATED A GREAT EUROPE EXTENDED LATER ON TO THE USA

IF THE EARLY AND LONG PROCESS IT WAS VERY MUCH RELATED WITH THE WEAPONRY, TODAY IT IS MORE INVOLVED WITH ALL THE PRODUCTION, TRANSPORTATION, COMMUNICATIONS, ETC. FACILITIES



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EUROPE IS CONCERNED FOR THE LOST OF WORLD RELEVANCE IN ALL ASPECTS; FROM POLITICAL TO MILITARY; FROM INDUSTRIAL TO CULTURAL; FROM ECONOMY TO MORAL...

IT IS NOT FOR SURE THE ONLY SOLUTION, BUT ENGINEERS DO HAVE A LOT OF THINGS TO DO TO KEEP EUROPE AHEAD

POLITICS EVERYWHERE ARE COMMANDED MORE AND MORE BY ECONOMISTS AND LAWYERS, BEING THE ENGINEERS NOT NORMALLY RELATED IN THE MAJOR DECISIONS. NOT EVEN IN THE ONES RELATED WITH THE PRODUCTION / INDUSTRIAL / SERVICES TECHNICAL MATTERS

TO REQUEST A "VOICE" IS NOT EASY, BUT ALL THE ENGINEERS KNOW THAT OUR PROFESSION IS RELEVANT FOR EUROPE RESURGENCE



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TO REACH ALL THESE TARGETS WE NEED TO KEEP AND EXCEED THE EXCELLENCY IN THE ENGINEERING

THE *EURACE*'S ACCREDITATION PROMOTED BY *ENAE* IS TO BE THE REQUIRED DIFFERENTIATION TO PUSH THE EXCELENCY IN THE UNIVERSITY

SUCH SYSTEM WILL NOT ONLY PROMOTE THE ENGINEERS MOBILITY, WHICH SEEMS TO BE THE ONLY CONCERN FOR SOME GOVERNMENTS, BUT WILL ASSIST EUROPE TO RECOVER THE PREPONDERANCE OF THE KNOWLEDGE

*EURACE* MODEL SHALL BE EXPORTED TO OTHER COUNTRIES, AS IT WILL FURTHER IMPROVE THE BENEFIT OF OUR PROFESSION AND THE FULL SOCIETY



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INDUSTRY COMMISSIONER TAJANI HAS ADDRESSED THE NEED TO INCREASE THE EUROPE INDUSTRIAL CONTENT UP TO 20% OF THE GIO, BY 2020 WHICH IMPLIES AN AVERAGE GROWTH OF 30% AND OF 40% IN SPAIN

SUCH COMMITMENT WILL REQUIRE A HUGE AMOUNT OF WELL PREPARED ENGINEERS PROPERLY MOTIVATED AND WITH THE NECESSARY COMPANY AND FINANCIAL SUPPORT

MANY EUROPEAN AND NATIONAL POLITICAL DECISIONS, SHALL BE TAKEN TO PUSH IN THE PROPER DIRECTIONS FOLLOWING THE EUROPEAN COMPANIES STRATEGIES

UP TO NOW, NOT MUCH COMMISSIONING WORK HAS BEEN COMMUNICATED TO US AND IT SHOULD BE A GREAT POSSIBILITY TO GET PERMIT TO COLLABORATE IN SUCH ENTERPRISE



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## ENGINEERING STUDIES

WE MAY SEPARATE THE ENGINEERING STUDIES IN THREE BLOCKS OF LEARNING:

DEEP BASE OF SCIENCE MATTERS:

CALCULUS, ALGEBRA, PHYSIC, DIFFERENTIAL GEOMETRY, ETC

BASIC ENGINEERING MATTERS:

ELASTICITY AND STRENGTH, MECHANICS, ELECTRICAL AND ELECTRONICS, THERMODYNAMICS, FLUID MECHANICS, HEAT TRANSMISSION, ETC

APPLIED ENGINEERING MATTERS:

STRUCTURAL DESIGN, ELECTRICAL, UTILITIES DESIGN, CONTROL & INSTRUMENTATION, SAFETY, INCLUDING THE MULTIDISCIPLINARY PROJECT ASPECTS



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IF THE PROFESSORS OF THE BASE MATTERS CAN BE EITHER COMING FROM SCIENCE SCHOOLS OR TECHNICAL ONES

THE BASIC ENGINEERING MATTERS SHOULD BE TEACHED BY ACADEMIC ENGINEERS

BUT THE APPLIED ENGINEERING MATTERS SHOULD BE TEACHED BY PROFESSIONAL ENGINEERS HAVING THE EXPERIENCE GOT IN THE REAL DEVELOPMENTS



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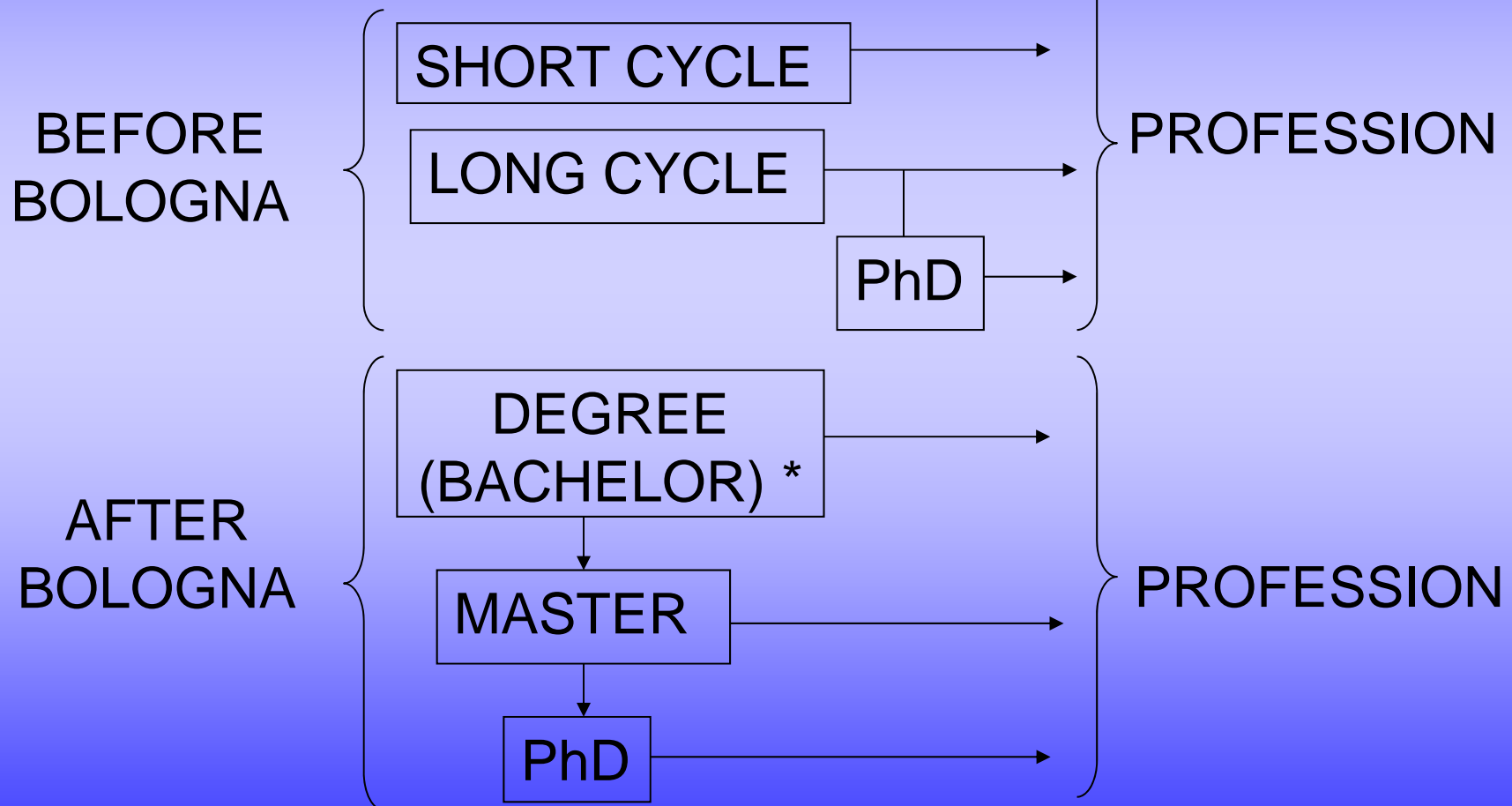
IT IS NOT ALWAYS UNDERSTOOD BY THE ACADEMIC WORLD SUCH NECESSITY, BUT THE PROFESSIONAL TEACHERS ARE PARAMOUNT TO GET THE ENGINEERING EXCELENCY OF THE STUDENTS





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IN SPAIN BEFORE BOLOGNA SHORT & LONG CYCLE ENGINEERS HAD PARALLEL ROADS



\* The translation of Bachelor in Spain “Bachillerato” is the equivalent to high school or the two last school years before the university



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BOTH SYSTEMS ARE PERFECTLY SUITABLE AND WE WOULD VERY MUCH PREFERRED THAT OTHERS SHIFTS TO OURS, AS CHANGES LIKE THIS ARE ALWAYS TROUBLESOMES

*EURACE* ACCREDITATION IS THE BEST SCHOOL TO WARRANT THE EXCELENCY OF THE ENGINEERING STUDIES



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BUT THE UNIVERSITY DEGREE EVEN WITH EURACE ACCREDITATION IS NOT ENOUGH TO ALLOW PROJECT SIGNATURE AROUND EUROPE

MANY COUNTRIES, REQUIRE PROOF EXPERIENCE ACCREDITATION AND COORDINATION OF SUCH IN EUROPE SHOULD BE A COMPROMISE OF *ENAE*? SUPPORTED BY THE EUROPEAN ENGINEERING ASSOCIATIONS

IF NOT *ENAE*, WHO SHOULD HANDLE THIS VERY IMPORTANT ISSUE?

**MANY  
THANKS**

**Dr. Manuel Moreu Munaiz**

Head of Instituto de la Ingeniería de España

