



UNIVERSITY OF CHEMICAL TECHNOLOGY  
AND  
METALLURGY - SOFIA



# Cooperation in International Educational Programmes as a Way to Joint Higher Education Degrees

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**IHES**  
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# **PRESENTATION OBJECTIVE**

**TO GIVE AN OVERVIEW OF THE UNIVERSITY OF CHEMICAL TECHNOLOGY AND METALLURGY (UCTM - Sofia, Bulgaria) ACTIVITIES, RELATED TO THE DEVELOPMENT AND IMPLEMENTATION OF JOINT DEGREES THROUGH AN ACTIVE ACADEMIC MOBILITY UNDER EUROPEAN EDUCATIONAL PROGRAMMES.**



# CONTENT

- **UCTM** – ACADEMIC PROFILE;
- **BG HIGHER EDUCATION – WHAT HAPPENED AFTER 1989 CONNECTED TO THE INTERNATIONAL COOPERATION;**
- **WHY INTERNATIONAL EDUCATION IS NEEDED;**
- **PARTICIPATION OF *UCTM* IN EU EDUCATIONAL PROGRAMMES FOR HIGHER EDUCATION;**
- **JOINT DEGREE OPTIONS;**
- **JOINT AND DOUBLE DEGREES AT *UCTM*;**
- **EMPLOYMENT OF GRADUATES.**



# THE UNIVERSITY



# UCTM – ACADEMIC PROFILE

- FOUNDED IN 1963
- 3 000 STUDENTS , 400 STAFF
- BOLOGNA PROCESS – FULLY IMPLEMENTED
  - **BACHELOR DEGREE COURSES** – CHEMICAL TECHNOLOGY, CHEMICAL ENGINEERING, METALLURGY, MATERIALS SCIENCE BIOTECHNOLOGY, BIOMEDICAL ENGINEERING, ECOLOGY, CONTROL ENGINEERING, INDUSTRIAL MANAGEMENT ;
  - **MCs courses** in the above mentioned area of studies;
  - **PHD DEGREES** - RESEARCH BASED
- COURSES – TAUGHT IN FOREIGN LANGUAGES:
  - CHEMISCHE VERFAHRENSTECHNIK (GERMAN);
  - CHIMIE INDUSTRIELLE (FRENCH) ;
  - MATERIALS SCIENCE (ENGLISH) – MSc;
  - ENVIRONMENTAL PROTECTION ( ENGLISH);
- ECTS – ALLOCATED FOR ALL COURSES
- EUROPEAN DIPLOMA SUPPLEMENT
- ACTIVE PARTICIPATION IN EU EDUCATIONAL PROGRAMMES ( ACADEMIC MOBILITY)
- ADULT EDUCATION – DEPARTMENT OF DISTANCE and CONTINUING EDUCATION
- COLLABORATION WITH OTHER BG UNIVERSITIES ;
- RESEARCH PROJECTS – managed by the Scientific and Research Department
- COLLABORATION WITH INDUSTRY – through industry funded projects



# BULGARIAN HIGHER EDUCATION – WHAT HAPPENED AFTER 1989 CONNECTED TO THE INTERANTIONAL COOPERATION AND MOBILITY

CHARACTERISTIC	BEFORE 1989	NOW
UNIVERSITY AUTHONOMY	NO	YES
FLEXIBILTY OF CURRICULA (elective subjects)	NO	YES
INTERNATIONAL COOPERATION	LIMITED	GLOBAL
PARTICIPATION IN INTERNATIONAL EDUCATIONAL PROGRAMMES	NO	YES ( TEMPUS, SOCRATES, LLP, Erasmus+)
CURRICULA TAUGHT IN FOREIGN LANGUAGES	NO	YES – GERMAN, ENGLISH, FRENCH
PARTICIPATION IN UNIVERSITY CONSORTIA	NO	YES – ERASMUS MUNDUS
CREDIT TRANSFER SYSTEM	NO	ECTS – FULLLY IMPLEMENTED



# WHY INTERNATIONAL EDUCATION IS NEEDED

- **Global economy, global communications and global job options;**
- **Managers and investors trust the quality of their own educational systems;**
- **University quality label and the University location play important role for the selection of employees;**
- **Joint degrees could be considered as a transfer of a quality label between Universities from different countries**



# PARTICIPATION OF UCTM IN EU EDUCATIONAL PROGRAMMES FOR HIGHER EDUCATION

## UCTM GENERAL POLICY CONCERNING THE INTERNATIONAL MOBILITY OF STUDENTS

- OUTGOING STUDENTS SHOULD COVER HIGH ACADEMIC AND LANGUAGE STANDARDS;
- TEACHERS PLAY A KEY ROLE IN INITIATING AND EXECUTING ERASMUS BILATERAL AGREEMENTS AS WELL AS IN SELECTING STUDENTS FOR MOBILITY; THEY ARE ADDITIONALLY STIMULATED TO PREPARE THEIR COURSES IN GLOBALLY SPOKEN LANGUAGES
- BG DOUBLE AND JOINT DIPLOMA STUDENTS SHOULD BE ENROLLED AT UCTM AND THEY MUST SPEND A PERIOD(S) OF STUDY AT THE PARTNER UNIVERSITY ;
- UCTM HAS OPTIONS FOR TAILOR MADE MSc COURSES FOR ATTRACTING MORE INCOMING INTERNATIONAL STUDENTS;





# PARTICIPATION OF UCTM IN EU EDUCATIONAL PROGRAMMES FOR HIGHER EDUCATION

**MAIN ACTIVITY – STUDENT AND STAFF MOBILITY UNDER Tempus, Erasmus, Erasmus Mundus and Erasmus +**

**OTHER - JOINT DEVELOPMENT OF STUDY CURRICULA (Tempus, Erasmus);**  
**- THEMATIC NETWORKS (Erasmus).**

## **RESULTS:**

- 2 % OF UCTM STUDENTS GET ERASMUS SCHOLARSHIPS AND SPEND A PERIOD OF STUDY ABROAD EVERY YEAR;
- MAJORITY OF OUR ERASMUS PARTNERS IS FROM GERMANY.
- ~ 50% OF GRANTS ARE FOR STUDENTS AND STAFF GOING TO GERMANY;
- CHEMICAL ENGINEERING AND ENVIRONMENTAL PROTECTION ARE THE MOST PREFERRED THEMATIC FIELDS



# JOINT DEGREE OPTIONS

- **Inter-institutional agreements based on the national legislation ( certification of graduates – document signed by participating Universities – at least two);**
- **Erasmus – Mundus and Erasmus + sub – programmes ( funded projects for Joint MSc and PhD courses) – diploma from the University where the students has been initially enrolled. Students have periods of study abroad at the project partner Universities.**



# **JOINT DIPLOMA IN ENVIRONMENTAL PROTECTION AND SUSTAINABLE DEVELOPMENT**

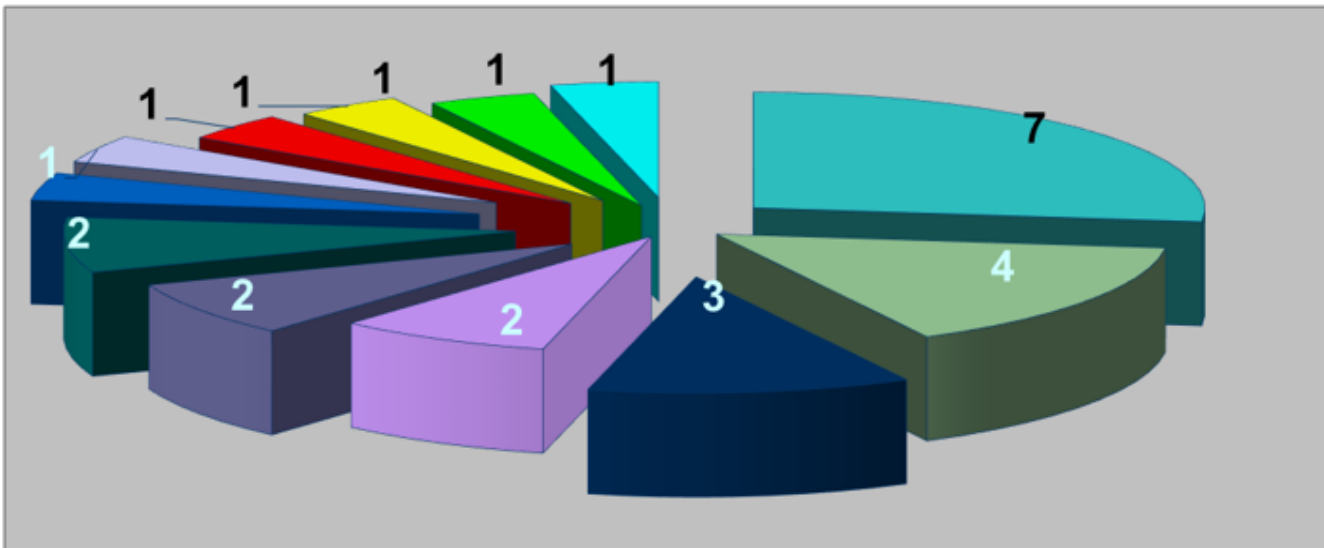
- **Developed under Tempus programme ( UK, GERMANY, BELGIUM, BULGARIA);**
- **Based on intensive academic staff exchange;**
- **Development of new lecture and laboratory courses;**
- **Adoption of new teaching methods;**
- **Compulsory outgoing mobility for students;**
- **Incoming staff mobility for teaching**
- **Delivered in English.**



# OUTCOMES



# GRADUATES AND THE INTERNATIONAL LABOR MARKET ( CLASS OF 2010 )



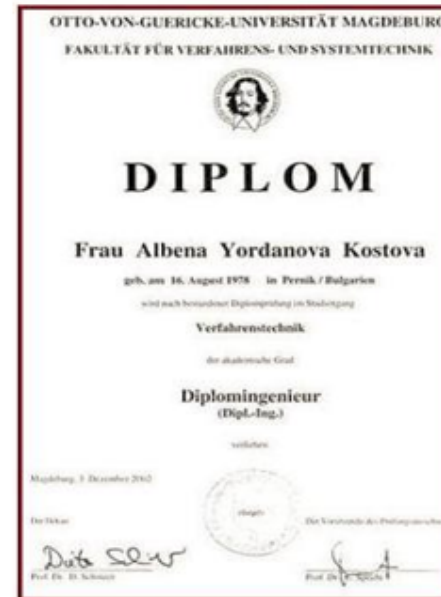
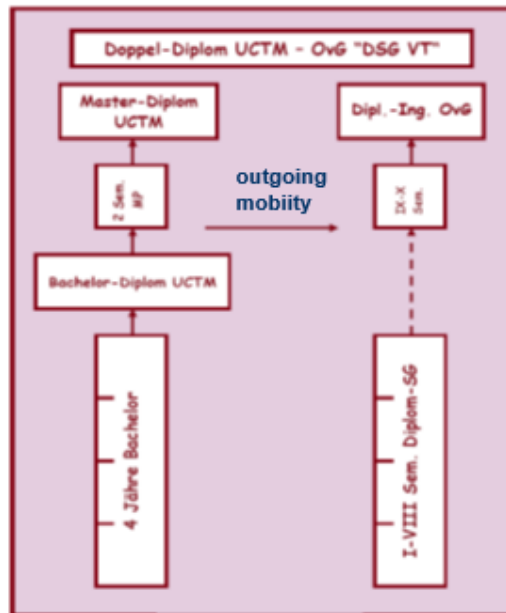
# DOUBLE AND JOINT DEGREES WITH GERMANY

- 24 years of experience - since 1993;
- Jointly developed with:
  - Technical University Hamburg- Harburg;
  - Otto von Guericke University of Magdeburg;
  - Leibniz University of Hanover.
- Support:
  - 2 DAAD Project ( 1 for Stability Pact);
  - 2 TEMPUS Projects;
  - 1 ERASMUS/Socrates PROG Project.



# OUTCOME

## DOUBLE DIPLOMA WITH OTTO VON GUERICKE UNIVERSITY OF MAGDEBURG



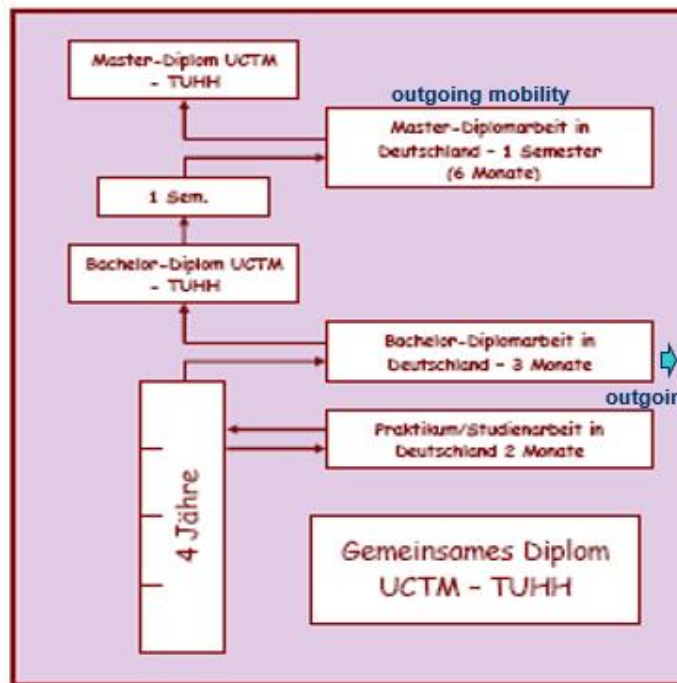
STUDY SCHEME



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# OUTCOME

## Joint Diploma with the Technical University of Hamburg - Harburg





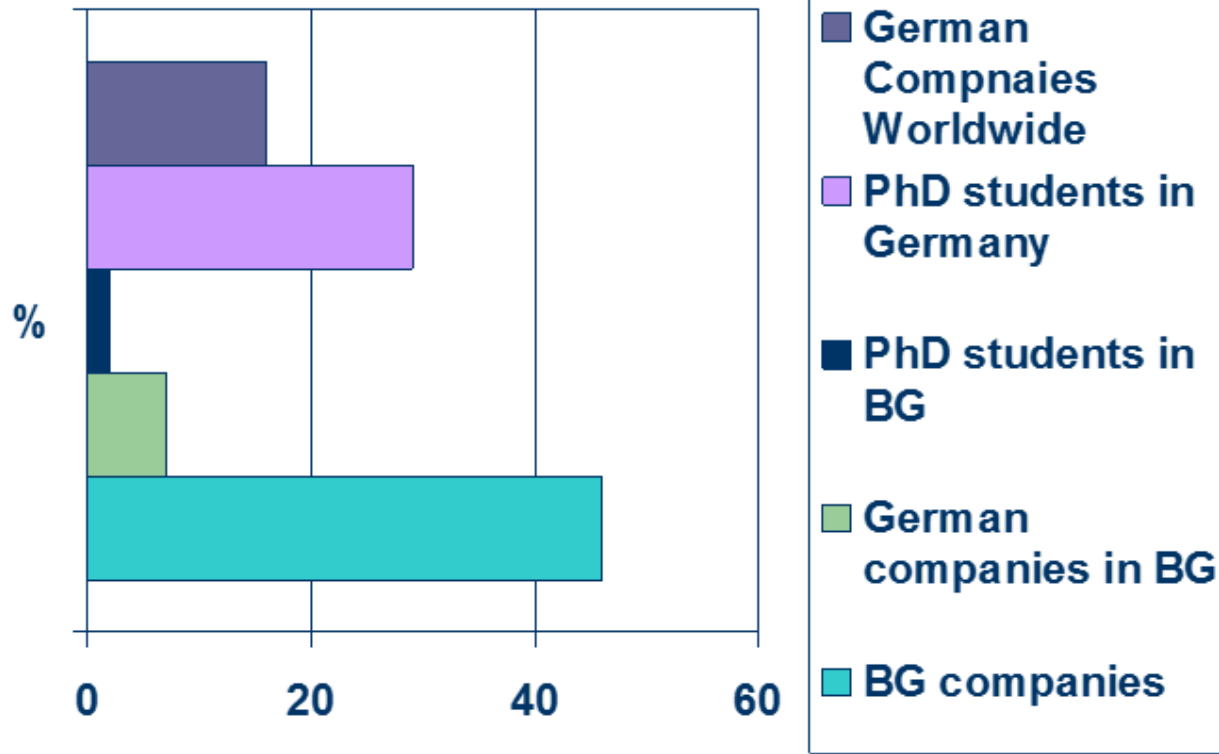
# MOBILITY BETWEEN UCTM AND GERMAN PARTNERS

- 385 students to Germany from 2005 to 2015.
- High number of double degrees ( 135 BSc and 128 MSc )

UNIVERSITY	Hannover		TUHH		OvG		Andere DUni		SUMME	
	Anzahl	Monate	Anzahl	Monate	Anzahl	Monate	Anzahl	Monate	Anzahl	Monate
STUDENTEN										
Praktikum	99	126	6	12	14	28	3	5	122	171
Studienarbeit oder Bachelor Diplomarbeit	18	45	22	63	81	180	14	34	135	322
Diplom- Ingenieur- oder Masters- Diplomarbeit	15	82	30	170	60	336	23	126	128	714
<b>SUMME</b>	<b>132</b>	<b>222</b>	<b>58</b>	<b>245</b>	<b>155</b>	<b>544</b>	<b>40</b>	<b>165</b>	<b>385</b>	<b>1207</b>



# EMPLOYMENT RESULTS



# CONCLUSIONS

- Student and staff international mobility contributes considerably to the transparency and a real comparison of the content and quality of study curricula;
- Development and implementation of courses leading to the international joint and double degrees depends on the national legislations and institutional regulations;
- Joint international degrees intensify the international mobility;
- International education in general and joint or double degrees in particular create much more globally distributed employment options.





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**THANK YOU FOR YOUR ATTENTION**



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