

**Kick-Off Meeting
Berlin
4-5 March 2019**

**New and Innovative
Courses for Precision
Agriculture**

ECM space technologies GmbH

Dr Arnold Sterenharz



**Joint Project: Capacity Building in the Field of
Higher Education ERASMUS+ 2018**

Co-funded by the
Erasmus+ Programme
of the European Union



COMPANY PROFILE

- ✓ ECM space technologies GmbH is an independent company, established in 2008 as a spin-off from the department of Aeronautics at the Technical University of Berlin.
- ✓ In 2016-2018 ECM launched more than 70 CubeSats and Small Satellites.
- ✓ The company also develops and builds separation systems
- ✓ The company is extremely successful in the field of consulting and technology transfer.



CERTIFICATE OF DISTINCTION FROM TU BERLIN

**ECM received
a Certificate of Distinction from
Technical University of Berlin
as an excellent
TU Berlin start-up
in 2014**



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ECM
ENGINEERING CONSULTING AND MANAGEMENT
FOR SPACE TECHNOLOGIES

MAIN DEPARTMENTS OF THE COMPANY

- Space engineering, small satellite design & manufacturing, robotics and launch service
- EU Research and Education projects management (participant of 19 EU projects: 7 TEMPUS, 6 Erasmus+, 1 Erasmus Mundus and 5 FP7)
- International Training Center (ECM European Academy)



International Cooperation in Education, Research and Innovation Projects

✓ECM space technologies GmbH provides and supports international research and education activities. The company develops new mechanism for stimulating the cooperation between academia and enterprises, is actively involved in European Union education and research programs as a small-medium enterprise.



Erasmus+



European
Research Area



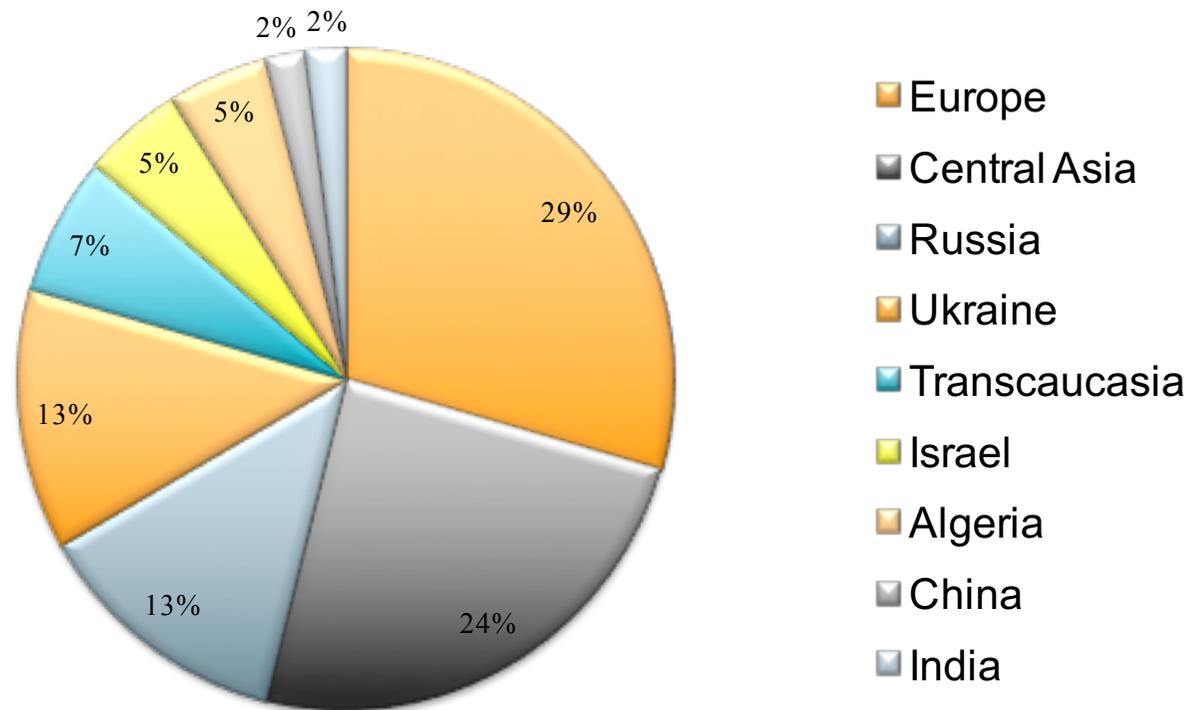
Tempus



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International Cooperation in Education, Research and Innovation Projects

More than 100 partners of ECM in 28 countries



International Cooperation



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Some of Education, Research and Innovation Projects 2007 - 2021



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FP7 "LIGHT-TPS"	Super light-weight thermal protection system for space application
FP7 "SEAM"	Small Explorer for Advanced Missions
FP7 "POPDAT"	Problem-oriented Processing and Database Creation for Ionosphere Exploration
FP7 "MEDEO"	Methods and Tools for dual access to the EO databases of the EU and Russia
FP7 "SEOCA"	GEO capacity building initiative in Central Asia

TEMPUS "SESREMO"	Strengthening education in space-based remote sensing for monitoring of eco systems
TEMPUS "MMATENG"	Modernization of two cycles (MA,BA) of competence-based curricula in material engineering according to the best experience of Bologna process
TEMPUS "NETCENG"	New Model of the Third Cycle in Engineering Education Due to Bologna Process

Some of Education, Research and Innovation Projects 2007 - 2021



Erasmus+

ERASMUS+
"CUPAGIS"

SELECTION RESULTS 2018

New Curricula in Precision Agriculture Using GIS Technologies and Sensing Data

ERASMUS+ "NICOPA"

SELECTION RESULTS 2018

New and Innovative Courses for Precision Agriculture

ERASMUS+ "CRENG"

SELECTION RESULTS 2018

Crisis and Risks Engineering for Transport Services

ERASMUS+ "APPLE"

Applied curricula in space exploration and intelligent robotic systems

ERASMUS+
"TUTORIAL"

STrengthening Network EdUcaTiOn, Research and Innovation in Environmental HeALth in Asia

ERASMUS+
"DOCMEN"

Development of two cycle innovative curricula in microelectronic engineering

International Cooperation



KUKA

AIRBUS



International Cooperation



UNIVERSITY OF TWENTE.



INTERNATIONAL TRAINING CENTER – ECM EUROPEAN ACADEMY

Since 2012 ECM organizes/conducts periodic intensive courses to train academics, administrative staff of HEIs, graduate engineers and other target groups on improving their professional competence in different thematic fields



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POSSIBLE ROLES OF ECM IN INTERNATIONAL EDUCATIONAL PROJECTS

ECM has experience in the following activities:

- Quality Assurance System development
- Quality Strategy Plan development
- Management of projects' websites and Virtual Classrooms
- Monitoring project implementation by partners
- Development of business model/planning and services for universities
- As a business company ECM ensures connection of university students and graduates with industry in target areas, labour market and potential employers
- Providing 3U CubeSat technology for laboratory workshops in target fields
- Ensuring communication between partners





Thank you for your attention!



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