

Development of EEmbedded System  
Courses with implementation of  
Innovative Virtual approaches for  
integration of Research, Education and  
Production in UA, GE, AM

# FINAL MEETING BE

- Agenda Tuesday 21 February
  - Partner presentations
  - Lunch
  - Walk to Roosendael
  - Presentation TMMA WP & financial status
  - Presentation Input Final Report & QA-QC

- Agenda Wednesday 22 February
  - Study visit Lier - “Embedded Systems in Sheep Industry”: start Lier railway station
  - Lunch
  - Administration at Plato (Campus de Vest, Zandpoortvest 60)

- Analysis of the current situation in target HEIs
- Key performance indicators
  - number of students, staff and other stakeholders involved,
  - the quality and number of
    - reports and plans from local industry and HEIs
    - the synthesis by the partners

- Analysis of the current situation in target HEIs
- Deliverables
  - 1.1 Analysis of curricula on ECTS for Embedded Systems
  - 1.2 Analysis of competences required at the LM
  - 1.3 Conceptual approach to the curricula construction: Implementation Plan

- Analysis of the current situation in target HEIs
- Status
  - Action needed
    - » Finalizing and publication on the website
    - Syllabi & Lay out rules?

- Develop relevant course material on different topics in embedded systems engineering
- Key performance parameters
  - qualitative, quantitative and time based
    - Quality: to which the degree the courses meet up to demanded competences and if attributed ECTS points meet up to expected study, self-study and practical work load
    - Quantitative: the sheer amount of courses which are developed in a timely manner

- Develop relevant course material on different topics in embedded systems engineering
- Deliverables
  - 2.1 Curricula/modules "Hardware for ESD"
  - 2.2 Curricula/modules "Software for ESD"
  - 2.3 Curricula/modules "CAD/CAM/CAE in ESD"
  - 2.4 Prepare a set of additional modules
  - 2.5 Prepare modules guidebooks in UA/AM/GE/EN

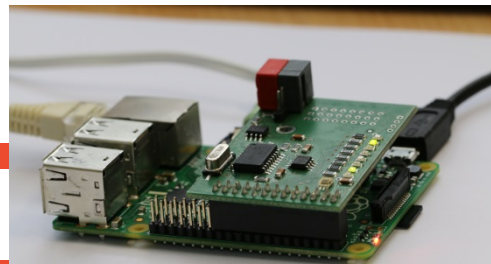
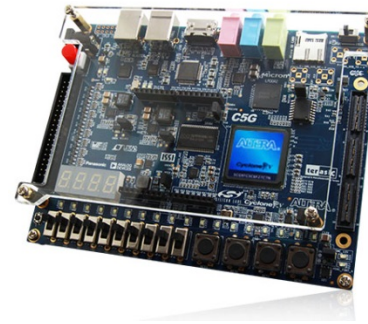
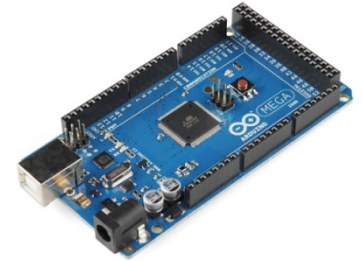


- Status
  - Template
  - Syllabi
  - Courses
    - UKF: finished & published
    - TMMA: finished but one (checked) & published
    - IUT: checked at web master
  - Accreditation

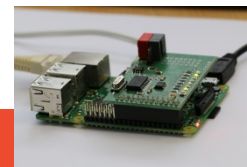
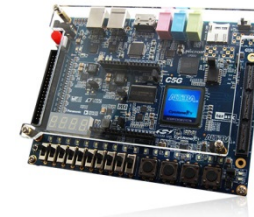
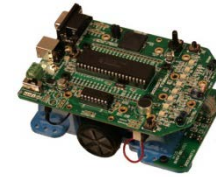
- Implementing a (virtual) learning environment in ESD engineering
- Key performance parameters
  - stability and accessibility of the remote lab
  - active student and teacher usage
  - amount of key competences which can be trained with the e-learning environment
  - self-studying results of students

- Implementing a (virtual) learning environment in ESD engineering
- Deliverables
  - 3.1 Establish LMS platform
  - 3.2 Virtual environment adoption in AM/GE/UA
  - 3.3 Construction of virtual and remote laboratories
  - 3.4 Construction of ESD laboratory

- Status
  - hands-on & remote
    - All delivered
    - MC & start-up in GE & AM



- Status
  - hands-on & remote
    - GE: 3D printers delivered
    - AM some delay
      - » myRIOs NPUA
      - » Hardware model for NI



- Status
  - Actions needed
    - Moodle?
    - Documents proving equipment in balance of target HEIs => not needed, but delivery note

- Status
  - UKF finished
  - IUT: finished
  - TMM: finished
    - Reports on website

- Pilot teaching/operation
    - definitive implementation of the new course material
    - dissemination of the course material with master classes in situ to a contact group of stakeholders
    - ambition:
      - 20 students,
      - 6 academic teachers,
      - 2 representatives of local enterprises
      - 2 representatives of public welfare
- = challenge



- Pilot teaching/operation
  - present and demonstrate the new material and teaching infrastructure for creating a good insight in the starting and end competences attained
  - practical demos on expected results
  - **train the trainer sessions** organized within the target HEIs: **needs proof**
  - a pilot group of students and stakeholders starts with complete courses, at least 4 in total
    - Status?
  - evaluation is organized

- Key performance parameters
  - attendance of stakeholders
  - relevant questions during demos
  - activity of staff and students on the e-learning platform, virtual and remote labs: statistics from Moodle?
  - ease of adoption of the new courses is also important for sustained operation
  - attained grades and competences of the pilot group: list of students + grades

- Deliverables
  - 5.1 Master Classes in "ESD" in TC
  - 5.2 Master Classes in "RL usage for ESD" in TC
  - 5.3 Teaching the teachers and researchers in TC
  - 5.4 Educate the pilot student groups in TC

- Status
  - What is done?
  - Publish proof (photos) on the website

- Status
  - Action needed
    - An overview of implementation for each HEI
      - » What is taught to whom, when, where, which material, which assessment planned, how is impact en progress measured, how the results will be made public.
    - Who consolidates this?

- Quality Assurance and Quality Control
- Key performance parameters
  - number of quality meetings
  - number of quality reports
  - number of feedback reports
  - number of feedback participants
  - number of external Expert's reports
  - number of reports of inter project coaching
  - assessment of the developed curricula to be accepted by national bodies and by HEIs to be incorporated in the present day curricula

- Deliverables
  - 6.1 Establish the Quality Assurance Plan
  - 6.2 Inter-Tempus coaching
    - Minutes of meetings with MMATENG and ICOOP present
  - 6.3 Monitoring/Evaluation of processes and products
  - 6.4 Assessment at the regional and national level
    - Assessment of new material? UA?

- Quality Assurance and Quality Control
  - Elena Eyngorn, project coordinator several EU funded projects at TUB
    - External evaluation based on website content



- Status
  - Consolidate final feedback partners
  - Publish reports on the website
    - Progress meetings & reports
    - EU trainings

- Dissemination and Enterprise Collaboration
  - reach out to the stakeholders (public, HEIs, industry: presentation - letter - website)
  - Example:  
<https://forum.digilentinc.com/topic/2149-desire-academic-teaching-project-for-ukraine-georgia-and-armenia/>

- Dissemination and Enterprise Collaboration
  - University-Enterprise Contact Group (UECG)
    - regional industry.
      - » Is this actual?
      - » At UA monitoring: stakeholders group
    - Publish
  - Contact group:
    - Any cooperation needs publishing?
    - Start ups?

- Dissemination and Enterprise Collaboration
  - A lot is done: don't forget to generate output, e.g. on DESIRE website: look at website + contact webmaster

- Status
  - DesIRE - plus
    - No candidates yet
    - Candidates???

## "DESIRE – Plus" COOPERATION AGREEMENT

Dissemination and implementation of the outputs of TEMPUS project DESIRE  
" Development of Embedded System Courses with implementation of Innovative  
Virtual approaches for integration of Research, Education and Production in UA,  
GE, AM " – DESIRE

544091-TEMPUS-1-2013-1-BE-TEMPUS-JPCR

### Parties to the agreement

This is an cooperation agreement among the consortium members of Tempus  
"DESIRE", hereinafter referred to as "CoDESIRE" on the one hand and

.....  
(name and address of organisation /university)

targeting dissemination, implementation and development of the results of  
DESIRE, hereinafter referred to as CoDESIRE-Plus, joint referred as PARTIES.

### Subject of the agreement

The PARTIES will to joint their efforts aiming implementation, dissemination and  
developing of the results of DESIRE, particularly in the field of improvement of  
training high qualified specialists as well as in research activities.

For this purpose the PARTIES agree on the following activities:

1. CoDESIRE:
  - a) Will share with CoDESIRE-Plus information about the above project as the  
up-to-date timetable of Project activities and teaching /training aids  
developed during the Project
  - b) Will develop on the base of project portal [www.tempus-desire.eu](http://www.tempus-desire.eu) a sub  
domain called "DESIRE - Plus".
2. Every member of CoDESIRE-Plus:
  - a) Will study the information derived, develop a plan to adopt and implement  
in teaching activities or/and improve training of graduated professional  
staff.
  - b) Will develop a plan for participating at DESIRE activities, at actions on  
implementation and dissemination of project results (self-reliant actions, if  
possible joint actions with CoDESIRE), may participate at master  
classes/conferences of DESIRE in the frames of the Project,
  - c) Will regularly inform CoDESIRE about their activities concerning the  
subject of this agreement.
  - d) Will provide a feedback report used for quality assurance on the shared  
information or attended activities.

- Dissemination and Enterprise Collaboration
- Deliverables
  - 7.1 Setup university-enterprise contact group (UECG)
  - 7.2 Maintenance dissemination and sustainability
  - 7.3 Dissemination in press and media
  - 7.4 Dissemination through web resources
  - 7.5 Seminars in target HEIs for industry workers
  - 7.6 Dissemination to enterprises

- Status
  - Website
    - More information should be there
      - » Compilation - synthesis on WP1
      - » What is going on at all partners
      - » On Tbilisi meeting
      - » Link to AM NPUA / NUACA
      - » On Final Symposium
      - » See what is missing

- Management of the project
- Key performance parameters
  - establishment of the PMT, LPT and DMB
  - number of meetings of the different bodies
  - adoption of the work plan with dedicated milestones
  - number of progress report delivered on time



- Management of the project
- Deliverables
  - 8.1 Approving plan and establish working bodies
  - 8.2 Monitoring plan and budget
  - 8.3 Coordination/consortium meetings
  - 8.4 Providing final analysis

- Status
  - Sustainability Agreement
  - Action needed
    - Prepare final symposium: massive work
    - Plan audit: done!
    - Make budget reviews for staff and travel

# FINANCIAL STATUS

## Planned Budgets

	Staff Cost	Travel Cost & Cost of Stay	Equipment Cost	Printing & Publishing	Other Costs	Total Direct Costs
<u>Actual Costs</u>	356,310	295,537	205,356	34,493	36,060	927,756
	293,252	272,951	202,077	9,415	20,559	798,255
<u>Rest</u>	63,058	22,586	3,279	25,078	15,501	129,501

- Staff
  - 4 things are important:
    - Working relationship between HEI and co-worker (contract)
    - Staff Conventions & Timesheets - proof of work
    - Proof of payment: from Thomas More to individual accounts OR from Thomas More to university's account and from the university's account to the individual accounts (+ payment to government tax services for this work). No profit for the HEI on this work is allowed!
    - The applied rate corresponds to the institution's remuneration policy (the certificate can be used for this last purpose)

- Staff
  - Needs processing June-November16
  - Before 15/03: final numbers communicated for final period

- Travel
  - Difference between tickets communicated and actual invoices (e.g. 7EUR insurance)
  - Needs a rectification document

- Printing & other costs
  - Printing: all but ZNTU, BGKU, NPUA, TSU : printing
  - Other: €8000 planned for Audit - external evaluation
    - bank costs.

# CONTACT

Ing. Dirk Van Merode MSc.  
Project Coordinator DESIRE

Thomas More | Campus De Nayer  
Technology & Design  
J. P. De Nayerlaan 5  
2860 Sint-Katelijne-Waver

Belgium  
Tel. + 32 15 31 69 44  
Gsm + 32 496 26 84 15

[dirk.vanmerode@thomasmore.be](mailto:dirk.vanmerode@thomasmore.be)

Skype dirkvanmerode

[www.thomasmore.be](http://www.thomasmore.be)

Dr. Ing. Peter Arras MSc.  
International Relations Officer

KU Leuven | Campus De Nayer  
Faculty of engineering technology  
J. P. De Nayerlaan 5  
2860 Sint-Katelijne-Waver

Belgium  
Tel. + 32 15 31 69 44  
Gsm + 32 486 52 81 96

[peter.arras@kuleuven.be](mailto:peter.arras@kuleuven.be)

Skype pfjlaras

[www.iw.kuleuven.be](http://www.iw.kuleuven.be)