STREAMLINING COMPUTER SCIENCES, ELECTRONICS AND ICT – ADVANTAGES AND CONCERNS

Peter Mertens
Maarten Van Lint

OVERVIEW

- Problem identification
  - General
  - Historical of Thomas More Kempen
- Redefining Curricula
  - Goals
  - Implementation
- Debriefing after a cycle

PROBLEM IDENTIFICATION @ TMK

- General problems
  - secondary education
    - low interest for technical grades
    - Governement decided in the past to provide ICT as an option in Electronics
  - Incoming students
    - No view on the differences between
      - » ICT
      - » Applied Computer Science
    - electronics mostly unknown

HISTORY OF THOMAS MORE KEMPEN

- History of Thomas More Kempen
  - Previous K(atholieke) H(ogeschool) K(empen)
- Two departments involved
  - Business provided Applied Computer Science
    - Contained an option “System Management” similar to ICT
  - Technical Sciences provided Electronics-ICT
  - Almost no interference between the 2 departments

HISTORICAL OF THOMAS MORE KEMPEN

- Consequences
  - Students chosing the wrong grade for what they want
    - Internal concurrence between departments
    - Having the wrong impression of the grades
  - No interest for electronics since it is unknown
  - Electronics had the image of a difficult, impossible to comprehend subject

REDEFINING CURRICULA

- 2013
  - University colleges within the Antwerp province and part of the KUL association joined to a University of Applied Science: Thomas More
  - Kempen: Computer Science and Electronics-ICT were placed in the same unit
    - Opportunity: Collaboration – optimizing curricula to give a clear view to students
      - » IT Factory

REDEFINING CURRICULA

- Goals
  - Ensure students have a good view on the grades/specialisation before they chose
  - Prevent specialisations which are almost the same (system management vs ICT)
  - Make the best use of teaching staff

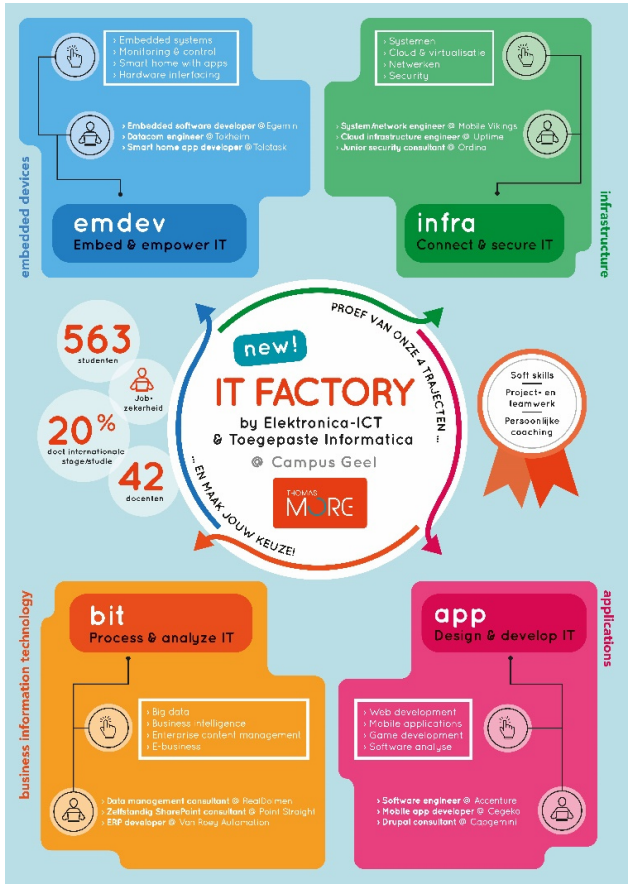
REDEFINING CURRICULA

- IT Factory
  - Name of the new approach (not a new grade)
  - Teaching staff involved
  - Professional field involved

REDEFINING CURRICULA

- IT Factory
  - 3 semesters general courses
    - “What every student should learn regardless the specialisation”
    - some familiarization of specializations
  - 2 semesters specialisation (eventually last semester abroad)
    - Electronics
    - ICT
    - Application development
    - Business Intelligence
  - 1 semester internship

REDEFINING CURRICULA



THOMAS MORE

DEBRIEFING AFTER A CYCLE

- Did we make the right choice to provide IT Factory
  - Initially: a lot of sceptism from others accross Flanders
  - Nowadays: similar approaches start up
- Electronics specialisation increased from 9 students to 38 students

DEBRIEFING AFTER A CYCLE

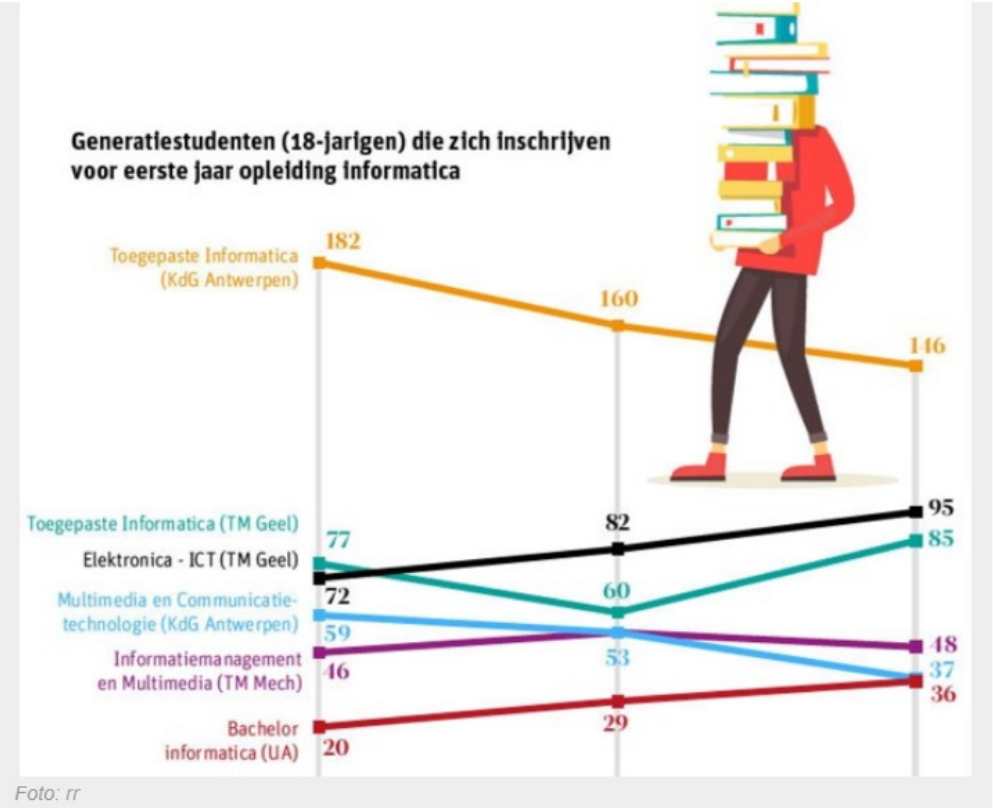


Foto: rr

THOMAS MORE

DEBRIEFING AFTER A CYCLE

- Points of concern
  - Joining two cultures
    - » Business vs pure technics
  - People (even higher educated) are afraid of change
    - » Lobby to get the new structure as close as possible to the previous known
  - Electronics
    - » Limited influence because of the low amount of students

DEBRIEFING AFTER A CYCLE

- Recap (professional field – students – teaching staff)
  - 3 semesters common program is too long → 2 semesters
  - Third semester reconsidered per discipline
  - Common program
    - » Electronics content increased slightly
    - » Python instead of C#

CONCLUSION

- Joining to Thomas More changed a lot to our program
- Programs are now better matched to each other
- Continuous adjustments to get continous improvements