SMART PROJECT

Report on the 5th International Meeting

Topic: Analysis of intermediate products and results

Location: Günzburg (Germany)

Duration: 15th – 17th February 2016

Participants:

Applicant/Beneficiary:

Carlo Anti School (Italy): Claudio Pardini, Chiara Tacconi, Valeria Silvestri, Paolo Marconi and Lorella Zanoni

Partners:

MIUR (Italy): Anna Brancaccio and Massimo Esposito

University of Roma Tre (Italy): Carlo Meneghini

University of Turin (Italy): Marina Marchisio

Accademia delle Scienze (Italy): Chiara Mancinelli

Risorse in Crescita (Italy): no representative taking part in the meeting

TU Delft (Netherlands): Meta Keijzer-De-Ruijter

Chalmers University Gothenburg (Sweden): Jan Stevens

St. Thomas Gymnasium (Germany): Albert Reile, Stephan Markthaler and Ulrike Kempfle

Radnoti School Pécs (Hungary): Andrea Banò, Marta Zsbanné Hamory and Kajline Somogyi Ildiko

Activities performed:

15th February

2.00 p.m. Opening of the meeting activities at the "Forum" near the ARCADIA HOTEL GÜNZBURG

Albert Reile, the director of St. Thomas Gymnasium, opens the international meeting, welcoming and greeting all the participants.

1 Illustration of the first project activity year: discussion on the intermediate report sent on 31/10/2015 and on the produced materials. (Anna Brancaccio)

Anna Brancaccio talks about the intermediate report, the evaluation, the materials produced during the first year's project and the project financial aspects.

Intermediate report
The intermediate report (*Progress report*) was written and presented by the project coordinator to the Italian Erasmus Plus National Agency on 31st October 2015. It contained a summary of the main developments in the project during its first year of life, a description of the activities already completed, currently in progress and of those which have to be organized for the remaining project duration. The activities performed during the first four meetings were described in details as well as the first tangible products which have already been completed (the *Report on Pedagogical and disciplinary topics* and the *Report on Standard competences*).
The National Agency has already analyzed the *Progress report* and given a positive evaluation stating that its first year of implementation is in line with what had been indicated in the Project Application Form. The activities carried out in the first period of the project, from 1st September 2014 to 31st October 2015, have been completed according to the Gantt chart and the WBS provided. At present the project can be considered in line with the original objectives, planned activities and expected results. The coordinator had the second grant part of 20% in December (total 80%).

The coordinator asked the National Agency an amendment to the Convention: if it is accepted, the end of the project will be delayed to 31st October 2016 in order to allow the testing of the Science modules in the schools. The partners will be informed about the National Agency's decision as soon as possible.

The testing of the mathematical materials has already begun; the testing of the Science materials has been postponed to the second part of the school year and will be prosecuted until the end of October 2016 if the amendment is accepted.

Each Maths module will contain some problems related to different topics for each grade level involved in the experimentation. The site will contain a further section, not previously planned,

called **"Smart Sample Course"** in which a concept map is shown. The map will provide a general idea of the content, allowing the users to choose the path that they want to follow (self evaluation).

Evaluation

There will be three forms of evaluation in the project.

The first one is the **Evaluation of activities and of products (project evaluation for assessment).** Risorse in Crescita will prepare a questionnaire. The idea is to organize a focus group with the stakeholders in Italy and in the partner countries. Anna Brancaccio and the Carlo Anti school representatives will have a meeting in Villafranca with Anna Tombesi of Risorse in Crescita on 26th February to discuss the matter and the organization issues.

Risorse in Crescita will have the responsibility of the project external evaluation: they have a lot of experience in this field and many contacts with other organisms of various types. They will have to prepare the questionnaire on the materials and on the project processes: the items in the questionnaire will be chosen and discussed during the 26th February meeting. Risorse in Crescita will also have to choose and find the organizations who will evaluate the materials. A Red Team will be constituted for the external evaluation of the project.

The materials which will have to be assessed are those prepared during the project life: the website, the platform, the two reports prepared by Accademia delle Scienze and the report prepared by Marina Marchisio about the teachers' need analysis questionnaire.

This type of evaluation for the project has been chosen because it wouldn't be possible to pay an external organism for the assessment due to the limited financial resources.

After 26th February, all partners will be informed about the details of the external evaluation issues.

The second form of evaluation is **Popularity rating (satisfaction survey) by the users of the OOCs,** taking into account Jan Stevens's proposal. Jan's proposal is good in Anna Brancaccio's opinion. He wrote the following suggestion:

> **Evaluation of the Mathematical Modelling course (but it can also be used for the Science OOC):**
>
> I. Descriptive section.
>
> Which material is used.
> Which students.
> Have MapleTA tests been used.
>
> II. Evaluation.
>
> a) Preparation
> Rate the level of the material.
> Did you use the material as it was, or only parts.
> Did you make changes. If yes describe.

How does the material fit in the curriculum?

b) Satisfaction
How did the students like the material?
How did you like the material?
If MapleTA is used,
how did the students like it, how did you?

c) For each of the following items in the description of the module
indicate how well it fits with your experience:

Key ideas
Prerequisites
Skills, Abilities and Competences

d) PP&S methodology.
After using the material, comment on each of four stages:
understanding the problem,
devising a plan,
executing the plan,
checking results.

Claudio Pardini states that open questions are difficult to evaluate: Jan's proposal can be a starting point which should then be completed and structured in close, multiple choice questions.

The third type of evaluation is the **Evaluation of teachers learning through students learning**

MAPLE TA is suitable for Maths learning evaluation, not for Science evaluation. For this subject, other systems must be discussed and found: they will then be published on the platform, after being discussed between the partners during the meeting.

The partners will go on discussing about the evaluation issue on the meeting second day.

Materials

The materials produced during the first year's work are:

- The Project Website http://smartpps.carloanti.it
- The two OOCs (to be completed) – e-learning platform http://smart.miurprogettopps.unito.it/index.php
- *Learning needs report* by the University of Turin (to be completed)
- *Report on Pedagogical and disciplinary topics* by Accademia delle Scienze
- *Report on Standard competences* by Accademia delle Scienze

All partners involved in the production of materials are invited to complete their assignments in the scheduled time.

Financial aspects

Project Management: according to the Erasmus Plus Project Guide, a coordinator for each partner organism must be chosen and paid in this voice. Project Management includes planning, finances, coordination and communication between partners, etc.; small scale learning/teaching/training materials, tools, approaches etc.; virtual cooperation and local project activities (e.g. classroom project work with learners, youth work activities, organization and mentoring of embedded learning/training activities, etc.); information, promotion and dissemination (e.g. brochures, leaflets, web information, etc.). Anna Brancaccio states that each partner should spend the budget of this part right from now and not wait until the end of the project life.

Exceptional costs: according to Annex III – Financial and Contractual rules – of the Erasmus Plus Project Guide, staff working for a beneficiary on the basis of service contract (e.g. translators, web designer etc...) are not considered as staff of the organization concerned. Their working time can therefore not be claimed under "intellectual outputs" but may be eligible under "exceptional cost".

Intellectual outputs: a time sheet must be prepared by each partner during the project, not at the end, because it is rather complicated and it takes time to do it. It has to be done on a monthly basis. Anna Brancaccio shows a draft of a time sheet she has just completed for another European project and explains how it has to be fulfilled. She underlines that it is necessary to define each one's working hours in a day, and illustrates a *Statement on the number of working hours in a day* by Carmela Palumbo of the Italian Ministry of Education which is an example that each partner has to adapt to their own situation, according to each one's working day time.

2 Update on the project website (Claudio Pardini and Marina Marchisio)

Claudio Pardini informs the partners that the updating of the website is in course. The Carlo Anti webmaster has uploaded all the last materials (Reports and results on all the webinars and on international meetings). There is a public part and a reserved part: this last one has to be completed before being made available for the public.

Marina Marchisio says that on the platform there are now three classes from Carlo Anti, another three from Radnoti and two from St. Thomas Gymnasium. She asks Anna Brancaccio if it would be possible to put classes from other schools in the experimentations. Anna thinks that it would be necessary to separate the results of the schools inside the project partnership from the results of the other ones; even though, it is not a bad idea to enlarge the experimentation to other schools. The activities could also be used for the CLIL lessons in the Italian schools. However, a balance must be kept between the three represented countries: Italian teachers and students should not be too many compared to the representatives of the other two countries. For this reasons, the experimentations should not be enlarged, at least at this stage of the project.

The evaluation of the project is more important than the evaluation of the learning results: for this reason, there will be some focus groups and people who give evaluation of the materials. A Red team for the external evaluation of the project will be constituted with the help of Risorse in Crescita, as previously communicated.

3 Update on the Mathematics Open Online Course (Marina Marchisio)

Marina Marchisio informs the partners that the University of Turin staff have opened two forums on the platform, but only a few people have used them up to now. There are about 40 problems ready to be used by the teachers on the Mathematics OOC. All topics chosen for the project must be covered by the end of the project life because the National Agency will check that it has been done before according the last 20% grant.

Jan Stevens asks Marina Marchisio to explain what the steps of the OOC will be. Marina explains that there are problems with only some assignments: she needs to know what the teachers need for the specific materials they have chosen for the experimentation and the timetable they intend to follow; in this way, the university of Turin staff can prepare activities specific for each class and support the work of the teachers throughout the experimentation. The forum can also be used for this purpose or the teachers can email their questions and requests to the staff of the Turin University.

Stephan Markthaler asks if it would be possible to write a title or one or two sentences to describe the content of each module so that the teachers can have an idea of its content without entering each single activity. Marina Marchisio assures that there will be an introduction containing the aim of each activity. There will also be a map at the very beginning of each topic, prepared by the MIUR.

Jan Stevens asks how the PP&S methodology is connected to the specific topics. Anna Brancaccio will prepare the module regarding this methodology; at the end of the courses, they will do a match between this module and the content modules. There are a lot of ways to approach the PP&S methodology: Anna will choose one and then match it to the Maths modules. The check proposed by Jan at the end of his questionnaire could be a good start for this job, in Anna's opinion. Jan thinks that the merge between methodology and content must be made evident: Anna and Marina agree. In any case, the problem format is already structured according to the PP&S methodology and for this reason it will be easy to match the two aspects. Massimo Esposito has already done this work for the Science OOC and his methodology module is available on the project platform.

4 Update on the Science Open Online Course (Settimio Mobilio and Carlo Meneghini)

Carlo Meneghini informs the partners that he has put all the pdf documents and the sheets prepared till now for the Science course (Methods in Science, Chemical and Physical Systems, Living organism, Earth Science) in a google drive, waiting to find the proper way to mount the Moodle course.
Some of the lessons/modules are already in the Moodle platform but in a preliminary format that needs to be improved with the help of Moodle-experts.
The files are organized following the scheme prepared during the last meeting. There are materials in the book form and experimental sheets with a brief introduction and then the experiment. There are also data and data analysis. The problem now is how to organize and evaluate these materials. It is very difficult to evaluate data results in Maple and Maple TA and for this

reason they will not be used for the Science OOC. The idea is now to put the materials on the platform. How to put questions during the OOC is another issue: the evaluation of the course in Science is made through the teachers' results, unlike for Maths (teachers' and students' results). The students do not access the Science OOC directly in the classroom, unlike with the Maths OOC.
Then some technical issues are discussed such as the different type of font for people with reading difficulties. Marina Marchisio explains that in the Accessibility section on the platform homepage it is possible for anyone to change the font autonomously.

Anna Brancaccio underlines how it is important that the teachers experimenting the materials take into consideration the document about methodology prepared by Massimo Esposito for the Science course. The teachers should also be asked to evaluate this methodology module, so that it can be changed if there are any observations or suggestions before the end of the project life.

A brief description of each module will be put at the beginning, in the list of materials, also for the Science materials.

16th February

9.00 a.m.

Ulrike Kempfle opens the second meeting day showing some pictures of St. Thomas Gymnasium and talking about the activities that the school is developing.

After that, the discussion started yesterday is prosecuted.

Settimio Mobilio shows the format of the Science module and explains how the work is organized. There have been some modifications from what had been shared in the Goteborg meeting: the "Living Organism" module has been incorporated in the "Energy and Science" module and some contents have been reduced, modified and reorganized, according to the following scheme:

OBSERVING, MEASURING AND MODELLING IN SCIENCE

1.	**Methods in Science**	Scientific reasoning
		Measuring and uncertainty
		Quantitative modelling and data fitting
2.	**Optics Reflection law**	
		Refraction law
		Imaging and lenses
		Diffraction and Interference
3.	**Earth Science**	Water in rocks and soils
		Earthquakes (3 chapters)

4. **Energy in Science** Mechanics

Chemistry

Methods in Science

Scientific reasoning:

- ✓ Lesson 0: Introduction

"Believe, Know, Understand"

- ✓ Lesson 1: Mirrors and reflectivity

"A look into the mirrors"
"Observing and Measuring reflection"
"The reflection law"

- ✓ Lesson 2: Plant reproduction →

"Thermogenesis and Sexual Reproduction in plant species: Arum italicum: an example of scientific reasoning in Biology"

- ✓ Lesson 3: The mole concept

"Quantity of matter: Mole concept from microscopic to macroscopic"

Measuring and uncertainty:

- ✓ Direct Measurement uncertainty: sheet, xls :

"measure of the height of a person standing up and lying down"

- ✓ Error propagation: MonteCarlo Method: sheet, xls

"Monte Carlo method as a way to estimate the errors quickly "

Modelling and data fitting

- ✓ The snell law: Sheet, xls

"measure of the refraction low"

- ✓ Gas dilatation (Gay Lussac Law): sheet, xls

"measure the gas expansion coefficient and evaluate the absolute zero temperature by estrapolation"

- ✓ Parabolic fall: sheet

"the free fall of a real object, as a basket ball, is quantitatively investigated using Tracker software"

Optics

Reflection and Refraction law

- ✓ Sheet 01: sheet, xls

"verify the Snell's second law using graph paper, compass and pencil"

- ✓ Sheet 02: Sheet, xls
- ✓ Sheet 03: sheet, xls
- ✓ Sheet 04: sheet

"verify the Snell's second law using graph paper, compass and pencil"

Imaging and lenses

- ✓ Thick lenses: sheet, xls

"effect of approximations and optical aberrations"

Diffraction

- ✓ Diffraction by a slit: sheet
- ✓ Diffraction by a hair: sheet

Energy in Science

Mechanics

- ✓ Energy conservation 1: sheet, xls

"rotational contribution to the total energy in case of an extended body"

- ✓ Energy conservation 2: sheet

"extension of the previous to account for the friction"

Chemistry

- ✓ Food: pdf

"how junk food can be used to update approach to calorimetric measurements and thermodynamic laws"

5 chapters: Heat of combustion, Project and construction, Measure of Mc, Heat of combustion, data analysis and results"

Energy in Science

- Batteries (1 chapter, 2 experiments; under development, 15 march)
- Electrochemistry (1 chapter, 3 experiments; under development, 15 march)
- Photosynthesis (under development, 15 March)

Earth Science

Earthquake: pdf file;
3 chapters

- ✓ WHAT IS AN EARTHQUAKE?
- ✓ IS AN EARTHQUAKE PREDICTABLE?
- ✓ CONSEQUENCES OF AN EARTHQUAKE

Water in rocks (under development, 15 March)

Carlo Meneghini speaks of the scientific method and shows some examples of sheets: ("A look into the mirrors", "The propagation of errors", etc.). He explains that he has taken examples from everyday life so that the students can reason about them easily. At the moment they have almost all the sheets ready and Meta Keijzer-De-Ruijter should check them and send observations and corrections on the materials.

Finally, Carlo Meneghini shows the status of the course on the platform; he illustrates the various sections: some materials have to be integrated, some others moved and reorganized. He shows the "Teaching methodology" module, prepared by Massimo Esposito, which will be put at the very beginning of the course. It must be discussed with the University of Delft how to put the materials into the Moodle platform.

A map of both OOCs, Science and Mathematics, will be ready and presented during next webinar, on 7th April. It will explain how to use the material in each of the two OOCs.

5 Verification of the Maple online training course for the teachers of the partner schools (Marina Marchisio)

Marina Marchisio informs the participants that another Maple online training course for the teachers of the partner schools will be activated on request in case of necessity.

6 Verification of the experimentation in the classes of the modules contained in the Mathematics and Science Open Online Courses by the teachers of the partner schools (Marta Zsbanné Hamory, Lorella Zanoni, Valeria Silvestri, Paolo Marconi, Ulrike Kempfle)

The representatives of the three schools illustrate how the experimentation of materials is being carried out in their classes.

The Hungarian school:

Marta Zsbanné Hamory used Jan Stevens's evaluation draft to examine the materials which have been experimented in her school. "Slope (space and shape)" was proposed to three classes of 17-18 year old students (grade 11, 49 pupils); "Present and packages (space and shape)" to two classes of students (grade 11, 29 pupils) of the same age. Maple TA was used for the testing. The materials haven't been changed but used as they were proposed. "Slope" fitted in the curriculum, but it was tough in November. "Present and packages" fitted only partly: the solution of the system of equations is tough already in grade 9-10, but the calculation of area and volume is in the curriculum of grade 12 (before graduating).

Most students liked the materials because it was motivating for them to use the computer instead of the books. It was strange to them that they got different data and they could not compare the solutions. Even the students who study English had some problem with the mathematical language and they had to be helped; the same for those who study German. The material is reputed to be modern by the teachers; it is very close to reality and it uses everyday examples. The most difficult tasks were: language and the different data (there were 15 students in a group, each working with different data – teachers could not help directly, only in the way of thinking.) Teachers cannot see the results of the students.

Both teachers and students got used to Maple TA very quickly, with no problem.

Evaluation: the teachers chose the materials which better fitted in the curriculum. The material was written in a very detailed and logical way. Students had already learnt about the chosen problems, but earlier. For this reason teachers had to refresh their knowledge first with questions and after that they could intruduce the material. All skills, abilities and competences are included in the Hungarian curriculum as well, so they are relevant and useful. This description helps the teacher to identify quickly the type and level of the material.

Students had good and enough basis to understand the problem. The teachers could use the material which was written in a very logical and detailed way.

The Italian school:

Valeria Silvestri, teacher of Mathematics at the "Carlo Anti" School, illustrates her experimentation of the material "Conducting a survey" in a class of 15-16 year old students.

She explains that she chose this topic because in December, in this class, they had begun to study the Descriptive Statistics Module: they dealt with the basic concepts (population, unit, mean, mode, median, frequency distribution…), discussed advantages and disadvantages about data collection (census vs sampling) and different ways of data representations. The students finished their path with a simple survey about Genre Stereotypes: they interviewed 70 other students, collecting their colleagues' answers and elaborating them with Excel. Among all the topics of this project, it

seemed natural to her to choose this one as completion and integration of what the students had studied. Until now, they have only worked for a few hours: she introduced the Smart Project to the class and presented the platform and they discussed about work organization. The students have already collected the data requested for problem solving and they are ready to start. At the moment, she hasn't made any changes in the module: she likes it very much and she thinks it is well structured. In any case, she is preparing a short statistics glossary in English in order to facilitate her students' work.

The other Italian teachers involved in the experimentation have already chosen some topics and they are going to test them in the second part of the school year.

The German school:

Ulrike Kempfle says that she is experimenting some materials and the positive point was that the students were requested to reason on the proposed problems. She then shows another German platform (www.mathegym.de) that they use for Mathematics, containing a lot of activities for different levels. It is a commercial platform and the school had to buy the license. The teachers can get constant feedback on the students' results. It has a very good interactivity and the German teachers would like that the interactivity on the SMART platform could be improved because it is really motivating for the students. Marina Marchisio points out that the SMART platform can't be so interactive because it contains problems, not simple exercises mainly based on calculation like the one used in the German school.

Stephan Markthaler tested some materials with his 15-16 year old students. They didn't meet any particular problem with the English language and they were very interested in the activities proposed.

Finally, the teachers of the German and of the Italian schools are asked to prepare a report like the one of the Hungarian teachers after experimenting the materials.

Anna Brancaccio illustrates the module that she prepared for the Mathematics OOC about the PP&S methodology. The module will be published on the project platform in a short time.

7 Elaboration of tests for the Mathematics and Science modules by the Dutch and Swedish partner universities (Meta Keijzer-De-Ruijter and Jan Stevens)

The project partners then go on discussing about the evaluation of the project materials/OOCs. On the basis of Jan Stevens's proposals, questionnaires on Mathematics and Science have to be prepared for the teachers of the three partner schools.

Settimio Mobilio and Carlo Meneghini of the university of Roma Tre propose a draft of the questionnaire for Science, divided into three parts: General, Description and Evaluation.
In the first part, the teachers are requested to indicate the subject they teach:

- You tested the activities as teacher of: Physics/Science(Bio-Chem-Earth)

The questions in the Description part are:

- Which activity did you use? (list)
- Did you test the activity before the classroom? no/yes at home/yes in lab
- How many students tested the activity in lab? #
- How many students tested the activity as homework? #

In the Evaluation part the teachers are asked to answer the following questions:

- To what extent do you find the methodology relevant for your didactic 1-5
- To what extent do you find the activities relevant for your didactic 1-5
- To what extent did the student appreciate the activities*? $N_{very.low}$ N_{low}, N_{medium} N_{much} $N_{very.much}$
- To what extent do you find the activities feasible? 1-5
- To what extent did the students find the activities feasible*? $N_{very.low}$ N_{low}, N_{medium} N_{much} $N_{very.much}$

*) student must answer questions in anonymous

The questionnaire should be put at the end of each lesson so that it can offer immediate feedback on the produced materials. It can also be used after the end of the project life to evaluate the materials.

Marina Marchisio will prepare a similar questionnaire for Mathematics which will be shared during next webinar.

8 Report on the first Multiplier Event in Verona (Claudio Pardini)

Claudio Pardini illustrates the first Multiplier Event which was held in Verona on 27th November 2015 at the Verona Fair during the Job & Orienta Exhibition.

The topic was "Updating of in-service teachers in the Mathematics and Science competences on an international scenario".
The event consisted in the presentation to the stakeholders of the intellectual outputs produced in the SMART Project during the first year of work: the Result analysis of the teachers' training needs questionnaire, the Science Open Online Course "Measurement and modelling in Science" and the Mathematics Open Online Course "Mathematical modelling".

A pamphlet containing a detailed description of the project aims, activities and products, "*SMARTer Mathematics and Science for Teaching and Learning*", was distributed to each participant.
The partner organization who took part in the event were:

Applicant/Beneficiary
Carlo Anti School (Italy): Claudio Pardini, Lauretta Zoccatelli, Chiara Tacconi and Teresa Chianese
Partners
MIUR (Italy): Carmela Palumbo, Anna Brancaccio and Massimo Esposito
University of Torino (Italy): Marina Marchisio
Stakeholders
30 local participants + 20 foreign participants

The activities which were performed are:

Claudio Pardini introduced the activities and explained the path from the national PP&S and LS OSA Projects to the international SMART Project.

Anna Brancaccio spoke about the Erasmus Plus Key Action 2 and the SMART Project.

Massimo Esposito talked about the Science OOC "Measurement and modelling in Science".

Marina Marchisio illustrated the Result analysis of the Teachers' training needs questionnaire and the Mathematics OOC "Mathematical modelling".

There was also a contribution of some Sicilian teachers and students who talked about their experience within the PP&S and LS OSA projects.

Carmela Palumbo discussed "The SMART Project and the matter of students' occupability".

Claudio Pardini drew the conclusions.

9 Organization of the second Multiplier Event in Turin (Marina Marchisio and Chiara Mancinelli)

The second Multiplier Event will be held during the annual Turin book fair in May. Every year there is a foreign guest country so it will be possible to have people from abroad for the conference. MIUR will have a space at the fair, like the most important publishers. A space will be dedicated to the SMART project for the multiplier event. The topics will be almost the same as those of the first event in Verona because the public is different. The SMART project partners are invited to take part: the University of Roma Tre guarantee their presence. The date could be 13th or 14th May 2016: the partners will be informed about the exact date as soon as possible.

10 Scheduled activities for the prosecution of the project until the Webinar of 7th April 2016 (Massimo Esposito)

Massimo Esposito illustrates the project open issues and formulates an agenda hypothesis for next webinar inviting all the partners to share their opinions about it and propose any changes or integrations:

- Project deadline delay – National Agency
- Definition of external evaluation team and tool – by Risorse in Crescita
- Time sheet each partner has to prepare about project activities
- Science material published on the platform
- PP&S methodology lecture (Maths Module 0)
- Course "map": how to use the material in each of the two OOCs
- Smart sample course
- Publishing standards
- Feedback/report about teaching materials
- Feedback/report about using Maple & Maple TA
- Update about report on training needs
- Second multiplier event in Turin (decision on what to do and how to conduct it)
- Questionnaires for teachers for final report on courses
- Next webinar scheduling (after reply from National Agency)

Another webinar will be scheduled at the end of May/beginning of June as soon as we get to know about the National Agency's answer on the delay request.

11 Conclusion of the activities and distribution of the attendance certificates.

Ulrike Kempfle thanks all the participants and distributes the certificates of attendance.

4.30 p.m. Guided visit of Günzburg.

The meeting participants enjoy a guided tour of Günzburg.

17th February

8.30 a.m.

Visit of the St. Thomas Gymnasium

The meeting participants visit St. Thomas Gymnasium guided by Albert Reile and Günther Besold.

11.00 Departure of all project partners