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Master in SMARt transport and LOGistics for cities  
585832-EPP-1-2017-1-IT-EPPKA2-CBHE-JP



KA 2 - Cooperation for innovation and the exchange of good  
Practices Capacity Building in Higher Education  
Joint project

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*Progress Seminar of WG1 and its Sub-groups minute*

**ERASMUS+ PROGRAMME**  
**Project Number: 585832-EPP-1-2017-1-IT-EPPKA2-CBHE-JP**

# **Master in SMARt transport and LOGistics for cities / SMALOG**

**Grant Agreement Number 2017-2893/001-001**

## **Progress Seminar of WG1 and its Sub-groups**

O. M. Beketov National University of Urban Economy in Kharkiv, 31<sup>st</sup> of July – 2<sup>nd</sup> of August 2018, Kharkiv, Ukraine

**Venue:** Marshala Bazhanova str. 17, Kharkiv



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*Progress Seminar of WG1 and its Sub-groups minute*

**1. Project meeting minutes**

**Place:** O. M. Beketov National University of Urban Economy in Kharkiv, Marshala Bazhanova str. 17, Kharkiv

31<sup>st</sup> of July – 2<sup>nd</sup> of August 2018, Kharkiv, Ukraine

**Meeting attendees:**

Institution	City	Participant Name
P1 - University of Rome Tor Vergata - UNITOV	Rome	Antonio Comi
		Agostino Nuzzolo
P2 - Sapienza University of Rome - UNIROMA	Rome	Luca Persia
P3 - O. M. Beketov National University of Urban Economy in Kharkiv - NUUE	Kharkiv	Oleksii Lobashov
		Kateryna Vakulenko
		Maria Olkhova
		Dmytro Roslavtsev
		Yevgen Kush
		Oleksandr Rossolov
		Iryna Tkachenko
		Dmytro Burko
		Andrii Galkin
		Denys Ponkratov
		Oleksii Prasolenko
P4 - Lviv Polytechnic National University - LPNU	Lviv	Yurii Davydich
		Mykola Zhuk
		Volodymyr Kovalyshyn
P5 - Zhytomyr State Technological University - ZSTU	Zhytomyr	Taras Postranskyy
		Vasyl Mamray
		Andrii Ilchenko
P6 - National Transport University - NTU	Kyiv	Artur Makhno
		Volodymyr Polishchuk
		Olga Kunytska
P7 - Georgian Technical University – GTU	Tbilisi	Yanishevskiy Serhii
		Giorgi Doborjginidze
		Teimur Ugulava
		Rezo Tedoradze

Kharkiv, 31<sup>st</sup> of July – 2<sup>nd</sup> of August 2018



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P8 - Batumi State Maritime Academy - BSMA	Batumi	Gjlad Tkhliaishvili
		Roman Mamuladze
P10 - Institute of Market Problems and Economic & Ecological, Research of the National Academy of Sciences of Ukraine - IMPEER	Odessa	Svetlana Minakova
P11 - University of Applied Sciences Technology, Business and Design - HSW	Wismar	Norbert Gruenwald

During the meeting, the following topics were covered by the discussion:

- Topic 1: Welcome speech;
- Topic 2: Presentation of curricula developed at UA partners (NUUE, LPNU, NTU, ZSTU);
- Topic 3: Presentation of curricula developed at GE partners (GTU, BSMA);
- Topic 4: Main stages of syllabi formation: teachers' collaboration among universities
- Topic 5: Syllabi presentation (common part) according to the four main themes of SmaLog:
  - Freight
  - Smart
  - Passenger
  - Traffic
- Topic 6: Syllabi presentation (special part) developed at each local institution:
  - NUUE
  - LPNU
  - NTU
  - ZSTU
  - GTU
  - BSMA
- Topic 7: Welcome speech from the local institutions and stakeholders:
  - Department of Infrastructure in Kharkiv
  - LTD "KOMKON TRAFIC"
- Topic 8: Dissemination activities "Smalog: Challenges and opportunities". Invited lectures from EU partners:
  - «Smart and sharing mobility in the 21st century», Prof. Agostino Nuzzolo
  - «Urban Safety in the 21<sup>st</sup> century», Prof. Luca Persia
  - «Digital teaching – International Recognition of Engineering Education», Prof. Norbert Gruenwald
- Topic 9: WP4: System of UA&GE University SmaLog teachers' skills upgrading
- Topic 10: WP7: International Quality Assurance System and WP7.2: Draft of IQAS development. Gap analysis of UA and GE QAS



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- Topic 11: Special Mobility Strand
- Topic 12: Financial management

Below for each topic, the main issues discussed, and the actions agreed are reported.

#### **Topic 1: Welcome speech**

Prof. Oleksii Lobashov and Prof. Antonio Comi opened the meeting and welcomed all participants on behalf of O. M. Beketov National University of Urban Economy in Kharkiv.

#### **Topic 2: Presentation of curricula developed at UA partners (NUUE, LPNU, NTU, ZSTU)**

One delegate from each UA institution synthesized the process for transferring in each UA institution the objectives of SmaLog and presented the developed SmaLog curriculum. In particular, each developed curriculum took into account the opportunity to spend at least one semester in the EU partner institution. According to the suggestion provided by reviewers during the evaluation and the opportunity to obtain recognition of ECTS studying in EU institution, SmaLog delegates agreed that last semester of SmaLog degree will be developed at EU institutions. Besides, during this time, students will develop their master thesis and study the modules more linked to their thesis. During the second year, each student, selected for mobility, together with local and EU tutors will define the topics of master thesis.

In particular, Prof. Dmytro Roslavtsev paid special attention to the structure of developing the curriculum in Ukraine. He presented the final version of NUUE curriculum focusing on modules (credits; class/individual hours; control) for each semester, differentiating between common and elective parts of programme.

Prof. Volodymyr Kovalyshyn listed the SmaLog program components and plan of the educational process for the LPNU. He paid special attention for the structural-logistic scheme of the programme.

Prof. Olha Kunytska listed the SmaLog program components and plan of the educational process for the NTU.

Prof. Andrii Ilchenko listed the SmaLog curriculum, which ZSTU will introduce in existing Master's Program in the Specialty "274 Road Transport" in 2018 studying year. In particular, Prof. Antonio Comi asked to ZSTU delegates to clarify the reasons: to have a master degree of 90 ECTS against the 120 planned in the original application, to detail the outcomes of the two possible paths with the designed SmaLog curriculum (i.e. block 1 and block 2); to detail which modules will be linked to modules delivered at EU institutions. Prof. V. Mamray agreed to prepare a report for explaining such points.

*As a result, a little bit different Curricula at each UA University emerged. All SmaLog modules, defined in the original application, are included in the curricula in the UA institution in Kyiv, Lviv and Kharkiv, although with a slightly different common part and special parts, which take into account the specificity of each institution without missing the main objectives (and outcomes) of SmaLog project..*

*ZSTU started to revise their current master degree in order to include in their educational paths the outcomes provided by SmaLog and, in accordance with Ukrainian legislation, are working for accreditation of the Specialty "275 Transport Technologies".*



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### *Progress Seminar of WGI and its Sub-groups minute*

**Action 1:** the students from local institution, both from Ukraine and Georgia, will spend their 4<sup>th</sup> semester in the EU partners for developing their master thesis and for studying modules related to topic of thesis.

**Action 2:** students travelling in the fourth semester will define in advance the topic of their thesis in accordance with tutor at origin and destination institutions.

**Action 3:** delegates from ZSTU provide a detailed report on the reasons, which drove the development of their CVs, clarifying the differences with other UA partners and how outcomes of SmaLog original application will be met.

### **Topic 3: Presentation of curricula at GE partners (GTU, BSMA)**

Prof. Giorgi Doborjginidze (GTU) and Prof. Roman Mamuladze (BSMA) presented the curricula of master programmes, in which SmaLog modules will be implemented in 2018 studying year.

*GTU and BSMA do not have a possibility to fully implement the SmaLog master programme in the educational process in accordance with Georgian legislation (which takes more time for accreditation of new master curricula), but they start to revise the current master degree in order to include the main outcomes of SmaLog. They started the development of accreditation process for the new curricula in GE institutions in order to start with effective SmaLog master degree from 2019. Students enrolled in this first years can move directly to the new educational path from the next year. In this way, time for implementing the project is not shifted ahead and the students can benefit of innovation provided by SmaLog.*

**Action 4:** all partners, both from Ukraine and Georgia, in the weeks next to the meeting will provide coordinator a brief description of the following stages:

1. programme framework (number of credits - ECTS, description about common and special parts, number of block choices - special parts, meaning of ECTS, i.e. how many hours of class, individual study and exercises);
2. Outcomes expected according to our original application and your local constraints;
3. Employment outlet;
4. Enrolment description;
5. Modules (title, brief description according to the outcomes expected and number of ECTS; semester);
6. Internship activity;
7. Master thesis preparation and discussion.

They will also underline if there have been variations with respect to the application and justify it in detail, i.e. if 90 ECTS and not 120 ECTS, why?

### **Topic 4: Main stages of syllabi formation: teachers' collaboration among universities**



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### *Progress Seminar of WG1 and its Sub-groups minute*

Prof. Oleksii Lobashov presented the basic principles for teachers' collaboration among universities for syllabi formation in accordance to WG1 and its Sub-groups (Freight, Smart, Passenger and Traffic).

#### **Topic 5: Syllabi presentation (common part)**

Leaders of WG1 sub-groups (Freight, Smart, Passenger and Traffic) presented the syllabi and their content, pointing out how each module participates to the outcomes of SmaLog.

NUUE is the leader of sub-group WG1 - Freight under control of EU – UNITOV. Prof. Oleksandr Rossolov presented module contents, which belong to the Sub-group Freight WG1 (Module 5 - *Freight Transportation Simulation*; Module 7 - *Integrated Transport Systems in City Logistics*). For each module, he focused on: aim, subject, competence, learning outcomes, themes, their content, practice tasks, equipment and software using “FREIGHT”. The process for developing master thesis (Module 12 - *Master Thesis*) was also introduced.

The opportunity to revise “simulation” with “management” in the title of Module 5 was discussed. Then, a focus should be given to the actors of supply chain. Such a focus could also be introduced in the master thesis development activities.

NUUE is the leader of sub-group WG1 - Smart under control of EU – UNITOV and UNIROMA1. Prof. Maria Olkhova presented module contents, which belong to the Sub-group Smart WG1 (Module 1 - *Smart Transport and Logistics for Cities*, Module 6 - *Smart Transport*, Module 8 - *Smart Transport and Logistics for Cities Project*). For each module, she presented: aim, subject, competence, learning outcomes, themes, their content, practice tasks, equipment and software.

The opportunity to revise (or to clarify) that the main outcomes of the module 6 (Smart Transport) are related to technologies was evaluated.

The outcomes of Module 8 – Smart Transport and Logistics for Cities Project should be detailed more in depth.

LPNU is the leader of Sub-group WG1 - Passenger under control of EU – SUT. Prof. Volodymyr Kovalyshyn presented: module contents, which belong to the WG1 - sub-group Passenger (Module 4 - *City Passenger Transport*, Module 9 - *Human and Environmental Impacts, Safety and Sustainability*; Module 11 - *Efficiency of Cities Transport Systems*).

NTU is the leader of sub-group WG1 - Traffic under control of EU – HSW. Prof. Kunytska Olha presented module contents, which belong to the Sub-group WG1 - Traffic (Module 2 - *Traffic Flows Simulating and Management*, Module 3 - *Traffic Control*, Module 10 - *Traffic Flows Management in the City Center*). For each module, she presented: aim, subject, competence, learning outcomes, themes, their content, practice tasks, equipment and software.

The opportunity to include some notions on traffic demand management was discussed and agreed.



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*After discussion on what presented, it was agreed that the contents (and in particular the outcomes) of each modules of common part, as in the original application, must be the same for all involved partners (both from Ukraine and Georgia). Besides, a more congruence among the same modules at different institutions must be searched and desirably obtained.*

**Action 5:** each WG1 sub-group will revise the modules according to the provided suggestions and will propose a brief description on how each developed module participates to the general outcomes of SmaLog.

**Action 6:** ECTSs of each module will be revised in order to have a more congruence among the local institutions without neglecting the background and context of each institution.

#### **Topic 6: Syllabi presentation (special part)**

Special part is individual for each university. Prof. Oleksii Lobashov (NUUE), Prof. Volodymyr Kovalyshyn (LPNU), Prof. Volodymyr Kovalyshyn (LPNU), Prof. Olga Kunytska (NTU), Prof. Vasyl Mamray (ZSTU), Prof. Giorgi Doborjginidze (GTU) and Prof. Roman Mamuladze (BSMA) presented Modules' content, which were included in the special part of Syllabi.

**Action 7:** a brief description of how each module contributes to the whole outcomes of SmaLog degree in each institution should be provided.

#### **Topic 7: Welcome speech from the local institutions and stakeholders**

Within the framework of the meeting enlisted the support from Infrastructure Department in Kharkiv, associated partners (LTD "KOMKON TRAFIC") presented the opportunities offered by SmaLog to be employed.

#### **Topic 8: Dissemination activities "SmaLog: challenges and opportunities". Invited lectures from EU partners:**

- «Smart and sharing mobility in the 21st century», Prof. Agostino Nuzzolo
- «Urban Safety in the 21<sup>st</sup> century», Prof. Luca Persia
- «Digital teaching – International Recognition of Engineering Education», Prof. Norbert Gruenwald.

The seminars were attended by 15 external guests and 20 NUUE students.

#### **Topic 9: WP4: System of UA&GE University SmaLog teachers' skills upgrading**

**WP4.2: Distance Learning Courses in Advanced SmaLog (organization and expected outcomes)**



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Prof. Olga Kunytska (NTU) presented the SmaLog distance learning course for teachers on the Moodle platform. She spoke on which activities have already been done:

- topics of lessons on areas of focus - Freight, Passenger, Traffic, Smart – have developed and approved with European partners;
- developed 1 lesson for each areas (i.e. Passenger, Freight, Smart and Traffic).

The process synthesized below was defined for the approval of each lesson:

1	Preparation 2 next lessons for each areas, according to approved topics	<i>Responsible</i> <i>P3 (NUUE), P4 (LPNU), P6 (NTU)</i>
2	Approving the content of lessons with European partners	<i>Responsible</i> <i>P3 (NUUE) + P1 (UNITOV) + P2 (UNIROMA1)</i> <i>P4 (LPNU) + P9 (SUT)</i> <i>P6 (NTU) + P11 (HSW)</i>
3	Registration of participating teachers	<i>Responsible – all local universities (P3 – P8)</i>

Then, the focus was on the incoming “1<sup>st</sup> Annual Training Seminar on SmaLog issues” that will be in Batumi in September 2018. Then, it was agreed that the number of maximum number of participants charged to SmaLog budget will be defined in the next week by the coordinator and a procedure for selecting staff members will be presented and approved according to the original application. In particular, the staff member should have at least a formal contract with institution longer two years after the end of the project, they have to be involved as lectures within SmaLog degree; they have to hold a master or an equivalent qualification.

The topics of Seminar in Batumi was hence defined: *modelling transportation systems*.

**WP4.3: UA&GE project academic staff formation**

Prof. Olga Kunytska (NTU) presented selection procedure and selection criteria for staff.

*The proposed selection procedure for staff was adopted and approved.*

**Action 8:** coordinator will communicate by the second week of August the maximum number of participants that can be charged to SmaLog budget.

**Action 9:** After Batumi seminar, the list of staff member involved in internship at EU institutions will be defined and the training projects of each traveller will be agreed between traveller and EU hosting institution.





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## **Topic 10: International Quality Assurance System and WP7.2: Draft of IQAS development. Gap analysis of UA and GE QAS**

Prof. Dmytro Roslavtsev presented Development of QAS: current condition in Ukraine and in the Ukrainian Universities. He paid special attention to gap analysis of UA and EU QAS and for development of QAS as the task of SmaLog.

Prof. Dmytro Roslavtsev offered:

- to develop a feedback procedure for evaluating the educational program by students. Output: indicators, form of the questionnaire, procedure.
- to develop a feedback procedure for the evaluation of the educational program by employers from enterprise. Output: indicators, form of the questionnaire, procedure.
- to develop a procedure for updating the content of the educational program. Output: indicators, procedure.
- to develop a procedure for evaluating learning outcomes. Output: indicators, methods and procedure.

Final result: white paper to ensure the quality of the educational program.

Prof. Giorgi Doborjginidze (GTU) and Prof. Roman Mamuladze (BSMA) presented gap analysis of GE and EU QAS.

**Action 10:** the first advancements will be presented in the 3<sup>rd</sup> meeting in Lviv.

## **Topic 11: Special Mobility Strand**

The attention was paid to the necessity to complete the signature of inter-institutional agreement between EU and UA/GE Universities. Then, the considered selection procedure and selection criteria for students were pointed out.

The periods of mobility are defined in the last part of SmaLog degree as suggested by reviewers of original application. During such a period of mobility, students will develop the thesis and attend some modules at EU institutions according their educational path and topics of master thesis.

**Action 11:** each local institution will push to sign the inter-institutional agreement with each EU partner.

## **Topic 12: Financial management**



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The attention was paid to the documents related to travel reimbursements and pre-financing. The general procedures agreed were remembered and the necessity to provide coordinator with originals for each travel was agreed.

**Action 12:** each travel will be reimbursed after receiving the previous originals and the current scanned copies according to the rules agreed and given by EACEA

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**ACTIVITIES AGREED AT THE MEETING**

Action N°	Partner/s in charge	Action	Deadline
Action 1	All	students from local institution, both from Ukraine and Georgia, will spend their 4 <sup>th</sup> semester in the EU partners for developing their master thesis and for studying modules related to topic of thesis.	After signing the inter-institutional agreements (not later than June 2019)
Action 2	All	students travelling in the 4 <sup>th</sup> semester will define in advance the topic of their thesis in accordance with tutor at origin and destination institutions.	After signing the inter-institutional agreements (not later than Sept. 2019)
Action 3	ZSTU	delegates from ZSTU provide a detailed report on the reasons, which drove the development of their CV, clarifying the differences with SmaLog original application and the UA partners.	asap
Action 4	UA&GE Universities	all partners, both from Ukraine and Georgia, in the weeks next to the meeting will provide coordinator a brief description on the above stages as reported in the <b>topic 3</b>	September 2018
Action 5	All	each WG1 sub-group will revise the modules according to the provided suggestions and propose a brief description on how each developed module participates to the general outcomes of SmaLog.	October 2018
Action 6	UA&GE Universities	ECTSs of each module will be revised in order to have a more congruence among the local institutions without neglecting the background and context of each institution.	September 2018
Action 7	UA&GE Universities	a brief description of how each module contributes to the whole outcomes of SmaLog degree in each institution should be provided.	September 2018
Action 8	UNITOV	coordinator will communicate by the second week of August the maximum number of participants that can be charged to SmaLog budget.	Second week of August 2018
Action 9	ALL	after Batumi seminar, the list of staff member involved in internship at EU institutions will be defined and the training projects of each traveller will be agreed between traveller and EU hosting institution.	October 2018
Action 10	ALL	the first advancements will be presented in the 3 <sup>rd</sup> meeting in Lviv.	22 <sup>nd</sup> of October 2018
Action 11	ALL	each local institution will push to sign the inter-institutional agreement with each EU partner.	November 2018
Action 12	ALL	each travel will be reimbursed after receiving the previous originals and the current scanned copies according to the rules agreed and given by EACEA	After each travel