STAFFER third Annual Meeting
Task 6.6
Implementation of VETs at EQF levels 6 to 8

Università degli Studi di Roma "La Sapienza"
UNIROMA1

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Bruxelles

STAFFER
EUROPEAN RAIL SKILLS ALLIANCE

Agenda

1. Task 6.6 Activities, targets and expected results

2. Implementation of training programmes (even after the end of the project)

3. Implementation of pilot VETs:

    I.   training programmes that the partners will implement individually in A.Y. 2023/24

    II.   summer school

4. Application for an Erasmus+ BIP - Blended Intensive Programme

5. Monitoring and quality assessment of pilot VETs and training programmes

6. Common study materials

7. What's next?

1. Task 6.6: activities

- **Implementation of new courses or adaptation of existing ones** at **EQF** levels from **6 to 8** (bachelor, master, PhD) based on the outputs of WP4.

- New and adapted courses will be based on a set of **common study materials** to be prepared and introduced in selected ongoing and new education and training initiatives.

- Introduction of **work-based learning activities** to enhance the sectoral skills of students.

- **Implementation of pilot VETs** at EQF levels 6-8.

- **Monitoring and quality assessment of pilots** by means of the procedure defined in Task 6.1.

1. Task 6.6: targets & expected results

- Defined targets in STAFFER proposal in terms of **number of testers of the implemented programmes**:
  - EQF 6 (Bachelor of Science): 200 students
  - EQF 7 (Master of Science): 50-60 students
  - EQF 8 (PhD programme): few selected students
- **Deliverable 6.6** *(Implementation of VET at EQF levels 6 to 8)* shall describe:
  - the implemented programmes
  - the relevant activation procedures
  - the study material
  - a guide for the implemented programmes to be disseminated
  - The outcomes of the implemented pilots will be reported.

2. Implementation of training programmes
(even after the end of the project)

- Overview

Number of partners involved	11
Number of programmes	22
Percentage of EQF level covered	100%
Total n. of expected learners at EQF level 6	<200
Total n. of expected learners at EQF level 7	>50÷60
Total n. of expected learners at EQF level 8	>few

Educational partner	Number of programmes	EQF levels covered		
		6	7	8
AUTh	2		1	1
CESI	4	2	2	
CTU	1		1	
ESTACA	2		2	
SGH	4	1	3	
TUD	2	1	1	
UASFHE	1		1	
UASSP	1	1		
UB	1		1	
UNIGE	2		1	1
UNIROMA1	4		2	2
Total n. of progammes	24	5	15	4
Total n. of expected learners	>740	>109	>635	>36

Selected programme	Number of programmes
Railway systems engineering	6
Rail traffic/operations engineering	2
Rail transport engineering	13
Railway systems technicians	2
European Railway System	1
Total n. of progammes	24

2. Implementation of training programmes *(even after the end of the project)*

- List of training programmes and <mark>pilot VETs</mark>

Educational partner	Partner programme name	EQF level	New/existing programme	Language	Duration of the programme	N. of ECTS of the programme	Specific course(s) to be implemented	Expected learners number	A.Y. of implementation	Selected programme
AUTh	Civil Engineering Diploma (Integrated Bachelor and Master Degree)	7	Existing	Greek	1 semester	4	"Railway Infrastructure"	80	2023/2024	Rail transport engineering
AUTh	PhD Course	8	Existing	Greek or English	3 academic years	180	-	Maximum of 8 per Supervisor	2023/2024	Rail transport engineering
CESI	Bachelor of Science and Engineering in maintenance and data (Bachelor en sciences et ingénierie spécialité maintenance & data apprentissage)	6	Existing	French	3 academic years	180	-	24	2024	Railway systems technicians
CESI	Bachelor of Science and Engineering specializing in BIM (Bachelor en sciences et en ingénierie spécialité BTP (BIM) en apprentissage)	6	Existing	French	3 academic years	180	-	25	2024	Railway systems technicians
CESI	Post Master Degree BIM construction project manager (Mastère Spécialisé® Management de Projets de Construction, Option BIM)	7	Existing	French	1 academic year	75	-	100	2023/2024	Railway systems engineering
CESI	Post Master Degree Manager of construction projects option Urban Transport (Mastère Spécialisé® Management de Projets de Construction, Option Transports Ferroviaires, Urbains et Nouvelles Mobilités)	7	Existing	French	1 academic year	75	-	20	2023/2024	Railway systems engineering
CTU	Transportation Systems and Technology	7	Existing	English	2 academic years	125÷132		200	2023/2024	Rail traffic/operations engineering
ESTACA	Transport engineering / System design	7	Existing	French, English	5, 4 or 3 academic years	300		30÷70	2023-2024	Railway systems engineering
ESTACA	Transport engineering / Operation & Maintenance	7	Existing	French, English	5, 4 or 3 academic years	300		30÷70	2023-2024	Rail traffic/operations engineering
SGH	Management, undergraduate, full time	6	New	English	3 academic years	180	Introduction to Mobility and Logistics Management	20	2024/2025	Rail transport engineering
SGH	International business, graduate, full time	7	New	English	2 academic years	120	Introduction to Mobility and Logistics Management	20	2024/2025	Rail transport engineering
SGH	Postgraduate course in "Railway Manager"	7	New	Polish	2 semesters	31	-	20	2024/2025	Rail transport engineering
SGH	Postgraduate course in "Ogranistation of extra-urban public transport"	7	New	Polish	2 semesters	30	-	20	2023/2024 + 2024/2025	Rail transport engineering
TUD	Diplomstudiengang Verkehrsingenieurwesen (Transport Engineering)	6 and 7	Existing	German	5 academic years	300	-	40÷50	2023/2024	Rail transport engineering
UASFHE	Master of Science "European Railway Systems"	7	Existing	German (in the future partly also in English)	2 academic years	120	-	15÷30	2023/2024	Railway systems engineering
UASSP	European Railway System	6	New	English	1 semester	?	-	Many	2023/2024	-
UB	Master of Science in "Traffic Engineering"	7	Existing	Serbian (in the future also in English)	1 academic year	60	-	10÷15	2024/2025	Rail transport engineering
UNIGE	Master of Science in "Safety engineering for transport, logistics and production"	7	Existing	English	2 academic years	120	Rail Transport, Sustainable Rail and Road Infrastructure?	30	2023/2024	Rail transport engineering
UNIGE	PhD Course in "Transport and Logistics"	8	Existing	English	3 academic years	180		6	2023/2024	Rail transport engineering
UNIROMA1	Master degree in "Transport Systems Engineering"	7	Existing	English	2 academic years	120	Railway Engineering, Public Transport Management	30	2023/2024	Rail transport engineering
UNIROMA1	Signalling Systems	7	New	English	10 days	5	-	20	2023	Railway systems engineering
UNIROMA1	Post-Master course in "Railway Infrastructure and Systems Engineering"	8	Existing	Italian (some lectures in English)	1 academic year	60	12 teaching modules of 4 ECTS each	20	2023/2024	Railway systems engineering
UNIROMA1	PhD course in "Infrastructure and Transports" - Curriculum "Infrastructures, Transport Systems and Geomatics"	8	Existing	Italian or English	3 academic years	180	-	2	2023/2024	Rail transport engineering

2. Implementation of training programmes
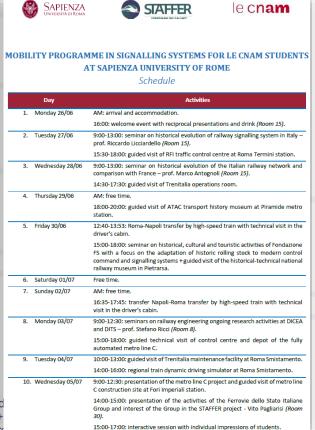### *(even after the end of the project)*

- The first training programme in **Signalling Systems** was implemented in Rome from 26 June to 5 July 2023. It was offered to a group of 17 French students from Le Cnam and included:
  - lectures held by Sapienza professors,
  - seminars by representatives of FS Group,
  - technical visits organised in collaboration with various Companies.

3. Implementation of Pilot VETs

- The **Pilot VETs** will consist of:

I. the **7 training programmes** identified among the 24 programmes that the partners will implement individually **in A.Y. 2023/24** (with its own resources or even by inviting visiting professors from other educational partners and/or representatives of companies)

II. a **Summer school** of the duration of 1-2 weeks to be organized in summer **2024** (face-to-face/remotely/blended) with the participation of teachers and students of different partners.

- The involvement of **companies** in the implementation phase is crucial (companies can host students for technical visits and internships, send their representatives to give seminars, to attend lectures and to assess the quality of the programme). At the moment, **FS Group** and **Université de l'Ingénierie SNCF** have expressed their interest.

3. Implementation of Pilot VETs

I. 7 programmes the partners will implement individually in A.Y. 23/24

- List of training programmes

Educational partner	Partner programme name	EQF level	New/existing programme	Language	Duration of the programme	N. of ECTS of the programme	Specific module(s) to be implemented	Expected learners number
CESI	Post Master Degree Manager of construction projects option Urban Transport (Mastère Spécialisé® Management de Projets de Construction, Option Transports Ferroviaires, Urbains et Nouvelles Mobilités)	7	Existing	French	1 academic year	75	-	20
CTU	Transportation Systems and Technology	7	Existing	English	2 academic years	125÷132	3711R004 – ITS - Intelligent transport systems	200
ESTACA	Transport engineering / System design	7	Existing	French, English	5, 4 or 3 academic years	300	Cybersecurity and the Internet of Things (IoT)	30÷70
SGH	Postgraduate course in "Ogranistation of extra-urban public transport"	7	New	Polish	2 semesters	30	-	20
UNIGE	Master of Science in "Safety engineering for transport, logistics and production"	7	Existing	English	2 academic years	120	Rail Transport, Sustainable Rail and Road Infrastructure?	30
UNIROMA1	Master degree in "Transport Systems Engineering"	7	Existing	English	2 academic years	120	Railway Engineering, Public Transport Management	30
	Post-Master course in "Railway Infrastructure and Systems Engineering"	8	Existing	Italian (some lectures in English)	1 academic year	60	12 teaching modules of 4 ECTS each	20

3. Implementation of Pilot VETs

I. 7 programmes the partners will implement individually in A.Y. 23/24

- Overview

Educational partner	Number of programmes	EQF levels covered		
		6	7	8
CESI	1		1	
CTU	1		1	
ESTACA	1		1	
SGH	1		1	
UNIGE	1		1	
UNIROMA1	2		1	1
Total n. of progammes	7	0	6	1
Total n. of expected learners	>350	0	>330	>20

Number of involved partners	6
Number of programmes	7
Percentage of EQF level covered	67%
Total n. of expected learners at EQF level 6	0
Total n. of expected learners at EQF level 7	>50÷60
Total n. of expected learners at EQF level 8	>few

Selected programme	Number of programmes	EQF levels covered		
		6	7	8
Railway systems engineering	3	0	2 (CESI, ESTACA)	1 (UNIROMA1)
Rail traffic/operations engineering	1	0	1 (CTU)	0
Rail transport engineering	3	0	3 (SGH, UNIGE, UNIROMA1)	0
Total n. of progammes	7	0	6	1

3. Implementation of Pilot VETs

II.   Implementation of a summer school

- Several educational partners expressed their availability to host/participate in a summer school to be organised face-to-face or remotely or in a mixed mode in summer 2024:
  - **2 possible hosts** (UNIROMA1, CTU)
  - **other 6 possible participants** (AUTh, CESI, ESTACA, UASFHE, UB, UNIGE)
- The main obstacle to the implementation of a face-to-face summer school is that STAFFER funds can be used for the mobility of professors, but it seems more complicated to use it for students.
- The next steps are to find out whether partners willing to participate can use **STAFFER funds (by making an equivalence with person-days) or internal funds for mobility of students** (for example, every Italian university already has funds available for the mobility of PhD students).

4. Monitoring and quality assessment of pilot VETs and training programmes

- Based on WP5 and Task 6.1 a **set of indicators** for monitoring the training programmes to be implemented within WP6 were identified.

- **Questionnaires** to collect the indicators necessary for programme evaluation have been prepared and will be distributed to involved partners. Questionnaires are addressed to:

  - **programme organisers (questionnaire for pilot VETs – short term period),**
  - **programme organisers (questionnaire for training programmes – long term period),**
  - **teachers,**
  - **students,**
  - **in-company supervisors**

5. Implementation of an Erasmus+ BIP

- Blended intensive programmes (BIP) are short, intensive programmes that use online cooperation.

- They are developed and implemented by **at least 3 higher education institutions (HEIs)** coming from at least 3 Erasmus+ Programme Countries, who can sign a Erasmus+ Inter Institutional Agreement (IIA).

- Usually, **one** institution coordinates and hosts the BIP (**BIP HOST**). **At least two** further universities send participants to the BIP (**BIP GUESTS**).

- **Structure** of a BIP:
  - **Physical stay** between 5 and 30 days (at the HOST institution);
  - **Virtual component** (before, during or after Physical stay. No limitation on the duration of the virtual component;
  - Minimum **3 ECTS** recognised to students for the positive completion of both physical/virtual components;
  - Minimum **15 mobile learning participants** (students).

6. Common study materials

- Preparation of the common study materials will be carried out as a matter of priority:
  - by **each educational partner** to be implemented in its **pilot VET**
  - by **each partner** who will participate in the **summer school** directly in English
- Working groups will be formed to produce teaching materials related to **fields/trends/skillsets** that will not be covered in the previous two ways
- Possible composition of the **working groups** based on the availability expressed by the partners:

Fields/Trends/Skillsets	Educational partners	Number of partners
Cybersecurity & Internet of Things (IoT)	ESTACA	1
Big Data & Artificial Intelligence	AUTh	1
Global new energies & technologies	AUTh, TUD	2
Safety, dependability, security	AUTh, UB, UNIGE, UNIROMA1	4
Norms, standards & certification	UNIROMA1	1
Transportation systems	AUTh, CTU, SGH, TUD, UB, UNIGE, UNIROMA1	7
Networking & ICT technologies	CTU	1
Smart cities & Internet of Things (IoT)	AUTh	1
Reliability, maintenance & life cycle management	AUTh, UNIGE, UNIROMA1	3
Web development	AUTh	1
Learning skills	AUTh, UASFHE	2
Communication	AUTh, SGH	2
Soft skills	AUTh, SGH, UASFHE	2

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7. What's next

- **Distribution of questionnaires** to partners to monitor pilot VETs and training programmes.
- **Implementation of pilot VETs** and thereafter training programmes.
- Solution of the funding problem and organisation of the **summer school.**
- **Involvement of companies** in the implementation phase.
- Collection of more information on the procedure to follow and the timing of the next call for **Erasmus+ BIP** (Call: Key action 1 - Individual mobility KA131).
- Decision whether and which **working groups** to create to elaborate the **common teaching material.**

THANK YOU !