

**Intermediate internal checking of the application of Erasmus+ project,
EEVEE, Engineering Energy Vehicle for European Environment
Transnational meeting, Sevilla Spain, 20th November 2018.**

Pages number in the following refer to the text of the application form agreed in March 2017.

From page 2, all items show the original text and a blank space is added below to embed our assessment a year and a half later.

Additionally each national team can tick briefly to mean for example « done », « still to be done », « in process ».

Note that some paragraphs from the application have been left behind in the the text below since they mainly refer to the past prior to the start of the project.

J. page 44 – Project summary

The core of EEVEE project is based originally in car mechanics through the design and construction of one single and common Engineering Energy Vehicle for European Environment (EEVEE) as a prototype vehicle. The partner schools from France, Spain and Sweden are all vocational and polytechnical engineering secondary schools with grammar schools on site too, where a section trains to automotive car mechanics VET degrees. This allows collaboration between various vocational fields and general subjects in sciences such as mathematics and in humanities such as foreign languages.

This vehicle design and manufacture is simultaneously aimed at crossing numerous subjects taught in school sections with respective curricula ranging from vocational fields to sciences and humanities. Doing so the three priorities chosen for this project are treated in many aspects. Horizontal: sustainable investment and performance are reached by targeting the new generation through students, young adults, in in their final years in school School: the vehicle is embodying a material support which is motivating for the students and enhances their motivation for school and acquisition of skills and competences in their fields. The European project brings them the added value of working with their peers in English as a foreign language opening their perspectives to other countries and increasing their employability in vehicle manufacturing and maintenance industries. VET: designing this vehicle in international groups of students give teachers opportunities to share efficient teaching practices accross boarders, introducing in their teaching a strong need of English as a foreign language to collaborate with their peers. This language skill is emerging as necessary for this generation and teachers are now volunteering to get trained in English. Therefore the added value of this project is clearly to provide VET teachers also with training vocational skills in English shared among peers.

Moreover French national priority 2017 as "key competences and transversal skills , in literacy and numeracy" are taken into account by teams of maths, sciences, foreign languages, humanities teachers. A second strong aspect of this project is the role played by general subjects connected to car mechanics. A majority of these students choosing to specialise in car mechanics also want to avoid more classes in maths and humanities. At each step of conception and manufacturing of the vehicle activities closely connected to vehicle and mobility issues will be carried out. In mathematics this will be the utility of shapes in geometry for a volume, the presentation of statistics based on self measured datas, algebra to practice functions used in electricity, the ohm

law for example, algebra to calculate with powers and more. In foreign languages the image of the car through centuries could be described from a useful point of view in economy and also from an esthetic perspective when students choose "the mythical car" from the past. Foreign language have this ability to open up the scope of the project to numerous cultural issues and thus foster open-minded future technicians. To guarantee both aspects of the project activities in car mechanics and related technical subjects on one hand and in maths and humanities on the other hand will take place in each mobility.

The needs. Students from the three countries usually think only of finding a job in their neighbourhood, at most 30 km away from their parents' home. They do not dare to move to another region nor to a foreign country with a foreign language. This project in their training aims at opening perspectives in their minds. Secondly most of these students are not motivated for school. Thus the idea of a real vehicle where one person could sit and drive in real increases their motivation for other subjects, especially in mathematics. Mobilities allow to enhance autonomy among the students in transnational teams and doing so debunk the stereotypes among the citizens of Europe at an early stage in their lives. Additionally, in each country, students who never met before in their home school because of learning in separate sections and separate buildings will collaborate giving their skills from their fields since they will be joining in common tasks either when hosting the project learning meeting in their home school and/or when participating to professional mobilities abroad to the partner school. We already experienced in a previous project how these mobilities also debunk stereotypes among the students themselves in their home country, improving a better understanding and a better living together.

The target groups are a total of potentially more than 500 students per school year which means approximately 1000 students for the whole duration of the project.

Extracted from the application text.	ES	FR	SE
E. page 17 – expected results			
A vehicle that one can sit in and drive in real run by a clean energy			
Student assignments for collaborative tasks, in technology, maths and more			
Student answers to collaborative tasks, in technology, maths and more			
Many student productions are videos to enhance motivation for oral foreign language skills			
Video conferences as virtual transnational professional meeting for teachers			
3 transnational management meetings for involved teachers dedicated to the ongoing of the project, combined with in service teachers training performed by English speaking expert.			
Programmes are published prior to each meeting and reports are written and published after each meeting,			

A website under the form of its e-twinning twinspace, to host ongoing collaborations and to publish final results			
Informal results to be evaluated by statistic surveys about student motivation for maths sciences technology humanities related subjects taught in school, for learning foreign languages, student motivation for school in a wider extent through this project, student insight as working in the future with foreign colleagues and/or in a foreign country, student awareness of his native language to share with foreign peers, European citizenship,			
Informal results for the students when promoting together the EEVEE vehicle on site in public places of high frequentation such as theme museums, down town market place,..., when adjusting in their home school their schedule to join a chat or video conference about professional issues for them, when following during mobilities one school day in immersion into the hosting partner national school system, when being hosted in a foreign family or hosting a foreign partner at home, when organising on a private basis holidays with the new friends, ...			
Informal results about staff, pedagogy, teaching pratics, motivation to join and/or coordinate projects in school			
Informal results about an efficient collaboration between staff and families through parents association			
E1 - page 17-18 - Participants			
A total of 500 students per academic year impacted by the projetct, in total about 1000 students for the 3 years			
Who are the students really impacted now ? How many ? Refugees as mentioned page 15 about innovative project ?			
ES :			
FR :			
SE :			
Total :			
Page 19 1000 students involved in the project is feasible.			
n part E aforementioned an estimation of 500 students per school year is given for the three school and dispatched in many classes and of age ranging from 15 to 18 years old. Considering the number of repeating students from one year to the other, the number of new comers in year 2 and year 3, the number of students leaving school after graduation , 1000 students involved in the project is feasible. A large majority of the students involved will not travel on mobilities for the reason that not all of them want to travel by themselves. Experience has shown that many students are satisfied with being involved in the project only by hosting the learning meeting			

<p>in their home school, by publishing online their productions from school only. The main reason for those not applying to mobilities is that a few number of them do not take the risk of living by a foreign family they don't know before, according to their answers to our inquiries. On the other hand, they can be very efficient participants to the project in their home school. They are also capable of describing the whole Erasmus project to any new listener, for example the jury of A level final oral examinations, thus contributing to dissemination. Moreover in Sweden, other persons involved in activities will for example be younger students from other schools in Falkenberg targeted by information and workshops. This will also be one way to show what the Vehicle and Transport programme can be and an additional way to raise their interest in and understanding of benefits from mobility. Nevertheless, not only students from other schools will enjoy the project but also the students from other programmes. Considering that the students from the Vehicle and Transport programme do not have all the abilities constructing the electrical vehicle, students from other programmes from related areas will be included with their skills. Moreover, local enterprises most possibly will take part. An important aspect of the school is its collaboration with local business. This takes many forms, including workplace-based learning, apprenticeships, youth business initiatives and branch liaison groups. All in all, Falkenberg being a small town, there will be an important profit of the project reaching a majority of the citizens.</p>			
<p>G. page 21 – Project management and implementation - methodology</p>			
<p>The essential keypoint of methodology is to use the etwinning platform and to fill a twinspace in such a way that it can be used as the project website when it will be published.</p> <p>This twinspace contains the following elements.</p> <ul style="list-style-type: none"> - pages clearly identified by subjects taught in school where the assignments to the students, the students productions under the form of written documents or self made videos, the names of participants of transnational student teams, the agreements reached between teachers towards a common pedagogy inside one school subject will be stored. - pages to gather all documentations and results related to each learning event such as programme, assignments for the activities, productions to these activities, evaluation, etc.. - pages to gather all documentations and results related to each annual transnational meeting such as programme, detailed reports of all agreements reached by the teachers for the future ongoing of the project and validated by all. These reports are key results of the project since they are the documents to refer to when planning collaboration online as well as learning events contents. - pages to give the structure of the twinspace playing the role of a website such as "website map", "contact us", "pressbook", - a colour for letters in text is attributed to each country, for example red for Spain, green for Sweden, blue for France allows to visualize at first glimpse which country is bringing what to the global work. - to improve transparency for a positive collaboration a timeline tool will run under the form of a common google doc to publish among collaborators who had a meeting with who, at which date, and about what subject and more. - past experience has shown that the twinspace needs to be renewed each year of the project to gather all contributions for one single year in order to keep a clear 			

<p>overview of the collaboration and to avoid confusion. This brings 3 twinspace for the duration of the project, the third gathering all final productions reached in the project.</p>			
<p>Page 21-22 - Transnational meetings Three transnational meetings are planned at the beginning of each school year gathering two teachers from each partner school to coordinate the ongoing the EEVEE vehicle with the local hosting teachers team following the calendar given below:</p> <ul style="list-style-type: none"> - Sept 2017: teachers' meeting in Sweden, - April 2019, teachers meeting in Spain, - March 2020 teachers meeting in France <p>All transnational meeting will host the car mechanics teachers from the three countries to discuss the ongoing of the building of the vehicle on technical points. The second teacher to the transnational mobility will be a maths or humanities teacher.</p> <p>To keep in mind for the ongoing of the project, learning meetings with mobilities:</p> <p>Oct 2017: students' meeting in France the shape of the EEVEE is chosen to prepare the next step which is the frame In FR, October 2017, student learning meeting to agree on the model</p> <p>In ES, March 2018, student learning meeting to agree on the chassis</p> <p>In SE, October 2018, student learning meeting to assemble the direction, the breaks and suspension,</p> <p>In FR, in March 2019, student learning meeting to assemble the motorisation</p> <p>In SE, in October 2019, student learning meeting to assemble the electric circuit</p> <p>In ES, in April 2020, student learning meeting to reach the car body painting and vehicle testing</p>			
<p>Page 22 – how will you communicate and cooperate with your partners ?</p>			
<p>One single twinspace for one school year contains for each subject the agreements reached in pedagogy between teachers of this subject, the assignment given to students, the student productions one by one, and a final production gathering all the steps in a chronological order to give a complete overview of the activity.</p> <p>One single excell sheet will show the dates of holidays in all countries to ease the choice of dates for mobilities and the choice of deadlines for common work.</p> <p>One single timeline common document will contribute to transparency when all post there the date, the participants and the subject of each meeting held locally in their school. This will also allow anticipation to send productions prior to a partner's meeting in his school.</p>			

Plans for handling risks			
<p>- Responsibility issue when the vehicle is on site in each school Each school overtakes the responsibility including insurance over EEVEE from arrival in its school's site till arrival to the next partner school's site. Therefore each school purchases corresponding insurance contracts to cover in particular damages on parts, theft, fire, physical damages when accidents.</p> <p>- Procedure to make technical decisions for the project The school in charge of finding the appropriate part to fill its role publishes a proposal to the two other schools with technical detailed information according to the initial project budget. Each of the two other schools must agree on this choice and confirm their agreement in a written form. Therefore a template will be made for the technical proposal and this will be signed officially by each of the two other partner schools.</p> <p>- Procedure to make financial decisions for the project The coordinator school who is in charge of the budget must sign this form to validate from a financial aspect and launch the purchase and pay under the exceptional costs budget line and under sponsors' funds. The question of the choice of the energy still remains and will be decided collaboratively during the first meeting. In case a vehicle driven by hydrogen fuel cell, the fuel cell has to be purchased and this energy is the cleanest known up to now. However some other choices are possible technically with a minor pollution and this is why this issue is not decided yet. Since exceptional costs are justified by all invoices and non allocated funds are given back at the end of the project. As soon as this application form is submitted our potential and already identified sponsors will be contacted to give the presentation of the project to obtain additional support to cover the remaining 25 % of the total.</p> <p>- Property of EEVEE after the project. The coordinator school is responsible for all financial aspects of the project and overtakes all the expenses on the vehicle in particular for motorisation which is the most expensive part of the vehicle, all other parts being at fairly low expenses. The French school is the only school to look for sponsors to overtake the 25% of the remaining exceptional costs. Consequently the EEVEE vehicle is the property of the French school at the end of the project, when it returns to France, see part H.3 Sustainability.</p>			
Page 23 - Monitoring of project activities			
<p>Each subject dealt in this project is run by a team of teachers from the three countries.</p> <p>- project coordinators ES Francisco Manuel Garcia Garcia, FR Odile Jenvrin, SE Emma Majberger,</p> <p>- car mechanics teachers team ES: Francisco Manuel García, Antonio Canales, Jose Manuel Ramos FR: Denis Leclerc, Alain Mirey, Martial Enault (car body painting) SE: Roger Jönsson, Thobias Källqvist, Hans Nilsson, Christian Karlsson</p> <p>- maths teachers team ES Carlos Reina, FR Odile Jenvrin, Stephanie Durel (VET maths and sciences), SE Bengt Karlsson</p>			

<ul style="list-style-type: none"> - foreign language and humanities teachers team ES: Mitchel Jarnell (English), Ana Dominguez, (French) FR: Stéphanie Peyroulan (English), Corinne Galopin (Spanish), Ludovic Cahagnier (VET history and French), Alexandra Noël (school librarian) SE: Emma Majberger (English) - each subject team is responsible for adding to the common pressbook all publications about the project that would occur through its work, - school headmasters are responsible for handling risks and make final decisions when conflicts occur, - project application is written in such a way to leave space open to any other teacher from any other subject to join the projects for any activity that he/she thinks suitable and feasible embedded into his/her subject curriculum 			
<p>Assessing the success of the project</p>			
<ul style="list-style-type: none"> - Statistical surveys are conducted in all countries towards students on one hand, towards staff on the other hand based on common questionnaires in order to measure partner's changes in their perspectives related to the project objectives. Frequency of these inquiries is at least once a year. Questions are chosen in transnational teams during transnational meetings and are expressed in a way that is understandable by students. For example, experience has shown that French students aged 16 do not understand "European citizenship" at all. Thus in order to collect their answers questions could be formulated as "after this project, do you feel more understanding patience for similarities and differences among fellow foreign students?" Results of these inquiries are published on the twinspace to all. In particular each learning meeting gathering a minimum of 50 students will be ended by its evaluation enquiry and the results are published on etwinning. - Each transnational meeting among staff and each learning meeting among students will produce a result under the form of a written report. The quality and the efficiency of these reports are also indicators for assessing the ongoing of the project. These reports contain the ideas and the agreements reached among partners and the assessment of previous agreements turned into real actions and student productions. - More indicators to measure the quality of the project are: the number of students applying to mobilities and how these figures rise during the project, the number of staff who apply to accompany student mobilities to learning events abroad, the number of staff joining the organisation team for hosting the learning event in their home school, the number of new families at first signing in school who mention and ask for more explanations about the international opportunity offered to their child, 			
<p>Page 24 – do you plan to use Erasmus+ online platforms ? Platform eTwinning is an essential component for the preparation, implementation and follow-up fo this project. School Education Gateway will be explored to enrich the schools' local network of potential companies to contribute to the design and building of the EEVEE vehicle.</p>			

G.1 – Learning meetings – pages 25-27			
1st learning meeting in FR student learning meeting to agree on the model Oct 2017			
<p>Once drawings for a logo have been proposed on the twinspace prior to the meeting, a vote takes place among the participants including those online to choose the final logo for the EEVEE.</p> <p>- In order to determine the final shape of the EEVEE, general ideas for a first draft for a shape are chosen on the twinspace to prepare the next step which is the frame, and which has to be decided by the end of the first learning meeting in France. Therefore this common draft for a shape is then given as an activity to transnational student teams to model the final shape: a automobile designer could collaborate for help since two former students from the French school and now automobile professional designers and are often volunteering to help the students on such tasks.</p> <p>- Using a software, for example Autocad, the students model the constraints of deformation and shears on such a car frame to test their new shape and possibly to adjust to it.</p> <p>- Simultaneously, students are taken to a tour by the local company SEROC which is recycling house and garden garbage to let them imagine the recycled material possible useful to the frame of EEVEE. By the end of this learning meeting in France, the final shape of the frame is chosen and ready for the next step of manufacturing. - maths and humanities connected to car issues.</p>			
2nd learning meeting in ES - student learning meeting to agree on the frame			
<p>Tasks will be chosen among the possible tasks listed below.</p> <ul style="list-style-type: none"> - Plan and carry out the tasks with the team - Introduction into the manual metal processing - Practical exercises in reading and applying technical drawings and sketches - Manual production of the parts needed to build the electric vehicle, such as tubes and plates - Workpiece machining according to plans and drawings - Exact measuring, drilling and filing - Grinding and welding - Cutting of threads - Removing corrosion - Marking and center-punching as well as creating reference edges and surfaces - Measurement and testing of surfaces - Installation and adjustment of the chassis - Control of the work results - Maintenance of the equipment and cleaning of the workshop - maths and humanities connected to car issues. 			
3rd learning meeting in SE - student learning meeting to assemble the direction, the breaks and suspension			
<p>The third mobility will focus on different aspects of assembling the direction, the breaks and the suspension. The focal point for this mobility in terms of practical and laborative achievements will be pursued by different workshops in relation to the breaks and the suspensions. Moreover, a field trip to Chalmers University of</p>			

<p>Technology in Gothenburg as well as Volvo will be arranged, as well as lectures and presentations from the students about the topics and the progress of the project.</p> <ul style="list-style-type: none"> - maths and humanities connected to car issues. 			
<p>H.1 page 32 – How will you measure the impacts ?</p>			
<p>- Statistical surveys are conducted in all countries towards students on one hand, towards staff on the other hand based on common questionnaires in order to measure partner's changes in their perspectives related to the project objectives. Frequency of these inquiries is at least once a year. Questions are chosen in transnational teams during transnational meetings and are expressed in a way that is understandable by students. For example, experience has shown that French students aged 16 do not understand "European citizenship" at all. Thus in order to collect their answers questions could be formulated as "after this project, do you feel more understanding patience for similarities and differences among fellow foreign students?" Results of these inquiries are published on the twinspace to all. Analysis of the results will be published too. In particular each learning meeting gathering a minimum of 50 students will be ended by its evaluation enquiry and the results are published on etwinning.</p> <p>- Each transnational meeting among staff and each learning meeting among students will produce a result under the form of a written report. The quality and the efficiency of these reports are also indicators for assessing the ongoing of the project. These reports contain the ideas and the agreements reached among partners and the assessment of previous agreements turned into real actions and student productions.</p> <p>- More indicators to measure the quality of the project are: the number of students applying to mobilities and how these figures rise during the project, the number of staff who apply to accompany student mobilities to learning events abroad, the number of staff joining the organisation team for hosting the learning event in their home school, the number of new families at first signing in school who mention and ask for more explanations about the international opportunity offered to their child, the number of new families when they come to sign in for their child and who ask for more information about the possible opportunities offered toward international collaborative work, the number of invitations from various local or national administrations to participate to public conferences they organise on European education issues</p>			
<p>H.2 – page 33 – Which activities will you carry out to share the results beyond your partnership ?</p>			
<p>All participants firstly teachers identify professional networks they belong to and use this canal to publish the outcomes of the project directly to professionals potentially interested. Examples of these networks are listed below for France and Sweden.</p> <p>FRANCE</p> <p>Rectorat de Caen, French education administration for Normandy, DAREIC: person in charge of supporting the implementation of European projects in schools, Rectorat de Caen, inspectors for pedagogy in mathematics, 3 inspectors Rectorat de Caen, inspectors for pedagogy in VET car mechanics, Université de Caen, IREM (Institut de Recherche de l'Enseignement des</p>			

<p>Mathématiques), 50 members GNFA Groupement National des Formateurs en Automobile, one agency is located in Caen Network of Salesian schools in Europe, 35 participants to the meeting 2017 eTwinning network</p> <p>SWEDEN Bilproffs, grouping of Swedish Association for Motor Retail Trades and Repairs and other organizations and worker 's unions, 4500 companies and 60 000 employees</p>			
<p>Page 34 - Who will be responsible for the dissemination activities ?</p>			
<p>In each partner country the project coordinator is responsible for the dissemination of the project either by posting himself the publications or by delegating this task to colleagues in particular in specific fields related to a subject. In all cases the coordinator is responsible for a global overview of dissemination activities from his country.</p> <p>The strategy is to open a page "press book" dedicated to dissemination in the twinspace to give a complete overview of dissemination activities showing in a grid the media, the title of publication, a measurement of targeted audience, where to access to the publication itself. See attached files for screen capture of examples N6-Press book for year 2015 and N7-pressbook-edaycar (scroll down to the end to see the three partners).</p> <p>To ease access to the publications themselves a folder on the twinspace will contain all publications that will be uploaded from internet or photographed for paper articles to prevent them from disappearing from internet when websites are renewed. Moreover this grid allows to show oral presentations to any audience that will be measured and that cannot be materialised by a publication.</p>			

Draft written by Odile Jenvrin for preparation in advance.
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