EUROPEAN COMMISSION
Directorate-General for Communications Networks, Content and Technology

Data
Interactive Technologies, Digital for Culture and Education

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CONNECT/G2/AS
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Kimmo Koski
Managing Director
CSC-Tieteen Tietotekniikan Oy
Keilaranta 14
02100 Espoo
Finland

Subject: **Grant agreement No. SI2.488704 (ECOKT2016-1)**
Project title "CompLeap - Learner-centred digital ecosystem of competence development "
Preparatory Action: Open Knowledge Technologies: Mapping and validating knowledge
Final review report

Dear Mr Koski,

We are writing in connection with the review procedure for your above-mentioned grant.

Following the final review meeting of your project held in Luxembourg on 23/01/2020 and the assessment of the re-submitted deliverable, please find enclosed the final review report of the experts that examined the project for the Commission. Based on the enclosed final review report drafted by the experts, the Commission considers the project implementation satisfactory.

The Commission endorses the conclusions reached by the reviewers.

The assessment of the use of the resources made by the experts does not imply the acceptance of the corresponding costs by the Commission.

Please note that a positive assessment of the technical work does not automatically guarantee that the costs will be accepted by the Commission. Acceptance of the costs will also depend on compliance with eligibility rules (which will be assessed separately, on the basis of your financial statements and financial audits, if any).

You may make observations on the result of the review of your project within one month of reception of this letter.

We would be grateful if you could inform the other members of your consortium of this letter**.**

Yours faithfully,
Asja Satler
Project Officer

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Annex 1 – List of deliverables

No	Title	WP	Lead	Type	Date	Status	Comment
4	Standard management report Q4	1	CSC	R	M21	Accepted	
8	Project Roadmap	1	CSC	R	M24	Accepted	
9	Project management and steering groups meetings	1	CSC	R	M24	Accepted	
11	Final report	1	CSC	R	M24	Accepted	
22	Final seminar in cooperation with WP4 and WP5	2	EDUFI	O	M23	Accepted	
23	Sustainability Plan + Addendum	2	EDUFI	R	M23	Accepted	
27	Pilot deployment of the architecture	4	JEC	O	M22	Accepted	Provides a series of validation workshops mainly to test the suitability of the proposed architecture
28	Pilot deployment of analytics prototype	4	JEC	O	M22	Accepted	
29	Pilot deployment of learner plan prototype	4	JEC	O	M22	Accepted	
30	Report on pilot deployment of the architecture	4	JEC	R	M22	Accepted	Deliverable could include more details on outcomes of workshops (issues, obstacles and lessons learnt)
31	Report on pilot deployment of analytics	4	JEC	R	M22	Accepted	
32	Report on pilot deployment of learner plan prototype	4	JEC	R	M22	Accepted	
33	Impact evaluation study that will provide in-depth evaluation of effectiveness and usability of the produced digital solutions in cooperation with WP1	4	JEC	R	M23	Accepted	
38	Presentations and Publications	5	DUO	O	M24	Accepted	Presentations and publications should be also made available in the project's website
39	Targeted workshops and seminars in cooperation with WP2 and WP3	5	DUO	O	M24	Accepted	
	Europass Case Study					Accepted	

TECHNICAL REVIEW REPORT

Pilot project – Open Knowledge Technologies: Mapping and validating knowledge - CompLeap

Individual report	☐
Consolidated report	**X**

1. OVERALL ASSESSMENT

a. Executive summary

Overall, the project has achieved its main objectives and milestones for the final period (M19-M24). The consortium has also developed and delivered the expected outcomes.

Main scientific/technological achievements of the project.

The project contributed to address a major education sector problem, designing a holistic framework architecture of digital services and products to support individuals' competence development as a lifelong learning process. During the final reporting period (M19 – M24) a proof of concept of the project's ecosystem was tested in Finland but international deployment was limited. Various reasons (technical feasibility and additional financial investment required) resulted into the project not being able to mobilise stakeholders from outside Finland.

Main innovation activities.

The CompLeap overall ecosystem architecture is the first of this kind and can become a de-facto standard for future interfaces to be developed from data providers.

Quality of the results.

Results produced by the project are of sufficient quality and accepted. To facilitate take-up of the open source results, information and recommendations are provided in the Addendum to D23 – Sustainability and additional detailed technical documentation (description of technical components, architecture, recommendation system) are uploaded in the project's GitHub repository.

Attainment of the objectives and milestones for the period and adherence to the workplan.

In the period under review (M19-M24), the project has accomplished its goals and successfully carried out the main tasks foreseen.

Take-up of the recommendations from the previous review (if applicable)

The consortium has successfully addressed the recommendations from the previous review (M13-M18). A case study was developed to present key dimensions explored and identified to interlink CompLeap and EUROPASS services. Details on project progress and on how piloting activities informed the refinements of the final beta version were also submitted as requested.

Use of resources

Resources have been used adequately. However, not all available budget was used.

Impact

The project results can have a potential impact if they will be integrated in the Finish Studyinfo portal and the consortium should make additional efforts for ensuring this integration. Furthermore, lessons learnt can be used as a basis for other EU-wide activities e.g. Europass.

In addition, the GitHub repository (https://github.com/Opetushallitus/compleap) includes all technical information for developers to be able to run and execute the code of the beta version. **To help developers working on Linux platforms the consortium will also include a note on docker networking pointing to this Stack Overflow question** https://stackoverflow.com/questions/24319662/from-inside-of-a-docker-container-how-do-i-connect-to-the-localhost-of-the-mach/52858101

To allow for potential uptake, the consortium ensures that all relevant information will be available on the website for 3 years after the end of the project.

b. Recommendations concerning the period under review

   Not relevant since this is the final review.

c. Recommendations concerning future work

   Not relevant since this is the final review.

d. Assessment

   ☐   Excellent progress (the project has fully achieved its objectives and technical goals for the period and has even exceeded expectations).

   X   Good progress (the project has achieved most of its objectives and technical goals for the period with relatively minor deviations).

   ☐   Acceptable progress (the project has achieved some of its objectives; however, corrective action will be required).

   ☐   Unsatisfactory progress (the project has failed to achieve key objectives and/or is not at all on schedule).

2. OBJECTIVES AND WORKPLAN

a. Progress towards project objectives

Overall the progress towards the objectives is acceptable. The consortium made efforts to deliver a sound and tested platform for competence development.

The project put more focus on developing the education recommendation system as part of their learning analytics functionality of the platform. In doing so the second functionality of competence visualisation has left out, which however is a minor deviation.

In addition, actual piloting has been only performed in Finland. The consortium claims that this was base because of the limited project time available, however, it also seems that associate partners could not pull together the resources required to enable an on-site deployment. Nevertheless associate partners have been involved in discussions/presentations of the CompLeap system architecture and could capitalise on the open-sourced project results for their own local needs. Through this objective 2 (to tailor the functionality of this framework so that it is suitable across Europe) can be considered as largely achieved and objective 4 (to deploy the developed ecosystem through networks) as partly achieved.

b. Progress in individual work packages

WP1 - Project Management
See section 4 below

WP2 - Requirements and architecture design
Overall, the project managed to present a sound framework architecture for the learner-centered system it envisioned. In this architecture it is clear that there is potential in using existing national education data and resources for the benefit of competence development. With the provided prototype the consortium also delivers a sample application of this architecture.

WP3 - Prototype development
The consortium managed to deliver an acceptable proof of concept that connects previous education with current and future interest to provide learning and study recommendations. More detailed description of the main technical component, the recommendation engine is needed also in light of re-use in other contexts.

WP4 - Deployment and evaluation
Piloting (deployment) and evaluation was performed for several parts of the CompLeap system and in various modalities: workshops, focus groups, interviews. The results are presented in the respective deliverables and show different expectations for each target groups (e.g. counsellors, end-users). Overall though the majority of users saw the potential of the platform but could not however experience the full breadth of it due to the limited PoC functionalities.

WP5 - Dissemination, communication and exploitation
The final seminar of the project gave a good overall summary of the results achieved and the feedback received from the participants was positive. Through the Europass case study CompLeap managed to show how it can complement existing EU-wide initiatives. The date for archiving the website was extended to at least 3 years. The sustainability plan is weak as

regards the international dimension, but there is potential for at least some of the project results to be included in the Finish Studyinfo portal.

c.   Milestones and deliverables

In the period under review 15 new deliverables have been submitted. No milestones are defined in the Grant Agreement – DoA.

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d. Relevance of objectives

Since this is the final review, the project is not in the position to improve the level of achievement in any of them. However, the original objectives are still relevant and the proposed approach could become part (most likely in a modified version) of a larger initiative e.g. Europass.

3. RESOURCES

a. Assessment of the use of resources

In the second reporting period all partners invested much more resources compared to the first reporting period to achieve the stated project objectives. The overall resources and the resources per partner reported are justified and have been used to achieve the presented project results in a manner consistent with the principle of economy, efficiency and effectiveness.

b. Deviations

Around 17% of the funding has been not claimed and could have been used to strengthen the international dimension and deployment of the CompLeap results.

4.   MANAGEMENT, COLLABORATION AND BENEFICIARIES' ROLES

a. Technical, administrative and financial management of the project

The management of the project did its best to bring the project into track in the second reporting period. Previous review recommendations were taken largely into account and work packages have been managed well. The quality of the documentation is acceptable.

b. Collaboration and communication

Mechanisms for ensuring quality and effective collaboration and communication among the beneficiaries were in place. Overall, beneficiaries were effective and consistent in the execution of the project plan.

c. Beneficiaries' roles

Give an assessment of the role and contribution of each individual beneficiary and indicate if there is any evidence of underperformance, lack of commitment or change of interest.

All beneficiaries contributed as expected.

5.   USE AND DISSEMINATION OF FOREGROUND

a.   Impact

The impact of the project is rather limited and applicable in Finland mainly. International deployment was not successful due different reasons (data sources availability, incompatibility access) which require additional financial investment. Lessons learnt though can be used from Europass.

b.   Use of results

The sustainability plan (D23) is mainly focusing in Finland and is weak. The consortium should plan further actions to integrate part of the results into the Studyinfo portal.

c.   Dissemination

Dissemination has been appropriate. The project website is appealing and the information are consistent. More effort is still needed to reach a European audience and to create dissemination materials for specific target groups (e.g. policy/decision makers) clearly showing the potential of the ecosystem architecture and how corporate/government users can take advantage of it.

d.   Involvement of potential users and stakeholders

Users and stakeholders have been involved in various phases of the project, contributing to requirements definition and elicitations. Their involvement however has not materialised in any concrete follow-up activities.

e.   Links with other projects and programmes

Not relevant

6. OTHER ISSUES

Not applicable

Name(s) of expert(s):	Stefania Bocconi.	Georgios IOANNIDIS
Date: 18/03/2020		
Signature(s):		