Project No.688503 EU HORIZON 2020 Project **Networked labs for training in sciences and technologies**



Updated Deliverable D6.1 Summary – November 2017

NEWTON is currently designing and developing innovative technologies inspired by new pedagogical approaches to enhance the learning of diverse types of students, with varying needs, ages, levels, capacities, etc. The idea is that these technology-enhanced teaching approaches will be deployed in a <u>range of</u> pilots, where their impact on learning can be assessed. This document is the first deliverable of WP6 – Pedagogical Assessment, and its main goal is to formulate a methodology to assess and evaluate the outcomes of the <u>various</u> NEWTON pilots <u>– including small and large scale pilots</u>.

Based on NEWTON's Description of Action (DoA), it is important to clarify that, although the original title of this deliverable is *"Work Plan - Details of the scheduled procedure for large-scale Pilots"*, within WP6 the scope focuses on establishing the <u>framework, approach</u> and work plan for the <u>evaluation and</u> <u>assessment</u> of <u>all pilot activities</u>, as the actual organisation (scheduling) of pilot activities is performed within WP7 (T7.2 Large-scale pilots coordination and T7.3 Use Case Definition and Implementation).

Additionally, WP6 focuses on the Pedagogical Assessment of the pilots in order to draw conclusions regarding the impact of the NEWTON solution and approach <u>and as a way of informing the ongoing and</u> <u>iterative improvement to the technology prior to deployment or exploitation</u>. However, it must be clear that all aspects related to the technical assessment of the platform are considered in WP7 (T7.4 Performance Evaluation and T7.5 Usability Evaluation). Moreover, to avoid overlaps between user satisfaction and user experience evaluation to be performed in WP6 and usability evaluation which is a WP7 deliverable, the partners have agreed to make the distinction as clear as possible.

Another concern partners had with the description of WP6 and the content of the associated deliverable was to avoid duplication of 'evaluation of users with special educational needs, which is clearly the focus of T6.4 but repeatedly mentioned in all tasks. As this deliverable covers all dimensions of the pedagogical assessment, consequently it contains inputs from T6.4 regarding the metrics and methods for the evaluation of disabled learners. *Deliverable D6.3 - Evaluation of Users with Special Educational Needs* will focus uniquely on the results of this evaluation and *D6.4 - Evaluation of NEWTON usage* will take into account those results to assess the overall impact of the NEWTON platform.

Therefore, this deliverable presents a generic plan for the pilot assessment and evaluation based on the theoretical assessment framework, to be customised by pilots according to their specificities. It includes <u>examples</u> of the methods and tools that may be used to capture information and data as well as recommendations regarding the data to be gathered, the comparisons that will be relevant to assess impact, etc. However, the each pilot will adapt the plan according to its characteristics and requirements.



The document has been updated to take into account the comments from the experts who performed the Mid-Term Project Review. In particular, the Workplan (Chapter 4) has been fully reformulated to indicate how user evaluation data and information will be systematically gathered across all NEWTON pilots. It also specifies how the analysis of the pilot outcomes will be used to inform "emerging and ongoing TEL designs"¹. Emphasis has been put on how the project plans to "guarantee reliable and transferable results", by proposing a global standardized framework for all pilots, and alternative data gathering approaches (including a greater focus on qualitative/ethnographic approaches) to complement the foreseen questionnaires and survey methods.

To make a clear distinction between the initial plan and this updated version, former Section 4.1 has been transferred to Chapter 3 and has become 'Section 3.6 Integration of User Profiling in Evaluation Design'. Similarly, the description of initial 'mini-pilots' has been removed to a separate document with more details provided in Section 4.6.12 Summary of Related Documents.

It should also be noted the new thinking presented in this revised document is largely a result of the work of the NEWTON Pedagogical Assessment Committee (PAC), which was established shortly after the midterm review meeting. The NEWTON PAC has a number of key roles within the project, the first of which is to refine this deliverable and ensure that the new version is more complete, more aligned within other aspects of the project and more focused on the achievement of realistic and measurable goals for the NEWTON pilots. In addition, the NEWTON PAC will act as a guide, partner and critical friend to all NEWTON pilot leaders, ensuring that the assessments undertaken in each pilot study are in line with the overarching strategy set out in this document and that all results are collated, analysed and shared effectively across the project. In addition, the NEWTON PAC ensures coherent and ongoing coordination between WP6 – and the objectives and ideas set out in this deliverable – and WP7 which is closely aligned.

¹ Expert Review Report, First review, 12 September 2017.