



## Del 7.2 - Start-up Public Event

<b>Project acronym</b>	TELMi
<b>Grant Agreement nr</b>	688269
<b>Project title</b>	Technology Enhanced Learning of Musical Instrument Performance
<b>Call identifier</b>	H2020-ICT-2015
<b>Topic</b>	ICT-20-2015
<b>Type of action</b>	Research and Innovation Action
<b>Start date of project (dur.)</b>	February 1st, 2016 (36 months)
<b>Report availability</b>	Pu-Public
<b>Document due Date</b>	July 31st, 2016
<b>Actual date of delivery</b>	July 29th, 2016
<b>Leader</b>	SAICO
<b>Reply to</b>	Anna Carreras ( <a href="mailto:acarreras@saico-sl.com">acarreras@saico-sl.com</a> )
<b>Additional main contributors (author's name / partner acr.)</b>	RCM, UPF, HIGHSKILLZ, UNIGE
<b>Document reference</b>	TELMi-DEC-WP7-SAICO-20160731-D7.2Start-upPublicEvent_final
<b>Document status</b>	FINAL



*This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 688269*

## Executive Summary

Deliverable 7.2 comprises the report of the Start-up Public Event co-organized by UPF and SAICO on the 1st of July, 2016 at the Information and Communication Technologies Department (DTIC) of the Universitat Pompeu Fabra (UPF), in Barcelona. This document contains the agenda of the event, a description of the participants, pictures of the different sessions at the event and links to the main dissemination channels.

The Start-up Public Event is the first of a series of three public events [including D7.4: RCM Event [M20] and D7.5: Final Public Event [M33]] that will be organized within the TELMI project for disseminating the outputs of the project and engaging violinists, researchers and possible stakeholders to collaborate in our developments. All the partners of the project collaborated in the success of the event.



*This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 688269*

## Table of contents

- Background
- Organization of the event
- Captures of the event
  - Workshops
  - Teachers' recordings
  - RCM Presentation
  - Participants trying TELMI Prototypes
- Conclusions
- Appendix A: Agenda of the Event

## Table of figures

[FIGURE 1 TELMI COORDINATOR WELCOMING THE PARTICIPANTS TO THE START-UP PUBLIC EVENT](#)

[FIGURES 2 AND 3 GROUPS PARTICIPATING TO THE WORKSHOP SESSION](#)

[FIGURE 4 UPF MEMBERS EXPLAINING SOME DETAILS ABOUT THE RECORDINGS TO A VIOLIN TEACHER](#)

[FIGURE 5 DETAILS ABOUT THE SENSORS INCLUDED IN THE VIOLIN USED AT THE RECORDINGS](#)

[FIGURES 6 AND 7 RCM PRESENTATION](#)

[FIGURES 8,9,10 AND 10 VIOLIN STUDENTS TRYING TELMI PROTOTYPES](#)



*This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 688269*

## 1. Background

Three Public Events will be organized within the TELMI project with the goal of disseminating and promoting the use of the TELMI Platform. The first at M6 was hosted by UPF, a second event will be hosted by the Royal College of Music (RCM) at M20, and the Final Public Event will be hosted by Università degli studi di Genova (UNIGE) at M33.

These events are a good opportunity not only for the public awareness of the project (a key objective of the H2020 Programme) but also for user engagement. Indeed, this first Public Event coincided with the phase of the project involving the definition of requirements and use cases and thus a specific workshop for collecting feedback from the participants was included in the program.

The event was also a suitable platform for promoting and acknowledging the H2020 Programme.

## 2. Organization of the event

The Start-up Public Event was a one-day event hosted at the Universitat Pompeu Fabra the 1st of July 2016. The main target audience of the event were music instrument students and teachers, though other interested stakeholders could attend. We contacted a number of Conservatories and Music Schools near Barcelona, three of which expressed a particular interest in the project: the Conservatory of Vic, the Conservatory of Sant Cugat and the Escola Superior de Música de Catalunya (ESMUC). We used a Google Form for the registration<sup>1</sup>. Overall, 24 participants were registered at the event (40% students and 60% teachers), coming from over five different music schools.

In the morning, after welcoming the participants (Figure 1), a Workshop Session for gathering feedback from students and teachers was conducted (Figures 2 and 3) in parallel with the collection of teachers' recordings that will be later used for evaluation of the TELMI platform (Figures 4 and 5). In the afternoon, RCM gave a talk via videoconference on "New perspectives on performance education" (Figures 6 and 7) outlining the college's role in the project and its related activities in performance capture and enhancement, and UPF presented the first versions of some TELMI prototypes (Figures 8-11). To conclude the event, a violin concert was organized (with projections

---

<sup>1</sup> The form can be seen at <https://docs.google.com/a/saico-sl.com/forms/d/1zo3Am4GkmT90IY2ctnsQeF6T8BU5D-hIWdggrKrWqvE/edit>.



based on the EyesWeb software technology from UNIGE) with the active participation of some of the assistants (a small piece of this concert is available at <https://vimeo.com/album/4065933/video/176358282>).

The agenda of the event can be seen in Appendix A.

Lunch was included for all participants and each received a certificate for attending the event issued by UPF and signed by Dr. Rafael Ramírez. Participants were aged 16 or older, and all signed a Participant Consent Form prepared by RCM with approval from Conservatoires UK Research Ethics Committee (CUK REC) to allow for conversations and workshops within the event to be recorded, documented, and analysed as research data.

News on the Start-up Public Event have been published on the TELMI project website (<http://telmi.upf.edu/#news>), and on the website of DTIC-UPF ([https://portal.upf.edu/web/etic/more-news/-/asset\\_publisher/PpDYvlsaQAQ6/content/id/4509529#.V5CYeJOyOko](https://portal.upf.edu/web/etic/more-news/-/asset_publisher/PpDYvlsaQAQ6/content/id/4509529#.V5CYeJOyOko)).

### 3. Images from the event

This section includes pictures of the different sessions of the event.

#### 3.1 Welcoming the participants

Figure 1 shows Dr. Rafael Ramírez (PI of the project), the TELMI Project Coordinator, welcoming the participants, presenting the agenda, and giving an overview of the TELMI Project to the audience.

He presented the main objectives of the project and the team involved. As starting point he launched the following thoughts: "What does it take to go from starting to play an instrument to becoming an excellent performer?", "Which physiological changes take place in the process of becoming excellent?", "What is the best way to achieve excellence?" and "Why do so few people who start to play an instrument become excellent performers?".

He then explained that the key question within this event was how to use the technology to enhance music learning. It was not about substituting regular music education but rather complementing it and facilitating learning.



*This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 688269*



*Figure 1: TELMI Coordinator welcoming the participants to the Start-up Public Event*

### **3.2 Workshops**

Figures 2 and 3 show two of the three groups of participants involved in the Workshop Session. Each group was lead by a member of the TELMI Consortium and was formed mainly of violin students and teachers. Participants were asked to discuss the following questions:

- Which technologies do you use already? Apps, tuner, YouTube...
- What technologies would you need? Considering that you could ask an engineer for anything to be developed...

After 15 minutes of discussions, each group presented their conclusions to the rest of the participants.

Then, Joao Costa (HIGHSKILLZ) presented the Storyboard developed in Task 5.1 (see TELMI D5.1: Co-Creation Cookbook) and received feedback from the audience regarding the approach that is being considered in the TELMI Project.

Finally, Alfonso Perez (UPF) offered a presentation of three prototypes that have been developed within the MTG Group, which were later tried by participants in the lab. The first demo was based on



*This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 688269*

sensors for measuring gestures, the second demo based on audio analysis, and the third demo based on the Microsoft Kinect.



*Figure 2: Groups participating in the Workshop Session*



*This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 688269*



*Figure 3: Groups participating in the Workshop Session*

### **3.3 Teachers' recordings**

In Figure 4, UPF members are explaining to one of the violin teachers involved in the recordings how the system works and what pieces they would like him to play. Figure 5 shows a detail of the sensors included on the violin used in the recordings.

In particular, they were asked to play single notes with different timbres, a musical scale with different characteristics (*legato*, *staccato*, etc.), and an excerpt of a violin concert with three degrees of expressiveness.



*This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 688269*



*Figure 4: UPF members explaining some details about the recordings to a violin teacher*



*This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 688269*



*Figure 5: Detail of the sensors included on the violin used in the recordings*

### **3.4 RCM Presentation**

RCM presented on “New perspectives on performance education” via videoconference (Figures 6 and 7).

Aaron Williamon first identified the gap between the physical spaces where performers have to acquire their skills and the spaces where they will have to execute them. Just as surgeons may train in a mock operating room, the RCM creates simulations of performance spaces to allow musicians to experience and prepare for real performing situations, including recitals, exams, and auditions. They also record these sessions so that the students can review their performances and offer coaching sessions to help develop performance skills .



*This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 688269*

Afterwards, George Waddell presented the vision of the TELMI Project from RCM perspective. He identified the main objectives of the project as: helping teachers extend their influence in the practice room and make the most of one-to-one contact, making practice more efficient and helping musicians make the most of their own time, helping students practise safely, and becoming better musicians overall.

The full video of this presentation will be soon available at <https://vimeo.com/telmiproject>.



*Figure 6: RCM Presentation*



*This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 688269*



*Figure 7: RCM Presentation*

### **3.5 Participants trying TELMI Prototypes**

Violin students were also able to try the violins with sensors that had been used for the teachers' recordings (Figures 8 and 9). On the screen they could view information about their performance in real-time (Figures 10 and 11). Several videos of violin students trying TELMI Prototypes are available here: <https://vimeo.com/album/4065933/>.

In particular, they could view bowing visualizations using Polhemus sensors (UPF), pitch tracking with score (UPF), and arch tracking using Kinect (UNIGE).



*This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 688269*



*Figure 8: Violin students trying TELMI Prototypes*



*Figure 9: Violin students trying TELMI prototypes*



*This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 688269*



*Figure 10: Violin students trying TELMI Prototypes*



*Figure 11: Violin students trying TELMI Prototypes*



*This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 688269*

## 4. Conclusions

The event was considered very fruitful by the all the participants and the TELMI Consortium. It was considered well-organized and important contacts for on-going collaborations within the project were made.

All of the participants were willing to participate in further events related to the TELMI project, and relevant feedback from teachers and students was collected by all the partners in relation to WP2, WP3, WP4, WP5, WP6 and WP7.



*This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 688269*

## 5. Appendix A: Agenda of the Event

### First Public Event meeting

Date	1st of July
Organizer	UPF / SAICO
Location	Universitat Pompeu Fabra, Communication Campus - Poblenou
Purpose	Disseminate the objectives of the projects and receive feedback from teachers and students
Related WP	WP7

#### Location

Communication Campus-Poblenou

Universitat Pompeu Fabra

Tanger, 122-144 (3rd floor)

08018 Barcelona

Spain

#### Draft Agenda

**11.00 – 11.30:** Welcome: TELMI Overview

**11.30 – 14.00:** Workshops & Teachers' recordings

**14:00 – 15:00:** Lunch (Free for all the registered participants)

**15:00 – 16:00:** Presentation: TELMI prototypes (Universitat Pompeu Fabra)

Presentation: New perspectives on performance education (Royal College of Music)

**16:00 – 17:00:** Sound Boulevard Concert



*This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 688269*