Interactive Music Science Collaborative Activities

Fact Sheet

Project Information

iMuSciCA

Grant agreement ID: 731861

Funded under
H2020-EU.2.1.1.

Project website

Status
Closed project

Overall budget
€ 3 224 970

EU contribution
€ 2 673 745

Start date
1 January 2017

End date
30 June 2019

COORDINATED BY
ATHINA-EREVNIKO KENTRO
KAINOTOMIAS STIS
TECHNOLOGIES TIS
PLIROFORIAS, TON
EPIKOINONION KAI TIS GNOSIS
Greece

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RESEARCH*EU MAGAZINE
Infusing the digital into European education

NO. 91, APRIL 2020
Objective

iMuSciCA will – through engagement in music activities – support mastery of core academic content on STEM subjects (Physics, Geometry, Mathematics, and Technology) for secondary school students (aged 12-16) alongside with the development of their creativity and deeper learning skills. To reach this goal, iMuSciCA introduces new methodologies and innovative technologies supporting active, discovery-based, collaborative, personalised, and more engaging learning. These technologies provide students and teachers with opportunities for collaboration, co-creation, and collective knowledge building. In particular, iMuSciCA will deliver a suite of software tools and services on top of market-ready new enabling technologies integrated on a web-based platform. These include: a 3D design environment for personalized virtual musical instruments; advanced music generation and processing technologies to apply and interpret related physics and mathematics principles; gesture and pen-enabled multimodal interaction functionality for music co-creation and performance; and 3D printing for realizing the actual/tangible physical instrument. The platform will be complemented with a suite of interdisciplinary project/problem based educational scenarios for STEAM integrating innovative and stimulating methods in teaching and learning. The iMuSciCA framework will be pilot-tested and evaluated in real learning contexts by a substantial number of students and teachers in three European countries (Belgium, Greece, and France). The project will be implemented in close collaboration of academic and industrial partners, bringing together existing technologies and promoting ground-breaking research in STEAM pedagogy and the involved core enabling technology. As such, iMuSciCA will be a pioneering approach using music for fostering creativity and deeper learning, thereby setting new grounds in the European curricula of STEAM.

Field of science

/natural sciences/mathematics
/social sciences/educational sciences/pedagogy/teaching
/social sciences/educational sciences/pedagogy

Programme(s)

Topic(s)

Call for proposal

H2020-ICT-2016-1
Funding Scheme

RIA - Research and Innovation action

Coordinator

ATHINA-EREVNITIKO KENTRO KAINOTOMIAS STIS TECHNOLOGIES TIS PLIROFORIAS, TON EPIKOINONION KAI TIS GNOSIS

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Website  
Contact the organisation

Participants (7)

UC LIMBURG

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Website  
Contact the organisation

ELLINOGERMANIKI AGOGI SCHOLI PANAGEA SAVVA AE

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Website  
Contact the organisation

INSTITUT DE RECHERCHE ET DE COORDINATION ACOUSTIQUE MUSIQUE - IRCAM
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<td>Cl Ramon Berenguer El Vell 6 P 3 Pta 3 08001 Barcelona</td>
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UNIVERSITE DE FRIBOURG

Switzerland

EU contribution
€ 0

Address
Avenue De L Europe 20
1700 Fribourg

Activity type
Higher or Secondary Education Establishments

Website Contact the organisation

Last update: 23 May 2017
Record number: 206030

Permalink: https://cordis.europa.eu/project/id/731861/

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