

Erasmus+





"If you Imagine it you can Create it"

2020-1-IT02-K226-SCH-095525 LAYING WITH PROTONS GOES DIGITAL



"We strongly believe education is the base for a wiser and more advanced society and a better future"

http://augmentedreality.education ©2020 CreativiTIC Innova SL Enara Artetxe González Jorge R. López Benito

eartetxe@creativitic.es jrlopez@creativitic.es CreativitIC We Make Things Happen!!! WWW.creativitic.com SME founded in 2011 and located in Basque Country & La Rioja (Spain) specialized in Interactive Technologies (AR/VR) for industry, medtech and educational projects; with innovative methodologies and digitalization of the learning process



1 MedTech Patent 3 Technical Books +30 International Articles









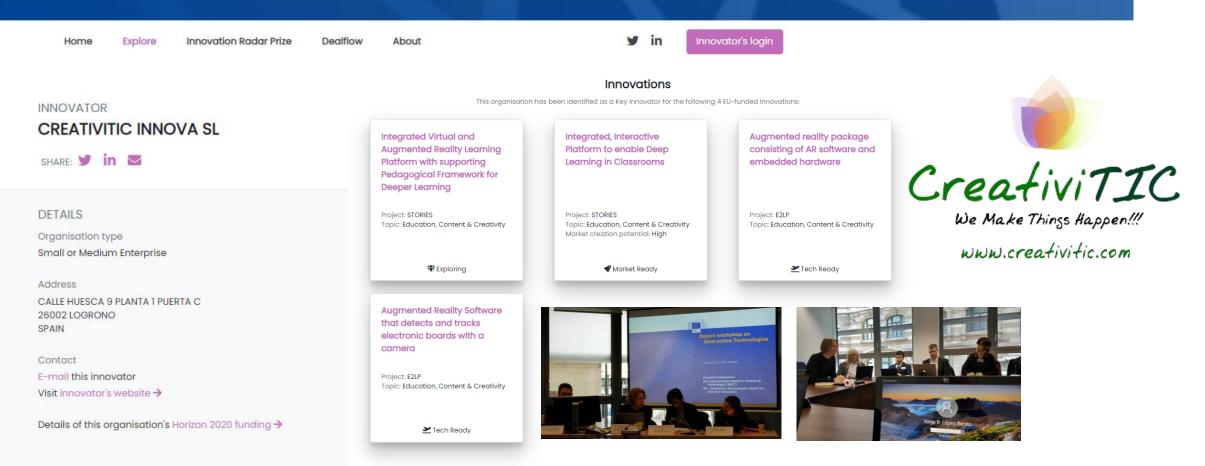




European Commission > Horizon 2020 > Innovation Radar >

Discover Great EU-funded Innovations

Key Innovators in Augmented Reality and Deeper Learning



- PATENT : "System medical imaging #HoloDeck4D" N°ES2649789 2019
- CHAPTER : User-Driven Intelligent Interface on the Basis of Multimodal Augmented Reality and Brain-Computer Interaction for People with Functional Disabilities: Proceedings of the 2018 Future of Information and Communication Conference (FICC), Vol. 1 – 2019
- ARTICLE : A Storytelling Platform for Deeper Learning in STEM Combined with Art-Related Activities. International Journal of Education and Learning Systems – 2018
- ARTICLE : Aportaciones de la Realidad Aumentada en la inclusión en el aula de estudiantes con Trastorno del Espectro Autista. EDMETIC, Revista de Educación y TIC – 2018
- ARTICLE : An experience of the application of Augmented Reality to learn English in Infant Education. International Symposium on Computers in Education (SIIE) – 2017
- ARTICLE : Augmented Coaching Ecosystem for Non-obtrusive Adaptive Personalized Elderly Care on the basis of Cloud-Fog-Dew computing paradigm. 40th International Convention on Information and Communication Technology, Electronics and Microelectronics (MIPRO) – 2017
- CHAPTER : Realidad virtual e imagen 4D holográfica como nuevas técnicas de imagen inmersiva para simplificar la comprensión visual en actividades de formación en imagen médica. Innovación Educativa del área de Radiología y Medicina Física – 2017
- PAPER : Augmented reality for emotional and social development at Early Childhood. CINTE'16 -Congreso Internacional de Nuevas tecnologías y tendencias en la Educación – 2016
- ARTICLE : Leihoa: A window to augmented reality in early childhood education International Symposium on Computers in Education (SIIE). Aquilafuentes, 222 – 2016
- PAPER : Augmented Reality as a tool for teaching chemistry at the school. EuCheMS Chemistry Congress – 2016
- PAPER : Virtual Reality and 4D Holography as new immersive imaging technologies to simplify visual understanding of brain diseases. Basque Neuroscience Meeting, Neurogune – 2016
- PAPER : Augmented caRer! A Therapeutic Technology for patients with Autism Spectrum Disorder (ASD). eHealth European Congress – 2016
- PAPER : HOLODECK, The 4D Holographic Desk for Clinical Diagnosis in Nuclear Medicine. eHealth European Congress – 2016
- CHAPTER : Augmented Reality Interface for E2LP: Assistance in Electronic Laboratories Through Augmented Reality. Advances in Intelligent Systems and Computing: 'Embedded Engineering Education'. Springer International Publishing – 2016
- ARTICLE : E2LP: A unified embedded engineering learning platform. Microprocessors and Microsystems 38 – 2014
- ARTICLE : Engaging Computer Engineering Students with an Augmented Reality Software for Laboratory Exercises. Frontiers in Education Conference (FIE) – 2014
- ARTICLE: Learner-Centered Evaluation of an Augmented Reality System for Embedded Engineering Education. Federated Conference on Computer Science and Information Systems – 2014
- ARTICLE : Unified education platform for embedded systems. IEEE Global Engineering Education Conference EDUCON – 2014
- PAPER : Augmented Reality for Education. Virtualusatic 2014
- PAPER : Augmented Reality System for Training, Assistance and Decision Making in Real Time situations in the Embedded Electronic field. 5th Joint Virtual Reality Conference JVRC – 2013
- PAPER : Interfaz de Realidad Aumentada como herramienta de ayuda al aprendizaje en el campo de la electronica. Virtualusatic – 2013
- PAPER : E2LP: A Unified Embedded Engineering Learning Platform. 16th Euromicro Conference on Digital System Design DSD – 2013
- ARTICLE : A3R :: "Transporting the Augmented Reality User to Another Dimension Through the Sound". ICAT-EGVE- EuroVR JVRC – 2012

Augmented Reality Interface for E2LP: Assistance in Electronic Laboratories Through Augmented Reality

Enara Artetxe González, Florent Souvestre and Jorge R. López Benito

bstract This study presents an Augmented Reality Interface for englucation. The interface, designed to use Augmented Reality to facilitate composed of both specific software and hardware elements and provid ormation and assistance in Electronic Laboratories. The document for

Advances in Intelligent Systems and Computing 421 Roman Szewczyk Ivan Kaštelan Miodrag Temerinac Moshe Barak Vlado Sruk *Editors*

Embedded Engineering Education Realidad virtual e imagen 4D holográfica como nuevas técnicas de imagen inmersiva para simplificar la comprensión visual en actividades de formación en imagen médica Roberto Delgado-Bolton^{1,2,3}, Adriana K. Calapaquí Terán³, Jorge R. Lónez

Innovación Educativa del área de Radiología y Medicina Física

Benito⁴, Enara Artetxe González⁴

P García-Talavera, M Arenas, A Nájera, J Pereira

D Springer



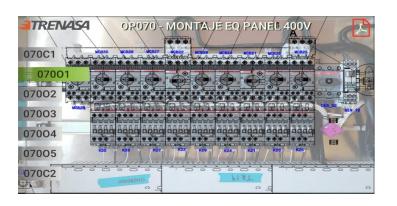
#Aerospace







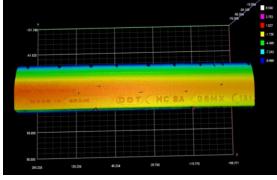




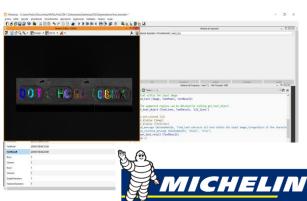


#Automotion











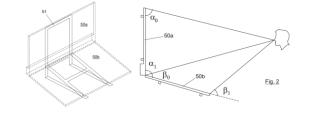
Multipurpose viewer that covers the 3D visualization problems professionals have to **understand complex concepts in any scope**

#HoloDeck4D Patent nº ES201630967

designed to **improve** the accuracy, speed and efficiency for **clinical diagnosis of MRI/MRT systems in Nuclear Medicine** (PET/TC) and Confocal Microscopy.

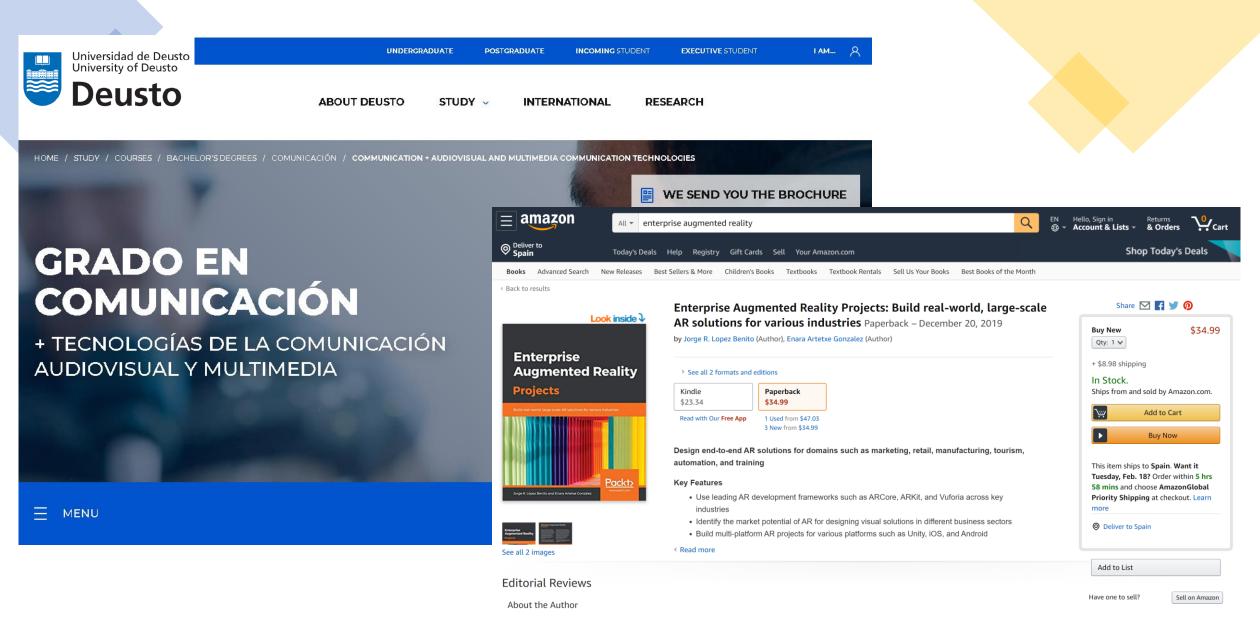
Rioia

Osakidetza









Jorge R. López Benito is a tech entrepreneur passionate about emerging and exponential technologies with more than 10 years of experience in researching and building Augmented Reality (AR), Virtual Reality (VR), and Artificial Intelligence (AI) products. In 2010, he became the co-founder and CEO of CreativiTIC, which focused on the research of disruptive technologies, new business models, and market innovation trends. He has been involved in several R&D projects throughout his career, including FP7 and H2020 European projects, and because of that, he was named as a Key Innovator in AR & Deep Learning Technologies by the European Commission; whom he also supports as an independent expert on interactive technologies to explore emerging trends and identify opportunities for impact across the industries, and also as a Jury Member at the European Innovation Council (EIC) Accelerator.



EXECUTIVE STAFF

We Make Things Happen!!!

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ADVISORY BOARD



Enara Artetxe González TELECOMMUNICATION ENGINEER

Next Generation Internet Researcher | Key Innovator in Augmented Reality & Deep Learning by Innovation Radar of European Commission





Jorge R. López Benito Changemaker entrepreneur

Business Strategy | Digital Innovator | Jury Member of European Innovation Council Accelerator and High Level Expert SME Instrument at European Commission







Ana Laín Torre, PhD PHD IN BIOLOGY

Project Management | Life Sciences Researcher | High Level Scientific Advisor | Expert Evaluator Marie Sklodowska-Curie Actions (ITN & IF) at European Commission



Jorge García del Arco Shared Value Entrepreneur

Social & Environmental Impact | Change Management | Former TEDx Licensee | Global Shapers Founding Curator by World Economic Forum







PROGRAMMA ERASMUS+ INVITO A PRESENTARE PROPOSTE 2020 - EAC/A02/2019 Esiti Partenariati strategici KA2 settore Istruzione scolastica Partenariati per l'Educazione Digitale KA226 Candidature pervenute alla scadenza del 29/10/2020

CODICE ATTIVITA'	TITOLO	TIPOLOGIA	ENTE/ISTITUTO	OID	СПТА'	PUNTEG GIO	ESITO	BUDGET APPROVATO €
2020-1-IT02-KA226-SCH-095543	Game Motivation Elevates Earned Learning	Innovation	ilmiolavoro srl	E10153943	Campli (TE)	100	APPROVATO	€ 290.597,00
2020-1-IT02-KA226-SCH-095699	Hybrid and Innovative digital aware Class	Innovation	I.I.S. A. VOLTA	E10151230	PESCARA	100	APPROVATO	€ 205.797,00
2020-1-IT02-KA226-SCH-094945	Keep In Touch. Innovative tools to build digital education readiness in Early Childhood Education.	Innovation	SOCIETA' COOPERATIVA SOCIALE ZAFFIRIA	E10203283	RIMINI	99	APPROVATO	€ 255.232,00
2020-1-IT02-KA226-SCH-095188	CAVE - Communication And Visual Education in homeschooling	Innovation	CISL SCUOLA E FORMAZIONE	E10260736	roma	99	APPROVATO	€ 297.705,00
2020-1-IT02-KA226-SCH-095305	DAta Literacy competences For Young students towards STEAM education	Innovation	Istituto Tecnico Economico e Tecnologico "Girolamo Caruso"	E10036569	Alcamo	98,5	APPROVATO	€ 267.048,00
2020-1-IT02-KA226-SCH-095596	Filling the Gap: Open Educational Resources for supporting teachers in distance learning	Innovation	IRECOOP EMILIA ROMAGNA SOC. COOP.	E10080320	Bologna	98,5	APPROVATO	€ 216.133,00
2020-1-IT02-KA226-SCH-095180	Digital Gamification E-Teams and E- Tutors for Co-careering	Innovation	UNIVERSITA DEGLI STUDI DI CAMERINO	E10208672	CAMERIN O	98	APPROVATO	€ 244.679,00
2020-1-IT02-KA226-SCH-095643	Blended Learning in English Language Teaching	Exchange of Good Practices	Liceo Classico Sperimentale "James Joyce"	E10197857	Ariccia	97,5	APPROVATO	€ 125.286,00
2020-1-IT02-KA226-SCH-095525	Playing with Protons Goes Digital	Innovation	ISTITUTO NAZIONALE DI FISICA NUCLEARE	E10209493	FRASCATI	<mark>97,5</mark>	APPROVATO	€ 298.615,00





Call 2020 Round 1 KA2 - Cooperation for innovation and the exchange of good practices

KA226 - Partnerships for Digital Education Readiness Form ID: KA226-0042D0DC Deadline (Brussels Time) 2020-10-29 12:00:00

ID	Activity Type	Starting Period	Description
1	Transnational Projects Meeting	06-2021	Kick-off Meeting
2	Intellectual Output	06-2021	The Playing with Protons Goes Digital Conceptual and Methodological Framework
3	Intellectual Output	09-2021	The Playing with Protons Goes Digital Handbook of Resources
4	Intellectual Output	09-2021	The Playing with Protons Goes Digital Online Platform
5	Transnational Projects Meeting	11-2021	2nd Project Meeting
6	Multiplier Event	01-2022	Playing with Protons Goes Digital in Action
7	Multiplier Event	01-2022	Playing with Protons Goes Digital in Action
8	Multiplier Event	01-2022	Playing in Protons Goes Digital in Action
9	Multiplier Event	01-2022	Playing with Protons Goes Digital in Action
10	Intellectual Output	05-2022	The Playing with Protons Goes Digital Assessment Guide and eTwinning toolkit
11	Intellectual Output	05-2022	The Playing with Protons Goes Digital Recommendations Handbook for School Leaders, Policy Makers & Stakeholders
12	Transnational Projects Meeting	06-2022	3rd Project Meeting
13	Short-term joint staff training events	06-2022	The Playing with Protons Goes Digital Summer School



1st year

ID	Leading Organisation	Meeting Title	Country of Venue	Starting Period	No. of Participants	Grant
1	ISTITUTO NAZIONALE DI FISICA NUCLEARE (E10209493, IT)	Kick-off Meeting	Italy	06-2021	8	3.450,00 EUR
2	CREATIVITIC INNOVA SL (E10262702, ES)	2nd Project Meeting	Spain	11-2021	8	4.970,00 EUR
3	THE UNIVERSITY OF BIRMINGHAM (E10209183, GB)	3rd Project Meeting	United Kingdom	06-2022	8	4.970,00 EUR
4	ELLINOGERMANIKI AGOGI SCHOLI PANAGEA SAVVA AE (E10212356, GR)	4th Project Meeting	Greece	12-2022	8	5.340,00 EUR
5	Fondazione IDIS-Città della Scienza (E10203664, IT)	Final Project Meeting	Italy	05-2023	8	3.450,00 EUR
Total					40	22.180,00 EUR

ID	Leading Organisation			Starting Period	Grant	
E1	ISTITUTO NAZIONALE DI FISICA NUCLEARE (E10209493, IT)			01-2022	2.000,00 EUR	
E2	ELLINOGERMANIKI AGOGI SCHOLI PANAGEA SAVVA AE (E10212356, GR)			01-2022	2.000,00 EUR	
E3	THE UNIVERSITY OF	Playing in Protons Goes Digital in Action	01-2022	2.000,00 EUR		
E4	CREATIVITIC INNOVA SL (E10262702, ES)		Playing with Protons Goes Digital in Action	01-2022	2.000,00 EUR	
	Event Title	Intellectual Outputs Covered				
	Playing with Protons Goes Digital in Action	The Playing with Protons Goes Digital Conceptual and Methodological Framework				
	Country of Venue			CreativiTIC		
	Spain	The Playing with Protons Goes Digital Handbook of Resources	Augmented Reality architect	S		
	Start Date (yyyy-mm-dd)	The Playing with Protons Goes Digital Online Platform	1 st	: year		
	2022-01-15	Leading Organisation				
	End Date (yyyy-mm-dd)	CREATIVITIC INNOVA SL (E10262702, ES)				
	2022-03-15					





ML1 (M6)

- A1 Project Management and A2 Quality Assurance Plan (M2)
- A3 Dissemination plan (M2)
- A4 Needs Analysis (M4)
- Project webpage (M5)
- Online environment specifications and features (M6)

ML2 (M12)

- Beta version of the online platform ready (M10)
- Delivery of first round of Multiplier Events (M12)
- Delivery of framework (M12)
- · Delivery of initial set of Playing with Protons Goes Digital activities (M12)
- Completion of international teachers' summer school (M12)

ML3 (24)

- Initial versions of Recommendations (M18)
- Initial version of Evaluation and eTwinning Toolkit (M18)
- Delivery of final set of Playing with Protons Goes Digital activities in Handbook (M23)
- Completion of second round of Multiplier Events (M23)
- Final version of the online platform ready (M24)
- Final version of Recommendations (M24)
- Final version of Evaluation and eTwinning Toolkit (M24)



	Intellectual Output	Period	Days	€	Estimated %	1st year	
1	The Playing with Protons Goes Digital Conceptual and Methodological Framework	06-2021 / 05-2022	40	5480	100%	40	5480
2	The Playing with Protons Goes Digital Handbook of Resources	09-2021 / 04/2023	40	5480	75%	30	4110
3	The Playing with Protons Goes Digital Online Platform	09-2021 / 05-2023	50	6850	80%	40	5480
4	The Playing with Protons Goes Digital Assessment Guide and eTwinning toolkit	05-2022 / 05-2023	40	5480	0	0	0
5	The Playing with Protons Goes Digital Recommendations Handbook for School Leaders, Policy Makers & Stakeholders	05-2022 / 05-2023	20	2740	0	0	0
			190	26030	58%	110	15070

	Intellectual Output	Task	Needs and extended task explanation
1	The Playing with Protons Goes Digital Conceptual and Methodological Framework	The role of AR/VR elements in education.	Coordination with the rest of the partners to provide not only a general approach of AR/VR to education but specific definitions on how to make the best use of the Augmented Class! Platform and its possibilities.
2	The Playing with Protons Goes Digital Handbook of Resources	AR/VR games and activities	Use cases and examples from other partners to provide dedicated demos. Multimedia content (3D, videos etc.) to integrate in the
3	The Playing with Protons Goes Digital Online Platform	Incorporating an AR/VR element into the platform	Coordination with the rest of the partners to adapt the existing platform Augmented Class! to meet the requirements of the project. Extra features for the integration (e.g. QR codes to map the points with AR projects)

	Intellectual Output	Task	Needs and extended task explanation
4	The Playing with Protons Goes Digital Assessment Guide and eTwinning toolkit	Assessment of technology (AR/VR)-enhanced activities	Coordination with the rest of the partners to create a homogeneous assessment guide.
5	The Playing with Protons Goes Digital Recommendations Handbook for School Leaders, Policy Makers & Stakeholders	Identification of areas in the national educational policies in Greece, Italy, Spain and the UK that can incorporate elements of the Playing with Protons Goes Digital open schooling strategies. Playing with Protons Goes Digital and engaging with local educational stakeholders	CreativiTIC will collaborate with its experience with different Spanish schools and institutions to select the best educational stakeholders for this output to include in the recommendations handbook.



Augmented Class!

The MIXED REALITY UNIVERSE where Children, Teachers and Parents LEARN and have FUN together!



Augmented Class! is a platform that allows users to create their own augmented reality educational projects without any technical knowledge

OUR SOLUTION ELIMINATES BARRIERS UNIVERSALIZING THE ACCESS TO AUGMENTED AND VIRTUAL REALITY IN A LEARNING



Education-Oriented

Adaptable

Interactive

From the beginning has an educational target.

Allows users to create, edit and visualize their own AR projects, doing it by themselves.

Interactions help better concept understanding and gamifying the learning process.



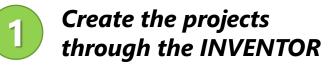
Augmented Class!







USERS *Teachers, Educators, Students, Parents etc.*







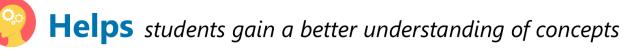
Visualize and share the AR/VR through the different VIEWERS



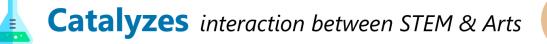
KEYS

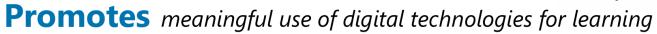
Augmented Class!

EASY "No technical knowledge required"
FAST "Create projects in just a few clicks"
INTUITIVE "For all ages and educational fields"



Fosters intellectual curiosity, creativity & team work



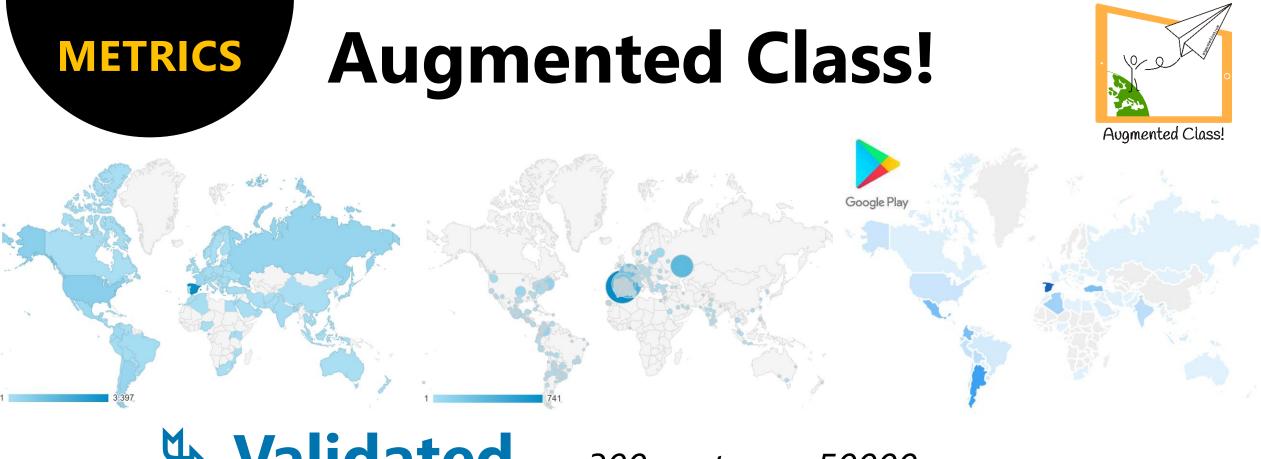


Engages educational community to grow and share









Validated > 300 centres > 50000 users
Worldwide > downloads in 113 countries
Growing > exponential new USERS every day



augmented class.com





2020-1-IT02-K226-SCH-095525 PLAYING WITH PROTONS GOES DIGITAL

November 2021 WELCOME BILBAO!!!

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