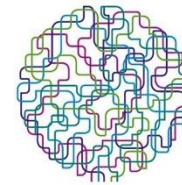


TR Associates Ltd
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This presentation is for

- Workshop 1** Big Data
- Workshop 3** Photonics and Micro-and-Nanoelectronics
- Workshop 2** Robotics
- Workshop 4** internet of Things

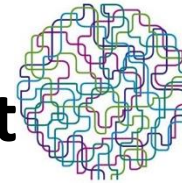
Description of the Organization



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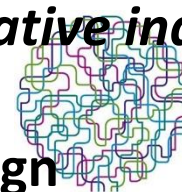
- **TR Associates Ltd.** is an Innovation minded company, with intensive Research & Development activities and consultancy/training services.
- Pioneer in the the process of Open Innovation established in Malta in August of 2008 as the founder of the European Network of Living Labs.
- The main mission is to bringing open innovation from IDEA to the marketplace in the different areas of the applications (smart cities , ageing society, education, digital media and creative industry).
- Large partnership with the international and local stakeholders, incorporated with academia, government, associations and industry.
- The company owner attended in few co-working EU RTD projects, untitled: CoSpaces, Collaboration@Rural , EcoSpaces with his Living Labs, involving start-ups, engineering and university teams under FP6.
- Two European Innovation prizes has been awarded in 2010 and 2011 by their augmented reality + artificial intelligence tech. combined DINOS for Smart Cities application.
- As of the main outcomes of the VET4Startup Erasmus+ projects, two staff members received their certificates as European Startup Advisors in October. 2015 (www.vet4startup.eu)

Description of the your research interest



- **Project title: Processing an adaptive 3D body model from anthropometric skeleton applied to fashion design**
- **Goals:**The development of an advanced clothing simulation software and Augmented Reality presentation system and a web based virtual fitting room for the Fashion Show.
- The main elements of the project is to build :
- an Human body sizing Infrastructure, to solve the sizing problem (non-uniformity of size designations)
- an advanced Customised Clothing Infrastructure enabling the production and distribution of custom-made garments at reasonable prices, in short time and with a close to perfect fit (intelligent pattern alteration software, order clustering and CAD standards)
- an innovative Augmented Reality based Virtual Fashion Show Infrastructure enabling customers to visualise realistic models of themselves wearing clothes
- Generic body representations and standards (a Standard Anthropometric Skeleton Database)
- Integration of current state-of-the-art systems (3D scanner, Augmented Reality, Virtual Fashion Show applications) in the form of across the value-added chain demonstrators.

TITLE: Processing an adaptive 3D body model from anthropometric skeleton applied to fashion design



Objectives:

- To achieve the main goals, the development and combination of 4 modules of the state-of-the art technologies will ensure a harmonic and coherent cooperation of the different modules:

Main steps: To build **4 main Modules independently**

- Module 1: **Smart capturing suit**
- Module 2: **Poly-mimetic smart Paris Doll**
- Module: **3D scanner app and adaptation**
- Module: **Capturing and Design software development**

To **integrate the 4 modules into a Platform which will serve further development for open community of designers**

The Platform and his real time functionality can be tested/evaluated in various environments, at least in three-four countries in Europe (TBC) , Africa (Tunisia) , Middle East (UAE/Dubai) and Latin America (Sao Paulo, Brazil).

Expected results

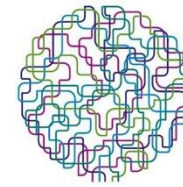
- - a complex solution for fashion designers to be able to work with the desired fashion models remotely and virtually.
- To be connected remotely to the model and the designer, where the model can also see the design on the screen in the distance.
- They can make custom positions and movements, that are captured in real time and both side can work, like they were next to each other.
- To build a virtual reality fashion show, with all the desired models presenting the designs in the virtual world.
- The set up of such show can be done carefully, by designing the environment, managing the invitations.
- There can be a shopping possibility, so participants can even order and pay for the desired designs, while watching the show in virtual space.

Consortium - profile of known partners *(if any)*



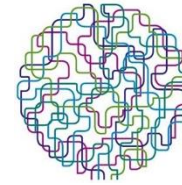
No	Partner Name	Type	Country	Role in the Project
01	TR Associates Ltd	SME	Malta	Project Coordination, Exploitation, Business Model and Business Plan
02	NETIpar Ltd	SME	Hungary	Software user interface design (DOS), User Experience Design (UD), UNITY 3D skills
03	Tunisian Association of Textile Researchers	NGO	Tunisia	Leading the Tunisian trial, Contact with the Tunisian industrial partners and main stakeholders
04	Higher Institute of Computer Science and Multimedia, University of Sfax	RTD	Tunisia	Digitizing the surface of a tested person's body, using the optical scanning system 3D, accurate surface reconstruction procedures for obtaining an optimal surface description of a scanned body and developing a generalized adaptive 3D body model for the purpose of posture adaptation.
05	PMO Polymer Ltd.	SME	Brazil	Global Market Study, Direct contact to the industry in Latin America, Innovation and Sustainability aspects

Consortium - required partners



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No	Expertise	Type	Country	Role in the project
01		RTD		<u>Functional Clothing- Definition and Classification</u>
02		SME		<u>Parameterization and parametric design of mannequins</u>
03		SME		<u>Virtual People: Capturing human models to populate virtual worlds</u>
04		IND		Trials and evaluation Europe
05		IND		Trials and evaluation Brazil
06		IND		Trials and evaluation in UAE
07				
08				



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