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<http://www.viva-porto.pt/Em-Destaque/inesc-tec-recebeu-32-milhoes-de-euros-de-financiamento-para-desenvolver-sistemas-inteligentes.html>

## **INESC TEC received 3.2 million euros of funding to develop intelligent systems**

Friday, 29<sup>th</sup> July 2016 1:45pm

The Institute for Systems and Computer Engineering, Technology and Science (INESC TEC), in Porto, received 3.2 million euros of funding to develop intelligent systems in the areas of transport, infrastructure, creative and manufacturing industries and multimedia.

TEC4Growth, one of the projects funded by the North 2020 program, aims to create complex tools to solve problems of interaction between different systems, some with autonomy of decision, and to put them in fusion with the human intervention.

The program is divided into three lines of research, interrelated, according to what the coordinator Vladimiro Miranda said to Lusa, "with what is understood by Internet of Things", which means, "in a simplified way", "addressing real-world objects and integrating them so they can be treated by information systems".

In Smiles, the first line, researchers are developing theoretical and fundamental concepts, geared towards dealing with large data ('big data'). The models will be tested in the areas of transport and infrastructures, aiming "greater efficiency, security and privacy".

This investigative block involves the use of the massive flow of data generated by automated information exchanges between vehicles equipped with on-board computer, sensors installed in road infrastructures - to detect movements or avoid collisions -, dynamic traffic light shifts, automatic license plate recognition and tolling, for example.

Smiles results feed the other two lines of research, one of which is FourEyes, which applies these concepts to the creative and multimedia industries.

"The extraction of knowledge from the data stream, automatically, is an example of what you can do in this line, which also includes issues related to communications and virtual, physical and augmented reality" and that will impact the creation of content and the business model of the companies in this sector.

Iman is the third focus of this research, following the "same philosophy of utilizing large volumes of data", applied, in this case, to the manufacturing industry in process optimization and industrial robotics, "reflecting in the creation of qualified employment and production of greater added value".

At this point, the question of transports is again raised due to the movement of goods and trucks, which dynamic planning also implies a great deal of data traffic, in real time.

TEC4Growth will run for three years and end in June 2018 and has a total investment of 3.8 million euros, a figure supported by INESC TEC (almost 600 thousand euros), which Vladimiro Miranda considers to be a "violent self-financing".

According to the responsible, "if we were a for-profit company and had access to financial results, due to the commercialization of the products we manufacture, one could understand this logic, but, if not, for a science institution like ours, it is difficult to survive this effort as if we were a lucrative institution".