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Krystian Kwiecinski is a PhD student from Warsaw University of Technology that collaborates in this research. The project evolved recently to a submission to FCT transnational projects in a collaboration with Universidade Federal do Rio de Janeiro. To this submission a new ISTAR collaborator José Pinto Duarte, expert in shape grammars, was added to the team.

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Developing and assessing shape grammar design systems

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Abstract

The ongoing and future research focus on the developing and assessing shape grammars design systems for architecture. The work started by the join paper from Eloy (ISTAR-IUL), Vermaas (TU Delft) and Andrade (ISTAR-IUL) (Eloy, Vermaas, & Andrade, n.d.) where the quality of designs generated by shape grammar systems with designs created by professional architects was compared. In this work authors collaborated in defining and analysing an experiment in which evaluators rank the quality of preliminary designs for refurbishing Lisbon's *Rabo-de-Bacalhau* apartments, and that makes plausible that the design quality of the grammar solutions for this task is similar to that of the designs of the professional architects. It was argued that shape grammars can therefore be used as stand-alone design systems in architecture. The practical value is that shape grammar systems become alternative means to

take up design challenges (such as refurbishing all of Lisbon's Rabo-de-Bacalhau apartments) that currently require too much effort of architects to be economically feasible.

In the scope of the developed work the three authors joined a consortium composed by TU Ghent, ISCTE-IUL, TU Delft, SWAP, MVRDV, ARUP and Caramel for a call proposal to H2020 ICT-20-2017. The proposal project aims at bringing out creative architectural design content as smart digital data, and making this data effectively re-usable across different use-cases, offices and purposes. The project shall create a design engine that can work with given datasets and shape grammar rule sets to generate diverse alternative design solutions. The designs generated by the engine are customized since they responds to specifically selected architectural design language, to building regulations and to a particular architectural design brief.

In this H2020 proposal the team of ISCTE-IUL was composed by Eloy, Andrade and Lopes. Within the project workplan the task and collaboration between the ISTAR group was the following: Sara Eloy tasks were related to architectural design and shape grammar design rules definition, Pedro Faria Lopes collaborated on the interface design and tests, Marina Andrade was part of the team for developing the experimental settings and performing statistical analysis.

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Analysis of the state of the information security conscience in Portugal

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Abstract

The growing number of organizations that are dependent of information and communication technologies (ICT) to conduct their business processes is increasingly larger. ICT allows businesses to be more efficient, offer better services to customers, provide better process integration with partners and suppliers and develop new products. However, all of these ICT-powered opportunities are followed by much bigger challenges. One of the most relevant challenges organizations have to face nowadays concerns the growing number of menaces that this digital infrastructure has to endure and the investment necessary to provide the required protection measures that will allow its flawless operation.

The enormous security challenges that organizations face currently raise questions about the extent to which organizations are ready to tackle them. These questions are relevant, not only from a purely technical perspective (that is, to what extent organizations have the technical means to address security challenges) but also from other perspectives such as organizational awareness of these challenges and the knowledge needed to recognize and address them.

Thus, it is important to understand, in particular in the Portuguese context, how cybersecurity is tackled, and what measures Portuguese organizations take (or intend to take) in the near