## Application of a Software Agility Assessment Model – AgilityMod in the Field

Özden Özcan-Top<sup>1</sup> and Onur Demirors <sup>2,3</sup> <sup>1</sup> Dundalk Institute of Technology, RSRC, and Lero, Dundalk, Ireland <sup>2</sup> Department of Computer Engineering, Izmir Institute of Technology, İzmir, Turkey <sup>3</sup> School of Computer Science and Engineering, University of New South Wales, Sydney, Australia ozden.ozcantop@dkit.ie; onurdemirors@iyte.edu.tr

**Abstract.** Adoption of agile values and principles and transformation of organizations towards agility are not easy and straightforward. Misinterpretation of agile principles and values, and adoption of partial solutions with few agile practices instead of holistic approaches prevent organizations to obtain full benefits of agile methods. We developed the Software Agility Assessment Reference Model (AgilityMod) for the appraisal of software projects from agility perspective and to provide guidance on specifying gaps on the road towards agility (agile maturity). The meta-model of AgilityMod was defined in relation with the ISO/IEC 15504-Process Assessment Model. AgilityMod was developed in an iterative and incremental manner by running successive case studies and getting opinions of experts for the evaluation and improvement of the Model. The multiple case study that we present here in detail included the implementation of the Model in eight software development companies. The results of this case study were evaluated by the case study participants. According to the significant majority of the case study participants, AgilityMod achieves its purpose.

Keywords: Agile Software Development; Agility Assessment; Reference Model; AgilityMod.

## Due to the copyright laws, we can't provide the paper here. Please follow the link below for the full paper.

https://www.sciencedirect.com/science/article/abs/pii/S0920548917303616?v ia%3Dihub

## Acknowledgement

This research has been partially supported by Scientific and Technological Research Council of Turkey (TÜBİTAK), grant number 113E528 and has also been partially supported by the Science Foundation Ireland under a co-funding initiative by the Irish Government and European Regional Development Fund through Lero - the Irish Software Research Centre (http://www.lero.ie) grants 10/CE/I1855 & 13/RC/2094.

We would like to thank Onat Ege Adalı for conducting the additional three case studies which ensured the reliability of the Model.