<table>
<thead>
<tr>
<th><strong>Title</strong></th>
<th>Decision-Making In Agile Software Development Teams: Solving the Optimal Timing Problem</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Authors(s)</strong></td>
<td>O Riordan, Niamh; Acton, Thomas; Conboy, Kieran; Golden, Willie</td>
</tr>
<tr>
<td><strong>Publication date</strong></td>
<td>2012-06-13</td>
</tr>
<tr>
<td><strong>Conference details</strong></td>
<td>InterTradeIreland All-Island Innovation Programme 2012 Annual Conference: Exploiting Industry and University Research, Development and Innovation: Why it Matters, Institute for Business, Social Sciences and Public Policy National University of Ireland, Galway, 12 – 13 June 2013</td>
</tr>
<tr>
<td><strong>Item record/more information</strong></td>
<td><a href="http://hdl.handle.net/10197/7378">http://hdl.handle.net/10197/7378</a></td>
</tr>
</tbody>
</table>
Book of Abstracts


InterTradeIreland All-Island Innovation Programme
2012 Annual Conference

Exploiting Industry and University Research, Development and Innovation: Why it Matters

Institute for Business, Social Sciences and Public Policy
National University of Ireland, Galway

Tuesday 12 and Wednesday 13 June 2012

This Conference is supported by InterTradeIreland as part of the All-Island Innovation Programme. The InterTradeIreland All-Island Innovation Programme aims to promote and encourage innovation across the island of Ireland. It brings international expertise in innovation to Queen’s University Belfast, National University of Ireland, Galway, University College Dublin and University College Cork. Best international practice is shared with business leaders, academics, students, knowledge transfer professionals and policy makers in each region via innovation conferences, lectures, seminars and master classes. The events, which take place in Belfast, Dublin, Galway and Cork each year, are attended by over 1,000 business leaders, policy makers, academics and students from across the island of Ireland. The Programme is organised by InterTradeIreland, Queen’s University Belfast, University College Dublin, the Institute for Business, Social Sciences and Public Policy at NUI Galway, and University College Cork.

For further information, please visit www.intertradeireland.com
Decision-Making in Agile Software Development Teams: Solving the Optimal Timing Problem

Dr. Niamh O Riordan, Institute for Business, Social Sciences and Public Policy, J.E. Cairnes School of Business and Economics, National University of Ireland, Galway. Email: niamh.oriordan@nuigalway.ie

Dr. Thomas Acton, Institute for Business, Social Sciences and Public Policy, J.E. Cairnes School of Business and Economics, National University of Ireland, Galway & Lero

Professor Kieran Conboy, Australian School of Business, The University of New South Wales, Sydney and Institute for Business, Social Sciences and Public Policy, J.E. Cairnes School of Business and Economics, National University of Ireland, Galway & Lero

Professor Willie Golden, College of Business, Public Policy and Law, National University of Ireland, Galway

Agile methods are a recent but widely diffused innovation in Information Systems development (ISD). Agile methods call for the creation of organic, flexible and empowered teams who work in active and close collaboration with customers over a series of rapid development iterations. Agile methods can deliver productivity and quality gains by improving task prioritisation, design flexibility, and communication and coordination within and across teams. However, teams must overcome a range of obstacles if these advantages are to be realised. In particular, decision-making in agile settings is challenging, decentralised and pluralistic, frequent and short-term, dynamically complex (decisions are highly inter-related), time and resource constrained, often unstructured, and minimally documented. As such, there have been repeated calls for research on decision making in agile settings.

Partnering closely with industry partner companies, our proposed study builds upon the findings of a set of pioneering studies on agile decision making carried out at NUI Galway (cf. Drury et al., 2011a, 2011b, 2012; see also Maurer and Zannier, 2007) that suggest the need to focus future research efforts on decision making processes in agile teams. It is also informed by the results of a preliminary focus group (carried out in December, 2011), which identified temporal problems as one of the main barriers to success in agile software development. In particular, this study addresses the following research question: how can agile teams optimise the timing of decision-making tasks?

The study employs a sequential mixed methods approach to answer this question. The first phase of the study is designed to generate a rich understanding of the temporal dimensions of decision-making processes in agile teams. This component of the study will include, for example, an analysis of the speed at which individual decisions are made in agile teams, the overall tempo or velocity of decision making processes in agile teams, and coordination or timing issues in decision making in agile teams. The second component of the study is a quantitative, survey-based investigation of relationship(s) between the temporal dimensions of decision making and decision quality in agile settings.

We anticipate that the study will contribute to research on agile methods by presenting much-needed empirical data on how decisions are actually made in agile settings. At the same time, its findings will be of significance to the broader field of decision support, as they will identify best practices for supporting decentralised decision-making in dynamic contexts. Perhaps most crucially from the perspective of this conference, its findings will be
immediately applicable to agile practitioners wishing to improve team performance by optimising decision-making processes.

*Acknowledgement:* This research is supported by the Irish Social Sciences Platform (ISSP), funded under the Programme for Research in Third Level Institutions, administered by the HEA and co-funded under the European Regional Development Fund (ERDF).