ABSTRACT
Innovative University/Industry interactions are examined in this open event with the aim of providing inputs to an international project that is being funded through the United Kingdom’s Teaching Fellowship Scheme. These inputs will support the first stage of the project which is concerned with gaining knowledge of industrial Software Engineering practices and the development of a framework that can be used in the classification and evaluation of such practices.

Categories and Subject Descriptors

General Terms
Management, Measurement, Performance, Standardization.

Keywords

1. THEME AND CONTEXT
The theme for the event is “Bridging the University/Industry Gap”. It will provide a forum for the participants to undertake an examination of the many types of interaction that can occur between Universities and Industry. It will also allow an opportunity to exchange opinions and views on the key issues that relate to each type of interaction.

The event is intended to provide the second participative input into an international project that is being funded through the United Kingdom’s National Teaching Fellowship Scheme (NTFS). A major aim for the overall NTFS project is to develop guidelines and recommendations regarding the identification of proven industry-related best practices and the incorporation of the treatment of these into both undergraduate and post-graduate computing curricula (including curricula that relate to maintenance of competence for existing professionals).

The preliminary work for the project, in which the participants at SSEE III will play a major part, is concerned with the development of a formalised framework that will be used to support not only the documentation of University/Industry interactions but also future evaluations of such interactions and the industry practices that the interactions have highlighted.

2. OBJECTIVES
The prime objectives for the event are to:

• Explore the interactions between industry and academia that will enable knowledge to be gained of industrial Software Engineering practices.

• Evaluate the draft framework generated from the work undertaken at the preliminary event which is to be held during the Conference on Software Engineering Education and Training (CSEE&T 2006) in Hawaii.

• Identifying any further areas in Software Engineering where best practices are most likely to be found.

• Identifying any additional mechanisms that could be used in the analysis of the interactions between industry and academia and which would assist in the classification and evaluation of industrial Software Engineering practices.

• Produce an enhanced framework to support evaluation activities.

3. INPUTS AND PROCESS
Potential participants were invited to submit Experience Reports/Position Papers addressing an innovative University/Industry interaction. In their papers they were directed to highlight: successes/failures (highs/lows), lessons learnt, and what was gained by both parties. These Report/Position Papers and short presentations based on them will form major inputs to the workshop. In addition, there will be inputs in the forms of:

• Proformas, which each participant will be expected to complete, which summarise an interaction and the major(s) issues associated with it.
• The post-workshop report from a preliminary event which is to be held during the Conference on Software Engineering Education and Training (CSEE&T 2006) in April in Hawaii. It is planned that this report will include a draft version of the framework that will be appraised during the ICSE event.

An initial session will be held to recap the theme and goals and present summaries of the position papers. This will be followed by a series of structured sessions that should lead to the definition of an enhanced version of the interaction framework. A key objective will be set for each session, the participants will then break into activity groups and each group will be allocated a particular topic to consider. After an appropriate time there will be feedback to the full group and a nominated speaker from each activity group will feedback themes emerging from their group's discussions. Once all the groups have provided feedback, time will be allowed for some for further general discussion.

The workshop will close with a plenary session for all participants. This will discuss progress made, identify future goals and strategies, and obtain opinions on "Industry Best Practices" which should prove useful within the industry-orientated part of the project.

A comprehensive post-workshop report will be published later in the year. This report will feed into future planned events associated with the NTFS funded project. These currently include a five-day Working Conference in the UK in early 2007 which will be run under the auspices of Working Group 3.4 within the International Federation for Information Processing (the working Group that is concerned with Professional and Vocational Education related to the Computing Profession).

4. FURTHER INFORMATION
The overall aim of the NTFS funded project is to develop guidelines and recommendations regarding:

1. The identification and incorporation of proven industry-related best practices into both undergraduate and postgraduate computing curricula (including curricula that relate to maintenance of competence for existing professionals).

2. Best practice mechanisms for the delivery of such enhanced curricula in a variety of contexts (e.g. remote distance learning).

It is intended that the project will involve two particular approaches: one directed at academics who can interact with industry in many ways, and the other directed at professionals in the software industry itself. The project builds on work that has been undertaken relating to international standards for IT professionals which have been proposed by the International Federation for Information Processing (IFIP). IFIP in the late 1990s produced a document entitled “Harmonization of Professional Standards” which highlights six specific areas with regard to professionalism [1] viz:

• Ethics of professional practice,
• Established body of knowledge,
• Education and training,
• Professional experience,
• Best practice and proven methodologies and
• Maintenance of competence.

The proposals contained within the IFIP “Harmonization of Professional Standards” document appeared particularly relevant to the field of Software Engineering (SE). Therefore, starting in autumn 2000, a range of activities began, aimed at both promoting and evaluating the IFIP document within the SE community. These included formal conference presentations followed by question and answer sessions, through panel sessions addressing particular aspects, to highly participative workshop events that allowed in-depth analysis of the document. The overall reaction by the SE community has been very encouraging. It has recognised that the IFIP document essentially defines framework or meta model, which should truly assist the advancement of professional standards. An overall summary of the activities and the evaluations of IFIP’s proposals were reported back to IFIP in a paper presented at the 8th IFIP World Conference on Computers in Education in South Africa in June 2005 [2]. However, this initial work raised some significant queries that indicate that further work needs to be undertaken. The main concerns are associated with the areas of best practice and proven methodologies, maintenance of competence, and the educational support for these areas. A paper highlighting the problems associated with “Best Practice” was presented at the 2005 Conference on Software Engineering Education and Training, in Ottawa [3]. It is these types of problems that the NTFS project attempts to address.

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REFERENCES