

## Editorial

The expansion of human knowledge in all areas is largely the outcome of the activity of academic institutions and the result of their mission to contribute to the cultural, intellectual and economic development of the society, involving education, research and university extension activities. For many years, the academic community has been organizing itself in all different ways to respond to current and future needs, ensuring research integrity and recognition, and building on successive generations of peers to validate and support the launching and development of novel research streams. We owe the current state of research and development of our society to generations of scholars and scientists that have brought all of us here.

The Journal of Innovation Management aims at contributing to the worldwide endeavor of new knowledge creation in the ever-increasing “multidisciplinary” contexts on which innovation strives. What does “multidisciplinary” mean? According to the Oxford Dictionary, “multidisciplinary” refers to “combining or involving several academic disciplines or professional specializations in an approach to a topic or problem”. But what are we combining? Which academic disciplines or professional specializations are supporting these ambitions? It is widely accepted that “Science, Technology, Engineering and Math” (STEM) are key competencies for achieve and sustain economic leadership. In fact, these competencies play a major role in driving innovation and in conducting research and development. These competencies are also a major concern for governments, as less K-12 (Kindergarten to Form 12, i.e. Kindergarten, Middle and Upper School) students tend to take university STEM studies. This concern is justified as “STEM graduates are particularly well placed to use their technical and entrepreneurial skills to develop new innovations within their own or an existing organization”, Abbott S. and Coles N. (2013). This is a fact that may be verified by observation upon a visit to a University Business Incubator. More recently, the “Arts” were brought into the equation and the acronym was revised to “STEAM” as the abbreviation of “Science, Technology, Engineering, Arts and Mathematics”. The new STEAM seems to be getting a broad consensus “though many see art and science as somewhat at odds, the fact is that they have long existed and developed collaboratively”, says Pomeroy S. R. (2012).

We are really witnessing a most interesting shift towards a broader and multidisciplinary understanding of the world, and one that you can actually observe at school, K-12. In fact, children are now more likely to have drama and art classes along with math, sciences and technology and project-based learning than they did some years ago. As we move towards higher education, however, the multidisciplinary approach is no longer that evident and the discipline centered education is back with rare opportunities for the integration of concepts. This discipline-centered organization is definitely tied to the professorship and to the way research careers are organized.

Research careers are tightly connected to the need for scientific publication in established peer-reviewed journals’, mostly oriented to a particular discipline. This is as well the dominant logic for tenure positions. On the other hand, the promotion and rewarding of multidisciplinary research is somehow far from reality in this environment. However, it is our strong belief that, in spite of the traditional

conservative academic environment, the sheer value of multidisciplinary research will emerge naturally. The fact is that, despite some doubts and uncertainty for the new boundary spanners, research opportunities are huge as one starts crossing frontiers and combining concepts and theories stemming from multiple disciplinary areas.

It is in this context that we would like to see JIM, as a modest contribution to this greater goal of promoting multidisciplinary research in academia and, through its promotion, the creation of new opportunities to the so-called boundary spanners. The way ahead is not an easy one, as crossing boundaries has its own challenges. We do believe Richard P. Feynman when he said: "I can live with doubt and uncertainty. I think it's much more interesting to live not knowing than to have answers which might be wrong." We are indeed going into uncharted territory and expect many different hurdles along on the way. Among those, the fact that different disciplines will have different views, different research methods and different languages, and this creates some difficulties that have to be overcome along the peer-review process, while ensuring that valid and valuable research is not bluntly rejected. This was, in fact, one of the difficult tasks we had to overcome upon the Journal launching and, we believe, we will be learning along the way. As they say "paths are made by walking" and we will have to ensure that we will walk the talk! To this end a careful peer review process was set-up. In the process we ensure that any multidisciplinary contribution is reviewed by at least one expert from each discipline, while being aware we will not have the same in-depth treatment of both disciplines. However, as time goes by, we believe new multidisciplinary research areas will emerge on their own right, thus creating new opportunities for academics and practitioners alike. This is also about talking the same language and, as soon as researchers, particularly those from more technical areas, start speaking the language of value creation, we will see amazing things happen.

This issue includes three letters, reflecting the multi-stakeholder perspective of JIM. Adopting a policy perspective, the first letter by Salmelin provides an overview of the Europe 2020 flagship initiative to implement the Innovation Union and support its competitiveness and growth. Salmelin further elaborates on the role of Open Innovation 2.0 and on the crucial relevance of ecosystems. In his academic letter, Hannon opens the debate on the challenges faced by universities in fostering the development of an entrepreneurial mindset within a traditional yet evolving educational context. Bagaria illustrates this entrepreneurial mindset and provides pragmatic insights on mobile banking alongside with the wealth of opportunities offered by technological change, ranging from new service development to customer engagement and improved user experience.

Following Bagaria's practitioner letter, Teixeira and Ferreira open the academic part of this second issue with an in-depth bibliometric analysis concentrating on entrepreneurship and adopting an original approach of identifying linkages among the most influential authors in the area and highlight the diversity of disciplines contributing to the understanding of entrepreneurship and its dynamics. In their conceptual contribution, De Smet et al. discuss the role of absorptive capacity for the co-creation of services in financial services. Klimontowicz also focuses on the financial services industry and unveils the results of a recent survey regarding traditional versus innovative payment instruments, uncovering customers preferences, drivers as well as diffusion barriers for such innovation in the Polish context. Relying on a survey of more than 200 firms in a leading emerging economy, Podmetina and

Smirnova open the debate on the role of R&D cooperation with domestic and international partners for implementing inbound, outbound and coupled processes of open innovation. Kortelainen et al. explore the variety of technological portfolios in the mobile phone industry, unveil their variation over time and elaborates on the firms' ability to dynamically adapt their portfolios in rapidly changing environments. In their empirical contribution, Indarti and Postma uncover the role of tie intensity and diversity as well as the quality of the interaction, multiplexity, on innovation performance, measured in terms of product novelties in two different industries in South East Asia.

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## References

- Pomeroy S. R. (2012) *From STEM to STEAM: Science and Art Go Hand-in-Hand*. Accessed 10<sup>th</sup> December 2013. <http://blogs.scientificamerican.com/guest-blog/2012/08/22/from-stem-to-steam-science-and-the-arts-go-hand-in-hand/>
- Abbott S., Coles N. (2013): *Developing Enterprising STEM Graduates Case Study*. Student Enterprise (Research and Commercial Division), Cardiff University. National Higher Education STEM Program. Accessed 15th December 2013. [http://www.wimcs.ac.uk/document\\_repository/Graduate%20Skills/RAP%20Cardiff%20Developing%20Enterprising%20Students/Cardiff%20Enterprising%20STEM%20Graduates%20Case%20Study.pdf](http://www.wimcs.ac.uk/document_repository/Graduate%20Skills/RAP%20Cardiff%20Developing%20Enterprising%20Students/Cardiff%20Enterprising%20STEM%20Graduates%20Case%20Study.pdf)