

Delivering TechMining and CI Techniques inside a Regional Innovation System: RIS targeted to Institutions and Firms

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Abstract

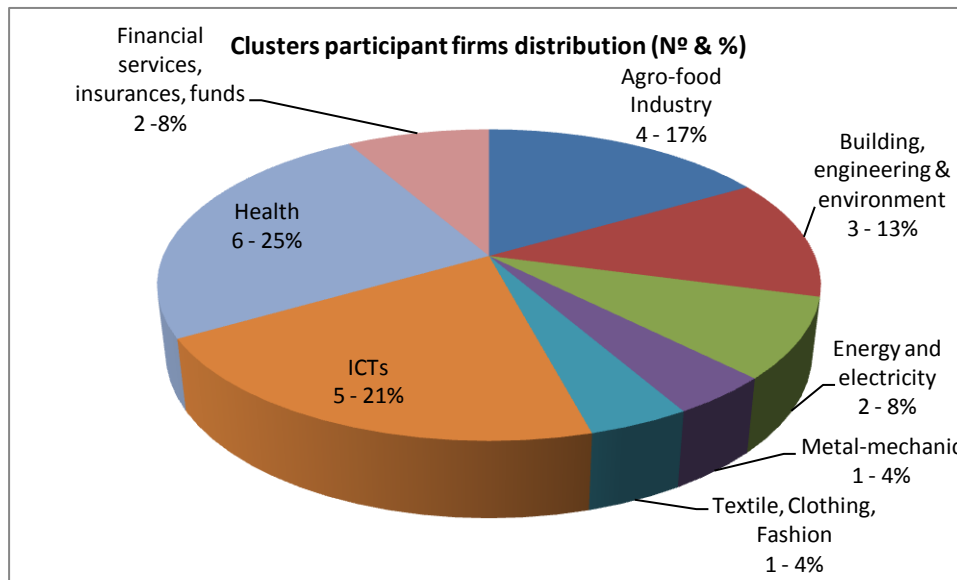
The development of a knowledge transfer practices transnational project on Technology Watch and Competitive Intelligence has been an opportunity to test the assimilation of Future Technologies Analyses -FTA- and particularly TechMining techniques among seven institutions and 24 firms in a Regional Innovation Systems, RIS of a developing country. The RIS, Antioquia, is described and characterized to understand the profile of the participants and the context of the project. This paper reviews an experience of best practices transfer, a mechanism for supporting decision-making process into a set of institutions from the productive sector, academia and government which conform one of the most developed RIS of Colombia. The purpose of transferring certain FTA & TechMining best practices has been the development of capabilities and skills among the participants for fostering a competence on environmental scanning and foresight amending processes and behaviors which facilitate in making informed decisions. The knowledge transfer process has included workshops of training of trainers, the design and empirical validation by the participants companies of a customized Technology Watch process, the launch and support of pilot projects exercises in the companies supported by the trainers and the introduction of an indicators system as part of a double loop learning method. One year after the successful end of the analyzed project 8 RIS Academic Institutions are engaged now in a second project with similar frame but targeted to initially 14 research groups. Lessons learned –particularly on massive TechMining training skills- and other results are commented.

From the beginning it was important to assure the multiplication of the effects and spillovers into the RIS Antioquia. To satisfy the future sustainability of the initiative seven local institutions were invited to contribute with a participant in the project, first as trainee, secondly starting as facilitator for one company with his first pilot exercise and lastly after this first experience helping in a second company during the second shift. To guarantee the appropriation of the methodological process inside the local context a project management approach was introduced. A flow diagram was designed after the learning period by one of the academic participants Martinez, JF –EAFIT-, based on a learning double loop, Kolb (1984), the steps suggested in some Technology and Competitive Intelligence learning materials (CETISME, 2002; Zaintek, 2004; Castro 2007, Porter, 2005), having as reference the AENOR UNE 166.006 quality standard for a Technology Watch and CI system and good practices in innovation management (Tidd and Bessant, 2010).

The whole in company implementation process was planned for six months. The whole tasks needed from information gathering to reporting were organized in a tentative time project chart following the standard engineering Work Breakdown Structure, WBS. Each company pilot CI exercise was focused as a 12 weeks project transfer inside (pilot exercise + following the

suggested process). Once is finished the company (top managers were engaged from the beginning) decided upon results if continue and how three months more implementing the Tech Mining and CI working process into their core processes with help of their quality managers.

Chart 1 firm participants by industry cluster



Source: ERICA Project final report data, May 2012

Table 1 Firms quantitative results at April 2012

Number of firms in the training program:	24
Nº of firms in the demonstrative phase that finished the pilot project:	20
Nº of firms that developed new TechMining and CI exercises after the first pilot	8 (16)
Nº of firms that followed the application phase and implemented the suggested CI process following in large part -75%- the developed methodology	9 (14)

In parenthesis estimations upon informal contacts with company participants. The organizers didn't develop a new survey after April 2012 to update the situation of the participants firms who started later and were still not finished in this month. Source: ERICA Project final report data, May 2012

Some conclusions

From the participants point of view the surveys done at the end of the project shows some findings. Participants highlight as main benefits: Savings in the time and expertise learning curve for 90% of them. An 80% stressed three other benefits; Improvements in the response time to get the data and transform them into actionable intelligence. Enhancements in the analysis results and recommendations for decisions take. Opportunities, threats and partners identification that before were not available at the company scope. A 65% (13) of the finished participants would strongly recommend others to participate in a similar project and of the rest, 20% (4) find of interest and if others could would recommend their participation.

We demonstrate that with light resources, the collaboration of local institutions (took two and a half years since the first contacts until the project call for participants) and a complementary dedicate local management support, Ruta-n Medellin city council local agency, is feasible to get an impact in the creation of environmental scanning, Tech Mining and other intelligence techniques in developing countries.