TOWARDS A COMMUNICATION MODEL FOR A VIRTUAL ORGANIZATION

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ABSTRACT
The paper focuses on key elements of an internal organizational communication model for a newly established virtual research centre – Centre of Excellence Polymer Materials and Technologies – which is progressing towards a transition from a project based innovation network to a continuous one. The model was developed through an exploratory study using a case study approach supported by an internal survey. It is based on a communication strategy and defines two levels of communication, the first one being the horizontal level of management. The other level represents employees, co-founders and funder who are vertically linked to director at the management level.

Keywords: internal communication model, virtual innovation network, centre of excellence

INTRODUCTION
The paper discusses key elements of a communication model of Centre of Excellence Polymer Materials and Technologies (CoE PoliMaT) which is a newly established research centre with 22 co-founders from public, private, business and non-profit sector that was selected on a national tender. It was established in the year 2010 and is funded by the Ministry of Higher Education, Science and Technology of Republic of Slovenia as a part of a broader EU policy. 84 researchers from science, industry and education are located at their individual institutions and collaborating on 8 research projects. The main objective of CoE PoliMaT is to stimulate sustainable growth of the national economy through research and development. The
organization is expected to find new sources of revenue beyond the initial project funding by the Ministry, thus becoming a stable and flexible organization. Therefore all elements of a strong organizational culture need to be established.

Within an organization members have access to a common communication system, in which signals mean the same thing to each member (Schein, 1985). For achieving that and consequently, for being successful, organizations need to focus on effective communication in which employees share information, create relationships, make meaning and ‘construct’ organizational culture and values (Berger, 2008). For CoE PoliMaT it is key to establish effective communication among all involved. To attain that state, a communication model overcoming the complexities of the existing organizational structure while promoting organizational vision, mission and strategy, is to be developed.

The aim of this paper is to define the elements of a communication model for CoE PoliMaT as a newly established virtual research organization, which is slowly progressing towards a transition from a project based innovation network to a continuous innovation network. Mid-term and long-term business strategy yet remains to be defined in the near future. Unlike business strategy, communication strategy to support CoE PoliMaT’s mission and vision has been set and divided into three phases, namely initial phase of brand building, followed by positioning and marketing. The first phase of brand building, which at the same time leaves the door open for the awaited business strategy, is underway. Communication model for CoE PoliMaT is thus expected to facilitate implementation and further development of both communication and business strategies. The scope of this paper is limited to communication model for internal communication at CoE PoliMaT with the aim, as already mentioned, of transforming the organization. However, in terms of the first phase of the communication strategy external communication does play an important part as well.

Theoretical background
Communication is defined as a “social process, in which individuals employ symbols to establish and interpret meaning in their environment” (West and Turner, 2010, 5), as a transfer or exchange of ideas, information or thoughts in writing or orally during social interactions which occur among people (Ting-Toomey and Chung, 2005; LeBaron, 2003; Khan, 2001).
Within organizations, communication occurs on multiple levels, such as interpersonal or face-to-face level (communication between individuals), group level (communication occurs in teams and units; employee groups for task coordination, problem solving and consensus building) and organizational level (focus on vision, mission, policies, new initiatives and organizational knowledge and perspectives) (Berger, 2008). It flows in formal and informal networks as well as in vertical, horizontal or diagonal communication channels. Messages are transmitted and received via various media, i.e. print, electronic, face-to-face and others.

Communication within organizations is based in organizational culture (Martins and Terblanche, 2003) which provides shared values that ensure everyone in the organization is on the same track (Robbins, 1998). It also has a big impact on organizational effectiveness (Denison and Mishra, 1995) and influences communication effectiveness (Canessa and Riolo, 2003). This implies that organizational culture, organizational effectiveness and communication are interdependent.

**Communication in a virtual innovation network**

Networks are continuously evolving organisms due to continuous changes that occur over time with respect to their actors, relationships, needs, problems, capabilities, and resources. Networks need to be managed and communication is a vital management tool in facilitating collaboration among the actors in a network. Management of innovation networks requires both innovation management and business network management (Ojasalo, 2008). Management approaches in innovation networks, can be either rigid, free or a combination of the two, depending on the duration of the network, rewards it provides, its fundamental meaning, nature of the networked organization, planning, control, and trust as well as hierarchies, authority, and coordination as presented in Table 1.

Virtual organizations, typical of the free approach, are defined as a collection of geographically distributed, functionally and/or culturally diverse entities that are linked by electronic forms of communication and rely on lateral, dynamic relationships for coordination (DeSanctis and Monge, 1998). Without effective communication boundary spanning among virtual entities would not be possible. Virtual organizations are strongly dependent on electronic media because greater distances increase dependency on the reliable transfer of electronic information. Even though electronic media support highly dynamic processes, distance relations among people, unclearly defined boundaries, and changing structures of
virtual organization, they cannot always substitute face-to-face communication (DeSanctis et al., 1999). DeSanctis and Monge (1998) argue that problem solving and task completion are not faster when electronically mediated. Moreover, nurturing face-to-face communication and informal contacts between individuals, is regarded as more powerful in building interpersonal bonds than formal structures. Apart from building trust, which is a key factor of the free management approach to innovation networks that coincides with the virtual nature of organization, it contributes to the synchronization of meanings within an organization (De Jong et al., 2008) and eliminates communication transmission errors on the syntactic, semantic, and particularly the pragmatic level of communication (Picot et al., 2008).

Table 1: Rigid and free approaches to management of innovation networks

<table>
<thead>
<tr>
<th>Rigid</th>
<th>Free</th>
</tr>
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<tbody>
<tr>
<td><strong>Duration of network</strong></td>
<td>Project-specific network</td>
</tr>
<tr>
<td><strong>Reward from the network</strong></td>
<td>Profits</td>
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<tr>
<td><strong>Fundamental meaning of network</strong></td>
<td>Network as means</td>
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<tr>
<td><strong>The nature of networked organization</strong></td>
<td>Traditional organization</td>
</tr>
<tr>
<td><strong>Planning, control, and trust</strong></td>
<td>Planning and control most important, trust desirable</td>
</tr>
<tr>
<td><strong>Hierarchies, authority, and coordination</strong></td>
<td>Hierarchies should be avoided or minimized; however, there must be someone who has the highest authority and coordinates the operation</td>
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**The role of manager in organizational communication**

A manager or a leader is a vital actor in communication within virtual organizations. Managers/leaders may foster communication processes and place the emphasis on trust, cohesion and identity, hence, on building mutual understanding among virtual participants. Neufeld et al. (2008, 240) point out that “physical distance between the leader and followers has no influence on either leader performance or communication effectiveness”, and that follower attributions of performance and communication effectiveness are apparently unaffected by distance. The distance does not have a negative impact on effectiveness of communication, or effectiveness of leadership. It could be implied that managers who are perceived as strong leaders, will also be seen as engaging in effective communication behaviours. The high correlations between leadership behaviour and communication effectiveness constructs suggest substantial conceptual overlap, such that the act of leadership appears to be tied intrinsically to the act of communication (Neufeld et al. 2008). It is not
sufficient for managers to have strong leadership convictions; they must also act on those convictions through effective communication. Without effective communication, management or leadership is essentially irrelevant.

**COMMUNICATION MODEL OF CoE PoliMaT**

Generally, a model is “an abstract representation of the intended system which is to be a guide for implementation” (Camarinha-Matos and Afsarmanesh, 2007, 529). A communication model is viewed as a “simplified representation of complex interrelationships among elements in the communicative process, which allow us to visually understand a sometimes complex process” (West and Turner, 2010, 11). It deals with the representation of the communication channels and information flow between senders and receivers (Littlejohn and Foss, 2008). In the process of collecting inputs needed for developing communication model for CoE PoliMaT, we took the approach of exploratory study using a case study method supported by an internal survey. It is thus rooted in qualitative methodology and in grounded theory approach. The case study method gave us the opportunity to gain an insight into the background and characteristics of current communication at CoE PoliMaT, taking into account both formal and informal communication within organization. The emerging concept of the communication model is generated inductively and also provisionally tested through triangulation of three separate data sources, namely analysis of internal documents, exploratory interviews, and a survey based on a questionnaire, which was carried out in autumn 2010.

Analysis of key documents provided an insight into the underlying structure of the start up phase of the CoE PoliMaT, its vision, mission and goals as well as into formal communication channels.

Interview technique is a complex, dynamic interpersonal process in which more than information is being communicated, thus we employed exploratory interviews which are intended to expand the researcher’s knowledge of areas about which little is known (Schensul et.al, 1999, 122). The exploratory interviews were based on a purposive sample which was composed of 7 interviewees, key researchers at CoE PoliMaT, who were selected on the basis of their knowledge, motivation and expertise. These interviews provided inputs for the analysis of basic motives of key researchers’ involvement in the CoE PoliMaT and gave us
some clues about their basic organizational culture background as well as expectations about what CoE PoliMaT needs to become in terms of a new organization, delivering an in-depth perspective on the researched phenomenon in specific settings.

The questionnaire based survey, on the other hand, targeted the whole population of 84 researchers. It enabled us to define main streams of communication among researchers of CoE PoliMaT what gave us a more specific account of communication within the institution. Questionnaire with closed- and open-ended questions was used for producing a larger amount of factual information that were analyzed by applying statistical methods and were interpreted to help understand the present situation at CoE PoliMaT. Hence, our study incorporates both elements of knowledge building and additional search for understanding of the phenomena within the organization, which is a prerequisite for further development of internal communication.

The key research questions were:

1. What are the main characteristics of the newly established organization related to communication?
2. What are the key features of present communication?
3. What are the main features of the target communication model that supports the first phase of the communication strategy?

RESULTS AND DISCUSSION

We first begin by presenting the findings based on the analysis of the characteristics and features of current communication flows within CoE PoliMaT. By accounting for the pros and cons of current communication in the light of pursuing the first phase of the communication strategy, we later expand the discussion to developing and proposing a new structured communication model.

Key features of existing communication

Among the internal documents of CoE PoliMaT were analysed the following: The Act of Establishment (‘Statut’), draft texts of employment contracts (‘Pogodbe o delu’), The Annual work programme 2010 (‘Letni program dela za leto 2010’), Communication Strategy – the
first part (‘Komunikacijska strategija – prvi del’), Rules on Internal Organization and Systematization of Work Positions (‘Akt o organizaciji in sistemizaciji delovnih mest’), Project Programme (application documentation) (‘Projektna dokumentacija’), The Consortium Agreement (‘Konzorcijska pogodba’), The Institution Act (‘Zakon o zavodih’) and minutes. These documents incorporate data about the vision, mission, goals and organizational structure of CoE PoliMaT, its funding and management, relations with the co-founders, the structure of employees, details about internal projects and the role of director and both councils, thereby implying some key features of communication.

CoE PoliMaT can be viewed as an organization in a start up phase of development. It consists of 8 project network teams and 42 task teams, of which members are located at different locations of co-founders’ organizations. It has one administrative office located at the registered address of CoE PoliMaT. The communication relies predominantly on the use of electronic media and virtual communication. It is however not an entirely typical virtual organization although information technology is playing a central role. Namely, the networks within CoE PoliMaT are currently set as stable structures which are not continuously evolving, what is one of the key characteristic of virtual organizations (Ojasalo, 2008). One of the reasons is, that it is a network of 22 co-founding organizations, of which employees are partially employed at CoE PoliMaT. According to the survey, 45% of respondents are employed with 10% equivalent of their full work time, 7,4% with 15%, 32,4% with 20% and only 10 % with 30% equivalent or more of their full work time. This implies that the existing organizational culture of CoE PoliMaT needs to be considered as a mixture of various cultural contexts of employees’ primary organizations. Therefore an effective communication is the key to creating a corporate culture and vice versa (Berger, 2008) as well as to building productive interpersonal relations among co-workers (Degni et al., 2011).

Two internal documents of CoE PoliMaT are explicitly related to organizational communication namely “Communication Strategy” of CoE PoliMaT” and “Instructions for Programme Implementation” (IPI).

Communication Strategy of CoE PoliMaT is divided into three phases: brand building, positioning and marketing of CoE PoliMaT. Out of the three phases, only the first phase is already fully developed, while the other two phases will be an upgrade of the first one and will receive more attention in the future. The document focuses on the implementation and
understanding of the (1) vision of CoE PoliMaT which is to become an internationally renowned and recognized center of excellence in the fields of polymers, while assuring flexibility, internationally accepted standards of scientific excellence and synergies in management of scientific and research work linked to excellence in industrial development; (2) the mission of CoE PoliMaT which is to create conditions for technological breakthroughs of industrial partners and to promote development of products in high-tech niche markets, to create conditions for new jobs and high-tech spin-off companies, and (3) communication goals of CoE PoliMaT which are: to establish communication among employees and management; to set up (in)formal communication an open dialogue among stakeholders; and to raise the sense of belongingness. It promotes processes that enable creation of organizational culture of a virtual innovation network thereby creating authentic essence of the new brand identity features of CoE PoliMaT.

In the document key stakeholders are considered. They are as follows: The internal stakeholders encompass employees, co-founders, management and the funder. Employees are the key stakeholders of internal communication. They are mostly represented by researchers and staff from the administrative office. Some of the researchers hold positions of project leaders and coordinators of research areas, who are very important for the realization of the programme until the official deadline in 2013 and for further development of CoE PoliMaT.

Co-founders are representatives of industry and public institutions and the funder. They are the third most important target stakeholders due to their role in monitoring and knowledge transfer. They have representatives in the Council of CoE PoliMaT which has a controlling function and represents interests of all co-founders. Its decisions have an impact on activities of CoE PoliMaT as well as its future development. Therefore they need to raise awareness about their role. Director is expected to establish regular communication, even informally, with and among co-founders.

Ministry of Higher Education, Science and Technology has a very important role in the period till the year 2013. As a funder it performs a dual role, namely financing and control. It is committed to a long-term existence of centres of excellence as a national strategic investment. Through regular meetings and joint conferences it facilitates knowledge transfer, especially examples of good practices, and mutual cooperation among fellow centres of excellence and external partners. The director of CoE PoliMaT is expected to be present on regular meetings and in their communication.
The management team (director, Chair of the Scientific Council and Chair of the Council) of CoE PoliMaT is the key pillar of communication among dispersed internal public. Director is the key mediator and integrator of the organizational communication. She/he communicates with all stakeholders on regular basis. The management team has a key role in establishing and integrating two-way as well as formal and informal communication flows with and among stakeholders in the light of planning and guiding the development of CoE PoliMaT.

The Scientific Council is monitoring and supervising the scientific work of researchers and the attainment of projects’ objectives. Besides the coordinators of research areas other prominent Slovene and foreign researchers are also its members.

The other document, the IPI, indicates that employees are basically connected via electronic communication. It defines communication channels between director and the chair of the Council of CoE PoliMaT while promoting the use of various electronic media (e.g. phone, e-mails) and also formal face-to-face communication which is predominantly planned for communication during the meetings. The same communication media are envisioned also for communication which flows among Scientific Council, project leaders, director and administrative office. Regular internal formal and informal communication flows are present also among members of the management team (e.g. meetings, electronic media) that is in charge of making operational and strategic decisions. The document does not define communication between director and (all) employees as well as director and co-founders. It can be concluded that communication between employees and director is in the early phase of development and flows two-ways in an ‘ad hoc’ manner, predominately when problems occur and by the assistance of project leaders. Internally, information flows also via organizational bodies, during their regular meetings, and also between funder and director during regular monthly meetings with directors of all established centres of excellence.

Predominant use of electronic media in the start up phase of an organization, and in a virtual organization in particular, might cause some difficulties in building mutual trust among people who hardly ever meet in person (Te’en, 2001) and by that in establishing productive interpersonal relations.

On the basis of the analysis of the documents and minutes from the meetings, it is apparent that the director has a central role in present communication. Communication with all stakeholders, except with researchers, is presently a two-way communication. Even
communication between the stakeholders almost entirely flows via the director. There is a channel link between project leaders, project task leaders, researchers, and coordinators of the research areas that is predominantly based on the task flow and is focused on realization of the project goals.

Additionally, the main findings from exploratory interviews with 7 key researchers, who were also initiators of the CoE PoliMaT project, might be summarised in the following key conclusions: CoE PoliMaT is perceived as a part-time employer and physically remote from their basic organizations. Researchers from public research institutions perceive CoE PoliMaT as an institution of research excellence that provides researchers with opportunities for publication of research papers. On the other hand, researchers from industry perceive CoE PoliMaT as an institution which might help them in the development of new commercially interesting products and consequently in achieving better financial results. It was also indicated that the best researchers have leading positions (i.e. heads of departments, heads of project teams, ...) within their basic institutions what may be the reason why they do not really believe in the future of the centre. Project initiators do believe in the successful future of the CoE PoliMaT although they are aware of possible obstacles on the way, such as the critical mass of equipment and full-time researchers. It can be concluded that the set vision of CoE PoliMaT as of a successful internationally recognised organization could not be regarded as a common vision for key researchers. Therefore a shared meaning, values and vision need to be formed in the future and thereby also a strong culture.

The general survey questionnaire covered the following thematic areas: the work of the researcher’s home institution (the co-founder), participation and satisfaction with CoE PoliMaT, expectations of CoE PoliMaT, CoE PoliMaT’s vision for the future, basic information about the home organization (the co-founder). Out of invited 84 researchers, 51 responded, yielding a response rate of 62,9%. In the end 49 questionnaires were valid. 25% of all respondents and 40% of those who believe in the future development of CoE PoliMaT were missing more communication and collaboration within research projects as well as with other project teams. New contacts and networks are one of the key motives for participation of researchers in CoE PoliMaT. Strong need for intensification of communication indicates also poor knowledge about CoE PoliMaT. Researchers are familiar neither with CoE PoliMaT nor with the co-founders. This refers to co-founders’ obligations and current operations (known by less than 30% of respondents), management team and their competencies (31%),
objective of CoE PoliMaT (known by 30-40% of respondents), and the purpose of establishing the network (known by less than half of respondents). This implies that information about the key characteristics and purposes of CoE PoliMaT are not sufficiently communicated though work communication flows, even though the actual communication of researchers indicated that their communication in the CoE PoliMaT is frequent and personal – 48.0% of employees claim they meet personally and frequently within their research teams while also resorting to the use of electronic media, i.e., 34.6% e-mail, and 17.3% phone or Skype. The predominant communication with researchers of other project teams within CoE PoliMaT is via electronic media (68.2% of answers). Further, respondents indicate that they have temporary contacts with researchers of other project teams (67% mentioned they have contacts, but that these contacts are not frequent). 96% of all respondents believe that they can learn from other researchers, hence they would appreciate the opportunity for that via more intensive communication. 25% of respondents explicitly claim that they miss more interaction with other researchers.

To summarize, researchers currently involved with specific research projects miss cooperation with researchers from other research teams which could yield further synergies. They feel they are poorly informed about the activities of the management structures and other research teams. Communication with colleagues from partnering institutions is less regular and is carried out by the e-mail and therefore may lack of media richness. There appears to be a serious need for improving internal communication.

The findings point to CoE PoliMaT being managed partly with a rigid and partly with a free approach to management of innovation networks. It is managed as a project-specific network, with network as a means, where planning and control are most important while trust is desired, which are characteristics of the rigid approach. Its orientation towards self-fulfilment and the nature of a virtual organization are typical for a free approach with the latter characteristic being especially dominant.

**Key characteristics of the proposed internal communication model**

As already mentioned, the starting premise for the proposed model is to construct a communication framework that will facilitate the implementation of the first phase of the communication strategy as well as further developments of the communication and business strategy as well as organization – innovation network. From currently dispersed
communication aimed at achieving the set programme goals, a more long-term approach needs to be taken and communicated to the employees. Communication model needs to simplify internal communication, make it more flexible, transparent and efficient, and must provide a solid infrastructure for achieving existing communication goals.

Communication goals, target stakeholders, communication channels and communication tone defined in the first phase of the Communication Strategy all present a basis for the proposed internal communication model depicted in Figure 1.

Figure 1: Proposed internal communication model for CoE PoliMaT

The model embeds two levels of communication between management, co-founders and funder, and employees. Management, which includes Scientific Council, director and Council, communicates among each other on a horizontal level. Director engages in vertical communication with co-founders, funder and employees. In vertical communication, it is the director who is most often the sender of information, while co-founders, funder, and employees act as receivers.
Director is the key person in the proposed communication model, what is also expressed by the relative larger size of the circle in Figure 1. This is very much in line with both approaches to management of innovation networks as hierarchies should be avoided or minimized while there is a person entrusted with highest authority who coordinates the cooperation (Ojasalo, 2008). In our model director is expected to efficiently mediate large majority of the total communication within the organization that includes strong communication links with and between all stakeholders. This will also eliminate poor information flows on which reported the researchers. Communication tone needs to be authentic, open, genuine, direct and transparent. It will positively affect the building of productive and authentic relationships and motivation for cooperation. Director’s relationship with both chairs, of Scientific Council and Council, need to be supportive and collaborative. Communication needs to support development in the direction of an innovation network, which is characterized by continuous operation, profit orientation, trust, virtuality, establishment of networks for attaining business goals and long-term strategy.

The Scientific Council, including renowned external researchers, may in the future be transformed into R&D function, which together with the function of business development also deals with technology transfer, management of innovation and technology management. It is also important that they foster effective communication between all members. The Council needs to obtain a control function and represent the interests of all the co-founders, who are expected to play an important role in the development of a long term strategy for CoE PoliMaT.

Director and members of the management team need to communicate regularly with all of the employees. This includes also informal communication in order to learn about their potentials and needs which might affect further development of CoE PoliMaT and set ground for further fruitful cooperation with them. As discussed in the findings, researchers who do not hold any additional internal positions are currently not sufficiently involved in the communication, especially in relation to director. Their communication should cease to be based on formal reporting and administrative problem solving alone.

The communication in the future is expected to grow into a strong two-way communication in all directions within CoE PoliMaT and by that enable relationships building between management and employees as well as with co-founders and the funder. Two-way communication between director and co-founders and the funder opens possibilities of ‘win-
win’ cooperation, knowledge transfer and co-operation on new projects. At the same time such communication allows for control and integration with external public, i.e. other CoE’s.

As we already indicated, internal communication that is not linked to the realization of the initial programme needs yet to be developed. It has to be in accordance with (communication) goals, vision and mission of the internal stakeholders. A transparent, trustworthy, timely, efficient and clearly defined communication has to be developed. Given the innovative environment that CoE PoliMaT generates, the dynamic nature of research in the field of polymer technologies and materials, up-to-date applications and great intellectual capital of CoE PoliMaT, communication messages and topics need to reflect the ambition, dynamics, global orientation and openness.

In the future, communication should be formalized to the extent that employees feel its permanence and continuity, for example in the sense of regular internal information flow. Regulatory work is currently covered by formal communication part. It is linked to realization of programme goals and tasks. An innovative, integrative and motivational communication of a more informal nature will come in question once the business strategy is confirmed. It needs to be taken into account that personal relationships and informal contacts are known to be more powerful than formal structures (Joyce et al., 1997). Consequently, as we already argued, a need for more and richer communication will arise in CoE PoliMaT.

The formal part of the communication which supports the long-term orientation of CoE PoliMaT needs to be integrated with the existing formal communication tools and activities wherever there are synergies. Contrary, it needs to be separated from existing communication tools and activities where this is not beneficial, for example reporting formalities, which are short-term obligations arising from the realization of the program goals till 2013.

Much room for informal communication is left between the management team and co-founders in the form of working meetings, dinners, interviews, etc. Their communication with the employees needs to be tightly linked to introducing them to the long term vision for the future development of CoE PoliMaT, especially if they are perceived as the key ‘stage-gate’ decision-makers. This represents also a common point with the formal communication level of the short-term orientation, for instance changing meetings of the assembly of employees into strategic days of the organization. This is especially important until internal promoters
(who will raise the general sense of belonging) and opinion leaders (who will establish an open dialogue) are identified. Later they will create new opportunities for informal meetings and by this facilitate communication efforts of the management.

The formal internal communication between the presented internal stakeholders must be established by the means of communication channels, whereby communication activities will create the circumstances in which experts, scientists and businessmen can connect, learn and collaborate among each other in an informal setting.

The main media of communication in CoE PoliMaT remains electronic media which enables communication between employees who work at different locations. A digital communication platform is a part of this communication infrastructure. Intranet is to be created to foster interactions among all members of the organization. In addition, Communication Manual needs to be prepared in order to define communication processes and content. Implementation of this model will be highly dependent on the rate of integration with primary cultures of employees and management of external communication channels.

**CONCLUSIONS**

Researchers currently involved in specific research projects at CoE PoliMaT miss cooperation with researchers from other research teams what could yield further synergies. They feel they are poorly informed about the activities of the management structures and other research teams. Communication with colleagues from partnering institutions is less regular and is carried out by e-mail and therefore may lack media richness. The need to improve internal communication is apparent.

Communication is predominantly focused on communication channels and on formally set one-way or two-way communication among stakeholders. It was indicated that the main communication channels of CoE PoliMaT are linking director to the stakeholders. These communication flows are largely two-way. Communication with internal stakeholders, who have different roles in the implementation and monitoring of research and development work of CoE PoliMaT, is mainly limited to communication flows on operational level and is related to the fulfilment of formal requirements of CoE PoliMaT as a project, i.e. reporting.
The model is thus developed in a structured and transparent manner that allows for a flexible organization beyond the programme scope until the year 2013. There are two main levels of communication, namely on the level of management, and between director as a representative of the management and co-founders, funder and employees. Director holds key position in the organization’s communication and responsibility for the implementation of the first phase of the communication strategy – brand building. As such, the internal communication model presents a framework for the organization of CoE PoliMaT in the absence of a business strategy that is yet to be developed. By implementing the first phase of the communication strategy progress is made towards building organization’s identity what is especially important in a network where employees are generally not employed full-time, work at their primary locations and therefore have only a weak link to the culture of CoE PoliMaT.

By building the identity of CoE PoliMaT, foundations are set also for supporting further goals inherent in the organizations’ mission and vision statements. This is the first step towards constructing a framework for CoE PoliMaT – the continuous network organization – which will enable it to face the upcoming challenges despite the current absence of a long-term business strategy.

In order to make sure the communication within CoE PoliMaT will start developing in the desired direction, it will have to be monitored, whether the communication goals are being achieved. Feedback from employees will remain to be a key input for checking the implementation of the communication strategy. The internal communication model as well as the rest of the communication infrastructure will continue to adapt to the new circumstances and challenges in order to best facilitate further developments within CoE PoliMaT.

Generalizations of our findings are somewhat limited as they cannot be generalized beyond the boundaries of a case study (Stake, 1994) which in our case refers to CoE PoliMaT in the Slovene context. However, some implications can be expected to be common and therefore helpful to fellow centres of excellence and similar research networks in their planning or starting phases. The integration of different cultures and building of an organization, virtual innovation network in particular, with its own identity is a challenging task that greatly depends on efficient communication.
REFERENCES


