Analyzing stakeholder engagement in urban logistics projects by using Community of Practice theory
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Extended abstract

Objectives and motivation
For fifteen years, changes in consumption patterns and economic development of cities and regions contributed to an increase in the volume of trade between territories and within city centers. These exchanges are performed by a combination of transport (road, air, rail, river and sea) and warehouses, whose interactions and sizing must necessarily be controlled in order to meet the ever increasing demand and to cope with the issues associated with urban logistics. Urban logistics represents about 30% of the flows in a city and covers all the activities involved in freight transport and distribution in urban areas, including the movement of goods in the heart of cities, their treatment in these territories, their delivery to the final customer and also the reverse flow (returned products, recycle and waste) (Laubard and Lissorgues, 2010; Patier and Routhier, 2009). Its main objective is to better organize the actors who contribute to the deliveries by combining data, resources and infrastructures (Dablanc, 2006). Urban logistics is a recent field of research which requires considering multiple stakeholders whose objectives may diverge but who share the same issues: environmental (various pollutions: air, congestion, noise...), economic (dynamism and attractiveness of territories), societal (adaptation of the city to new patterns of consumption), and architectural (urban infrastructure) (Armand et al., 2013). There is a broad consensus on the fact that it is through new organizations and better integration of urban freight in the city that these issues will be overcome (Quak, 2011). That means that a strong engagement of the different stakeholders has to be managed to ensure the implementation of lasting solutions. Given the importance of the challenges and the plurality of interacting actors, inter-organizational communities that gradually emerge in different cities are mostly of mixed nature, and can be analyzed through the lens of communities of practice (CoP). Our objective is to understand the conditions of emergence and durability of such communities by using an exploratory case study conducted through participant observation. A community of practice, according to the definition given by Wenger et al. (2002), is a ‘group of individuals participating in communal activity, and experiencing/continuously creating their shared identity through engaging in and contributing to the practices of their communities’. This group interacts and collectively builds relationships and a sense of belonging to the community as well as mutual commitment. Observing these interactions and understanding the nature of the engagement of stakeholders in the context of urban logistics projects is of particular relevance to the cities in the future.

General description
Communities of practice, well organized and well used, appear to be an effective learning tool in the context of urban logistics. These learning has primarily the interest of being "located" according to Lave and Wenger (1991), meaning that the concerns of "learners" and the logic of their questioning is taken into account. This learning in action and from action creates the sense of belonging for the community members (Amin and Roberts, 2008; Dillenburg et al., 2003). Learning will also often have important organizational consequences, and leads evolution of formal routines (rules, procedures, structural configurations, etc.) and informal ones (beliefs, values, mental representations, etc.) of the members. Moreover, it also encourages a better coordination of actions (Sonntag, 2009). All of these features seem particularly useful to analyze stakeholder engagement in urban logistics projects. Indeed, such projects bring together actors who have only partial knowledge of the different issues, and where no single actor can bring a global solution by itself. We want to focus on how collaboration can be built through the creation of a community of practice integrating the different stakeholders in such a context, in order to implement innovative and sustainable schemes that respond to the above recalled issues.

In urban logistic projects, two circles of stakeholders can be distinguished: those directly involved in urban logistic plans, and those who represent the interests of a particular audience (Chanut et al., 2012). The first circle integrates usual distribution channel members including flows’ generators (manufacturers and distributors in the retail industry, pure players, wholesalers and professional users), flows’ managers and actors operating flows (third party logistics service providers, package carriers and public transport) and flows’ regulators (cities and local authorities). Subsidiary stakeholders represent a second circle of actors that is not less important because of its lobbying power (e.g. trade unions or professional associations). Collaboration between private and public actors is certainly the main challenge for urban logistics, since their representations, objectives and interests strongly differ. In these conditions, it is essential to understand how a community that integrates these actors can be built in a sustainable way in order to develop functional solutions for urban freight. We propose a case study that explains this situation in a medium-size French city. The project started up in 2012 and led to the commitment of various stakeholders through a large consultation process on urban logistics issues. A reflective community on current practices was progressively built, stimulated by local public authorities. The different steps of the project have been followed in a qualitative way where researchers where themselves stakeholders of the project. Data was collected from multiple sources including meeting participation and reports, interviews with public and private actors, various documents and also many informal discussions, enabling triangulation and ensuring internal validity through cross verification.

The Community of Practice theory offers an interesting framework to understand the motives that lead to exchange knowledge within a given organization, and the conditions for the creation of a CoP from the knowledge embedded in the community (Wenger, 1998; Mc Lure Wasko and Faraj, 2000). The notion of practice applied to the context of a urban logistic project is also explored in order to describe
the nature of practices that are shared by members belonging to the community (Brown and Duguid, 2001). Our aim is to show how the consultation process led to mutual engagement, common goals and to a shared repertoire (Wenger, 1998) expressed in an explicit « plan of actions for a sustainable urban logistics ». The case study shows particularly well the duality that existed between the members of the community at the beginning of the project, and how tensions observed between the opposing forces became a driving force for change. Finally, the key success factors and the main barriers to the development of the CoP will be analyzed, and some recommendations will be proposed regarding the further implementation of the 16 actions defined in the plan.

Results and conclusions
The paper offers a new perspective on urban logistics projects by using the Community of Practice theory to analyze the creation and the development of a mixed public-private community in a French city. This project is not isolated and could be compared to other French projects that are currently being implemented in many cities. In fact, further research could be conducted on the ‘nexus’ or CoP constellation constituted by all urban logistics projects throughout the world. The case study illustrates the transfer of both tacit and explicit knowledge and the progressive commitment of the different stakeholders to co-develop a shared program. At the moment, no action has been developed yet and it will be interesting to observe how the learnings about the conditions of sustainability of the CoP will help their implementation since we are still part of the community of practice. We have also identified a set of key success factors (KSF) driving to the creation of a CoP in the field of urban logistics. The most important are the commitment of local authorities through project management and the plurality of profiles of members of the CoP. Beyond these KSF, the determination of boundary objects allowing the dialogue between actors of different nature (Star and Griesemer, 1989; Wilson and Herndl, 2007; Wenger et al., 2002) and the choice made by some actors to play an interface role (Kern and Larue Tournemine, 2009) can also be considered as key elements in the CoP structuration process.

As a conclusion, communities of practice seem to constitute a promising way to analyze stakeholder engagement and governance of urban logistic projects. Such projects are prospering in many cities since pollution and congestion are growing concerns of both public authorities and private companies who have to ensure the last kilometer delivery. Common and integrated solutions have to be rapidly found to change the current situation. However, the close interaction between public decisions regarding regulations and solutions developed by private companies emphasizes the necessary co-construction of these solutions. Communities of practice should favor the emergence and sustainability of such integrated solutions.

References
- Laubard, B., Lissorgues, G. (2010), La logistique urbaine, fonction vitale pour la métropole parisienne - Rapport du CCIP.

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