

# Open Innovation and R&D Location

‘Open Innovation’ has become a fashionable topic with many firms currently experimenting with it. Most loosely, open innovation refers to the effective spinning-in and spinning-out of knowledge and technology of an organisation. From an organisational perspective, open innovation benefits from spaces that stimulate the exchange and cross-fertilization of thoughts and ideas. From a time perspective, open innovation is one of ways to overhaul and adapt the structure and organisation of innovation and R&D at firm level. In creating open innovation clusters, not only bureaucratic legacies of the past can be left behind, but at the same time new vibrant hotspots of creative activity can be established. An early and well-known example of an open innovation campus is the ‘High Technology Campus Eindhoven’ (HTCE) describing itself as the “embodiment of the open innovation philosophy”. The open innovation proposition to firms implies that they should locate at such campus to reap benefits from open innovation that cannot be achieved elsewhere. However, research based on 10 interviews with key managers of organisations located at the campus reveals that firms base their location decision on various other factors. This article summarizes the main reasons for locating at the HTCE, highlight potential benefits of open innovation and main lessons learned.

## ***Reasons for firms to locate at the HTCE***

When asked, most firms mention the excellent facilities, especially the often-referred to MiPlaza laboratory why they are located on the campus. Smaller firms could not afford such high quality laboratory, while Philips benefits from sharing the high costs with other users. For one organisation such high quality lab facilities would normally represent 60% of the annual budget. By **sharing the facilities** through MiPlaza the cost now make up only 15 % of the annual budget. Co-locating on the campus for this organisation therefore results in a 75% reduction in R&D equipment costs.

While the provision of state-of-the-art infrastructure is important this needs to be done in a cost effective manner. As one interviewee put it, “costs need to remain manageable. Facilities need not be too fancy but a **cost effective** provision of essential services”. This highlights the importance of cost sharing and access to shared facilities in location decisions. Interestingly, while the sharing of facilities could facilitate collaborations between firms, this is not mentioned as an important factor. In contrast firms prefer to make use of shared facilities under circumstances that secrecy is well protected.

One factor most frequently mentioned is the **reputational effect** of the HTCE. In the words of one interviewee the HTCE “provides us with credibility. Its location impresses partners”. This is especially important for smaller firms. The location signals their business partners the quality of a high-tech firm with access to state-of-the-art equipment. Providing the same goods and services from a different location would be more difficult for these firms as the location is a valuable differentiator to competitors.

Also frequently mentioned is the **presence of research orchestrators** such as the Holst Centre and the technology services as provided by MiPlaza. Firms struggling with a technical problem benefit from the easy access to a high quality solutions provider. Similarly, the **informal network** of the HTCE plays a role allowing for fast interactions with other residents providing an environment that helps building a network. As expressed by one interviewee the “network of contacts on the campus helps getting things done”. However, as another interviewee explained “the campus does not deliver a lot of formal relationships”. Another soft factor difficult to quantify in location decisions is the attractiveness and visibility of the campus making recruiting top people easier. This closely relates to the reputational effect.

This **high quality labour force** is an important source for competitiveness of residents. However, so far firms only take location preferences of individuals indirectly into account. Top performers are attracted by highly dynamic and culturally diverse regions. With increasing importance of individuals to firm success, quality of life of a region becomes also a factor for firms to consider. Firms therefore need to balance their location factors with location preferences of high performing individuals as they otherwise risk losing talent to competitors that use this factor for differentiation.

But due to the historic evolution of the campus, the **reasons for individual residents to locate at the HTCE differ**. One interviewee expressed that the “work with Philips could also be done with universities elsewhere.” This is related to a considerable number of residents, formerly part of Philips, being located at the HTCE for historic reasons. If making a location decision today, a different location might be more attractive. This is in stark contrast to a firm that recently moved to the HTCE making the conscious decision to set this research apart from its existing businesses looking for “partners needed to think along on technology applications”. This importance of the ecosystem at the HTCE for location decisions, however, so far remains the exception as indicated by the interviews. These revealed that many residents cooperate with firms outside the campus facilities rather than co-located firms. As one interviewee noted “collaborations outside the HTCE are as easy as with companies on the campus. Instead it should be easier on the campus.”

It is this ambivalence that makes judging the location benefits from open innovation extremely difficult. However, open innovation and its dependency on networks and linkages should be seen as an evolutionary process that takes time to establish – therefore it might take a number of years before firms can judge the benefits for open innovation of locating at campuses such as the HTCE.

Are there any circumstances for **firms not to locate at the HTCE**? Yes, there are. First, to avoid a campus with direct competitors as they are afraid of losing competitive intelligence. Secondly, especially smaller firms, despite often being only a perception, are afraid of losing top employees to larger competitors able to pay higher salaries. Lastly, the high rents due to state-of-the-art facilities of the campus pose a high barrier for (small) firms that have limited financial resources. For example, so far start-ups emerging from the TU Eindhoven have not located at the HTCE.

### **Key lessons for firms**

What do these observations imply for potential HTCE residents and others who consider making a move to an open innovation cluster? The HTCE markets itself on the proposition of being the “embodiment of open innovation”. However, the interviews indicate that open innovation as such and related factors such as finding the right partners are not the main reason for locating at the campus. Instead the campus main benefits for residents arise from the access to state-of-the-art facilities, global excellence in its field and reputation around the globe feeding back into customer attractiveness and attracting top talent. This is indication of two daring hypotheses: Open innovation as a factor for location decisions is less important than the branding of the campus suggests; or: Firms are not able to integrate benefits of open innovation into current location decision making and do not relate location to open innovation activities.

#### *Tension between cost factors and soft factors*

Cost sharing and cost effectiveness of services are a necessary but not sufficient condition for firms’ location decision. However, with readily available costs metrics these are likely to feature much higher in importance than soft factors that are difficult to measure. Of the interviewees, most so far have not developed metrics to measure (the effect of) open innovation activities. Furthermore, if costs exceed perceived benefits, firms signalled that they would consider alternative locations to the HTCE. With mostly soft factors mentioned in the interviews this highlights a tension between cost pressures in firms and optimal R&D location. While the soft factors are most visible to R&D management, final location decisions are often made by top management. This requires very good argumentation from R&D managers to justify higher costs to top management. An R&D location decision metric able to integrate soft factors and especially benefits from open innovation is required

for firms to avoid sub-optimal decisions focusing too much on costs. Such metric should reflect the structural changes of a **knowledge economy** where **cost effectiveness** of **acquiring and utilizing information** and knowledge is key to success.

*Contact:*

Felix Brandes

T: 015 269 54 32

E: felix.brandes@tno.nl