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**WHAT DRIVES SUCCESSFUL OPEN INNOVATION ECOSYSTEMS?
A CASE STUDY IN THE MOBILITY SECTOR**

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Abstract

This paper "What drives successful open innovation ecosystems? A case study in the mobility sector" sheds light on success drivers and results of innovation ecosystems orchestrated by intermediaries. A case study of Europe's largest mobility innovation ecosystem including nine semi-structured interviews is used for data collection. Through data analysis, the author proposes a success driver framework with three dimensions: *individual corporate input*, *ecosystem infrastructure* and *individual corporate results*. The framework indicates the variety in individual corporate output based on the time factor as well as respective firm input. As a steady component, the ecosystem infrastructure through the intermediary is introduced.

Key words: open innovation, innovation ecosystems, mobility innovation

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1. Introduction

1.1 Topic and Relevance

Open innovation has been one of the most discussed topics within innovation management since Henry Chesbrough's publications in 2003 (Huizingh, 2011). Whereas in former times, firms used to strictly rely on their individual internal resources, innovation nowadays has become a process of exchanging knowledge beyond enterprises' walls. This also applies for the mobility industry which is under steady pressure to innovate at a reasonable pricing (Ili, Albers, & Miller, 2010). Customers' high expectations and competitors entering the market have driven new and traditional players of the market to team up with external stakeholders.

As a consequence, partner alliances have been formed within the sector. To do so, several firms across the value chain create innovation ecosystems to foster the implementation of new technologies in products, services and processes (Jackson, 2011). To facilitate the foundation of such ecosystems, intermediaries have been introduced. Having a neutral role, they speed up the partnership formation and simultaneously orchestrate them with the goal of jointly fostering innovation (Gassmann, Daiber, & Enkel, 2011). Ultimately, firms expect to generate and capture value through their membership in such ecosystems. (H. Chesbrough, 2017).

Automotive companies such as Daimler and Porsche heavily market their open innovation ecosystem participation (see Appendix 1). But what are the actual outcomes of these? And what are the factors of influence for successful ecosystems from a firm's perspective?

1.2 Aim and Approach

This paper aims to identify drivers of success and respective outcomes of innovation ecosystems within the mobility sector. A qualitative research approach was chosen generating first-hand insights. Through a case study of a mobility innovation ecosystem and with coming semi-structured interviews, data about individual corporate experiences and opinions is

gathered. Supported by these, a multi-dimensional framework is derived generalizing the success drivers and outcomes of innovation ecosystems led by intermediaries.

2. Theoretical Background

The present chapter aims to give a background on open innovation as well as associated ecosystems from a theoretical standpoint.

2.1 Open Innovation: A theoretical background

Henry Chesbrough's concept definition of open innovation has been the most common to be used in the academic environment and beyond (Dahlander & Gann, 2010). It states that "open innovation is a paradigm that assumes that firms can and should use external ideas as well as internal ideas, and internal and external paths to market, as firms look to advance their technology" (Chesbrough, West, & Vanhaverbeke, 2005, p.1). This implies the existence of two streams, the flow of ideas, products and services from outside into the company, as well as the flow of internal resources to the outside of the organization getting rid of the traditional boundaries, such as "firm walls" (Carroll, Srivastava, Volini, Piñeiro-Núñez, & Vetman, 2017). The roots of the concept lie back in history, as previous research indicates (Trott & Hartmann, 2009). Companies had already implemented these activities to enhance the use of outside sources and commercialization opportunities before the millennial turn (Huizingh, 2011). The following literature review gives an insight into the drivers of successful innovation activities, as well as their respective outcomes.

2.1.1 Results of open innovation activities

Both practice and theory have reached the conclusion that open innovation activities result in benefits for the company conducting them (Laursen & Salter, 2006a). First, studies point towards monetary results, such as the increase in firm performance resulting in higher profitability (Chiang & Hung, 2010), as well as market-oriented results, for example a higher

customer satisfaction (Wagner, 2010). Considering new products, beneficial effects of open innovation are a higher product innovativeness (Laursen & Salter, 2006a) as simultaneously a higher success rate for new products (Rohrbeck, Hölzle, & Gemünden, 2009). Huizingh (2011) criticises that open innovation also comes along with an increase in actual costs but emphasizes the shortened time to market as well as an increase in sales.

Focusing on the mobility environment, qualitative research has shown an outstanding research and development productivity for companies conducting open innovation activities in comparison to competitors and suppliers which are sticking with closed innovation models (Ili et al., 2010). At the same time, firms are able to extend capabilities and to distribute risk of joint projects in-between involved parties (Lazzarotti, Manzini, Pellegrini, & Pizzurno, 2013). From a strategic perspective, opening up for product and service development allows to test previously set or recently gained hypotheses which help shaping the future business direction. Carroll et al. (2017) call this the creation of "an opportunity pipeline" (p. 779) for companies, enabling them to include and transfer ideas and inputs to the market. From a market perspective, outbound open innovation activities are specifically known to extend to new markets and improve the firm's position from a technological perspective (Lichtenthaler & Ernst, 2007). Not to be left out is the social component reflected as cultural change amongst the workforce and external parties involved. This change within strategic thinking and openness has become popular as "mindset change" within innovation management (Carroll et al., 2017). Also, opening up for innovation enables employees to stimulate their sense of creativity and to enhance the generation of ideas and possible projects (Lazzarotti et al., 2013).

2.1.2 Success drivers of open innovation activities

There are several research-based drivers impacting companies' innovation activities, including a company's openness (Laursen & Salter, 2006b), dedicated internal resources (Lichtenthaler & Ernst, 2007) such as team size (Hitchen, Nylund, & Viardot, 2017) and innovation budget

(Bianchi, Cavaliere, Chiaroni, Frattini, & Chiesa, 2011). Also the enterprise culture (Mortara & Minshall, 2011), the firm's strategy (Bader & Enkel, 2014) and its internal innovation process (H. Chesbrough, 2017) play a role. Laursen & Salter argue (2006b) that a firm's openness has a significant impact on its innovation performance as being open allows the input from outside resources and extends the pool of ideas, technologies as well as the opportunity pipeline. Chesbrough confirms the importance of this aspect by indicating that closed firms are missing out their chance to source knowledge that might not be inherited inside of the own company (H. W. Chesbrough, 2003). Nevertheless research has also thematised over-collaboration (Ahuja, 2000; Katila & Ahuja, 2002) and the risk of losing knowledge (Enkel, Kausch, & Gassmann, 2005; Laursen & Salter, 2004) as negative side effects.

Tomlinson (2010) reveals the positive correlation between firm resources and innovation performance, such as firm size and revenue growth. Additionally, Hitchen et al. (2017) state human resources as a factor of influence on innovation showing innovation group sizes positively affect the innovation performance.

Regarding the culture as an impacting factor, observations confirm that cultural heritage inside of firms supports the rapid implementation of open innovation activities. Moreover, companies which can be characterized as extroverted are more easily adapting to in- and outflows of knowledge (Mortara & Minshall, 2011).

Strategy also takes over a central role in open innovation. Chesbrough & Appleyard (2007) claim that an open strategy is needed if firms want to maximize output from innovation networks and ecosystems. Further research has also indicated that a company's strategy influences the firm's degree of openness as well as its selection of innovation initiatives and processes (Bader & Enkel, 2014). Success stories of innovators confirm that pre-set and disciplined processes with different stages are contributing positively to innovation activities and their outcomes (du Preez & Louw, 2008).

2.2 Open innovation ecosystems and intermediaries

In recent times, innovation approaches are not only managed by individual firms themselves but are rather a result of networks between different organizations (Coombs, Harvey, & Tether, 2003). In contrast to traditional relationships from a transactional market standpoint, innovation-focused organizations put high emphasize on network relationships which have an inter-organizational character (Powell, Koput, & Smith-Doerr, 1996). They make use of the additional ideas and concepts of external parties such as research institutes, suppliers, customers and others (Powell, 1990).

These innovation links between companies can also be characterized as an innovation ecosystem provided that the firms are connected around a central point or a platform (Dodgson, Gann, & Phillips, 2013). Their ultimate goal is value creation in technology development and innovation through the use of intermediaries (Jackson, 2011).

Talking about essential, business-driving partnerships and the connection in between companies of one or several industries, the time intensive character of these should not be missed out (Gawer & Cusumano, 2014). Therefore, intermediated network models have been recommended by researchers. They facilitate the building and maintenance of ecosystems and foster open innovation activities amongst various actors (Oh, Phillips, Park, & Lee, 2016). The intermediate entity is responsible for building up the trust needed to conduct joint activities and takes over a neutral role in the ecosystem, described as a focal point. Partnering with open innovation intermediates, such as accelerator programs or industry platforms has been proven to be cost (Kohler, 2016) and technology effective through the expertise of the neutral ecosystem and platform moderator (West & Bogers, 2014). Also, the potential for the respective in- and outflows as explained in the open innovation paradigm by Chesbrough (2003) is described particularly high and well-known for intermediate systems (Gwynne, 2007).

This paper focuses on the intermediate model of ecosystem builders which aim to match their corporate customers with start-ups while building up an entire innovation ecosystem with a variety of stakeholders. The focus lies on joint projects with later-stage ventures and corporate partners' attention for seed investments and equity shares is limited (Pauwels, Clarysse, Wright, & Van Hove, 2016).

Despite the advantages of a consistent exchange in between the ecosystem members, all parties have to manage the challenge of balancing out competition and collaboration (Gawer & Cusumano, 2014). At this point, Bamford et al (2003) claim that through open innovation, competition between individual firms turns into a competitive environment among ecosystems and not amongst the individual firms themselves. This statement is supported by West and Chesbrough (2005) emphasizing the change of competition which leads to the decrease in dependency on internal firm capabilities and the increase of importance of the network's performance. These research findings highlight the strength of ecosystems and also indicate the significance of entering suitable and fruitful partnerships as an organization.

2.2.1 Results of open innovation ecosystems

Talking about results of innovation partnerships and ecosystems, vertical cooperation has been proven to positively influence innovation performance. Nevertheless it depends on the partnerships' strength, which means a sole existence of an inter-company link is not sufficient (Tomlinson, 2010). In the case of open innovation ecosystems, an important characteristic is their possibility to build up a barrier to protect themselves supposing a new market player enters (Gawer & Cusumano, 2014). This means that open innovation activities and alliances can work as a shield to protect the corporations while holding together closely and conducting technology projects. Besides the introduced and further individual results for open innovation ecosystems, the author aims to research whether general open innovation activities' outcomes also apply for open innovation ecosystems.

2.2.2 Success drivers and research gap of open innovation ecosystems

The research on success factors of innovation ecosystems has been very limited to the authors knowledge. Smith (2006) thematises the introduction of an individually set innovation process to successfully manage innovation ecosystems and their outputs. As for open innovation activities in general, he adds the importance of a company culture towards innovation and the promotion and training of employees with an innovation skill set as main influencers.

Besides the positive impact of these, alliances also increase firms' costs through partnership fees and higher transaction costs (Faems, De Visser, Andries, & Van Looy, 2010). Considering the monetary investment and existing internal research and development, the ecosystem's business impact is even more important. Therefore, the author aims to identify success drivers as well as direct results of innovation ecosystems from a corporate partner perspective.

3. Exploratory Research

Previous research on open innovation in the mobility sector includes the adequacy and adoption of open innovation activities (Ili et al., 2010; Lazzarotti et al., 2013) as well as policy measures and the shift to open innovation (Macneill & Bailey, 2010). Nonetheless, there has been no research on mobility innovation ecosystems, their success drivers and associated outcomes.

As previously indicated, literature has discussed success drivers of open innovation activities as well as their corresponding results generally. These have not been confirmed for open innovation ecosystems in specific. Therefore, the author uses qualitative research methods to identify both the success drivers and ultimate results of open innovation ecosystems.

3.1 Research Methodology

A case study has been chosen as suitable approach to increase the number of insights and new aspects of the research topic (Yin, 2012). Since innovation ecosystems have only been investigated by a small number of researches (Gawer & Cusumano, 2014; Oh et al., 2016;

Ritala, Agouridas, Assimakopoulos, & Gies, 2013) an exploratory research has been chosen to investigate the phenomenon.

Based on the literature review and research question, a semi-structured interview guide with open-ended questions was developed (see Appendix 4). This approach resulted in a "guided conversation" rather than a structured research (Yin, 2003, p. 89). The one-hour conversations with company representatives from different hierarchical levels were audio-recorded for transcription purposes (see Appendix 3). The interview partners were chosen based on their familiarity with and involvement in the innovation ecosystem. All of them are considered as first point of contact of the ecosystem, both in- and outside of their organisation (see Appendix 2), called the "champions". The qualitative data was gathered during the period of 5th to 29th October 2018. For analysis purposes, the audio data was transferred to a total of 77 text pages and a total of 692 paragraphs was coded (see Appendix 10).

Identifying and defining suitable categories for coding is a common problem within research. Krippendorff (1980, p. 76) states "How categories are defined (…) is an art. Little is written about it." Nevertheless, Mayring gave structure to the category definition by introducing the deductive and inductive methodology (Mayring, 2000). Based on the explorative and descriptive character of the research, the inductive approach was chosen. Consequently, initial code categories were established through the preceding literature research. At the same time, new ones were added throughout the coding process itself making use of interview insights and newly mentioned aspects (see Appendix 5).

3.2 Case study: innovation ecosystem Startup Autobahn

The case study chosen for the qualitative research is Startup Autobahn. It is Europe's largest innovation ecosystem with mobility focus based in Stuttgart, Germany. The ecosystem is moderated by the neutral intermediate Plug and Play, a Silicon Valley based investor with 29 satellite locations worldwide. Within the last years, the company set up corporate acceleration

programs along the globe in cooperation with industry-leading firms. All offices aim to enhance corporate innovation through start-up technologies and inter-firm collaborations.

Startup Autobahn's ecosystem includes nineteen enterprises, hundreds of start-ups, venture capitalists, mentors and local community members. It brings together the industry through the traditional corporate partners and the newest technologies and trends through stage-agnostic start-ups. The ecosystem aims to drive joint pilot projects with the ultimate goal of technology implementation in serial production, services or processes.

As introduced by Gassmann, Daiber & Enkel (2011), the Startup Autobahn ecosystem disposes of an experienced intermediate, Plug and Play Tech Center, who establishes relationships amongst the named ecosystem stakeholders. Therefore, the moderator Plug and Play can be characterised as an ecosystem builder with a focus on encouraging cross-collaborations amongst ecosystem members such as corporate partners and start-ups (Pauwels et al., 2016).

Startup Autobahn has been chosen as suitable case study based on its best practice character for innovation partnership collaborations and its track record of over 200 pilot projects within only two and a half years (Alexe, 2018). The ecosystem was named "Europe's largest innovation platform" (Automotive World, 2017) steadily increasing the number of stakeholders, projects and technology implementations. This happens through the support of the "champions", named company representatives within the innovation ecosystem. As objective of the qualitative research, they contribute significantly in the data collection process through the interviews.

4. Results and discussion

This chapter illustrates the qualitative research findings by first putting them in a context from a descriptive perspective. As a second step, a discussion with a suitable framework puts the findings in context and aims to generalize the case study's outcomes.

4.1 Research results

Based on the amount and richness of transcribed interview pages, the data was first clustered. To do so, the code categories and respective interview paragraphs from the qualitative research were aligned to three dimensions. These have been derived from the previous literature review and the inductive coding through the Mayring methodology (2000): *individual corporate input*, *ecosystem infrastructure* and *individual corporate output* (see Appendix 5). In the following, a detailed insight into the data is given.

4.1.1 Individual corporate input

The first dimension is named *individual corporate input*. For a better understanding, sub-categories have been introduced based on a pooling of the individual conversation topics (see Appendix 6).

Corporate experience and resources

> *"Yes, we run hackathons too, and we have partnerships and cooperation with other corporates and also trying to tap in the local start-up community in and around where we are operating."*

As a common characteristic, all interviewed companies stated their experience and associated innovation partnerships. These include relationships with players in- and outside of the industry, such as universities, suppliers and customers. Before joining the innovation ecosystem, all of the corporate partners have been involved in collaboration activities. Also, some of them specifically state that Startup Autobahn is not their single source of start-up technologies but is rather seen as a complementary input within their innovation strategy.

Despite the commonality in cooperation experience, differences in resources were noticed. The main discrepancies are team size and organizational placement. All of the enterprises have a specific person or small group in charge which serves as primary internal and external contact point. Team sizes vary from one to four employees. Especially firms with a higher number of technology projects have larger human capital tied. This also applies for firms with the anchor

partnership model as their regular attendance at ecosystem events is needed. Considering the team size, emphasize on the actual full time equivalent (FTE) needs to be given as the number of team members for the ecosystem does not reflect the human resource adequately. Besides the responsibility of Startup Autobahn, the assigned representatives are involved in further projects. Nevertheless, highly involved partners have assigned at least one full FTE.

Coming back to organizational allocation the research shows distinguished results. Most interviewees are allocated in innovation (4) and digitization (2) departments. Others are part of the ventures team, the company's incubator as well as located within corporate strategy. Out of these, the strategist interviewee named difficulties in how to deal with the innovation ecosystem due to limited daily touch points with innovation activities.

Corporate strategy

> *"I think we can be better, we as a team talk about being more structured and more rounded so we recognized that what we are doing now is quite informal but there is a goal to formalize it."*

Asking about strategy, the corporates claim that they don't follow a certain strategic path. Nevertheless, eight out of nine companies have a proper process associated with handling the Startup Autobahn ecosystem. A lack of experience and guidance were the main reasons for a missing process. Naturally, corporates within the ecosystem with a longer membership duration confirm settling a running process takes a year of membership.

All of the interviewees follow the pull process of inflowing ideas. They are transferring the technologies and possible applications from the innovation ecosystem into the organization. Inside the organization, possible projects are identified and conducted in business units.

Five of the companies also make use of the push process. They take identified company's needs into the innovation ecosystem aiming to find a suitable technology. The majority of the interviewees target projects in business units, only two enterprises have a different approach. A TIER1 supplier uses the start-up technologies gathered through the ecosystem for its internal

accelerator program. One of the partners, a technology consultancy, aims to place the technology projects directly at their customers. To do so, their process is focused on validating the technology for later proposing it to their customer base.

Validating technologies also includes their proper measurement. The interviewees' attitudes towards quantitative measurement are mixed: whereas most of them are familiar with performance indicators to prove project success, some are particularly against the introduction of key performance indicators for innovation activities. According to one ecosystem partner, the reason is traditional performance measurement which does not suit strategic investments in innovation. Nevertheless, six firms' open innovation activities underlie performance measurement. Amongst these, the number of technology projects, implementations and investments, as well as cost savings or man hours saved are named.

At this point, one of the main insights is that Startup Autobahn as innovation ecosystem is perceived as a "means to an end" and not specifically seen as the source of the set key performance indicators. Except for three partners, all use the performance indicators at a higher level and maintain their innovation ecosystem activities to support reaching these. Overall, corporates state meeting set indicators facilitates monetary investments. These are needed for innovation activities such as the membership in the Startup Autobahn innovation ecosystem.

Corporate culture

> *"We have tried open innovation channels and crowdsourcing, it is a variety of input channels."*

Considering both the previous mentioned variability of partnerships and the openness of the companies' innovation process, seven out of nine companies can be clearly identified as open innovators (see Appendix 9). Only two of the interviewed corporations claim their innovation process closes the more it proceeds. Both of these companies rely heavily on research and development as well as internal human resources based on their B2B product.

Besides the organizational openness, the attitude of employees involved within innovation activities is considered to be a crucial success driver. Interviewees comment a variety of first employees' reactions towards innovation ecosystem activities. Although the majority of the corporate workforce is motivated and excited to deal with new technologies, some sceptical attitudes are perceived at the beginning. These are mostly amongst new ecosystem members as employees fear the loss of responsibility and importance by introducing technology alternatives. Nevertheless, with time the employees' feedback on the ecosystem and its activities undergoes a positive change. Same applies for the attendance: the longer the membership, the more employees from a specific company are involved within the ecosystem. As stated by one of the anchor partners, people also start to approach the innovation ecosystem pro-actively wanting to be a part of it. At this point, a mindset change within the workforce is recognized. It is both a success driver and an outcome of innovation activities.

Individual corporate involvement

> *"What you need is real engagement form all parties who want to take something out of the ecosystem"*

A recurring interview topic was internal support, particularly from a management perspective. All firms claim the importance of managerial involvement to successfully market and extend the innovation ecosystem. Besides the visibility, financials play a role. As Startup Autobahn is tied to an annual membership fee, financial resources commitment is essential. Also, three interviewees emphasize the importance of in-person management involvement at innovation ecosystem events.

Apart from the higher hierarchical level, individual employee involvement is also declared as inevitable by the interviewees. Innovation ecosystems seek for human resources: firstly, collaboration projects with start-ups need to be managed from a firm's side, ideally by experts from respective business units. Therefore, project managers for the pilots are needed, although

in most cases no additional human resources are made available. As a result, employees need to manage technology projects on top of their daily work. Secondly, the involvement of human resources enables to build up an attractive network within the innovation ecosystem. The people's diverse expertise positively influences the ecosystem quality. A TIER1 supplier also indicates a proper internal innovation ecosystem which was built up through activities at Startup Autobahn.

Firms located outside of the ecosystem's home country Germany mention limits regarding their degree of involvement. To participate actively and to enhance a personal exchange, large resource effort is needed. Spontaneous meetings and going with the flow are challenging and need preparation as well as balancing out the importance of joining in person. As a result, differences in corporate partners' relationships occur: whereas geographically-close companies are able to participate in hands-on personal exchange, foreign corporations are having a rather superficial knowledge exchange mainly held through phone and e-mail conversations.

4.1.2 Ecosystem infrastructure

The intermediate role of the ecosystem moderator plays an important role within Startup Autobahn. As the corporations have distinguished interests, the need of orchestration urges. This chapter illustrates the research findings corresponding to the *ecosystem infrastructure*.

Network

> *"One major strategic component to decide for Startup Autobahn was the network created by Plug and Play (…)"*

Talking about the major motivation to join the innovation ecosystem, all partners' answers were aligned. The network of start-ups and industry corporates was emphasised as primary reason to join. The network component itself and its size play a major role within the ecosystem. Both facilitate the attraction of further network members such as new corporate partners, mainly if currently involved ecosystem members are close from a value chain perspective.

Whilst other innovation collaboration initiatives are open to any industry partner, Startup Autobahn specifically focuses on the mobility sector and attracts members being involved business-wise in this area. Amongst the partner network companies from all parts of the value chain can be found: suppliers, original equipment manufacturers, dealers and industry consultants. This is no coincidence as the data confirms. A car dealer firm states being in the same innovation initiative as its supplier was a major reason to join. Also, a German original equipment manufacturer strategically aims to attract further industry companies. The attraction through partners does not account for all of the members. About half of all interviewed partners claim the companies and their businesses were not the primary reason but a *"nice side effect"*. Nevertheless, the closeness in terms of industry interests and business enhances the collaboration in the ecosystem. Also, the possibility to work with a variety of partners on collaborations heavily attracts further stakeholders, such as young technology companies.

Information Exchange

> *"(…) We are interested in an exchange with other corporates, a kind of open innovation environment to understand what difficulties others face and how they work on them"*

An exchange, particularly between the corporate partners of the ecosystem was named by all interviewees. The qualitative research reveals a rather informal and ad-hoc communication between the stakeholders. The focus lies on *"issues, challenges, opportunities and best practices"*. As only bi-weekly meetings for anchor partners are scheduled, other corporate partners are considered to be pro-active in interaction. Nevertheless, the ecosystem creates a pre-competitive environment which facilitates the exchange on formerly built relationships.

As indicated for the network, foreign-located partners are facing boundaries in inter-personal exchange. Also, partners mention transparency in regards to exchange. As for external corporations not given, being part of the network gives a more detailed insight into other companies' problem sets as well as their technology interests. Nevertheless, firm secrets and

confident data are respected as the exchange is more about learning than copying. Transparency within the ecosystem is therefore highly valued by its members. It enhances the individual corporate improvement of innovation processes, pilot projects and start-up relationships.

Intermediate Role

> *"We don't have to talk to lots of people, right? You select for us and then we would just look into whatever you guys have chosen for us."*

In regards to the innovation ecosystem, interviewees emphasize the intermediary role of Plug and Play. The intermediary's reputation, innovation-related know-how and resources are decisive factors. Specifically, Plug and Play's know-how regarding collaborations between large corporations and start-ups integrated in the innovation ecosystem plays a major role. The use of external expertise facilitates projects between two or more stakeholders.

Same applies for the guidance given by the intermediate, from a time and content perspective. Plug and Play gives a structure through its stage-agnostic start-up accelerator program. The associated time frame of a hundred days for pilots enables corporations to accelerate projects. Interviewees also state that their internal permission processes have adapted to speed up decisions regarding Startup Autobahn projects. Considering the work of large corporations, this rapid and result-oriented process stands in contrast with traditional corporate decision paths. Resulting, several interview partners named Startup Autobahn a *"driver of innovation"*.

Despite the existing guidance, new partners state the importance of getting clearer instructions on how to interact in the ecosystem. In particular, guidance for collaboration projects for both start-up and corporate partnerships is needed to driver better and faster results.

4.1.3 Individual corporate results

With respect to the drivers of ecosystem success, high importance lies in identifying what the actual outcome of the system is. The results can be categorized either as qualitative or quantitative and are looked at further in detail in the following.

Qualitative results

> *"It (Startup Autobahn) was an enabler to give the business unit the spirit for something new, something we have been trying to work on."*

Independent from the membership length, all interviewed partners claim qualitative results derived from the innovation ecosystem. Through technology implementations, mainly process improvement and agile working are enhanced. Therefore, focus rather lies on optimization of current processes than extending the portfolio through new products and services.

Also, awareness for new technologies amongst the workforce is raised as well as new markets and business models relying on alternative revenue streams are introduced. A corporate partner confirms these aspects in stating the importance of knowledge extension through the ecosystem. Six partners state the change in their workforce mainly based on employee involvement in the projects and innovation ecosystem events. Rather than getting the workforce to work in projects, employees are approaching the ecosystem asking to do so. Previous success stories within the network enhance this movement. Simultaneously, one interviewee states that the partnership in the ecosystem positively influences the firm's employer branding.

At the same time, relationship-based outcomes are present. All of the interviewed firms state the existence of a start-up and corporate network. Some of the partners only extend their current innovation network through the ecosystem while others are building it up from scratch. Another social aspect is the establishment of supplier relationships through implementation of start-up technologies. As stated by partners with conducted implementations, at this point mostly venture-client relationships exist.

Quantitative results

> *"For a pilot it is more like a smaller win, you know an incremental improvement but I think what our team is trying to achieve is to use innovation as a way to generate new revenue for the firm."*

Additionally, some quantitative outcomes have been found within the case study. Ecosystem members claim, these were only visible after half a year of their membership. Amongst the

quantitative outcomes, project-related results, often tied to performance indicators are allocated.

Primary outcomes named include pilot projects, technology implementations and start-up investments. All depend highly on the companies' resources, such as time, money and human resources. Whereas companies with high resources involvement conduct up to 15 projects per semester, others primary focus on qualitative outcomes and do not conduct any technology pilots (see Appendix 7). The same applies for the implementations representing the ultimate success of a technology project. Despite the high number of more than 200 ecosystem pilots, following implementations are rarer (see Appendix 8). As stated by the intermediary Plug and Play, approximately 20% of the pilot projects lead to technology implementation. At this point, individual firm circumstances play a major role due to high resources investment.

While start-up and firm collaborations are conducted on a regular basis, cross-collaboration projects are limited. These are considered as projects between start-ups and various corporate partners with different areas of expertise. Only a total of 5 cross-collaborations was counted.

Also, monetary outcomes have been registered. Amongst these, we find cost savings through man hours saved. This has been the outcome for process-oriented technology implementations, such as artificial intelligence. Additionally, an increase in revenues coming through the ecosystem was named. This accounts solely for the mobility consulting firm which is able to generate new business through providing start-up technologies from the ecosystem to new or existing customers. An increase in revenues through service and product implementation has not been registered by any partner so far. At this point, the focus on process optimization technologies is still too high.

4.1.4 Time as influential factor

> *"Let's take the analogy to a formula 1 car; we are the team and the driver is the business unit employee – he needs to get to a result within a short period of time and a tight budget."*

Besides the previously mentioned three dimensions, the author identified time as a high source of influence for the direct results, qualitative and quantitative. All interviewees claim how the corporate individual handling process and the outcome heavily change with the membership's length. Although this finding can be linked back to the experience sub-category within the first dimension, the time factor needs to be handled separately based on its influence on all of the introduced dimensions. One of the suppliers within the ecosystem also mentioned the time pressure in innovating through the ecosystem. Key performance indicators and managerial expectations are encouraging to innovate faster and better. Also, partners state the time-consuming aspect of building up serious business relationships with other ecosystem stakeholders, such as start-ups. Accumulating the data, time was named in different settings such as pressure, framework and resource in all of the semi-structured interviews. This led to the assumption that time plays a major role within open innovation ecosystems and should be handled as a separate dimension within the following framework.

4.2 Discussion and Limitations

To discuss exploratory case study results, frameworks have been suggested. The guided structure enhances the evaluation of the case data (Rowley, 2002). Additionally, the framework supports in generalization, mainly through enabling case-to-case transfer of the paper's research findings (Polit & Beck, 2010).

The framework in Figure 1 illustrates the context between the three individual dimensions as well as puts them into relationship with the exemplified time factor. It plays a role in the evolution of interfirm networks and ecosystems which are happening over time (Basole, 2009), as well as in the development of capabilities to do so (Powell et al., 1996). Also, the adoption to open innovation proceeds in a certain time frame (Mortara & Minshall, 2011). These theoretical-based assumptions as well as the gathered qualitative data confirm the importance of the time factor within innovation ecosystems and inter-firm relations.
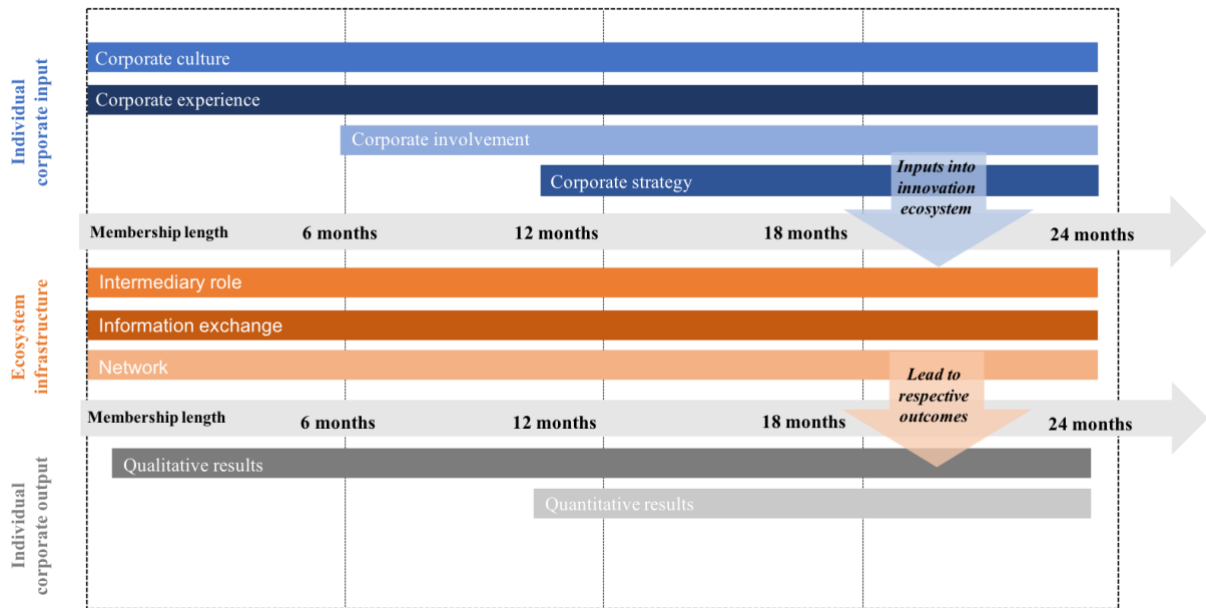
Figure 1: Success drivers and respective results in intermediary innovation ecosystems (own representation)

Firstly, it should be pointed out that the author's qualitative findings match largely with existing research. This applies both for success drivers and results of open innovation activities in general. All dimensions of the innovation ecosystem framework as well as the time factor can be linked back to open innovation research.

For the first dimension of *individual corporate input*, four major drivers have been identified: corporate culture, experience, involvement and strategy. The early existence of the first two drivers has been confirmed through qualitative data and is incorporated in the visual framework. Interviewees identified these two factors as inevitable when joining the ecosystem.

One of these factors, corporate culture, can be found in previous research by Lazzarotti & Manzini (2009). They state, the opener a company, the larger its variety of corporation partners, as seen in the case study. For the second initial success driver corporate experience and resources, Hitchen et al. (2017) confirm the relationship between team size and innovation output. Research findings indicate, the larger the human resources dedicated to the ecosystem, the better the *individual corporate results* achieved. Nevertheless, smaller teams of the

ecosystem state that the intermediate role of the ecosystem orchestrator also allows to extend resources through the use of external human resources at this point.

The driver corporate involvement has been identified to play a role within the first year of membership in the ecosystem. It is introduced at a later step in time within the framework based on the fact that interviewees state the time-taking process of involving further employees and fetching the management. Only corporate partners which have been part of the ecosystem for several months have claimed the integration of both management and employees of lower hierarchical levels. Besides the qualitative research findings, the importance of this factor is also emphasized by Swink (2000) stating, management support is crucial in innovation management best practices. Within the case study, large involvement from executive level was noticed for firms with a high level of quantitative results and vice versa.

The last success factor, corporate strategy, is placed at the point of time of one-year membership length. The research indicates that it takes corporate partners a minimum of one year to establish a proper strategy to handle the innovation ecosystem and its activities. As data illustrates, the innovation strategy and associated processes highly influence the individual ecosystem outcomes. Chesbrough and his fellow researcher Appleyard (2007) state, an open strategy facilitates value creating and capturing throughout the innovation process. This was confirmed in respect with the pilots and implementations derived from the ecosystem. All of the corporations which have technologies projects and implementations in place dispose of a proper processes to deal with these. Interesting to see at this point is the use of both the technology-push and market-pull approach by the most successful partners (Brem & Voigt, 2009; Chau & Tam, 2000; Di Stefano, Gambardella, & Verona, 2012).

Within the success driver corporate strategy, performance measurement is allocated. Traitler, Watzke & Saguy (2011) state the difficulties in introducing performance indicators for ecosystem results. Although interviewed corporate partners confirm the struggle in identifying

adequate qualitative measurement, they have found individual quantitative performance indicators. The data analysis revealed, firms with set performance indicators are driving better results in terms of quantitative outcomes. The reasoning lies back in constant matching of set indicators and on-going individual corporate performance.

The second dimension of the framework, *ecosystem infrastructure*, emphasizes the intermediary role as introduced by Huizingh (2011) and West & Boger (2014). The framework indicates the presence of the drivers intermediary role, information exchange and network at any point of the corporates' membership length. As the infrastructure is given once firms legally join the ecosystem, the three drivers are consistently present.

As for the intermediary role, corporate partners emphasize the time-saving component by choosing an intermediary when setting up inter-company relationships. This is confirmed by Gassmann et al. (2011) who state intermediaries are needed for a new generation of innovation processes. The importance of using external knowledge of such a third-party intermediary is increasing. It allows companies to be more efficient in their product and service development through gathering faster know-how and reducing the actual time to market (Chiesa, Manzini, & Pizzurno, 2004).

For the third dimension of *individual corporate results*, the author finds similar outcomes as for general open innovation activities, both qualitative and quantitative. Qualitative factors include the extension of firm knowledge, increase in employees' technology knowledge, establishment of intra-personal relationships and employees' mindset change. As indicated by the interviewees, these results are occurring shortly after the beginning of the membership. The existing corporation network and the *ecosystem infrastructure* are positive influencing at this point. Amongst the quantitative, pilot and cross-collaboration projects, cost savings and technology implementations are allocated. Interviewees claim, quantitative results take at least a year as they request large corporate involvement through a variety of resources.

Despite these, innovation ecosystems dispose of a unique outcome compared to regular open innovation activities: the network. As all interviewees state, it is built up between the stakeholders of the ecosystem and empowers the individual corporate innovation. Notwithstanding, several open innovation results could not be confirmed by the case study, such as product portfolio extension, new revenue streams, change in current business model, higher profitability and market expansion. Consequently, the author states that open innovation ecosystems target corporates which primary aim for qualitative results while simultaneously getting the opportunity to drive quantitative outcomes. These are strongly linked back to the firms' individual involvement as previously introduced and are not given simply through the *ecosystem infrastructure* and firm membership length. The number of quantitative outcomes may rise throughout the time of memberships, as the corporate involvement does.

Considering the research approach of this work, limitations apply. The case study conducted was single-sided as only one specific innovation ecosystem within the mobility sector was explored. To generalize the framework and its outcomes, the knowledge about innovation ecosystems needs to be extended. This will support in validating the framework through further case studies for both the mobility sector, as well as other industries.

The paper specifically focuses on the corporate stakeholder side of the ecosystem, reflected in the interviewees' roles. No further group of stakeholders such as start-ups or venture capitalists have been considered. Therefore, innovation ecosystem outcomes and success drivers can even be broader and may differ depending on the individual perspective of the ecosystem stakeholders.

As the case study was conducted with an intermediary innovation ecosystem, respective qualitative data is limited to this specific type of innovation ecosystems. Individual outcomes may vary for ecosystems which are orchestrated by corporations themselves and do not involve a neutral party.

Also, general limitations of qualitative studies apply in this research, such as the bias in data collection. The author took over a neutral role as interviewer and data analyst throughout the research process. A double check of the interview guide, process and data through Plug and Play team members was conducted to prevent major biases in the qualitative research.

Also, personal situational perception and understanding of the interviewees can be considered as a limitation. As only one representative per company was interviewed, the insights into the firms' ecosystem participation are single-sided and may vary considering a more diverse group of company representatives.

5. Conclusion

This research is one of the first to give insight into success drivers and respective outcomes of open innovation ecosystems established by an intermediate. The qualitative research findings confirm current literature of open innovation activities. Simultaneously, through puzzling the research results and the current state of findings about open innovation and ecosystems, the author develops a three-dimension framework with a linked timeline.

From a practical point of view, the framework teaches corporations what it takes to be successful in an innovation ecosystem at the point of deciding whether to enter or not. At the same time, firms in the ecosystem are able to identify which factors to put emphasize on to increase or stabilize individual success and respective qualitative and quantitative outcomes. Specifically, for managerial roles the framework supports in understanding whether individual company resources and characteristic named as *individual corporate input*, are present to be successful within such a system. Also, managers can review the identified respective outcomes of the ecosystem to validate whether these are aligned with the current firm strategy. As for intermediary systems, it illustrates the importance of the involvement of third-parties to give corporations infrastructure and neutral advice while concurrently establishing a network of firms.

Through exploratory research, the author was able to get insights into how mobility firms are dealing with innovation ecosystems. Hereby, it got clear that every firm is following its individual path but still aiming to improve its processes to take the most out of the network. All firms fully agree in the value creation by being actively involved in the ecosystem. Due to the variety of corporates' goals, value creation through the innovation ecosystem is perceived diverse. Whereas some firms are focusing on the network and relationship aspects, others are stepping further with the aim to conduct and implement technology projects. Research indicates that both types of stakeholders, seeking for qualitative and quantitative results, are able to achieve their pre-set objectives with the support of the innovation ecosystem orchestrator. Interesting to see at this point, is how *individual corporate input* is respectively tied to the corporations' aims. Higher and more diverse input from the corporate generally leads to more intense to reach and strategic long-term results. Amongst these, there are quantitative outcomes such as technology implementations and investments in start-ups. Firms targeting the networking and information exchange part have a distinguished input. To achieve their qualitative goals, they focus on conversations with other partners, regular participation in ecosystem events and their employees' involvement. Nevertheless, both types of companies are able to pursue their aims as innovation ecosystem members. The individual adaption of corporate input allows to drive respective firm results in the ecosystem.

The framework encourages mobility corporations to fully exploit innovation ecosystems making use of the industry-focused infrastructure and partner network. Through learning from others, being able to track industry trends and foster cooperation, innovation ecosystems can complement a firm's innovation strategy. Hereby, the introduced framework teaches firms and respective managerial roles where to focus on to successfully drive individual firm results within mobility open innovation ecosystems.

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7. Appendix

Appendix 1: Open innovation marketing of mobility companies
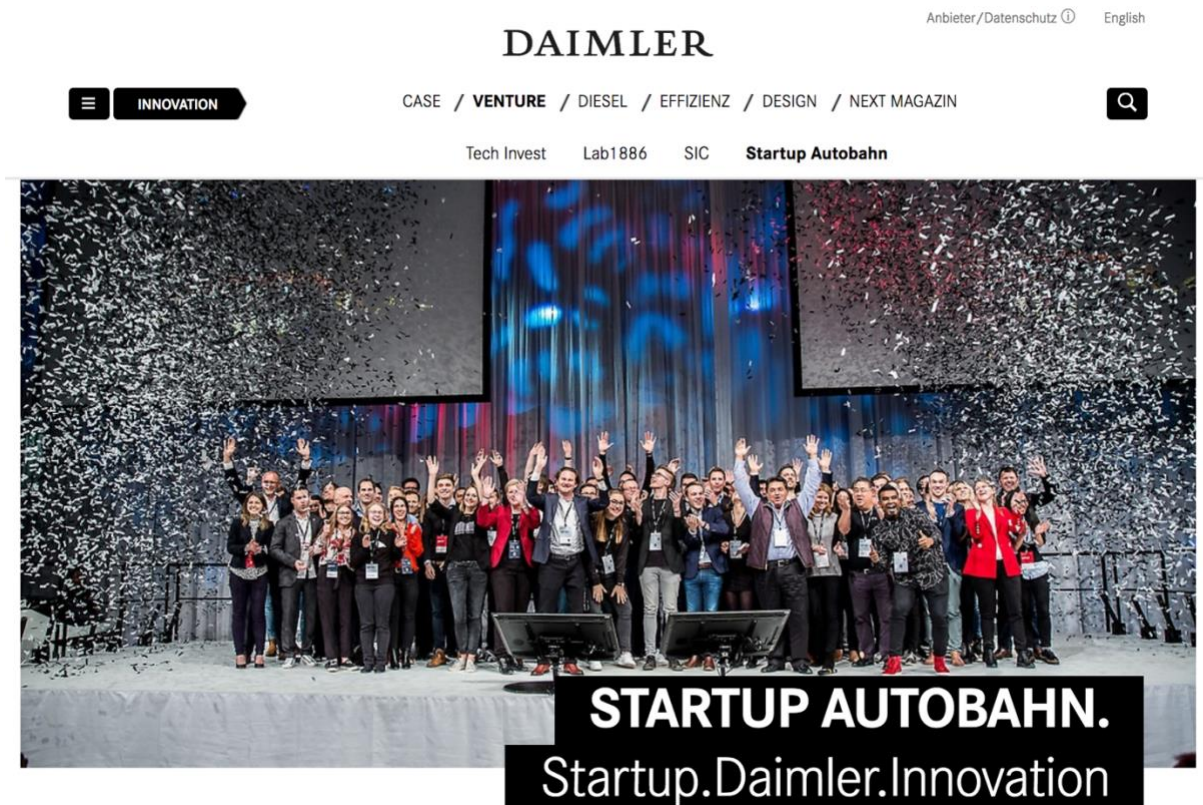
Source: https://www.daimler.com/innovation/venture/startup-autobahn/ (04.12.2018)

Source: https://newsroom.porsche.com/en/company/porsche-digital-campaign-partner-innovation-platform-startup-autobahn-13393.html (04.12.2018)

Appendix 2: Overview interviewed corporate partners

Company	Revenues (2017)	Value Chain Position	Membership Type
Company A	3.02 billion EUR	TIER2 supplier	Ecosystem partner
Company B	17.113 billion EUR	TIER1 supplier	Ecosystem partner
Company C	24.55 billion EUR	Consultancy	Founding anchor partner
Company D	64.47 billion EUR	TIER1 supplier	Anchor partner
Company E	18.211 billion EUR	TIER1 supplier	Ecosystem partner
Company F	39.5 billion EUR	Dealer	Ecosystem partner
Company G	7.856 billion EUR	TIER1 supplier	Ecosystem partner
Company H	164.3 billion EUR	Original equipment manufacturer	Founding anchor partner
Company I	7.06 billion EUR	TIER1 supplier	Ecosystem partner

Appendix 3: Interviewed experts

Company	Role	Member since
Company A	Innovation Manager and Venture Scout	March 2018
Company B	Digital Commercialization Lead	February 2018
Company C	Innovation Program Manager (Industry 4.0)	October 2016
Company D	Digital Solutions Intern	February 2017
Company E	Corporate Strategist	March 2018
Company F	Innovation Manager	February 2018
Company G	Head of Innovation and Foresight Management	June 2017
Company H	Program Operator Startup Autobahn	February 2016
Company I	Head of Company Incubator	April 2017

Appendix 4: Semi-structured interview guide derived from literature review

Introduction	-	Presentation of university and research project
	-	General information on interview (time, audio-record, question formatting)
	-	Allowance to audio-record interview
Innovation Ecosystem Membership	-	When did the firm join Startup Autobahn? Which Plug and Play platforms did the firm join?
	-	From an organizational standpoint, where is Startup Autobahn linked at in the firm?
	-	What is your function within the firm?
Openness of interviewed corporation	-	How open would you describe the company's innovation process?
	o	Do you have a lot of cooperation and channels where you get your innovation input from?
	o	Is a large part of your process opened up to external stakeholders?
	-	What was your motivation to join Startup Autobahn? Is Startup Autobahn the first Open Innovation initiative you have joined?
Startup Autobahn membership	-	What does Startup Autobahn mean for the company?
	-	What is your goal by joining the ecosystem?
	-	How does your strategy or process with Startup Autobahn look like?
	-	How important would you categorize the attendance of other corporate partners at the program?
	-	How would you describe your relationship with the other platform members?
	-	What are you thinking about cross-collaboration with other platform members?
	-	Who is you are having most contact with (start-ups, corporate partners, community, VCs etc.?
Innovation Ecosystem handling	-	Please describe the process you are following with Startup Autobahn – meeting start-ups, matching them with business units/ departments etc.
	-	What influences your process with Startup Autobahn? Geographical issues? Membership issues?
	-	What do you think has an impact on the innovation ecosystem?
	-	How do you think the Ecosystem could improve?
Direct results of innovation ecosystems	-	What would you describe as direct results from your Startup Autobahn membership? (quantitative, qualitative)
	-	Which cooperation with start-ups have you conducted through Startup Autobahn?
	-	Which outcomes (positive/ negative) have you noticed since joining SA?
Results measurement	-	How does the company measure the outcome of Startup Autobahn?
	-	How does the company generally measure OI outcomes?
	-	Have you reached your key performance indicators? / do you think they are reachable?
	-	Are you planning on introducing performance measurements? Are these planned to be quantitative or qualitative?

Appendix 5: Codes derived from literature review and inductive coding

First coding: inductive and literature-based (number of codes used)

Code category	Sub-code category
Reasons to join the network	Discover new business models (2)
	Set framework (2)
	Identify solutions (3)
	Extend technology knowhow (2)
	Shorten internal process (1)
	Support digital transformation (3)
	Exchange with other corporates (5)
	Organized events (1)
	Global network of start-ups (6)
	Marketing purposes (2)
General information	Champion responsibilities
	Startup Autobahn membership (11)
Openness of corporations	Opening in the innovation funnel (Lazzarotti) (7)
	Variability of partners (Lazzarotti) (8)
Organizational structure	Team within corporate (6)
	Pilot projects process (2)
	Startup Autobahn process within organization (27)
	Responsibilities of department (12)
	Organizational innovation structure (4)
Innovation ecosystem	Automation of process (1)
	Orchestration of ecosystem (2)
	Dependency of corporate partners (1)
	Membership category (1)
	Learning process (6)
	Main focus (2)
	Cross-collaboration projects (3)
	Disadvantages of the system (2)
	Factors to improved (15)
	Benefit: time framework (2)
Key performance indicators	Planning KPIs (4)
	Meeting set KPIs (5)
	Quantitative KPIs (14)
	Qualitative KPIs (6)
Results	Agiler working (3)
	Financial outputs (3)
	Customer feedback (5)
	Value based innovation (1)
	New business models (9)
	Corporate network (3)
	Start-up network (6)
	Employee reaction (5)
	Technology focus shift (5)
	Cost savings (6)
	Pilot projects (8)
	Start-up relationships (3)

	Technology awareness amongst employees (2)
	Management support for innovation (8)
	Employer branding (4)
	Venture client relationship (3)
	Investments in start-ups and technologies (9)
	Product or service implementations (5)
	Explore new technologies (8)
	Entering new markets (4)
	Process improvement (8)
	Employee involvement (10)
	Mindset change (5)
Corporate partner network	Similarity of corporate partners (1)
	Ecosystem vs anchor partner (4)
	Relationship between corporate partners (6)
	Cooperation between corporate partners (15)
	Exchange between corporate partners (10)
	Importance of corporate partners (10)

Second coding: identification of success drivers and creation of dimensions

Success drivers	**Categorization for dimension alignment**
Ecosystem infrastructure	Communication (3)
	Ecosystem size (5)
	Time frame (3)
	Transparency (10)
	Cooperation possibilities (14)
	International network and experience (10)
	Intermediary/ guidance (9)
Individual corporate input	Geography (4)
	Value chain position (2)
	Stakeholder variety (7)
	Corporate involvement (10)
	Team experience (19)
	Push & pull process (4)
	Employee reaction (10)
	Employee involvement (19)
	Partner roles (5)
	Corporate relationship (19)
	Team size (4)
	Budget (5)
	Key performance indicators (25)
	Membership length (7)
	Management support (14)
	Internal innovation process (27)
	Company's openness (17)
Individual corporate results	Direct results (30)

Appendix 6: Combination of codes and dimensions

Dimension	Sub-category	Influencing factor/ results
Individual Corporate Input	*Corporate experience*	Team experience and resources
		Variability of partnerships
	Corporate involvement	Employee involvement
		Management support
		Geographical boundaries
	Corporate strategy	Internal innovation process
		Strategy
		Key Performance Indicators
	Corporate Culture	Company's openness
		Employees' mindset
Ecosystem infrastructure	*Intermediary role*	Guidance
		Time and task framework
	Information exchange	Communication
		Transparency
	Network	Internationality
		Ecosystem size
		Value Chain Relevance
		Stakeholder variety
Individual corporate outcomes	*Qualitative results*	Agiler working
		New business models
		Corporate & start-up network
		Employee feedback
		Technology focus shift
		Technology awareness amongst employees
		Management support for innovation
		Employer branding
		Venture client relationship
		Explore new technologies
		Entering new markets
		Process improvement
		Employee involvement
		Mindset change
	Quantitative results	Pilot projects
		Implementations
		Cross-collaboration projects
		Financial outputs
		Cost savings
		Investments in start-ups and technologies

Appendix 7: Startup Autobahn individual corporate partners' results (December 2018)

Company	Membership length	Membership type	Pilot projects	Implementations
Company A	7 months	Ecosystem partner	2	In evaluation*
Company B	8 months	Ecosystem partner	10	In evaluation*
Company C	24 months	Anchor partner	17	3
Company D	20 months	Anchor partner	20	4
Company E	7 months	Ecosystem partner	0	0
Company F	8 months	Ecosystem partner	3	1
Company G	16 months	Ecosystem partner	10	2
Company H	28 months	Anchor partner	62	12
Company I	18 months	Ecosystem partner	0	0

Note: Table only displays figures from interviewed partners and is therefore no overall representation of ecosystem results and implementations.

*Discussions on how to proceed with pilots are conducted at the moment.

Appendix 8: Startup Autobahn track record for bi-yearly start-up program (December 2018)

	Batch 1 Sep 2016 – Feb 2017	Batch 2 Mar 2017 – Jul 2017	Batch 3 Sep 2017 – Feb 2018	Batch4 Mar 2018 – Jul 2018	Batch 5 Sep 2018 – Feb 2019
Number of start-ups	13	28	33	31	34
Number of pilot projects	15	50+	60+	50+	40+ (at the moment)
Number of implementations	4	10	Still in evaluation	Still in evaluation	Still in evaluation

Note: Table only displays figures from Anchor partner and associated accelerator program results; Ecosystem partners are conducting pilots and implementations separately (see Appendix 7).

Appendix 9: Openness' of companies according to Lazzarotti & Manzini (2009)
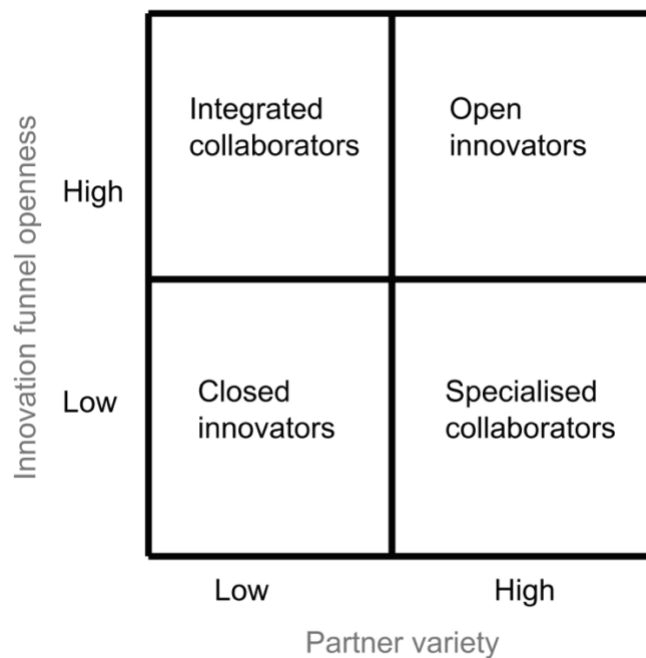
Appendix 10: Semi-structured interviews with corporate partners

Interviews conducted in German language were machine translated through DeepL (https://www.deepl.com/translator)

Interview 1: Company A // 4th October 2018 // Innovation Manager and Venture Scout

Interviewer: Quite simply at the beginning a few general questions about Wieland at Startup Autobahn. Since when are you part of Startup Autobahn?

Company A: Since March of this year... so March 2018.

Interviewer: Okay and you've been part of Startup Autobahn since March 2018, haven't you? So, the responsibility from the beginning was with you-

Company A: Exactly

Interviewer: Yes, that is often very important to see if something changes. And what exactly is your function at the Company A?

Company A: This interface between Startup Autobahn and Wieland as a whole and then the generalist interface between Start-ups worldwide and Wieland.

Interviewer: Okay super. That means Startup Autobahn is directly at the department that hung up?

Company A: Yes exactly.

Interviewer: And that's Wieland Ventures, isn't it?

Company A: Exactly, that's what we do at Wieland Ventures.

Interviewer: And Ventures is attached directly to the Company A or is it a legal entity in its own right?

Company A: Yes, an independent GmbH or legal entity. But the interface to Wieland Cooper is guaranteed. Yes.

Interviewer: Okay super. Ehm on your activities in the field of innovation in general. The fact is that we declare ourselves as an innovation platform and communicate this in the same way and the partners also pursue this in the same direction. If you now look at the Company A or Wieland Ventures, how open would you describe yourself? In the sense of you have many cooperation or channels through which you get your input. Is a large part of your processes open to the outside world, for example in development or in finding solutions in various departments in general? Simply a very brief assessment of whether you are generally very open or deliberately closed off in some processes.

Company A: So, I think if you look at it as a whole innovation process and then go down to finding ideas I would say on a scale from one to ten at five or six. The further an idea or innovation progresses when it comes to project planning, the whole concept is certainly not as open as it used to be.

Interviewer: That means that then rather the ideation

Company A: The more concrete it becomes, the less we then communicate externally.

Interviewer: Okay, that closes in the course of time. And the channels through which your input is received are some or are you specifically on the way and reduce it to a few, such as Startup Autobahn and other cooperation partners, or is it really the case that you also involve suppliers and customers and so on?

Company A: More like the second. There are different sources and we are relatively colourful on our way. Yes.

Interviewer: Okay super. A high variety. Then back to Startup Autobahn. What was your motivation to become part of the network or the platform?

Company A: Great advantage in any case to get a network in ecosystem start-ups. So, I always call this a kind of upstream search filter for us. That was an important point for us to get access to contacts to get in touch with start-ups for potential investments and projects. And the other the regional network to other industrial companies and innovation departments, as a downstream point.

Interviewer: That means Startup Autobahn is primarily a filter source for you, but also gives you access to a network of all partners.

Company A: Exactly, but the first point is simply to get access to start-ups and that is also the main focus worldwide.

Interviewer: And if you look at that now, before you have become part of the program, you have set goals you want to pursue with Startup Autobahn or maybe even a certain strategy in the sense of we want to achieve that or we primarily pursue that and that goal.

Company A: Hm ne, specifically related to Startup Highway, we have not defined any indicators or goals.

Interviewer: Okay, that means you go a bit with the program or the platform and then you take what comes as input.

Company A: Exactly, at Wieland Ventures level we have set targets, but we didn't do what one level below looks like, what there are for targets and key figures with Startup Autobahn.

Interviewer: That means that the goals apply generally and not only to the innovation platform Startup Autobahn, they apply to you as Wieland Ventures?

Company A: Exactly.

Interviewer: We have just addressed the other industrial partners and you thought that would be more of a downstream reason. How would you describe the relationships with the other platform members? So, is it so that you regularly exchange ideas or is it rather in the direction that you look at what the others are doing?

Company A: Now specifically related to Startup Autobahn? Yes as well as. How this is handled at larger corporations is definitely an important point. And now we are talking about who is working with whom. I would regard both as equally important.

Interviewer: And additional things that happen there or that are important between the partners, is there anything else? When the exchange only took place via Startup Autobahn or perhaps also via pilot projects

Company A: Well, currently, ne, currently there is nothing quite specific about it.

Interviewer: In general, there's the possibility to collaborate with other partners, that's already happened in some cases I think you saw that at the Expo when the award was given. Do you have any plans, that means you want to do projects with other platform members or are you already talking? Have you already thought about that?

Company A: We haven't thought about that yet. It will be an option for us in the medium to long term, now specifically we differ from other corporates or participants. Our focus is not only primarily on the topic of setting up projects internally, more or less these customers, supplier relationships or partnership relationships with the start-up to enter but more on the topic of investments. That's why we didn't see this as the number one priority.
to set up projects with other companies and start-ups, so to speak. But I would say that in the medium term this could be an option for us.

Interviewer: Is also possible in the investment area, that you say you invest together if interests from different companies arise or you see that someone else invests.

Company A: Yes, exactly. If it becomes a bit more concrete for us then we have had consultation, there is another corporate partner. Then we always asked the David or the Livia whether they were still active in investment or whether there were any discussions and we asked them that.

Interviewer: To which of the Startup Autobahn members do you have the closest contact? I've just heard that it's primarily about investments or collaborations with start-ups or collaboration in general. How would you say that, are the start-ups a possibility for you in the first place or if you take the Expo, for example, what are the participants you visit or approach?

Company A: The focus at the moment is still primarily on the start-ups, so our main focus and main starting point is now just related... in second place then the Corporates and there a little exchange of experience and also possibilities what you could do together with regard to investments... but I think the time is a bit too short for that now that we are a member to look back on a very long history.

Interviewer: Exactly, you are still relatively fresh. But I think that with time you will have more experience and some things will result in situations...

Company A: Exactly that is all still a bit of a learning process, i.e. we try to be a bit open and reflect on what we might still be able to change, where we might be able to expand certain interfaces, where we might be able to work together more on which levels.

Interviewer: Now related to start-ups or other companies? And potential partners?

Company A: Both.

Interviewer: Okay, so you're already using the network that's being provided.

Company A: Yes exactly.

Interviewer: You already mentioned that you haven't been a member of Startup Autobahn for that long. But what would you see as direct results of Startup Autobahn in your company? That could be anything now, whether you want to name a number for investments, things you noticed or benefits you could derive from it or that your team or the company as a whole could derive from the partnership.

Company A: Virtually advantages from the partnership?

Interviewer: Exactly, so to speak the direct results that come out of it.

Company A: So, in any case the direct contacts to possible shareholdings are the biggest advantage for me. And also, as a result, i.e. conversations were held and lists received with contacts that we then had to or were able to narrow down again and there we definitely got food to continue working. That is the biggest advantage

Interviewer: Okay, that means you primarily got to know start-ups through dealflow sessions in the first step, but did you really get to know them in the second step, so were there projects, or were there implementations or investments in your case?

Company A: Yes, so investments if everything works out then that will come soon, that is still due to the subtleties and details, then there was a positive success in that sense. Smaller things like that, where it's more about projects, project is perhaps a bit too imprecise for us I would rather say to use solutions now. There were now two approaches, one was specifically about Smartwatches and one is still in clarification whether we use drones for maintenance and servicing at our factory. They are also from contacts about... once even from the program conclusion and once from a Meetup.

Interviewer: That means both are rather program start-ups. How would you rate that, what is more important for you - rather dealflow start-ups that you get to know based on your technology interests or when you run into such a mass of start-ups on a specific topic at such an event and get to know them.

Company A: Due to our objectives, the dealflows in any case.

Interviewer: That means really specifically based on your interests. You mentioned that you are investigating the use of solutions for smartwatches and drones. How does this work, so you get to know the start-up and what is the next process - what is the next step, do you approach any business areas, how do you try to find out if a possible cooperation can take place?

Company A: Exactly, we build up the contact in the sense that during the Meetups or events we exchange ideas with the Start-ups, have them explain to us exactly what solutions or a product is behind it, then let us more or less get the company presentation or the pitch deck and then play it into our specialist departments and then ask for a kind of assessment as to whether there would be any fundamental interest, whether we should establish or establish the contact, or what exactly the specialist department says about it. Because for us it is of course always important when the specialist department says, ne we don't need any contact or something similar, what caused it, whether it was specific to the solution or to the topic, in order to then be able to derive a bit of the search and thrust direction for us in the future. Ideally, when the specialist department says yes, it's interesting we want more information, then we're there at the first meeting, usually by telephone and then we hand it over to the specialist department. Feedback then comes or we ask for it after a few weeks, but then it actually goes on to the direct specialist department.

Interviewer: Okay, that means you initiate this and at a certain point it is the individual responsibility of the department.

Company A: Exactly, this applies to projects and suppliers. The situation is different with investments.

Interviewer: Okay, investments run through you or?

Company A: Exactly, they run with us and stay 100 percent with us. Although we also obtain opinions and evaluations from specialist departments, the final evaluation, investment and decision-making then take place in our specialist department.

Interviewer: Okay, very good. You just mentioned that you send the presentations or pitch decks to the specialist departments. Did it ever happen to you that you somehow looked at completely new technologies in this context and that it would have been an extension of your product portfolio or perhaps even a completely different focus, or was it more from the area in which you are currently located? Right now, related to the products and markets you're focusing on.

Company A: No, I would say that it was always something new for us.

Interviewer: Okay, that means apart from what you did and then more complementary to what you currently have, so a kind of expansion.

Company A: Yes... whereby here you have to say that these were always topics that go in the direction of process optimization, so now it was not about expanding or expanding our portfolio, but rather about process optimization from our previous processes internally.

Interviewer: So, less product- and more process-related. This also means that it was more about improving processes in the company than about offering the customer something new.

Company A: Exactly, i.e. rather efficiency increase and cost reduction, those were the benefits for us that were then in the foreground.

Interviewer: And your technology focus, how do you do that, how do you apply it, has it somehow expanded in the course of the program in the sense that your start-ups from different areas are represented or has it stayed the same since day 1 you have said, so to speak, that's what we want to focus on in the context of cooperation.

Company A: It hasn't changed for us since March and we derive what the investment is from strategic guidelines and directions. So, we say we have a certain direction in which we want to go as a company and we want to look at that and from that we have derived the technology fields. Can change I think, will not change annually and monthly, but to the current state has now since the beginning of cooperation with Startup Autobahn not changed.

Interviewer: Do you have the feeling that the technologies of the start-ups give you the opportunity to work more innovatively or would you rather refer to efficiency and you just mentioned cost savings?

Company A: That's a good question, I think it's more about efficiency, it's new ways of working, but for me it means doing things more efficiently or better. Or does something else, I think you only do it if it becomes more efficient, otherwise I wouldn't say that you have to change something.

Interviewer: Do you also measure this directly in the solutions when you test them in the specialist departments? Do you get feedback?

Company A: Yes, in the cases we've had so far, yes.

Interviewer: That means based on numbers and not just an individual assessment. But that means you have different solutions to test, the way I have heard it now there is nothing fixed implemented at the current time.

Company A: No, no, that's where we are right now

Interviewer: And if you now say that you also play that on the departments, how is there so generally the behaviour of the departments. Do you hear that they think it's great when there

are new technologies or is it rather such a reserved way that they show up in the sense that they are also sceptical about it?

Company A: I think it's both as well as general that we can't say that everyone always reacts the same way but I think it's different from department to department and person to person. But I always think if you always have a little bit of added value when it becomes tangible for someone, then the people are always open to the topics... to take a closer look at it or to demand more information. I have never had such a whole defensive attitude before.

Interviewer: Do they also come to Meetups or do you do that purely from your Ventures glasses?

Company A: No, we want to be open, but the resonance is still a bit low, I personally think that's a little bit on it, you can't make something like that tangible from one day to the next that actually stands behind all the Meetups and Appointments and to a certain extent ensure that it reaches all the departments and people for whom it might also be interesting. So, there is also a lot of communication work

Interviewer: Until it reaches the last one, especially when there are a lot of employees, it is always a challenge within the company.

Company A: Ultimately, you don't have the influence on what the department heads or ultimately the superiors pass on, so that's simply something that takes a little time and it also needs more tangible examples so that it leaks through the company.

Interviewer: But that means that you communicate more to a higher level and then you look from there, or you look from the department manager level to see to what extent this is distributed.

Company A: Yes, we have several approaches, one of which is that we then use the classic top-down system from top to bottom, but we also try a lot to report on it via our newsletters and internal company communications.

Interviewer: So, we're already trying to reach the masses. And if you're talking about departments that're currently testing such solutions or to which you're giving such pitch decks, then it's more from the development area or if you say you're more process-driven, then it goes directly into process management or then you look directly at what the start-up is doing and try to find the department in the sense of HR Startup into HR or?

Company A: Exactly, so the third solution in any case, that we say depending on the start-up, we look directly for the right department, partly if there are topics that would perhaps find several departments interesting, then we'll put it higher in the development something. Partly also a lot with us in the IT area when it comes to digitization and then always ask that the

colleagues when they see, oh no that concerns now rather another department that back to us or us directly

Interview 2: Company B // 5th October 2018 // Digital Commercialization Lead

Interviewer: Then I would start recording now and start with the Basic Questions. The first question is since when is the Company B part of Startup Autobahn?

Company B: Ehm, so we joined at the beginning of the year in Stuttgart, Singapore and Sunnyvale as Ecosystem Partners.

Interviewer: Okay, so virtually at all three locations.

Company B: This year, 2018.

Interviewer: This year... and you've been there since the beginning, haven't you?
As a team member.

Company B: Exactly.

Interviewer: That means that the responsibility is hanging with you and where are you located in the Company B, so in which department, what exactly is your task?

Company B: Eh exactly. So, I am, I work in the Corporate Digitalization Office. This is a department that reports directly to the Executive Board, our Chief Technology Officer and I practically report to the head of our department and I'm responsible for alternative commercialization and partnerships. And when it comes to partnerships, we divide it into four areas, one is partnerships in academia, the other is partnerships with Applied AI, as an example with a few universities. The second are Corporates, we also work intensively with other Corporates, soon we will start a Hackathon with Intel at the end of November here in Munich and at the beginning of next year we will start a Hackathon with Siemens. The third group are Open Innovation Platforms and Financing Platforms, Venture Capital Firm or Plug and Play. And the fourth group are practically start-ups and there it is dadrum how you work, my role is how you work with start-ups, how you work together in the long run. And the start-ups themselves, we have such an Intracompany Accelerator, that means there are no start-ups applying who come here, there are employees applying who are working on a problem together with us, we support that and after three months a pilot or an MVP should come out. For the process we like to work together with start-ups and there are, we have a huge portfolio of start-ups even before plug and play with which we have worked together. And this year specifically we have done four projects with start-ups that we found through the Plug and Play program in Stuttgart and we are doing two projects right now in Singapore through Startup Highway Singapore and more are coming in Singapore. And in the USA in the area of energy

management, we have had a deal flow where we are now also talking to two concretely. In total, we will probably have ten projects this year, yes, in total.

Interviewer: Okay super, sounds good. A very brief question when you say that people are applying to go through your internal accelerator. Are they released for this or does it run alongside actual tasks?

Company B: No, that's practically besides their actual tasks, the thing is all we do is very strong, very close to the core business in the digital environment. And that means there's always a business problem that needs to be solved, with the business owner coming out of the business and it affects him in the day-to-day business anyway. He just has the opportunity here, he can come to us physically, we call the Base Camp sit down. So, we have business developers, data scientists who help him. He is like in such a 'men, we take there the analogy of a Formula 1 car, we are the car or we are the Formula 1 team and the driver is so to speak the business person and he must come in a short period of time and mi a manageable budget to a result with us.

Interviewer: That sounds very interesting to the concept in any case. You just mentioned that you have cooperation with other companies and also do hackathons, and you also have your internal accelerator. If you take a look at how open the Company B is, how would you describe it? So, you have a lot of cooperation and channels through which you get your input compared to other companies or earlier times, when you might not have had the whole programs yet, how would you assess the fact that the input comes from different directions or are you rather very fixated and fixate on a few.

Company B: What do you mean by input? Start-ups or?

Interviewer: Exactly, for example for the innovation process or generally if you're looking for solutions you just mentioned that people usually come with business cases. For example, if you had a scale of one to ten, where would you classify yourself in the sense of ten we get all our input from solutions or for problems from outside and one we do that purely internally.

Company B: Oh, yeah, basically we have three directions in Corporate Digitalization. First is the accelerator, then the partnerships what I do and the third is transformation. And we deliberately opted for partnerships, because we simply can't represent that as a company in terms of resources and know-how. We have a manageable group of 15 people, four in Singapore and eleven now in Munich. So, we put a lot of emphasis on external know-how, of course we also do internal projects with our data scientists, which we three data scientists here and one in Singapore. But I would say that we are two thirds or eighty percent, that is eighty twenty. And that's also important to keep up the pace in the end, so we need the first result after three months, which means that if we're sabotaging around somewhere for a year and then nothing comes out of it. That's why we say if we don't get anything useful out of it after three months, then we drop it. So, we want to achieve results quite quickly and there we need the power of external people who support us in the processes and ways of thinking.

Company B: Okay, that also means there is a certain time pressure to deliver something. If we now go back to Startup Autobahn especially, to the innovation platform. You just mentioned that you use such methods to expand your resources or to cope with this in terms of capacity. What was your motivation to become part of Startup Autobahn?

Company B: So actually, there are three topics at the end. First of all, we just wanted to get access to a network of start-ups, a global access to high quality start-ups, so to speak, and that is in principle perfectly given with Startup Autobahn through the monthly events as well as through the dealflows, you get there pre-selected, so to speak, and also presented on our experience very high-quality start-ups. This is simply very efficient for us to get in touch with start-ups. And the second is especially true for Start-up Autobahn, we are also interested in an exchange with other Corporates, a kind of Open Innovation Environment, to simply understand what problems they have or how they work with Start-ups and that is simply given by the monthly events we attend, which are also very professional, so also with Porsche and Co we are really excited. And the third topic besides Startup Sourcing and Exchange is Transformation, we have our own transformation program running, that depends on digitalization because we simply want to show the organization how to work differently, how to work with digital technologies, what modern working methods are and what a mindset is to be competitive in the future. And we also use the program to take people from the business to the Plug and Play events to show them how it works and how other companies do it and how to work with start-ups. And we are planning this Corporate Day in February, this Meetup with us to take a lot of internal people along. So, the third motive is to use the Startup Autobahn activities under our transformation program.

Interviewer: Okay, that means it's about picking up people and taking them with you. If you're addressing these three points right now, how would you describe your strategy with Startup Autobahn? You've already said you take people with you but have you somehow set up a certain concept to pursue these goals or have you also set up your own strategy in the sense of we always take so and so many people with us? Or we come out of our company with Use Cases - how do you get the most out of it?

Company B: No, so we don't have a formal approach now but our corporate digitization has very concrete goals and for this year it was that we do six projects with start-ups of Plug and Play and we will achieve that. But we don't have any goals now at least I don't have in mind the start-up highway program that we bring so and so many people or attend the meetings there, there are no bites, structure or goals.

Interviewer: Then the project-related goals related to the cooperation with the start-ups.

Company B: Exactly.

Interviewer: We already mentioned earlier or you also said that it is very important for the Company B to carry out the exchange or cooperation with other companies now on the platform

Startup Autobahn but also off the beaten track. If we now look again at SA, how important was the fact that the exchange with other industrial companies was to you?

Interviewer: So, it's more the commitment than the partners coming from a certain industry. And how would you describe the relationship with the other platform partners - is there a lively exchange, are there talks about cooperation?

Company B: No, that's um we don't have a close relationship, we had an exchange with Daimler, they had invited us before and also connected us to Bosch. This is not the case now that we are very active in the partnership with the other corporates there, but rather that this is the result of the Meetups. There are other platforms, such as Applied AI, a program of entrepreneurship in Munich. Where it's simply a matter of making the topic of artificial intelligence a little more tangible and there we are in a more intensive exchange with the partners there, there are increasingly also Munich corporations.

Interviewer: But does it also mean that this is more a result of the structure of the program, if you just say that entrepreneurship is different or that it is really also the case for the companies themselves, so to speak that the exchange is kept to a minimum?

Company B: No, I really don't think that's the program, so I think I can see it at Startup Autobahn, there's the basic benefit that you get access to the start-ups, at least now as an ecosystem partner, maybe the motivation of an anchor partner is another more exchange direction and at this Applied AI the topic Startup is rather in the background, that resonates so but it's more about that you exchange yourself with other corporates in the field of AI and projects and that's just a stronger exchange. With us it resonates more and more and there it just stands in the foreground.

Interviewer: Okay, that's the program focus that creates the circumstances. That means you don't have any other projects planned or running with other platform members. That means if you say you have ten projects running now, these are now all individually pure start-up projects with Linde.

Company B: Exactly, exactly. No, there's nothing there at the moment. So, we have now as said with other corporates, but they are not at Startup Autobahn now, there are projects that are concrete.

Interviewer: Away from Startup Autobahn. And if you now take a look at the Startup Autobahn network, with the Start-ups, the partner companies, then also the community, which is now mainly there on Expo Day, be it representatives from business and politics or VCs, how would you categorize it to whom do you have the most contact?

Company B: Ehm, so we have no idea. So, we are start focused on the start-ups, so also at the Expo Day the speakers are super interesting and we go there too but now is not the primary reason why we are at Startup Autobahn. So, I apologize for the answer.

Interviewer: So, the focus continues to be on the start-ups. If we go one step further and take a look at what you as Company B have pulled out of the program or the partnership since the beginning of your partnership - so that can be numerical or qualitative if you say somehow, the people who learn how to cope with the turnaround, how to work with start-ups.
What would you describe as direct results?

Company B: So, we have these hard goals that I said so we have to justify the budget that is being invested. The exchange is always interesting but at the end of the day it's really important that you do a project, which also brings something for the group with start-ups from Startup Autobahn. And there we have the work that we make ten projects as a goal, but we will also achieve that in any case. That's one thing, the second is what was also interesting for me to get access to new business models so now about the start-ups I don't know if you were there at the Porsche event. They had a start-up there when you're over there now and consume online the more you buy, the cheaper the ride will be. I find a super trivial business model, which can also be applied to other industries. So just that you get to broaden your horizons about new approaches, new business models, new technologies, that's a takeaway from the program so to speak. And then I hope that we can really use the Linde Meetup to give many people access to the start-up environment, which is more like it for the broad mass of Linde.

Interviewer: So easy for the employees

Company B: Yes exactly, that one somehow approaches the whole topic and that one can also innovate differently than now only classically.

Interviewer: A little bit promoting the mindset change.

Company B: Mhm, always.

Interviewer: You already mentioned the start-ups you are working with this year. Are the start-ups from the program rather, which you got to know for example on Expo Day or Kick-Off or are these just specifically start push from your dealflow sessions?

Company B: Exactly from the dealflows. So, we also had access to other start-ups I think you've had in the batch before but it's not like now we've done with those from the current batch that we primarily did with those from the projects. So, these were start-ups that came from the network. But that's also because we as ecosystem partners don't drive the topics. This means that the start-ups are not selected and do not fit 100 percent.

Interviewer: Yes, that's usually a coincidence. If you now say you do projects with them, they are simply pilots or a proof of concept, how does that work for you as soon as the first contact exists?

Company B: That's very different. So, we just did a proof of concept, that's a very fast approach now, for example with fliability, that's a start-up that has such a drone in the cage, were also there at Porsche Meetup. We have now planned a POC for the ninth of November, where they will come by with their drone, and that we will let them fly in our factory for inspection purposes. That's more of a quick win, I call it and then we have two pilot projects in Singapore where we work together with start-ups over a longer period and develop a first solution. So that's from to, we're now also working with the 4tiito start-up, now also yesterday at the kick-off, where we're now also doing a pilot over six weeks to test how the system works at Linde. So that's all across the board.

Interviewer: Depending on the specialist department and start-up, then finally.

Company B: Exactly and then we are the ones who establish the contact to the start-ups, so to speak, who then also define the parameters together with the business and start-ups and then we are also the ones who negotiate with the start-ups when it comes to pilot costs, then also involved with Global Purchasing but fortunately we have certain freedoms there. With corporates, it is usually the case that you always have to choose from several vendors and then the best price is selected. And that's difficult in the start-up world, when I have found a concrete start-up I can't add two more. We have some flexibility there, but that's more or less all we do in our Digital Accelerator. If we now classic, the big advantage is when the start-ups come into contact about us that we know how to work with them and also quite quickly come to a decision.

Interviewer: And do you do this in your digital office in such a way that you define the technology focus and then communicate it to SA or does it come out of the business areas? When you've just seen the drone example Fliability or have you gotten to know the start-up and brought it into the Company B and examined where it could be used?

Company B: Exactly, for the deal flow it's mostly the case that there is a very concrete use case from the business and that drives a business developer from our team, so to speak. Ehm and then we formulated the problem accordingly and made the dealflows where the start-ups came to the topics. And with other topics it was so that we simply got to know and talked about them at events and then the contact came about and that we so to speak introduced it into the organization and checked whether it somehow fits, whether we have a need there, both as well as.

Interviewer: And if you have successfully carried out such a project now, how does the further cooperation look like? Is that more of a supplier model or are you really interested in buying shares, investing.

Company B: That's also varied again, so we've developed a venturing approach - I recently wrote an article about it, you'll find it on LinkedIn if you're interested. We also work with start-ups on an equity basis, if the prerequisite is that we have established a business relationship and also a personal relationship during the pilot, and if we believe that we will continue to work with the start-up in the future, i.e. implement the service or technology globally, then we think about an equity approach. Or it could be that we don't do it and then a classic customer-supplier relationship is established. Then we are completely outside, because then the business is responsible practically to implement the MVP or the pilot in the organization and then if necessary to buy the service via a licensing model or so long term. We are then left out, Global Purchasing does that for us. Together with them.

Interviewer: specialist department.

Company B: Directly in the regions in which it is introduced. Or there is a combination of both that we say we do equity but also make a deal with them at the same time.

Interviewer: And have you ever reached the point where you said that you were driving the equity rail?

Company B: Yes, that's exactly what we're going to do, that's what we're going to do. We have a relatively large portfolio of opportunities that we are looking at and have already made the investments.

Interviewer: If you now look at the technologies that you get to know through the start-ups or through the events. Would you say that your focus is on expanding your product portfolio or perhaps expanding your current market focus through technology, or is that more like the approach that you want to improve internal processes or become more efficient?

Company B: Ehm, so we're more about incremental improvement or innovation than disruptive issues now. We are already looking at disruptive issues through which we can achieve top line growth, but primarily day to day problems we are trying to solve with new solutions and approaches, we also call it value based innovation. So, we're not doing process automation now, that's what the classic IT department is, we're just looking at IT, Customer Convenience and Data where we can innovate. But as I said we are more incremental, we have done a lot of projects to just build and learn but in the future, we will try to make it a big item ticket and look beyond the end of our nose. So, Off the Records, there are many labs in Berlin right now, they really do fancy stuff and we are here in the middle of Linde on campus in the oldest building and just want a certain acceptance and also want that we create impact for the group out of the core business, that is a bit our job.

Interviewer: Okay, that means you're focused or close to what The Company B is already doing and trying to improve it.

Company B: Yes, plus Linde has a lot of data and this data is a treasure for us and we try to commercialize the data and generate additional business. That's what we're doing, but that's not the focus yet.

Interviewer: But then we're also moving in the direction of building new business models with existing resources?

Company B Yes, that is exactly what is needed.

Interviewer: Okay, that means if you now have your technology focus, as you define it internally, you would say that it's more flexible in the sense that something is constantly being added or that it's changing or that you think it's staying at the same level, and now let's also say in the course of the last few months that you have been a member, something has changed or would you say that it's always at the same level... so to speak of the technologies that you're looking at or that interest you. Or would you say that you went in other directions through the input of Startup Autobahn?

Company B: No, not that. So, the technologies or nothing changes, it won't change in the future, Blockchain or AR... for us it's important that we do projects where it has a certain impact on the group and that's what we focus on. But that's how technologically we use the new digital technologies.

Interviewer: the existing one.

Company B: But no, nothing has changed since we started working with Plug and Play.

Interviewer: And if you look at the business owners from the different business areas when they work with you, how are the feedback and reactions when they work with start-ups?

Company B: So basically...

Interviewer: In the sense of rather positive or is there also a certain scepticism that resonates?

Company B: Ehm, difficult. So fundamentally I think are, so is difficult to say. No, so they are all very open-minded and open-minded, they come to us from the business to initiate new things and if there is support from outside also through start-ups, then they are very positive and very open-minded. There are certainly still a few stakeholders, especially from the IT environment, where it is difficult to get everything under one roof, but I believe that is the case in every group. But basically, you are open to working with start-ups.

Interviewer: So rather positive feedback or positive attitude towards cooperation.

Company B: Hm.

Interviewer: If we now look at the program of Startup Autobahn, you said you are very enthusiastic about the network, there are factors of yours where you say we see potential for improvement or we would do it differently, whether in terms of process or content.

Company B: Ehm, ne. So not per se, so we're just revising our internal approach a little bit, but it's not dry yet. Correspondingly, we are also talking to Startup Autobahn about how we can expand the cooperation a bit differently. But that's difficult, I certainly wouldn't have anything now, the Stuttgart programme is going very well. It's more of a question if you're satisfied as an ecosystem partner, that's enough for you, yes, we're satisfied at the moment. Or do you want to be more or more active there, we wouldn't want that because we can't do it in terms of resources and because we actually have a very good network of start-ups and corporates, i.e. the ecosystem or whatever you want to call it, it's already well established so we're not one hundred percent dependent on such a start-up motorway now. In Singapore, however, our colleagues are quite new, they don't have access, so close cooperation is important. That's what we're doing, we have a kind of anchor partner status there, but from our perspective we don't see any need for change in Stuttgart. Unless, as I said, we adapt our processes internally and then interfaces or activities arise again to think about a new model.

Interviewer: Okay, that means actually satisfied with the way things are going at the moment.

Company B: Yes.

Interviewer: We already mentioned earlier that you also have key figures in the sense of a minimum number of projects you want to run per year. Do you have them especially for Startup Autobahn or are they simply defined in your Digital Office, quasi comprehensive?

Company B: So, we have the key figures specifically for our Digital Office or other key figures but one key figure is now specifically for Startup Autobahn.

Interviewer: That means that's almost the only KPI you have for our program? The number of projects?

Company B: Mhm.

Interviewer: Okay, and that's on an annual basis, did you mean earlier?

Company B: Exactly, mhm.

Interviewer: And did you already think about whether you'd expand that, you'll probably also adapt that with the years of membership, when you realize that it's capacity-wise...

Company B: Yes exactly, we are in discussion, I will be at the Sascha next week. We have a few ideas for next year, but that's not yet one hundred percent ready, but then exactly. But basically, we don't have any kind of KPIs.

Interviewer: Still in the starting blocks, hm. Exactly, now a final question from me, we just talked about you being part of Startup Autobahn and also being involved in other Open Innovation Activities, would you say that Startup Autobahn helps your image to the outside to change to the positive? In the sense that you are perceived as an innovative company, be it as a customer, supplier or employer, do you think that has an influence on that?

Company B: Yes, in any case, in any case I think. That shows a bit how you think at the end of the day that's also why we joined such a platform, that's a bit of promotion and marketing.

Interviewer: That means you communicate externally and internally, probably to get people on board.

Company B: Exactly we also had a signing meeting, we also had the board in Stuttgart and uhm if we do activities now, there is now in Stuttgart uhm in Singapore so there will also be an article and we will post about LinkedIn ourselves and there was also pretty soon a pulsating article that I published about LinkedIn about LinkedIn. So, we are basically if you take a look around a little bit quite intensive on the way to actually carry the thing outside, what we do here and by the way we have with Capital and Efront Consulting we got the first place in the industrial sector among the laboratories, the digital laboratories in Germany, that's pretty cool.

Interviewer: Yes, that's exactly what I read. Then I'm also looking forward to reading your article on LinkedIn. So, you definitely gave me good input on the current status (...).

Interview 3: Company C // 12th October 2018 // Innovation Program Manager (Industry 4.0)

Interviewer: Exactly, since when is DXC a partner in Startup Autobahn and what role does DXC play, in the sense of which partner are you?

Company C: Mhm, so actually exactly two years ago, ehm October 2016 and we are Founding Anchor Partner.

Interviewer: How important was it for you to be a Founding Anchor Partner?

Company C: Ehm, it was important to us. I mean we were one of the first partners to join the founding team, Plug and Play, Arena and Daimler - at that time still under HPE, we knew we were sharing. And otherwise it was important because we really wanted to play an active part in shaping the Startup Autobahn somewhere. We had previously participated in other innovation ecosystems where it was more about getting to know start-ups and less about really this hands-on activity and on the one hand we wanted to send a clear signal to ourselves

internally that we were really going in a strategic direction and on the other hand we wanted to play an active role in the start-up highway, so it was important for us to take the status.

Interviewer: Okay, great. And you were part of the team from the beginning or did you join later?

Company C: Ne from the beginning.

Interviewer: From the beginning. Now to you, what exactly is your function and where is Startup Autobahn hanging with you?

Company C: I'm responsible for our industry 4.0 innovation activities for Northern and Central Europe. That means we look for new technologies that complement, expand and replace our portfolio. Actually, with technologies and trends which we see in manufacturing and automotive and which we want to use with our customers. This includes our partnership within the framework of ARENA2036, where we just do research actively, quasi look at what the production of the future looks like, what the automobile of the future looks like and also really commit us to a few years of active research. Then there is the partnership with Startup Autobahn where we really address the trends that we see somewhere with technologies by using the network of Plug and Play and then the content of Startup Autobahn. And then it also includes the whole topic of how can I bring ds to the customer, where can I anchor the topic in the organization, how can I create new role there that are familiar with the technologies and what does a delivery model look like afterwards. So, the whole topic is hanging in our headquarters in Europe, DXC is an American company, our headquarters is in Tyson's Corner Virginia, near Washington DC, but um we have driven it out of the region because we felt the strong need for new technologies here, also have a strong focus on Manufacturing Automotive, as we have many customers here. And we want to educate ourselves as a company and find new partners in order to finally have the best offer for the customer and the respective digital strategy. Ehm, exactly, that's why I say decentralized but relatively large region with start-up highway.

Interview: Okay, which you have under your wing. If you look at DXC as a whole now, how open would you describe the company? So, for one thing, do you have a lot of input from outside through cooperation and other channels?

Company C: Hm, definitely. Maybe a history short, Company C is now so a year and a half ago. We came from the one side of the HPE and were there the Enterprise Services part, on the other side we were gnawing together with the American company CSC. As DXC we are so differentiated in the market that we are open and work with an incredible number of partners. Our goal is not just to sell a solution, but the best solution that fits the customer, and these are the technologies that are ahead of the customer and not the ones we find best. We really want to make sure that the solutions we offer fit our customers and the situation and therefore we need a lot of partners to offer complementary solutions. And that was different in the past because we at HPE were strongly tied to infrastructures that were quasi set, makes sense even

if we are a company. Now we are much more open, of course have a super strong partnership with HPE, but can also look around in the cloud environment, have strong partnerships there with ABS with Acer, which are also exchangeable services in addition to Biepisle. We are already positioned in such a way, we call it technology independence, that we actually come to our customers with an extremely large Ecosystem partner - so openly

Interviewer: So very open. On the other hand, would you say that you have opened your processes internally to the outside, in the sense that you really open the processes to the outside within the innovation or technology sourcing process, or that you do this internally as soon as you have the input from the outside.

Company C: So, we also go to customers together with partners, which means we are extremely open, which means we don't necessarily just take the partner technology and then sell the project and deliver it ourselves, but we also go there together with partners. With all the start-up technologies, we actually do it in such a way that we make a quasi-joint go-to-market, because we see in start-ups the experts in what they do and we are perhaps rather the experts to bring such a topic into scaling afterwards to link with other technologies, to integrate it into the customer environment and therefore we want to appear there together. Therefore, the entire go-to-market is strongly oriented towards this, we also have a large partner organization that is becoming more and more granular and really then concrete people are responsible for the partners, so we are already very open.

Interviewer: If you look at yourself two years ago when you joined Startup Autobahn, what was your main motivation to become a part of it?

Company C: Yes, so basically the fact that we see start-ups as partners that can expand our technologies somewhere. You have to look at it a bit historically, we come from the IT industry, that means classically our contacts to our customers are also the IT departments and ehm if you look at the IT department over a cross-section, then in IT is extremely much standardized, very many similar solutions are used, there are other regulations depending on the industry - basically a very controlled field as far as technologies and the possibilities are concerned. Ehm, but now of course digitalisation does not stop at IT or the IT service we are in ehm and if you take a look at the studies then IT will come out of business and not out of IT in the future. And if we now look at the development in the business areas, then every company suddenly looks completely different, because everyone has a different product, different customers, different requirements like this product interacts with customers, new interfaces that have to be created, customer experiences that have to be created and suddenly you don't have a certain framework of technologies that you sell to other customers, but each customer is completely different, I need completely different technologies for each customer ehm and to be able to map that somewhere I think it would be presumptuous to say that we can develop it all ourselves, because it's quite an explosive eh somewhere requirements development ehm that means we really have to find partners who bring us niche solutions for very specific issues that we can fall back on when such a case arises with customers. And in this context, we take all start-ups that are agile

and fast on the latest topics as valid partners to really be able to participate in this digitization and that was the original point why we want to work with start-ups at all. Ehm, that's exactly when I mentioned earlier we experimented a lot with different innovation networks, I say at the beginning it was also good to get a good overview, but we noticed that there is a lot of focus on a final event where you only get to know each other with the start-up and then some event competitions with Excel-based evaluations, that was stretching at the beginning but we noticed we don't really get into the Doing, really in the development of solutions and concepts with the start-ups and that was what we saw with Plug and Play and Startup Autobahn, that the focus is much more on the implementation and on getting to know each other and trying out and that also in a time frame, that was where we said that is definitely attractive for us and sounded much more like what we were looking for, so we got involved and so after two years you have to say it was clearly confirmed.

Interviewer: Very good, that means rather the practical focus and the implementation in the focus. What would you call your strategy, which drives me with Startup Autobahn? Did you define processes or just a framework how you handle it or how you pursue it?

Company C: Exactly, basically it's like that, so we believe that partnerships are absolutely important in the future and there are actually two elements that are success critical factors, if they work then also the right collaboration works and you find the partner, if that doesn't work then you could run into hurdles. The first is the right selection of the right partners and the right technologies, and on the one hand it is of course important that we have a clear understanding of what strategic content topics are for us, we have to follow the industries more closely, so somehow when we talk about the topic Industry 4.0, for example, we as IT companies have to look okay where the industry is going, anyway how does the production of the future look like, what developments can be seen there in the business areas of our customers. We have very clear ideas about what technologies we believe in, to give an example, we don't believe that the supply chain will remain as it is, we will be much more interactive, that the material supplier, who today only talks to the component manufacturer, will also discuss with the end customer in order to supply the right material for the right machine, which the customer will then use in the end. This means it becomes much more flexible. And so, we have some I say trends that we see and that we want to address and we are just looking for technologies and to get there for the first time, we are first active in the arena to look at research projects I say five years ahead and to see okay where that goes and then find directly relevant solutions. The one is that we first understand in this selection area that we want to go where and then of course to optimize the cooperation for example with Plug and Play, yes what now our scouting partner in the context of Startup highway. How can we address these solutions or these trends with technologies, what are we specifically looking for? And there it is also important to lead this selection process so that Plug and Play understands what we are looking for and then looks for the right start-ups. Ehm, exactly, that's the one strategic component why we chose Startup Autobahn, this scouting network, what Plug and Play delivers, that's the first critical component for us to really identify the right technologies. And the second strategic component that we look at strategically somewhere strong in Startup Collaborations is the actual understanding of the technology and the validation of the technology. Ehm, Start-ups, that's not a blanket statement, but it happens

again and again that start-ups tend to oversell their solution. That's completely normal, that's also understandable, because with few resources to attack a big industry, I have to have stories that attract attention somewhere and for us it's extremely important because we bring these technologies to our customers in the second step, that we understand where these technologies stand, what's a vision, what's in development, what's not scalable yet and only works in a prototype and I can't really roll it out yet. That's why this evaluation is extremely important and that's also a transparency we want to create with the start-ups, so they understand we can only get involved with the start-ups if we understand what we're getting involved with technologically. That's why we put a lot of effort into the evaluation of such technologies, what we do in the context of Startup Autobahn, there is actually such a three-step process as we proceed with such a Startup.

The first one we try to process within the hundred days, I say first, so we call it Greenfield Testing, which means we look at the technology independently from the actual usage scenario, the technology works as it promises, for example if we look at an Analytics Start-up we put a dataset of test data into it, we already know quite well and then have a look what the result of the solution is and then we can relatively quickly determine how the technology works, how fast it is, is it already as mature as we need it or is it still in the development stage. This is the first greenfield testing or we look at Proof of Value where we look at what added value this can actually bring to our customers and then of course what added value we can bring to the start-up. This is the first assessment we do in a hundred days. Then some start-ups get through, some are perhaps not able to get through directly, so we have to see how we can work together to advance technology. We also have examples with the start-up that they don't work as accurately as we assumed at the beginning, but we found out relatively quickly how we can help them by building a test environment where they can test changes to their code from the technology relatively quickly. We sent a person there for three weeks, a kind of investment on our part, to really help them build a test environment that helped us cross the threshold to a second level. And the second step is to really test the technology in a real scenario, which means that in the first step we at Greenfield didn't just look at the technology itself in a real scenario and in the second step we tried to test it in a real scenario. And that's why we as IT service providers don't have our own production where we can now start testing the technologies when we talk about manufacturing solutions. We have to make sure that we have happy customers, that we are willing to evaluate technologies together with us, that we can do this in their environment or that other partners have the same environment and are just as interested in the technology and want to test it together with us, that we quasi access resources from other partners and then do an evaluation together. Or how do we use the Arena2036, for example, to test technologies there in a real scenario and that's important for runs to determine that on the one hand the technology logic works fundamentally and how does it behave in a real deployment scenario and of course you come up with completely different hurdles that you have to solve, how can this somehow be integrated into other existing customer systems and that's the second phase. When this has been successfully completed, we believe that we have analysed the start-up sufficiently and believe that this can also be an innovation partner of ours and then we start with a third phase, and this is training of employees, looking where this technologist or the partner has a place in the organisation, i.e. where we can build up people who are familiar with the technology and virtually then implement the technology at the customer. What is our common

model towards customers, how do we approach such customers together with the start-ups, what are the application models? That's the third stage, so to speak, and of course it also includes the overall organization, delivery models and so on. To repeat it again, selecting the first, i.e. really finding the right start-ups based on clear search or research cases that we have to identify, the second part is the relatively detailed assessment and evaluation of the technology and the start-up.

Interviewer: And only the first step is quasi, eh the ... quasi after the evaluation it goes out of the program. Step two and three are like after the start-up highway program?

Company C: It's different for us, Startup Autobahn gives us the first framework to work together. Sometimes, of course, we are faster than a hundred days and then maybe we are already in the second step during the program, that has already happened. But sometimes the first phase takes longer than the hundred days now, so these hundred days are just a clear deadline for us to work on, everybody knows we have time until then to complete the first stage or work on the first stage and then it's like the other activities go beyond that.

Interviewer: Okay, you've just mentioned partner teams are very important for you and then also the cooperation with other companies. Now you were one of the first companies on the platform itself, how important it was to you that it is really also a platform aimed at building a corporate network.

Company C: Extremely important, I think that was also the second reason um we believed the Startup Autobahn model relatively early but also simply because it clearly signals that it should be an open platform and for us that is extremely important because we get different views on certain topics we see. For example, we also had a project in the first program in which we took part, so second Startup Autobahn program, a project with Porsche and COMPANY D and the start-up Kreatize where we simply noticed this joint exchange brings everyone much further, because everyone looks at it from his perspective and if you bring different industry expertise together and we have diverse partner network what is exciting about the whole topic, then you might not think just one corner further, but maybe two or three and you get completely new approaches and innovative ideas and that's what's extremely important to us and that's why we're also strongly in favour of always getting lots of new diverse partners with us to orchestrate the whole theme.

Interviewer: And if you now look at the relationship to the other platform members, how would you describe it? Is this a lively exchange, is it pleasant because it is a pre-competitive framework and you are not designed to exchange trade secrets - how would you describe the relationship among each other?

Company C: So, I would say hm as very close, so we don't have regular exchange now, so of course we have regular Jour Fixes where we meet and discuss all the operational and strategic things to Startup highway. We don't have any recurring sessions where all partners discuss or

exchange opinions on a certain topic, but it's so close to the partnership and the relationship that if you have a problem and think other companies have a good point of view or can support you in getting to people extremely quickly. And I think that's exactly the exciting thing about being able to communicate and exchange things quickly between companies on an ad hoc basis, but when the issues arise. Of course, not every partner can share all the information somewhere and that is clearly respected, even if competitors are partners together somewhere. Then it's clear that there has to be a certain layer of confidentiality somewhere, but fundamentally the exchange is very open and pro-active about innovations, so don't look at the things critically somehow but first you get to see them even if it seems utopian.

Interviewer: You mentioned earlier that you had a project with Kreatize together with Porsche and COMPANY D. What is DXC's general attitude towards projects with other platform members or are you more customer-oriented?

Company C: So, for us it is extremely important to work together with other partners, because as I just said there are these different points of view and if you bring them together then you see problems very differently and it is really a change of perspective that takes place there. And that also brings all partners forward, in selecting new start-ups, in stimulating new fields in which you can work and see potential. That's why it's extremely important for us and also fits into our company philosophy to be really open and to look for the best solutions and to interact together. I also think what it shows is good, especially this example with Kreatize, Porsche and COMPANY D - we then called on another external partner, namely Glöckner Stahl, or GlöcknerI - the innovation arm from Berlin, because we noticed that they have a technology and a knowledge that could complement the whole topic. We are simply extremely open and are really looking for innovation, ideas, exchange partnerships somewhere and are basically someone who is open for collaborations.

Interviewer: You just mentioned an example with Kreatize. Have you had any other cross-collaboration projects involving Startup Autobahn start-ups and partner companies?

Company C: Yes, for example with Murata. There we developed a solution, as I say the consumer goods business can change in the food environment. The consumption of consumer goods in a household is tracked, so to speak, in which packaging that is thrown away is analysed or tagged and racked, which means that if I eat a chocolate bar and throw away the packaging, it is registered, so to speak, and I can then see this as consumption. And the interesting thing is that the consumer goods manufacturers who nowadays only deal indirectly with customers because they sell their products through retail can now start discussing directly with their customers and have completely different potentials. That was between a start-up, Context360, who provided information about this application, between Murata, who are very familiar with RFID and sensor development, and us, who brought in the whole application development and this was just such a project that took place extremely collaboratively. You have to say that Murata is an ecosystem partner, but they are extremely active and that's exactly what we find

very exciting and we've also had a lot of discussions and other discussions for the future, where we've more or less found that we complement each other quite well.

Interviewer: Great, that's also the goal that you can use your own expertise to help each other move forward and create value yourself.

Company C: Exactly, and then bringing these different companies and start-up technologies together, you have virtually different industry expertise plus someone who comes relatively new to the market with a completely new concept. I think that's something that's pretty unique and really opens up new areas somewhere.

Interviewer: Great and if you look at all the Startup Autobahn members now, so let's take the Start-ups, the partner companies and the network with members from different areas of innovation or even politics and business to whom you would write the most contact now, if you had to categorize it now.

Company C: Good question, without mentioning names now, I think that the partners, who just really come together and bring the platform forward, are also the ones with whom you have the most contact and relationship or exchange information. That's a bit of a commitment that's being put into it. A Start-up motorway membership is not just a phone line that I pay for monthly or something like that, but it's really something where you have to actively bring in energy and commitment to really get more. And the partners who are willing and also put resources into it and commit clear teams and also are permanently in discussions between them much more exchange happens and that is of course also logical, you see yourself more often, you have the same strategic focus as far as the topic Startup highway is concerned and thus come more into contact. And that is not even different between anchor partners and ecosystem partners, so just said Murata is extremely committed and we have extremely many approaches in common and starting points because Murata is also simply very committed and Alexander Schmoldt puts a lot of time into it. I think the commitment drives the collaboration rather than the partner status.

Interviewer: Ah okay.

Company C: And also, regardless of distance, of course the companies that are here permanently are there, you meet more often but there are also committed partners who have long journeys but still try to find an exchange together. Here, too, you have an extremely strong collaboration.

Interviewer: And if you now see the contact to the start-up in comparison, which contact would you categorize as more active between the start-up and the partner company?

Company C: Ehm, it's clear that start-ups that are in our region could often get touchpoints somewhere and for us this is now DXC Northern and Central Europe, because we can relatively quickly bring together a start-up with another colleague or department and do this relatively ad-hoc, so collaboration is easier. But we also have start-ups from Tel-Aviv, for example, which

are somewhere behind. What is important is that the start-ups that somehow step in and actively look for new areas in our organisation where they can get ahead and see us as partners and help us to create the organisation of the future, these are the ones that will give us the most starting points somewhere. It's also a bit of a cultural topic, I think start-ups have to understand that big companies, even if we try, can never act as fast as a start-up. But if start-ups are accustomed to that, but still actively seek new contacts and get in touch with a lot of people, then it's something that is, of course, much more interactive in the end.

Interviewer: Okay, then it's also a bit of initiative on the part of the start-ups.

Company C: Of course, there are start-ups who perhaps have a different focus or who see the motorway as a nice thing in parallel and perhaps also to sell their technology to the partners, you might notice that they are not as committed as when a start-up is around to find new starting points together and is really active in the discussion. There are differences.

Interviewer: As on the partner side, so too, depending on how committed and involved they are.

Company C: Exactly, so I think there really is a need of all parties who want to take out something, also really commitment to be put in addition.

Interviewer: When we are talking about the input and have already talked about the pilot projects. What about the output, what would you see as the results of Startup Autobahn at DXC?

Company C: Well, I think on the one hand we use that of course for our primary goal - new solutions, which we sell to our customers. And I think what is a direct output there is when we have identified new technologies with which we are really happy and are through our evaluation phase. And then I say make first intros to our customers and place a solution there together, and then we find out that we really meet good resonance, then this is really an output where we notice, okay the process has worked from identification of a search criterion, via selection, via this evaluation process actually extremely well. It is always said that one out of ten start-ups are successful. We make six prototypes per program and we have at least one, two, three start-ups that generate a successful output after each fall, I think we're already over ten percent. That means it's something that somehow stands for the quality of the entire process and the partnership commitment with Startup Autobahn and DXC. Output is, of course, the resonance when we generate joint projects, it is clearly a financial output. But for us there is also an output, I say in the first half of three quarters of a year that was really what we had to do where we placed the organization, somewhere where we had to place Startup Autobahn within the organization, to work together with Start-ups, to find new technologies for our problems and in the meantime it turns around more and more that people actively approach us and the topic is also really accepted. This simply shows that somewhere there is a demand for it and basically it is also for us an output that the organisation starts to think differently.

Interviewer: If you now talk about the technologies that come through the start-ups, you would say that it is also an output that you expand your technology portfolio or it is rather an improvement of the current one.

Company C: Definitely expansion I think it also brings us into new business areas and new subject areas with our customers. I said at the beginning we come strongly from the IT industry, also there we are looking for start-ups I say to improve our portfolio and in the IT area it is mostly really improve because we are extremely broadly positioned, we are 140,000 employees and one of the largest IT service providers, there we have a relatively good know-how and good partner portfolio. This is really the case in the IT environment Improvement, but if we go into the business areas and talk about digitization there, then it is a very clear expansion of our business areas and get into completely new discussion there, good point that is definitely an output for us.

Interviewer: And if you now go to your customers, especially if you have already validated the technologies, is that a different feedback when it comes through Startup Autobahn so through a Startup technology or is that relatively similar to a technology that you may have driven internally somewhere?

Company C: So basically, I don't know if it's a hype, but start-ups are cool, so embody a bit of digitization, can grow extremely fast in a short time, which our customers aren't used to from their business, because when a certain size has reached you don't grow that fast anymore. So maybe it's a door opener, but actually when it comes to the business it's important to find the right technology for the customer. And it doesn't matter if it's a start-up or a bigger partner of ours or an own technology, it has to fit somewhere on the customer and there are also the customers at the end, what they are looking for. They don't really do a project with us because there is a start-up, but because the technology is exciting. That's why we put a lot of emphasis on evaluation and selection, so that we can really filter out the relevant technologies. If we come now with a start-up where the technology is not interesting, that is the counterexample, then the client will not react to it.

Interviewer: That means it is really technology-dependent and not a start-up or established company that differs. And if you now look at the technologies that come in via Startup Autobahn, would you say they contribute to your work being more innovative or would you say it's just another generation or source of ideas and technologies?

Company C: I would say it is definitely more agile, or more flexible yes, so if we look at existing Partner that are also established companies, they also improve their solutions and maybe go into new areas but not into as many broad new areas as we now get as a requirement from our customers. And by collaborating with start-ups, and this multitude of start-up partners that we get to know via Start-up Autobahn, we can react much more flexibly to our customers, you no longer have a standard solution with which you try to kill all problems with the customer, but you can see that you find the perfect technology that fits to a certain problem that is not a problem with customers, for example. And that gives us the flexibility to get to know more

technologies and more start-ups that are on the ravages of time or have solutions tailored to specific business problems. In any case, we are more diverse as a result.

Interviewer: And if you say a higher number of technologies, would you also say a higher number of ultimately Service or product implementations?

Company C: Um, that's, I would say, because we're still relatively at the beginning, we've been partners for two years now, it took us a year to get the organization to understand that, and we're in the process of bringing the first start-ups that have gone through this process to the customer. Of course, we also hope that we will be able to place significantly more different and also more in number with the customer.

Interviewer: When we were just talking about output. Do you at DXC have certain goals in mind that you have any numbers that you have as targets in terms of projects or validations you drive or maybe even ultimately implementations or how do you measure the output of Startup Autobahn if you have a scheme there?

Company C: So basically, it's like believing in this topic and a certain investment of the company is made for these topics and that's of course that we're not completely free, so of course it's already looking what comes around. There are no concrete hard numbers, because the company also understood that digitization is different from the existing business we have, where it was about long-term contracts that are negotiated over months and relatively large (?), but that this digitization topic starts small and grows successive. Because everyone has to, there are completely new topics, you have to see how it suits our customers, how they cope with it. It starts with small prototypes and is then successively changed. The organization as a whole has understood this, we also build up delivery units that are not trained to deliver large contracts for giant customers over years, but rather to really start small and scale with the project, this is called digital transformation centres, which we are now building in different regions. The company has understood that you have to invest somewhere at the beginning and that the whole thing starts small and then scales successive. Therefore, we rather work with targets of how many customers we deliver a contribution with our program, but less monetary targets but of course that will come with time because these projects have to start then and as soon as they get bigger there will be experience in the field and then that will be measured.

Interviewer: And do you have the current feeling that you are not monetary at the moment, but that you are achieving something with the customer, the goal well pursued or that you are there in any case in time, as you imagine?

Company C: Definitely, so we have extremely many customer diffusions, which we did not have before our membership in Startup Autobahn and this even goes so far that we, that Startup Autobahn operate as Northern and Central Europe, but also get more and more inquiries from other regions for the topic. And we just see okay there is a need beyond the region and that gets around. This also shows us that the company also sees that it is an extremely relevant topic and also somewhere triggers the discussion for the future.

Interviewer: Does that mean it's like it's making waves inside DXC and you get more requests? Definitely a good output.

Company C: Exactly, yes.

Interviewer: If we now look at the ecosystem again from Startup Autobahn, I mean you have been able to follow that very well in the last two years as one of the first partners. What would you say would make the whole network even more valuable for you, how would you say could you pull out even more valuable output?

Company C: So, I think what's important is that right now the number of partners is increasing, which basically means more potential for us because more perspectives, more potential for new, innovative ideas, that's getting a little orchestrated because with 19 partners, I think it's 19 partners, it's getting harder and harder to keep it together. That also means to bring in a bit of this commitment on the one hand, with 19 partners you have to make sure that really everyone can pull together and understand where the journey is going. The fact that you give new partners the chance to really enter the existing partner network and to make contacts, to create exactly the same exchange somewhere and then to just look at how you can perhaps actively drive such joint projects in the future, because we have just noticed in the projects we have done together with partners that really every party has learned something new, including start-up. I also believe that for a start-up to look at its own solution from three different industrial perspectives is of course also incredibly valuable for a start-up. How can this collaboration between start-ups and different partners be strengthened? I also believe that this is something that has even more need as the number of partners increases. And then how can you make the preselection even better, I think we are also extremely good in terms of quality with all the deep dives that are organized where partners bring in different perspectives even if they also propose and host a topic for such a deep dive. And they are also involved in scouting with their expertise, which works extremely well and that has now been expanded, which of course is also extremely time-consuming to block whole days to work with start-ups. Of course, it's efficient on the one hand because you suddenly get to know twenty start-ups, on the other hand you always have to have the experts there. The question is, how can you perhaps recognize certain quality features in an automated start-up, and I think that's something that's a little further ahead, but that needs to be discussed in principle. How do you get a lot of information about the status of a start-up from the Internet, perhaps somewhere, not through Company Cle research, but at the push of a button?

Interviewer: So more automated, that everything runs faster and more efficiently. Okay super

Company C: Yeah exactly, I think that's not a problem right now, so no pain but a potential gain that could make it even better.

Interviewer: Potential for the future, for improving the process.

Company C: Yes.

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Interviewer: Okay, so in any case already a longer partner. And you were active in the period from to?

COMPANY D: From April 2018 to July 2018, i.e. batch 4, that must have been it.

Interviewer: Exactly yes, it started there in spring. And the Startup Highway Initiative where is it hanging at COMPANY D, you say at Julia, that means what is the task of the department and what does it all fall into?

COMPANY D: Exactly, yes through the fact that COMPANY D has different units ehm it is quite exciting. So, Julia is in the Digital Innovation Team of FS, FS is called Functional Services and is, so to speak, a COMPANY D unit for IT, or precisely Information Technology and Supply Chain Operations, that is, so to speak, the unit to which the Digital Innovation Team is attached.

Interviewer: Ah okay, and what else does Digital Innovations have to do with the start-up highway area?

COMPANY D: So, the goal of Digital Innovation is to provide COMPANY D with new trends, especially new technologies, digital technologies, to achieve a very clear outside-in perspective and to work away from the classic COMPANY D innovation process, which is strongly driven internally. The unit is very I say free in its fields of activity and a small speedboat like that I say that goes through COMPANY D and collects things. And the main goal is to inform people about these technologies, but also to go one step further, to say that we try to test these ehm, which we also discovered or scouted ehm with different COMPANY D units and accordingly present these technologies to the business units and this often happens via start-ups, because start-ups are the providers of these technologies or have developed these technologists. And then the task is to prepare the business unit for the interview with the start-up, as a rule to know which business unit is concerned with what, and accordingly then to link the start-ups with the business unit and ideally start a pilot project with them, at COMPANY D the proof of value is not proof of concept. The differentiation, the Proof of Concept, the technology is tested and the Proof of Value, one would like to test whether this technology creates an added value for COMPANY D. And then there are PoV projects, which usually last three to six months and here Digital Innovation is the orchestrator that supports the business unit and start-up, and then tests over the period of the offer of the start-ups, then there is a review and then there is a recommendation from Digital Innovations to the business unit, whether one should continue

working with the start-up to advance an implementation, but then Digital Innovation is out, then only the business unit is responsible.

Interviewer: Okay, that will then be handed over, so to speak, the responsibility.

COMPANY D: Exactly, yes.

Interviewer: You just mentioned that COMPANY D's regular Innovation Process is rather internal and closed. If we look at that now, would you describe COMPANY D more as open, in the sense that it has many cooperation or channels through which it obtains such an outside-input and gets ideas, or that it runs rather closed?

COMPANY D: I have to say that COMPANY D, because there are 13 business units, 13 business units of COMPANY D, which are really in completely different areas - one unit is called Gas and Oil, one unit is called Health and Nutrition, so food, additives, supplements or coatings in the automotive sector - these are very different areas, who also act in different ways and a Performance Materials section deals with different ways of producing plastic ehm who are for example very strong outside-in, very strong outside-in perspective, very many network partners and university cooperation with Stanford, Berkeley to KIT ehm there are also a few Startup Autobahn topics and are also really interested willing. Other business areas, however, have little external innovation management or outside-in perspective, are often related to the fact that in different areas there are 20 chemists in the lab developing something, there are relatively more dangerous settings, dangerous chemicals, expensive machines you use where there may be fewer start-ups. But COMPANY D also has a right to hire the best graduates as researchers. Of course, that has a lot to do with areas where the impression prevails that we have the best people we develop internally. But such a general statement is difficult because there are so many areas, so many business units that handle the topic differently.

Interviewer: Okay, so it's difficult to say centrally, it's like this. If we now go back to when COMPANY D became part of Startup Autobahn, what was COMPANY D's motivation to become part of the initiative?

COMPANY D: Ehm, yes, the exciting thing is that as the COMPANY D became part of Startup Autobahn not via Digital Innovations but PM, Performing Materials, so a business unit of COMPANY D. At that time, he picked up on the topic of Startup Autobahn from Andreas Wollny ehm because PM is very strongly represented in the automotive sector and accordingly tried to ensure that COMPANY D was also a strong automotive supplier, but that a relatively early phase of the value creation chain had a strong automotive focus in the business unit, and that he simply wanted to get to the end of the road. There are innovation scouts, or at COMPANY D they are called technology scouts, they exist in the unit or already existed in the unit, but precisely through the start-up highway simply the goal with different corporates, because everyone, especially the topic of digitization for everyone ehm for every company in the industry deals, yes, that was a topic simply to use the network. Then to talk to BMW, eh sorry, Daimler and Porsche, who are virtually at the bottom of the value chain and simply get

to know new technologies and start-ups in a very short time. So, as I said, because it's an event one day, um, every four weeks when such a program starts then that's actually a very good opportunity, the topics, you can exchange with your network, you get start-up pitches, you can talk with the start-ups in deep dive sessions even more intensively then and yes that just in your short time very much input.

Interviewer: Okay, that means there are different aspects, first the technologies but then primarily the partner network that is provided by the different members.

COMPANY D: Exactly, now also a supplementary point. As COMPANY D can be found relatively early in the entire value chain, COMPANY D is also relatively unknown for start-ups. When you talk to start-ups now, especially foreign start-ups, when you say we are from COMPANY D, they look at you and don't know what you are doing, who you are. Then we say COMPANY D is the largest chemical company in the world, then it is, then suddenly there is another interest and with Startup Autobahn you want to make this brand COMPANY D more attractive for the Startup world.

Interviewer: Okay, so also a certain marketing factor or brand awareness factor. How important was it for COMPANY D to have exactly those companies that were already on the platform at that time? I mean, you joined relatively early, we had another big wave of members last year. You meant those are primarily companies that are at the end of the value chain, you meant that had a crucial point, that it was good, Porsche and Daimler, that it was the OEMs or was that rather so okay, mainly they are regional partners and we can build a good ecosystem there or was that really specific so we think these companies that are on the platform are great.

COMPANY D: So one hundred percent I can't answer the question but ehm it's the main focus through ehm Automotive, through which as I said Performing Materials is strong in that area and Daimler is always very strong in the area of new technologies and application of new technologies in cooperation with start-ups in that area in recent years, it was actually a main point that we say we are doing what Daimler is doing, how Daimler is doing. So, the proximity to the actual OEM would have been one of the main reasons. But as I said, the main reason or the actual reason can only be answered by Andreas Wollny.

Interviewer: Okay, great. You just mentioned that the network to the other platform members is very important to you. How would you describe the relationship to the other partners? If it's a lively exchange, you meet there offside from time to time, you exchange ideas about new technologies. What's going on there?

COMPANY D: Well, I think the exchange is very open, very sociable um because you think so openly about events in a competitive situation. That you think here I am from COMPANY D and there is one from Daimler or from Company C opposite, we have to look those are other companies, that is competition. Startup Autobahn actually did a good job of making sure that the participants know that okay we're all in the same boat, so to speak, the challenges that go through all industries and that a collaboration creates an exchange, a joint added value, instead

of everyone just trying to generate its added value. Therefore, the exchange is generally very open at the events. Often you already meet before the Deep Dive Sessions in order to make a factory tour like at ZF or COMPANY D where you can already start networking well. You also meet off the beaten track, or you know relatively well what others are doing, you talk about the pilot projects in particular when someone collaborates with a Start-up and we are also considering working together with the Startup, so it's obvious that someone will call us. From Company C, okay, hey, the work with the start-up, hey, you've been working with them for two months, how's it going, what do you have to watch out for, of course you try to support each other there, you always give good information. That's why I would describe the cooperation and exchange very openly, very much with great added value.

Interviewer: And if you now talk about the cooperation with the start-ups, to what extent is the cooperation with other platform members and not only internally with its own BUs?

COMPANY D: Good question, actually hardly pronounced. Ehm, that's actually a reason that should be taken a step further, I in particular have already mentioned Company C, which as a tech provider would actually be in a good position to do more with COMPANY D or to do more with Daimler. We at COMPANY D have had none of these cross-collaboration projects so far, they say we are now doing something with two or three start-ups. But do I really think it makes sense that more funding will be provided in the future? But of course, this is also the case because the Digital Innovation Team scouts for COMPANY D and there are so many business units within COMPANY D that you don't have the time or focus to cooperate with external partners.

Interviewer: But it's definitely perceived as interesting, or are these rather the resources that are restrictive or also inhibiting?

COMPANY D: Exactly, yes.

Interviewer: And if you look at the Startup Autobahn network now - they are start-ups, they are partner companies, they are representatives from politics and business, the community that comes to Expo Day. How would you categorize that, which of the network members do you have the most contact with?

COMPANY D: We have the biggest contact to the other corporates, so of course there are still public institutions or universities, especially the University of Stuttgart is also a founding member. But actually, we have the most exchange with the other Corporates, ehm from COMPANY D side with Daimler, with Webasto with DXC Technology, with DHL, because it is the people who are on the same wave, so to speak, who are also in the innovation team in the individual companies, also want to start pilot projects. Ehm, exactly. But in general, this diversity of the network is also useful, in the sense that you get a completely different perspective, how does a university go in front of him, what maybe a public player does. But the exchange mainly takes place with the other industrialists.

Interviewer: And the start-ups, what role do they play? Would you rank them one level down, according to the partner companies, or would you rate them the same?

COMPANY D: Again, who?

Interviewer: the start-ups, the start-up network, and then the cooperation partners for the projects.

COMPANY D: So yes, the start-ups that should be the focus of the whole, in the sense that we want to cooperate with the start-ups and want to carry out pilot projects ehm from that point of view it is from my point of view the whole corporates on one side and the whole start-ups on the other side. Then the start-ups start with the corporates and vice versa. I would put both of them on an equal footing, but of course the fact is that the start-ups only come for one pitch and the other corporates, especially all of them, are just there, then you have a much closer relationship to the corporates because you often see them and yes the start-ups come, present, you exchange ideas with them and then it only goes on, so to speak, with the start-ups with which you start projects. But that is the goal of Digital Innovations, to really carry out these pilot projects.

Interviewer: That's exactly what you said earlier, that they run in the individual BUs. If we're talking about pilot projects right now, what would you see as direct results from the start-up highway pilots at COMPANY D? So that can be qualitative now, in the sense of people in R&D becoming more open or quantitative in the sense of we've driven X different pilots or got X different ideas or inputs that wouldn't have been possible without the program.

COMPANY D: Yes, so there is an interesting point, which is the topic that Startup Autobahn also wants to promote, motivate the employees or the workforce to work together with Start-ups, to get involved with the topic. Julia had an interesting goal, namely to get more than 500 COMPANY D employees to attend these events. There is an advantage in COMPANY D organizing the events itself, in that people come more easily, in that there is great interest. Membership in Startup Autobahn is a huge driver, motivates people, inspires them for the topic, cooperates with start-ups. And there these deep dive sessions that you hold as a host are super valuable for COMPANY D. That's why it's a big advantage or added value. And otherwise I would say that you try to start the five pilot projects per batch, but it always depends on what kind of topic there is for the individual events. Because there are areas that are now very B2C heavy, where COMPANY D hardly has a chance to work together. But in other areas it looks better, so I can now, there is no number that can be done with every program, but I would say that five projects should come out already. But I can give you the exact number from Julia, she keeps an archive in any case, she should know that.

Interviewer: And if you now say you have five projects per batch, what is the goal of that? Is it that you expand the technology focus, or maybe even expand your own product portfolio and try to approach new markets? Or is that already quite stringent with the current product portfolio and technology focus and then you simply try to find complementary solutions or alternatives?

COMPANY D: Ehm, so at the moment I would say that there is a strong focus on process improvement, new technologies, getting faster, becoming more efficient. The topic of opening up new markets, that is, you say okay by the start-up I create or generate, or do I have access to a new market, so less market in the sense of national or international, local or physic market but we go into this product area, that is currently less the case. There is a unit at COMPANY D called New Business, which is heavily involved with such new business areas, but they are actually hardly active in the whole area of highway start-ups, which is why the main focus is to transfer these new technologies into the business units. The fact that you look at processes, especially data-driven topics, is the main point of bringing the technologies in.

Interviewer: And if you look back on the past batches and the projects, were there implementations in the end, or is that usually stagnant after the pilot project?

COMPANY D: I would say that most of the projects are stagnating, but before I make another unclear statement on such a question, it should be Julia. Julia then has to say with figures, so and so many projects started, so many implemented. I can now speak for the last batch, that the projects are actually all still a pilot, or none of the projects is still in the implementation phase, which means I cannot make a statement yet.

Interviewer: And if we now look at the alternative to implementation, the investment, is that something that COMPANY D is also pursuing, or is it interested in, really investing in a start-up with a promising technology, or is it purely project-related, that one enters into a supplier-customer relationship?

COMPANY D: There is COMPANY D Venture Capital, BVC, which is also active there and has 20 employees. I think they have a focus from a CVC department and only fund. The team from Digital Innovations is actually the complete opposite, they say no, we don't invest ourselves, we don't have no budget, we don't have any justification and we don't have the goal. The Digital Innovations team is there to work with start-ups and to carry out projects, to work with start-ups, goes in the direction of the customer-supplier relationship, so this venture-client model. The main thing is to develop a solution for COMPANY D with the start-up, so that the start-up is active as a future supplier at COMPANY D. But there are also, that's the main point or the main problem, but of course you also have contact with the colleagues from COMPANY D Venture Capital and that can happen that you say hey here's a cool start-up, they may have approached us with a request for funding, if you want to have a look. But it's exactly those who tend to act independently, there's a more informal exchange with them. It can be we do a great project with a start-up, everyone is happy in the business unit, it is a great success but the colleagues from BVC say, ne from our due to our evaluation it is not meaningful to invest and then they do not invest either.

Interviewer: Okay, they act very individually and then really look at their factors, which they include in the evaluation.

COMPANY D: Exactly, right. Exactly, we can say we can make suggestions, hey, take a look at this, but it's not like we come to say, make an investment, we find the start-up very exciting, then they do that. But they really have their own evaluation catalogue after they work independently. They are also a completely legal entity of their own, meaning we don't have access to their rating schemes or their databases because they really are a legal entity of their own.

Interviewer: Okay, that's completely separate. You mentioned earlier that you are mainly trying to become more efficient through the start-ups and their technologies. Would you say that the input from the start-ups of Startup Autobahn has made your work more innovative or that you perceive yourself as a more innovative company, especially through your Digital Innovation Initiative?

COMPANY D: Ehm, yes, I have to say ehm, the Startup Highway is a good driver for the innovations in the long run or to revive the topic again and again, through the fact that there is simply a regularity, that you know okay these batches run out every six months. There are events every four to five weeks, that's always a good thing, you just can't get out of it, you do it, that's really a very positive aspect. I would say, especially through the topic of hosts at events, that COMPANY D as a whole benefit from being brought up to a higher hierarchical level. In the Digital Innovation Team, we also have an SVP who is the CEO of COMPANY D, who is also the SVP of FS, the unit at which Digital Innovations is hung up, a sorry CIO, Chief Information Officer, of COMPANY D, who is also behind it and is also fully involved, always asks hey how the events were, usually also acts as a speaker at the events at COMPANY D. We have already noticed that it simply gets a completely different carrying distance due to the fact that the senior management is behind it and is involved and uhm, that's why I would also say that the Digital Innovation Team is better known and better perceived at COMPANY D through Startup Autobahn.

Interviewer: Through management support, so to speak.

COMPANY D: Exactly, the management says hey we support the fact that you are the hosts here. If you support your participation in the program, we will try to communicate that and it is a very high added value for the team itself.

Interviewer: How would the reaction of the participants be, especially at your events that you host yourself, how would you say that the people approach the thing or how they react to it? How is the feedback in general?

COMPANY D: Um many people are actually surprised what there is, what start-ups are working on. If I now say the classic topic, everyone has been working at COMPANY D for years, is active in one area, focuses mainly on the daily business and then you go to an event, perhaps have little expectations or don't know what to expect and then suddenly see how start-ups or what start-ups are working on, what they have put on their feet, then the pitches also get

them, the business models, the products, mostly also the founder who is full of verve on stage. Ehm, and that's why the show generates a wow effect, wow is really cool that COMPANY D is here, that they made this possible. So, I would summarize the universal opinion, the general opinion that people are positively surprised.

Interviewer: So, it's more in the positive direction?

COMPANY D: Yes, clearly positive. Sure, there's always someone who says that the whole topic doesn't help us, the speakers weren't so great, the food wasn't so good - there are always critical voices. But away from the bank I would actually say that the pros of the visitors are already positive and that you usually manage to create such a wow effect with the visitors.

Interviewer: You already mentioned earlier that COMPANY D had set itself the goal of bringing 500 internal employees to the events and that you were trying to do 5 pilot projects in a batch. How does COMPANY D generally measure the output of Startup Autobahn?

COMPANY D: No, there already are, so the Digital Innovation Team honestly has very few key figures, you have to say. It only measures how many pilot projects are carried out and how many pilot projects are actually transferred into implementation, so to speak. Exactly as I said, individual figures, there again the appeal to Julia, or I can write her what figures she has there. But it's mainly about that, so we measure how many pilot projects are initiated by COMPANY D or our team through Startup Autobahn.

Interviewer: And emotionally, would you say that you are more likely to achieve the goals or that it is sometimes more difficult?

COMPANY D: No, I would say that what you do is what you usually achieve. It also has the background that the Digital Innovation Team consists of five people in Ludwigshafen and five or six in Silicon Valley, which is relatively small compared to other companies. That's why we don't do twenty, twenty-five pilots every batch, but I'll say this, it's already satisfying the number of projects.

Interviewer: And now that we're talking about the projects, how, you mentioned earlier how things work at COMPANY D. So, you go to an event, for example a deep dive, and how does the whole process up to the pilot or maybe even up to the implementation come into being?

COMPANY D: So, it's usually the case that it starts a bit earlier, namely the Digital Innovation Team knows which focus topics take place at which deep dives and tries to align the internal network accordingly or X. I can give you an example, at Porsche the topic was drones, where the topic was drones. We already tried to find out in advance which business field at COMPANY D deals with drones, that people from the business units at COMPANY D are brought to the events in a targeted way and not just say, hey people here is a start-up highway event, who wants to come. The Digital Innovation Team will do that in a target-oriented way, they'll be invited. And then we knew about the drone's case, okay the plant fire department,

which is relatively large, there is a person who is responsible for the drone's area, the person was contacted or briefly talked to on the phone, then the topic was briefly explained. Then the person said okay I'm there, cool topic and when we then go to the events, it's usually that we COMPANY D get together briefly beforehand and meet each other because we haven't got to know each other personally before, so we do a kind of COMPANY D internal networking before the start of the program. We also brief our colleagues on what is Startup Autobahn or what is Startup Autobahn The colleagues know or do we say in the first meeting when we are on site, let's say again how the process is, okay now there are the individual pitches of the Start-ups, then take notes, see which Startup would be interesting but we then talk again with each Startup itself twenty minutes ehm then motivate a bit and say yes ask questions, ehm goes on the Start-ups to talk to them. Exactly what else do we do after these Deep Dives or after every single Deep Dive 20 minutes ehm conversation yes we ask again in the round, yes there would be a possibility for a pilot project, how was your impression, positive, negative ehm and then try to prepare it in the follow-up so, that we know about at the end of the day okay from the ten start-ups we got to know are maybe four interesting for the and the business unit and we then try to have a short conversation with the people about how it would go on and then act as a mediator again, so this mediator role okay we bring the start-up together with the business unit, then plan a conversation, it can also be that a workshop takes place and ehm start then ideally with the pilot. It's just important that this buy is there with the business unit, if the business unit doesn't say okay I'm there, then no pilot will be started anyway, that's the one big rule, without a business unit no Pilot project.

Interviewer: Okay, so full commitment.

COMPANY D: Exactly, otherwise the pilot projects mainly take place between business unit and start-up, we support, we also always keep up hey what came out at the meeting when you were not there, how do you continue, how do you go ahead and try to be there but always this buy at the business unit is very important. And as I said with the implementation, we are actually completely out of it. After each pilot there is a letter of recommendation where you summarize it again, pilot was positive implementation would make sense and then pass it on to the eBusiness Unit or you say through the pilot came out that no additional added value for COMPANY D is donated, so it is recommended that you do not continue. And then we are through, at the end of pilot projects, we are out.

Interviewer: Okay, that will continue as usual independently. You are now, I say, very focused on ecosystems, also through your current job now. How would you say, could you improve the eco-system Startup Autobahn, which consists of different participants? Have you ever talked about it at COMPANY D or thought about how you could get more out of it or how you could build the ecosystem in general or yes, complement it with other partners or universities to get even more out of it?

COMPANY D: So, what would certainly also be exciting to establish even more international networking ehm in the sense of, of course, start-ups are also invited from abroad but you have really little contact, Startup Autobahn also exist in China and Singapore, yes, such an

international networking would definitely make sense. Especially at COMPANY D, because every business unit in the world has its own subsidiaries and that would definitely be an added value if there were a larger international network. Otherwise I would say, mainly to get more out of the network is the topic of internal organizational structure, so I mentioned that people are invited to brief them. But this has to be driven forward by the Digital Innovation Team in particular, so that they can get people on board even more, perhaps even see clear deadlines. But what else the Startup Autobahn can do ehm, yes for us is perhaps still a topic, but that is quite COMPANY D specific, that we now pull very little out of B2C topics now and ehm that you might look out at such deep dives, that now no ten Start-ups are really only in the consumer area or end customer area on the road inviting. That was now only with the Porsche the topic digitally Business Models, a very strong B2C focus had, ehm however ne otherwise fits that exactly. If only this international networking were a nice benefit... Maybe, or even that it won't get too big, you mentioned that maybe you should also cooperate with universities. I think it would also be important on the partner side that it doesn't get too big, um, because otherwise we have 30-35 Corporates on one side and it just lives on the fact that you know each other personally and are really personally in a close exchange and there you notice that there are 6-7 companies that are there at every Deep Dive but already notices that there are other companies that are hardly active. They may have the Start-up Autobahn logo on their side and vice versa, but they may also do Pilot projects in the network, in the natural exchange they actually do not appear at all. Therefore, it would be important that you do not leave the main thing we now have as many network partners as possible, but that you leave it already in a certain framework.

Interviewer: So that the exchange is still within an individual framework and the thematic focus does not widen too much.

COMPANY D: Exactly, right.

Interview 5: COMPANY E // 19th October 2018 // Corporate Strategist

Interviewer: So, the first question is, when did COMPANY E join Startup Autobahn and which other platforms from Plug and Play did you join?

COMPANY E: I think it was the beginning of this year, I think the contract was defined roughly when I started, somewhere between February and March. And in addition, I think yeah, we also joined the energy, sustainability platform within plug and play.

Interviewer: Okay but back in Silicon Valley not in Germany, right?

COMPANY E: Well, I think we are involved in the German one as well, just a little bit but I don't think we are part of it.

Interviewer: So, it's the link from Silicon Valley. And from an organizational standpoint, where is all of this innovation platform stuff linked at COMPANY E. So, you have been talking about you starting at the beginning of the year, where are you located at and where are you linked at in terms of organizational structure and department?

COMPANY E: So, kind of the internal organization around innovation?

Interviewer: Yeah, specifically talking about Startup Autobahn and the platforms from Plug and Play, where are they linked to?

COMPANY E: They sit with me and I am in corporate strategy, so it is. is that the answer?

Interviewer: This is generally all of the innovation processes from the whole company that are running in corporate strategy or is it specifically these programs?

COMPANY E: Well it's specifically these programs its basically being the owner at the curators of the interacting and the contract with Plug and Play and Startup Autobahn. Then, the wider innovation program that sits across the organization.

Interviewer: And corporate strategy is a cross-functional department I guess or is it tied to any business unit?

COMPANY E: No, I mean it sits in corporate but, so corporate obviously sits above the business units, so you could say its cross-functional.

Interviewer: So, we are talking about the innovation process at COMPANY E, if you would describe it, would you name it as open in terms that you have a lot of corporations and channels where you get your innovation input from? Such as external sources, as the innovation platform

COMPANY E: Yes, I would definitely.

Interviewer: And if you take a look at your process steps, would you say that it is open up to external stakeholders or that you are generally driving a more closed process just taking the input at the beginning?

COMPANY E: No, I would see it is open across the process for external input.

Interviewer: Okay, so pretty much open on both sides. When we are taking a look at Startup Autobahn specifically in Stuttgart, what would you say was COMPANY E's motivation in joining the program?

COMPANY E: Strategic, so there is a focus within the company to expand in the mobility space so in the legacy business of the company I work for, we obviously are an energy and fuel provider for moving people and stuff around. Now I think there is a growing realization that our traditional business model is going under stress and under pressure so you know it's been kind of an identification of an ambition to move in a new type of business models around mobility and that whole space. So, that was the clear motivation for doing this. One to kind of get hold of the deal flow and two to really see what is going on, what are the corporates doing within the space and three start bringing it back and start building a new Lego business with this as a starting point.

Interviewer: Sounds good. Is Startup Autobahn and the other Plug and Play platforms the only open innovation initiative you have been joining or do you have other activities running, such as hackathons or maybe partnerships with other external stakeholders that are running on top?

COMPANY E: Let's put it this way, the only one we are paying for yes. But then there are other initiatives going on the background which are more ad-hoc. Yes, we run hackathons to, and we have partnerships and corporations with other corporates and also trying to tap in the local start-up community in and around where we are operating, Iberia basically. So yeah, it's the only one that we are giving up cash in the moment but that does not mean it is the only thing that is going on

Interviewer: You have been talking about the reasons or the motivation to join this innovation platform or initiatives, do you have any specific goals associated with this?

COMPANY E: I think the KPIs, meet as many start-ups as possible, I think it is, the ambition is I guess to see, to take good ideas from outside and implement them inside, right, let's take it from outside and plant it. The fertile store that is COMPANY E and then seeing these trees grow and become strong and powerful. I think it is two main reasons. The first one is this strategic realization that we need to branch out, need to start working and developing new businesses in areas we are currently not present. The other one is to take ideas and start strengthening the current business. So, both the existing core and then as I said building new businesses that are kind of not present in the company today. And I think there is also the start of realization there is also ideas that are not created internally, just because it is not the culture, us and many other large corporates, that means you have to start looking outside in order to bring them in, so yeah.

Interviewer: And if you are talking about all this and your goals, would you say that you are driving a specific strategy or process with Startup Autobahn in terms of that you are pre-setting a process you are following?

COMPANY E: Unfortunately, not, yet. I think I am still trying to figure that out, what is the most optimal business model. I think at this point we are still talking, trying to maximize the dealflow basically, talk to as many start-ups as possible but as we move along I think, that it does settle a little bit, I think we go more specific, a more specific targeting of the types of start-

ups and what we want to get out of the platform. But that is kind of yet to be defined a little bit, I think this is still so recent that it is just shooting with the shotgun at the moment.

Interviewer: Yes, something that comes along with the time.

COMPANY E: Yes, I think so too.

Interviewer: And, I mean you know that we have several corporate partners on the platform. When you joined Startup Autobahn, how important would you categorize the attendance of the others in terms of the other corporate partners that form part of the program. Was it important for you which members already formed part of the platform or was it more about the topic itself on the platform.

COMPANY E: I wasn't really involved in deciding that this is what we want to do, so I can't really comment on it. But it would say probably not so important, it is more the fact that there is a proof in track back in creating dealflows and smoothly aggregating ideas with start-ups under one umbrella, I think that was the main driving factor, not so much who was on this at the time.

Interviewer: So, if I am asking you to describe the relationship with the other platform members I guess it would not be that intense?

COMPANY E: Sorry?

Interviewer: If we are talking about the relationship with the other platform members, the corporates that are also part of the platform. How would you describe it if you are saying you that you are not having a high focus on the other corporates that are on the platform, so is it not that intense?

COMPANY E: Oh sorry, I misunderstood your previous question, I thought it was if they were the main reason for joining, then I would say no. But having the discussion with the other corporates is very vulnerable for me, so ehm you know already keeping in touch regularly with a handful of people from different corporates form the platform, kind of sharing ideas and experiences and what else. So that part I would say is very vulnerable, but I wouldn't say it was the main reason for joining in the first place.

Interviewer: Basically, an add-on to get an insight into innovation from other companies.

COMPANY E: Yeah sure cause at the end of the day we are all big large corporates with hundred years of histories and more. We all come from the same type of legacy, we have basically in the position that we are because we have been successful in the past. Now, if somebody tells to change to something that has been successful, then somebody stands on their heels and cross their arms at the chest, why should we change these processes that have been working in the past, that doesn't make any sense. So, we are all kind of facing the same internal

political struggle in order to start injecting a new sense of thinking in our respective organisations and these are the same for all of us. I mean this is probably something you will hear from all the companies. The same functions, the same parts of the business that are kind of putting up resistance, I mean we are all similarly organized at the end of the day which means we have the same challenges. So, that part of it and sharing thoughts and ideas around that is very important.

Interviewer: So, it is a change of information and experiences you are having with the others?

COMPANY E: Yes, right.

Interviewer: And what are you thinking about cross-collaboration in terms of pilot projects with start-ups with other corporates. Is this something you have been thinking of or are you more keen on driving the pilots or projects with start-ups on your own?

COMPANY E: No, no I would love to do cross-corporate partnerships at one point. But my problem right now is kind of geographical distances. I guess it is easier if you have the other guy that you are doing something together with is literally next door instead of having him a two and a have hours flight far. But I would definitely love to do it.

Interviewer: And if you are taking a look at the whole innovation ecosystem let's say the start-ups, the corporate partners, the community, that you might have known some of them at Expo back in July, the VCs - who would you say do you have most contact with out of these?

COMPANY E: Dropping names now?

Interviewer: Yeah, no in terms of categories, not like specific names. Would you say it's more the start-ups, the corporate partners, the community or VCs that you might got known.

COMPANY E: Ah okay, no I would say the start-ups and the corporates.

Interviewer: Okay, these are like your two focus groups out of the network.

COMPANY E: Yep. yes.

Interviewer: You have just been talking about geographical issues that are kind of influencing also the process of being close and being involved with the other corporates. Would you say there are other factors that are influencing your participation in Startup Autobahn?

COMPANY E: you mean internally?

Interviewer: Yeah, anything that comes up to your mind, internally or something that comes from the platform that might limits you in participating as you want to?

COMPANY E: No, I would say the main challenge is the limit of geography. More than anything else.

Interviewer: Okay, so you think it would be easier if you were close by? In terms of that you could have a higher impact or higher participation?

COMPANY E: Of course, sure.

Interviewer: if you take a look at the innovation ecosystem, if we call it like that Startup Autobahn. What would you say has an impact on this system, in terms of external impact maybe also internal because of the people that are involved in it. Anything that pops up your mind?

COMPANY E: Not really sure if I understand the question.

Interviewer: Let's say Startup Autobahn is an innovation ecosystem, obviously it is evolving, it is changing throughout the times, it is growing with each program and corporate partner. What would you say influences this system, for example the start-ups or the corporates by putting their experiences and innovation processes in it?

COMPANY E: I mean obviously at the end of the day it is the corporates that are paying for this, they are paying for what they feel is a service and they are keeping this thing flowing. If they pull the funding, the system dies. So, they are getting what they want, you know there is focus here that they want to have influence over and obviously influencing the selection of start-ups that get invited to the platform, that get screened and that they meet. So, at the end of the day, it goes like this, but I guess the Anchor corporates and the big partner companies are the ones that are influencing how and which direction this is going to take.

Interviewer: So, the highest impact is created by the corporates?

COMPANY E: I would say so, yeah.

Interviewer: And if you thinking about the platform is an ecosystem, do you think there are ways to improve it. I mean you have been part of it at the beginning of the year, there are probably some projects that are still in the pipeline but generally speaking would you say there is factors that could improve the whole system or the program?

COMPANY E: I mean, it is for me, the sessions I had participated in and I brought colleagues with all very valuable and they have been, all great to kind of get into the dealflow. But something that I find almost equally important is what I mentioned before, is the discussions and the talks we are having with other corporates about issues, challenges, opportunities, best practices so I think from at least my perspective the platform could be strengthened by kind of

deepening that. I wouldn't say writing best practice manuals but for sure trying to set up round tables, meetings, 1:1 whatever it might be where this kind of best practicing can be spread. And especially successes, and especially the key drivers for successful implementations or executions for pilots can be described. I think that is another key area where the platform can be helpful for its members.

Interviewer: So, promoting cross-collaboration amongst the partners and kind of get an insight in how they are doing it, best practices.

COMPANY E: So, in the end of it, all of us who are responsible for this, cause every corporate that is on this platform has somebody or a small team of people to drive this. And those people may have a problem, because they point it and say you got to figure this out, but there is no playbook. This is something, you know there is a reason for it, they haven't done it before. And all of the sudden somebody is pointed at and said, you know try to deliver this and this is different from reorganizing HR because this is a white paper. So, helping those people to become as successful as possible, also helps promote the program itself because it makes everybody look better.

Interviewer: And enhances the outcomes and influences them and drives the projects definitely.

COMPANY E: No, for sure. And not only the budgets but it also you know if you can stand there at the end of the year and say I successfully implement six pilot programs and people are going to say that is fantastic how did you do this. And then you say through collaboration on this platform, where we spoke with other corporates and got feedback from start-ups on what works best. And it made it succeed because we overcame this and these challenges - you know that will guarantee funding for next year's program without a doubt.

Interviewer: That's good to know.

COMPANY E: That is the way it gets done.

Interviewer: So, you were just talking about the outcomes and you were saying it is obviously nice to show there have been several pilot projects coming out of the membership. What would you describe as direct results from the program so far?

COMPANY E: So, we are starting well working on it, we actually started two pilot projects internally. Nothing super how should I say, ambitious, but kind of enough to gather some feathers and really try to start understanding how this can best be done internally. So, goal is of course to be able to at some point showcase some results and then effectively kind of kick start a pilot project machine which is what I want. Those are the main take always so far. And sorry one more thing, also starting to create some excitement about this internally, marketing it internally and make sure that people are aware of what is available and what the impact can be.

So, the more of that kind of internal marketing, the more people get excited about it and the more people want to get involved instead of being at the side line, so worst case being flattered hostile to trying to do and implement new things, they are on board. Those are the main take always so far, but this is early days still and I am still struggling having full top management support today which I need to get there.

Interviewer: Is this something you would consider very important the support from management in order to drive it successfully?

COMPANY E: 100 % it doesn't work without, doesn't work.

Interviewer: So, you are trying to get more attention or what like the process in order to promote the program within the company?

COMPANY E: I need to get our CEO to say this is the top of the agenda, this is one of the most important things to bring this company forward. And then I need to say him this to his generals who are running the shop, so that they are aware that at minimum need to give a little bit of attention and give burocreacy busters. Whenever some rule blocks or doors are shut in the process of trying to get things done, that is the key thing.

Interview: I have heard this several times throughout my interviews.

COMPANY E: No joke, no joke. They need to stand up on the internal corporate intranet and say this is the key thing, this is number one. and whatever these people to you should at least not block, not actively work against something.

Interviewer: That is right yeah. If you are talking about the start-up corporations you are now doing pilot projects with. Are these start-ups that you got to know through dealflow sessions or where did these technologies come from.

COMPANY E: No, actually dealflow sessions of Startup Autobahn.

Interviewer: Okay great so it is like a direct outcome of what you have been seeing in Stuttgart. Nice.

COMPANY E: Yeah.

Interviewer: At the very beginning of our conversation you were saying that one of the main motivations to join the network or the platform was that you are trying to get into new business models as you see the need to evolve. Would you say that one of the goals or outcomes you want to have is the extension of the current portfolio or of the markets you are in?

 COMPANY E: Ehm, yes.

Interviewer: So, you really want to kind of complement what you are currently doing with the support of the technologies you are getting to know.

COMPANY E: That is correct. And let's be honest, the stage we are working on now is all about working on improving processes we are already having in place or improving some part of the business where we think we can cut costs and make something leaner, more efficient. But the ultimate goal, if we look five, ten years down the road, is of course to start adopting a broader thinking, trying to get in touch with start-ups, knowledge and technologies from which we think we can expand the business, but that is not realistic to think that we can get there within the next six months.

Interviewer: So now, it is more kind of a process improvement that you are trying to achieve with the technologies and not something that you say is part of the market or the product itself. More something on the way in terms of processes.

COMPANY E: Yes, right. So exactly, that what we are trying to implement know is more to apply new thinking, new solutions, new technology to an existing problem internally it is not trying to come up with this beautiful gift.

Interviewer: And were these business cases you took with you to Stuttgart or how did you match the technologies with the problems which you had insight of the company.

COMPANY E: So, this is a big problem because you can do all kinds of survey and stuff internally to find out but in the end, people don't know what they need. So, you need to have an active dialogue inside, because people are going to rarely admit that they have a problem at some point of the business because if they haven't dealt with it so far, they should be fired. So, it is a little bit of a problem but we are trying to think around what could be big in challenges, we try to rank them in terms of size and value and then we try to take that thinking back to whenever we organize dealflow sessions with Startup Autobahn and Plug and Play to say these are problems that we think can be solved with technologies from company XYZ, then we have a dealflow and a dialogue with the business units when we come back. And we try to really promote it internally. And then we basically try to set up a meeting directly between the start-ups and the people from the business units to let them have the conversation or this 1:1, that seems to work fairly well.

Interviewer: Okay, so it is more kind of individually that you match the business units with the start-ups and then you go from this point on.

COMPANY E: Right. I mean ultimately, I would like to have to make sure that the business units can be involved in the primary stage and I am sure we can get there. But we are still trying to figuring out how this can best be done.

Interviewer: To just involve them. If you are talking about bringing the technologies to the business units, for example. What would you say is the feedback from the people working at

COMPANY E coming along with these technologies, is it sceptical, are they really open and do they see value in it?

COMPANY E: Anything from hostile to excited, everything within. And it is tremendously depending on the person you are talking to. I would say in general, unfortunately, some of the top management is more sceptical than the people further down the business leads. And I guess those guys, the generals, feel like they are being made look bad if they, if we come along with a new thinking of how to crack a problem with which he has been dealt with for the past 10 years. So, it is that kind of thinking, again internal politics, that is not in any way benefit the company but it might benefit their own egos. But some people are very excited, very interested, they want to do things. Other people flat up hostile, they are what the f, what is this, why.

Interviewer: So, any kind of feedback that you have been faced with throughout the process. Okay, if we are taking a look at the technologies you are getting to know through Startup Autobahn. Would you say they enhance COMPANY E to work more innovative or is it more the fact that things are getting more efficient?

COMPANY E: The latter, the latter. Improving existing processes. Now, then somewhere down the line it can encourage more innovative things and that people see there is an opportunity to take ideas that are generated and then actually turn it into something that is commercially reliable. So that is of course the ambition, but at the moment it is improving efficiency in existing processes.

Interviewer: And if we are talking about the two projects, are they still very much at the beginning or are they already conversations in terms of that these are going to be implemented.

COMPANY E: No, they are still in the pilot phase, so we have been working on that.

Interviewer: What do you think are going to be the main factors when discussing whether they are going to be implemented or not?

COMPANY E: Probably costs, probably this is going to be an internal discussion at the end, why replacing something that is working with something new. What are the risks about this, have you tested enough - there is probably going to be a fair amount of questions, they will depend on the outcome of the pilots.

Interviewer: So very much result-driven. If you are looking at the technologies you have been encountering, would you say that there has been a change in the technology focus of COMPANY E or did you have a very specific focus from the beginning on and you thing it is going to remain in terms of technologies you are looking at.

COMPANY E: No, it hasn't really changed. Anything is just matured, ambition levels might need to be adjusted to reality, if the ambition what as the beginning to find a filling bullet I

think those went somewhat down, to the level where it is more okay, how can we find technologies and ideas that we can quickly implement.

Interviewer: Now back to what we have been talking about before the KPIS. You said that there are no KPIs so far, but the more pilots coming out the better to show off achievings. Do you think about setting KPIs in the future in terms of maybe number of projects you are driving or implementations you are having?

COMPANY E: Yes, no absolutely. I think that can be helpful. And I think eventually I will do that. At the moment I am setting KPIs for each pilot project, but not really for the Plug and Play or Startup Autobahn engagement.

Interviewer: So, it is more on a project base so you are setting KPIs on the projects to evaluate them afterwards. This is generally, not mattering where the projects are coming from let's say Startup Autobahn or a hackathon or is it let's go ahead and just see where it takes us?

COMPANY E: I guess it depends on who is running it. If I am running it yes, if other people I am pretty sure no.

Interviewer: So, it is up to the person that is responsible for it and there is nobody forcing it to track.

COMPANY E: Yes, there is no real vibe around this how to do it. People do what they want.

Interviewer: Okay, so very individual. All right.

Interview 6: Company F // 22th October 2018 // Innovation manager

Interviewer: So, my first question is, when did you join Startup Autobahn?

Company F: So, I think we joined Startup Autobahn formally the Stuttgart program in February this year, but we also sort of unofficially joined the program like three months before that. But in terms of actually paying and signing it's February this year.

Interviewer: And from an organizational standpoint, where is Startup Autobahn linked at Company F? Like what is the department you are working in?

Company F: So, it is the Innovation department.

Interviewer: Okay, and it has a cross-functional aspect or is it tight to a business unit.

Company F: Let's get this straight. So, the main contact for Startup Autobahn is the innovation department which sits at the HQ in Hongkong. Then we have a contact person sort of in each business units, for our dealership in China we have one contact person, our dealership in Germany, in UK and our dealership in Singapore, there is a person in charge from each of them. So, I guess it's cross-functional if that says it is cross-business. In terms of where that person sits, I think in Singapore that person is the Chief Digital Officer, in the UK that person is the Chief Innovation Officer, and then in China it was also a Head of Innovation, so those three are also innovation roles just within the dealerships.

Interviewer: So, you can spread the responsibilities back in the regions.

Company F: Yes, so. Hello? Yeah, so we sit in Hongkong and the innovation team sits in Hongkong but our business is spread around the globe. So, yeah, those people would be in charge of actually distributing whatever pilots and POCs and things like that but we will take a more coordination role and be the point of contact for the Startup Autobahn team.

Interviewer: And if we are having a closer look at Company F and at your innovation process, would you describe the company as open in terms of that you have a lot of channels and cooperation where you get your input from.

Company F: Do you just. Okay, yeah, I need to clarify this question. Not only on guessing ideas or do they have to be executed.

Interviewer: Both, just talking about where you get the input from, if it is internal or also external.

Company F: Okay, so, if it is more on an inspiration level, in terms of information gathering I would say we are very open. We work with companies like Plug and Play, people who are in the ecosystem we also work with VCs or any contact we have in innovation or sometimes with governmental organizations in Hongkong and Asia we work with a lot of different organizations to see start-ups that they recommended or talk to people in the space. In terms of information gathering we are extremely open I would say. But if we talk about how much of these are actually becoming projects or going to be implemented in the group I would probably put that at the very low end in terms of volume of data that we actually pick and execute. But if we only talk about information sharing then we are very open.

Interviewer: And if you look closer at the innovation process itself would you say that after gathering the information you are still opening up the process or you are kind of getting closer in terms of that you are doing the further development in-house.

Company F: I think we are very open, especially because we don't have a traditional R&D department. So, all the chief digital officer roles or head of innovation roles are something inevitable ehm in the last three years, if not more recent. So, we need a lot of guidance

throughout the process and because we don't have an R&D team we do a lot outside for inspiration so we are very open.

Interviewer: So very open in general. And if we are now talking about Startup Autobahn which you joined at the beginning of the year. What was Company F motivation to join the program in Stuttgart specifically?

Company F: So, I think first of all, Company F wants to work closer with Daimler, and we just want to be involved in the relationships that Daimler is a part of. With the background, I mean Company F is the dealership, Company F deals machines and cars globally in a lot of different countries and we are just watching generally being close to Daimler in terms of some of the relations but in addition to that, we do believe actually looking around Startup Autobahn do have access to a lot of really good start-ups. So, it is got for us to keep update on what is going on the mobility space. I think it's more because you guys are big and also you are very uptodate, you do attract a lot of start-up. It's more like an easy one-stop shop in a way for start-ups. We don't have to talk to lots of people right, you select for us and then we would just look into whatever you guys have chosen for us.

Interviewer: Kind of funnelling. And if you would think about the goals you have, do you have any specific ones when joining or was it rather joining and checking out in terms of results?

Company F: I don't think we have any quantitative KPI, for instance we have to do X investments or X pilots. It was just more generally just to know and find out more. We did end up doing quite a few pilots but it wasn't part of our KPIs, it was more just a general eye opener for everyone. If we are talking about qualitatively hitting those goals, I would say we definitely do quite well in terms of being close to Daimler, we now meet contacts from Daimler in other branches of their business. Previously we would only meet people from sales, now we would meet people for instance from CASE or from DigitalLife from Daimler. In terms of getting exposure I mean, I mean like we met a lot of high-quality start-ups, so definitely for that we would also get a ... because it is not quantitative it is very difficult but I would say over all it is good.

Interviewer: Okay, so somehow it is qualitative and quantitative. You have been talking about Daimler being part of the platform and being a reason for you to join. How important would you generally describe the attendance of other corporates on the platform, was it just Daimler attracting you or was it in general that there were several other partners that you would say you consider as important?

Company F: I think we didn't know anyone to be specifically important but after going I think the general knowledge share amongst everyone, people being helpful and just talking to you was the big buzz. So, I think if we talk about the very beginning we would just do it for Daimler but after a year we now see the value in knowing the other partners, and just speaking to them and having the contact in general. So, now if you would ask me again I would say generally

having partners is a plus and a bonus of joining Startup Autobahn. It is a new benefit we didn't think would be good before prior to actually participating.

Interviewer: Okay, nice. How would you describe the relationships with the other corporate partners? Is it kind of an informal exchange or what is happening between you?

Company F: And the other corporate partners. I think it is a more informal exchange, so I think for us as a team it is good to you know be able to speak to people from other teams. To have just you know a chat over the phone, things like that, if you are not located in Europe it is a little difficult to grab a coffee or whatever but even just phone call and just pushing information, like how did the pilot go with this start-up was quite helpful. So, it is very informal, a personal but informal relationship.

Interviewer: And if we are talking about pilot projects, has Company F ever considered cross-collaboration projects speaking about projects with other corporate partners and start-ups as part of the Startup Autobahn program?

Company F: Let me think. I think we definitely hm. I think we are definitely thinking on working with another corporate in addition to a start-up, I just can't be sure whether this corporate is from Startup Autobahn. We are open to that. Maybe not specifically with Startup Autobahn but Plug and Play property technology, Hongkong Line is one of the partners and it is actually one of our subsidiary so we would be happy to do a bigger projects where it is Hongkong Line and one of our different business areas, one of our retail units or automotive business and do something together with a start-up, so we are definitely open but I check I don't have any example that I can give you right now.

Interviewer: No worries. You have been talking about pilots before, do you have set up a process how you are dealing with the whole innovation ecosystem in terms of that you are first figuring out the tech interests you are having and then you are approaching the platform members - what is your strategy?

Company F: In terms of managing the pilots or select them in general? I think we can be better, we as a team talk about being more structured and more rounded so we recognized that what we are doing now is quite informal but there is a goal to formalize it. So right now, how do it we would invite. there is actually two ways. The innovation team, being us, me, we would understand what are the problem statements our business units have and when we come to a Startup Autobahn event or come to the team we would tell them the problem statement and when we have a company that would solve the specific problem statement we bring it back to the business. So that is how we are doing it, so it is very informal and we don't have a specific problem statement collection process, it is just us knowing what they need from talking to them or having meetings, just introduce them and have another meeting and they would share. That is one way, very informal. The other way, whenever we are coming to Startup Autobahn, we would actually bring the Chief Digital Officer or Head of Innovation with us. So, they would know this is a good start-up and they would on the spot be able tell us whether they want to

work with some of these start-ups afterwards. I guess this is a different message, but we do think as a group Company F, such a big company, we should do better at extracting. So right now, whenever we need to do, we do reporting quarterly, so before we do a reporting we would go and ask how are the pilots going but we should be more on top of that.

Interviewer: Okay, but you have kind of set up an informal process. Sometimes it is more about writing it down and getting it clear with the people involved. And if we are talking about this process what would you say influences it most, do you think it is an issue that you are not located close by the office in Stuttgart or is it easy to figure that out if you are saying that you are basically taking the people from the units with you when you are flying in?

Company F: You mean...

Interviewer: In terms of boundaries you might face throughout the process, for example geographical wise.

Company F: Okay, yeah so, I think geographical is one of them, I need to go very far with the team. We are also working with Startup Autobahn China and Singapore now. Actually, with China the relationship thing is easier, because it is so close to go. Two or three hours of flight but going to Stuttgart means, actually getting there and coming back takes out two days of my working week. So, it is a bit harder for the team heads to approve that kind of travel time, not just the costs, the travel time. So geographical is definitely one. But if you look at it from another perspective, it makes people take it seriously. Because it is so far away, people do take it seriously when they are there, in comparison with when it is just another meeting in my city, people might not take it as seriously, as least for our business units. Yes, we are far away, that makes it difficult for my team to communicate with the Startup Autobahn team but I think for the business units that are coming it becomes you know a proper event for them and they pay more attention, yeah.

Interviewer: Okay, that is good to hear. And if we are thinking about the innovation ecosystem in Stuttgart consisting of different stakeholders, what would you say most influences the system, is it the stakeholders themselves, is it the different processes, the technologies, the topics, what would you say is the major source of influence?

Company F: You mean the general innovation ecosystem?

Interviewer: If we are talking about the innovation ecosystem of Startup Autobahn specifically.

Company F: Okay, what impacts. I think because of how Startup Autobahn is run or how it is designed to work, it is driven by the stakeholders. Because it is problem statement driven, so rather than, you know, like all of the goals come from the problem statements, and these come from the stakeholders of the business units. I would say that is the most significant influence, the stakeholders.

Interviewer: And their problem statements.

Company F: And the massive quality of the start-up. In a way, Startup Autobahn is here to serve the corporate partners, because they get those fees. And yes, they have to find the start-ups and to treat them well, but in the end, at the end of the day, those who are paying are the corporates. So, let's say, they have their problem statements and Startup Autobahn is doing whatever they can to find start-ups that fit into that problem statements. So, I would say it is very stakeholder driven rather than by the start-ups.

Interviewer: And earlier you have been talking about the pilots and also about the results, quantitative and qualitative coming out of the program for you. If we are talking more about the pilots, have they been initiated because of dealflow sessions you did in Stuttgart or how did you get in contact with these start-ups.

Company F: Yes, I would say dealflow it's the most efficient way rather than the expo day, expo day is more an event to get an overview and say hi to people. But I think it is during the dealflows where you can actually get an in-depth conversation for the company to know, you better get to know the start-ups when those conversation happens, there is a likelihood of a pilot as well, because they know. Our business is not that straight forward to explain, right. So, after discussing a bit more it is more likely that we would have pilots from dealflows. Sometimes it would also be from the team just David, sliding us specific start-ups. So, we try to have a call every few, every two months maybe and we would talk about anyone that is of specific interest for us and David would know our business pretty well by now so he would slide a few and those might be interesting but in terms of when you just compare from the structured sources, then dealflows is the best one.

Interviewer: Yeah, it is tight to your personal interests, so it might be the more specific ones. So besides pilot projects, have you thought about investing or is your focus more on the pilots and ultimately implementations?

Company F: So, we are open to investing, we have explored previously a few investments. None of them passed our investment team, but we did try so I think it counts as at least an effort so we are definitely interested in doing them. For a pilot it is more like a smaller win, you know an incremental improvement but I think what our team is trying to achieve is to use innovation as a way to generate new revenue for the firm and not just to help increase efficiency or make smaller incremental changes but we want to actually be a department where we can help the firm to generate new revenues. Through collaborating maybe with a start-up or investing in a start-up, things like that. So, we are definitely open to that just none of them happened to pass the committee, for now at least.

Interviewer: So, it is a larger process until the investment is done. And if you are talking about increasing revenues through your activities, is it through extension of your current portfolio and

business model or is it more into the direction that you are just making everything more efficient and saving costs.

Company F: Okay, we feel like the smaller, the pilots are more likely, like with Work Fusion, one of the portfolio companies of the last batch, right. So, if you use Work Fusion and it is for our RPA, robotic p automation, would save a lot of time, or they could have another more meaningful role, so for those ehm it is for incremental. That is what we will definitely do, that is like the bread and butter of the team. What we want to be able to do, *start-up name*, I am sure you know them, *start-up name* is still not that big in Asia, in Europe they are. Company F is huge in Asia, I don't think you can name *start-up name* but as an example we did think about, they were one of these companies, and how can they build an Asia operation and that revenue from that operation would be revenue for the firm. So, it would be a completely new line of business but of course complementary to things that we have. So, let's say What3Words delivers is what also benefits us, I think that is clear. Can you hear me still?

Interviewer: Yes, I can hear you clear.

Company F: So, it is a new line of revenue that we are thinking of. But, I was just telling you, to give you an example, don't use their name in your work but we are. So that is the big scope. Those things are harder to combine, every time we are still looking for things like that but the bread and butter is still the cost saving side. Not necessarily that, some of the company help you save more right, not necessary sale more, it could be like digital marketing software that makes you more targeted or refine your website, that helps, that makes customers buy more. So, it could be small things that make you sell more, that is also the bread and butter. But I think the sort of surprise or a bigger win would be a new line of revenues.

Interviewer: And if we are going back to the pilots you are currently doing or you have been doing, have you already conducted any implementations or are you still in the process of figuring out if you are going to implement and you are still evaluating?

Company F: We have, AX Semantics, we use them to write descriptions for our used cars and it has already been launched on our website and I think we are going to continue using them. Then I think there are a few, sort of, do you know what I meant, so it is website enhancement, even though there was no POC I think if they choose to do a project it would be implemented on the website so definitely we have projects that have been implemented.

Interviewer: And do you have any customer feedback on these products you have implemented or is it running that much in the back that they would not even notice?

Company F: They would not notice, right. The whole point of having a robot to write description of the use cars is that we don't have that before, so now the customer would just realize oh there are descriptions about the cars but they would not know that it is a robot. And the robot is doing a good enough job to not realize. But I think we see several improvements in click through rate. What happens we had a very boring title for the vehicles and now we realized

since implementing that people have been in the page more often, there is a natural increase. Just because there is now a different description for ease, rather than saying Used Toyota from 2012, it would now say something like a never used, I don't know it would be more entitling so people would click.

Interviewer: Nice. And from an internal perspective you are saving up time, right because it is automatically written somebody is going to save time.

Company F: Yes, so it is men hours, I think the most interesting thing about this they were actually thinking about doing this but before they hired somebody they found the tool so it saved them from hiring a person, so quite good.

Interviewer: And what is the general feedback or mindset of the people that are encountering with those technologies you are coming with from Startup Autobahn, are they open to it?

Company F: I think there are two groups. In general, people are very open minded ehm, I think that is a very good sign, people are excited about to meet technology, they are interested to try. However, there are two groups in terms of the type of experiences, one group works prematurely with start-ups that are more mature, so their product is better developed, their team knows what they are doing, we are not their first client, they have dealt with large companies. For those it is a better experience, in the sense that they can actually hit the ground running. However, there is another. So, for the other type it would be start-ups that are very young, their product might not even develop. For those we have actually feedback from the business unit say that they feel like their mentors, helping the start-up run from scratch or helping build the product from scratch rather than refining an existing product. So, for these people it is less appealing, in the sense that they don't mind work with the start-ups, they want to help young entrepreneurs, but from an efficiency perspective it is taking up way more time than the project is supposed to. So, for those I think the experience is pleasant, yeah.

Interviewer: So, would you say you rather focus on experienced start-ups to kind of avoid this situation?

Company F: Yeah, so after doing it for nearly a year now, we now understand or have learnt that we would try not to work with early stage companies because it just takes up too much time. If we position it as mentoring and helping then we would do it but if it's actually doing a project we would pick somebody mature. By saying mature we don't mean series C or D, even companies of series A or B could already be mature enough. So, it is also a learning process for us, especially after getting the feedback from the teams we now recommend people to work with companies that are slightly more mature.

Interviewer: That makes it faster and easier I guess. At the very beginning we were talking about KPIs and the outcomes, you said that right now you don't have any KPIs set but at the same time you said that you are planning on generating more revenue through innovation. Could you imagine that there will be a KPI for that?

Company F: Yes, so I think as a team, so we would have a team KPI that we need to find new resources for revenues, but it does not necessarily have to come from Startup Autobahn

Interviewer: So, it's just one source.

Company F: Yes, so I think Startup Autobahn is the vehicle for us to achieve our overall KPI. It is not our only source, it is one of the sources. So, we get definitely from Startup Autobahn that we can relax a little bit because we can come up with that from other places but it's not all reliable on Startup Autobahn. So, for instance let's say we don't find any, we would still have a contract with them, let's say oh we didn't find anything so we should not deal with Plug and Play anymore. That is unlikely to happen because the KPI specifically for Startup Autobahn is still qualitative, however after let's say maybe a year after, we are also talking about how to be more formal, how to manage the pilots and keeping an eye on everything. I think we will have more quantitive KPIs throughout the next years, probably not next year but maybe the year afterwards we might start having quantitive KPIs.

Interviewer: Do you think they will go into the direction of pilots, number of investments?

Company F: Yes, it's likely to be number of pilots or it could be men hours saved combined from all of the projects. It doesn't matter how you do it, you should just save this. So yeah, definitely something along these.

Interviewer: But still good that you are also considering qualitative ones right one.

Company F: Yeah, but I think everybody would agree that it is a little bit harsh to say we have to come up with new revenue from Startup Autobahn, so I guess it is very unlikely that that would come along. It would be a team KPI that we should get form other places not Startup Autobahn.

Interviewer: So, like a general one. Okay nice, anything else you want to talk about or just give an insight regarding the innovation ecosystem in Stuttgart or specifically Startup Autobahn, anything that you think could enrich the whole system?

Company F: Hm. I think so far; the experience is very positive. In terms of specifically, because Stuttgart is very far I think our request wouldn't be as good. You know we ask for stuff but if you for example if it is Startup Autobahn China or Singapore it is different. So right now, at this minute I can't come up with anything to improve on.

Interviewer: But that is also a good point, good to know. Positive feedback is always good feedback. So, Company F, I think I got a good insight in how you are managing it and what are your outcomes out of it and your reasons to join.

Company F: What were the other issues people came up with when you asked them about improvement?

Interviewer: For improvement? I mean, you know we have ecosystem and anchor system partners, one ecosystem partner for example said that they would like to be more involved regarding selection process for program start-ups because they say they are only exposed to them at the very end at EXPO day and then it's kind of too late, so they would also kind of get to know who is going to join before actual kick-off. Then I had people say an IT platform to exchange would be nice in order to kind of get rid of the e-mail stuff, because it is sending a lot of stuff.

Company F: Yes, something for communication. But sometimes people build platforms for the stake of it, like, I mean Eventbrite links but some other way of communication than e-mail. But then I can't think of a better way, that is better but you know there might be. I think it would be good if partners are a bit more transparent about pilots they are doing. So, I think Startup Autobahn should not hesitant to actually put down on paper which partner is working with whom, and I understand that some pilots themselves could be very confidential which is totally fine. But it would be helpful to know five corporate partners are working with this start-up, so it would be good to find some way to share this, on a very high level.

Interviewer: That is something I also wanted to do this month. Setting up a document where everybody can fill in at least a level they are kind of willing to be transparent of in terms of pilots and implementations they have conducted because it also helps us kind of seeing and also you as partners to know who you can get in contact with for specific start-ups and technologies.

Company F: Yeah, I would definitely say that that is a helpful thing. I think one think, I am just quite curious in general, I am not sure if it is a topic you have covered but we have been talking about this internally. It would be nice if there is an overall bigger strategy behind and you know for a clearer picture where each of these pilots are sitting, I think it is probably more of an issue how each company is organized internally and not more of a Startup Autobahn topic, I guess. But if you have corporate partners that are willing to talk about this, it would be interesting to hear, where these pilots are organized because we certainly feel that we are doing a lot of different pieces but it would be very helpful if we have an overall strategy which typically show what each of them supports.

Interviewer: That could be an additional column, when I am sending out the questionnaire to collect all of the information in terms of where the project is settle. This sounds nice, thanks for the input.

Company F: It will be very interesting to read your report.

Interview 7: Company G // 23th October 2018 // Head of Innovation and Foresight Management

Interviewer: The first question would be, since when is Company G part of Startup highway?

Company G: Uhm, um, definitely May and I mean May 2017.

Interviewer: So now already one and a half years.

Company G: Yes exactly.

Interviewer: And Startup highway is suspended directly from you?

Company G: Yes exactly. That's exactly. I got the coordination in the Company G world wrapped up.

Interviewer: And what exactly is your function at Company G?

Company G: Ehm. My function at Company G itself, when I put on the other hat I am Head of Innovation Management, which means there are two items hung up there. One is Foresight Management, so it's about future streams from markets and technologies and the other is Feasibility Studies, so with a very small project on a small budget you can quickly try something out. If there are technical difficulties, do the evaluation for Company G and then see if we can set up a research project or not. Those are the two teams. Apart from that, the topic of controlling is still on my premises, i.e. innovation controlling and a lot of cross-industry contacts, ehm in non-automotive areas, in networks, etc. For example, I sit on the advisory board for lightweight construction in Paderborn or on the research advisory board of the VDA, the FAT, these are my functions.

Interviewer: Okay super, so different hats put on. If we look at Company G now and you mentioned that you are in charge of innovation management. Would you say that you have many channels through which you get your innovation input?

Company G: Yes, so it's just universities, experts and our own idea workshops, the usual channels. So, we've already tried open innovation channels or crowdsourcing, they're diverse channels, yes.

Interviewer: And if you take a look at the innovation process, would you say that many individual steps are open or would you say that as soon as the input has been taken from the outside, the work will continue rather closed?

Company G: Well I would say the input from outside usually comes at the front of the innovation management or our milestone diagram and in the further phases when we co-opt with outside yes but otherwise it is actually a process and rather little external input.

Interviewer: And if we now switch to our Startup Autobahn Program in Stuttgart. What would be your motivation to be part of it?

Company G: Ehm, well, one motivation is to generate new ideas, another function is to get closer to the start-ups, because we are not able to get close to the start-ups ourselves. Yes, and just looking at the whole issue, how can we also revive our organization, that's definitely a side effect we were looking at.

Interviewer: So also, a little bit involvement the people and bring in new ideas and promote dsa rethinking. And if we now look at how you handle the whole process from Startup Autobahn, I mean you have dealflows, you certainly visit the Meetups of us, how would you look like the internal process there with you? How does it start, where do they look for which topics and how is it followed up with the start-ups?

Company G: Yes, so we have defined search fields for ourselves at some point, but they are relatively large and rough and then it actually happens that I try to open up the internal network to the topics, so that I am the contact and point of contact to the whole people and companies and then try to inspire people for whom this is of interest with Company G. Whether it's us going to the Meetups, I invite a lot of people, I didn't really control the process. Instead I look, ask people who might be interested and invite relatively large. Who is left at the end, then we drive off. With the deal flow itself, we have a small virtual team internally, a colleague in Spain, one sits in... ne actually the rest in Paderborn in different departments and then we see that we do the pre-selection. We have very different backgrounds, Production, Industry 4.0, Innovation, we select relatively strongly how such dealflows are to take place and sometimes we add more to the dealflows. But it is actually the small circle, i.e. the subject of deal flows, that we take out the selection. And then for the pilots we go out again and go in the width and look for pilots.

Interviewer: With the technologies you got to know in the dealflows?

Company G: Exactly.

Interviewer: And the pilot then runs completely dependent on you or do you accompany him?

Company G: No, that's supervised work. That runs completely, depending on who takes over the lead, but usually I try to find a project manager, usually I had to do that for three. A colleague from Spain did a great job, he did that too, but he's also from our team, and in another project, I was able to tell Business Development that they have to do that now and then it runs relatively independently. We have now reacted to this and have now also made a resource available, Alex, who is now, so to speak, pushing this accompaniment even more strongly with us, where you don't notice it radio-jointly, either the product group or the central function. We simply don't take the project management in our hands, but we coordinate very strongly.

Interviewer: And at the end of the pilot you actively approach the department again or is it simply the case that an individual decision is made in the specialist department as to whether an implementation or collaboration will take place?

Company G: No, we hang that up relatively high, because otherwise the specialist department dilutes it, we know that, you can see that. We hang it up so high that we say that when a pilot has finished, there is a presentation to the CTO, i.e. to the management. Often that's when we get out, that's great, we have to keep going. Or, so there's never been a negative attitude, because if things didn't fit beforehand, we shot them down. But with that, with the statement of the CTO, we usually have the mandate to go through the organization but also there shclägt still the immune system. But basically, it's about integrating into the normal process, into the normal software integration or supplier history. And in the one special case, Relimetrix, that we continue to work technically but talk in parallel about a participation in another strand.

Interviewer: Would you say that this is more of an exception and in the normal case it's more of a venture client relationship?

Company G: Yes, let's say that's because we haven't finished so many pilots yet, in most cases it would have been a customer supplier relationship. But we really go on and on, one more pilot to really show the relevance. So, these are the first two cases where we say there we go into the further proceedings and there is no other case where we say now that is one of our suppliers. There's another one, I'm still waiting for IT, but I think there's some negative feedback.

Interviewer: So many in the pilot phase and it still needs to be further evaluated for benefits.

Company G: Yes, showing relevance is very important.

Interviewer: And if we look at your membership at Startup Autobahn again now, what would you say are your main goals?

Company G: Ehm, main goal is internal efficiency increase, in the second step what was added now so bit by bit, new products or business models, but that has not been the primary goal and otherwise just find good ideas.

Interviewer: Through external resources and cooperation?

Company G: Yes.

Interviewer: And if we look at ourselves now, we have some partners and now even more than when you became a part of it, how important was the factor for you that other partners were on the platform at that time?

Company G: That was a nice side effect, so I take a rather critical view of the high number of other partners. Because the number of start-ups doesn't increase, so the schedule is even tighter

in this phase and we also had cancellations from start-ups that simply didn't have kappa and that's cheese, of course.

Interviewer: And if you now say that was more of a side effect, how would you describe the relationship with the other platform members as not very developed?

Company G: Yes, in fact it's just not how you could use it due to lack of time. We've already met like this, but the exchange with Daimler, for example, is always on the agenda, but I never get to it. That's a bit of an internal problem, but it's very rudimentary.

Interviewer: So, it's also a time factor that plays a role here. I'm sure you've already seen that we had some projects on the platform that were also between some partners and start-ups, how relevant is such a project for you?

Company G: Is conceivable, no problem at all.

Interviewer: That is, if it should happen, you would definitely be open to it.

Company G: Yes.

Interviewer: But in the past there wasn't any exchange in this respect, but the projects were all internally individual, weren't they?

Company G: Yes, of course we've already talked to a few partners just to listen, what were you doing there, how did they do with you? But not established and not extensive.

Interviewer: And if we go one step further. We talked about the pilots and that they come from the technologies and dealflows. What would you describe as direct results from the start-up highway program at Company G? These can be qualitative as well as quantitative results, if you have something.

Company G: So, we also have qualitative results, I'm saying I don't know if it was just at Startup Autobahn, but let's say it was an enabler that we actually managed to open up a ghost for something new in a business unit where we've been on it for a couple of days. But that also has a lot to do with the organizational change that took place anyway, in business development, where several things came together, but which in the end was positively accompanied by Startup Autobahn. Apart from that definitely also savings effects we generated and definitely attention in the company, so the network how we brought certain people together that is also great, a nice side effect.

Interviewer: So also, an internal network still formed around the topic. And if you now say that your primary aim was to increase efficiency through Startup Autobahn, would you say that working has become more efficient, or more innovative or more agile?

Company G: Well then, in various projects, for example End of Line Testing, it showed that we could also achieve much higher quality breakthroughs and, in another case, we showed that if you used the solution, we could definitely have saved a camera system, so monetary improvements as well.

Interviewer: In any case already successes you can register thereby. Great. If we now talk about what kind of results you have, do you have any KPIs you are following with Startup Autobahn?

Company G: So, I have a big KPI, my budget. And everything else we have planned but we had to find out that it doesn't work, with fixed schedules, that you say the time is tracked. And output is also difficult, which we are already trying to calculate a business case, so how much savings opportunities would be possible by using the technology. But this is of course a bet for the future and um that is made of course but whether it is so right in the end, no idea.

Interviewer: That is then the other question, whether this will be realized in such a way.

Company G: Yes, but there are actually no fixed key figures according to which I report.

Interviewer: But would you say that this could have a positive effect if you would introduce indicators in the future or do you think that somehow then...

Company G: No, so it would be in the way of business. Especially since I know our key figures, which we would have and then they would be behind us. If they came from strategic controlling, they would, but as a rule they are operational indicators and they don't help at all.

Interviewer: Yes, that's always difficult with such long-term issues, where the results may not be visible for a few years.

Company G: Yes, exactly.

Interviewer: We talked about the process, how you handle all this with the process in your pilot projects, where would you see potential to do things better or differently? Have you ever thought about making any changes in the sense that you have seen that you are better when you do this in the first and second step?

Company G: No, we've always adapted more, that's already happened. Just the issue of Meetup Participation, we critically questioned ourselves, why doesn't anyone want to go there or how could it be better functionary? And also, for pilots, also it was already such an active process, where we have now found a point, where I think it doesn't work badly at all, where it has shaken itself up.

Interviewer: That means that the main findings were, how do I get the people to the Meetups and how do I get my pilots to the man, or how can I engage people.

Company G: Exactly, how do I finally get the start-ups evaluated here to see if they're for Company G, we did different rounds, we did an Excel spreadsheet, we sent the profiles around, we just asked questions openly, so we went a bit in circles.

Interviewer: And how long would you say it took you to find your way?

Company G: Yes, the time until now, one and a half years, one year.

Interviewer: yes, I think that's realistic, in any case a number I've heard before. It always takes time to get it into the organization, there are also larger companies on the platform.

Company G: And you also have to see, a Webasto that could put a full-time position on the topic. And for us that was a boundary condition, 20% was the original planning, 20% was my time budget.

Interviewer: What would you say covers it now?

Company G: That's about 80% now.

Interviewer: So, would you say that a full-time job would be the right measure in your case as an ecosystem partner?

Company G: Yes, definitely.

Interviewer: Yes, if you want to actively accompany everything, even the pilot projects are very time-consuming.

Company G: The coordination and everything that has to be there is a kind of investment, that's what I always tell you. Either you want it, it's stupid of course, it's driven in my person, in the end I try to make it work again somehow. But that's the bad thing, that destroys the argument that somehow things don't seem to be going so well.

Interviewer: Yes, it's true, there's less pressure if the success is still there.

Company G: Yes, exactly.

Interviewer: And if we come back to Startup Autobahn now. What factors would you see now, you just mentioned it earlier, because the network is getting bigger, it's harder to get into conversation with the start-ups. What other factors would you say you see potential for improvement in Stuttgart?

Company G: Ehm, well. So, I mean the offer tholoi that's uprun start-ups, that's uprun few've got again and again. But what really brings uprun of uncertainty, I don't know if this is the task of Startup Autobahn, if Start-uprun that is presented now, if it is really the smart company for

this technology. So, a technology evaluation would really help, because before the question you stand at the end of the day, because if you want to commit longer or start a bigger pilot, is that the right partner or is there someone out there who is better?

Interviewer: So, it's a kind of pre-evaluation by Startup Autobahn, so you can be sure that you are on the start-up and that the project is successful.

Company G: Yes, exactly for example HD Vision, they show a portfolio in their discussions and say quite clearly, on the subject of application breadth and measurement accuracy, these are the two axen, there are the and the companies, we are there. And that's exactly how you could imagine it for other topics, that you say okay, in the portfolio with individual Axes, the and the companies, but we're presenting this to you now. And what they do is doing excellently. Of course, there's the competition around it, but we know it, and that's why we took them in because they do that and that in a special way.

Interviewer: So, it's like a categorization and an assessment.

Company G: Yes, a strategic portfolio management in the sense. That they really say, why did you take it because you decided in the portfolio where there are five companies, is the best for you.

Interviewer: And how did you handle that in the past, did you coordinate with other partners that you knew worked together or did you do a market analysis in the sense that they really are what they promise?

Company G: Yes, we have done this ourselves in two cases. But due to tense personnel opportunities, I can't do that with everyone now. But we have now done that with two and it really helps to find out which company is where with a patent short examination, portfolio drawing. That has really helped to know whether this is the right partner.

Interviewer: And you also mentioned earlier, if it turned out in the course of the pilot that it was not the right partner, then you stopped.

Company G: Yes, relatively quickly. Even after two weeks or after four weeks, we're relatively open-minded, so we part relatively quickly. Arguing very openly that it is not a personal story, but a very professional one and has always been accepted so far, so there was never stress.

Interviewer: And was it in the cases that the technology was not what it was promised? Or were there other factors?

Company G: First of all, that or that we found out that it didn't fit into our portfolio at all, so we're not a user for the question. Or we have hired an intermediate technology, for example Productive Mobile, and it was definitely the case, for example in large parts, that SAP would

offer this year what Productive Mobile would have made possible. We said that we didn't need to invest a lot, we just had to wait.

Interviewer: And then straight to the big provider.

Company G: No, they are partners on our side anyway and they offer that anyway. So, it doesn't make sense to put extra energy, money and resources into it, extra supplier. To do something that we get a few months later.

Interviewer: That means you would generally say you are very realistic and focused on the projects that bring added value.

Company G: That's actually the case, sometimes for the start-ups it's stupid, but we're already very driven, that must give us added value.

Interviewer: That's also important. And what factors are involved? That it is an added value, is it very monetary driven and does it also pay attention to saving time? What are the primary factors for added value?

Company G: Yes, even more qualitatively, much more generically. We have questions on which other suppliers have gritted their teeth and if a start-up offers a solution, then we continue with them.

Interviewer: So, it's really about solving the problem and then solving it in further cooperation.

Company G: Yes, exactly.

Interviewer: Do you have any other facts or comments about the ecosystem where you would say something is missing or do you like it or would you say it is a success factor? Something that makes it more valuable for Company G or could make it more valuable?

Company G: Ehm, no, that's, I would really say, that's a lot, so the possibilities are extensive, but what I think is that we could play the keyboard even further from our point of view, but we couldn't do it. Because we don't get it organized or are not brave enough, there are many reasons.

Interviewer: Yes, the possibilities are great, but sometimes also very time-consuming. You simply have to set priorities if you can't follow everything as you would like to.

Company G: For example, what I once asked you to do, um, maybe you actually take colleagues to set the time for a phase in Stuttgart, just to say you're there now and let yourself be inspired. It's just an investment where they're not willing to make, where I say they're not brave enough.

Interviewer: That would definitely be a good point, the space is definitely there in the premises. Good point, but hasn't actually made any partners yet, perhaps on a daily basis but not in the long term.

Interview 8: Company H // 23th October 2018 // Program Operator Startup Autobahn

Interviewer: And the first question is very general, how did the founding of Startup Autobahn come about, you were the founding partners back then?

Company H: Well that was 2016 where we started the whole thing with Plug and Play together and he University of Stuttgart and the ARENA and the intention behind it was in the end that you say you didn't really take the location Stuttgart as a start-up location, that was more a start-up desert. And they wanted to start an initiative to get the really good start-ups to Stuttgart. Yes, this strong mechanical engineering and automotive location with Daimler, Porsche and ZF and everything else that buzzes around Stuttgart is also combined with the strong innovative power of small companies. And the idea was just that, in the beginning there were only four of us, but the idea was to get other industrial partners involved before the start in order to make the location as attractive as possible for the start-ups.

Interviewer: And you are part of the Startup Autobahn Team?

Company H: Uh, that's eight months now, seven eight months since March.

Interviewer: A bit of time has passed again. And if we now take a look at where the Startup Autobahn is located in the group organizationally, you'll give me a glimpse.

Company H: At our company, the start-up Autobahn is caught up in research, in corporate research, in a team or a division that deals with future trends and technologies, in other words, in the final analysis, a look into the future, what mobility has to offer, what role mobility will play, what does society look like in the future and how does mobility fit into the picture? And our team, where the start-up highway is quasi hung up, is working on open innovation, i.e. the approach of how we can bring ideas from outside into the Group and thus bring innovation into the vehicle or into production. And because we are in Group Research, we ultimately have to look for the mandate for the entire Daimler, both from the business unit side, i.e. we scout for research and development, but also for production but also for supporting functions such as HR or Controlling, but also not only in the Cars area but also Truck and Bus. So yes, very extensive internal customers.

Interviewer: And Startup Autobahn is your only source or do you access other networks?

Company H: There are other initiatives within Daimler, but most of them are local. um we are actually the only initiative that has the whole Daimler in mind. And also try to look for the network in the whole Daimler accordingly and to mediate accordingly.

Interviewer: Okay and if you now look at Daimler as a corporation and say you have other initiatives as well. What would you say is how open Daimler itself is, do you have many channels through which your input is received in the innovation process?

Company H: What do you mean channels, so others now like start-up highway?

Interviewer: Right next to Startup Autobahn, if you look at the company in general, not just your department or your initiative. If you work a lot with universities or with other companies, be there in exchange with official initiatives.

Company H: Yes, there are a lot of channels. So especially with established suppliers, there is a very strong cooperation between development and established suppliers in the development phase. With universities yes, there are also some initiatives underway, whereby I say the start-up topic is played more extreme than the university cooperation. A lot of innovation or idea management is also driven internally, i.e. promoting the ideas of internal employees and developing business models from them.

Interviewer: That means you would say that if we now look at the innovation process itself, you mean that all steps are more likely to be open to the outside or you would mean that if you say that ideas are also looked at internally, that they are more likely to be closed the further they progress. So that maybe only the idea generation gets input from the outside and then it's more of a closed model in the next step, which is managed internally, but you would say that there is more cooperation in the course of the innovation process.

Company H: No, I would say one cooperates along the whole chain, quasi up to yes, quasi when one talks about implementation up to the start of production, especially when the vehicle comes into series production, especially when it comes to really developing and perhaps also programming, perhaps, external partners are always on board.

Interviewer: And if we're talking about implementation right now, how is your internal team for Startup Autobahn set up? I think you're also divided within the team, into scouting, pilot and implementation - how does that look for you, so how does it start and then proceed?

Company H: So exactly we have these three phases and in the end the scouting phase is the focus on finding the people internally, who want to cooperate with their team or where we say we have cool start-ups that we simply play to them, so it's very much about the matchmaking and the network. In phase two in the hundred days the focus is on pushing the pilot projects accordingly, there goes a lot in the direction of project management and getting the right people on board within the group so that the project is successful. And in the alumni phase, we only noticed her colleague recently, but her focus will be on determining a process for getting the projects into series production as quickly and as well as possible, if you have to get on board and which steps you have to take. But this is still under construction.

Interviewer: Okay, the position is fresh, so to speak. And now just at the first step in scouting, you already said to find out a bit who wants to do it. How's that, you go in with the technologies and start-ups and then knock or start from the other direction that people are coming towards you and say I have that and the problem and need a technology solution for that.

Company H: Exactly both topics, so we play both with the same focus I would say. On the one hand, we already know in many areas in which subject areas they are on their way and when we see cool start-ups, then we play them now without being asked. But that's how it works with a lot of business units, what are the search fields and technology interests they want to look for in the coming month and where they want to tackle concrete projects. And then, together with Plug and Play, we search for the corresponding start-ups. So, it goes towards push from our side, as well as pull if we know what the departments want.

Interviewer: And the process as it is now, you just meant the last step with the implementations came later, what would you say how long did it take to establish such a process that it would be followed?

Company H: Ehm, so to speak of a rule process, you mean now in the alumni phase after the program?

Interviewer: Yes, or just to set up the whole process in general, what would you say how long did it take that you found your way, that you did the scouting, then the pilot support and finally also the implementation. Most of the time it's like this from the very beginning, you don't have a process, you first get to the point and try your hand at it, I think many of the partners are still in the process of finding it. Therefore, whether you have a temporal feeling, where you would say now, it took so long until it worked out with us and found its way.

Company H: Well, I can't make such a qualified statement, because I wasn't on board when everything started, but I'd say one or two programs like that took some time to find a way to approach the whole thing internally. But that's now more like gut feeling than really concrete experience.

Interviewer: And if we now focus on the innovation ecosystem, what significance does that have for you? Especially this one, you said before, it was important for you that there were other companies on the platform, that you could somehow attract the start-ups to the industrial location. How important is the Startup Highway to you and do you have a specific strategy for it?

Company H: You mean for us internally a strategy why we want the other industry partners to be part of it?

Interviewer: Yes, exactly, do you have a strategy in the sense that we want to continue building in this and that direction, we want to actively expand business models with it, we want...

Company H: Hm, okay. Yes, on the one hand the point, the cooler the partner on board, the better the platform, the more attractive for the start-ups, that was point one. Point two can of course be very exciting for us, especially if you look at all the suppliers who are there to see if you can't do a trio of topics in the future. In other words, when it comes to a technology that offers a rigidup that we would like to have in the vehicle, but that would be implemented in a component that we don't manufacture ourselves, but a supplier, for example now a ZF. And here you can say quite clearly that this would be a strategy for the future, to make greater use of the platform and when topics arise that can also be tackled jointly with an industrial partner.

Interviewer: And what would you say that has been a hindrance so far or that has not set the three-way projects in motion? Because it is actually the case that most projects take place individually between the start-ups and individual companies.

Company H: I don't think that was the focus in the past. So, I don't know about the topics, it just has to fit, because there is a supplier on the platform who manufactures the component or who has the service for us as a customer. You just have to see if the topics fit, that doesn't always fit. And the second point is that the focus is simply not strongly on it.

Interviewer: And if we now describe the relationship to the other platform members, it is a lively informal exchange or is it in such a way that you approach each other with concrete themes. How do you handle the relationship to each other?

Company H: So, the contact or relationship I would say is mainly limited to a rule exchange that we have in the framework of the Jour Fixe or preparations of the Deep Dive, or then talking on the Deep Dive. Personally, what I've noticed over the last few months hasn't gone that well yet.

Interviewer: Do you think that's something that could be more interesting? That you promote more exchange?

Company H: Ehm, so when it comes to a pilot project and a possible three-way constellation, then it certainly is. That must be the theme, I say on a thematic level I can imagine that there is already potential there. Perhaps in the run-up to a Selection Day you could already identify topics that are suitable for such a joint project or perhaps you could start talking about them earlier.

Interviewer: Can guarantee an early exchange, so that such projects can come about at all. And if you had to say now, I think I've heard it out a bit already, what kind of network is more important to you? Rather the start-up side or the company side and the exchange?

Company H: Within the platform? Startup page.

Interviewer: So already the project and technology focus. And if we take a look, what would you see as direct results of Startup Autobahn at Daimler? That can now be qualitative or quantitative. Do you see any differences that have resulted, direct results?

Company H: Yes, so clearly what tangible are the topics we have brought into series production, like now a What3Words and an Evopark where we can really prove that ideas from outside are fetched and implemented faster than in our standard development cycles and can offer added value for our customers. And there are also some internal projects about which we don't communicate externally, but which have also brought about an improvement in our production or processes, so to speak. And what you can't grasp very hard, but can observe is in a way a cultural change that it is simply interesting for people to go in for a project with start-ups and see how they work, get to know other methods, approach internal processes with different mindsets. I think that's something that stays after every project, be it one that is pursued or not, but that's definitely something that happens by the way.

Interviewer: And what would you say were the first reactions from the employees who came into contact with the topic for the first time like that, is it more difficult or do you rather encounter open-minded people who are not afraid of contact?

Company H: As a rule, these are people who are also up for it and tend to be more open, because in the end we establish the contact and try to mediate as well as possible in the projects, but the business units have to do the whole thing themselves. And then it has to be someone who shows the project, feels responsible for it and at best thinks it's cool for it to be successful. If someone is there for the first time, it is difficult to put yourself in the shoes of the other person. If you come from the corporate world and know all the standard processes and responsibilities, the cascades, it is sometimes difficult to understand how it works in such a club of five people and vice versa. For the start-ups it is sometimes difficult to understand that the one who is working with them, who is spending the money, not the one who is approving that the money is coming, not the one who can decide if the whole thing is going in series, etc., is the one who is giving the money.

Interviewer: Where would you say are the biggest difficulties within the process? Then during the project phase or at the end when it comes to whether the project will be implemented or are there obstacles at the beginning of the process, you don't find project partners or nobody who wants to take on responsibilities now.

Company H: Phew, I think every phase can be silent and every phase has its challenges. Couldn't say what um, what the biggest challenge is. Well maybe, the matchmaking, pilot projects there is often about finding the right people to motivate them to start the project and that the money is there accordingly. The silence is then really when the technology has proven itself, then find the connection and the appropriate drivers in the series, yes horny now we tie that to all our internal IT system or in our product, so you bring the whole in series, make all the contracts. There's quite a rat's tail on it, that's probably the hardest part.

Interviewer: Then really the implementation. And what would you say is ultimately dependent on, really on monetary factors, such as costs, or that you clearly look at the benefits. I mean What3Words was rather something complementary, for the product, how does it come down to such a decision to implement something?

Company H: Phew, um, that always depends very much on which area we're in. If we're in development now and talk about a vehicle, it's a lot about how much added value it gives the customer or how you can use it for marketing, etc. When we talk about production and, for example, have a digitization solution for production, we talk a lot about savings in the cycle or in cycle time or savings on equipment. Other topics are more about customer features and marketing topics, you can't say that broadly. Very different, if you talk about a process in finance and controlling, it's about how much better or faster you can map processes, what you can save in terms of effort or effort.

Interviewer: So really very specific depending on the area of application. And if we now talk about the results, how do you measure them, do you have any key figures or strategic targets you need to set?

Company H: Yes, so we ourselves have the goal of having one or two series implementations or investments.

Interviewer: Ah okay, quasi as a final outcome. And regarding the pilot, you simply use it as a middle or intermediate step, you don't have a certain number, that's the result of the matchmaking?

Company H: Exactly there we have no KPI. In the end it's all about the final success and if you have five really cool projects it's better than twenty Labida pilot projects.

Interviewer: But that means you really only measure the quantitative and the final outcome and the qualitative factors you like to accept, but you don't measure them.

Company H: Well, what we do naturally also plays a role and that's a big factor, but that's not something you can really measure. And that's why we have these implementations or investments as hard criteria.

Interviewer: Which are then made at the end. If we look at the ecosystem of Startup Autobahn again now, how would you see from the Daimler glasses that there are still factors that can be improved or some things that have to be supported more in order to simply make the whole thing more valuable for all participants, be it for the Start-ups or for yourself.

Company H: Hm.

Interviewer: Something you might have already discussed in the team, where you would say, I think it makes it even better, easier for us, higher quality.

Company H: So, this topic could be a topic that you could support even more.

Interviewer: How would you handle this rather from the workshop side, that you simply exchange champions and discuss the technology fields and start-ups that could be considered for something like this, or would you rather see this in the partner responsibility, that you individually coordinate between the individual partners.

Company H: I think it's difficult in the large group to get something like this done, it also depends a lot on the partners themselves to take the initiative now, but it could also happen on the scouting side if you talk about plug and play now, which knows both sides now, that you bring them together.

Interviewer: What a joint project could result in.

Company H: And you always have to look a little bit because the search fields are actually only exchanged between industry partners and Plug and Play and not back and forth between industry partners, but you can throw suggestions in this direction.

Interviewer: Yes, simply inform without obligation that there are similarities. But apart from cooperation with other partners, anything else comes to mind?

Company H: I think the overall coordination of the program ehm, for example, what we had in the current program, which dates are relatively close together, it is difficult to mobilize people one after the other, you can get even better there. And as far as the selection of start-ups is concerned, there are Deep Dives from time to time where there is a main topic but a very varied mixture of start-ups is invited, which makes it very difficult internally to bring people to Deep Dive if there is only one start-up that is relevant. You can also try to get thematically better matches to the Deep Dive themes.

Interviewer: Do you think that this also goes a bit in the direction that you have to look at what kind of strategy you drive as a whole as a partner group and plug and play on the platform? I mean what you just mentioned, that even the topics drift in other directions that are not so interesting for yourself, or for the current core business, do you think it would be important that you somehow give a common direction in which you could give together or do you think that niche topics that you already find something there in the group.

Company H: Ehm so I think, so clearly you can or should coordinate at the beginning of the program where the thematic focus is with each Deep Dive. I wouldn't mind it if it were a deep dive that might not appeal to so many people internally, but the start-ups have to fit in with the overall theme. If I sell something to a title, concrete example of the Smart Workspace Deep Dive, where completely different start-ups are going in a different direction, and that is difficult to get the right people internally. It's more about the headline and the start-ups making a match

and not the wrong people coming to the event because it's called X but the start-ups are actually doing Y.

Interviewer: So simply a better coordination also and simply the concrete ehm focusing of topics which are also given, no drifts. And apart from that, something that comes to mind where you say or maybe something where you say that we do especially well at Startup Autobahn, also for you as a Founding Partner, that's why we wanted to raise the ecosystem. Are there any factors you say that make our system unique and stand out from others?

Company H: I think we're doing well not only to find the good start-ups but also to bring them to Stuttgart and I think that's really a USP from Startup Autobahn. That you really bring the people to Stuttgart and that you bring our experts, the industry partners face to face, together with the start-ups. And that's what I've experienced at least in the past, that when we wanted a start-up, we usually managed to get them to come to us and talk to the people.

Interviewer: Okay, so that these geographical differences can be easily overcome through this platform attractiveness. Do you think that the attractiveness will increase with increasing partners or do you think that there is a decreasing marginal utility?

Company H: I don't think that's a quantity issue, but rather a quality issue. I do believe that new partners can increase attractiveness, but only if the partners are attractive.

Interviewer: So, then you probably have a certain amount of commitment to bring along to see the attractiveness as given compared to start-ups. Okay, so really rather qualitative aspect. If anything, else comes into your head that you would like to share with me, very much.

Interview 9: Company I // 26th October 2018 // Head of incubator

Interviewer: So, the first question is, when did Company I join Startup Autobahn and did Company I only join Startup Autobahn or various programs from Plug and Play?

Company I: So, Company I joined the Startup Autobahn in Silicon Valley, that was I think three years ago, something like that, two-three years ago. And because of that amazing experience Company I Ventures Silicon Valley, corporate VC, they had that kind of amazing experience, we also joined the Startup Autobahn Plug and Play here in Stuttgart because of the proximity, and oh yeah there are our customers and obviously it is about supporting the creation of an innovation ecosystem within Germany and Europe.

Interviewer: And from an organizational standpoint, where is Startup Autobahn specifically the Stuttgart program link at Company I? I mean you are the responsible right so what is your role within the organization and where do you link the activities from Startup Autobahn?

Company I: Okay, when we joined the Startup Autobahn program in Stuttgart. do you want me to talk about Stuttgart or also Silicon Valley?

Interviewer: Specifically, Stuttgart.

Company I: Silicon Valley, those guys are more mature, they are doing more integrated things with the let's say Plug and Play office over there. So, when we joined Startup Autobahn Plug and Play Stuttgart the intention is obviously to be part of this ecosystem and let's say foster the innovation within Company I, within Germany, within Europe. So, my role as the representative of Company I at Startup Autobahn is to cascade all innovation messages that are communicated within the ecosystem and also do the type of innovation discussions that need to happen within Company I in Germany. It is a great opportunity for Company I within Germany to come to Stuttgart and see the experience first-hand, and the engagement with start-ups. So, the role is to stimulate that innovation across the organization and then it is up to the organizations and the employees of Company I in the various business units to connect with the ecosystem that Startup Autobahn offers. It is that kind of a thing of demand and supply and people getting curious then, connecting with each other. And I am cascading those messages within the organization, engaging with the head of business units but then it is up to them to communicate in line, you know those exciting events you put together, the exciting start-ups you have. However, some of the start-ups you have in the program at Startup Autobahn, they are also in the Silicon Valley. Some of them we have had previous engagement with. I am not saying, sometimes it is a bit of a verification, but the Startup Autobahn is just to create kind of discussions within the organization here in Germany and that kind of an experience.

Interviewer: And you are located in Berlin at the incubator, right? Of Company I.

Company I: Yeah. So, I am the head of Company I Fast Forward, it is the corporate incubator of Company I.

Interviewer: So basically, you as the first point of contact are located in Berlin at the incubator, and the incubator is located at the business as a side function or what exactly?

Company I: So, the incubator is set us with the purpose to have a disruptive impact. We have the role of creating breakthrough innovation within the mobility sector and within Company I. All of us, we are 15, we are all coming from different backgrounds and different countries. We don't have automotive specific skillsets because we say disruption comes from us, not from the industry otherwise you will not have the concept of breakthrough innovation. And when we think about start-ups we think about those from outside of the industry, for example Tesla right, it comes from outside of automotive but it is disruptive to automotive that all OEMs since Tesla launched on the market have been thinking about electric cars. So, the incubator is engaging with one of the entrepreneurs within Company I and we are building start-ups from scratch, technology start-ups. And we are focusing on problems within the mobility sector, thinking about electrification, connecting cars, self-driving cars, so we are dealing with those kinds of

megatrends and we are thinking how are we building new businesses to serve current customers and adjustment customers. So, let's say next seven years.

Interviewer: And if you are talking about I mean you are located at the incubator and that is what you most deal with but if we are talking about Company I and the innovation process, would you say that you are conducting a very open process in terms of that you do a lot of cooperation and that you have a lot of channels where you get your innovation input from.

Company I: So, we report directly to the board of Company I. So, we have visibility there and every three months we meet with the board and we pitch our new programs. And if it is successful, we further develop the solution, go into the market. Everything is agile and start-up way. When it comes to collaborate within Company I, if we have specific topics, let's say sensors or lighting or other things we are engaging with the Company I world as well. Everybody is welcome to talk with us Nd visit us, we are a bit like a speedy boat in front of a big ship. For instance, within the incubator, it is hot hierarchical everything is a flat organization and it is all about disruption, that is what we eat for breakfast. And its fermentation, I am not saying just experimentation, it's new ideas, discovering new problems.

Interviewer: So, would you rather focus on the sources of your team inside or the organization or would you say you also rely on external organizations?

Company I: It is mainly internal but we have weekly ideation workshops with my team and we also obviously if Company I employees want to collaborate they are very much welcome. But we do not take guys from the outside.

Interviewer: And if we are talking again about Startup Autobahn in Stuttgart, if you go back to the time when you joined. What was your motivation as Company I to join this project?

Company I: Ehm, the main motivation was to foster innovation and being part of the innovation ecosystem that Daimler, Porsche and other players of the automotive market were creating. And being on the same innovation stage like those amazing brands out there, it is the opportunity of that kind of a collaboration, potential cocreation and to make innovation in the 21st century work.

Interviewer: So, the other corporate partners attracted you to join?

Company I: Definitely, and also, we all know Silicon Valley is an amazing place and far away. And having those kinds of a start-up point here in Germany, the proximity helps

Interviewer: That's true. And if you're looking at the other partners that you say that are attracting you, how would you describe the relationship with them?

Company I: It is definitely an exchange of ideas, and also creating relationships with those partners at different levels and thinking of potential collaboration but I don't know innovation

takes time, sometimes up to twenty thirty years. So that is the motivation being close to the German and European ecosystem and also to be close to amazing start-ups to potentially work with.

Interviewer: And if you are talking about the other partners, do you see a chance in doing cross-collaboration projects with them?

Company I: Definitely, I mean if there are any opportunities out there for collaboration then bring them in!

Interviewer: So really open-minded regarding cross-collaboration. If we now take a closer look, you have been talking about the events at Startup Autobahn, how does everything work from an organization standpoint at Company I? Let's say from the first step to the last step that you are conducting when you are dealing with the ecosystem?

Company I: So, everyone has visibility into the start-ups that you have in your programs, everyone is aware of within the organization, you know they are part of the network ecosystem and people being interested and coming to your events but also finding the time to embrace this kind of a new innovation path. As we all know in all the organization, everyone is running it at a 120 %. So, one thing we find a little challenging is time, and time is resources and people. And when you round at 120 % sometimes it is challenging to actively engage and with something that will benefit you in the long-term, there are other priorities. The top management is across all he activities, I am communicating with them on a regular basis about what you are doing at Startup Autobahn, what you are looking into, also the thing with the dealflows. But we also have dealflows in Silicon Valley which is their vision and focus. And as I said at the beginning, some of the status that you have in the portfolio in Silicon Valley you also have in Stuttgart, there is an overlap, maybe that is also something the top management is asking what are we paying for. Anyway, this is the kind of engagement, every time you guys are communicating something, I am sharing it with the top management and they cascade it and then it is up to them to make the decision and to get closer to Startup Autobahn.

Interviewer: So, it is basically the engagement from the Business Units once you shared the information with them.

Company I: Yes, I am communicating with them. The only thing is, all the Expo days that you have they all coincide with internal Company I events. So, the right people, they are already reserved one year before. So that is the reason why participation was low for the events from our side.

Interviewer: Yes, sometimes it's hard to get the people at the place and to make them come. But once you make it is easier from that point on. And if we talk about Startup Autobahn in Stuttgart, what do you think most influences the system?

Company I: The most influential part? I think it is like a cocktail, right. The cocktail is a cocktail because all the good ingredients come together and that is what it makes amazing. So, if you mix it with some juices, sugars and flours then you create something amazing. So, I think the diversity of the ecosystem, from partners, the Daimler, Porsche, DXC and a lot of the others Rolls Royce, you guys, the Plug and Play team and then all together are creating something unique. And when you are in meetings with people from different organizations, there is no particular influencer, we are all influencing somehow. Because we are dealing with innovation and we are exchanging those kinds of ideas. And we all have challenges internally, I have noticed that everybody has the same challenges as we do, over capacity. Talking with Daimler, their IT and security system, we have the same challenges. So, I discovered everybody wants to learn from each other's, it is a mutual learning.

Interviewer: So, the diversity is crucial.

Company I: Yes, it is a win win situation.

Interviewer: So, everybody gets to take out what they can take on to work on.

Company I: Definitely, and then the network element is crucial in this business, especially in innovation. Doing innovation in a dark room on top of the mountain in an R&D centre, those times are gone. Innovation today is being out there, engaging with the market, customers and suppliers. See the richness of what this new world is offering.

Interviewer: That's true everything is changing and we need to adapt to this. So, if we take a closer look at the results you have been seeing through Startup Autobahn - what would you consider as direct results from Startup Autobahn?

Company I: So, from a quantitative perspective, if you think about POCs with start-ups unfortunately we didn't have that. Some of the start-ups that we met in Silicon Valley are now start-ups at Startup Autobahn and we already met them. From a qualitative aspect, the network is fundamental and amazing, I had a few weeks ago a call with DXC to learn how they engage with start-ups and you can see how other companies think about that, that was really good. Also, with Daimler, you create a different type of relationship, that is valuable.

Interviewer: So, you would say mainly the partners' relationships are the most important outcome for you. Do you have anything from the start-up perspective?

Company I: Within the incubator we haven't looked into the start-ups because we don't deal with start-ups, we build them. But we had relationships with some start-ups and I shared their pitch decks with relevant people in the organization, so it is up to them to make to call to the start-ups. Some of the start-ups are absolutely fantastic.

Interviewer: Would you say through sending out pitch decks and making people involved, that this kind of influences the mindset of the people?

Company I: For sure, lots of things are new. The only thing is when you are dealing with competing priority, you know which priority wins. That is the tricky part of the business.

Interviewer: So, you wouldn't consider start-ups as one of the sources to kind of get a mindset change or get a cultural change within the organization?

Company I: Oh, they totally are. As I said the Silicon Valley team within Company I when they bring the start-ups, the Company I people are learning a lot. The organization learns a lot in terms of new organizations, new innovations, new types of businesses. So, they are learning, they are more open to sharing new ideas, challenges because we talk with each other. That is where the start-ups are crucial because they take problems and solve them. And they are able to accelerate product development within Company I.

Interviewer: And would you say it is rather about existing products or that Company I am also tapping into new markets?

Company I: Mainly it's the Plug and Play but obviously we also have outputs and networks. I am also part of the PwC network, they also have their own start-up program too. So, and the end of the day you face the same challenges. People internally are running on a 100% capacity so time is limited and there is a lot of work to be done in the back to have tangible engagement.

Interviewer: How do you think this could be dealt with? That people are focusing on the business and miss out innovation?

Company I: So obviously resources and expertise as we all know from business management, we are limited in resources. It is not certain what is the outcome, because no one knows because they have never done it. And you have a challenge there. But the desire to innovate is really strong.

Interviewer: So, would you say the focus is having quick wins rather than long-term strategies?

Company I: I think there is a balance between the two. There is no right or wrong answer.

Interviewer: Do you have any metrics at Company I to track the outcome of such innovation projects as Startup Autobahn?

Company I: Obviously the measures are connected to the number of POCs conducted, but this counts more for the team in Silicon Valley. And the measures come around types of innovations that come from the engagement.

Interviewer: And in Stuttgart, is it more about exchanging and networking?

Company I: The desire is to do proof of concepts and have a lot more engagement with the start-ups and you guys. But then again, we are running on 120 % capacity and the platform has leveraged as part of the communication you know the exchange and networking. Also, what is happening within the ecosystem and how we can contribute and grow our own ecosystem internally. It is trying to think how we can do things together and that takes time. It is like Rome wasn't built in one night, it takes time, right? It is the same with Plug and Play, right? At the beginning you did not have Plug and Play as today, you had to go through a lot, learn a lot to scale the model.

Interviewer: And if we are looking at Stuttgart back, Startup Autobahn. Is there anything you would say should improve from the system? Anything you are missing?

Company I: Actually, if you had asked me this kind of question a year ago, I would say can you create an ecosystem in Berlin. And now you have done it, so I don't have any additional comments. Right now, you have the Berlin presence, it says that you are expanding the platform very well.

Interviewer: Have you been involved in any activities in Berlin so far?

Company I: Ehm, I sent my team to some of the events and they loved it. Just the start-ups, that were presenting they already hat a one-billion-dollar evaluation, how are these start-ups anymore? But send your colleagues my best wishes and congratulations on the platform they set up here in Berlin.