Digitalization at MOL

IoT strategy and Implemention plan

Technology push-consumer pull. The global trend of digitalization brought fundamental changes to the market dynamics. The previously „nice to have" technology solutions increased productivity, provided competitive advantage to the companies, and very soon they became inevitable „must have" type of solutions. The reason for fast spreading of these solutions was the economic meltdown in 2009, after which companies had the goal to cut cost and increase operation efficiency. Via applying digital solutions they could automate processes and with minimal investment they managed to reach their saving target.

On the other hand, the consumer's behaviour also changed, due to the different values of the new generation. They prefer mobility to stability, they require continuous and rapdi access to information, and also love digital devices. They no longer define themselves via the things they posess like their ancestors did, but rather by their digital presence. This shift of values and the continuous thriving for efficiency increase made it possible for the sharing economy to appear and rapidly spread. The sharing economy makes it possible to rent those items that one does not use often, and increase its utility. To be able to manage the processes for sharing, the related devices, for example a car and user's mobile device have to be connected.

Disruption in oil and gas. Digitalization disrupted the oil and gas industry as well, meanwhile others invested heavily in developing R&D capabilities, Mol decided to take advantage of the previously mentioned social trend of individualism and focuses on retail and consumer services to become the first choice of customers. In order to fulfill the consumers need, the company has to gather more data about them to get to know them better.

IoT, the enabler. The internet of things is a new buzzword for connected solutions and became very popular recently. Companies see a huge potential in data collection via interconnected technology, because they are hoping for further productivity and efficiency increase. Via gaining a better unerstanding of customer preferences sales campaigns will be better targetted and more successful Not to mention the possibilities in automation, supply chain management and asset maintenance.

Even though the technology itself is not new, it is still hard to leverage it. Companies see investment in IoT implementation risky, because it cannot be calculated in advance, what kind of conclusions and correlations will be revealed during the data analysis, the success of these projects cannot be granted. On the other hand, the alternative cost of not doing it is actually higher, since this is the solution that could be a real differentiator and serve as a competitive advantage.

Implementation of IoT solutions requires preparation from the companies' side, since most of them have not managed these kind of devices before. Strategy and guiding principles have to be defined in order to properly manage the new landscape. One way in which IoT solutions are different is that they are provided as a product of an ecosystem, several vendors are need to be able to set up and operate one IoT system. It is suggested to set up a small team or dedicate one person who oversees the hardware and software architecture and manages the external and internal stakeholders, such as procurement, data management, information security, network operation. A decision making authority is also required to be able to resolve conflicts between requirements. The proposed members of this committee are the representative of the most important domains: Chief Technology Officer, Chief Security Officer and Chief Data Officer.

After setting up the governance, IoT concept can be developed. IT is not a real strategy that envisions a future state to be reached, but rather a risk based approach. Since there is not „one size fits all" type of solution, real standards cannot be created, but rather priorities should be defined, when considering communication protokolls, and selecting API options. That is why it is important to set up a governance and follow up how the implemented solutions and upcoming demands; this way companies can assure that purchase price and operational costs are optimized, and the architecture is managed.