

# EISENBEISS GMBH: INTELLIGENT GEARS AND THE PATH INTO A NEW BUSINESS

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Knowledge Dimension:  
Business Model Development

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Teaching Notes  
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## Teaching Notes: Eisenbeiss

Use a business model canvas to illustrate the changes in Eisenbeiss' business model when introducing GearControl and specifically elaborate on the questions below.

1. Describe the product development process of GearControl. What could have been improved (e.g. with regard to customer integration, lead users, cooperation with external partners and moment of launching the product)?

In 2005, the idea to develop something like an oil sensor emerged. Only in 2009, Eisenbeiss started to actively deal with this topic. The company organised a strategy workshop that can be seen as a milestone and starting point in the development of the oil sensor. In 2013, Eisenbeiss had a first marketable product. This first sensor was further developed and an internet connection was added, so "GearControl" came into existence. Eisenbeiss went into cooperation with an external sensor manufacturer during the product development process. Together, they supported each other in concretising the product idea, formulating a product concept, developing first product prototypes, conducting field tests and guiding the transition of the product into series production. This cooperation was fruitful because the external partner saw the sensor as a product that he could sell himself in the hydraulic sector. Therefore, the partner's interest in a fast development cycle was high and this drove the product development forward. As a result, Eisenbeiss was in the lucky situation to support its customers (benefit for Eisenbeiss' customers) and at the same time reduce customer's complaints (benefit for Eisenbeiss itself). For the further development, external consultants, electronic manufacturers and case companies were involved. However, testing the tool with case companies was a difficult task because actual damages were required for initiating the sensor. Since the market launch in 2013, the tool has been continuously modified and further developed by Eisenbeiss itself.

One approach to improve product development is the tight integration of customers into the development process. In the case of Eisenbeiss, only a few, selected customers got the chance to test the product and give feedback. When customers participate in the product development from the very beginning, firms get the chance to increasingly individualise their products and govern development processes close to the customers' needs. Another improvable point is the contact with end customers. Currently, Eisenbeiss is only in contact



with the plant manufacturer and not with the end customer itself. This can be a hurdle because the plant manufacturer has little interest and knowledge to promote Eisenbeiss' products.

Furthermore, it is useful to think about participation of people who are directly in contact with the machines. Eisenbeiss already recognised this. Practitioners could be sceptical about the new tools and functions therefore Eisenbeiss has to build up trust in the new technology and integrate them in decision-making processes. Moreover, as Eisenbeiss itself reflected, it would have been useful to provide lead users with the new product for free in order to conduct long-term and all-time accessible field test. The learnings of such a long-term testing would have enriched the development process.

The cooperation with external partners functioned properly because as a development partner they saw the tool also as a sellable product. For the product development, it was important to incorporate the knowhow of other companies that are specialists in their fields. Also, the moment of launching the new product seemed strategically valid. However, Eisenbeiss could have managed an earlier launch of the product if the company had started to action right after the first idea emerged.

## **2. Eisenbeiss struggles with the typical problems of a first mover on the market. What are the advantages and disadvantages of being first on the market?**

An advantage of being a first mover is that the product is unique on the market and that there are no competitors in this product segment. As a result, the first mover can determine the price on the market. Having no competitors on the market can also be disadvantageous because awareness of the product grows only slowly. In most cases, the competition of different suppliers on the market increases the demand and the acceptance of a product. As a first mover, it is uncertain how the customers and the market will react to the new product or service. Consequently, it is a challenge to make first experiences and use the learnings in a profitable way. However, the situation of a first mover can become disadvantageous because it is difficult to meet the desires and needs of the customers and it takes some time until the market adopts the new product. Finally, first movers need to deal with the protection of the product idea, so that possible competitors do not imitate it easily.



- 3. Which distribution channels does Eisenbeiss currently use? Are there any problems you can detect in this regard? Which channels could increase the success of GearControl and how can they be established?**

Currently, Eisenbeiss distributes its products over its plant manufacturers who sell the product to the end customers. This is challenging because the plant manufacturer has little expertise about the GearControl tools and their functions. Therefore, Eisenbeiss should consider coming directly into contact with its end customers to advise them about GearControl products and make the business deal. One opportunity is that plant manufacturers act as gatekeepers between Eisenbeiss and the end customers so that they are able to connect with each other. Another option is to extend marketing activities to promote the new product and to expand the range of distribution channels (e.g. through an online shop).

- 4. How could Eisenbeiss strengthen its value proposition? Think of aspects such as data security and transparency, after-sales service, GearControl as a standard feature or the care package.**

The strengthening of the value proposition is going hand in hand with the acceptance of the internet connection feature of GearControl. As a result, Eisenbeiss has to secure its customers a trustworthy dealing with data and demonstrate its actions so that transparency is given and obvious for the end customer. Moreover, with the care package and the after-sales service Eisenbeiss can intensify the relationship to its customers and present itself as the first point of contact if problems occur. With the GearControl sensor, repairs and maintenance can be predicted and this is a unique selling point to intensify the company's value proposition - Eisenbeiss can help its customers before they even notice by preventing upcoming errors and damages.

- 5. How is the GearControl product line currently integrated into Eisenbeiss' business model? What different views does Eisenbeiss have on this? What could be improved?**

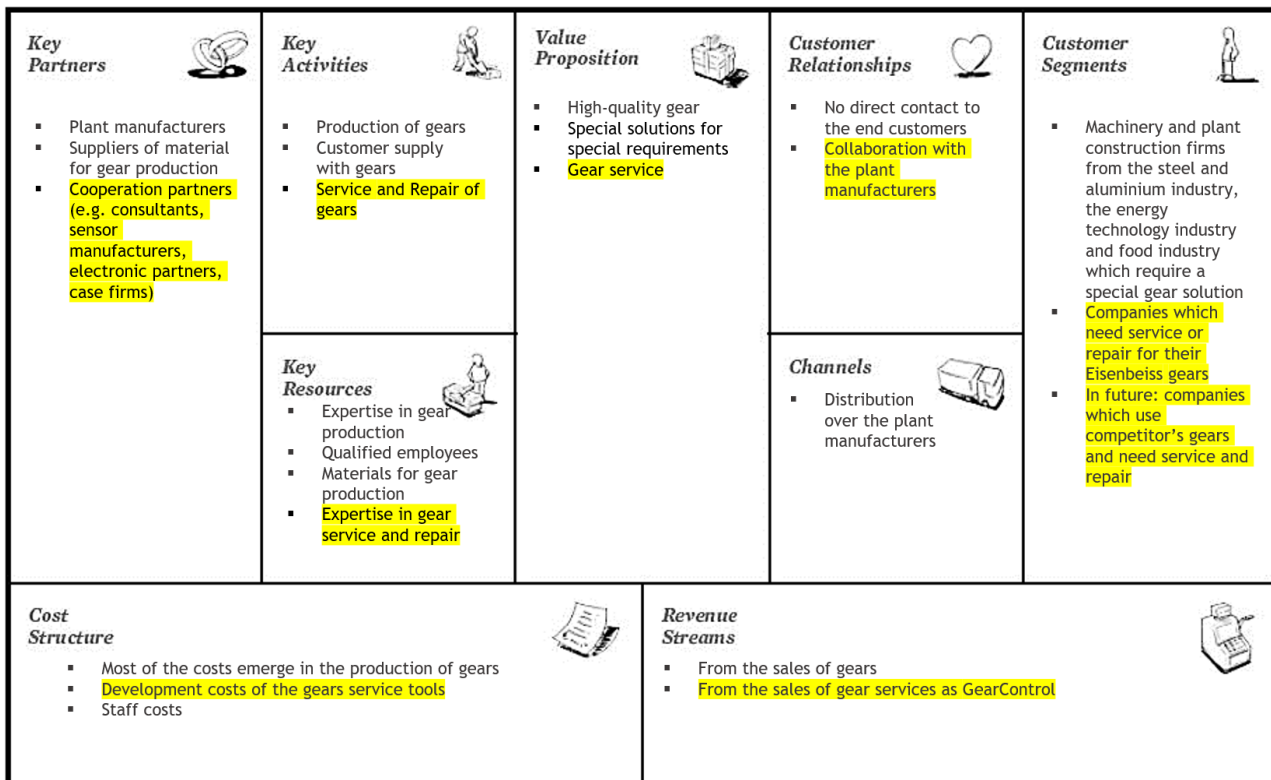
Eisenbeiss has not changed its business model and strategic orientation after the launching of GearControl. Gears are still the main product and GearControl functions as a by-product. However, Eisenbeiss is thinking about a change. The company considers expanding the range of GearControl by equipping competitors' gears with GearControl. Consequently, GearControl could reach a higher strategic relevance for the company as a whole. This change could also



influence the awareness of GearControl on the market and ultimately lead to an increase in sales of the new sensor.

## Business Model Canvas

Figure 1 Exemplary Illustration of Eisenbeiss' Business Model Canvas



### Key Partners

The traditional key partners of Eisenbeiss are the plant manufacturers that integrate the Eisenbeiss gears in their plants and the suppliers that supply Eisenbeiss with the materials which are needed in the gear production. With the interest of Eisenbeiss to increase the service and repair sector of gears the situation slightly changed. Now, cooperation partners as external consultants, external sensor manufacturers and electronic manufactures became key partners. With these new partners Eisenbeiss shared knowhow and ideas, which enabled the development of GearControl - a support system for gears to predict errors and damages anticipatively. In the product development process, case companies were important for testing the new product before launching it on the market.



## Key Activities

In addition to the existing activities of manufacturing gears, Eisenbeiss now also provides the GearControl service which is not only profitable for customers, but also for Eisenbeiss itself. GearControl enables early prediction of errors, thus problems can be solved even before they occur at the customer's plant. Consequently, also Eisenbeiss' key activities changed. The production of gears and the supply of customers with these gears are no longer the only activities of Eisenbeiss. Although these tasks remain the major activities, Eisenbeiss increasingly dedicates its attention to the service and repair sector of gears with the introduction of GearControl and these activities become more important.

## Key Resources

Eisenbeiss' major key resource is its expertise in different fields. The company owns knowledge about production, service and repair of gears. This knowledge and qualified employees enable Eisenbeiss to find special solutions which are tailor made for its customers. Even the development of GearControl was possible on the basis of Eisenbeiss' knowledge and its innovative ideas. Eisenbeiss protects the concept of GearControl, so that competitors cannot imitate it. As a result, GearControl is a unique product on the market because there are no comparable monitoring sensor systems on the market. At the same time GearControl has to become known under potential customers. The fact that there are no competitors can also be seen as a strength. Another key resource is the material which is needed for the gear production.

## Value Proposition

Regarding Eisenbeiss' value proposition, it is decisive that Eisenbeiss always finds special gear solutions for its customers special requirements. These different requirements result from the various fields of application in which Eisenbeiss' customers are located. However, there have been some changes according to the implementation of the GearControl service. In addition to its high-quality gears, Eisenbeiss provides customers with GearControl, a support system that predicts repair and maintenance by analysing sensor data. As a result, problems can be solved by Eisenbeiss just before they occur at the customer's plant and so damages can be avoided. Moreover, service life and efficiency of plants can be maximised and customers benefit from maximal operational reliability, extended maintenance intervals and planned downtimes. An oil-senor monitors oil-level and lubrication in the gear. With this information potential damages can be prevented as well.



## Customer Relationships

There is a collaboration between Eisenbeiss and plant manufacturers. Eisenbeiss supplies plant manufacturers in different production sectors with its special gears. Plant manufacturers sell their plants to the end customer. As a result, Eisenbeiss has no direct contact to the end customers. This is not favourable. If Eisenbeiss realises a direct connection with persons who daily work with the plants, the product's adaption to customers' needs will be easier. The GearControl care package that Eisenbeiss provides can foster the bond between the company and its customers and consequently strengthens customer relationships.

## Channels

There is no dedicated marketing department that assumes the marketing of GearControl, but responsibility lies with the sales department and individual divisions. As mentioned above, Eisenbeiss is not directly connected with the end customer. At the moment, Eisenbeiss distributes its products over its plant manufacturers. This is challenging because the plant manufacturer has not as much expertise about the GearControl tools and its functions. Therefore, it will become increasingly important for the company to come directly in contact with its end customers to advise them about GearControl products and conclude the business deal. One opportunity is that plant manufacturers act as gatekeepers between Eisenbeiss and the end customers so that they are able to connect with each other. Another opportunity is to extend marketing activities to promote the new product and to expand the range of distribution channels (e.g. through an online shop).

## Customer Segments

Regarding Eisenbeiss, two customer segments can be identified: the customers for gears and the customers for gear services like repair and maintenance. Customers for gears are machinery and plant construction firms in different industry sectors. These sectors are the steel and aluminium industry, the energy technology industry and the food industry. As different as these industries are, they have a similarity: they need a special gear solution that Eisenbeiss can produce for them. Companies which use plants with Eisenbeiss' gears are the second customer segment. For these firms Eisenbeiss provides with GearControl a sensor technology that predicts repair and service. At the moment such a service is only possible for Eisenbeiss gears, but Eisenbeiss is thinking about an expansion of the concept so that in future companies which use competitor's gears can also apply GearControl and profit from service and repair benefits by Eisenbeiss.





## Cost Structure

Most of the costs of Eisenbeiss emerge in the production of gears. The development of GearControl causes additional costs as remuneration for external consultants and manufacturing partners, costs for the material that is needed for the new tool, staff costs and marketing costs for advertisements.

## Revenue Streams

The traditional revenues are from the sales of gears. An additional revenue stream emerges from the offer of GearControl and sales involved. Eisenbeiss has a monopoly because the company is a first mover and has no competitors on the field of sensor-based repair and maintenance monitoring. As a result, Eisenbeiss can set the price on the market. If customers invest in the new technology, Eisenbeiss will have a financial success too. With these revenues Eisenbeiss can compensate the high development costs. Moreover, Eisenbeiss can increase its revenues by extending its GearControl service so that it can be applied for competitors' gears (= non Eisenbeiss gears).