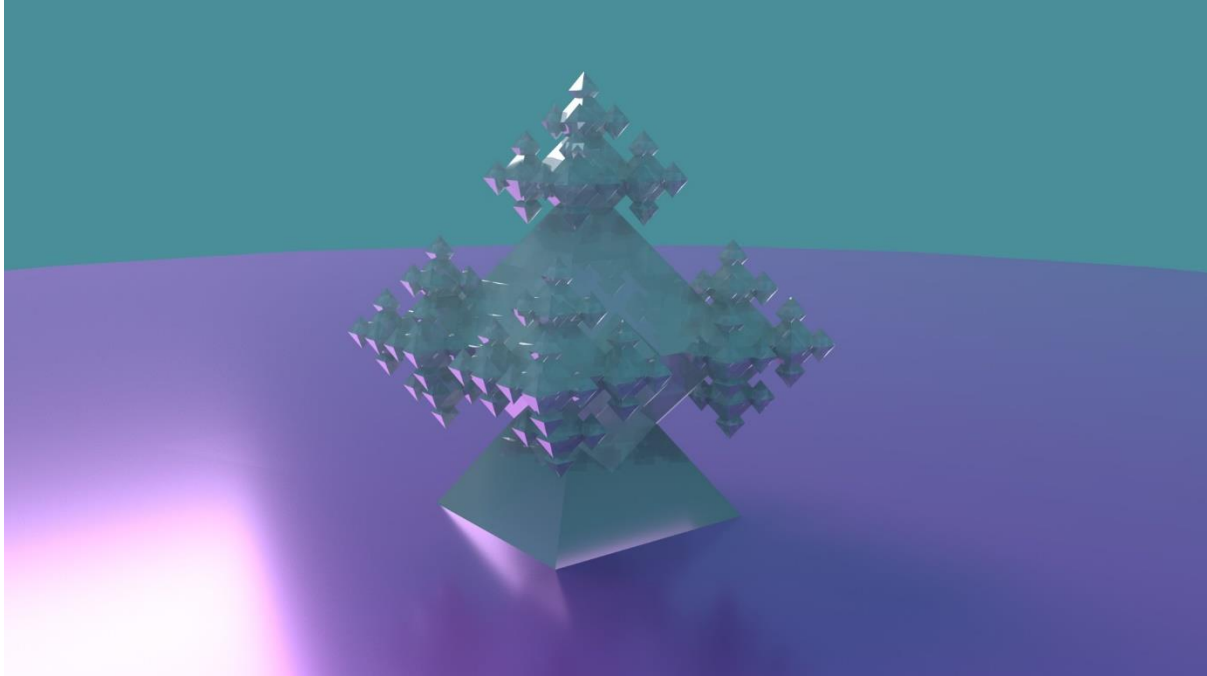


The Unknown World of Fractals

Research into the Market & Production Scenarios

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The goal of this assignment was to analyze the market and to get an overview of the possible demand which was used to evaluate the production process of Encytos. The company is a spin-off from the University of Twente, it combines the fields of nanotechnology and cell growth research. They make a nanostructure which enables cells to grow faster or more complex than on the conventional used materials. In Enschede the product is fabricated and in Italy the cell growth is analyzed. The assignment was created because Encytos was curious about the scale-up possibilities of the production process. The results of this assignment help Encytos validate their place in the market and give a bigger insight into their production process. The exact research question was: "What is the demand for Encytos its product and how can the production of Encytos be optimized to make it more cost-efficient?".

The process to answer this question started with market research. To perform market research, some interviews were held. The interviewees were given a flyer that shows an overview of the product and the identity of the company. The identity of Encytos was captured with a mission statement: "Providing faster and more complex cell growth on a unique, inorganic, microstructured surface." The interviews showed that researchers could benefit from the 3D cell growth methods, especially the researchers who need to compare their tests to cells in a human body. After the interviews a SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis has been performed. This showed the relationship with important partners must be maintained carefully. Moreover, Encytos needed to focus on publicity and validation, by reaching out to possible partners or big names in the field. This would help Encytos conquer a bigger part of the market. After this, a competitor analysis has been performed. It could be concluded that Encytos has a unique product and some of the strategies of other companies could inspire Encytos for future strategies. Based on the market research, the current and future demand was estimated.

The production process has been described and visualized in a VSM (Value Stream Map). There was thought about ways to improve the production process for the future, as the demand is expected to rise above the current capacity. Several scenarios were described, one of the scenarios showed possible scale-up options on the same production location, another scenario illustrated a scale-up at a different location, accompanied with a price-comparison, which showed at which moment in time it would reduce costs to move to the other location.

As Encytos had not sold any products at that moment, it was difficult to make an estimation of the future demand. Therefore, the predicted, described scenarios are not very accurate. Encytos needs to monitor the current demand closely to see if one of the scenarios is applicable, or if the numbers differ significantly with what has been predicted. With more accurate data, the predictions can be improved.

From the described research, it can be concluded that Encytos needs to focus on publicity and validation. This can be done by reaching out to possible partners or big names in the field, to conquer a bigger part of the market. Besides looking for more potential customers or partners, Encytos can also itself perform more specific research desired by the bigger research institutes. Encytos can also think about the production process, for example, about ways to scale up at the current location.