Work Placement Report

Student Details

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1. Company details

Company: Växjö Linnæus Science Park AB

Address: Växjö Linnæus Science Park, Framtidsvägen 14, 352 22 Växjö

Description: Växjö Linnæus Science Park AB is owned by the municipality of Växjö and is run in collaboration with business, the regional innovation support system and academia. The aim is to build a supportive and inspiring community for entrepreneurs. The goal is for companies to become even more successful. Able to grow and take new market shares. Swedish Incubators & Science Parks (SISP) is the Swedish industry association for Sweden's incubators and science parks. SISP has 62 members all over Sweden who together run approx. 80 physical meeting places, offer operational business development, often run or collaborate with clusters and have triple helix anchoring. [1]

Historical: Since 1986, Växjö municipality has had a company that worked with both real estate and business development through science park operations: Videum AB / Videum Science Park. At the turn of the year 2021/2022, the science park operations were transferred to a completely new company - Växjö Linnæus Science Park. [1]. In 1989 SwedePark is formed as an association for research and technology parks. In 1999 SwedSpin is formed as an association for business incubators. In 2005 SwedSpin and SwedePark merge and form Swedish Incubators & Science Parks, and 2011 Swedish Incubators & Science Parks opens its officies [2].

2. Business Model

Växjö Linnæus Science Park has a number of key focus areas. The focus areas are selected based on the needs of business, the academy's strengths and Växjö Municipality's areas of interest.

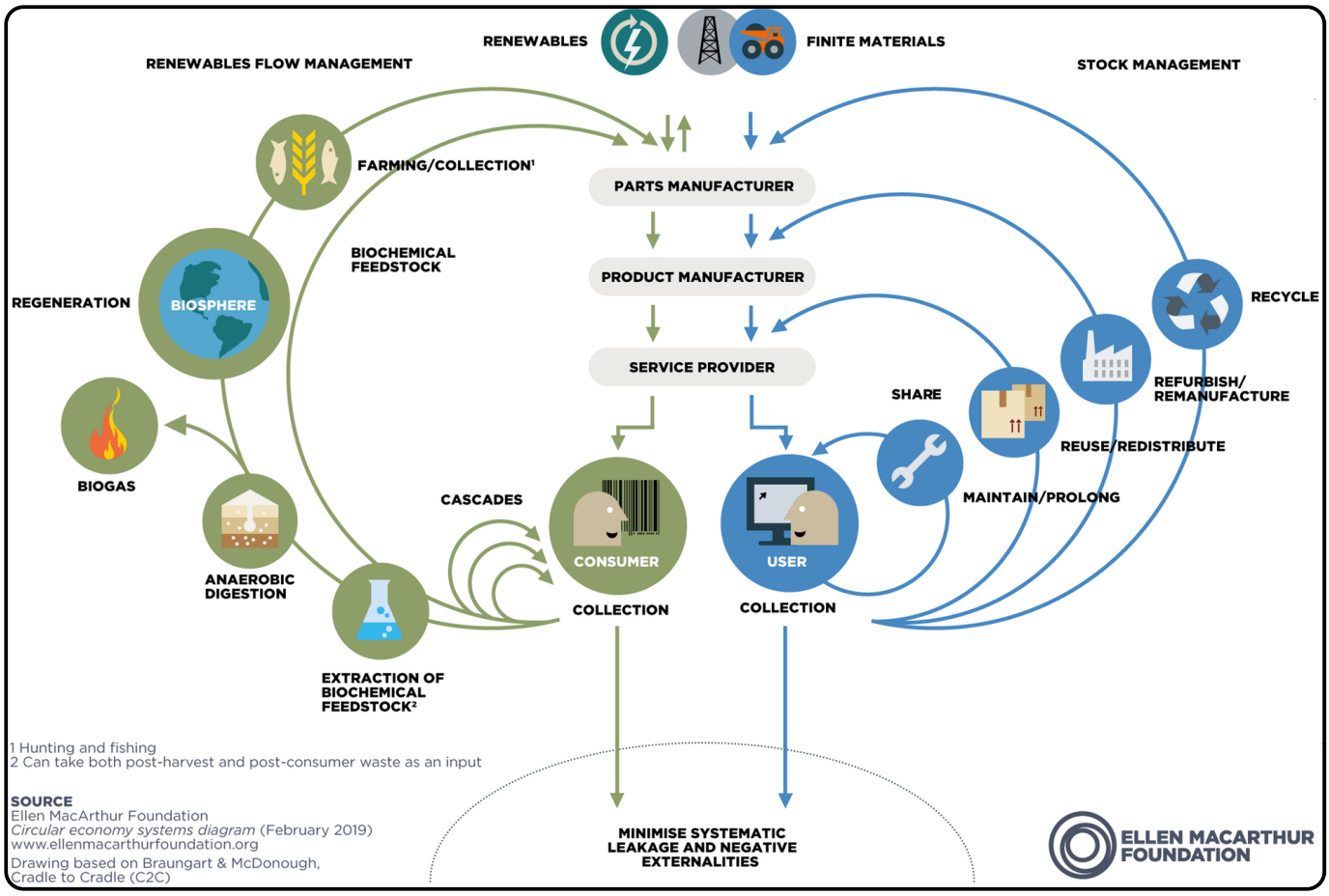
2.1. Circular Economy

VLSP puts an enormous emphasis on their goal for facilitating a circular economy. The Ellen MacArthur Foundation is referenced in their explainations on this topic, according to which, a circular economy is:

"a system where materials never become waste and nature is regenerated. In a circular economy, products and materials are kept in circulation through processes like maintenance, reuse, refurbishment, remanufacture, recycling, and composting"[4].

VLSP believes that in order for to acheive Sweden's emisison reduction target of zero net emissions by 2045, a move from a linear to a circular economy is crucial. To illustrate this, they split the circulation of materials in the economy into two distinct 'flows'; *biological*, whereby materials are returned to the biospere and *technical*, whereby materials circulate in industrial processes.

An example of this is illustrated on the VLSP website in a diagram taken from the Ellen Macarthur Foundation [3][4]:



To accomplish this, the Science park has laid out a few key points:

- Extending the life of biological materials by designing them to be used in several different products one after the other, before returning to the biosphere
- Enabling upcycling, whereby materials circulate and maintain their quality and economic value regardless of the number of cycles.
- The closer you can get to the innermost circles of direct reuse, the greater the savings, as the need for new extraction of raw materials decreases and less energy is used for transport and material processing.

2.2. Smart City

The smart city objective according to VLSP, is a set of projects with the goal of streamlining the city's functions while improving the quality of life for residents, with a focus on acccessibility. [5]

An example of this would be the **DigIT Hub** project aimed at small to medium-size oublic sector companies in southern Sweden to help them digitize, and become part of an established network of 'hubs'. The project includes members such as: Växjö municipality, Lund Municipality, Malmö City, City of Helsingborg and RISE - Research Institutes of Sweden. Information of the project can be found on their website digithub.se

2.3. Forest and Wood

VLSP pays close attention to the current climate crisis, factoring in the potential climate impact into their goals and methods of achievement. With nearly two-thrids of Sweden's area being forest, VLSP has stressed

establishing incentives to build out of the abundant resource of timber.[7]

VLSP therefore works very closely with the Municipality to facilitate common goals associated with wood building.
This therefore reflects in the projects it chooses to sponsor and carry out, or in research carried out by contributors. An example of this would be the CEO, Fredrick Lindblad, who has personally done much work on this topic. The most often referenced in discussions being Fredrick's 2020 Article: *Växjö Municipality's Planning Strategy to Increase the Construction of Wooden Multi-Family Buildings*[8], and his 2022 Article: *A Case Study of Växjö Municipality's Actions to Increase the Construction of Wooden Multi-family Buildings* [9].

2.4. Digitization

3. Task

3.1. Problems

3.2. Result

3.3. Development process

3.4.1 Tools

4. Lessons learned

References

- [1] 'Mer om science parks', https://vaxjolinnaeussciencepark.se/om-oss
- [2] 'Historic', https://www.sisp.se/om-sisp
- [3] https://vaxjolinnaeussciencepark.se/fokusomraden/cirkular-ekonomi
- [4] https://ellenmacarthurfoundation.org/topics/circular-economy-introduction/overview
- [5] https://vaxjolinnaeussciencepark.se/fokusomraden/smarta-staden
- [6] https://vaxjolinnaeussciencepark.se/samverkansprojekt/digit-hub-sweden
- [7] https://vaxjolinnaeussciencepark.se/fokusomraden/skog-och-tra
- [8] Lindblad, Fredrik. (2020). Växjö Municipality's Planning Strategy to Increase the Construction of Wooden Multi-Family Buildings. Sustainability. 12. 10.3390/su12124915. Available: https://www.researchgate.net/publication/342211480_Vaxjo_Municipality%27s_Planning_Strategy_to_Increase_the_Construction_of_Wooden_Multi-Family_Buildings
- [9] F. Lindblad, "A case study of Växjö Municipality's actions to increase the construction of wooden multi-family buildings," Journal of Civil Engineering and Architecture, vol. 16, no. 5, 2022. doi:10.17265/1934-7359/2022.05.002 Available: https://www.researchgate.net/publication/361796022_A_Case_Study_of_Vaxjo_Municipality's_Actions_to_Increase_the_Construction_of_Wooden_Multi-family_Buildings