**Working Towards a Circular Economy**



Circular economy is the ultimate expression of sustainability. The term blends processes from the natural world with the technical world. In nature, everything is reused without any spilling or waste: a tree grows using nutrients from the soil, water, air and sunshine. After the tree dies, it decomposes into nutrients, etc. and is used by other plants for growth. And once that plant dies, it goes back into nature. This is a continuous cycle that has, in theory, no end if left alone. In the technical world, this type of cycle is not natural, and the process needs to be developed and guided. This is what the notion of circular economy is about. Sometimes known as ‘cradle to cradle’, circular economy is the only way to assure that we do not use up all our natural resources while polluting the environment beyond repair.

*This project is about finding ways to promote a circular economy through re-introducing waterway transport in the old city of Haarlem. Students will work on a real-life problem that the local government is struggling with, namely how to assure that goods and refuse are gathered over existing waterways using methods that are technically, financially and socially feasible.*

We frame the problem using the three streams or flows of logistics.

1.The first is the flow of goods and the return flow of waste. One of the key aspects of a circular economy deals with the flow of goods and how these flows are designed. This problem is related to the traditional notion of logistics as a facilitator of transport and how transport needs to be adapted to the new situation.

2.The second way we frame the problem deals with data and information streams. How should these look like? What type of data is needed and how is this to be used? What are technologically feasible ways of dealing with the data?

3.Thirdly, we have the flow of money, or financial assets. In order to assure feasibility of the new plans, a sound financial business case needs to be developed – preferably together with individuals from other fields such as marketing, finance, logistics and data management.

Each stream will be researched using an interdisciplinary approach. Outcomes will be aimed at developing a holistic solution for the main problem the City of Haarlem has in regards to waterway transport. Suggestions will need to consider the technological, financial and social aspects of the problem. For this reason students from marketing, human resource management, management, finance and entrepreneurship studies will all have an integral role.

Individuals from the triple helix (government – industry – knowledge institutions) will also take part, giving input and advice during the three days.