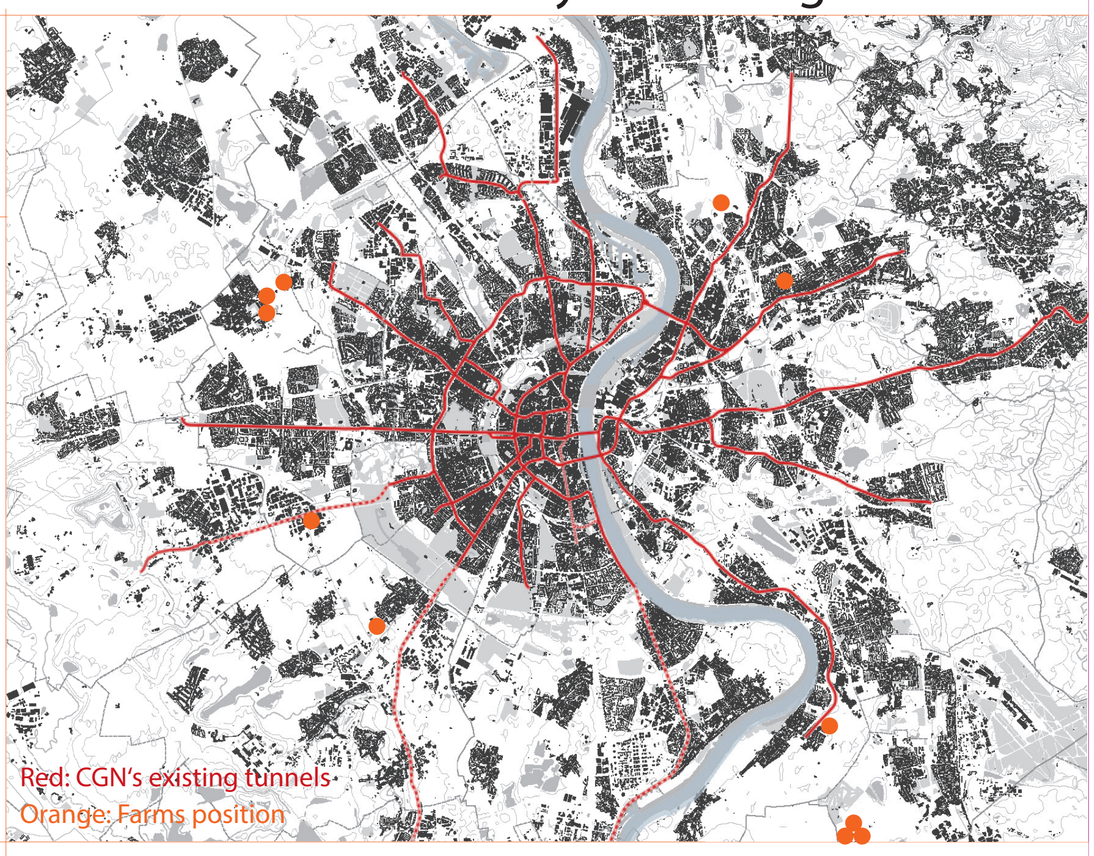
Hyperfood

How can we connect local farms around cologe to the city center trough a new way of food transportation by using existing infrastructure and environmental friendly technologies?

Problem

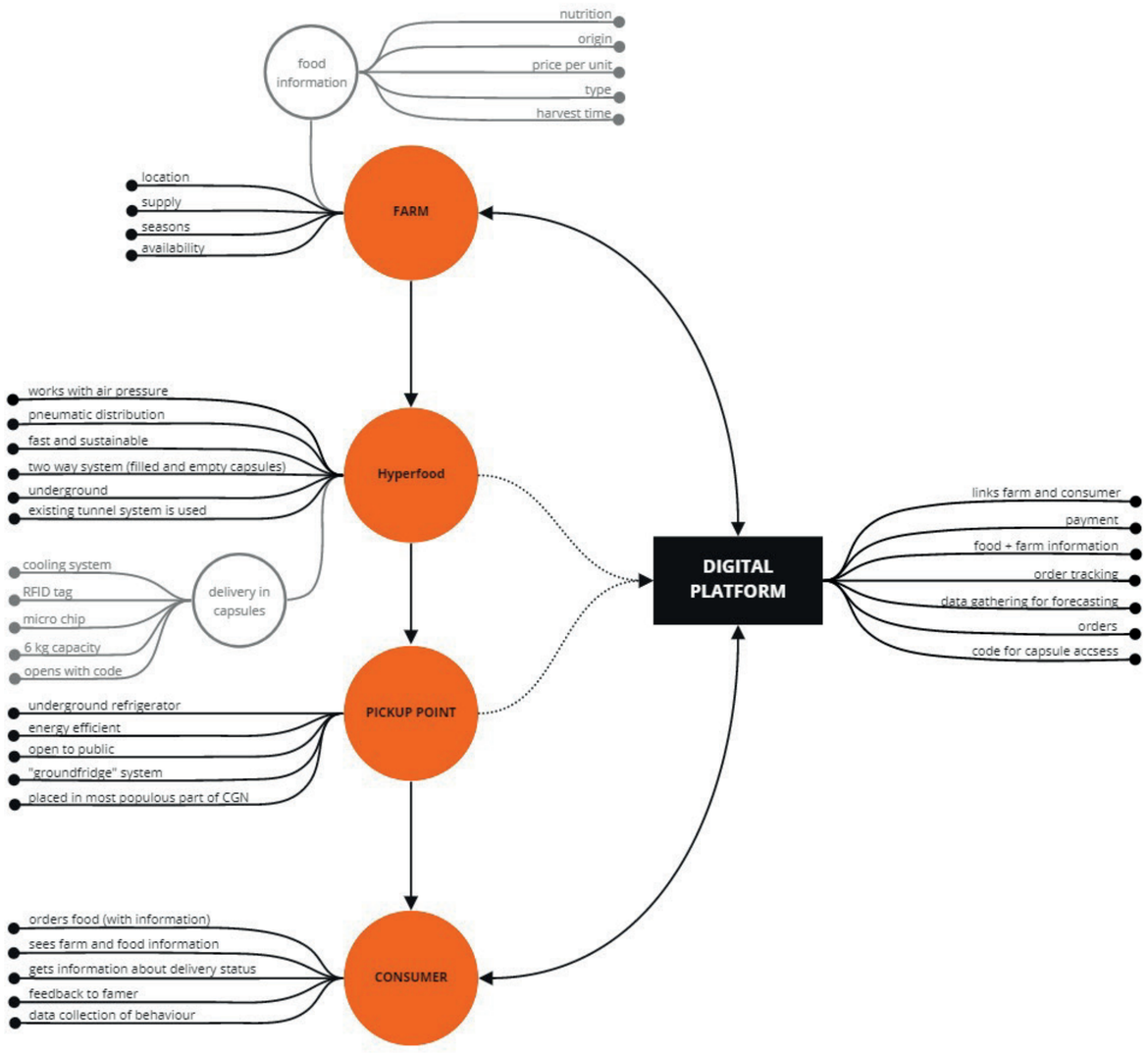
When looking at the distribution of food, one notices quite fast that the supply chain of food is inefficient due to many touchpoints between the producer and the consumer. Not only time is lost due to this inefficiency, but emissions and prices rise too.



Abstract

The aim of the project is to connect local farms with the city of cologne trough a new transportation system that leaves out the middleman. As cities will have to deal with less infrastructure and high population densities in the future, the hyperloop system uses existing tunnels in cologne and can help to offer a fast and on demand transportation of fresh food by being environment friendly as the technology of pneumatic systems is used for transportation to several pick-up points. A digital platform where demand and supply meet connects Farmers and Consumers: Farmers can there display their harvests and daily seasonal offers; Consumers can order foods from those local farms and track their origin, harvest time and transportation way, book a visit at the farm, rate the food, see recipes that use these foods and pay directly digital. Data displayed by the Farmer can help the consumer to choose his prefered product and data gathered about the demand can help the farmer to optimize the offer and to estimate future demand.

System map



Keywords

#transportation #duistribution #pneumatic systems #digital platforms #hubs #connection

Data

Aerocom data about Rohrpost system, Hyperloop technology, underground fridge system, information about food, seasonal food, local farms around CGN, population density CGN, underground system of CGN

Stakeholder

local farmers, city of cologne, KVB, Supermarkets, Logstic companies, CGN's population, construction companies

Partner

Amt für Brücken, Tunnel und Stadtbahnbau Köln, Aerocom Schwäbisch Gmünd

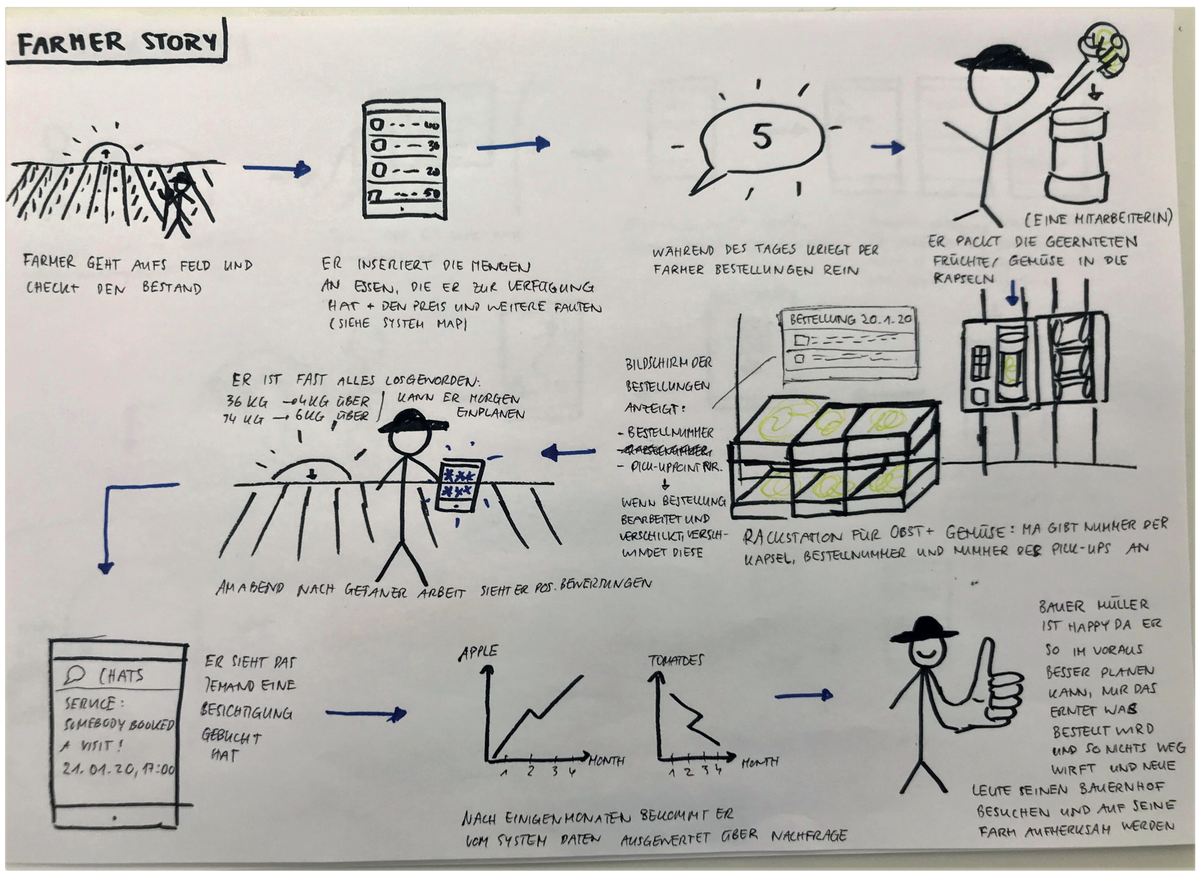
Cases

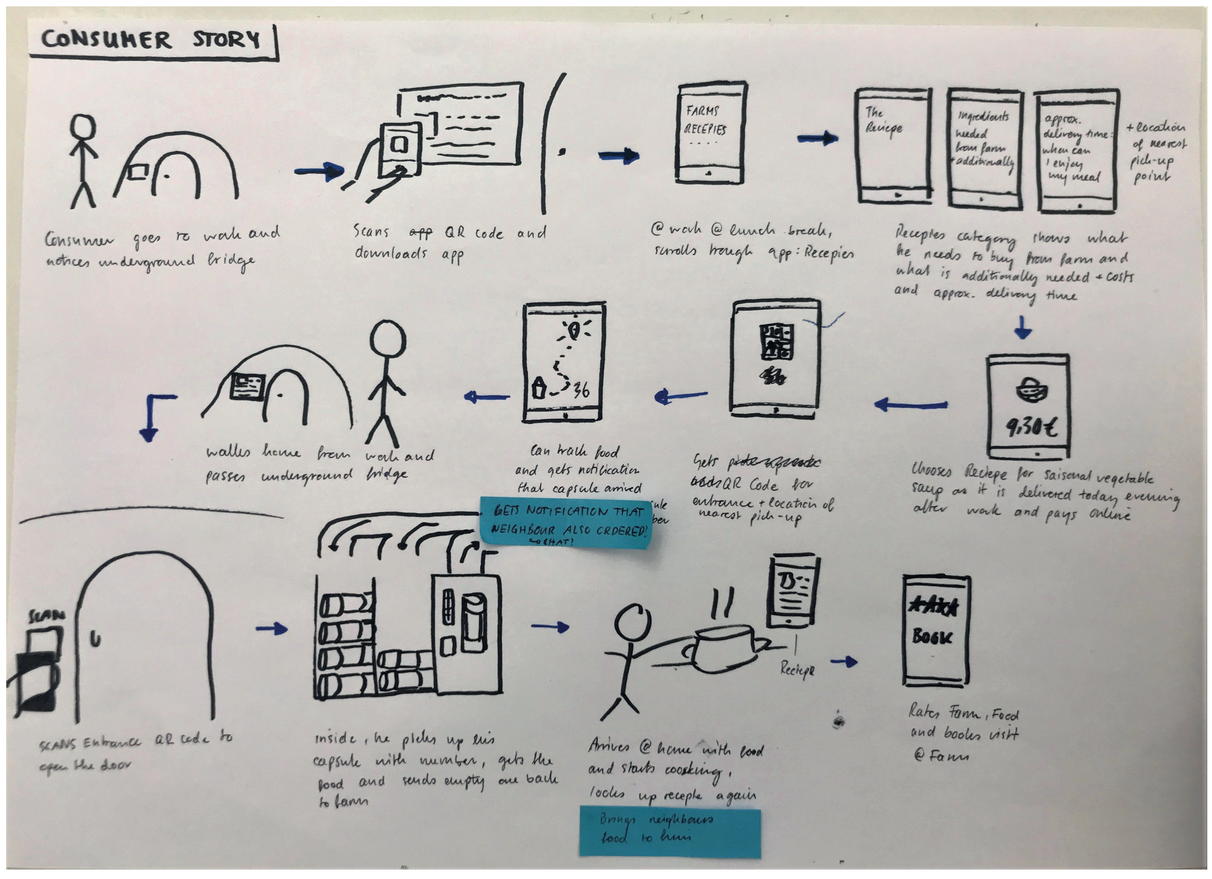
Public banana frigde: The inspiration to directly link the farmer to the consumer

Pneumatic tubes and hyperloop: An environmental friendly transportation

Undergroundfridge: An environmental friendly way to keep food cold

User story





Matea Varvodić

Hyperfood

How does a envorionmental friendly distributon system for food that uses pneumatic power work?

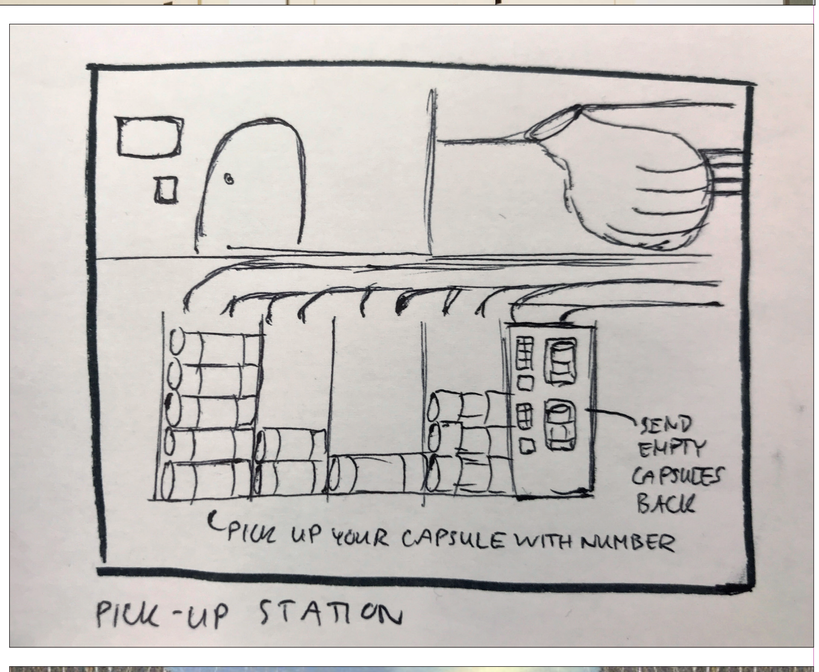
Pneumatic systems are already implemented in numerous of companys with complex hub systems

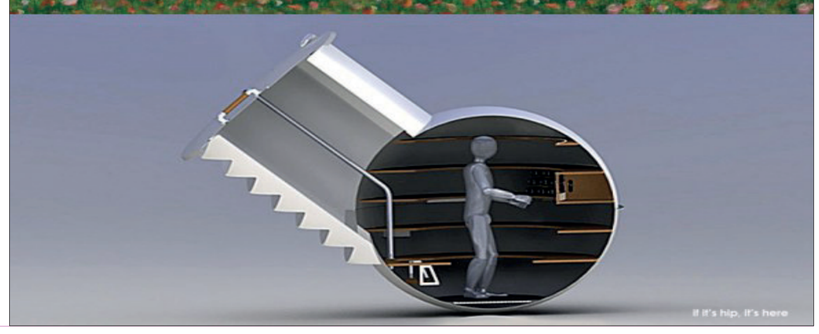
Every capsule has a integrated micro chip that tracks its origin and knows the end destionation

Tube stations to send and recieve capsules. The destination can be determined by entering the destinations code on the device.

CGN offers a underground structure of unused and used tunnels

The tube transportation system can be implemented in already used tunnels by the KVB as they don‘t take up much space





The pick-up point is inspired by the underground fridge that keeps food and berverages cool by being environmental friendly

Matea Varvodić