

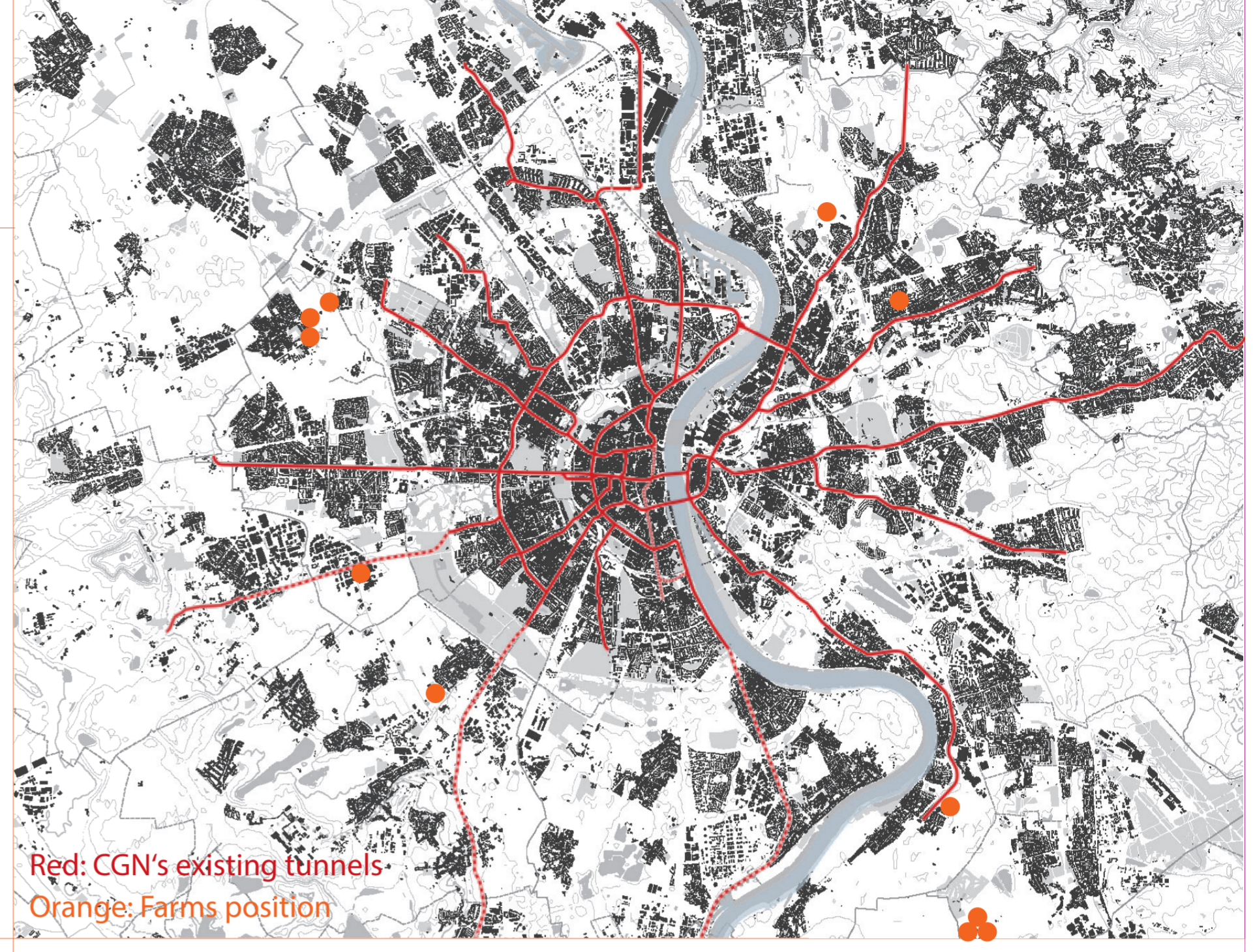
# Hyperfood

## 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?

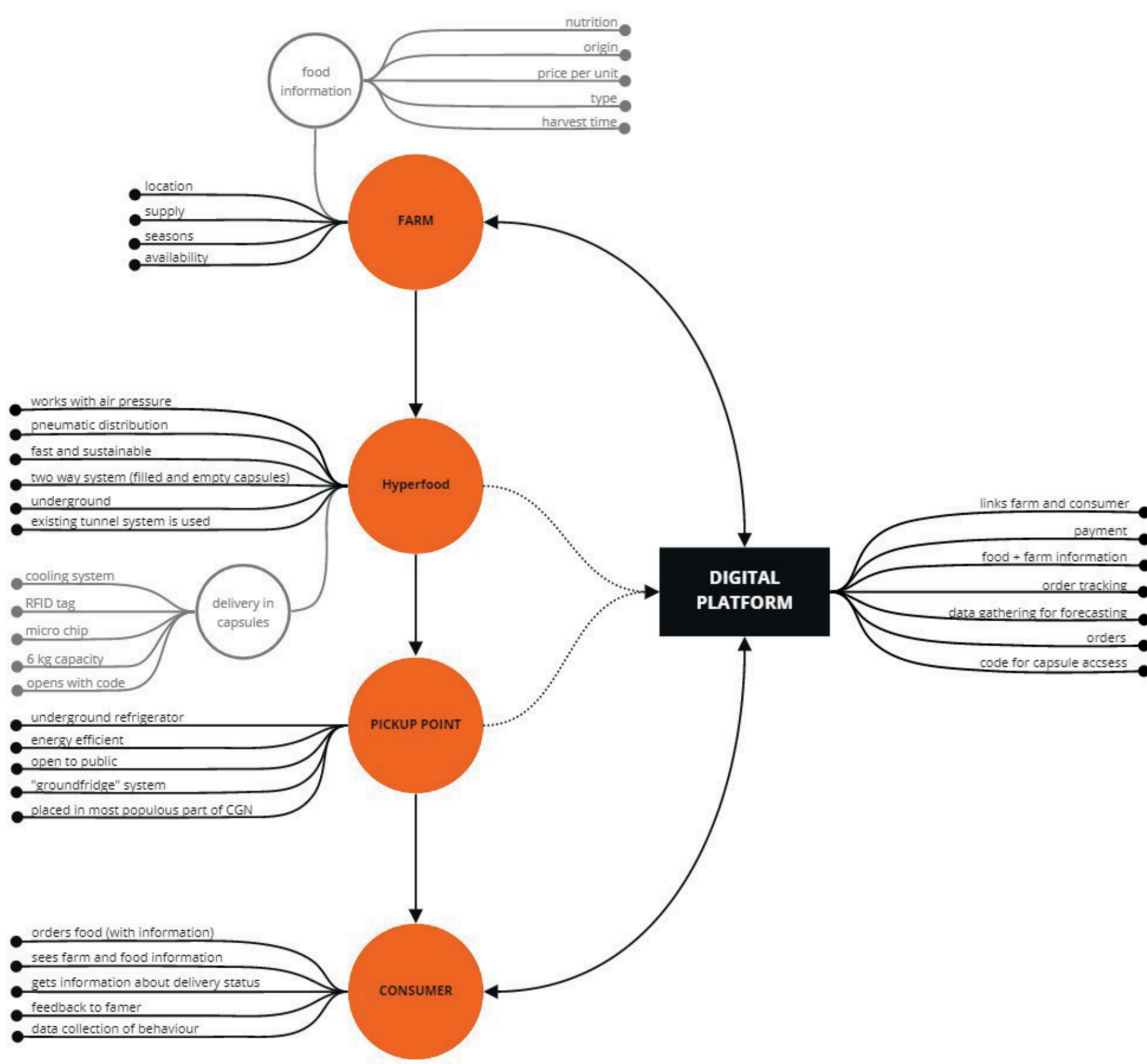
**Problem** When looking at the distribution of food, one notices quite fast that the supply chain of food is inefficient due to many touchpoints between the producer and the consumer. Not only time is lost due to this inefficiency, but emissions and prices rise too.

**Abstract** The aim of the project is to connect local farms 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 preferred product and data gathered about the demand can help the farmer to optimize the offer and to estimate future demand.

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



### System map



**Keywords** #transportation #distribution #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, Logistic companies, CGN's population, construction companies

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

**Cases**

- Public banana fridge:** The inspiration to directly link the farmer to the consumer. Includes a QR code.
- Pneumatic tubes and hyperloop:** An environmental friendly transportation. Includes a QR code.
- Undergroundfridge:** An environmental friendly way to keep food cold. Includes a QR code.

### User story

#### FARMER STORY

FARMER GEHT AUFS FELD UND CHECKT DEN BESTAND

ER INSERTIERT DIE MENGEN AN EISEN, DIE ER ZUR VERFÜGUNG HAT + DEN PREIS UND WEITERE FAKTEN (SIEHE SYSTEM MAP)

WAHREND DES TAGES ÜBRIEGT PER FARMER BESTELLUNGEN REIN

ER PACKT DIE GEERNTETEN FRÜCHTE/ GEMÜSE IN DIE KAPSELN

ER IST FAST ALLES LOGGEWORDEN: 36 KG → 40KG ÜBER | KANN ER MORGEN ENPLANEN 74 KG → 6KG ÜBER

WENN BESTELLUNG BEARBEITET UND VERSCHICKT WERDEND WIRDT DIESE

RAUSSTATION FÜR OBST + GEMÜSE: MA GIST NUMMER PER KAPSEL, BESTELLNUMMER UND NUMMER DER PICK-UPS AN

BAUER MÜLLER IST HAPPY DA ER SO IM VORLAUF BESSER PLANEN KANN, NUR DAS ERNTET WAS BESTELLT WIRD UND SO NICHTS WEG WIRFT UND NEUE LEUTE FEINEN SAUERNHOF BESUCHEN UND MIT SEINER FARM AUTHENTISCH WERDEN

NACH EINIGEN MONATEN BEKOMMT ER VOM SYSTEM DATEN AUSGEWERTET ÜBER NACHFRAGE

ER SIEHT DAS JEHNAND EINE BESICHTIGUNG GEBÜCHT HAT

ER SIEHT DAS JEHNAND EINE BESICHTIGUNG GEBÜCHT HAT

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#### CONSUMER STORY

Consumer goes to work and notices underground bridge

Scans app QR code and downloads app

@work @ lunch break, scrolls through App: Recipes

Recipes category shows what he needs to buy from farms and what is additionally needed + costs and approx. delivery time

walks home from work and passes underground fridge

Can hold food and gets notification that capsule arrived

Light photo-scanner adds QR Code for entrance + location of nearest pick-up

Gets notification that his neighbour also ordered

Opens Recipe for seasonal vegetable soup as it is delivered today, evening after work and pays online

Scans Entrance QR code to open the door

inside, he picks up his capsule with number, gets the food and sends receipt and back to farm

Arrives @ home with food and starts cooking, locks up receipt again

Rating, neighbour food to farm

Rates Farm, Food and books visit @ Farm

# Hyperfood

How does an environmental friendly distribution system for food that uses pneumatic power work?

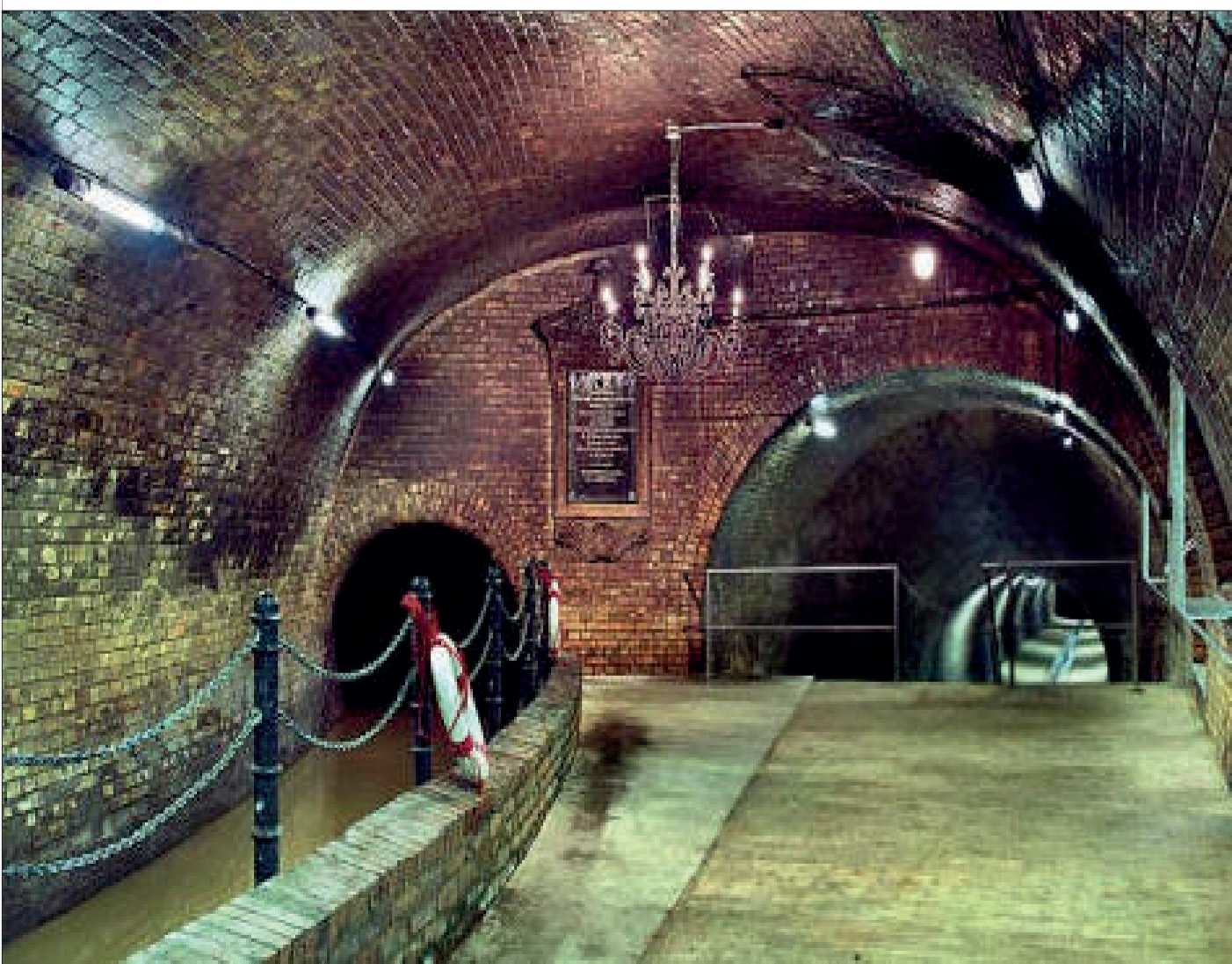


Pneumatic systems are already implemented in numerous of companies with complex hub systems



Every capsule has an integrated micro chip that tracks its origin and knows the end destination

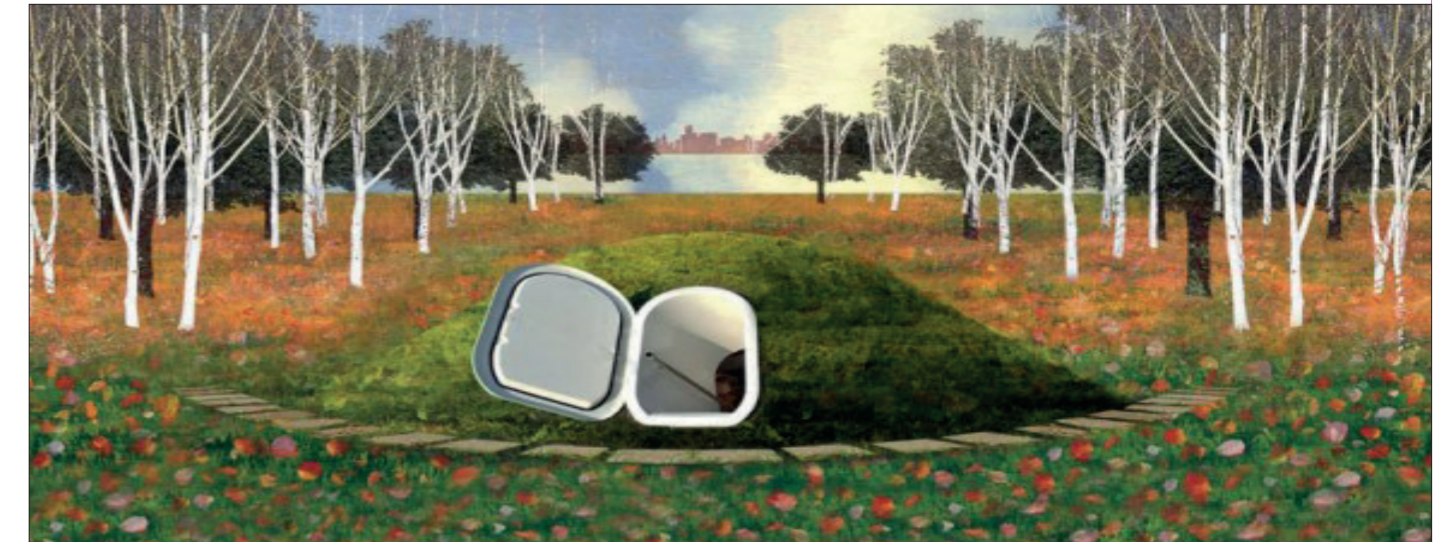
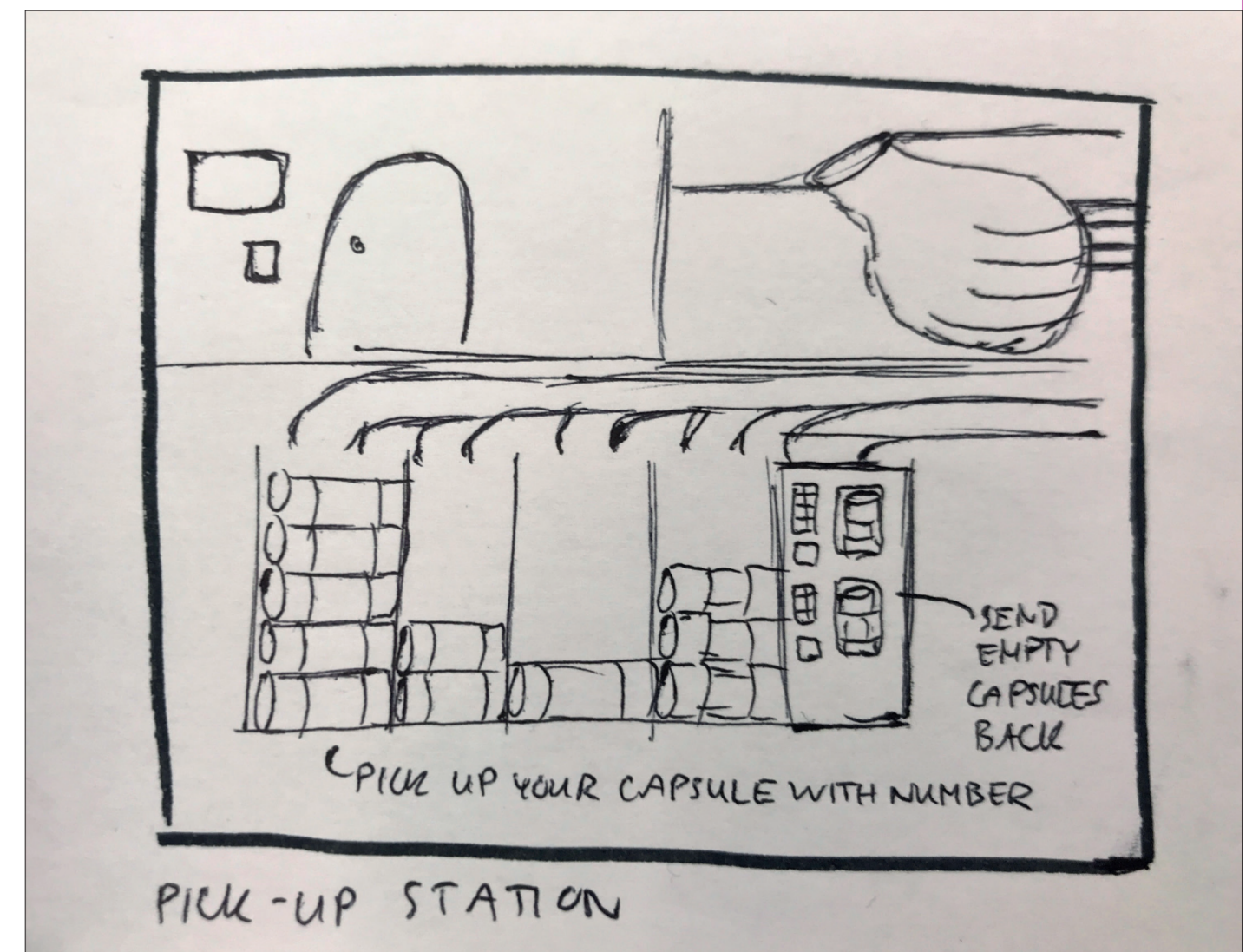
Tube stations to send and receive capsules. The destination can be determined by entering the destination's code on the device.



CGN offers an 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 beverages cool by being environmental friendly

