Foodisms.

Understanding food and what it means to us

I Understanding the context

PROJECT BRIEF

The Indian retail environment is unconventional owing to the manner in which disposable incomes within the middle class are increasing

Wants are slowly being given equal importance to Needs.

Retail as a sector focuses on the evolving needs of the consumer

The penetration of the organized retail sector is 8%

Great platform for innovation in the constantly evolving system

WHY FOOD?

People's interactions with food

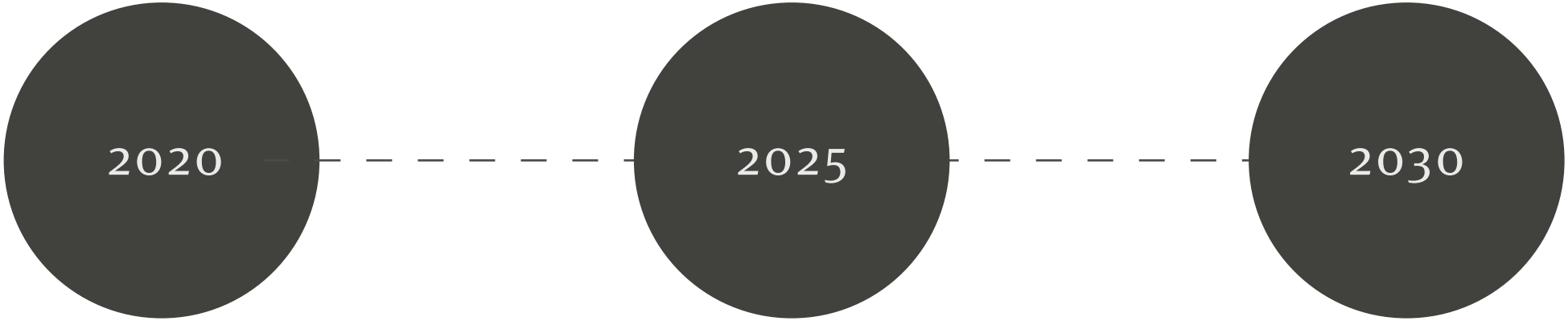
It is a need that is high in demand therefore there will always be a market for it, which changes the influence of different stakeholders in the supply chain

Decision making patterns differ in different contexts

Penetration of fruits and vegetables in organised sector is only 2%

only 5% of the Indian market prefers to buy their groceries from supermarkets

http://www.ibef.org/industry/retail-india.aspx



Time and Space become a luxury

Demand for efficiency increases | Transport

Focus on quality of F&V | Physical Retail dying

Biotechnology | Sourcing of produce

No physical Infrastructure

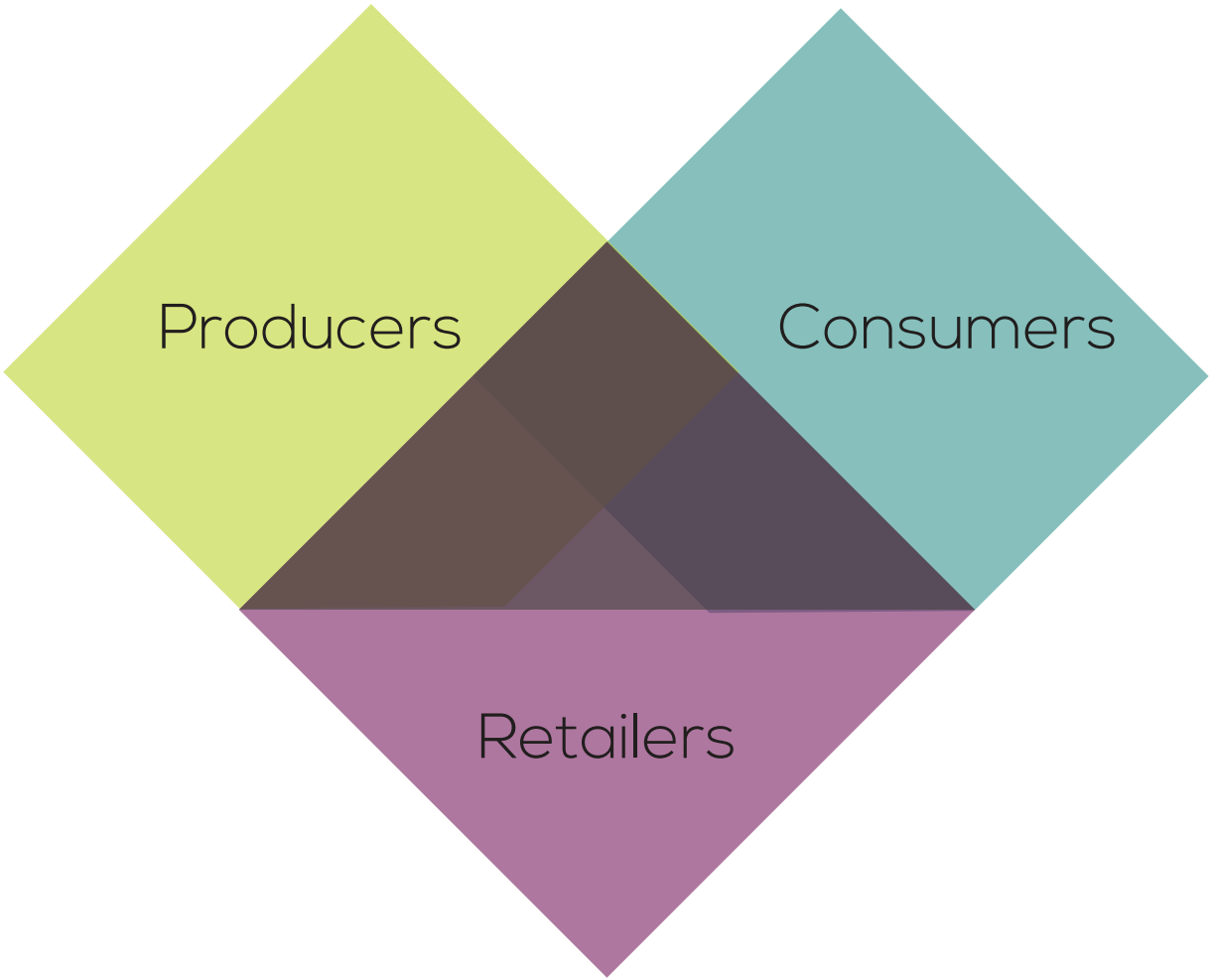
Warehousing / Storage Technology

Gaps-
Need for:

Main Link

Producer	Retailer	Consumer
-Power to dictate prices -Better understanding of demand	- Providing a seamless experience - Standardisation of quality	-Ability to make informed decisions -Access to better quality and form

Area of interest



Reuse of cartons

Leafy vegetables and their perishability : Wilts easily

Organic Food Supply chain - High demand, low supply

Handling of produce

Temperature fluctuations while transporting

II

Supply Chain

PREDICTION

Understanding Behaviour
- Input of numbers
- Computing of data
- Segregation of Information

- Efficient technology
- Organisation of input methods

Database Creation
- Geographically relevant
- Input from input

- Creating patterns
- Computing data
_ Efficient input by numbers

Tracking Demand
- Segregation of demand

- Input from units
- Technology to consolidate info

Giving Order
- Creating supply demands
- Setting pricing

- Assessing demand
- Wholesale market study
- Reaching out to farmers

PLANTING & HARVESTING

Planning
- Spacing land
- Buying seeds

- Dividing land
- Financial Planning
- Land

Planting
- Fertilizers & seeds
- Waiting time

- Soil Ferility
- Seeds and Ckimate

Harvesting
- Reaping
- Sorting

- Manual picking of produce
- Labour

Segregation
- Taking produce to wholesaler/retailer

- Rudimentary grading based on spoilage, insect infestation

BRINGING TO CC

Collection
- Price and demand announced

- Study of wholesale martket pricing
- Unloading

Sorting
- Separation of grades of vegetables on the basis of visual quality

- Dividing produce into two parts , to return to farmer and to take to DC
- Labour

Loading
- Crating of chosen products
- Weight is declared

- Physical handling of vegetables
- Nature of crates / Type of vegetable

REACHING DC

Transportation
- Loading into vehicle
- Controlling temperatures
- Unloading

- Dividing land
- Financial Planning
- Land

Reconfirmation of weight
- Weighing against declared weight
-Confirmation with CC

- Soil Ferility
- Seeds and Ckimate

Segregation
-Segregation on the basis of supply demand in given area

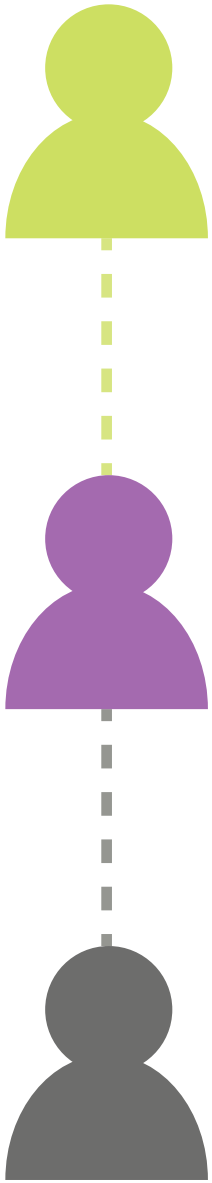
- Collated big data on location specific consumer behaviour
- Handling of produce

Sent to Store
- Transport
- Sent to storage or displayed

- Food mileage kept in check
- Loading/Unloading


Planning & Harvesting
Can planning be done keeping in mind sourcing for next year?
Can retailers encourage this in some way?
what happens to crates during
Sorting
Tracking
= how can food wastage be reduced?
Mechanisation of process?
Taking less time to transport
Transportation
How can visual quality not be compromised?
Alternative to cold storage
Keeping the product 'Fresh'
Communicating this to consumers
LENS 1:
• Planning & Packaging
• Information
Sorting at CC
Segregation
Can the retailer buy more'?
Bringing to CC
Loading & unloading
+
Sorting
Lots of handling
Transit time
long ?
Can this be utilized?
CC ↔ DC
Impact damage
Structural protection
Structural support?
DC - Store
Waste ?
excessive handling
Packaging
Sustainability of packaging
Lens 2:
• Distribution of tasks
• Interactions
• Task flows + Time
• Recognising value

CC



Net investment excluding land
Sorting practices
Retailers connecting with farmers
Number of steps = 7

DC

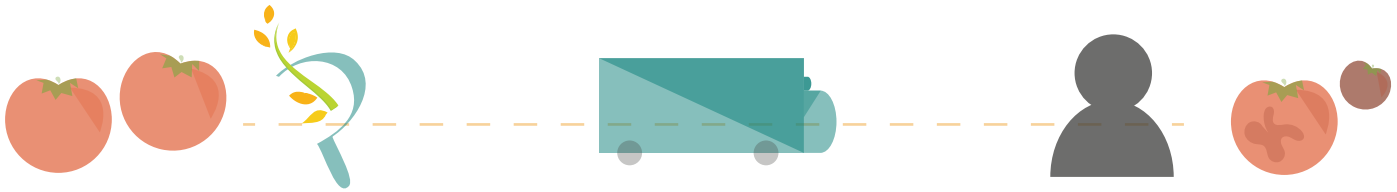
Time taken within DC : 3-4 hours
Distributed according to location specific demands
Number of steps = 5

Food Mileage

A measure of the distance (and time) travelled by foods between the place where they are produced and the place where they are eaten.

Long distances = lesser quality

Value decreases as mileage increases



Reduce the number of steps
Make the steps more efficient

https://food-hub.org/files/resources/Food%20Miles.pdf

SUPPLY CHAIN

F - CC

PLANNING
TRANSPORTATION

CC - DC

TIME OPTIMISATION
SHRINKAGE
STRUCTURAL
SUPPORT

DC - STORE

HANDLING
PACKAGING
SUSTAINABILITY

Shrinkage / structural support / handling **What**

Time optimisation/ transportation **When**

How?

Transport

CC -> DC Shrinkage & Handling from CC -> Store

Financial Planning

Risk Mitigation

Impact Damage

Time Optimisation

II Focussed Immersion

Risk Mitigation

Why?

To provide a sense of security to farmers

To ensure that there is some assurance in the case of disruption

How ?

Providing a margin of savings in order to manage savings

Decreasing dependency on factors like climate for better yield

Financial Planning

Why?

To enable better decision making and facilitate better planning and leads to better yield

How ?

Aiding the financial independence of farmers
Understanding their spending patterns
Introducing them to the understanding of finance

Shrinkage+ Handling

Why?

To enable better decision making and facilitate better planning and leads to better yield

How ?

Aiding the financial independence of farmers
Understanding their spending patterns
Introducing them to the understanding of finance

Impact Damage

Why?

Firmness of vegetable is used to guage quality

Discoloration and unusual shapes are not preferred by retailers

How ?

By ensuring the natural shape/form is retained

By reducing the risk of impact during transportation

Time Optimisation

Why?

To maximise on freshness when it reaches the consumer
To cater to the consumption patterns of the consumer
To encourage more consumers to opt for
organised retail in order to buy vegetables

How ?

By optimising the time it takes for food to reach the consumer
Understanding their spending patterns

Rent A Vehicle

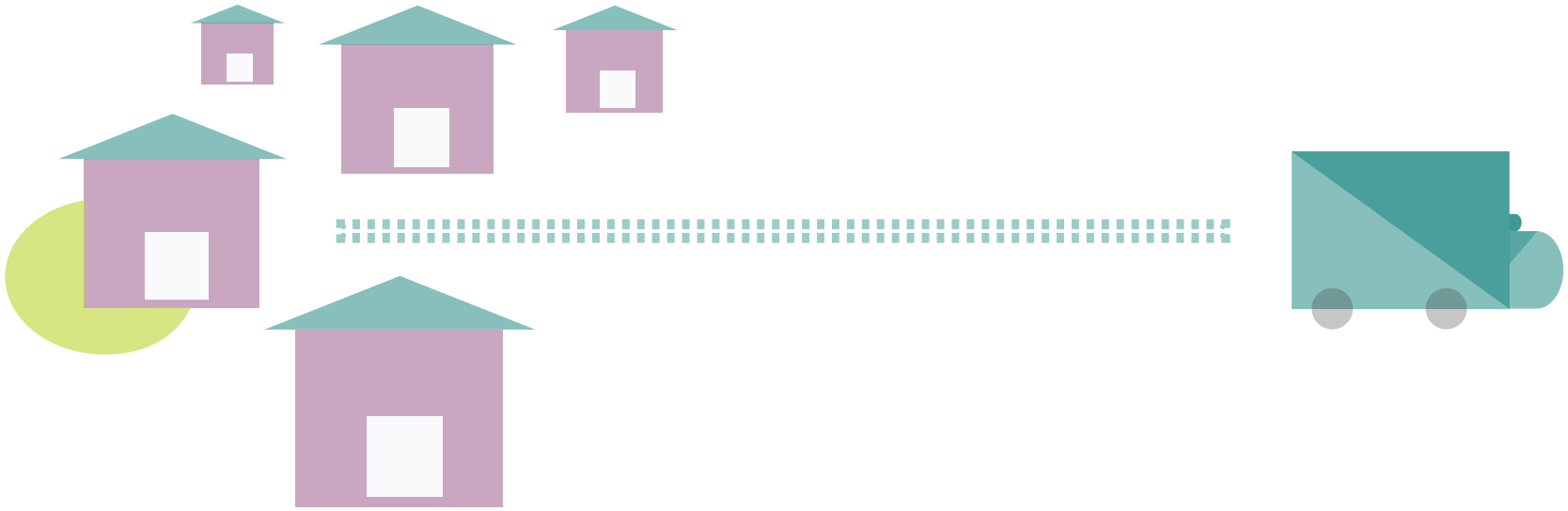
The Mechanism

Current Scenario

Each village has 2-3 vehicles that are rented out

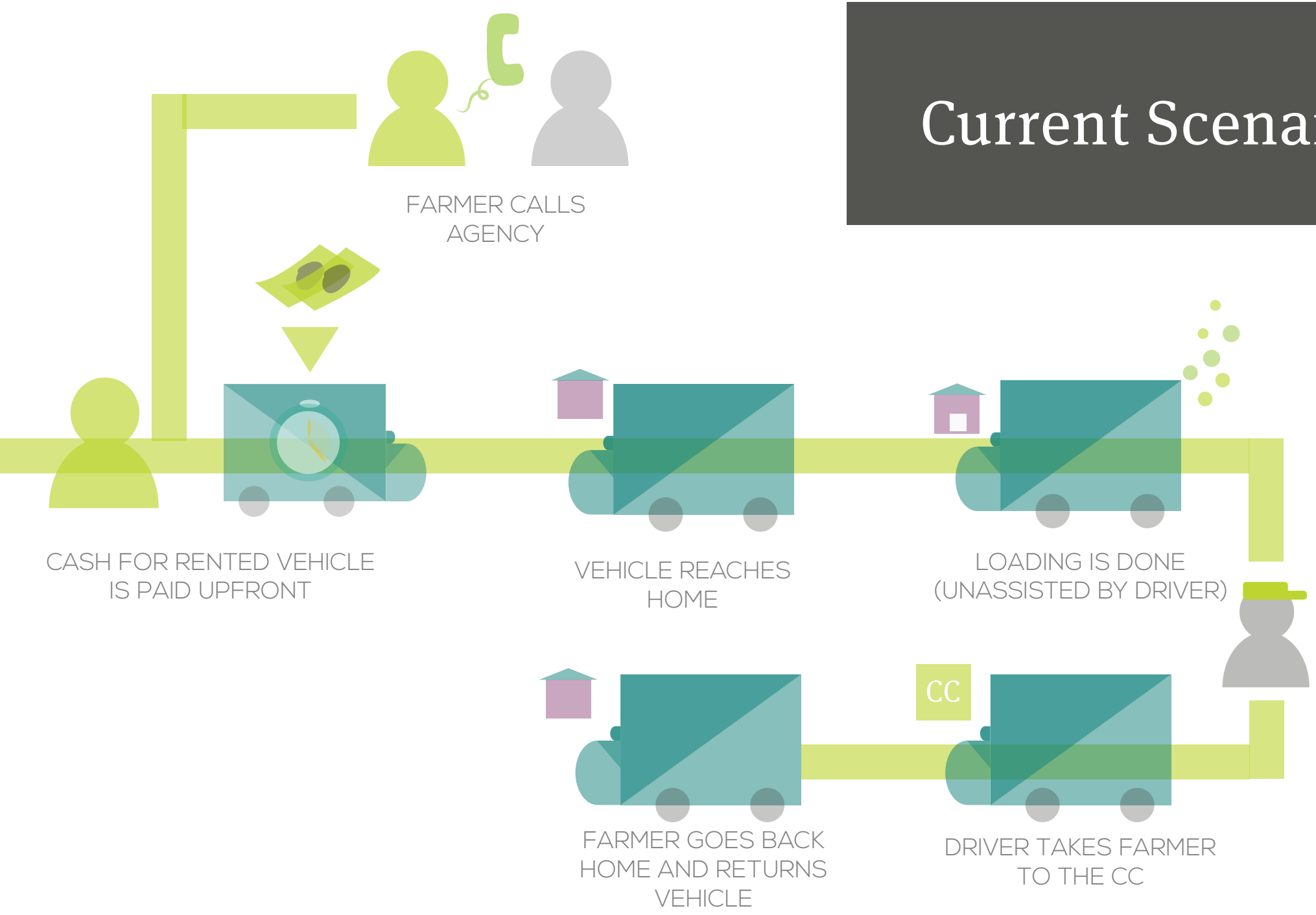
2 - 3 % farmers own vehicles

Per bag - Per kg - Distance

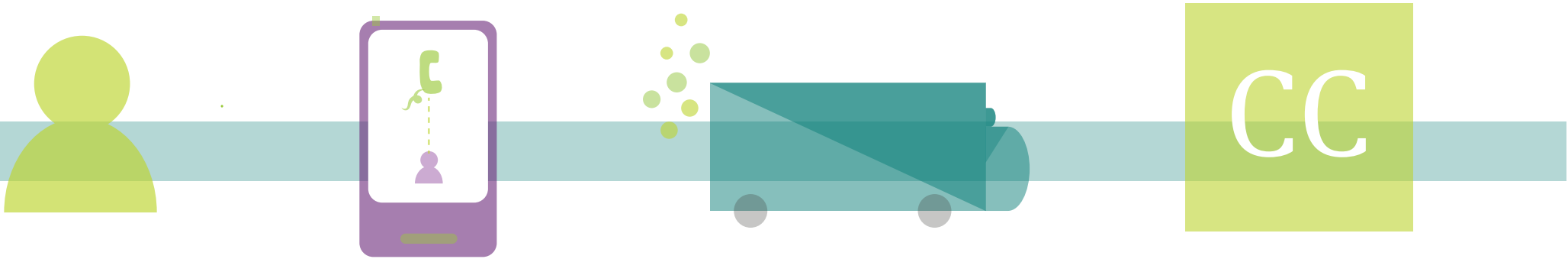


As derived from my contextual inquiry, which I extrapolated into multiple scenarios by observing patterns of behaviour

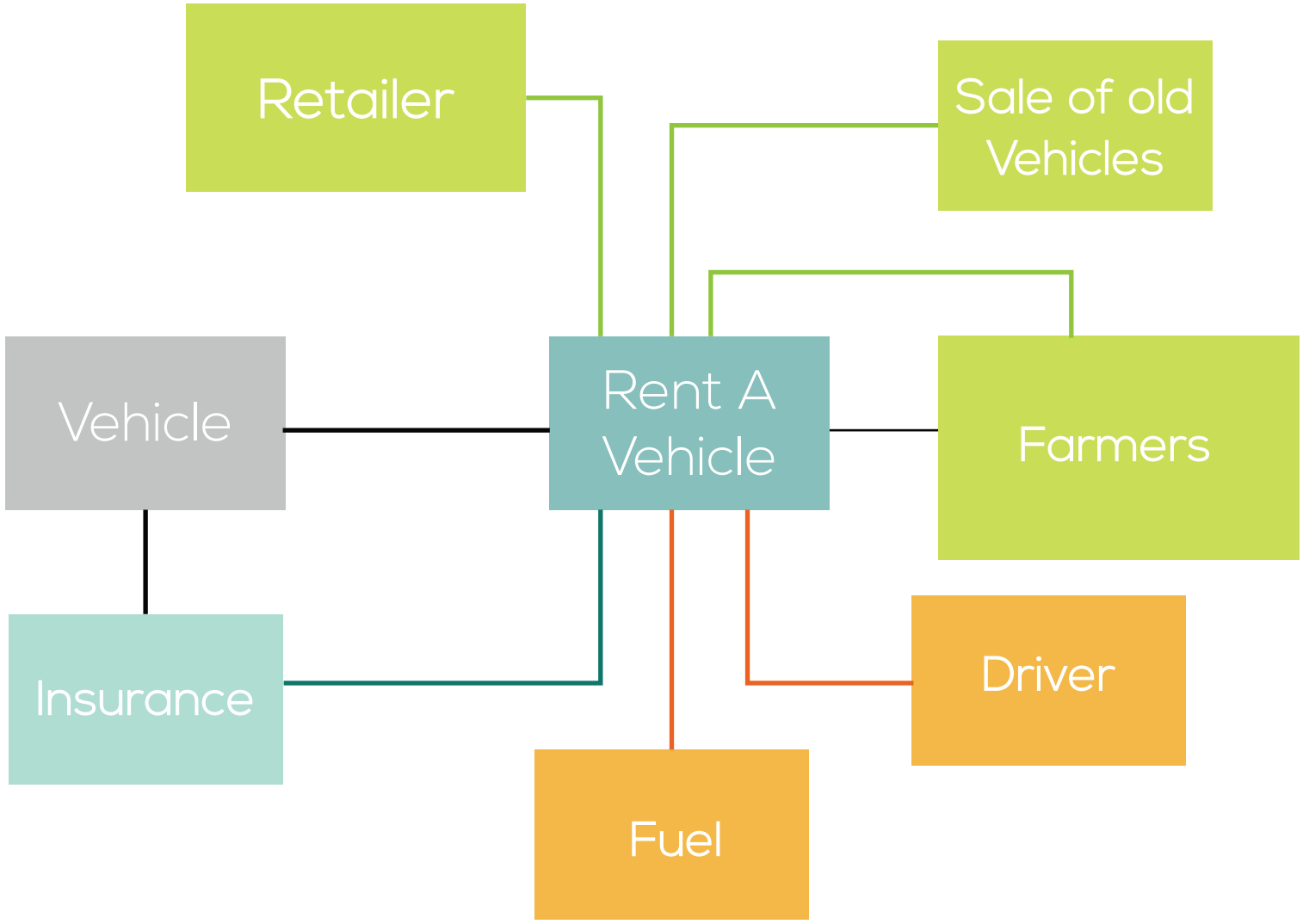
Current Scenario



Rent a Vehicle



An approach to improving the efficiency and organisation of transportation from the farmer to the CC , thus positioned to bridge the gap between retailer and farmer



Cash Flow

Then explain pricing example

Who Benefits?

Farmer

Availing of the service means able to save more

Painless process with lesser effort

Retailer

Loyalty and support from farmers

More supply

Revenue generation

Retailer on the Go

The Mechanism

Current Scenario

The retailer goes from the DC to the store

The retailer buys about 40% from the farmer

70 % of produce goes to wholesale

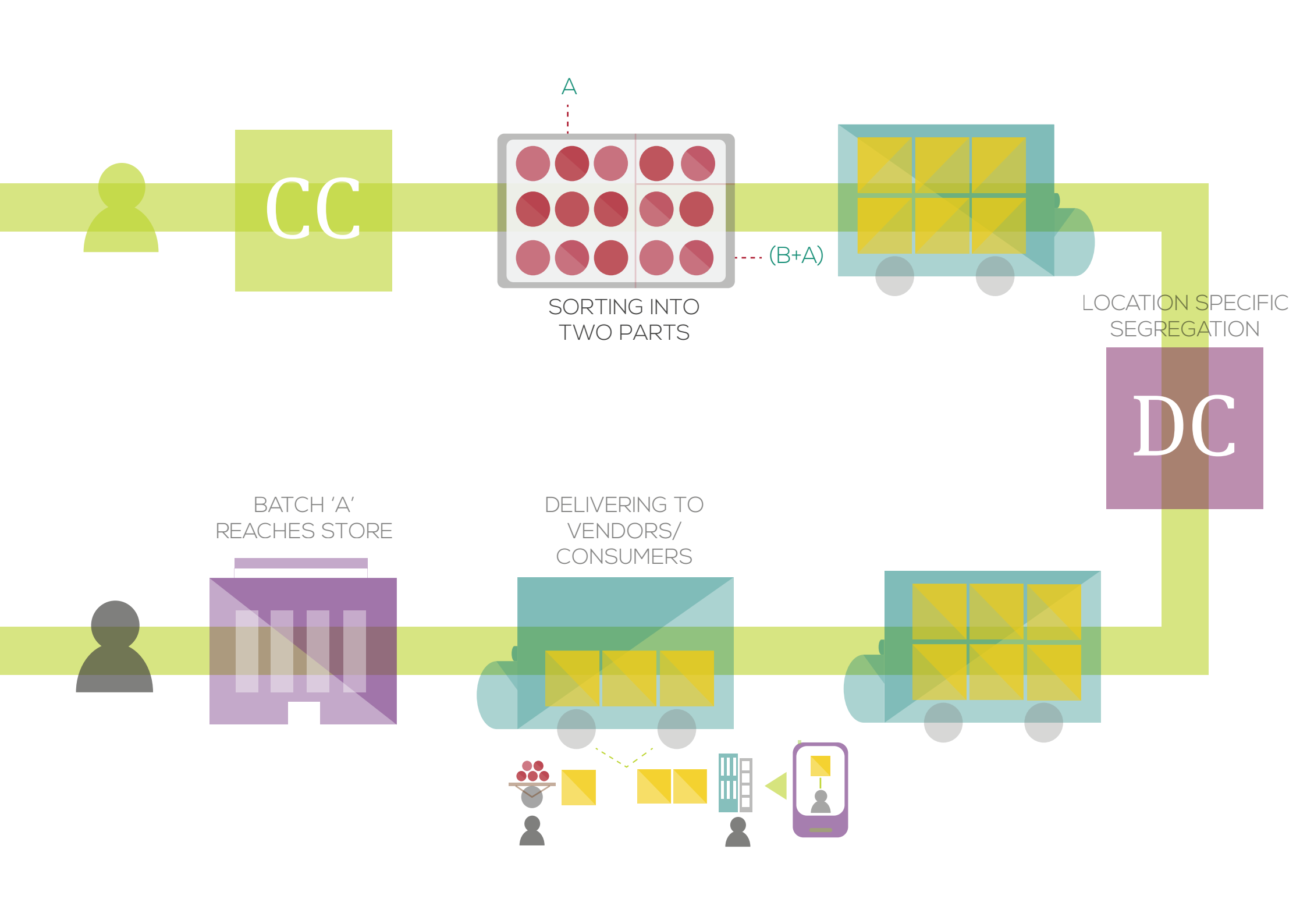
CAN THE % OF REJECTION DECREASE?

As derived from my contextual inquiry, which I extrapolated into multiple scenarios by observing patterns of behaviour

Retailer On The Go

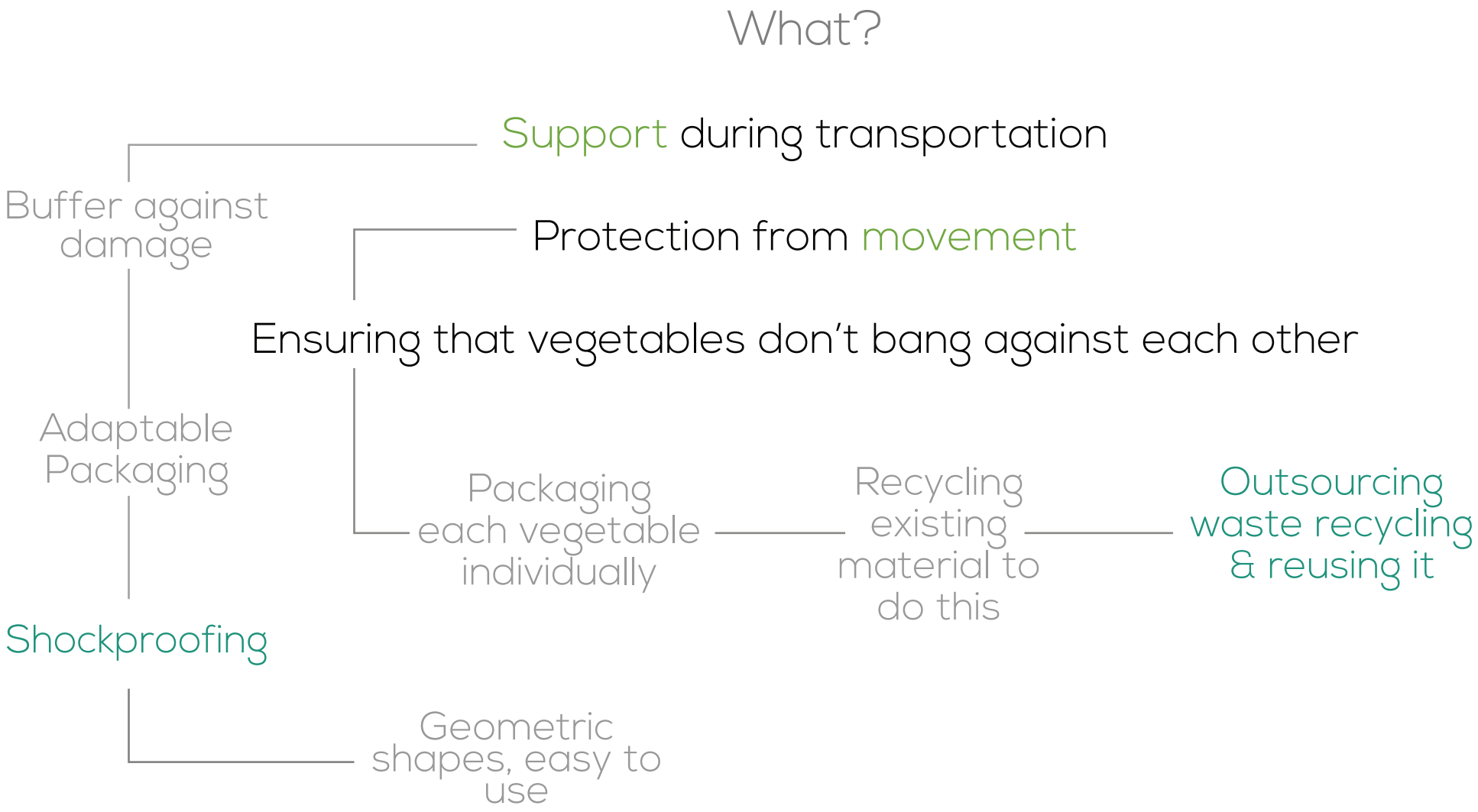
An opportunity to make the best of the distribution chain

and increase the distribution efficiency


A
CC
(B+A)
SORTING INTO
TWO PARTS
LOCATION SPECIFIC
SEGREGATION
DC
BATCH 'A'
REACHES STORE
DELIVERING TO
VENDORS/
CONSUMERS

V The Big Picture

Impact Damage



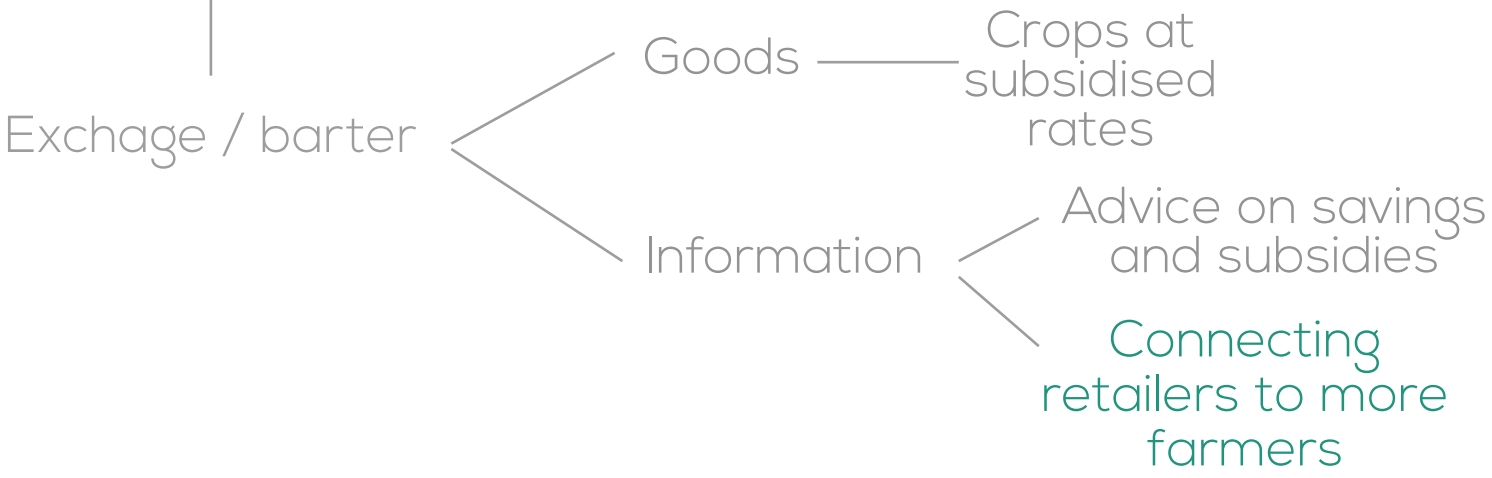
Financial Planning

What?

Business model to plan spending

Introducing the concept of financial planning through infographs/campaigns

Looking at interaction between Farmer and Retailer



Risk Mitigation

What?

Enabling foresighting for farmers

Looking at fast moving crops for next season

Creating a self sustaining farm

Strategies for on-farm measures

Teaching other farmers how to grow other crops

Increasing interdependency between Farmer -> Retailer

Involving farmers in grading and sorting

Providing assurance by providing service

Renting Transport

Shrinkage+ Handling

What?

Planning the utilisation of space within the truck

Restricting the behaviour of handling the fruit

Integrating packaging from CC -> Store and using the same within the store

Allowing only selected vegetables to be touched

Selective Shrinkage

Making sorting transparent

Dividing between 'Now' & ' Later'

Time Optimisation

What?

Integrating processes together

Ensuring that are the most appropriate route is taken

Making use of distribution efficiency

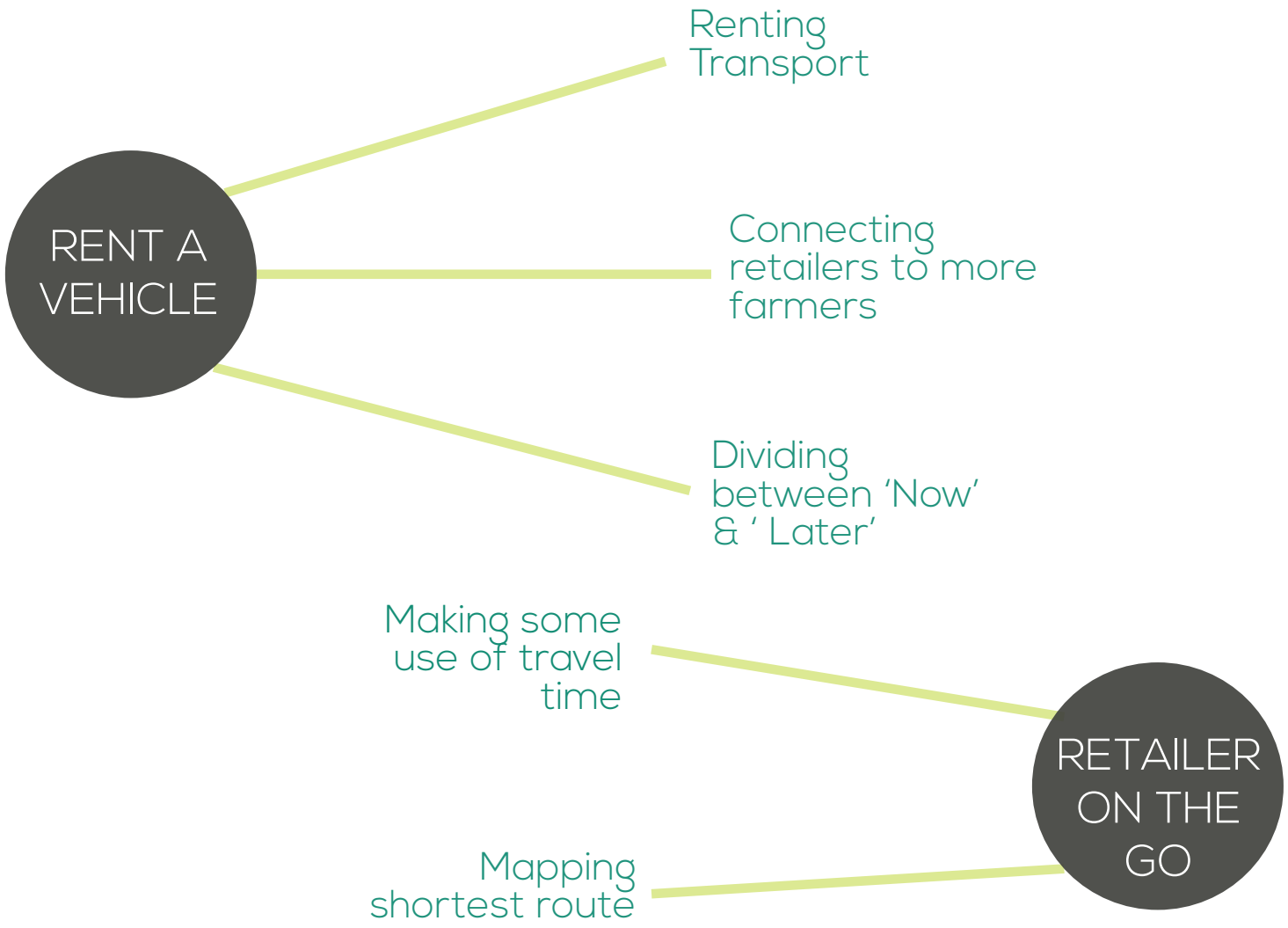
Mapping shortest route

Tracking

Making use of travel time

Retailer on the Go

Current Scenario



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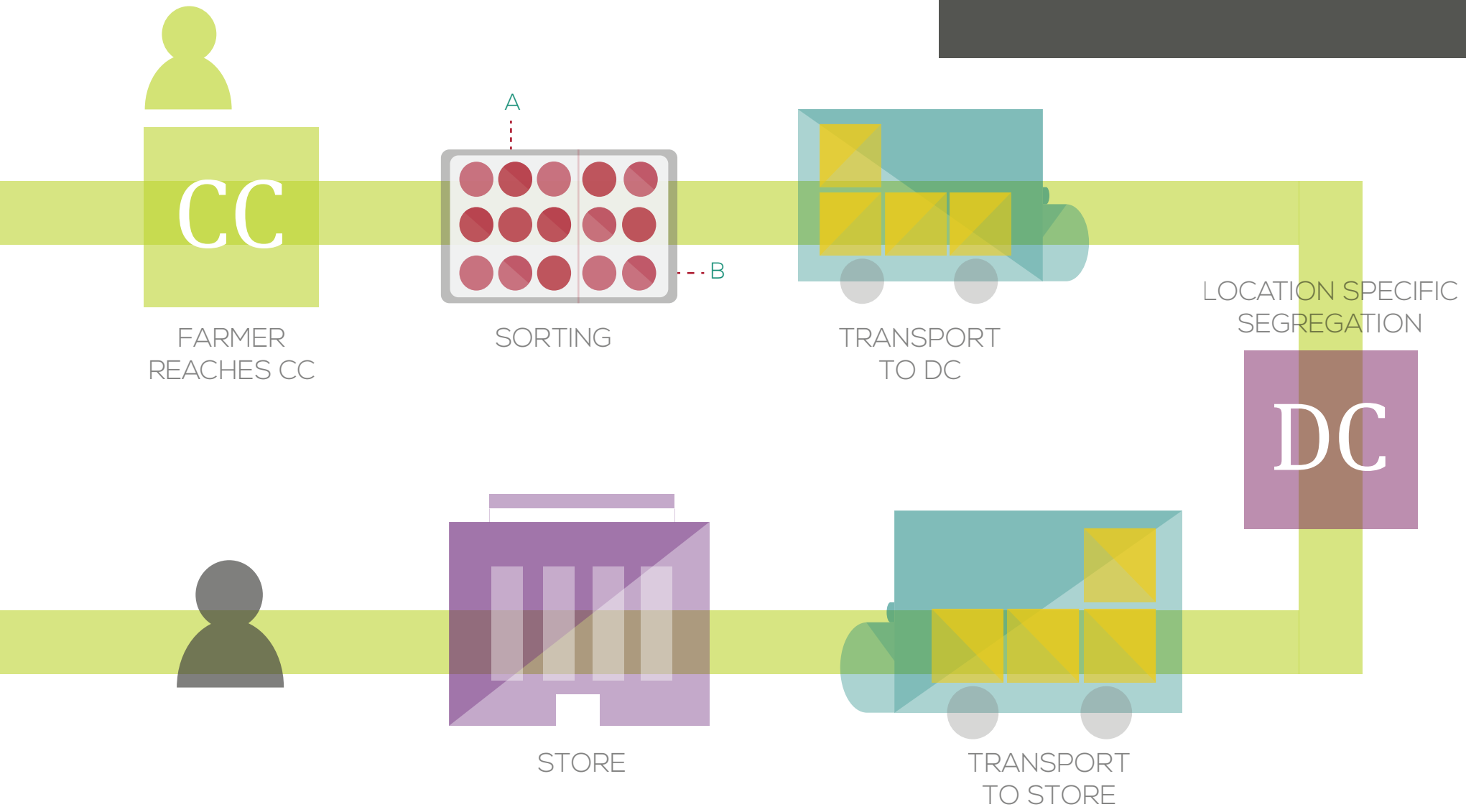
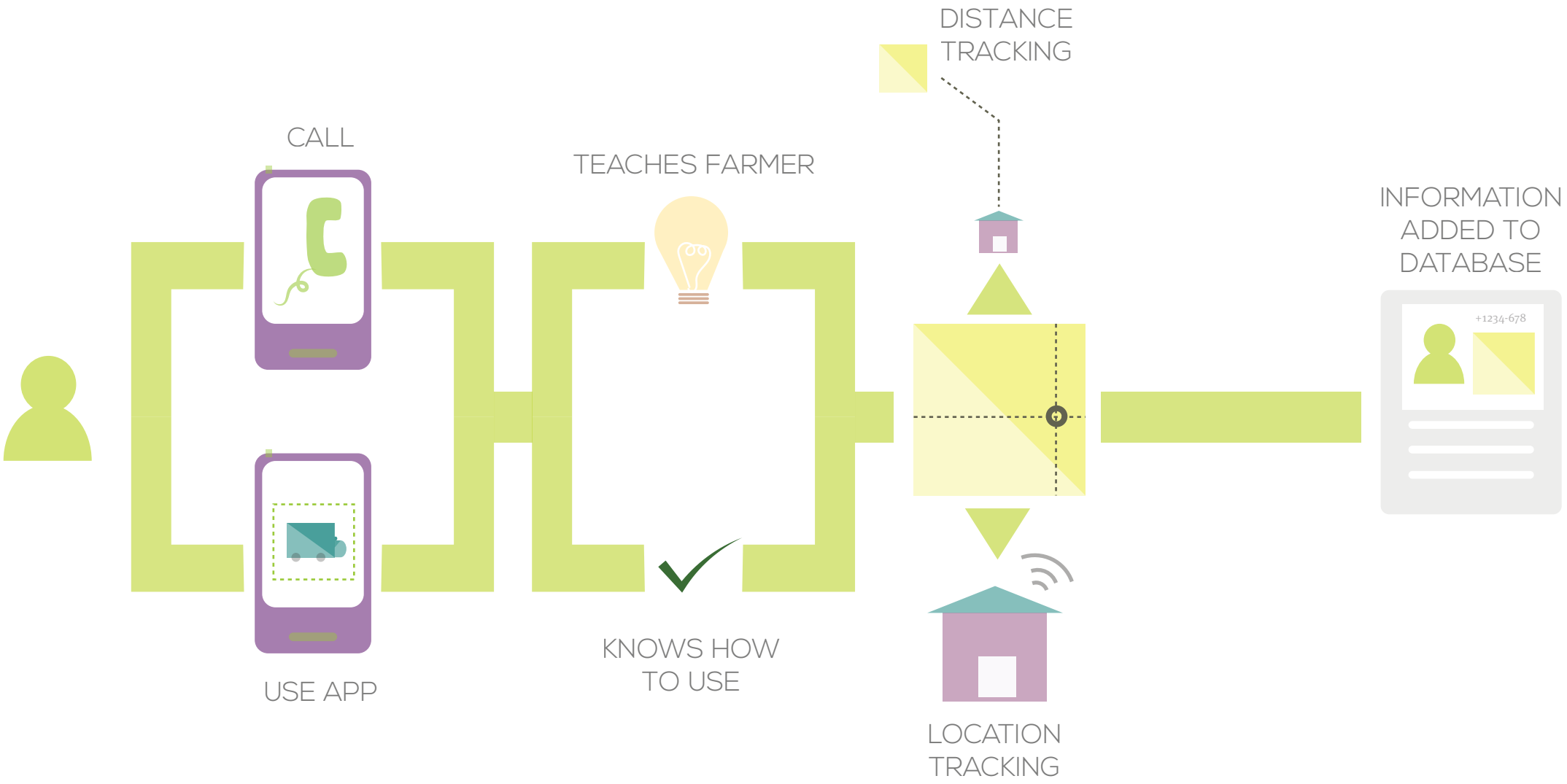
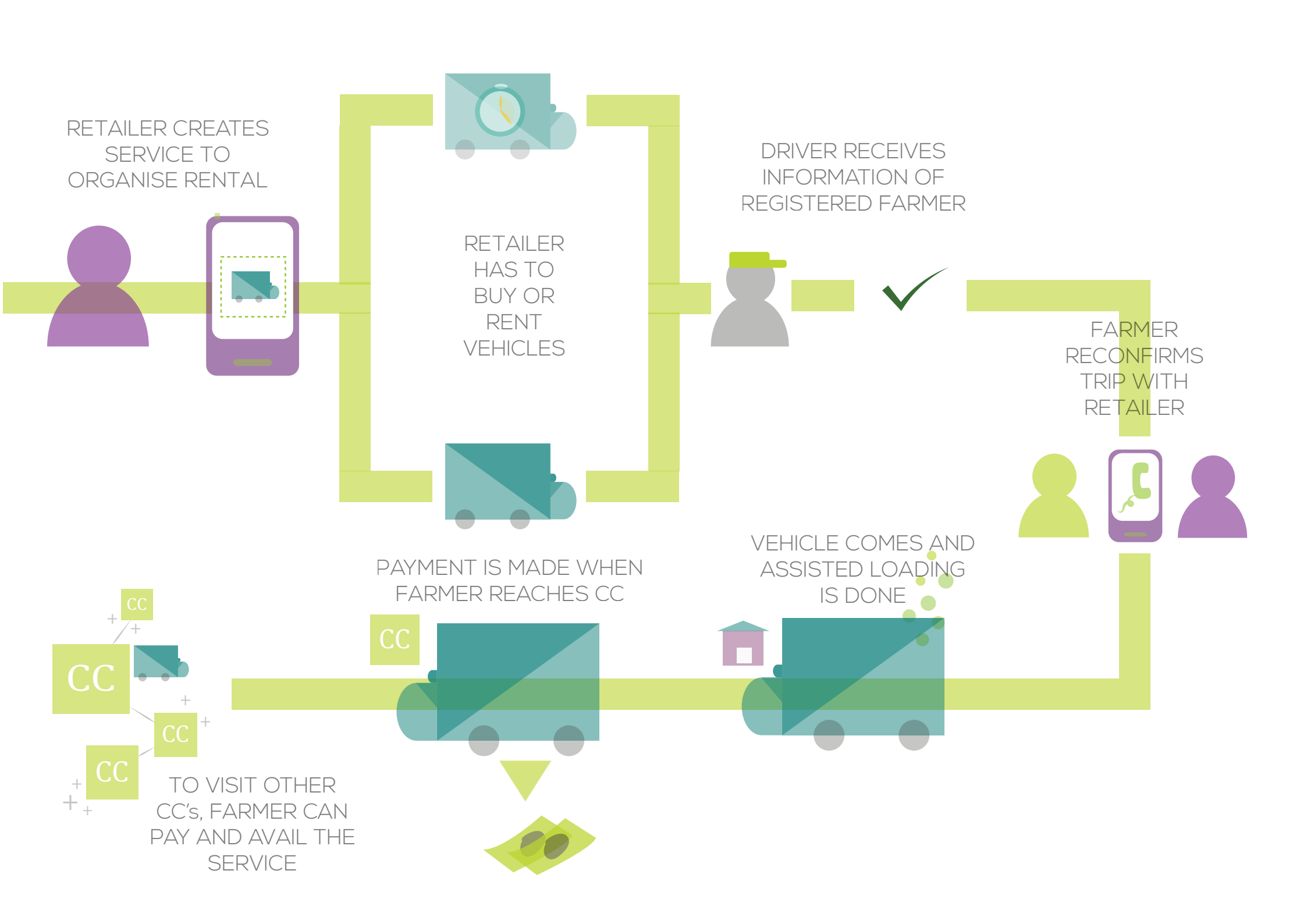


Registration




RETAILER CREATES SERVICE TO ORGANISE RENTAL
RETAILER HAS TO BUY OR RENT VEHICLES
DRIVER RECEIVES INFORMATION OF REGISTERED FARMER
FARMER RECONFIRMS TRIP WITH RETAILER
VEHICLE COMES AND ASSISTED LOADING IS DONE
PAYMENT IS MADE WHEN FARMER REACHES CC
CC
CC
CC
CC
TO VISIT OTHER CC's, FARMER CAN PAY AND AVAIL THE SERVICE

Who Benefits?

Consumers

Easier access to
better produce

Vendors

Cheaper to buy from Retailer

Farmer

Retailers buy more

Retailer

Food Mileage decreases
More access to consumers

Anticipated Outcome

Short Term

Customers value efficiency of supply chain more

Food Mileage decreases

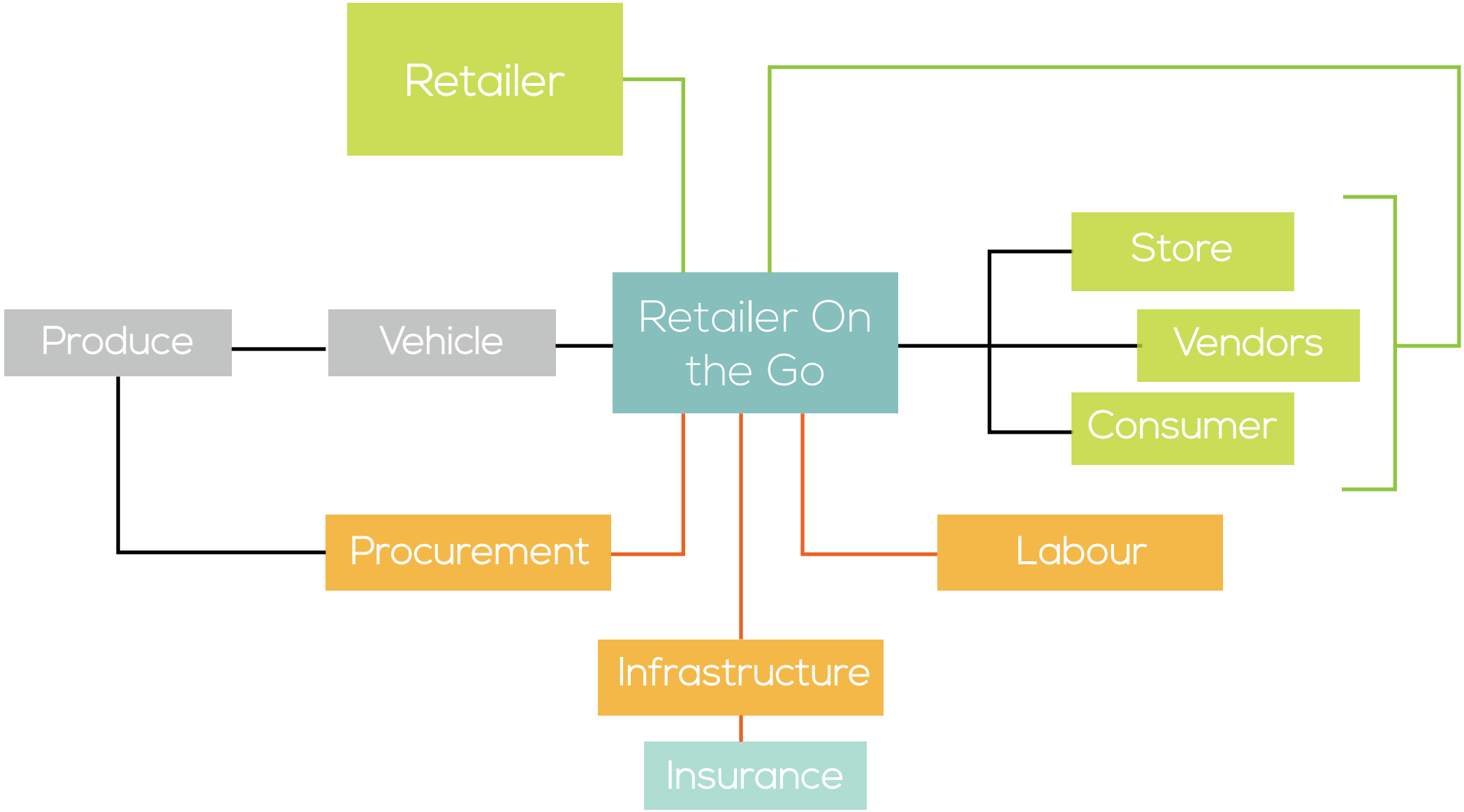
Long Term

Farmers are able to save more

Demands for efficiency are met

Share of organised retail in Fruits and Vegetables expands

Supply Chain becomes more organised

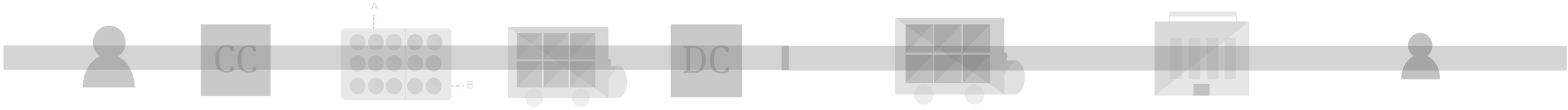

Retailer
Store
Produce
Vehicle
Retailer On the Go
Vendors
Consumer
Procurement
Labour
Infrastructure
Insurance

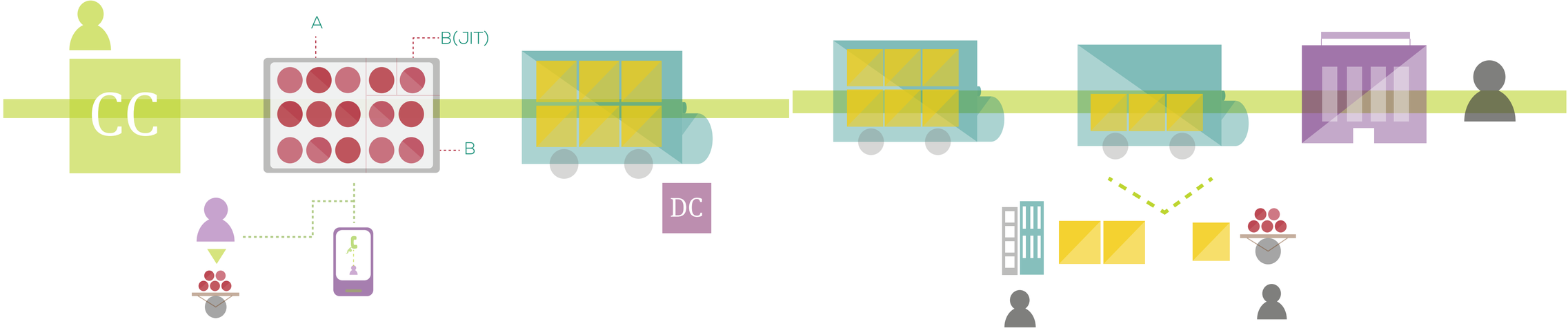
Application

LOCATION MAPPING

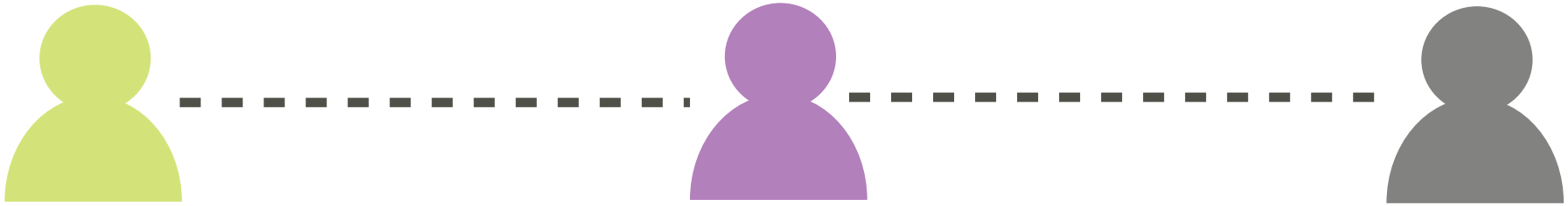
BOOKING SERVICE

TRACKS TRUCKS IN PROXIMITY

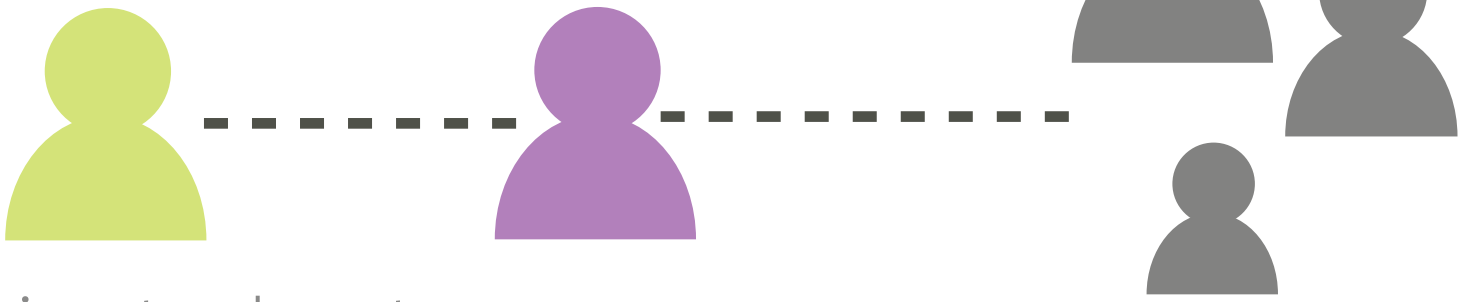

CC
A
B
DC


CC
A
B(JIT)
B
DC

In Conclusion



Current Scenario



Anticipated outcomes of intervention

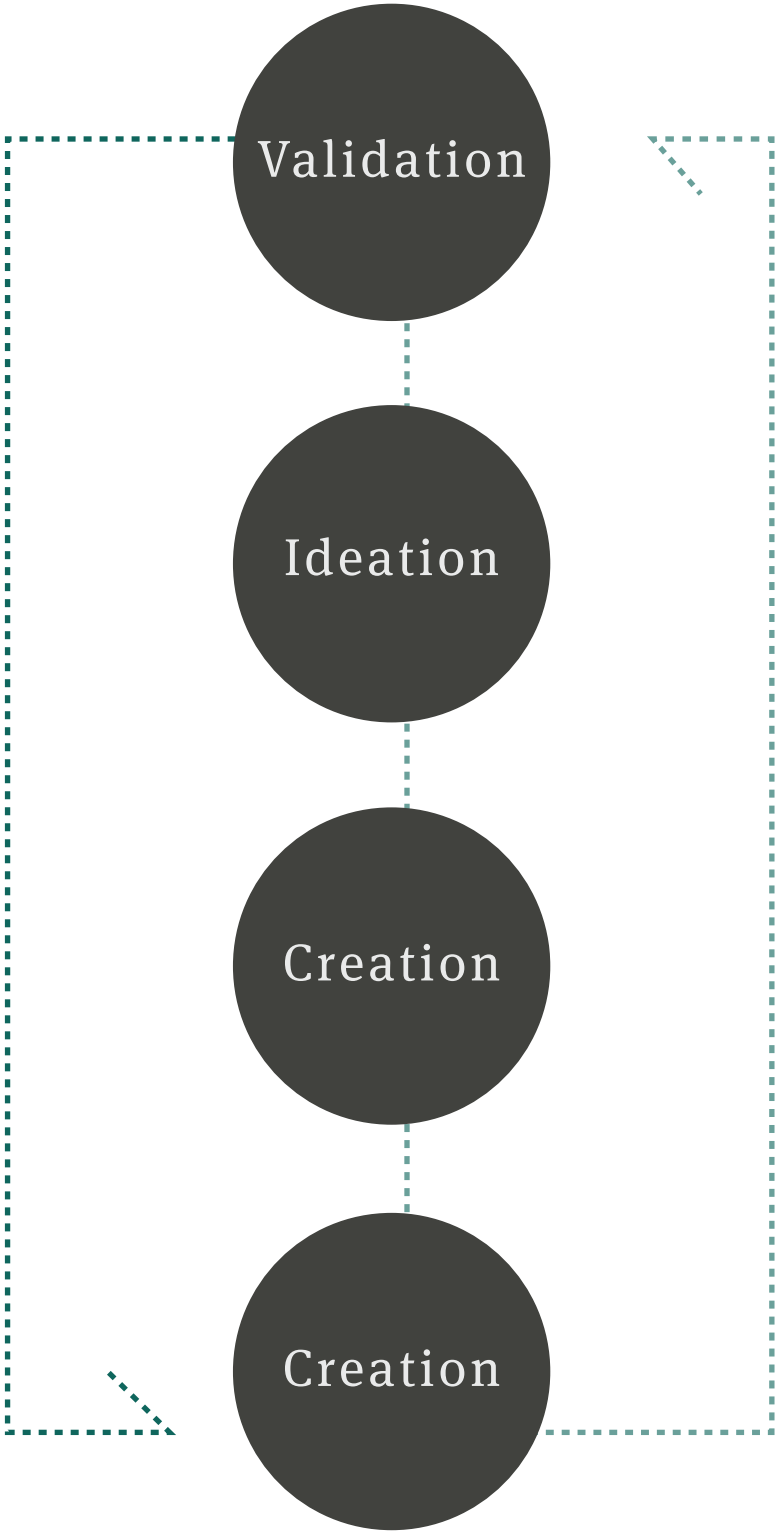
Application

TIME FROM DESTINATION

BOOKINGS

VARIETY

SCHEDULE


Validation
Ideation
Creation
Creation

Bibliography

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https://www.kpmg.com/IN/en/IssuesAndInsights/.../BBG-Retail.pdf - Indian Retail (KPMG)

How Business Works, DK Publishers

Value Proposition Design; Osterwalder, Pigneur, Bernarda, Smith

Business Model Generation; Osterwalder & Pigneur

Show and Tell; Dan Roam,

Unfolding the Napkin; Dan Roam

Buyology; Martin Lindstorm

Bringing Retailers, Consumers and Farmers closer together using the lens of Service, Technology and Sustainability