Contents

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POCKET CITY FARMS

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1 | **Pocket City Farms**
| *Service Package*
| *Business Model*
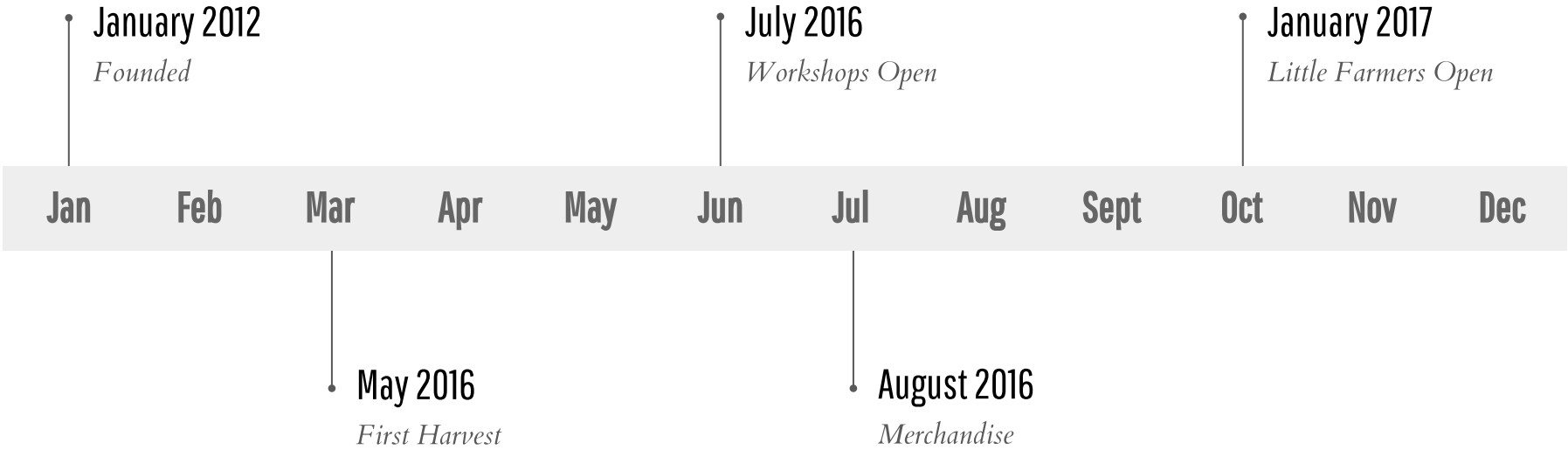| *Service Encounter*
| *Brand*
| *Competition*

Pocket City Farms

"Pocket City Farms (PCF) is taking to Sydney's neglected spaces, from spare plots to rooftops, in an effort to make good of that unused space – by growing fresh organic produce for the city's residents! Our farm is a productive hub the local community can gather to learn about all things farming and food growing, buy locally-grown, chemical-free produce, participate in our composting program, and take part in many workshops and events. Importantly, the farm is a place to visit, enjoy productive green space in the city, sink your feet in the soil, and learn all about where exactly our food comes from and how it's grown!"

http://www.pocketcityfarms.com.au/

Milestones

January 2012
Founded

July 2016
Workshops Open

January 2017
Little Farmers Open

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec

May 2016
First Harvest

August 2016
Merchandise
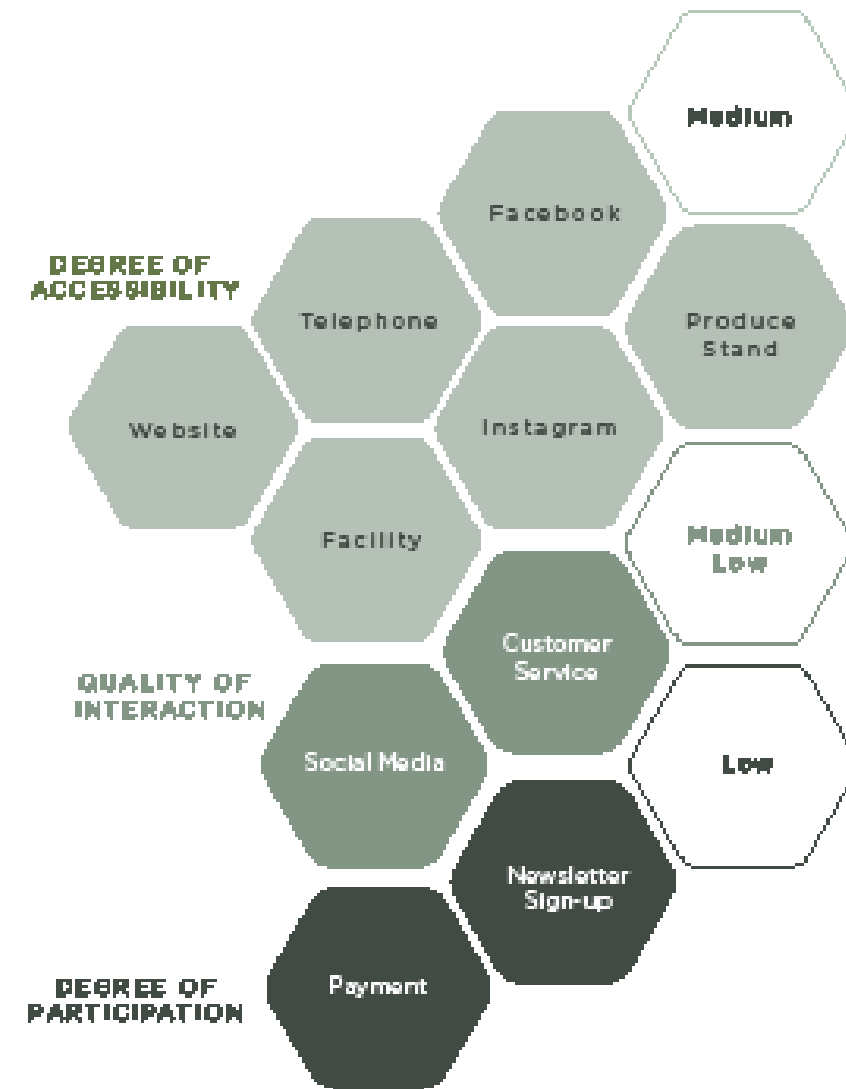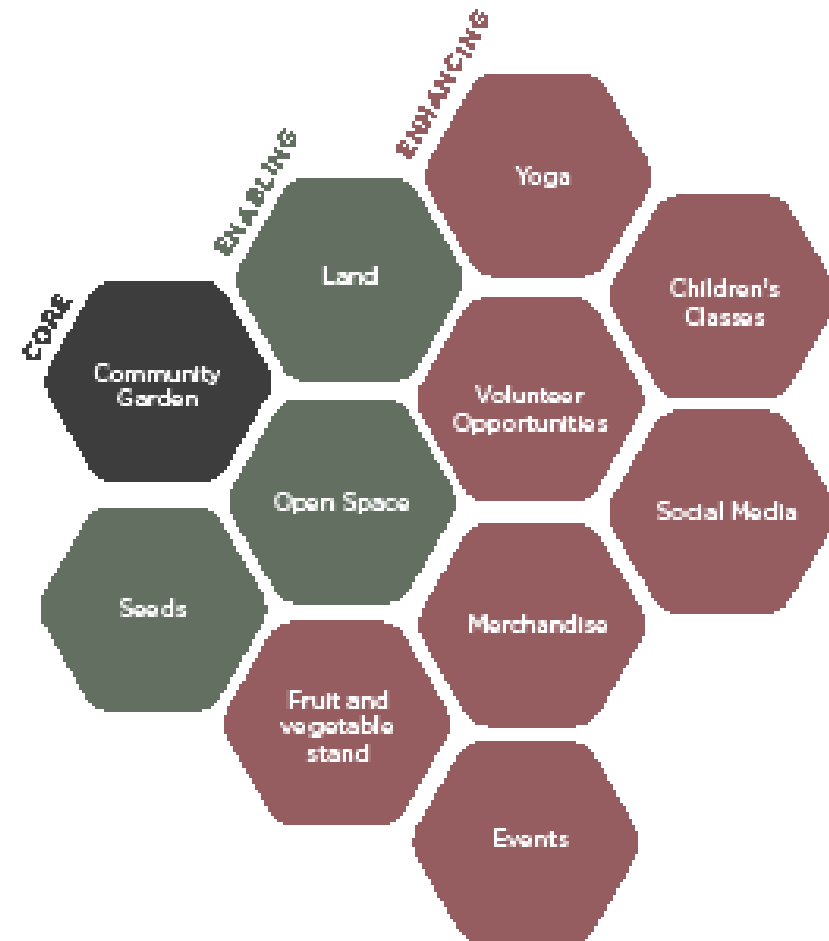
All Images from PCF Instagram

Service Offering

In the analysis of Pocket City Farms (PCF) service offering the team used an adaptation of Grönroos' Service Package to delineate the current service product system. The map is divided into two main categories; the service offering and the augmented service offering–also referred to as outside services (Grönroos. ch.7). To begin the analysis of PCF service offering map the team looked at the company's primary offering. The team conducted research on PCF's website and social media presence to gather a better understanding of how the farm works. The team attempted to contact PCF, but are still waiting for a response. Through research, the team was able to pinpoint areas of weakness. Although the degree of accessibility is medium, the team understood as a startup; this is a sector that would need to be addressed in the innovation. The quality of interaction is medium-low; this too was an area that needed to be addressed. Most importantly, the degree of participation is small, although sometimes this can be a positive thing, for PCF; as start-up community farm, the team realized that there needed to be a high degree of participation.

PCF offers a lot of enhancing features including their Little Farmers program, which teaches children farming and cooking. They also host workshops and events. PCF offers yoga classes overlooking the farms and a plethora of merchandise.

The team attempted to contact PCF, but are still waiting for a response

Competition & Partners

Urban agriculture overall is a growing trend. There are several organizations and companies in Sydney and across the world concerned with urban farming, sustainable food system, and environment preservation. Sydney City Farms is an organization of near-identical mission and is sponsored by the City of Sidney. With geographic proximity, it is arguably the most direct competitor to PCF. Other notable competitions offer classes similar to PCF's, but SCF has the most similar value package.

The team researched competition for PCF to get a more holistic view of the culture of local farming and urban agriculture in Sydney. Sydney is a growing city when it comes to farming and being more sustainable with food and seeing what every business brings to the table is enlightening.

Sydney City Farms is an organization of near-identical mission and is sponsored by the City of Sidney. With geographic proximity, it is arguably the most direct competitor to PCF. There are other notable competitions that offer classes similar to PCF's, but SCF has the most similar value package.

Crop Swap Sydney is a partner organization that hosts crop-swap events, where owners of gardens can share their produce with others. Another partnership with organizations that promote urban agriculture community or learning is a possibility.

Youth Food Australia and Milkwood are indirect competitors that offer classes and workshops. Youth Food Australia focuses on cooking, and Milkwood offers classes on gardening, produce preparation, and permaculture. Some points make each organization distinct from PCF or SCF, but we must be aware of these indirect competitors.

Backyards Seeds is a company that sells organic, "non-GMO" seeds for personal gardening and the likes. Depending on the perspective, they could be a powerful ally for Pocket City Farms. We must entertain the possibility of a partnership with this firm for our proposed business model. In addition to one-time sales, they also offer subscription models for their products, which suggest that they may be interested in a volume- purchase partnership.

Business Model

To visualize the current Business Model of PCF and discuss the research findings the team utilized Osterwalder's Business Model Canvas (BMC). The BMC allowed the team to analyze the four main areas of business: customers, offers, infrastructure, and finances. By completing the BMC, the team was able to understand what makes PCF thoroughly profitable.

The customer segments are broken down into three groups; Yoga Participants, Families and children, and Purchasers of Produce. Each of these segments has a particular value proposition as shown by the color coordination on the map. The farm attempts to build personal relationships with all of their customers and build a community. The key partners of the organization are investors, volunteers, Camperdown Commons, and other partners. This segment is what makes the farm come together. The channel is an area that the team noticed could use improvement the most, as there are only a few ways for the customers to connect with PCF. The revenue is generated mostly through selling the workshops, classes, and yoga tickets. Their produce comes in a close second. The cost structure is very typical for a farm, land, taxes, materials, utilities, and the salaries of the owners.

Key Partners	Key Activities	Value Propositions	Customer Relationships	Customer Segments
Volunteers Investors Camperdown Commons Other urban farmers Crop Swap Sydney	Yoga classes After school and sunday gardening education Creating produce and tending to gardens Web maintenance Maintaining the produce stand	The need to unwind in a natural peaceful environment Children and their parents are participating and attending classes Wanting to purchase the produce that's grown on site	Personal relationships with each customer	Yoga participants Families and children Purchasers of produce
	Key Resources Soil Land Water Seeds The brand		**Channels** Produce stand Social media Website Crop swap	

Cost Structure	Revenue Streams
Land Taxes Materials Utilities Salaries	Produce Classes Yoga Merchandise

Signs up for future events

Learns about PCF through social media or friend

Shares on social media about their experience

Checks out website and continue looking into them

Drives home

Signs up for newsletter

Grabs a coffee at the Acre eatery on the way out

Drives by PCF

Ends the day

Looks up times for produce stand

Returns to gardening

Goes to produce stand

Takes a break to socialize with other volunteers

"desire to have a more sustainable and fulfilling life"

Talks to farmers and employees and get a better sense of compound

Starts gardening

Purchases produce

Goes through volunteering lessons with employees

Goes home and enjoys produce

Gets introduced to other volunteers

Goes on website to look at volunteer options

Signs in

Signs up to volunteer

Arrives at PCF

Receives email confirmation

Shares on social media that they are volunteering

Packs gardening bag

- Pre Experience
- During
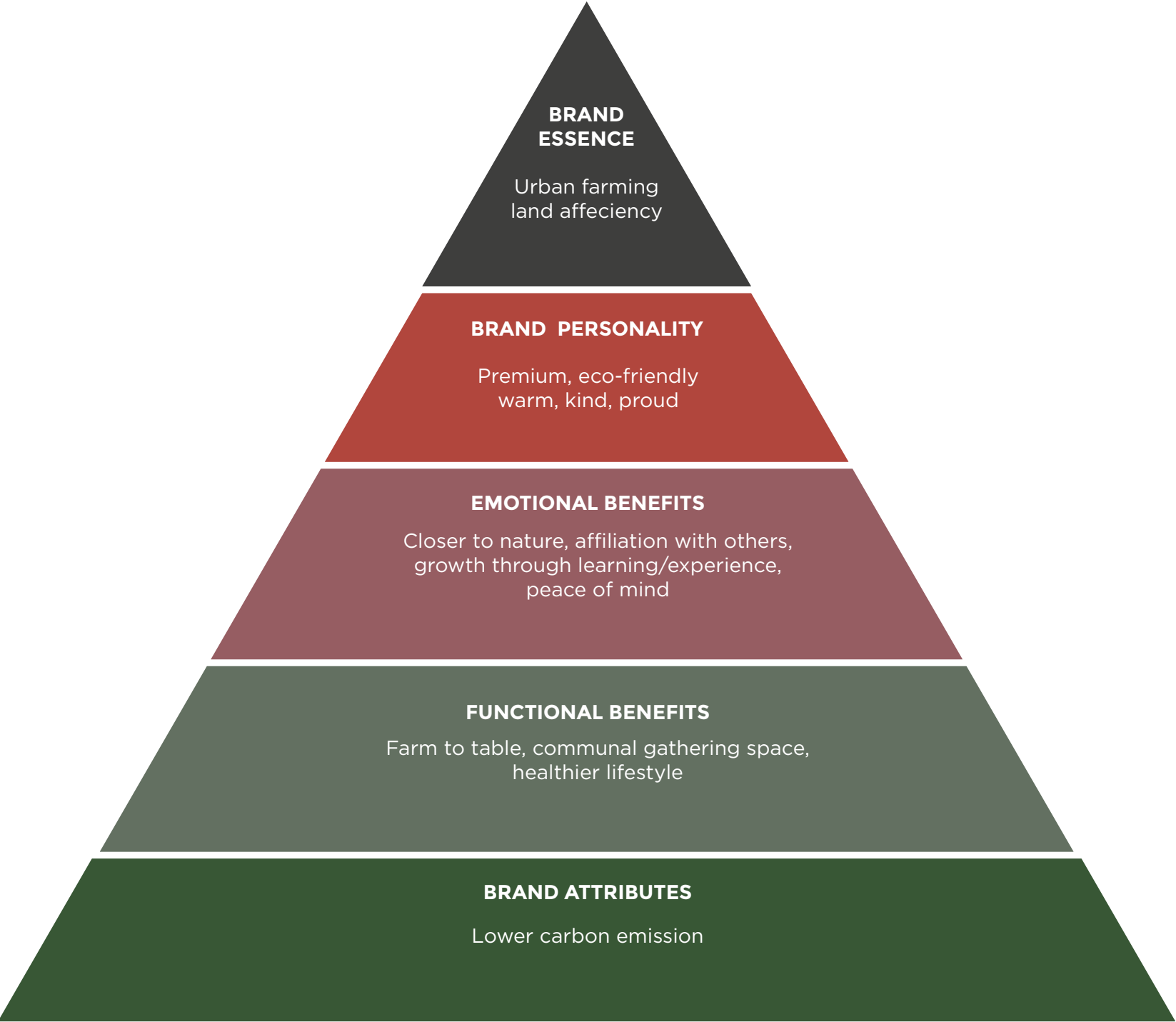- Post Experience
- Pain Point

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Service Encounters

The team developed a service encounter map to understand the Pocket City Farms from the customer's point-of-view. This encounters map is based on assumptions because PCF did not respond to the team's outreach, and a lot of information was beyond the team's reach. It is based on other volunteer programs. The service encounter map was completed from the viewpoint of a resident who volunteers on the farm. During the analysis, the team realized that for a local to learn about Pocket City Farms, one had to find it serendipitously or through a friend. The team found this to be a huge pain point that needed to be addressed. The team also noticed that volunteers need to supply their gloves and tools for the sessions. This need to purchase was a pain point for people who do not have these products because they would have to find a way to buy the tools and gloves to volunteer, and they may even only volunteer for one time. Furthermore, when the volunteers arrive, they go through gardening lessons with the employees; the team understood this to be another pain point, as it wastes time that could be spent on gardening. This analysis is little follow-up interaction after the volunteering session.

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Brand

Pocket City Farm's branding is modern, minimalist, and elegant. The branding is aimed to counter the general stigma that agriculture is dirty hard labor. The main value proposition is personal growth; the offerings have a common theme of becoming closer to nature, and understanding self through understanding the bigger picture - such as community, the food systems, and nature.

BRAND ESSENCE

Urban farming land affeciency

BRAND PERSONALITY

Premium, eco-friendly warm, kind, proud

EMOTIONAL BENEFITS

Closer to nature, affiliation with others, growth through learning/experience, peace of mind

FUNCTIONAL BENEFITS

Farm to table, communal gathering space, healthier lifestyle

BRAND ATTRIBUTES

Lower carbon emission

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2 | **Drivers of Change**
  | *Agriculture*
 | *Urban Farming*
  | *IoT*

Agriculture

While researching NAICS Sector 11: Agriculture, Forestry, Fishing and Hunting, the team discovered that agriculture is a 395 billion dollar sector. Although, agriculture profits continue to rise, there are a plethora of problems that are arising as well. Population growth is creating a waterfall effect of problems. Due to the population growth rising, the demand for food is increasing, which increases the use of pesticides to eliminate the increase of food and animal diseases. These seemingly abysmal, there are many opportunities for improvements. The agriculture sector is slowly adjusting to the technology advancements. There are few farms diving into technology enhancements and within the next few years, hopefully most farms will surrender to the technology advancements. All research on agriculture is based off of the United States market.

Although PCF is Australian, the research on the American market is appropriate because America is a more dense and wealthier country. Therefore innovations that occur in America will soon happen in Australia.
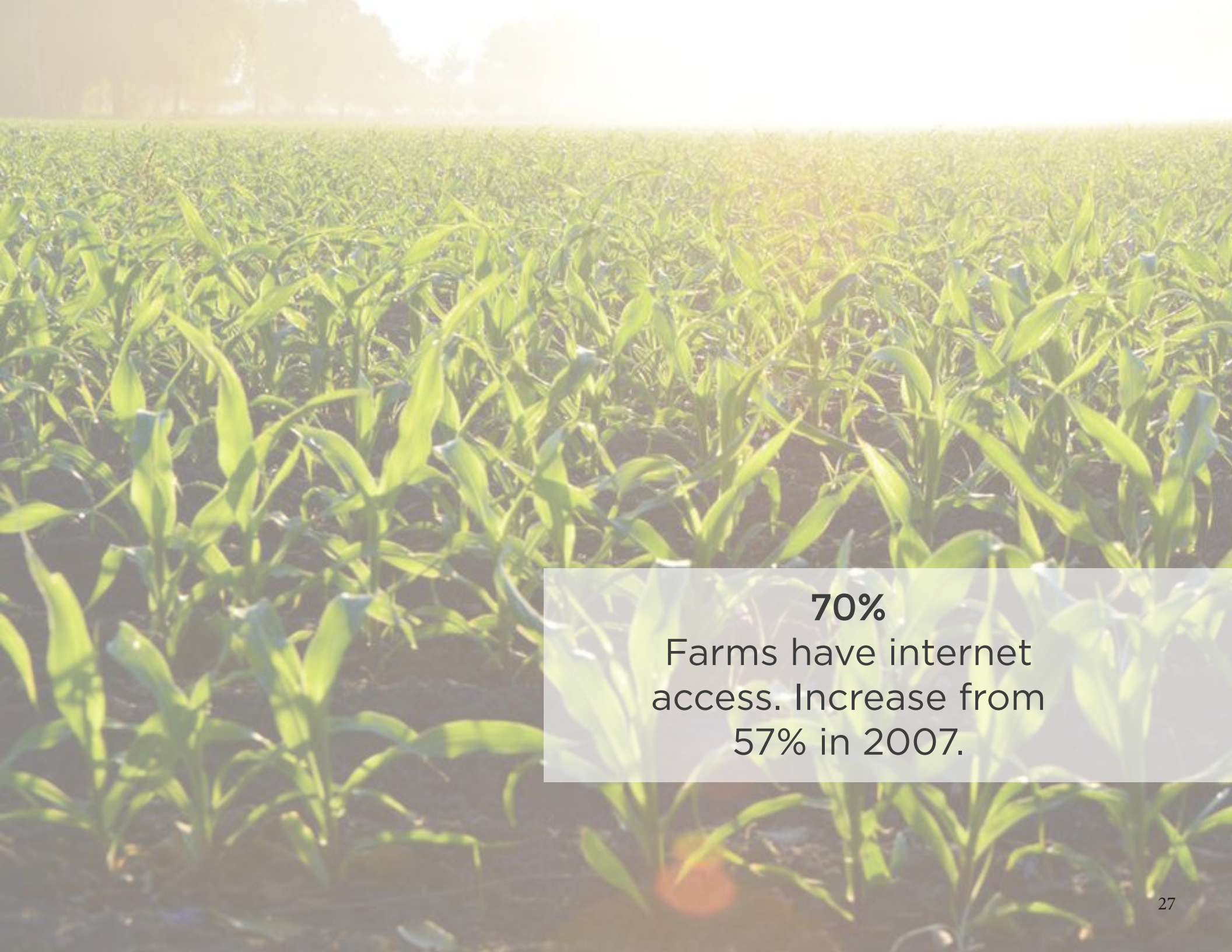
3.2 Million
Farms in the United States.
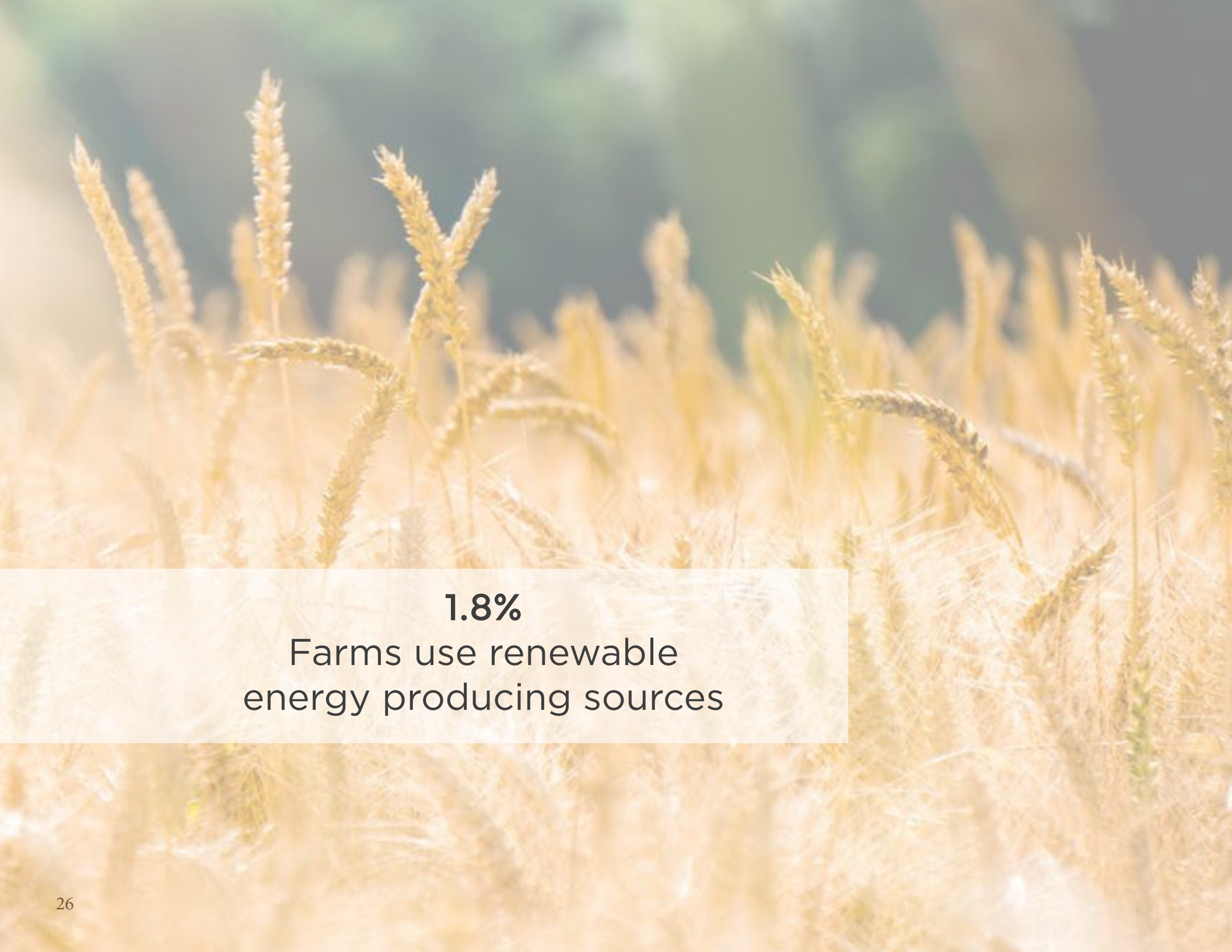
1.8%
Farms use renewable
energy producing sources

70%
Farms have internet
access. Increase from
57% in 2007.

Farms sell directly to:

35%
Consumers

27%
Retailers

39%
Businesses
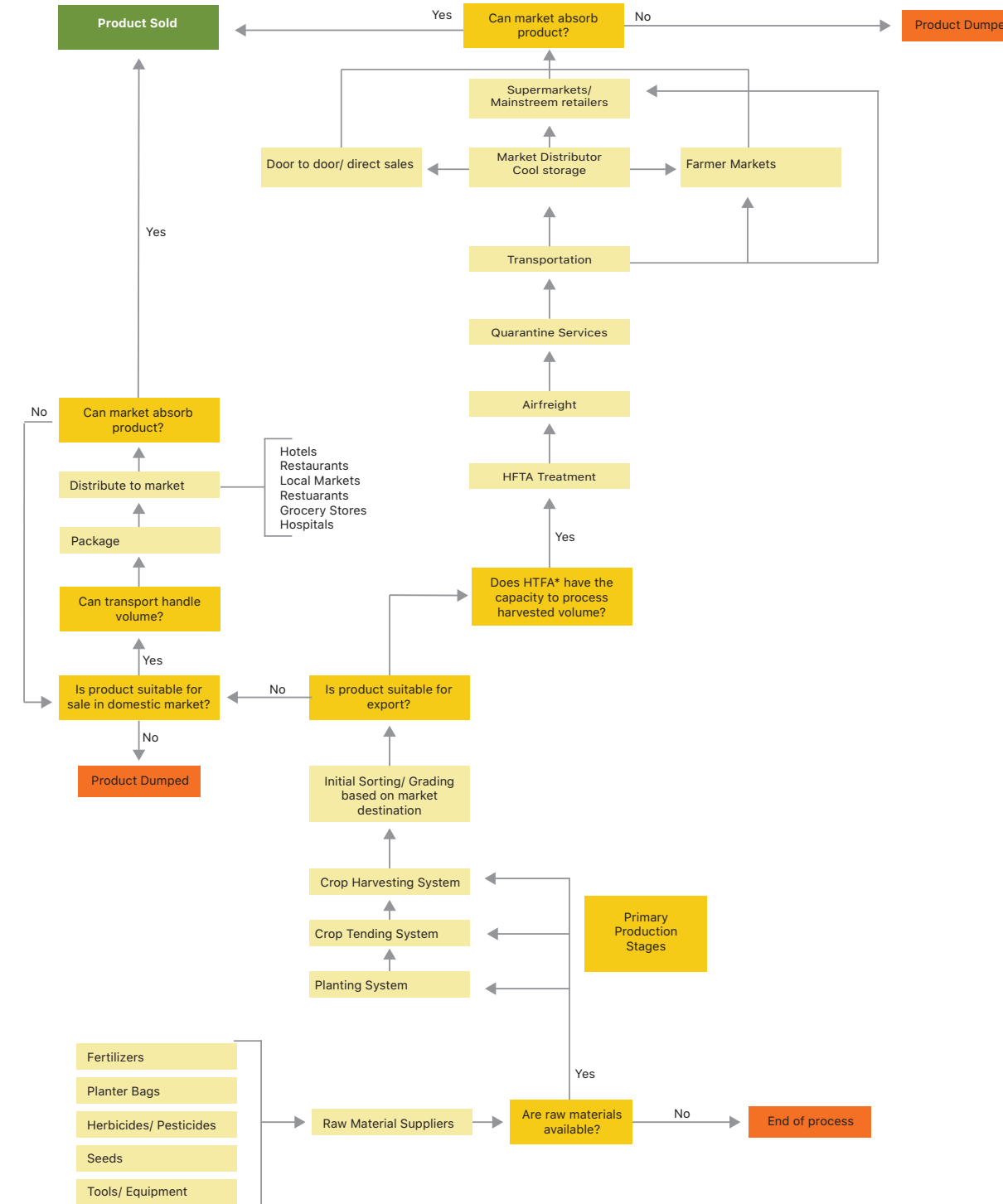
Value Chain

The value chain chart illustrates how raw materials transform into profits. Through multiple steps and multiple avenues of failures, the graph gets broken into two segments, one is international, and one is domestic. The international segment goes through testing and preparation. Through this analysis, the team was able to understand the process of mass marketed produce.

Product Sold — Can market absorb product? — Product Dumped (Yes / No)

Supermarkets/ Mainstream retailers

Door to door/ direct sales — Market Distributor Cool storage — Farmer Markets

Transportation

Quarantine Services

Airfreight

HFTA Treatment

Can market absorb product? (No)

Distribute to market

Package

Hotels
Restaurants
Local Markets
Restuarants
Grocery Stores
Hospitals

Can transport handle volume?

Does HTFA* have the capacity to process harvested volume?

Is product suitable for sale in domestic market? (Yes) — No — Is product suitable for export?

No

Product Dumped

Initial Sorting/ Grading based on market destination

Crop Harvesting System

Crop Tending System — Primary Production Stages

Planting System

Fertilizers
Planter Bags
Herbicides/ Pesticides
Seeds
Tools/ Equipment

Raw Material Suppliers — Are raw materials available? (Yes / No) — End of process

Urban Farming

According to greensgrow.org, Urban farming is growing or producing food in a city or densely populated town or municipality. This can take place from anything like a rooftop to abandoned spaces to repurposed land. Urban farming became an outcome of the population growing and urban cities becoming denser. The need for deforestation and conventional farming becoming increasingly harder as the land begins to disappear. It's often confused with community gardening, homesteading or subsistence farming the food. Its purpose is primarily to be moved (through some form of commerce) directly from the grower to the user.

The team wanted to deepen their knowledge of the drivers of change within urban farming to have a better grasp of what the future will hold. The team was able to understand the process of mass marketed produce.

"It's better to have a lot of little farms in homes than in big community gardens as it's making homes self-reliant,"

-Mr Meyer
(President of Community Group Permaculture Sydney West)

By 2050, 66% of the world's population will live in urban areas
-World Urbanization Prospects Report
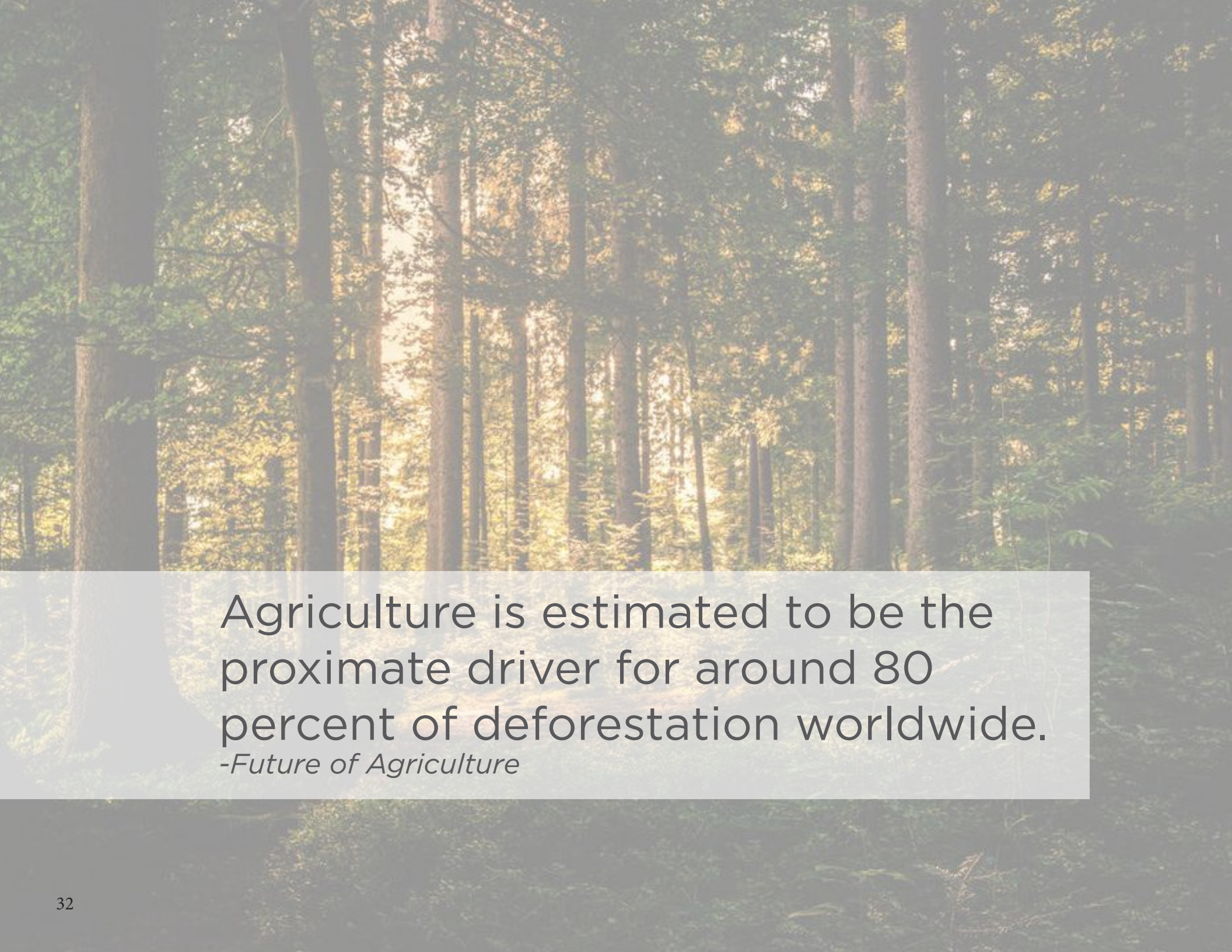
Agriculture is estimated to be the proximate driver for around 80 percent of deforestation worldwide.
-Future of Agriculture

653 million people will be malnourished in 2050
-Future of Agriculture

Food production must increase by 70% by 2050.
-Federico Guerrini , Forbes

This has to be achieved in spite of the limited availability of arable lands, the *increasing need for fresh water* (agriculture consumes 70 per cent of the world's fresh water supply) and other less predictable factors, such as *the impact of climate change*, which, according a recent report by the UN could lead, among other things, to changes to seasonal events in the life cycle of plant and animals.

-Federico Guerrini , Forbes

Urban Farming

Through extensive research, it became clear that urban farming will need to be the primary focus on agriculture. According to permaculturevoices.com and treehugger.com, 250 million people live in or around urban areas, and if urban farming grew, this would help cities become self-reliant and increase jobs. Some things that drive this kind of work, according to the Youth Food Movement in Sydney, are the transparency, inclusiveness, empowerment, accountability and the authenticity.

Benefits of urban farming

- Increases food security
- Creates awareness
- Creates a sense of belonging
- Produces healthy food one can respect
- Provides a learning opportunity
- Makes and efficient use of land
- Increases community leaders
- Increases diversity
- Raises awareness for health and wellness
- Inspires and educates youth, adults and seniors to create an economically sustainable system to uplift communities around the globe
- Reduces carbon emissions
- Creates jobs
- Creates innovative techniques
- Brings economic growth
- Builds a community
- Brings public health
- Promotes a healthier diet
- More relatable to the younger generations
- Raises food and cooking skills
- Reduces food waste
- Keeps the food one eat closer to them

3Dponics. (2014, October 29). Benefits of Urban Farming. Retrieved May 12, 2017, from http://www.powerhousehydroponics.com/benefits-of-urban-farming/
About Us. (2016). Retrieved May 12, 2017, from http://www.youthfoodmovement.org.au/about-us/
About Urban Farming. (2012). Retrieved May 12, 2017, from http://www.urbanfarming.org/about.html
Ecology Center, T. (2016, March 1). 10 Ways Urban Farms Benefit The Community. Retrieved May 12, 2017, from https://www.theecologycenter.org/resources/10-ways-urban-farms-benefit-the-community/
Maki, O. (2016, November 26). Urban Farmers Can Earn $75,000 on 15,000 Square Feet. Retrieved May 12, 2017, from http://civileats.com/2016/02/29/how-urban-farmers-curtis-stone-earns-75000-on-15000-square-feet/

Urban farming vs. traditional farming

- It's more productive
- It's more sustainable
- Organic produce becomes more accessible
- It's small space friendly
- It enables you to enjoy fresh produce all year round
- The produced food goes directly from the farm to the plate
- It's more simple

"By building a generation of young Australians who can cook, who can read a label, who understand the challenges facing farmers, who know the basics of how food grows and how it reaches our plate, we also build a generation of people that are healthier, more connected to our food and land, and better able to support farmers without it costing us the earth."

- Youth Food Movement Australia

6 benefits of urban farming vs. traditional farming. (2016). Retrieved May 12, 2017, from https://www.clickandgrow.com/blogs/ news/38039556-6-benefits-of-urban-farming-vs-traditional-farming

Internet of Things (IoT)

According to Forbes, the IoT is a concept of connecting any device with an on-off switch to the Internet or each other. It's the idea of collecting a mass amount of data through devices. The devices can range from a socket to a wearable device to a drill of an oil rig. Gartner (an analyst firm) and AIG, ten years ago there were about 500 million devices connected to the Internet. Today, that number has grown to between 10 and 20 billion. By 2020, there will likely be 40 to 50 billion.

"The aim of the agriculture sector is to optimize processes and uses of resources and efficient use of existing arable land. The Internet of Things can enable all that. It can increase production, but it can also increase the level of quality of agriculture."

- Romeo is the co-author of a report called "Towards Smart Farming, Agriculture Embracing the IoT Vision."

Cognitive computing in agriculture is going to be the most disruptive force in the industry, as big as the green revolution.

-Rick Morris , IBM Smart Agriculture Executive

The aim of the agriculture sector is to optimize processes and uses of resources and efficient use of existing arable land. The Internet of Things can enable all that. It can increase production, but it can also increase the level of quality of agriculture.

-David Schatsky, Senior Manager, Deloitte

IoT device installations in the agriculture world will increase from 30 million in 2015 to 75 million in 2020, for a compound annual growth rate of 20%.

-Andrew Meola , Business Insider

Benefits of IoT

- Safety
- Comfort
- Efficiency
- Better decision making
- Revenue Generation
- Tracking behavior for real-time marketing
- Enhancing situational awareness
- Sensor-driven decision making analytics
- Processes optimization
- Optimizes resource consumption
- Allows instantaneous control and response in complex autonomous systems

Risks of IoT

- Security
- Privacy
- Data and complexity
- The difficulty in being able to persuade stakeholders to buy into the IoT

BT, A., Hyman, Y., McTaggart, M., & Koop, K. (2016, October 11). 3 Threats and 3 Benefits of the Internet of Things. Retrieved May 12, 2017, from https://www.atlanticbt.com/blog/3-threats-and-3-benefits-of-the-internet-of-things/

To go to PCF Website :

For more of the team's research :

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3 | **Service Innovation**
Service Concept
Service Package
User Segments
Business Model
Service Encounter
Intended Blueprint

Service Concept

A service concept defines the "how" and the "what" of a service. It helps explain the customer's need and what the organization's intent is. It is described as how the service could be enhanced. Pocket City Farms (PCF) is currently making use of local unused space and producing organic food with the help of volunteers. With the implementation of sensors that will enable the Internet of Things within their gardens, PCF will be able to receive data, track and analyze their gardens but more specifically treat every plant with the care it needs. This will benefit PCF in efficiency and with the quality of their produce which will lead to expanding in size, customer base, and community outreach. When ideating the service concept, the team discussed what the service was, what could be implemented and how. The technological implementations into the Pocket City Farms are the digital billboard, sensors and an app.
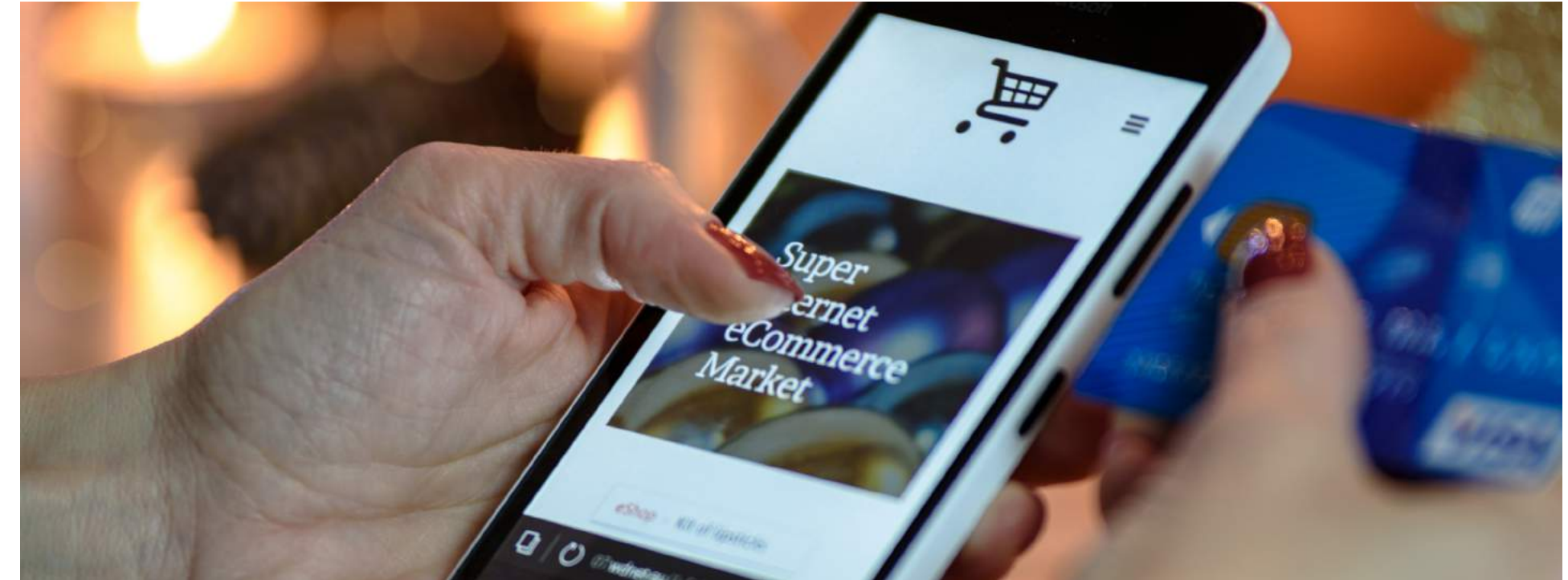
IoT

One of Pocket City Farms' biggest shortcomings is the lack of accessibility to information and degree of participation due to the limited amount of publically accessible information. Adaptation of various sensor technologies that can show data regarding the farm's activities can significantly enhance customers' awareness of the farm's operations, and also streamline the delivery and reception of various service offerings.

Smart Scale

The Smart Scale is a harvest basket with a scale at the bottom, and a user interface to specify which crops are being put in the basket. The basket automates documentation of harvest and agricultural production with relative reliability. This automation of record-keeping will expedite the organization's adoption of Internet of Things, and improve their accessibility by informing prospective customers what produce will be available for sale during each farm stall sale.

Sensors

Sensors are a small part of the Internet of Things. The sensors that PCF will implement are connected to a high-system that will help grow high-performance and high-quality crops. The sensors will improve crop farming which helps farmers produce more and therefore feed more. The primary focus is to use the sensors to match the plants to different soils and weather conditions and having more data on each crop. Using this information will improve the farmer's ability and knowledge to tend to the produce. The information is inputted into the IoT, and the output is synthesized data. This data will then be displayed within the digital billboard and the digital application.

Digital Billboard

A digital billboard is an electronic interface used to project data across an organization. Pocket City Farms will place one or two around Sydney on select buildings and locations that will display data in real time. Some things that it will display (but are not limited to) are many volunteers, the amounts of gardens owned, the amount of produce being tended to, how many people PCF has served, the produce in season and the impact they have on the community. This will benefit the community in a couple of ways; it will help grow a trust between the user and the company because it will make PCF more transparent and honest with their goals and work. It will also bring brand awareness and advertising.

Digital Application

Pocket City Farms will have their digital application that users will be able to download at their leisure for no charge. There are many benefits for a company to have an app. PCF will benefit from it for communication reasons, event planning, live data, user interaction tracking and an Augmented Reality feature (AR). Instead of having to go to their website, users will be able to contact PCF through the app and be able to see future events and opportunities and sign up for them right then and there. App users will also be able to see the data that would be on the digital billboard directly in the app, create a profile, become a member, keep track of their past events and participation and also participate in their loyalty point system. The point system rewards those who participate! When one participates the more points, they get which will result in discounts for merchandise or discounts at the Acre Eatery. The AR feature is for the users to be able to learn about any fruit that Pocket City Farms offer. The users will have the option of scanning the fruit and learning about its upbringing, safety, and tips! This will improve their knowledge and hopefully how they approach each crop when its comes to cooking and handling. Our team did research on AR, and we are basing this off of our research on the Google Lens. .

Service Offering

The team believes that the current quality of interaction can be a barrier for new customers. Through a mobile application that provides all the information and tools needed to start and continue interactions with the organization, the degree of accessibility, quality of communication, and degree of participation can be improved.

The value of services provided by PCF is co-created and shared. PCF is involving the community with their digital billboard and marketing. The combination of mobile application, digital billboard, and application of Internet of Things enhance the quality of interaction by increasing the situational awareness of the farming condition and output. Additionally, collecting relevant data and making them available can also make visible individual's contribution to the strength of the community. Making clear the co-created value will entice people to engage the community more frequently and intimately, therefore increasing the degree of participation.

CORE
ENABLING
ENHANCING

Community Garden
Land
Open Space
Seeds
Fruit and vegetable stand
Garden Sensors
Scale Basket
Gardening Tool Kit
Yoga
Volunteer Opportunities
Merchandise
Events
Point System / Badges
Internet of Things
Children's Classes
Social Media
Digital Billboard
Pre-Volunteering Guides
App
Membership

DEGREE OF ACCESSIBILITY
QUALITY OF INTERACTION
DEGREE OF PARTICIPATION

Digital Billboard
Facebook
App
Telephone
Produce Stand
Website
Instagram
High
Facility
Sending Newsletter
Customer Service
Gardenting Toolkits
Social Media
Pushing Notifications & Information Through App
Medium High
Newsletter Sign-up
Synthesizing Data
Payment
App
Membership
Medium

Produce Purchasers

Want local organically grown produce
Environmentally aware
Want the best for themselves and family
Support local business
Food conscious

Primary revenue source

Event Goers

Looking for a fulfilling activity
Willing to expand gardening knowledge
Doing yoga in a different setting
Wanting a healthy mindset their match their lifestyle

Growing segment

Farmers

Interested in sustainable farming
Want to educate
Food conscious
Continuing community transformation

Owners of Pocket City Farms

Volunteer

The will to give back to their community
Interested in sustainable farming
Selfless
Eager to learn
Urge to experience new things

Growing segment and most loyal

Family and Children

Adults want to raise a well rounded child
New and exciting social experience for children
Children love to get their hands dirty
Eager to play and be outside

New and growing segment

Yoga Instructors

Wanting to widen minds and lifestyles through yoga
Respect eco-friendly environments
Support green companies

Employees at Pocket City Farm

Stakeholders Analysis

Pocket City Farms is a community-oriented organization, and every party is essential for rendering the services provided and creating value. Together, they create the experience being in touch with a neighbor, farming in a city, and growing as individuals and community. Individuals are not necessarily exclusively confined to individual segments, as segments are defined based on the core value-in-return from participating in different rendered services. Because many of the various segments share similar in beliefs and interests, it is very likely that individuals fall into multiple segments.

Farmers and Yoga Instructors are the staff of the organization. They are more knowledgeable in their respective subject matters and are essential for enabling the learning aspect of the value proposition.

Produce purchasers are individuals who purchase the food. They contribute to the community by buying the city's output. Because all the services offer an equal degree of accessibility, produce purchasers may participate in other services freely.

Volunteers contribute to the community with manual labor for agricultural production, in exchange for the sheer experience. Making visible not only their contribution to the community but also their growth is crucial to their retention, thus the overall success of the organization.

Event Goers purchase tickets for various learning workshops. They are also important to both the organization's revenue and community relations. The quality of the learning experience and fulfillment of the indicated value proposition dictates the retention of this segment.

Family and Children is a sub-segment of all three customer segments, separated by their demographic identity. The combined accessibility of farm-to-table produce and nature and agricultural learning can entice families to build a long-term relationship with the organization. Rendering family or children-friendly services can strengthen this relationship.

Business Model

The New Business model is not significantly different from the previous one. Augmentation of Internet of Things and mobile application adds to the costs of operating the organization but optimizes the operation and service rendition of the organization all the while increasing accessibility of these services. The team believes that this change will contribute to reducing the cost of transactions, improve production efficiency, increase customer enticement and retention.

Key Partners	Key Activities	Value Propositions	Customer Relationships	Customer Segments
Volunteers	Yoga classes	The need to unwind in a natural peaceful environment	Personal relationships with each customer	Yoga Participants
Investors	After school and sunday gardening education			Families and Children
Camperdown Commons	Creating produce and tending to gardens	Children and their parents are participating and attending classes		Purchasers of Produce
Other Urban Farmers	Web maintenance			
Crop Swap Sydney	Maintaining the produce stand	Wanting to purchase the produce that's produced on site		
Acre Eatery	Collecting data via sensors			
	Distributing seasonal data			

	Key Resources		Channels	
	Soil		Produce Stand	
	Land		Social Media	
	Water		Website	
	Seeds		Crop Swap	
	The brand		Digital Billboard	
	Sensors		Digital Application	

Cost Structure	Revenue Streams
Land	Produce
Taxes	Classes
Materials	Yoga
Utilities	Merchandise
Salaries	Memberships
Data collection	Garden Toolkit

Learns about PCF through digital billboard
Checks out website and continue looking into them
Signs up for newsletter
Drives by PCF
Looks up times for produce stand
Goes to produce stand
Talks to farmers and employees and get a better sense of compound
Learns about the digital application
Purchases produce
Goes home and enjoys produce
Receives email reminder about the app
Downloads app
Creates a user profile
Explores the app
Signs up to volunteer
Receives email and app notification confirmation
Gets notification about purchase or rental of gardening kit and reads about what is included
Purchases the gardening tool kit
Recieves notification of pre-volunteering guide
Watches informational videos
Reads facts about the produce he/she is going to tend to
Shares on social media that they are volunteering
Receives app notification that tomorrow is the day they volunteer
Arrives at PCF
Signs in and receives garden kit
Gets introduced to other volunteers
Starts gardening
Takes a break to socialize with other volunteers
Returns to gardening
Ends the day
Receives notification of PCF Membership badge in app
Shows digital badge to employees to receive patch for bag
Grabs a coffee at the eatery on the way out
Drives home
Shares on social media about their experience
Sews patch onto bag
Signs up for future events

"desire to have a more sustainable and fulfilling life"

Pre Experience
During
Post Experience
Digitally Enhanced Experience

Service Encounter
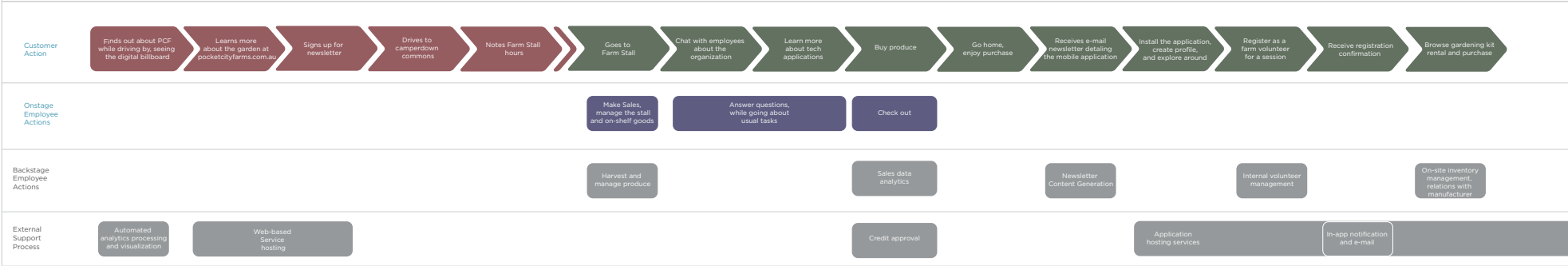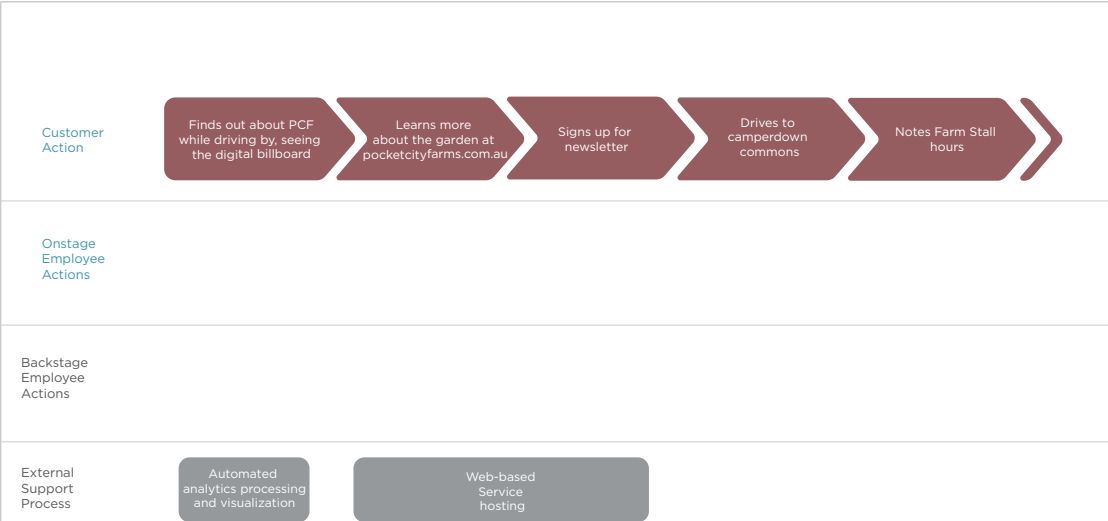
In comparison to the current service encounter process, the general flow from one customer action to another stays mostly the same. Meanwhile, implementation of mobile application platform increases the number of points of interaction between the client and the organization. So long as the movement from one stage to another is smooth, the proposed service will strengthen the value creation.

Intended Blueprint

The team has determined that the most common process for a customer that just became aware of Pocket City Farms would be by visiting the community, purchasing farm-to-table produce, and learning more about the community through the process. This blueprint articulates the journey of a food and environment conscious grocery shopper becoming a new member of the community.

Page 62 (left blueprint)

Customer Actions:
- Finds out about PCF while driving by, seeing the digital billboard
- Learns more about the garden at pocketcityfarms.com
- Signs up for newsletter
- Drives to camperdown commons
- Tastes Farm Stall hours
- Goes to Farm Stall
- Chat with employees about the organization
- Learn more about tech applications
- Buy produce
- Go home, enjoy purchase
- Receives e-mail newsletter detailing the mobile application
- Install the application, create profile, and explore around
- Register as a farm volunteer for a session
- Receive registration confirmation
- Browse gardening kit rental and purchase

Onstage Employee Actions:
- Make Sales, manage the stall and on-shelf goods
- Answer questions, while going about usual tasks
- Check out

Backstage Employee Actions:
- Harvest and manage produce
- Sales data analytics
- Newsletter Content Generation
- Internal volunteer management
- On-site inventory management, relations with manufacturer

External Support Process:
- Automated analytics processing and visualization
- Web-based Service hosting
- Credit approval
- Application hosting services
- In-app notification and e-mail

Page 63 (right blueprint)

Customer Actions:
- Make Purchase
- View Gardening Lessons in-app
- Share volunteership on Social Media
- Arrival at the PCF Grounds
- Sign in and pick up purchased items
- Meet other volunteers
- Informed of the agenda for the day
- Starts Gardening
- Takes a break and socialize with other volunteers
- Mobile application notifies of a reward: volunteer badge
- Redeem badge
- Grabs a drink of coffee at Acre eatery on the way out
- Grabs a drink of coffee at Acre eatery on the way out
- Drives home
- Shares on social media
- Seeks patch on their bag
- Signs up for future events and workshops

Onstage Employee Actions:
- Meet and Greet
- Confirm registration and purchase
- Provide support, teach necessary skills for appointed tasks
- Confirm redemption, give badge

Backstage Employee Actions:
- Prepare purchased items for on-site pickup
- Maintain badge inventory

External Support Process:
- Transaction services
- Inventory managing database
- Application hosting services
- Acre eatery serves the customer, independent from PCF
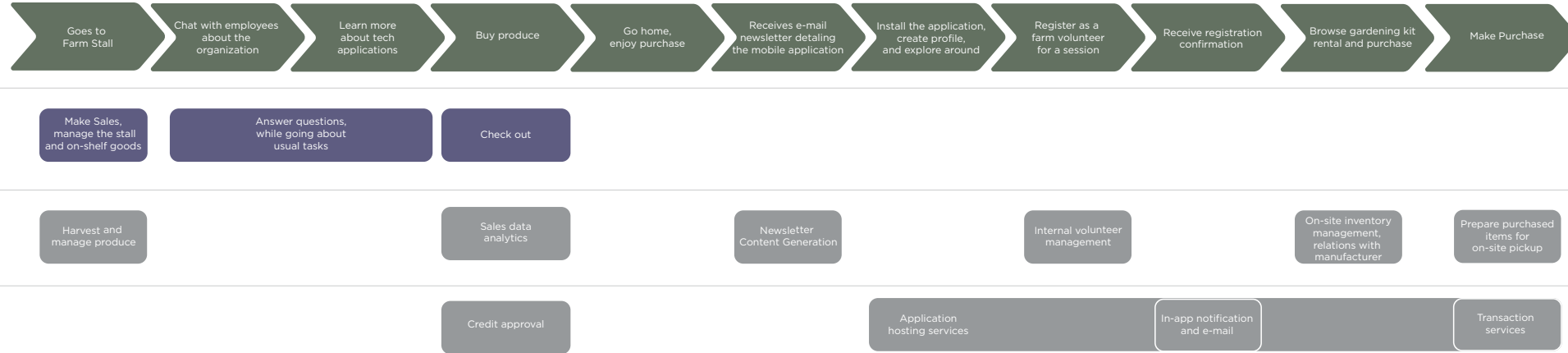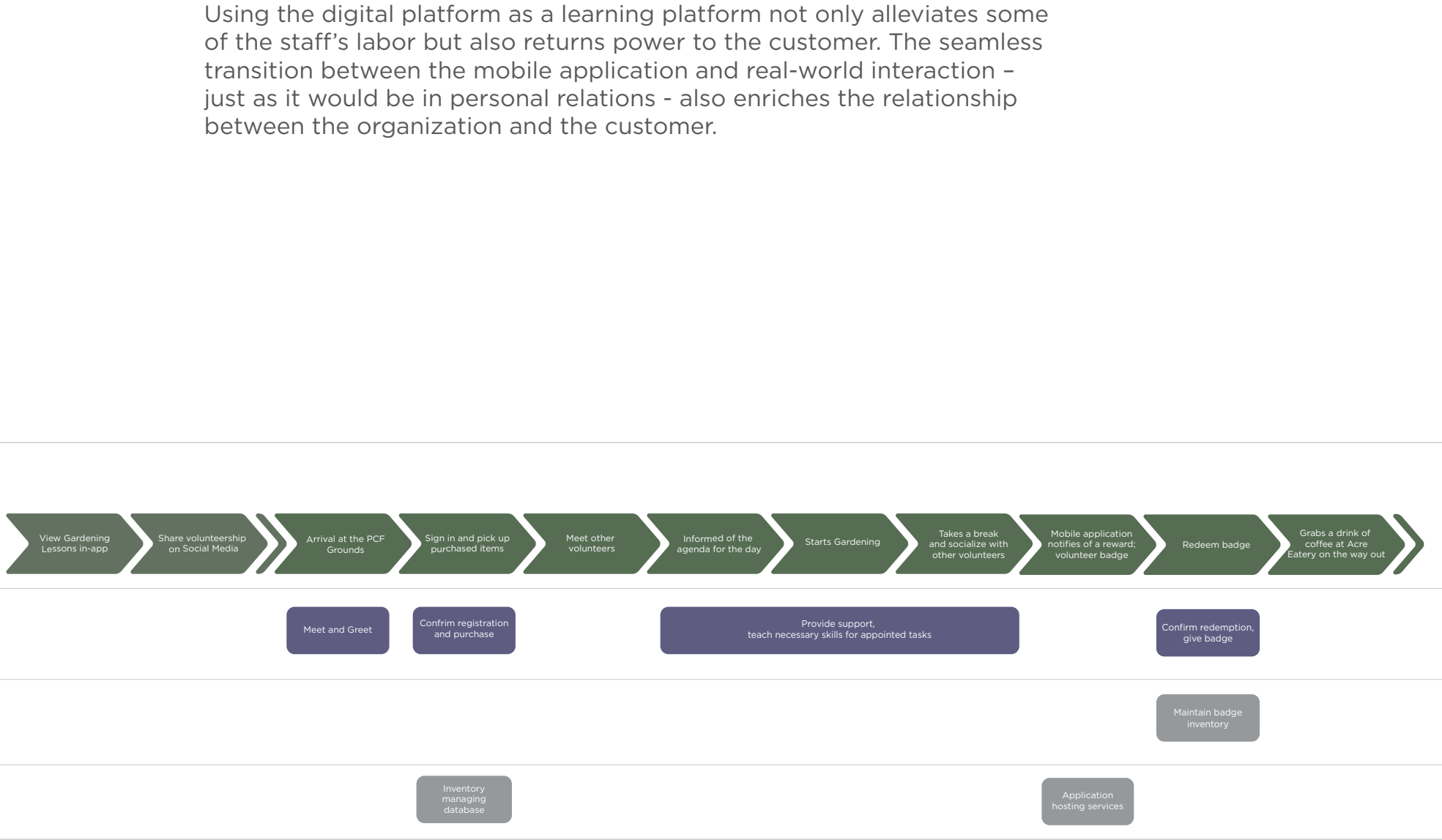- Mobile application services with internal logistics

Pocket City Farms is a small community with little resources for reaching out new potential customers other than the power of word of mouth. This blueprint assumes that in this hypothetical journey, the initial trigger is a coincidental encounter.

The "Farm Stall", a regular event where the harvested produce is sold, is one of the few opportunities to interact with the organization without necessarily spending money. The staff's friendliness and clear communication of the organization's mission is critical for retaining customers within targeted segments.

Regularly sending E-mail newsletters that fulfills value propositions and provide promotional content to trigger further engagement is another important factor in recruiting more members for the community. Following up the E-mail with the mobile application opens up the customer into a new world, opening up new possibilities of value fulfillment. Thus, application initially serves to fulfill a marketing strategy, and then behaves as a service touch point, rendition tool, and artifact.

Left blueprint (page 64):

Customer Action:
- Finds out about PCF while driving by, seeing the digital billboard
- Learns more about the garden at pocketcityfarms.com.au
- Signs up for newsletter
- Drives to camperdown commons
- Notes Farm Stall hours

Backstage Employee Actions:
- On-site inventory management, relations with manufacturer

External Support Process:
- Automated analytics processing and visualization
- Web-based Service hosting

Right blueprint (page 65):

Customer Action:
- Goes to Farm Stall
- Chat with employees about the organization
- Learn more about tech applications
- Buy produce
- Go home, enjoy purchase
- Receives e-mail newsletter detailing the mobile application
- Install the application, create profile, and explore around
- Register as a farm volunteer for a session
- Receive registration confirmation
- Browse gardening kit rental and purchase
- Make Purchase

Onstage Employee Actions:
- Make Sales, manage the stall and on-shelf goods
- Answer questions, while going about usual tasks
- Check out

Backstage Employee Actions:
- Harvest and manage produce
- Sales data analytics
- Newsletter Content Generation
- Internal volunteer management
- On-site inventory management, relations with manufacturer
- Prepare purchased items for on-site pickup

External Support Process:
- Credit approval
- Application hosting services
- In-app notification and e-mail
- Transaction services

Using the digital platform as a learning platform not only alleviates some of the staff's labor but also returns power to the customer. The seamless transition between the mobile application and real-world interaction – just as it would be in personal relations - also enriches the relationship between the organization and the customer.

Interaction with other partners would be welcome, as such exchanges can fulfill values Pocket City Farms cannot provide.

Events hosted by the organization are unique and does not necessarily interest every member of the event-goer segment. Varieties of events, along with responding to community needs and feedbacks will be beneficial in attracting different individuals.
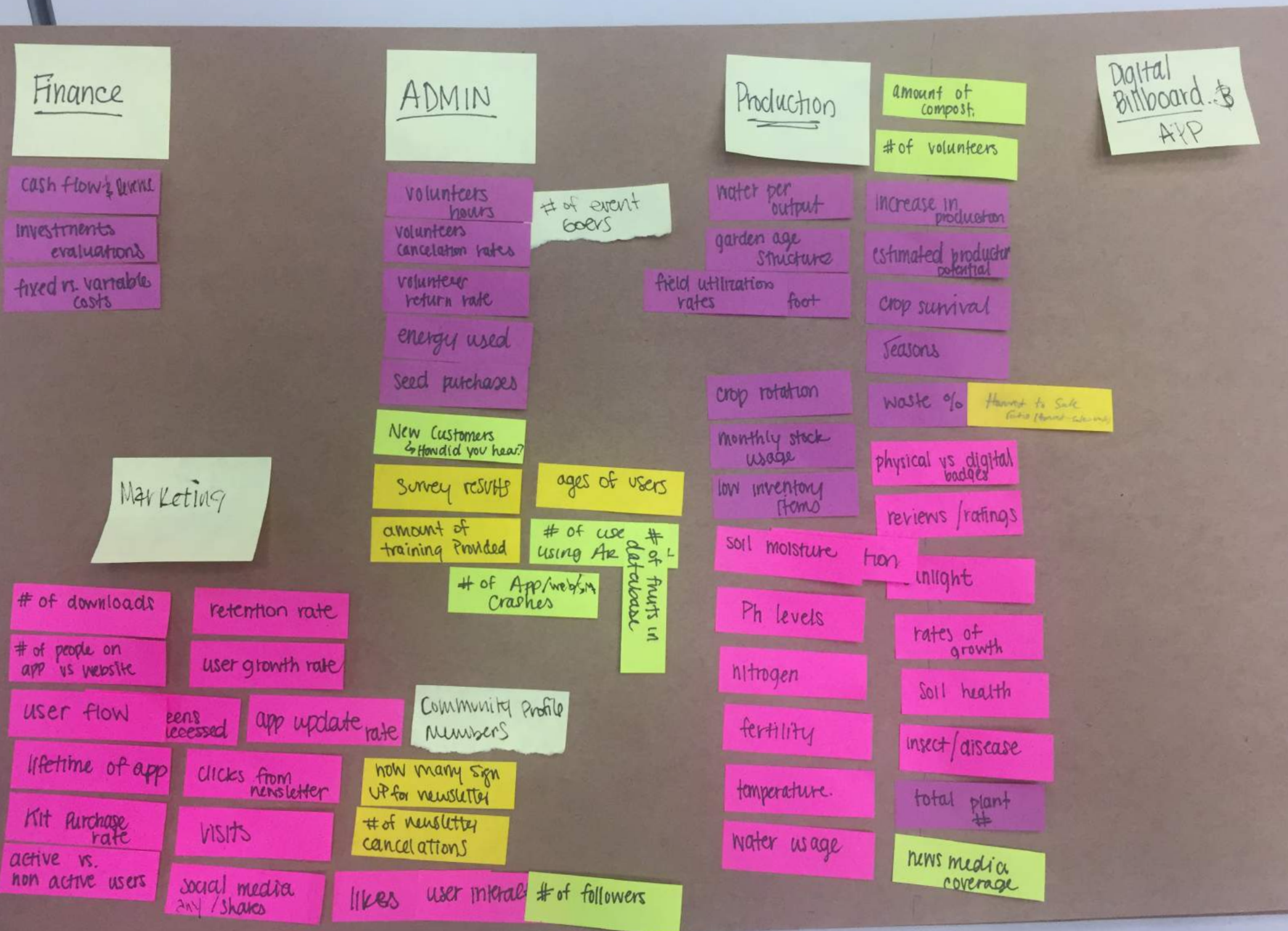
| View Gardening Lessons in-app | Share volunteership on Social Media | Arrival at the PCF Grounds | Sign in and pick up purchased items | Meet other volunteers | Informed of the agenda for the day | Starts Gardening | Takes a break and socialize with other volunteers | Mobile application notifies of a reward; volunteer badge | Redeem badge | Grabs a drink of coffee at Acre Eatery on the way out |

| | | Meet and Greet | Confirm registration and purchase | | Provide support, teach necessary skills for appointed tasks | | | | Confirm redemption, give badge | |

| | | | | | | | | | Maintain badge inventory | |

| | | | Inventory managing database | | | | | Application hosting services | | |

| Grabs a drink of coffee at Acre Eatery on the way out | Drives home | Shares on social media | Sews patch on their bag | Signs up for future events and workshops |

| Acre eatery serves the customer-independent from PCF | | | | Mobile application servies, connectved with internal logistics |

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4 Key Performance Indicators
Process
KPIs
Dashboards
Mockups

The Process

We defined our key performance indicators using a variety of methods. We started by using the Future Outcomes Framework. In this framework, we set our user segments and insights about them. We then created outcomes and indicators which then lead to data gatheringmethods. This structure did not give us the key performance indicators we were looking for. We went through a variety of other variations of methods including our adaption of the ScoreCard method. We collected all of the key performance indicators and affinitized them to find the most valuable and useful ones for Pocket City Farms 2.0 to use in our dashboard. We then sorted the KPIs into distinct groups for us to visualize them in a cohesive way.

The team created an Excel spreadsheet that allowed us to manage our KPIs. The excel sheet consists of our main tabs which are production, administration, marketing, and finance. Within each tab, we have listed what the KPI is, why it is important to measure it, how it would be measured and how we would create a visualization for it on a dashboard. Creating this spreadsheet helped us tremendously through the entire process by having the freedom to move each KPI around within tabs importance, visibility level, the how's and why's and figuring out what we wanted to include in each dashboard.

KPI	How to meausre?	Why it is important:	Visualizations
PRODUCTION: (Clarissa)			
Inventory Items	Going through transactions and statements	For record - to see what we need more of or what have low items of	Multiple line circle chart
- Seeds			
- Produce			
- Merch			
Toolkits			
- # of Sensors			
Plants per square ft	Soil Sensor and/or head count	Agriculture optimization	Periodic table
Soil Moisture	Soil Sensor - automated	Garden care	Draw a plant and fill in the stem for "bar effect"
Soil Fertility	Soil Sensor - automated / ph levels	Agriculture optimization	Bar chart
Water Usage	Technical Monitor	Water conservation and agriculture optimization	Line chart
Incease in production of produce	Scale	Agriculture optimication	Past and current line chart - Big number with small line graph under
Available Produce	Head count	Availability charts and farmer knowledge	"Slice of a pie" chart
Total Plant number	Soil Sensor and/or head count	Garden Care	Past and current line chart - Big number with small line graph under
Garden Age Structure	Human input	Record keeping of garden rotation	
Percipitation	Soil Sensor - automated	Garden care	
PH Level	Soil Sensor - automated	Garden care	
Temperature	Soil Sensor - automated	Garden care	
Nitrogen Levels	Soil Sensor - automated	Garden care	
Insect / Disease	Human observation & Soil Sensor - automated	Keeping the plants alive	
Sunlight	Soil Sensor (?)	Garden Care	
Rates of Growth	Soil Sensor	Garden Care	
Soil Health	Soil Sensor	Garden Care	
Crop Survival	Counted	Optimization	
Estimated production	human input - aggregate data projection	Based off new data, what are our goals to plant and produce?	
Waste and compost percentage	Human Input	Keep sustainable	

KPI	How to meausre?	Why it is important:	Visualizations
ADMIN: (Meg)			
Fruits in the database	Human input & sensors?	To help AR and inventory	small number with arrow to show more.
# of event goers	Ticket purchase vs headcount	Event planning / Marketing	number with tiny line graph
Kit Purchase Rate	Sales metrics	Are the kits necessary?	number with tiny line graph
Customer interactions (App, Newsletter, Website, Events, Volunteering, Purchasing, yoga)		to track what customers are using	pie graph (find something better)
Volunteer return rate	measure volunteers over time / profile counts?	Marketing	
Volunteer Chapters	Human input	Keep record of each volunteer's participation	Bar graph
Energy Used	Human input	Finance / Sustainability	spider diagram.... each point being a year.
# of volunteers	Headcount / Signup count	Marketing	percetange circle signed up volunteers/ total volunteers
Physical vs digital badges	Human input from the store and app count	Which is favorited?	icons
			spider diagram.... each point being a year.
Seed purchases	Human input	Finance	
Age of Users	Human input	Make sure we cover all demographics	
Survey Results	Human input	Marketing	
Amount of Training Provided	Video viewing analytics	Volunteer Improvement	
# of app crashes	automated crash report	Software optimization	
Volunteer cancelation rates	Application analytics	How many are canceling? Why?	

KPI	How to meausre?	Why it is important:	Visualization
Marketing (daniel)			
# of app downloads	App store / play store analytics	To understand how imp. / used it is	written chart
# of people on app vs website	Web hosting analytic data	to know if we need to improve it	written chart
App usage	User agreement - implemented through app	what parts of the app are most imp	Bar chart
Lifetime of app	Use hours/app install	App relevance	Interaction higharchy chart
New customers (How did you hear?)	Survey results	How are people hearing about us? Why are they joining us?	Size hierarchy icons
News Media coverage	Google news search	How significant we are / brand awareness	Real time recent articles - for each garden
Social Media Ratings	App reviews, yelp reviews	How significant we are / brand awareness	stars - per garden
Instagram Tags	Social Media Enterprise analytics	How significant we are / social media precense	Images and mentions
Facebook Tags	Social Media Enterprise analytics	How significant we are / social media precense	Images and mentions
Clicks from newsletter	Unique link redirect count	Newsletter relevance	
# of people signed up for newsletter	Web analytics	Newsletter relevance	
# of newletter cancelations	Web analytics	Newsletter relevance	
App update rate	App store / play store analytics	??	
# of website visits	Web analytics	Records for channel interactions	
Active vs non active users on ??	??	??	
Community Profile Members??	??	??	
# of likes	Social Media Enterprise analytics	How significant we are / social media precense	
# of Followers	Social Media Enterprise analytics	How significant we are / social media precense	

KPI	How to measure?	Why it is important:	Visualizations
		Finance (Daniel)	
Cash Flow (revenue and cost)	Through bank statements, transactions	relevance / To keep track of what kind is being sold	Stacked line chart
Scaled growth chart	Through bank statements, transactions	Revenue and Cost going back the past 5 years - Help when looking to grow in size	Scaled growth diagram
Balance trends timeline	In monthly incremints - steep change when seasons change - Through bank statements and transactions	Comparing balances and current balance situation in monthly incremints - steep change when seasons change	Timeline
Sales & Merch Sold & Produce Sold	Through bank statements, transactions	relevance / To keep track of what kind is being sold	Circle Graph
Revenue	Human input	For record / To know what is creating the most stream	
Investment Evaluations	Through bank statements, transactions	??	

KPIs : Admin Dashboard

The head farmers will all have tablets that show every single KPI. This includes private KPIs in addition to what the volunteers and the public can see. The reason that the head farmers have private information is that there is some data that is private to the business and should only be shared at a corporate level.These KPIs include the following: inventory items and levels, the number of fruits in the database, number of event-goers, the number of kits purchased, customer interactions, volunteer return rate, volunteer chapters, some app downloads, some people using the app VS. The website, app usage, the lifetime of the app, new customer engagement, number of users using the AR function, cash flow, scaled growth charts, balanced trends timeline and sales figures.

KPIs : The Summary Tab

GeoMap: The GeoMap is a map of Australia that shows where the two gardens are located, blue being Camperdown Commons and orange being the Western Garden. This will be updated every time Pocket City Farms opens up a new garden. This information is coming from and maintained by a head farmer. The reason this is being measured is to show the users a distance and location reference.

Available produce: These are two charts that are showing the available food for the current quarter for each specific garden. Blue being Camperdown Commons and orange being the Western Garden. The chart is split into two different sections. The smaller section shows the produce that is less abundant as the food in the larger section. This measurement will be updated quarterly and is coming from seasonal charts and soil regulations. Having this measurement will inform users what is currently being offered.

Annual Growth: Pocket City Farms is taking their major step in expansion and technology-based service innovation. This chart summarizes yearly revenue and cost, serving as a valuable reminder to the operator.

Fruits in the database number is showing how many fruits have profiles for the AR feature within the app. The arrow leads to a list of the apps and all of the editable information for the administration.

The input and output evaluation is visualizing the input of seeds, compost, manhours, and water about the amount of crop output. This chart is updated yearly to show the sustainability of the farm.
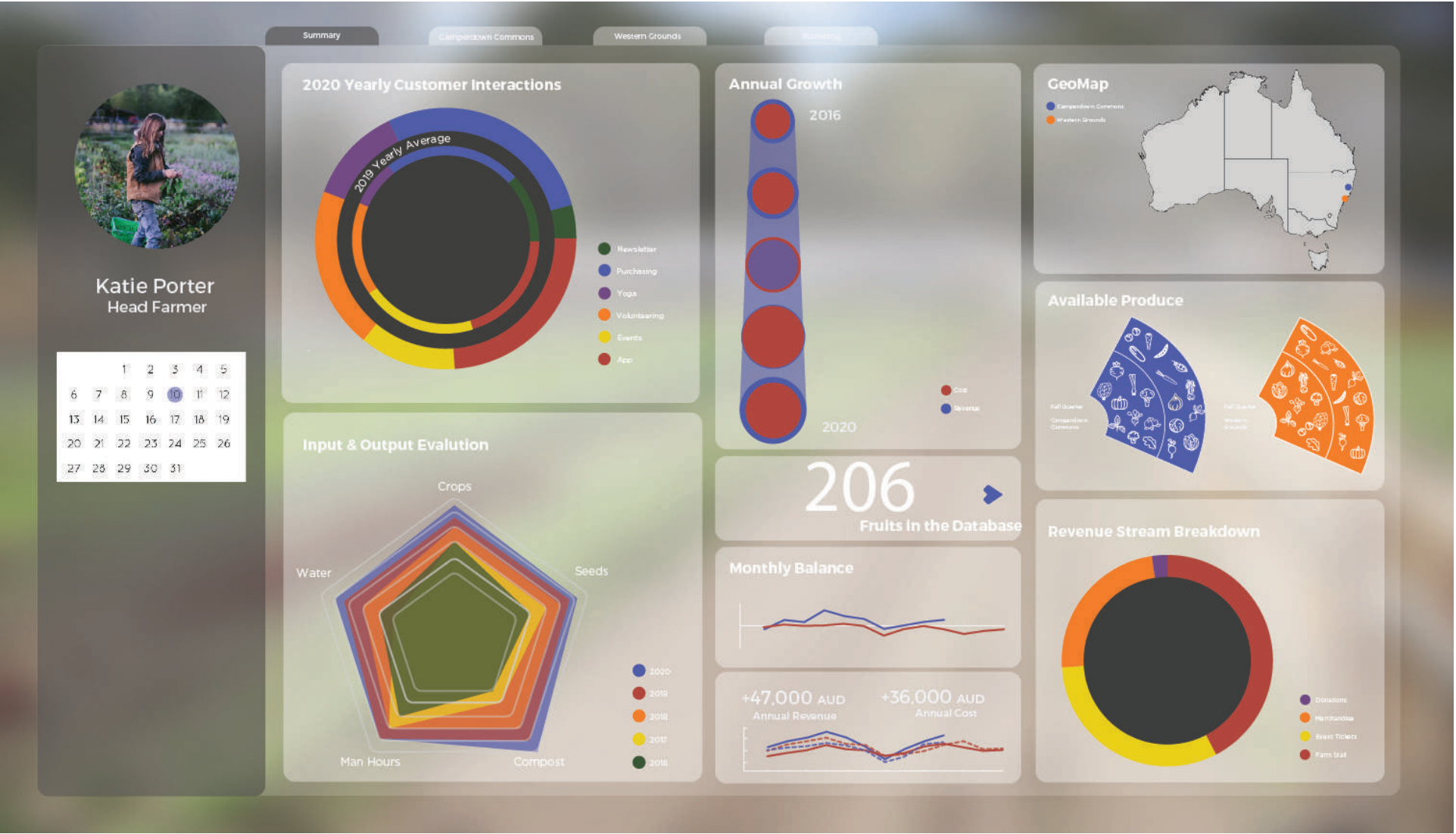
KPIs : The Administration Tab

Badges Earned: Pocket City Farms will track the number of badges they provide. Badges will be tracked through the app when users complete different tasks through volunteering or the events. Customers can also collect physical patches to sew onto their bags. This data will be collected through the app so PCF can better understand how interested their clients are in the brand.

App vs. Browser Actions: PCF will use this key performance indicator to track where customers are interacting with the company. This will be tracked daily through Google analytics.

Initial Encounter: PCF will track how new customers interact with the company. This data will come from surveys that will be passed out. It will be updated monthly.

Weekly Customer Interactions: PCF will track where their customers are interacting with the brand. This will allow PCF to understand where to focus their attention based on where the customers are. This information will come from google analytics and will be updated weekly.

Active Volunteers vs. Non-Active: This KPI visualizes how many volunteers are currently signed up out of all of the volunteers total. This information will be updated daily through the app and website.

Kits Purchased: This KPI will allow PCF to track when people are purchasing kits about when they host events. They can view the previous year's to compare to. This will be updated monthly.

KPIs : The Production Tab

Inventory Items: The inventory items chart is showing what Pocket City Farms has to offer and what they use, and this is being shown for each garden. The objects being measured are the following: seeds, sensors, produce, merchandise and toolkits. This KPI will be updated every month and will help users be aware of the level of availability for each item.

Plants per square feet: Measuring the plants per sq ft shows how many of that specific crop can be grown in one sq ft of soil. This is important when starting a new quarter or new garden. This data is being measured by research, knowledgeable farmers and the Pocket City Farm's head farmers and will only change if the garden receives different produce to grow.

Soil Moisture: The soil moisture KPI is showing the users how moist the soil is. This will be updated every day by the soil sensors that are embedded into the ground. This is measured by a percentage rating and the higher the number, the healthier the soil. This will help the users grow the healthiest produce for the consumer.

Soil Fertility: The soil fertility measurement is showing how fertile the soil is. This will be updated once a year by the soil sensors that are embedded into the ground. This is measured on a pH scale from 1 to 14. The healthiest soil is around the pH of 5 - 7. This information will help the users when growing the healthiest and strongest produce.

Water Usage: Measuring how much water each facility uses is important when trying to maintain a sustainable and transparent company. The less water used, the more we save. This is measured by the gallon and will be updated once a year by monitors that are installed when each facility is being constructed.

Available produce: These are charts that are showing the available food for the specific season. The chart is split into two different sections. The smaller section shows the produce that is less abundant as the produce on the larger section. This measurement will be updated quarterly and is coming from seasonal charts and soil regulations. Having this measurement will inform users what is currently being offered.

Total Plant number: This analysis will tell the user how many plants (produce included) were produced at that specific garden. This will be updated every year by gathering information from the soil sensors and going through statements and transactions. (Blue data represents 2020, and red data represents 2019). This will benefit the users by showing the past and present information to see whether production has increased or decreased.

Increase in production of produce: Having a measurement that measures the increase in production of produce will benefit the user by showing how much we have grown when it comes to growing produce. (Blue data represents 2020, and red data represents 2019). Being able to will help motivate and push to be aware of how much we either grew or shrunk in produce size. This will be measured yearly by going off of statements and transaction records.

KPIs : The Finance Tab

Cash Flow: This stacked line chart illustrates monthly total revenue and costs compared to figures from last year. The top figure represents the aggregate income and cost of the calendar year about previous years. The data would be combined with all transaction and spending records on hand.

Monthly Balance: Agriculture, mainly organic, non-greenhouse agriculture is highly seasonal in most parts of Oceania.Therefore, It is pertinent to understand monthly revenue-costs balance year-to-year to agility adjusting spendings and projections.

Revenue Stream Breakdown: It is always helpful to know how much single major revenue stream contribute to the cash flow. Most of the data can be collected automatically and updated in near real-time except for donations and grants.

Annual Growth: Pocket City Farms is taking their major step in expansion and technology-based service innovation. This chart summarizes yearly revenue and cost, serving as a valuable reminder to the operator.

KPIs : The Marketing Tab

Mobile Application and Mobile Ratings: these are basic app store/play store analytics that keeps the organization informed of the performance of a fundamental enabling service. Some downloads inform growing user base, and the review score gives an indirect insight into user satisfaction with the use of the app and their experience with PCF. Some unique users illustrate how many people are regularly opening the app. The AR Crop Recognition is an appropriate niche tool that not everybody is interested. This figure not only shows rather the service is being used but also indirectly inform rather there are a lot of users acquiring the application exclusively for the AR function. All the information can be tallied automatically and refreshed in a daily basis.

Social Media Ratings: These are quick, simple analytics useful for monitoring the social media audience base. The collection can be collected and updated automatically, and in real-time.

News Media Coverage: This section shows three most recent news articles found through Google News Search with the keyword "Pocket City Farms." The operator can see the newest articles being published, and view them at will.

App usage: This clock-pie diagram visualizes time spent amongst the four primary functions of the mobile application. This diagram provides further insights into which aspect of PCF proliferates through the application. The data, like another app related analytics, is updated on a weekly basis.

KPIs : The Western Grounds Tab

Since Pocket City Farms is on the lookout to expand to a new garden, the team developed a dashboard that displays the KPIs of a hypothetical newly expanded location. The new location's KPI values are less than ideal, but the year-to-year trend is promising, therefore well within expectations for a recent aggressive expansion.

Soil Moisture
Daily

43%

Katie Porter
Head Farmer

	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

Administration

Production

Finance

Notes :

Plants per Square Foot

2,670 ♥
Increase in Production of Produce

1,678
Total Plant Number

Water Usage

2,500g
2,000g
1,500g
1,000g
500g

2016 2017 2018 2019 2020

Inventory

Fertility of Soil

14 pH
12 pH
10 pH
8 pH
6 pH
4 pH
2 pH

2016 2017 2018 2019 2020

Available Produce

Fall

Revenue Stream Breakdown

● Donations
● Merchandise
● Event Tickets
● Farm Stall

Annual Growth

2018

● Cost
● Revenue

2020

Notes :

Monthly Balance

+
−

+12,000 AUD
Annual Revenue

+10,000 AUD
Annual Cost

KPIs : Volunteer Dashboard

The Volunteers will have access to a dashboard on their phones that includes some private KPIs in addition to what the public is can see. Pocket City Farms wants to build trust and relationships with their volunteers and allowing them a dashboard. In addition to the public KPIs, the dashboard will include the following: plants per square feet, soil moisture, soil fertility and water usage.
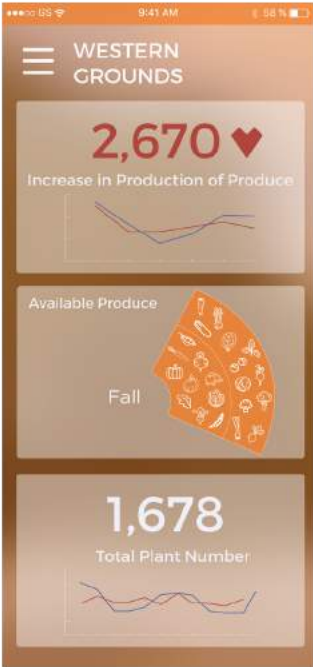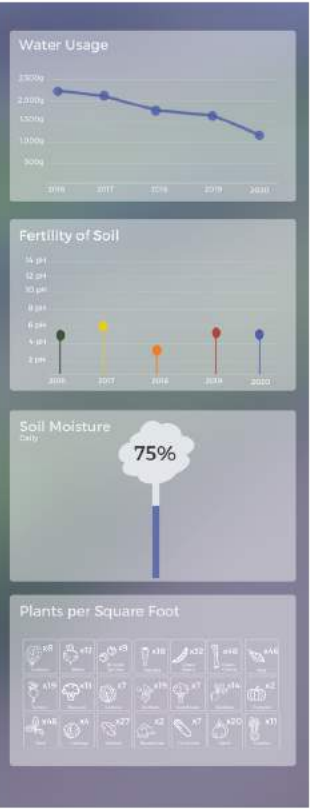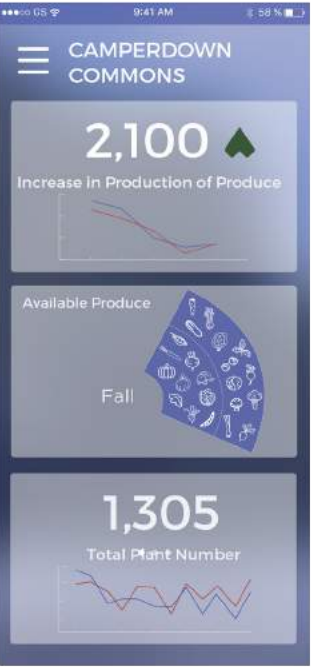
KPIs : Public Dashboard

The digital billboard is a physical billboard that will be put around the city and will include some KPIs about Pocket City Farms that will hopefully catch the public's eye. The reason we are showing KPIs to the public is to stay transparent, stay true to ourselves, build a community and to raise brand awareness. The KPIs that are being shown on this are the following: production of produce, the total number of plants, available produce for the main garden, Camperdown Commons, how many badges have been earned, social media ratings, Facebook mentions, Instagram tags and news media coverage.
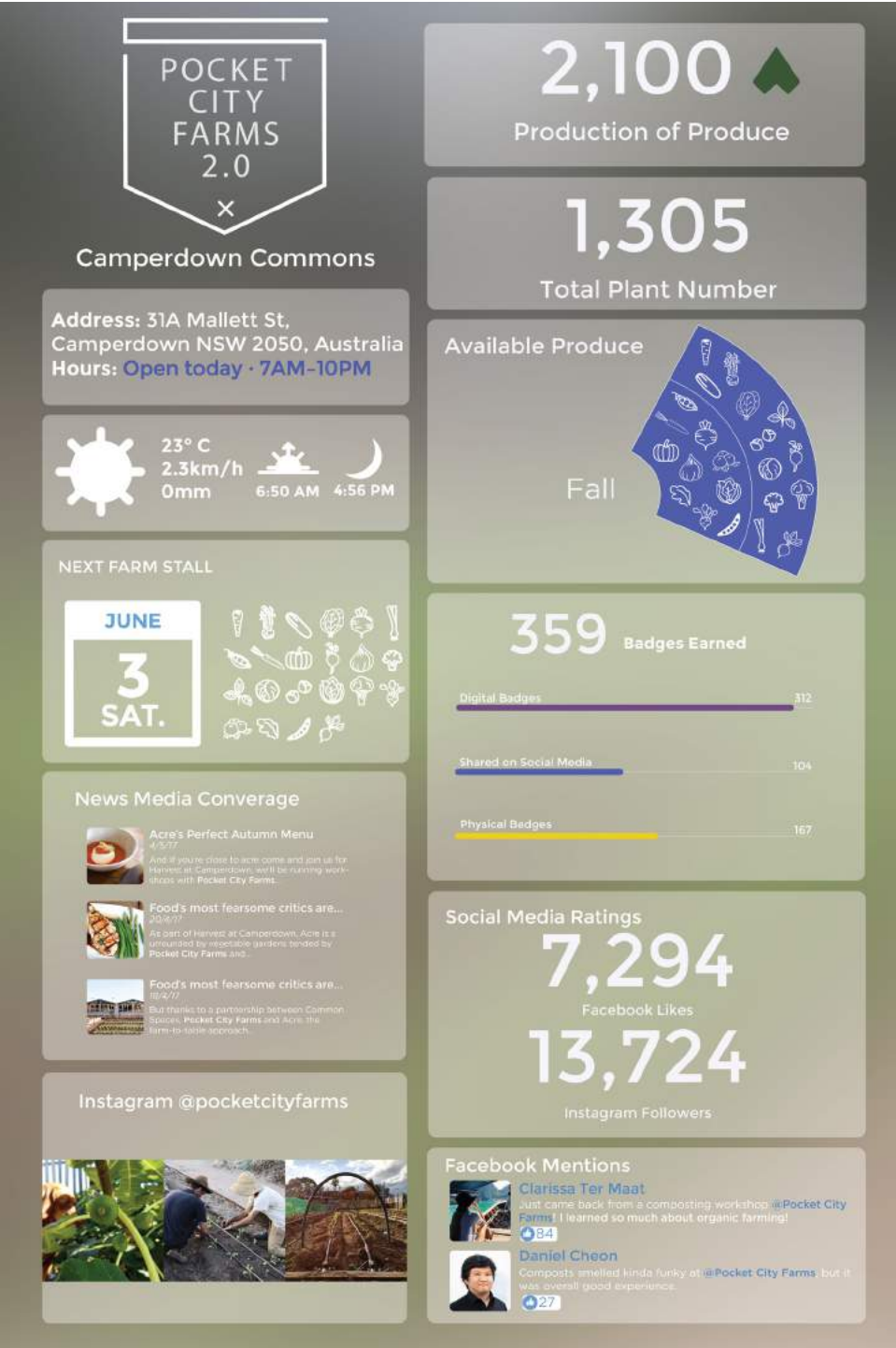
Mockups

Mockups
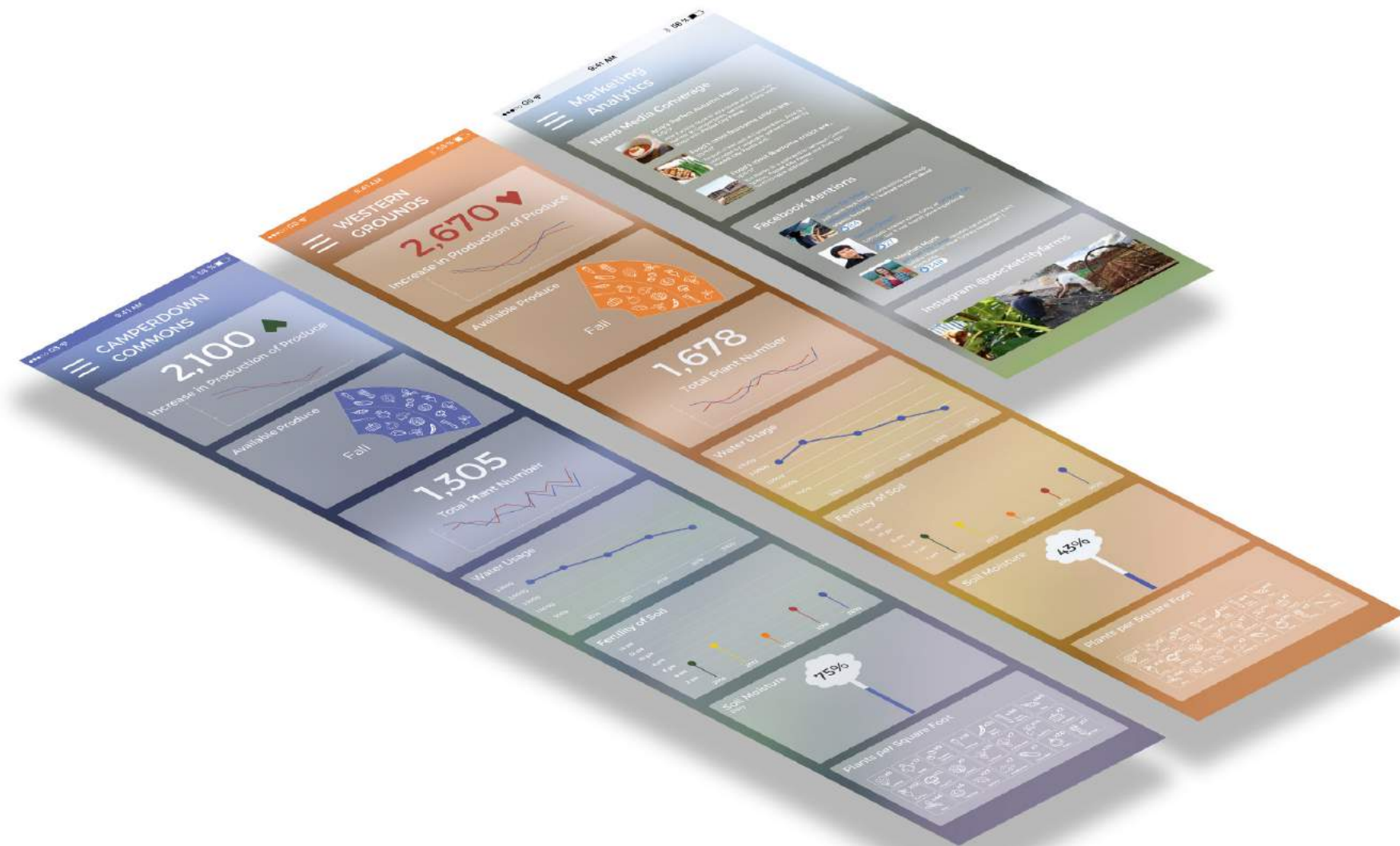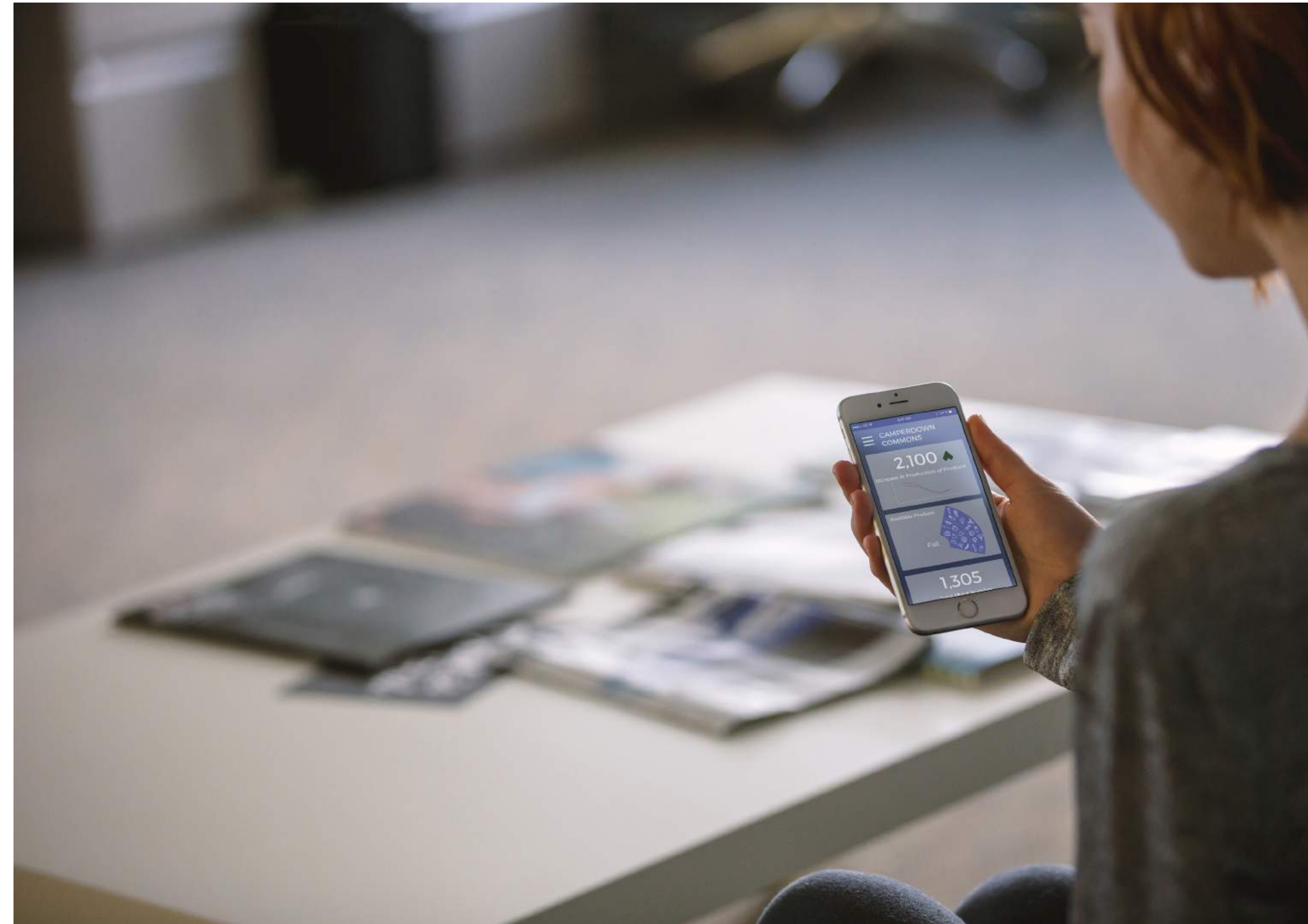
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5 | **Conclusion**
Next Steps
Sources

Conclusion

The KPIs measure Pocket City Farms 2.0's agriculture, main offerings, and new technology implementations. We are confident that with these dashboards, all stakeholders can become much more receptive and proactive with the organization.

Next Steps

The team would like to continue this project by further reaching out to Pocket City Farms to edit assumptions and to ensure the data and research collected is valid. The team also plans to further this project by developing Key Performance Indicators as well as the digital application and mock-ups of the digital billboard.

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