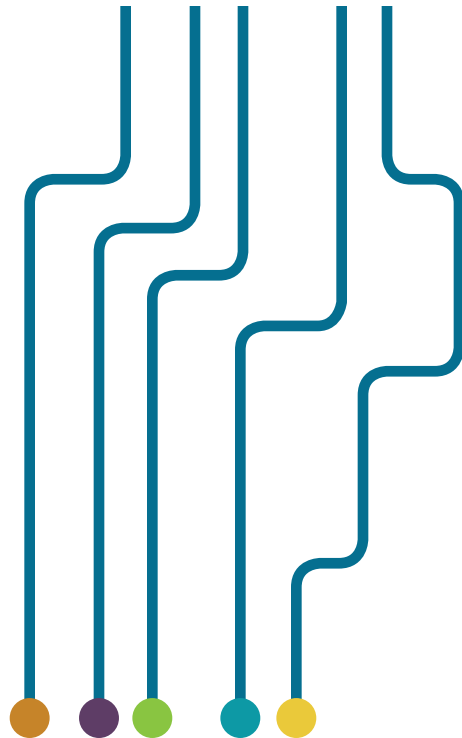# Tech Guide for Food Hubs:

MAKING TECHNOLOGY WORK FOR YOU

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INTRODUCTION

With a complex set of operational processes, your food hub business has many technology needs. As your food hub business has grown, you have likely developed or found technological solutions, ranging from clipboards to spreadsheets to software packages, to assist in running your operations. To better help you assess your technology needs and evaluate your options, this Tech Guide for Food Hubs describes a systematic approach for undertaking a technology search process. The Guide lays out how to assemble a search team, develop a list of technology requirements based on your operations, build a pipeline of technology solution options, and evaluate and select the right technology.

The Tech Guide includes three main parts:

1 **Technology search process:**
Recommended approach to search for and select the optimal technology provider in order to have full transparency into what the provider will and will not offer and be set up to successfully work with the provider on deployment and ongoing customer service.

2 **Requirements development:** Guidance on how to build out an understanding of your food hub's functional and nonfunctional requirements. This section also includes an overview of common categories of food hubs and processes unique to each to help structure your own process flow documentation and requirements development.

3 **Vendor guide:** Overview of common features provided by software systems, common categories of software providers, and an initial list of vendors in the space. This section will help you build a comprehensive vendor pipeline and systematically narrow the list to the highest potential providers for your specific needs.

PROJECT BACKGROUND

Funded as part of a Rural Jobs Accelerator Innovation Challenge grant Wholesome Wave received from the Economic Development Administration and the United States Department of Agriculture, the primary objective for creating this Tech Guide was to provide a road map for food hubs looking to explore and implement new technology solutions that best meet their unique needs. Additionally, the project intended to document the current processes and technology solutions of existing food hubs.

Key research steps included:

- **Secondary food hub research:** Review of business plans and feasibility assessments for Blue Ridge, Dane County, and HOPE food hubs. The purpose of this review was to gain a preliminary understanding of various types of food hub operational structures and process flows. Additionally, the websites of four technology-focused food hubs were reviewed — Farm Fresh Rhode Island, Good Eggs, Grasshopper and Door to Door Organics.

- **Primary food hub research:** In-depth interviews with eight food hubs, including Farm Fresh Rhode Island, Regional Access, Goodness Greenness, Blue Ridge Produce, Northern Girl, Veritable Vegetable, Red Tomato, and Franklin County Community Development Center. These food hubs are predominantly located in the New England area, and vary significantly in size, age, corporate structure, and business model. The purpose of these interviews was to learn the work flow of each food hub, understand how technology solutions support each element of the work flow, and hear about the food hub's biggest technological pain points and needs.

- **Secondary technology research:** Input gathered from food hub interviews and comprehensive online research was used to **1.)** identify a list of high potential technology solutions to support food hub operations, **2.)** develop a list of core functionality and process areas that technology solutions can support, and **3.)** establish an in-depth framework to evaluate the efficacy of each solution against each functionality area.

- **Primary technology research:** Interviews and demos of 10 software solutions which were identified as most promising based on secondary research and food hub input. These solutions included: Edible Software, FoodConnex Cloud, Delivery Biz Pro, ACCtivate!, Local Food Systems, Local Orbit, Food Network Systems, Good Eggs, Produce Pro, and Silver Creek Software. The purpose of these interviews was to evaluate each system against the framework described above.

1 Technology Search Process

Many small businesses make very quick decisions about adopting technology solutions. While this may be appropriate when the technology required is fairly standard or tackles a single isolated function, most food hubs are seeking a technology solution that will support multiple aspects of the business, helping to efficiently sell and move product across the supply chain.

Additionally, food hubs have unique and complex needs. Selling perishable products whose availability and pricing is highly volatile, managing many suppliers with varying levels of ability and desire to utilize technology, and adhering to changing regulatory requirements are just three examples of this complexity. Lastly, the amount spent on technology can represent a sizable portion of the operating budget for many hubs.

For all of these reasons, most food hubs would benefit from the more in-depth and resource intensive technology search process outlined below. This process will help you select the optimal technology provider, have full transparency into what the provider will and will not offer, and be set up to successfully work with the provider on deployment and ongoing customer service.

STEP 1: Assemble selection team

TIMING: 1–2 WEEKS

‣ Identify someone who can serve as a project manager, overseeing the search process, ensuring the right people are pulled in throughout, and driving the team to a final decision.

‣ Identify what perspectives should be part of the decision making process. This may include staff who would be system users, investors, board members, growers, and buyers.

‣ Select individuals who bring those perspectives and determine how to best engage them. Some individuals may be critical during the requirements development process, others may be important beta testers of the software, while others may be most valuable in evaluating the return on investment. The project manager should engage each person at the right point in the process.

STEP 2: Develop a requirements list

TIMING: 1–2 WEEKS

‣ Build out a list of functional requirements. It is useful to differentiate between must-haves and nice-to-haves. Functional requirements should be based on your food hub's unique business model and process flow, and what technology features would best facilitate and support each aspect of your business.

‣ Identify any non-functional requirements you have. In particular, determine the pricing structure and total cost of ownership that you are able to spend on a technology solution.

STEP 3: Build a pipeline

TIMING: 3–6 WEEKS

‣ Build a list of potential systems that might meet your needs. A number of sources will help inform this list, including: information provided in this document, online research, referrals from peers, and recommendations made in trade publications or at industry conferences.

▸ Vet each system listed in your initial list by reviewing their websites, conducting demos and sales calls, getting feedback from peers, etc. The goal is to narrow your list to 1–3 high potential software systems that you believe can effectively meet your unique requirements.

▸ At this stage, it may also be appropriate to consider in-house development. This might include hiring a developer to build your system or outsourcing development to a contractor. You might consider in-house development if you believe your requirements are unique, if you've invested significant resources into your current solution and want it to serve as the foundation for your long-term system, if you see technology as a critical point of competitive differentiation, or if your needs are relatively simple and don't require a more expensive off-the-shelf solution.

STEP 4: Evaluate and select

TIMING: 3–6 WEEKS

▸ In-depth review and vetting of the 1–3 highest potential systems you have identified. This can be done through free trial periods (when appropriate for both your business and the vendor), in-depth customized demos (ideally with the technology provider's management team rather than sales staff), and reference checks.

▸ A common approach to evaluating systems is to assess 1.) the degree to which the systems meet your requirements, and 2.) your anticipated return on investment. Return on investment is driven by the increase in profitability you expect from a solution (based on decreased costs due to efficiencies gained and opportunities for increased revenue) versus the total cost of ownership (based on upfront and ongoing price of the system, in-house resources you need to commit, and any hardware purchases you need to make).

▸ This is the stage at which the team members you've identified in the first step above will likely be most actively engaged, providing their feedback and perspectives.

2 Requirements Development

Functional requirements development

The term "food hub" emerged in the last decade to describe alternative food aggregation, distribution, and processing enterprises that began developing or expanding within regions across the country. Their purpose was to fill infrastructure gaps to move food from farms to consumers within the same region. The Wallace Center defines a food hub as "a business or organization that actively manages the aggregation, distribution, and marketing of source-identified food products primarily from local and regional producers for the purpose of strengthening producer capacity and access to wholesale, retail, and institutional markets. Food hubs have positive economic, social, and environmental impacts in their communities, and fill a critical gap in regional food systems." This broad definition encompasses businesses with a wide and diverse range of missions, customer bases, business operations, and technology requirements. Different types of food hubs have distinct internal processes and technology needs. Given this, one of the most important first steps is to build out a list of your food hub's unique functional requirements defined by your core business model and operational processes. This list can serve as a "report card" when vetting and evaluating each potential software provider, enabling you to clearly assess how well each will meet your needs and ensuring that you approach the decision systematically and strategically.

The first step is to identify and list each function within your business. Then, for each function, map out the general process, the current systems and technology solutions that are being used to support the function, the ideal technology solution for this function, and how important this technology would be for your business. The following table provides a guide for completing this step.

Functions may include:		For each function assess:	
• Grower / supply management • Customer management • Sales order / purchasing • Inbound delivery mangament • Receiving and quality control / assurance • Sorting, packing, grading • Processing and / or repacking • Inventory management	• Order fulfillment and picking • Outbound delivery management • Accounting and financial management • Food safety and traceability • Marketing and branding • Business development • Account management • Pre-season crop planning • Fundraising	**Process** • How is the function executed? • Who is involved in each step? • How is information gathered, used, and shared in each step?	**Ideal State** • In an ideal world, how would this step be automated? • How would technology make it more efficient and effective? • Who would be the primary data inputters and users?
		Current Tech • What technology solutions are currently being used to track, use, and share data? • What "non-tech" solutions are being used? • Who are the users of these solutions?	**Prioritization** • How would this solution benefit the business? • How high priority is tech for this step? What is the "trigger" to make this high priority? • What is the minimum solution needed now?

Standard food hub functions and processes

While no two food hubs look exactly the same, several distinct categories of hubs emerged through primary and secondary research for this project. The following two sections describe different food hub categories and common functions and processes within each category. This information should help to facilitate and streamline your own process of completing your functional requirements list.

B2B: TRADITIONAL

This category includes food hubs with a traditional business model of aggregating, packing, cooling, storing, marketing, and distributing products from growers to end buyers. The product set can be diverse, and include produce, meat, eggs, cheese, etc. Most have in-house warehouse and logistics infrastructure, but some outsource these functions to growers and third-party trucking companies. The main factor distinguishing hubs in this category is that the hub itself is driving the sales process with buyers purchasing aggregated product from the hub (rather than directly from the farm). Examples include: Regional Access, Blue Ridge Produce and Red Tomato. Within this category of food hub, there are important distinctions between those that are focused on just-in-time versus those that are more warehouse driven, those that operate on consignment versus outright purchasing of goods, and those in their first four years versus five plus years of operations.

B2B: PROCESSING

Included in B2B Processing are food hubs that manage suppliers and aggregate raw inputs for the primary purpose of processing or significantly repacking them into final products for sale and distribution to end buyers. Food hubs in this category who sell to retail buyers are often focused on building a strong brand that becomes well known to end consumers. These food hubs may also run non-processed raw products through their supply chain but their primary focus is on processing. Examples include Northern Girl, Western Mass Food Processing Center, and the wholesale component of Good Natured Family Farms. Within this category of food hub, there are important distinctions based on the shelf stability of the food hub's products, the level of complexity involved in processing, and the need for the hub to hold work-in-progress inventory for extended periods of time.

B2B: PORTAL

Food hubs whose primary purpose is to facilitate direct or highly transparent transactions between producers and buyers and who often support the logistics of aggregating products and delivering to buyers fit into this category. These hubs charge a fee for transactions and/or for this logistics support. They generally have online portals that allow for sellers to list their goods for sale, and for buyers to make selections and purchase the products they want. These food hubs rarely take on long-term, large scale inventory and tend to only deal with "just-in-time" inventory. They require more active engagement from both buyers and producers than traditional food hubs, and therefore tend to service smaller-scale buyers. Examples include Farm Fresh Rhode Island's Market Mobile and Good Eggs. Within this category of food hub, there are important distinctions based on who "triggers" the transaction (i.e. is it based on buyers communicating what they need, or growers communicating what supply they have), who fulfills the logistics of the transactions, and how buyers and producers interact (via an online portal, offline mechanisms, etc).

B2C: CSA OR FARMERS MARKET

Food hubs that directly serve end consumers with a CSA model and/or a farmers market are part of this B2C category. These are often independent sub-businesses within larger food hubs. They almost always have an online portal through which end consumers can manage their profile and transactions. They work with growers to plan for and aggregate supply, manage the marketing to and ordering from end consumers, and facilitate the logistics processes. Examples include Regional Access's Whole Share program, Farm Fresh Rhode Island's Veggie Box program, and Good Natured Family Farms' CSA program. Within this category of food hub, there are important distinctions based on whether or not it is offering a CSA service or an online store (or a combination of the two), the degree of overlap between this portion of the business with the B2B component, and what the payment and service management structure is for customers (for example, do customers have to prepay each season or week, can customers pause orders for a period of time, can customers sub in different products, etc).

Process flow charts by food hub category

The following section provides an in-depth look at the internal processes of each food hub type and how technology is currently being used to support each step. It is important to note that no two food hubs have the exact same internal operations. This section provides information on the most common process flow elements in a generic enough way that it can be extrapolated to all food hubs within each category. For each food hub category, a visual process map is provided followed by narrative and commentary.

Process Flow Chart | B2B: TRADITIONAL

NOTE: Typically, **FOOD HUBS** in this category pay **GROWERS** for product, take ownership of product, and then sell to and receive payment from **BUYERS**.

■ = Technology typically utilized by food hub

FOOD HUB

INVENTORY MANAGEMENT (Ongoing)
Full item list by: on order, committed, in stock, backorder.
`Excel, QB, ERP`

GROWERS

BUYERS

PRE-SEASON CROP PLANNING
Identify: **BUYER** demands, **GROWER** capacity, gaps.
`Offline, rarely tracked in Excel`

IN-SEASON UPDATES
Weekly updates on upcoming inventory.
`Offline, rarely tracked in Excel`

PRICE LIST
Available product, price based on grower supply, inventory.
`Emails, sometimes through ERP`

SALES ORDER
Placed via emails / phone calls.
`put into QB / ERP`

PURCHASE ORDER
Based on inventory, just-in-time, forecasted sales, grower supply.
`Excel, QB, ERP`

PRODUCT DELIVERY & INVOICE
Receive / pick-up product.
Verify and sync into inventory.
`Excel, QB, ERP`

ORDER FULFILLMENT
Pick lists, pack, check, and load orders.
`Manual, Excel, ERP`

DELIVERY & INVOICE
Routing, record issues, confirm receipt.
`Manual, ERP`

PAYMENT
Payment and reconcile.
`Manual, Excel, ERP`

FOOD SAFETY & RECALL
Record temperatures, track inputs to manage recalls. Maintain all organics certification records.
`Manual / paper-based`

CRM
Track pipeline, communication, targets.
`None`

ACCOUNTING & REPORTING
Maintain revenue, COGS, SG&A, A/R, A/P, payroll. Report on financials, sales, inventory, ops, etc.
`QB, sometimes built into ERP`

B2B: TRADITIONAL

- **Pre-season crop planning:**
  Hubs communicate with buyers and growers independently, to review results from previous year, identify needs for following season, and identify any gaps in supply or demand. This is almost always done via phone, email, or in-person meetings. Rarely do these decisions inform in-season operations largely because it is so difficult to predict the impact of weather on end results. Occasionally, the output from preseason planning is tracked in an Excel spreadsheet.

- **In season updates:**
  Hubs receive regular (usually weekly) updates from growers on their current and upcoming supply, usually via email or phone, and this information is tracked on paper or Excel spreadsheet.

- **Purchase order:**
  Most food hubs use in season updates from growers, with their current and forecasted sales pipeline, to submit a purchase order to growers. These are typically created through the hub's accounting software, Enterprise Resource System (ERP) system and/or an Excel spreadsheet, and PDF'd and emailed to growers. Ideally, these items would be tagged within the food hub's inventory management system as "on order".

- **Products delivery and invoice:**
  Products are delivered to or picked up by the food hub, inspected, and accepted, at which point the vendor's invoice is processed. Invoices are generally manually entered in an accounting and/or ERP inventory management system at the end of the day. In rare cases, the warehouse is wired and can directly input the product receipt into the system. These items would ideally be tagged within the food hub's inventory management system as "in stock."

- **Price list:**
  All of this information (i.e. in stock and on order inventory as well as producer inventory) is used to regularly send a price list to buyers with available crop types, volume, and pricing.

- **Sales order:**
  Typically, buyers use these price lists to place their orders. It is important to note that many food hubs, particularly more established ones, often take sales orders from buyers on an ongoing basis, which requires the ability to fulfill just-in-time orders. Regardless, when a sales order comes in, it is generally manually entered into the hub's accounting and/or ERP system, or an Excel spreadsheet. The food hub, with support from their technology system if possible, then assesses how the order can be filled (i.e. is inventory in stock, on order, or need to be ordered) and communicates any changes to the order or timeline back to buyer. Ideally, items intended to fill a sales order would be tagged as "committed" and items that can't be fulfilled would be tagged as "backordered."

- **Order fulfillment and delivery:**
  The food hub then fulfills the order by downloading a pick list from their system, or creating one from an Excel spreadsheet, and then packing and checking the order. At the final stage in the fulfillment process, the order is typically reviewed and updated in the accounting, ERP, or Excel-based system to ensure an accurate inventory count and invoice is created. Ideally, products that are in an order are automatically relieved from the inventory management system. Delivery is made and confirmed, generally with routing and confirmation done manually and offline. In rare cases when a warehouse and/or delivery truck is wired and connected to the system, order fulfillment and/or delivery can be tracked through a tablet with updates immediately being synched with the system.

- **Inventory management:**
  As mentioned in the above steps, inventory management forms the backbone of traditional food hubs' operations and links to almost all aspects of the process flow. Food hubs use either an Excel system with a high need for manual updates, or an ERP system that automatically receives and reconciles updates based on purchase orders, product receipts, sales orders, and order fulfillment. However, even robust ERP systems typically have limitations to their inventory management functionality that can hinder hub operations.

- **Payment and flow of funds:** Typically, food hubs in this category pay growers for product, take ownership of product, and then sell to and receive payment from buyers. In this scenario, there is often a significant lag between accounts receivable (payment in hand from buyers) and accounts payable (payment to growers), which requires food hubs to maintain enough cash to carry the gap. This also means that food hub systems should accurately track their A/P and A/R through their accounting and/or ERP systems, a practice that is often lacking given limited food hub investment in accounting and cash management resources. Occasionally, food hubs in this category operate on a consignment model, an approach which requires some accounting and ERP system nuances.

- **Food safety:** Managing food safety will continue to be even more important with the passing of the Food Safety Modernization Act. Currently, very few food hubs are effectively utilizing technology to help manage food safety protocols. The most critical aspect of food safety is traceability – being able to trace each item that flows through the hub. A food hub should be able to identify exactly which product (i.e. crop type, farm, date of harvest, etc) went to which buyer on which day, in order to

successfully manage a recall should an on-farm food safety issue arise. Almost all food hubs interviewed have limited technological functionality to support this, and would have to therefore recall all related crops from all growers, if a food safety issue were to come up. Technology that forces food hubs to track incoming specific lot or batch numbers to specific outgoing sales orders can significantly improve traceability protocols. Another important aspect of food safety is related to temperature control, and tracking the temperature of product at arrival, in warehouse, during order fulfillment, and upon delivery. This is particularly important for non-produce products such as eggs, dairy, and meats. All food hubs are manually tracking temperature and storing paper temperature logs for reference if required by an inspector. Finally, many food hubs have to maintain records for certifications, particularly organic certifications, a process currently done manually.

- **Accounting and reporting:** Accounting, financial reporting, and cash management are also critical to the success of any food hub, and must interface with all other aspects of the system. The majority of food hubs use QuickBooks (QB) as their primary accounting system. Hubs that use QuickBooks and/or Excel as their primary systems generally

manually input all relevant data (purchase orders, sales order, inventory, etc) into QuickBooks. Hubs that are exclusively using QuickBooks to manage their internal processes often utilize additional modules and add-ons to give themselves more robust inventory management and vendor / buyer support. Those hubs that have deployed ERP systems typically have automated integration into QuickBooks. Hubs typically utilize QuickBooks and their Excel or ERP systems to output a number of reports, including income and cash flow statements, inventory reports, sales progress, and vendor management.
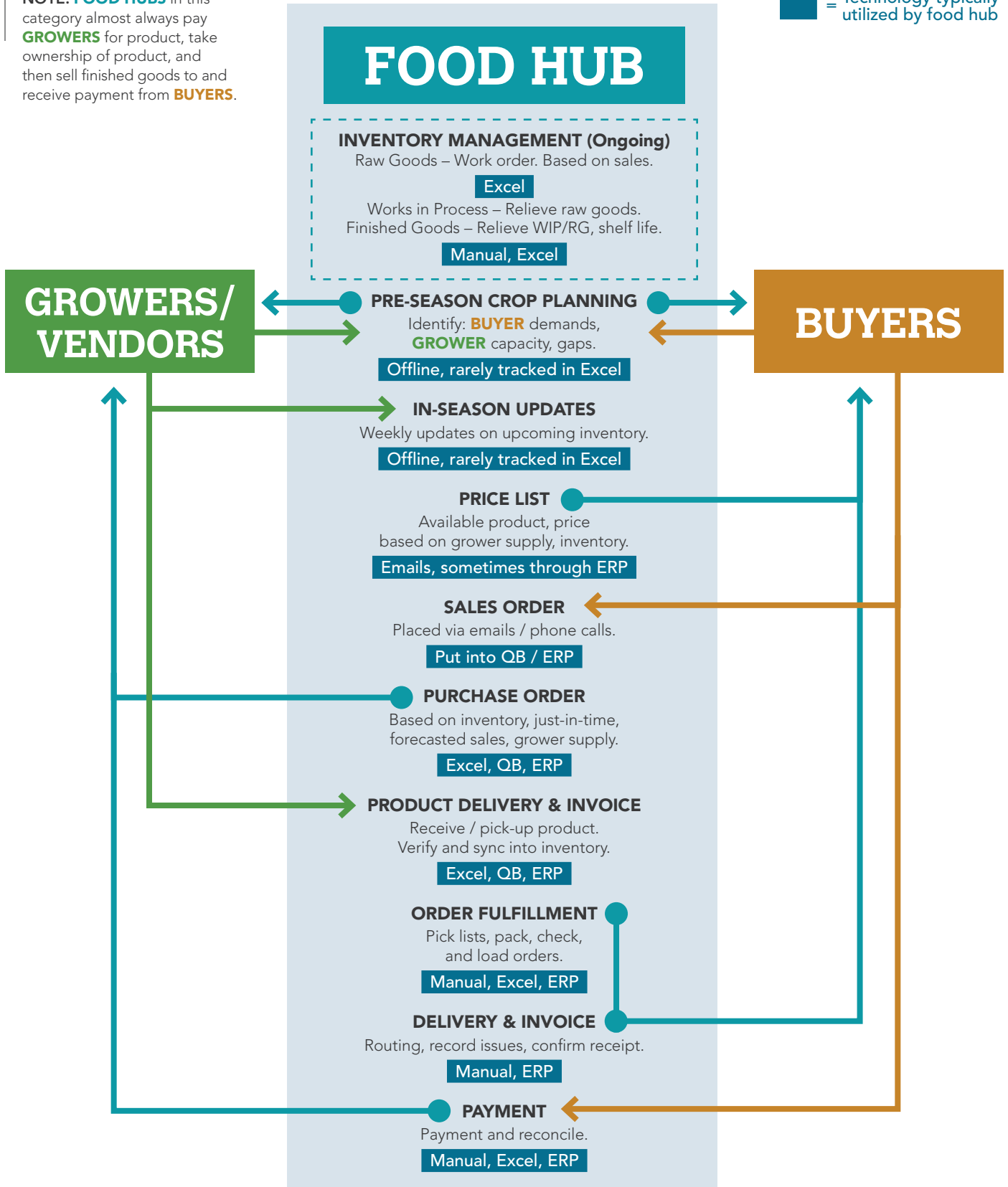
- **Customer Relationship Management (CRM):** Food hubs typically have no formal systems or processes to manage their sales pipeline, buyer communications, and progress against buyer targets. Some hubs utilize their ERP system for basic, transactional interactions, such as sending sales lists and invoices to buyers.

NOTE: FOOD HUBS in this category almost always pay **GROWERS** for product, take ownership of product, and then sell finished goods to and receive payment from **BUYERS**.

■ = Technology typically utilized by food hub

FOOD HUB

INVENTORY MANAGEMENT (Ongoing)
Raw Goods – Work order. Based on sales.

Excel

Works in Process – Relieve raw goods.
Finished Goods – Relieve WIP/RG, shelf life.

Manual, Excel

GROWERS/ VENDORS

BUYERS

PRE-SEASON CROP PLANNING
Identify: **BUYER** demands, **GROWER** capacity, gaps.

Offline, rarely tracked in Excel

IN-SEASON UPDATES
Weekly updates on upcoming inventory.

Offline, rarely tracked in Excel

PRICE LIST
Available product, price based on grower supply, inventory.

Emails, sometimes through ERP

SALES ORDER
Placed via emails / phone calls.

Put into QB / ERP

PURCHASE ORDER
Based on inventory, just-in-time, forecasted sales, grower supply.

Excel, QB, ERP

PRODUCT DELIVERY & INVOICE
Receive / pick-up product.
Verify and sync into inventory.

Excel, QB, ERP

ORDER FULFILLMENT
Pick lists, pack, check, and load orders.

Manual, Excel, ERP

DELIVERY & INVOICE
Routing, record issues, confirm receipt.

Manual, ERP

PAYMENT
Payment and reconcile.

Manual, Excel, ERP

FOOD SAFETY & RECALL
Record temperatures, track inputs to manage recalls. Maintain all organics certification records.

Manual / paper-based

CRM
Track pipeline, communication, targets.

None

ACCOUNTING & REPORTING
Maintain revenue, COGS, SG&A, A/R, A/P, payroll. Report on financials, sales, inventory, ops, etc.

QB, sometimes built into ERP

B2B: PROCESSING

- **Pre-season crop planning:**
  Processing-focused food hubs have the same pre-season crop planning processes and systems as traditional food hubs.

- **In season updates:**
  Processing-focused food hubs have the same in-season updates processes and systems as traditional food hubs.

- **Purchase order:**
  Food hubs use this information, along with their forecasted sales pipeline and current inventory, to submit a purchase order to growers. These are typically created through the hub's accounting software, Enterprise Resource Planning (ERP) system and/or an Excel spreadsheet, and PDF'd and emailed to growers. The biggest difference between traditional and processing-focused food hubs is that purchase orders are typically more forward looking, and based more on available supply rather than immediate buyer demand.

- **Products delivery and invoice:**
  Products are delivered or picked up by the food hub, inspected, and accepted, at which point the vendor's invoice is processed. Invoices are generally manually entered in an accounting, Excel-based, and/or ERP system at the end of the day. In rare cases, the warehouse is wired and can directly input the product receipt into the system. These items would ideally be held as "in stock raw goods" within the inventory management system.

- **Production and inventory management:**
  Food hubs typically will process raw goods as soon as possible, In some instances, the food hub will create and input a work order, in their Excel-based or ERP system. This work order would output instructions for production (including the weight and type of raw goods needed) and would ideally automatically convert the right amount of raw inventory into work-in-progress or finished goods inventory. However, the majority of processing-focused producers do not have this level of sophistication in their systems, and have to manually create work orders and instructions, and update inventory. Not all food hubs need separate work-in-progress versus finished goods categories, however a robust system would make this distinction (though no food hub is currently using a system that separates these out). This is required for food hubs that have an interim processing step, such as pureeing and freezing inputs to be incorporated in an end product at a later date. An ideal system would record elements of the cost of goods, including yield/waste, operational efficiency, and labor costs.

- **Price list:**
  Current inventory is used to send price lists to buyers, with available product and pricing. Unlike with traditional food hubs, these price lists are often sent less frequently, and have less market-driven price fluctuation.

- **Sales order:**
  Processing-focused food hubs have the same sales order processes as traditional food hubs.

- **Order fulfillment and delivery:**
  Processing-focused food hubs have the same general order fulfillment and delivery processes and technology solutions as traditional food hubs. The primary difference is that sometimes fulfilling an order requires the food hub to immediately process raw goods. If that is the case, then the order fulfillment process would start with a work order (that mirrors the processes outlined in "Production and inventory management.")

- **Payment and flow of funds:**
  Food hubs in this category always pay growers for product, take ownership of products and then sell finished goods to and receive payment from buyers. There is generally a very long lag time between accounts receivable (payment in hand from buyers) and accounts payable (payment to growers), which requires food hubs to maintain enough cash to carry the gap. Food hubs in this category also often have a very high inventory value on the books, and need to be focused on selling finished products in inventory for which they have already paid growers.

- **Food safety:**
Traceability — being able to trace each item that flows through the hub to one step back and one step forward — is even more important and more complex for processing-focused food hubs. This means that for every specific product that goes out to a buyer, the food hub should know what grower or supplier provided every ingredient in that product. These food hubs rarely utilize technology to support this, but would ideally have systems that force the hub to associate incoming lot or batch numbers of raw ingredients with specific work orders. Temperature tracking throughout the production line is also more important for these types of food hubs (as they are often subject to HACCP requirements). However, these hubs are also all manually tracking temperature and storing paper temperature logs for reference if required by an inspector.

- **Accounting and reporting:**
Processing-focused food hubs have the same accounting and reporting processes and systems as traditional food hubs. The one difference is that processing-focused hubs are particularly interested in reports that provide more detail on their operational efficiency, COGS, and yields.
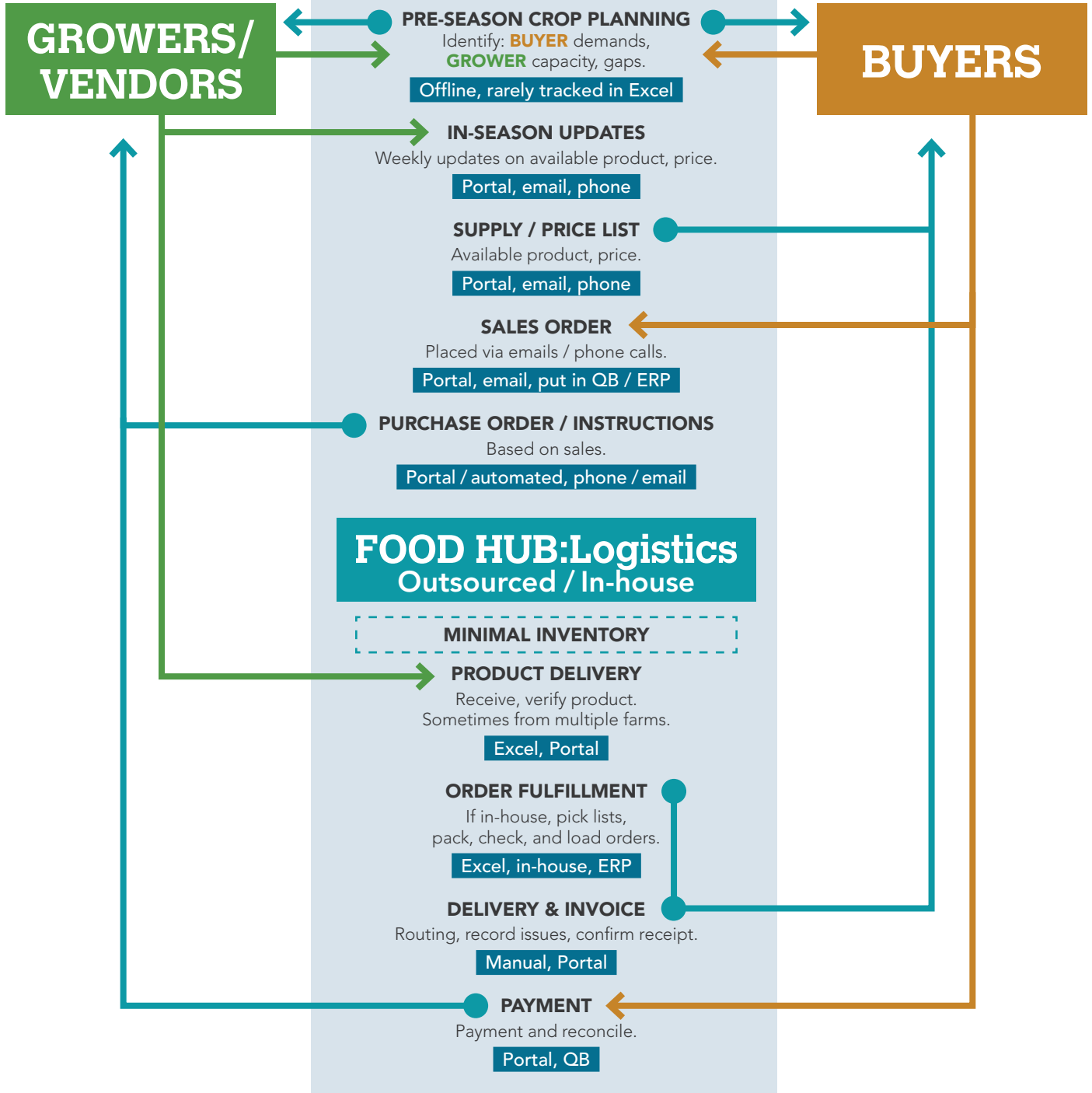
- **Customer Relationship Management (CRM):**
Processing-focused food hubs also generally have minimal formal CRM systems and processes.

Process Flow Chart | B2B: PORTAL

NOTE: Generally, **BUYERS** pay for product up front, or on a short payment cycle. **FOOD HUBS** then pay **GROWERS** on a similar cycle, and retain a percentage of the transaction.

■ = Technology typically utilized by food hub

GROWERS/ VENDORS

BUYERS

FOOD HUB:Exchange
Third-party / In-house

PRE-SEASON CROP PLANNING
Identify: **BUYER** demands, **GROWER** capacity, gaps.
`Offline, rarely tracked in Excel`

IN-SEASON UPDATES
Weekly updates on available product, price.
`Portal, email, phone`

SUPPLY / PRICE LIST
Available product, price.
`Portal, email, phone`

SALES ORDER
Placed via emails / phone calls.
`Portal, email, put in QB / ERP`

PURCHASE ORDER / INSTRUCTIONS
Based on sales.
`Portal / automated, phone / email`

FOOD HUB:Logistics
Outsourced / In-house

`MINIMAL INVENTORY`

PRODUCT DELIVERY
Receive, verify product. Sometimes from multiple farms.
`Excel, Portal`

ORDER FULFILLMENT
If in-house, pick lists, pack, check, and load orders.
`Excel, in-house, ERP`

DELIVERY & INVOICE
Routing, record issues, confirm receipt.
`Manual, Portal`

PAYMENT
Payment and reconcile.
`Portal, QB`

FOOD SAFETY & RECALL
Record temperatures.
`Manual / paper`

CRM
Track pipeline, communication, targets.
`None`

ACCOUNTING & REPORTING
Maintain revenue, COGS, SG&A, A/R, A/P, payroll. Report on financials, sales, inventory, ops, etc.
`QB, often built into Portal`

B2B: PORTAL

It is easiest to think of this type of food hub as having two separate entities. The first is the entity driving the sale between growers and buyers. This is often an online portal that facilitates grower and buyer transactions. Portals are either third-party or in-house systems. The second is the logistics component of the food hub that supports the process of getting ordered product from growers to buyers. These are generally supported by the information captured by the portal system.

- **Pre-season crop planning:**
  Portal-based food hubs have the same pre-season crop planning processes and systems as traditional food hubs.

- **In season updates:**
  Generally, transactions for these food hubs are triggered by suppliers listing out available product and pricing. Therefore, the in-season updates process is significantly more critical for these types of food hubs than for traditional or processing-focused hubs. Most hubs have a "grower section" of their portal through which growers can easily provide updates on their inventory and pricing, as well as pictures and notes to motivate buyers to purchase from their farms.

- **Sales order:**
  With these types of food hubs, buyers purchase directly from each farm. They generally are able to see the inventory and price list of each farm through their own section of the portal. There, they can compare products, pricing, quality and pictures, and immediately place

and pay for their order. Ideally, these sales orders would immediately update the available inventory from each of the farms.

- **Purchase order and instructions:**
  All sales orders are compiled by the food hub, and then growers receive information on the volume/weight of each of their products has been purchased, and instructions on how and where to deliver these orders.

- **Product delivery:**
  Growers deliver their products according to the instructions given. Food hubs that directly manage logistics with their own warehouse will generally have growers deliver these orders to their facility. Those that utilize third party logistics providers and/or growers to support logistics will ask growers to either have product ready for pickup or deliver it to a specific location. Regardless, at the time of delivery, products are inspected and accepted.

- **Order fulfillment and delivery:**
  Hubs with in-house facilities to aggregate, sort ,and deliver orders have similar order fulfillment and delivery processes to traditional food hubs. A pick list is generated from their system, which warehouse staff uses to pull together orders for each buyers. These orders are then checked and loaded onto trucks for delivery. Both pick list generation and routing are generally managed through the same system behind the buyer / grower facing portal. Hubs that utilize third party logistics solutions identify the best outsourced strategy for each transaction, submit

purchase orders to these providers, and verify receipt and delivery. This is generally done through an Excel-based system or QuickBooks.

- **Payment and flow of funds:**
  Generally, buyers will pay for product up front or on a short 10–20 day payment cycle. Food hubs then pay growers on a similar sales cycle, and keep a percentage of the transaction as their fee. This fee varies based on the level of logistics and customer service support provided by the food hub.

- **Food safety:**
  Traceability is less important from these types of food hubs, as buyers are purchasing directly from the farm and already have their own visibility into food source. Temperature tracking is also minimally critical, because hubs with in-house facilities typically store product for a minimal amount of time. Hubs in this category that do track temperature typically do so manually.

- **Accounting and reporting:**
  The portal systems for these food hubs generally have internal accounting systems, or integrate with QuickBooks. Automatic credit card processing and payment is particularly important for these companies.
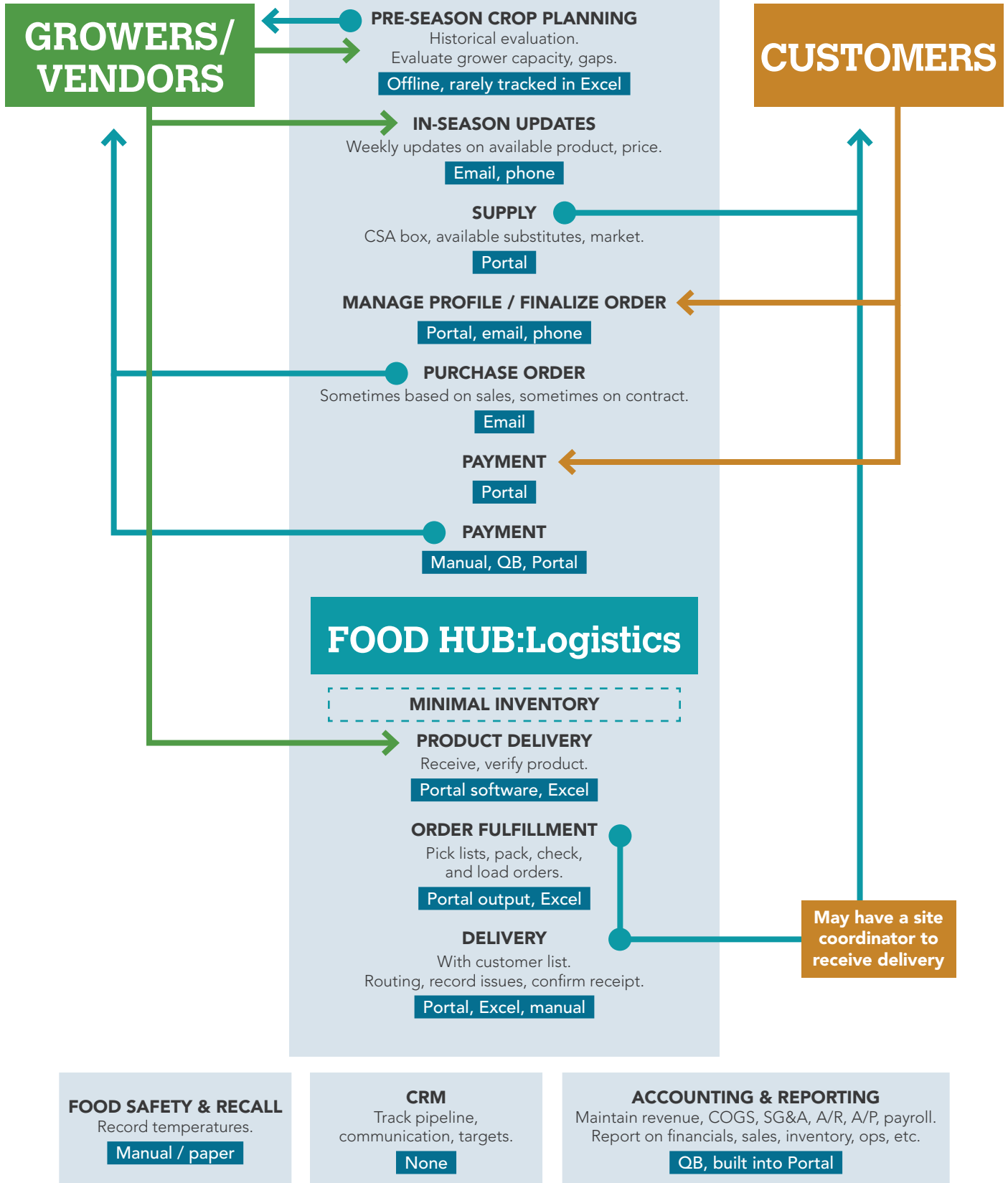
- **Customer Relationship Management (CRM):**
  Portal-based food hubs also generally have minimal formal CRM systems and processes.

Process Flow Chart | B2C: CSA / MARKET

NOTE: **FOOD HUBS** pay **GROWERS** on different cycles. Hubs either keep a percentage of the transaction or purchase goods outright and sell to customers at a mark-up.

■ = Technology typically utilized by food hub

GROWERS/ VENDORS

CUSTOMERS

FOOD HUB:Portal
Online

PRE-SEASON CROP PLANNING
Historical evaluation.
Evaluate grower capacity, gaps.
`Offline, rarely tracked in Excel`

IN-SEASON UPDATES
Weekly updates on available product, price.
`Email, phone`

SUPPLY
CSA box, available substitutes, market.
`Portal`

MANAGE PROFILE / FINALIZE ORDER
`Portal, email, phone`

PURCHASE ORDER
Sometimes based on sales, sometimes on contract.
`Email`

PAYMENT
`Portal`

PAYMENT
`Manual, QB, Portal`

FOOD HUB:Logistics

`MINIMAL INVENTORY`

PRODUCT DELIVERY
Receive, verify product.
`Portal software, Excel`

ORDER FULFILLMENT
Pick lists, pack, check, and load orders.
`Portal output, Excel`

DELIVERY
With customer list.
Routing, record issues, confirm receipt.
`Portal, Excel, manual`

May have a site coordinator to receive delivery

FOOD SAFETY & RECALL
Record temperatures.
`Manual / paper`

CRM
Track pipeline, communication, targets.
`None`

ACCOUNTING & REPORTING
Maintain revenue, COGS, SG&A, A/R, A/P, payroll.
Report on financials, sales, inventory, ops, etc.
`QB, built into Portal`

B2C: CSA / MARKET

Similar to portal-based B2B hubs, it is easiest to think of this type of food hub as having two separate entities. The first is the entity that allows customers to manage their profile and orders. This is generally an online portal through which customers provide their profile information, manage their CSA subscription and/or purchase specific goods directly from a marketplace. For market places, this system would also enable vendors to input their available product and pricing. The second is the logistics component of the food hub. B2C food hubs almost always have in-house warehouses and distribution infrastructure to facilitate product aggregation and delivery. Products are received by end consumers either through direct delivery or through a one-to-many delivery model.

- **Pre-season crop planning:**
  B2C food hubs have similar crop planning processes and systems as traditional food hubs.

- **In season updates:**
  Vendors typically provide in-season updates through an online system (similar to the portal-based B2B hubs) or directly to the hub through emails and phone calls. The degree and format of these updates depends on if and how transactions are triggered by the available product of specific suppliers. For CSA-type hubs, vendors generally communicate updates directly to the food hub, which then determines how to fill weekly boxes among customers. For market-style hubs, vendors often provide regular updates through the online portal so customers know what products are available.

- **Customer orders:**
  Customers place and pay for their orders through the online portal. For CSA-typeservices, customers can sign up for or halt their service or cancel their weekly order, and (in some food hubs) sub in and out different products based on their preferences. These are generally subscription models, with a customer signing up, providing their payment information, and then simply going on the website to make adjustments and manage their profile. For market-type services, customers generally go into the online portal at any time, select the goods they want, select their shipping method, and place their payment.

- **Purchase order and instructions:**
  Vendor orders are either developed based on customer orders, or established and contracted at the beginning of the season through pre-season crop planning discussions. Purchase orders are either generated through the hub's portal system, through QuickBooks, or through an Excel-based system. The purchase orders are then PDF'd and emailed to growers.

- **Product delivery:**
  Vendors deliver products to the hub's warehouse where they are inspected and accepted. Some food hubs will input these products into inventory (generally through an Excel spreadsheet), but most skip this step and simply ensure that all of the ordered product has been delivered.

- **Order fulfillment and delivery:**
  Hubs that allow customers to customize their orders have somewhat similar order fulfillment and delivery processes to a traditional food hub. A pick list is generated from their system along with order and shipment sheets for each customer bin. Warehouse staff uses the picklists and/or order and shipment sheets to stock goods into each box. These are then checked and loaded onto trucks for delivery. Routing is particularly challenging for these types of hubs because of the number of drop offs they may have. Those that deliver to a drop off site, rather than directly to each consumer, must incorporate a site coordinator management component to their system. Pick list generation, routing and site coordinator reports are generally managed through the same system behind the buyer / grower facing portal.

- **Payment and flow of funds:**
  Customers generally will pay for product at checkout or on the day of delivery. Food hubs pay growers on different cycles. Some pay up front at the beginning of the season like a traditional CSA model. Others pay on a short 1-2 week sales cycle. Hubs either keep a percentage of the transaction as their fee or outright purchase goods and sell to customers at a mark up.

- **Food safety:**
  Traceability is generally less important for these types of food hubs. Consumers are either purchasing directly from a vendor or are all getting very similar boxes. Temperature tracking is also minimally critical, because hubs with in-house facilities typically store product for a minimal amount of time. Hubs in this category that do track temperature typically do so manually.

- **Accounting and reporting:**
  The portal systems for these food hubs generally have internal accounting systems or integrate with QuickBooks. Automatic credit card processing and payment to vendors is particularly important for these companies.

- **Customer Relationship Management (CRM):**
  B2C food hubs also generally have minimal formal CRM systems and processes.

Nonfunctional requirements

While developing a comprehensive and thoughtful set of functional requirements is one of the most important steps in setting yourself up for a successful vendor search, it is also important to consider nonfunctional requirements.

The following table outlines additional criteria that may be important to you, and questions to reflect on when considering each criteria. **Completing this table will help you and your team define your nonfunctional requirements list.**

Ease of use	Industry expertise	Company longevity/stability	Data and IP ownership
• How important is it that it is "easy to use"? • Do users have to be able to use the technology without any or much training? • Will users (i.e. buyers, growers) outside of staff need to be able to easily become proficient?	• Is it important that your vendor have long standing industry expertise (specific to food, produce, food hubs, distribution, or something else)? • To what extent are you hoping to get strategic guidance from your vendor?	• How important is long-term stability to you? • Do you prefer a company that has been around for a long time and is well funded, or one that is newer, more entrepreneurial, more nimble, etc?	• How important is it that you own your data, and that no one else has any access to it? • Are you open to a technology vendor having some access to your data if it results in lower cost for you? • What concerns do you have around data and IP?

Pricing structure	Platform and architecture	Integration	Responsiveness, flexibility
• What is your ideal pricing structure based on 1) your current cash position and 2) a realistic growth trajectory you anticipate? • Do you prefer a flat fee per user + annual maintenance charge, or a fee as a % of revenue, or a monthly subscription fee, or another structure altogether?	• Do you prefer a desktop application or a cloud-based system? • Do you want your data stored on your own hard drives / servers, or on the servers of your technology provider? • How important is a mobile application?	• What existing systems do you need a new solution to integrate with – internally within your own operation or with your buyers or growers? • What type of integration do you desire or require (i.e. automatic data integration versus the ability to download data from one system and upload it into another)?	• How important is customer service and responsiveness? Do you want a vendor that will respond within 2, 12, 24, 48, etc hours (and are you willing to pay more for higher levels of customer service)? • What level of future customization or guidance do you anticipate needing?

Cost of ownership	Open source versus closed	Deployment approach	Security and data protection
• What is the ballpark total amount you are able to or willing to spend (including cost of software, staff time, training, etc)? This can be an absolute amount or a % of sales.	• Do you have a strong preference for open source over proprietary? • What is driving this preference?	• What is your ideal deployment timeline and approach? • How would your employees and other users be trained (i.e. in person, via webinar, written manual, etc)? What kind of deployment support do you need?	• How concerned are you about data protection? • What data would be captured by the system that is particularly sensitive that you want to ensure is protected?

3   Vendor Guide

Once you have developed your own functional and nonfunctional requirements, and categorized your hub, the next step is to build out a list of potential software providers to consider.

There are numerous potential software systems available, many of which tout similar benefits and features.

This section provides guidance to help food hubs build a comprehensive pipeline and systematically narrow the list to the highest potential providers for your specific needs.

The table below categorizes the different types of internal functions that relevant software solutions might address and provides initial guidance

on the different levels of sophistication for each. Levels of functionality are changing constantly; therefore, this chart should serve as just a starting point that hubs can build from when determining what they need.

Function	SILVER	GOLD	PLATINUM
Planning & Forecasting	Allows for historical data to be easily pulled and analyzed to support planning.	Allows for basic "snapshot in time" planning with growers and/or buyers in off-season. This can include a crop calendar feature that growers fill out, or the ability for the hub to input data from growers and buyers and identify gaps.	Allows for ongoing (pre-season and in-season) planning with growers and/or buyers. Growers can indicate anticipated supply at any time and make ongoing adjustments as time goes on. Growers' anticipated supply can be used to create newsletters for buyers who want support in meal planning.
Supplier/ Supply Management		System allows hub to easily plug in / upload supplier availability OR suppliers have their own portal but system is either not as user friendly as possible and/or growers are not able to track and share all the data needed.	Suppliers have their own portal where they can log in, record their available product, provide pricing, pack sizes, quality/description, shipping options, etc. Suppliers can also use this portal to track and receive payments, and communicate with the hub. Mobile app is advanced and uncommon.
Purchasing	Hub can enter and create purchase orders, output PDFs, and automatically send them to growers.	Addresses basic nuances of produce industry, such as handling multiple units of measurement. Purchasing is seamlessly integrated with accounting system.	Purchasing is seamlessly integrated with inventory management (i.e. item is "on order" and can be tagged as "booked"). User can track status of purchase order and add notes for future reference. When relevant, suppliers can log into portal and view their purchase order, submit their invoice, accept payments, etc.
Availability/ price sheet development	Can download availability / price lists to send to buyers.	Can download availability / price lists based on custom filters, such as organic, farm-specific, GAP certified, etc. These filters can be customized based on hubs' needs.	Availability / price sheets are automatically shared with buyers through the system.

Function	SILVER	GOLD	PLATINUM
Sales Order Processing / Customer Management	Hub staff enters sales orders (received on the phone or via email) into the system. Sales orders automatically synch with accounting and link with pick list / order fulfillment processes.	Staff entry of sales orders is facilitated by a comprehensive database of previous orders and price points. Users have the ability to put constraints on price points, units of measure, etc. System can constrain orders based on inventory or custom rules.	Buyer-facing portal. Electronic data interchange (EDI) capabilities with relevant buyers — allowing buyers to place order through their internal technology systems.
Web Exchange	Basic portal to facilitate communication and transaction between growers and buyers. Basic version is an ecommerce site in which all growers/buyers go to a single website.	System allows food hub to create own exchange, with food hub's unique information, schedule, and requirements. Growers and buyers can transact via site (or hub can use it solely to support grower interaction and/or buyer interaction separately). System is integrated with accounting and A/P and A/R.	Seamless to use for both wholesale and retail customers. Interface is highly customizable. Provides branded storefront for each hub. Transactions are easy / painless, and checks are cut to hubs, growers, and any other parties quickly.
Inventory and Product Management	Inventory services are optimal for "just-in-time" and are largely grower-level. Minimal functionality that allows hub to view products that are owned by hub and part of hub's supply chain.	Tracks inventory by "ordered, received, in warehouse, booked, etc" and tracks shelf-life and aging.	Includes produce specific characteristics, such as recognizing shelf-life/aging as unique from "received date". Customizable parameters for linkage between inventory, sales, and purchasing. Compatible scanner system a big plus.
Food Processing Management	Supports basic repacking, sometimes referred to by vendors as "kitting".	Tracks raw, work in progress, and finished goods inventory. Tracks inventory as "booked for processing." Outputs work orders and "recipes".	Provides robust cost assessment and management functionality for processing, allowing for the tracking of cost of goods, waste, labor, etc.
Traceability	Program allows for basic entry of lot numbers.		Fully designed traceability solution that allows incoming product to have lot numbers assigned, forces assignment to outgoing sales, and supports any recall efforts with reports and communication. Compatible scanner system a huge plus.
Order Fulfillment	Ability to develop and output pick lists to be printed for use in the warehouse.	Pick lists that tie with specific inventory, allowing for easy adherence to protocols such as LIFO or picking aging products, etc.	System tracks verifications, substitutions, and issues throughout fulfillment process, and seamlessly updates invoices for customer. Hardware / tablet compatible a huge plus.
Routing & Delivery	Basic functionality that pinpoints delivery routes on a map and suggests optimal route.	Output all information needed to support delivery and routing, such as optimal routes, secondary routes, suggested time. Outputs delivery slips.	Allows goods to be tracked throughout distribution, through smartphones / tablets or other hardware the driver has access to. Confirmation is received and synched into system.

Function	SILVER	GOLD	PLATINUM
Customer Relationship Management (CRM)	Basic tracking of existing / previous customers who have ordered.	Tracks current, previous, and potential customer pipeline. Tracks sales targets for each and assigns primary contact to each. Seamless integration with order processing and reporting.	Intuitive and painless for staff to use consistently, including seamless communication tracking (e.g. automatic email-logging.)
Analysis & Reporting	Basic financial and sales reports are available. Little opportunity to customize or filter these.	Many reports are available on sales, revenue, account management, cost of goods, inventory, overhead expenses, seasonality, etc. Data cannot be easily manipulated or customized by the user.	Thorough, intuitive, and easy to manipulate in order to understand data in various ways. Data can be viewed on dashboard or pulled-out as an Excel (or similar) file. Includes full suite of potential reports, including operational efficiencies, and fully customizable reports.
Integration with a standard accounting system	Minimal integration, requires double entry or highly manual duplicative process.	Seamless integration with existing accounting providers. Allows hubs to stick with their own accounting system.	Accounting is incorporated into full system, and links with purchase orders, invoices, inventory, and bill pay. Can generate invoices automatically, easily view A/P & A/R, pay bills, track customers and customer credit, etc. Outputs full suite of accounting reports at any time. Intuitive, painless interface. Top systems will still provide integration with off-the-shelf accounting systems such as QuickBooks.
HR / Payroll	Minimal integration, requires double entry or highly manual duplicative process.	Seamless integration with existing payroll providers.	Integrated with a time-tracking program to easily track hours and pay employees. Easily manage many types of HR benefits.

Categories of software solutions

The landscape of software solutions is evolving every month – with new providers regularly entering the mix and existing companies shutting down or shifting their focus away from local food.

The following table provides an overview of the general categories of software systems, examples of vendors within each category, and some initial guidance to help you identify which category or categories of solutions may be most applicable for your needs. The list of vendors does not intend to be comprehensive or exhaustive, but can be a helpful starting point when building out your initial pipeline of potential vendors. If you are unsure which category of solutions is best for your needs, it would be valuable to identify a few across multiple categories for an initial demo to further your understanding.

TRADITIONAL ERP

Description	Common Features	Most Relevant for	Examples
ERP stands for Enterprise Resource Planning. This business management software collects, stores, and interprets data across many activities (planning, inventory, marketing, shipping, etc). It provides an integrated view of core business processes. These "traditional" ERP systems focus on the internal flow of goods. The systems listed as examples here were designed for wholesale / manufacturing / distribution businesses and are specific to the food sector or for a number of industries.	• Purchasing • Availability / price list development • Order processing • Inventory and product managment • (Some) Food processing • (Some) Traceability and Produce Traceability Initiative (PTI) • Order fulfillment • Routing and delivery • Analysis and reporting • Accounting and QB integration	**B2B Traditional Food Hubs** **B2B Processing Food Hubs** Defined by characteristics such as: purchasing goods from growers, selling in aggregate to buyers rather than connecting buyers to individual farmers, selling to buyers that would be unwilling to purchase through hub's system, holding inventory, managing complex distribution, and owning product through delivery.	• ACCTivate • Blue Ocean Systems • Edible Software • Famous Software • FoodConnex • NetSuite • Plex • Produce Pro • SAGE • Silver Creek Software • Microsoft Dynamics

FOOD HUB ERP

Description	Common Features	Most Relevant for	Examples
These systems were designed to meet the specific needs of small to mid-sized food hubs and provide functionality that most traditional ERP systems do not (i.e. supplier management, online exchange and content management, customer ordering, route planning, etc). However, they generally lack or are limited in terms of their functionality with respect to complex internal and distribution operations. Most have route planning and delivery slip creation, but don't allow for tracking / confirmation, etc. Outside software would generally be needed to cover those pieces of functionality.	• (Some) Planning and forecasting • Supplier / supply management • Purchasing • Availability / price sheet development • Order processing / customer management • Web exchange • (Some) Inventory and product management • Traceability • Routing and delivery • Analysis and reporting • Accounting or QB integration	**B2B Traditional Food Hubs** **B2B (and some B2C) Portal Food Hubs** Defined by characteristics such as: facilitating sales between buyers and growers, promoting full transparency to buyers (i.e buyers purchase from specific growers through food hub rather than in aggregate from food hub), serving buyers able and willing to make purchases through hub's system, holding minimal inventory, maintaining a robust e-commerce site, and managing relatively simple distribution.	•Delivery Biz Pro • Local Food Marketplace • Local Orbit • Food Network Software (open source)

ONLINE MARKETPLACE

Description	Common Features	Most Relevant for	Examples
E-commerce platform. Website where growers / hubs can post product and buyers can make purchase. Unlike "Food Hub" ERP systems, there is one single online marketplace for transactions, branded by the technology provider.	• Supplier / supply management • Purchasing • Order processing / customer management • Web exchange	**B2C Farmers Markets (Some) B2B Portal Food Hubs** While generally not relevant as the primary technology solution for food hubs, these sites can serve as a channel to manage supply and purchases with growers (i.e. the hub acts as a buyer on the system) or as a sales channel (i.e. the hub acts as a supplier on the system). These systems support sales and transactional elements of the business, but are not intended to support internal operations.	• Farmigo • FarmLogix • Foodem • iGrowerTrade • Local Dirt

CSA / GROUP BUYING

Description	Common Features	Most Relevant for	Examples
Platform to fulfill unique needs of CSAs and CSA food hubs. The most critical and unique functionality that these systems offer is allowing CSA members to manage their subscriptions, and synching CSA member information with the order fulfillment / picking and delivery systems.	• Order processing / customer management • Web exchange • Order fulfillment • Routing and delivery	**B2C CSA Food Hubs** Defined by characteristics such as: managing weekly CSA subscriptions via online interface, allowing customers to substitute products based on availability among growers, providing customers with timing flexibility to accommodate biweekly orders or vacations, and managing multiple drop off sites and site coordinators.	• CSAWare • Delivery Biz Pro • Whole Share (relevant for group buying more broadly, not CSA specifically)

FARM SYSTEMS

Description	Common Features	Most Relevant for	Examples
Systems to support farm planning and management, such as crop planning, supplies management, cost tracking, etc. These systems are not relevant for most food hubs and are therefore not included in the list of common features.	• Planning and forecasting • Supplier / supply management	While generally not relevant for food hubs, they may consider encouraging their farms to search for and deploy these systems to maximize productivity, planning, and collaboration with food hubs.	• Ag Squared • FarmLogs • Farm Works • FarmIT

FUNCTION SPECIFIC

Description	Common Features	Most Relevant for	Examples
Systems that specialize in specific functionality (accounting, traceability, human resources, CRM, etc). Most are industry agnostic. The systems included in the list of common features are several of a long list of solutions to consider. These are often excellent solutions to deploy alongside an ERP system.	Each system covers a unique function or set of functions. Those commonly deployed cover the following: • Traceablility • Routing and delivery • Customer relationship management • Accounting • HR and payroll • Web exchange / e-commerce	These systems may be relevant to all food hubs. Food hubs might consider investing only in function specific solutions and developing processes to integrate data between them as needed. Alternatively, they may deploy one primary solution, and invest in one or more function specific solutions to meet needs that are not addressed by their primary vendor.	• ADP (HR) • FoodLink (traceability) • HarvestMark (traceability) • iTradeNetwork (EDI, order processing) • OS Commerce (e-commerce) • QuickBooks (accounting) • Salesforce.com (CRM)

Wholesome Wave strives to create a vibrant, just, and sustainable food system. By making fresh, locally- grown fruits and vegetables affordable and available, we enable underserved community members to make healthier food choices. Our innovative initiatives are improving health outcomes among low-income families, generating additional revenue for small and mid-sized farm businesses, and bolstering local and regional economies. Working in collaboration with more than 70 community-based partners, our impact can be seen at over 300 farmers markets, dozens of community health centers, hospital systems, and food hubs nationwide. Each year, our initiatives reach more than 40,000 underserved consumers and their families, as well as thousands of farmers. Wholesome Wave's Healthy Food Commerce Investments team works to increase consumer's access to local and regional foods by supporting the development and growth of regional food system infrastructure.

www.wholesomewave.org

New Venture Advisors LLC is a new business development advisory firm. We help communities, investors, and entrepreneurs identify winning business ideas and build them into successful enterprises. Since 2009 we have worked with clients in the public, private, and social sectors to assess, design, launch, and build up businesses in the local food and sustainable agriculture arena. Through the development and coordination of businesses within food sheds — from small family farms to food companies, retail outlets, restaurants, and the intermediaries known as food hubs which connect them — we are building and strengthening local and regional food systems. In this short time, five new food hub ventures have been launched and many more are preparing to open their doors in 2015 and beyond.

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