



Considerations Prior to Sourcing/ Developing Food Safety Digital Technology and Tools

Purpose of this document

This document serves as a foundational guide when sourcing new food safety digital technologies and tools. This guide outlines considerations when seeking digital technology and tools to support safe production, preparation, transportation, and service of food.

Initiation of Sourcing Process

Problem Identification -- Having a clear understanding of the nature of the problem and the challenges you are trying to address is important to finding a solution that meets your business needs.

What is that problem? Define the nature of the problem. Outline the problem your company is facing, including the challenges you are trying to address (e.g., challenges related to regulatory compliance, operational execution, Input concerns, Data collection for sharing/reporting, missing or incomplete preventative maintenance plans, etc.).

Identify Potential Digital Solutions

Determine the types of digital solution that could help resolve your challenges. What is the goal that you hope to achieve by? Make sure the objectives of the project align with your company's objectives.

Evaluate Capability and Functionality of Available Solutions

Assess Capability and Functionality of digital technologies/tools. Evaluate whether solution addresses the entirety of the problem or portion of the problem.

As part of the evaluation process, consider assessing the following to ensure digital tool will meet your needs.

Solution Features - What features are needed for solution to function? (e.g. training, equipment, connectivity, attaching documents, taking photos, connections (Bluetooth, RFID, Central Hub, etc.), bar code or QR code scanning, data storage, etc.).

Services offered - What guarantees will the solution providers offer? (e.g., Hardware, Software Service mechanisms, IT security, updates to hardware/software, maintenance etc.)

Integration - Does the solution integrate with existing systems? Consider the adaptability and interoperability of the technology and if it can be tailored to your operation's specific needs. Will the software work on existing hardware?

Data and System - Assess the infrastructure accuracy, integrity, storage capacity requirements, store location, access, encryption, data encryption.

Data ownership and Monetization – Determine who will own the data and assess whether the service provider intends to capitalize on it for financial gain.

Cost and Fee Structure - Assess all the potential costs and fees – initial and ongoing expenses. What are the considerations for exiting the software at a later date especially the ability to migrate data from an existing digital solution to a new digital solution.

Support - Determine what support the Solution Provider offers for implementation and troubleshooting (e.g., On-site support or remote support). Including:

Availability – Days of the week and Time (e.g., 24/7, M-F 9am-5pm ET, etc.)

Cost – long term or short-term fees

Term – How long is support offered without additional fees? (e.g., 1-year, multi-year, for the life of the service, etc.)

If Internet Based - If internet connection is lost, can the software operate on a device and then re-synch once the internet connection is regained.

System Input and Outputs

Timeline - How much time is required for digital tool to be fully implemented? Does this align with timing needs and expectations?

Artificial Intelligence - Can the software seamlessly integrate with AI solutions, and will user responses contribute to enhancing AI performance?

Software Company Funding - Consider the financial backing of the software company, e.g. a company reliant on venture capital may entail a higher risk compared to a company that has already become profitable or is part of a bigger company.

Testing the Technology/Tool

Following the identification of a potential solution, determine if and how the digital technology/tool will work within your existing system. This may include conducting pilots with a limited scope and working up to scale.

Pilot Considerations -

Resource Allocation- Identify key personnel and clearly define their roles and responsibilities with executing the pilot project.

Cost- Develop a cost breakdown for the project and identify the responsible party for funding the pilot.

Results- Define criteria for measuring success of the pilot, how the results will be evaluated, such as operational costs, system performance, user feedback and ease use, etc.

Challenges to consider

Leadership involvement - Identify the stakeholders that will need to be involved in the decision and implementation process.

Approval – Follow company procedures for the approval of internal or external resources. Be prepared to respond to requests based on your company’s approval process, this may include requests for ROI analysis or a Cost Justification Report if you are adding digital for the first time.

Note: This can be a challenge in Food Safety, as programs implemented are for prevention and to avoid incurring expenses that have never occurred.

Considerations for the future

Determine if there is there a solution that can expand and evolve with your business. If the solution is not an evolving product or does not offer scalability, develop a turnover plan/schedule in place for future solutions.

Resources to support

[General Best Practice Guidance for Food Establishments and Regulatory Authorities for Digital Food Safety Management Systems](#)

[FMI Tech Directory](#)

[Questions to Ask Traceability Technology Service Providers](#)