Food Standards Scotland

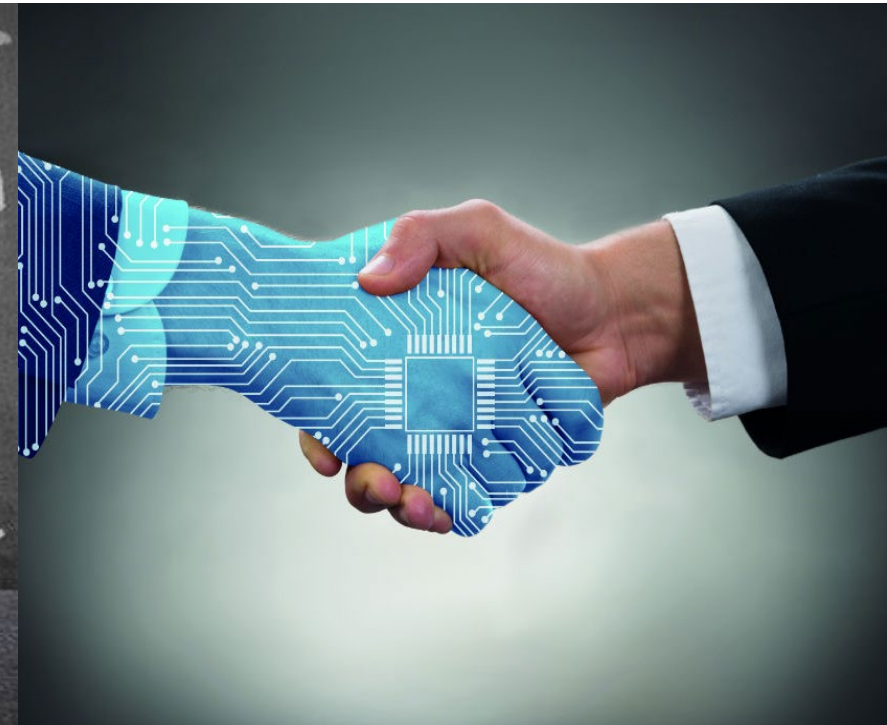## Digital and Data Strategy

Background / Rational

More work to be done than head-count / budget supports

Scope to improve organisation data to inform decisions

Poorly positioned to take advantage of modern/future tech.

FSS Commitments

<u>From Food Standards Scotland 2021-26 Strategy</u>

Mission: *"to be Scotland's leading authority on food safety, standards and healthy eating;* **using data and evidence** *to provide assurance and advice that inspires consumer confidence and improves public health."*

Goal 3: "*A* **research and data science capability** *which enables us to detect risks, monitor public health trends and consumer behaviours and translate evidence into action.*"

<u>From Food Standards Scotland Corporate Plan </u>(Goal 2, Key Activities)

"Embedding **digitalisation and technology** *into our Regulatory Strategy to provide a cohesive approach to the development of FSS-wide IT systems which allow us to record, monitor and target official control activities across all food and feed industry sectors*

Developing appropriate tools *and guidance which help businesses in Scotland to comply with food and feed law based on an understanding of the needs of different sectors and their barriers and motivators to compliance"*

Food Standards Scotland

Our Digital and Data vision

"To be digitally enabled, data-driven and support the delivery of our 5 year strategy which underpins Food Standards Scotland as being a evidenced-based organisation"

Understanding our current landscape

Discovery Workshops:

Cross-branch, cross-functional workshops (including central Scottish Government Information and Technology Services – 'iTECS')

Branch-specific engagements

Informal digital forum

Scottish Government-wide best practices for digital & data

Proposed Direction of Travel

FROM:

Manual, "rear-view mirror", periodic
reporting only

TO:

Automated dashboards.

Answer questions in real time.

Advanced / predictive analytics

Disconnected applications; varying levels of
effectiveness/ ease of use

Modern, user-centric apps, enabling new ways
of working. Built on common platforms

Slow, costly projects for new / modifications
to IT apps

Agile approach to solution development. Using
blend of in-house, contract & vendors

Staff time spent on manual processes

Repetitive processes automated.

Staff spend time on higher value activities
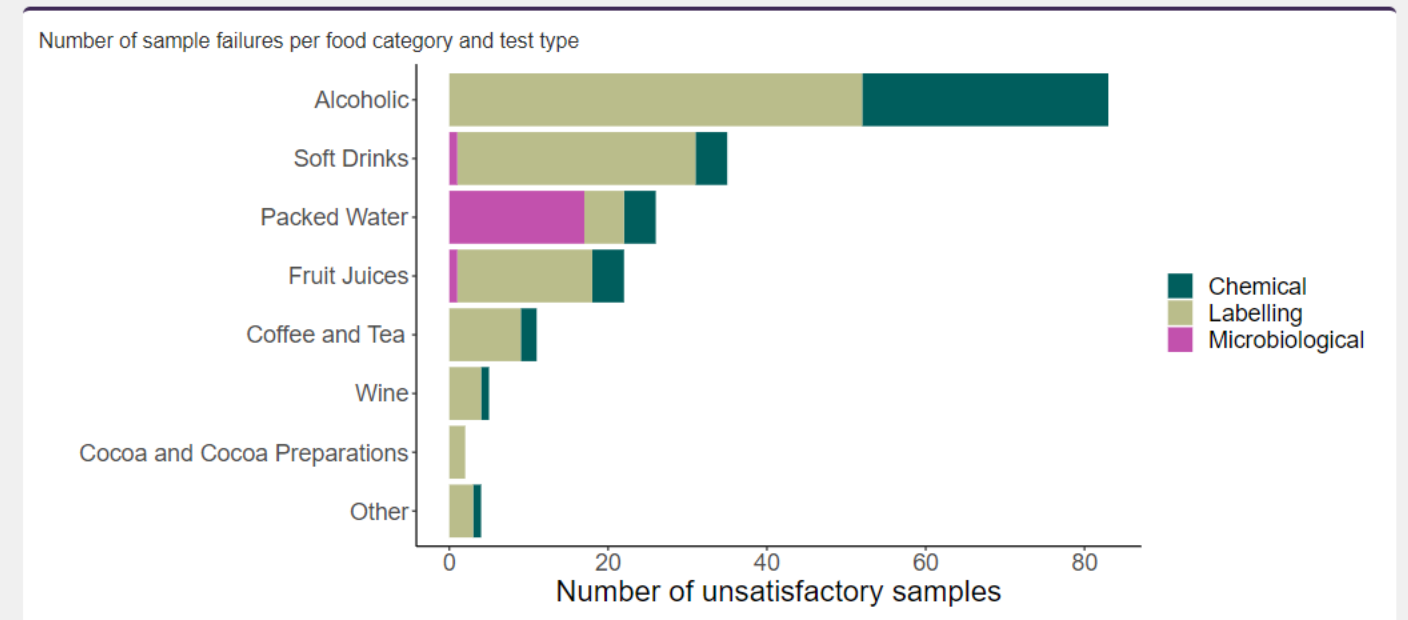
Scottish Food Sampling Database

| 1,100 Unique samples | 731 Chemical samples | 299 Micro samples | 4 Authenticity samples | 266 Labelling samples | 0 Allergen samples |

Sidebar

- Dashboard
- Filter data
- Date
- Local Authority
- Food Categories

Food category
Drinks

Select a sub-category

- FSS Surveys
- Country of Origin
- Overall Sample Result

Apply   Reset

Download data

Links
- Performance Reporting
- Query Tool
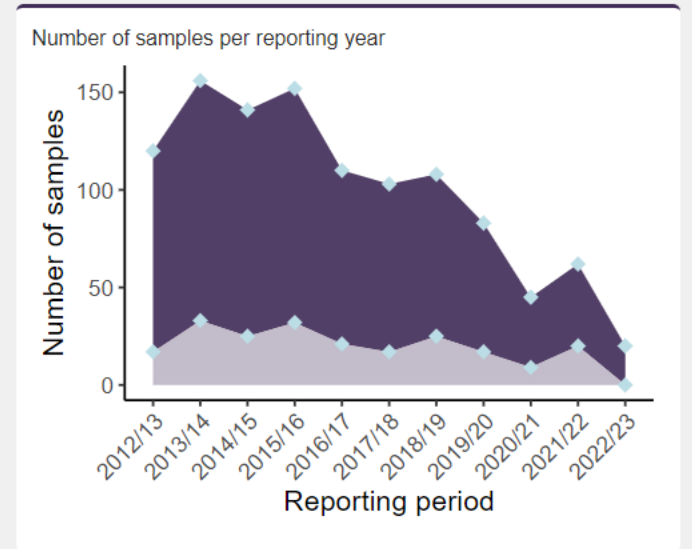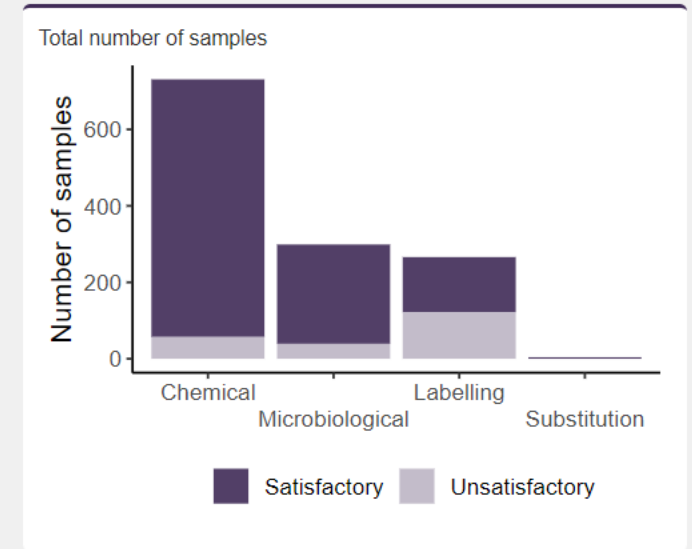
(Data for illustrative purposes only)

Local Authority Food Sampling Effort

No. samples taken per 1,000 population
- 0.2
- 0.4
- 0.6

Total number of samples

Categories: Chemical, Microbiological, Labelling, Substitution

Legend: Satisfactory, Unsatisfactory

Number of samples per reporting year

Reporting period: 2012/13, 2013/14, 2014/15, 2015/16, 2016/17, 2017/18, 2018/19, 2019/20, 2020/21, 2021/22, 2022/23

Number of sample failures per food category and test type

Categories: Alcoholic, Soft Drinks, Packed Water, Fruit Juices, Coffee and Tea, Wine, Cocoa and Cocoa Preparations, Other

Number of unsatisfactory samples

Legend: Chemical, Labelling, Microbiological

Food Standards Scotland

Results of Proof of Concept work to date

Saves time → **>5 months** → Click of a button

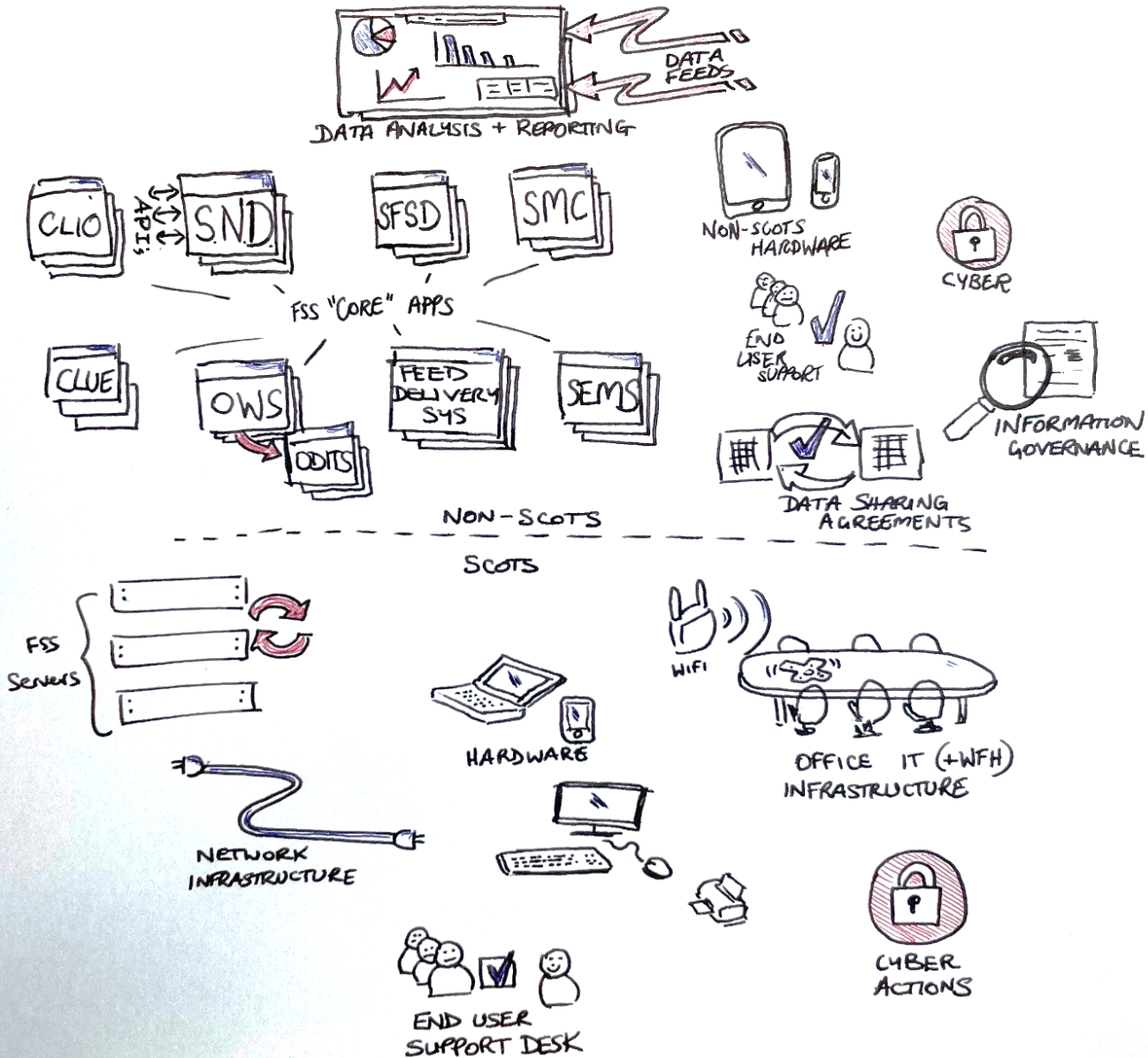**Cost effective** → +£20,000 saved

Spend time on higher value task → Higher value tasks

Reproducible/Auditable → BEST PRACTICES
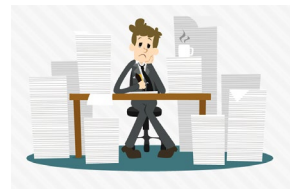
Real time insights and visualisations to leverage data

Ensure availability and security of current IT infrastructure.

Continue to provide business critical data science support across FSS.

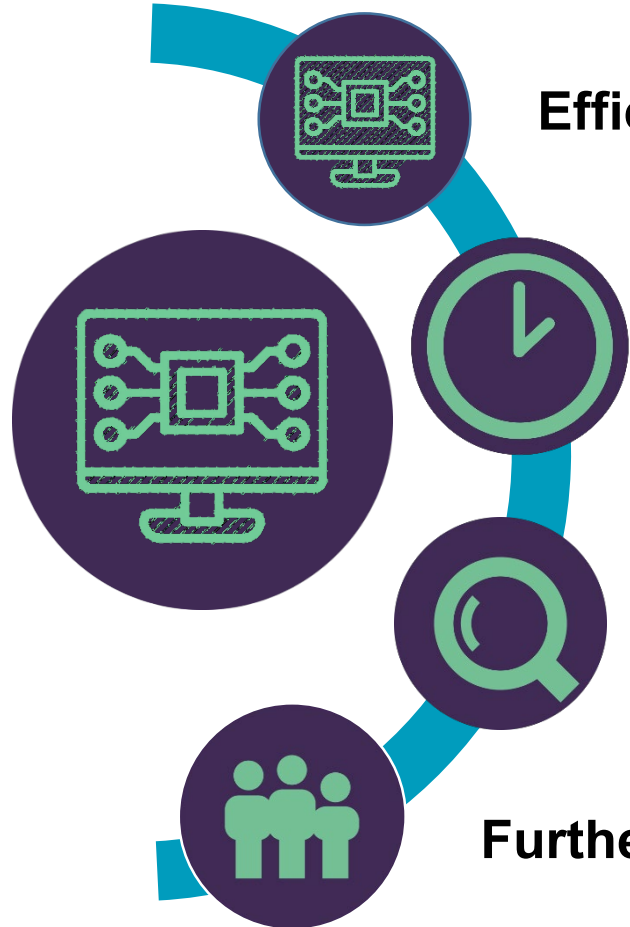# 3 Key Pillars

Digital Transformation

Putting our data to work

Governance

Organisational Change Management

Digital Transformation

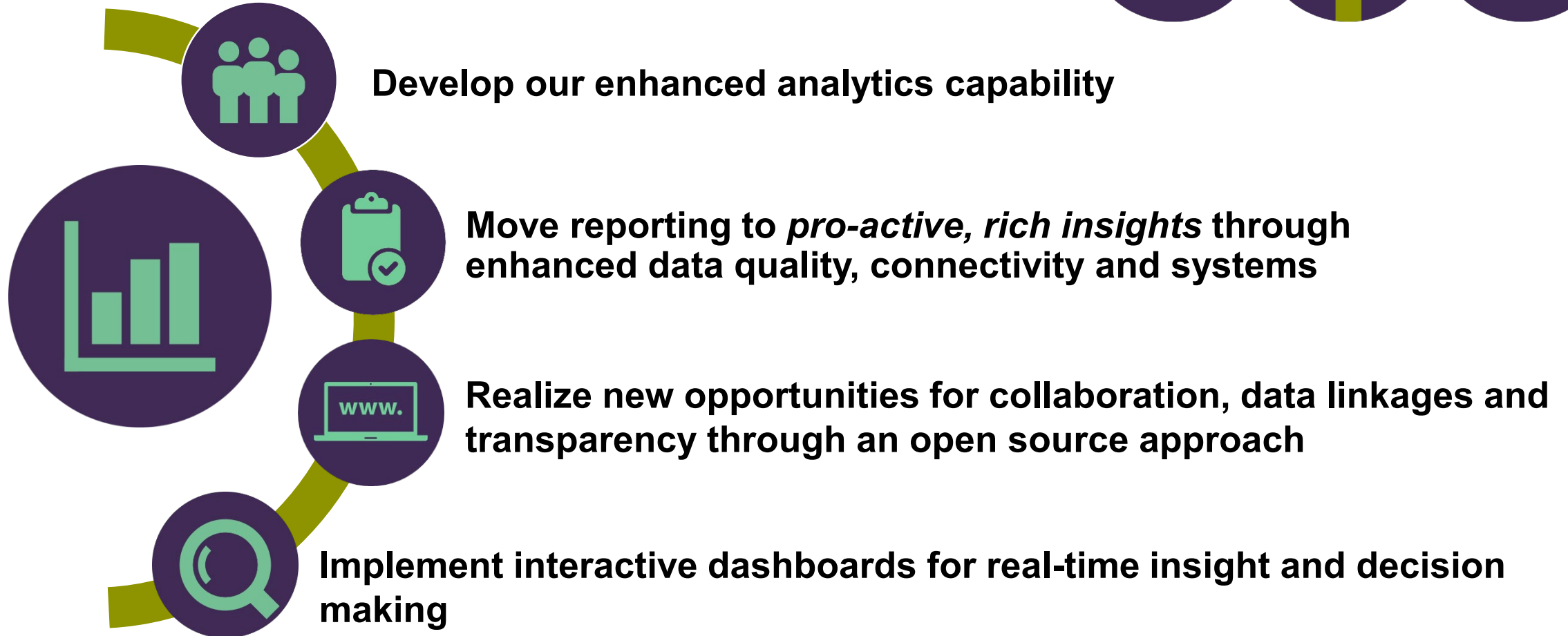**Efficiency, agility and consistency through common systems platforms**

Rapid deployment and modification through in-house capabilities

Leverage emerging technology through horizon scanning and pro-active branch-level engagements

Further build workforce capabilities through Digital Skill building

Putting our data to work

Develop our enhanced analytics capability

Move reporting to *pro-active, rich insights* through enhanced data quality, connectivity and systems

Realize new opportunities for collaboration, data linkages and transparency through an open source approach

Implement interactive dashboards for real-time insight and decision making

Governance

Prioritise projects and resources across ALL FSS digital projects via steering board

Consistency of approach through governance for digital projects (Use simple Agile framework)

Ongoing engagements with third parties for sharing best practices & data

Simplified Timeline

Foundations
- Resources
- Technology
- Governance
- Standards

Implementation
- App Ecosystem (CORE)
- Dashboards & Automation
- Advanced Analytics
- Data & Digital Skills

Evolution
- Horizon scanning
- External-facing Apps
- Open Data

Digital tools required

Currently Available	Required
• "R" Statistical package (with limited functionality) • Excel	• Data analysis platform with fully functioning statistical tools Low code statistical tools for Science/Nutrition teams • Cloud database & application tools • Open data portal • Client Portal(s) & connectors to our cloud databases

Upskilling and Culture Shift

Continued development of the digital skills across FSS workforce

Change management will be key, supporting new ways of working

Next Steps

Details discussion with ELT

Proposals / approvals / decisions to Board

Key Projects being progressed
- Real-time dashboards for: SFSD (Food Sampling Database), Operations and Incidents
- Advanced data analytics: Imports and Surveillance
- Fish Hubs Data Capture Application
- LA Blueprint and Food Business Portal concept work
- Operations Workflow System / ODITS (Operational Delivery IT System)
- Core FSS Cloud Infrastructure, Tools and Security
- Preparations for new Microsoft Office 365 toolset

Upskilling Digital team and planning for FSS wide digital skills

Drafting and implementing Governance

Questions

Supplementary slides

Example dashboard screenshots

(all data for illustrative purposes only)

Download table

Show [25 ⌄] entries

Search: [   ]

FoodDescription	FoodCategory	Pass/Fail Labelling	Pass/Fail Chemical	Pass/Fail Substitution	Pass/Fail Microbiological	Pass/Fail Contamination	UnsatisfactoryTestSubstances	Satisfactor
BUTTER BEANS IN WATER	Fruit and Vegetables	Satisfactory	Satisfactory	Not tested	Not tested	Not tested	None	Drained W or comme
BRITISH SLICED CARROTS IN WATER	Fruit and Vegetables	Satisfactory	Satisfactory	Not tested	Not tested	Not tested	None	Label (pre Drained W
WHOLE GREEK QUEEN OLIVES IN BRINE	Fruit and Vegetables	Satisfactory	Satisfactory	Not tested	Not tested	Not tested	None	Drained W or comme
SCOTTISH BLOSSOM HONEY	Others	Not tested	Satisfactory	Satisfactory	Not tested	Not tested	None	Moisture, Glucose, S Acidity, Ins Other, Hyc Conductiv Activity, G Total Redu
SET SCOTTISH								Moisture, Glucose, S Acidity, Ins

Showing 1 to 25 of 62,677 entries

Previous   1   2   3   4   5   …   2508   Next

Scottish Food Sampling Database

Food Standards Scotland

- Dashboard

Links

- Performance Reporting
- Query Tool

Quarterly Performance Reporting | **Annual Reporting**

This feature is still under development
Select the reporting year:

2022/2023 ▼

Manual input ⬤ Upload csv

Sampling Priority 1

| Microbiological ▼ | FSS222301 ▼ | E. coli ▼ | Enter a survey description |

		E. coli ✔	Enter a survey description
		Salmonella	

Sampling Priority 2

Select a test type category ▼ | Select the survey code(s) ▼ | Select the relevant test subst. ▼ | Enter a survey description

Sampling Priority 3

Select a test type category ▼ | Select the survey code(s) ▼ | Select the relevant test subst. ▼ | Enter a survey description

Sampling Priority 4

Select a test type category ▼ | Select the survey code(s) ▼ | Select the relevant test subst. ▼ | Enter a survey description

Sampling Priority 5

Select a test type category ▼ | Select the survey code(s) ▼ | Select the relevant test subst. ▼ | Enter a survey description

Sampling Priority 6

Select a test type category ▼ | Select the survey code(s) ▼ | Select the relevant test subst. ▼ | Enter a survey description

Sampling Priority 7

Select a test type category ▼ | Select the survey code(s) ▼ | Select the relevant test subst. ▼ | Enter a survey description

Sampling Priority 8

Select a test type category ▼ | Select the survey code(s) ▼ | Select the relevant test subst. ▼ | Enter a survey description

Sampling Priority 9

Select a test type category ▼ | Select the survey code(s) ▼ | Select the relevant test subst. ▼ | Enter a survey description

Scottish Food Sampling Database

Links

Performance Reporting

Query Tool

Quarterly Performance Reporting | Annual Reporting

This feature is still under development

Select the reporting year:

2022/2023

Manual input ◉ Upload csv

Upload CSV file

Browse... | Sampling priorities 2020-2021.

Upload complete

⬇ Generate document