Chief Scientific Adviser's Report reveals the data standards enhancing food safety

In his eighth report, Professor Poppy looks at how work on data standards aims to make FSA data available and easy to access, ensuring quality data that can be used across the food industry to help keep food safe and protect public health.

Professor Poppy said:

'Here at the FSA we aim to create a strong data culture, strengthening our position as a data enabled organisation. On its own, data is of little value, and only becomes valuable when we can transform it into information and turn that information into action.'

The report outlines how important data standards are to the FSA, the approach to adoption and use, and provides real examples of where deployment of the data standards is making an impact.

The report covers three areas:

- Adoption: using recognised standards created and maintained by others, such as using standardised data about climate and weather to inform the FSA's strategic surveillance programme
- Consensus: working with others in the food industry to agree common standards, such as the Collection and Communication of Inspection Results (CCIR) developed with the UK meat industry
- Ownership: setting, managing and maintaining clear, unambiguous data standards for the FSA's work as a regulator, ensuring the effective use of data by the agency and others. An example of this is developing an application programming interface (API) to standardise and increase the reach of our food alerts

Julie Pierce, Director of Openness, Data and Digital, and Wales at the FSA said:

'Data as infrastructure is critical in a world where the nature, volume and accessibility of data is increasing exponentially. We need to invest in data standards to optimise investment in the collection and processing of data and get ourselves into a position to take advantage of opportunities in artificial intelligence and machine learning, which are data hungry.

'Data standards evolve over time as user needs change. For this reason, we want to develop data standards with flexibility in mind and continue to support the data community by scanning for relevant and useful standards to adopt.'

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What are data standards?

Data standards are rules by which data sets are described and recorded. To share, exchange, and understand data, the format and meaning must be standardised in a way that can be clearly understood.

Data standardisation allows us to easily share and reuse a data set. For example, when you buy batteries you need not worry about which brand of batteries you buy: an AA battery from any brand will fit into an AA space.

The value of data is realised more easily when users need to do as little work as possible to clean or reformat the data for their needs. Data standards are what enable us to achieve this.

Related work on data science at the FSA

The FSA's Science Council, which provides independent strategic advice and challenge on how the FSA uses science, has a working group focusing on data usage and digital technology.

The group's work is available on the Science Council website.