West Midlands Fire Service

Data Strategy

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OFFICIAL

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Executive Summary

'Making the West Midlands safer, stronger and healthier' is the vision of West Midlands Fire Service and how we do this is set out in 'Our Plan' which is a three-year rolling strategy.
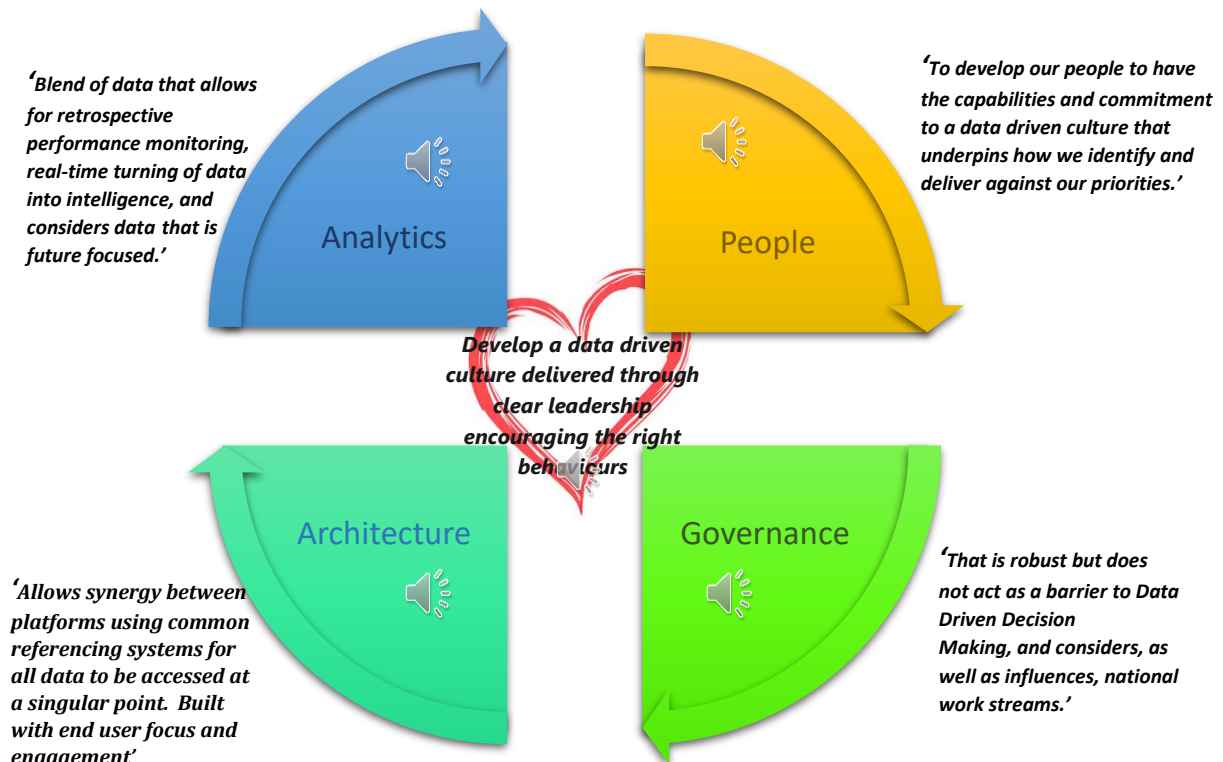
We have a strategic commitment to improving data quality, availability, and usability to provide transparency for data driven decision making

We use data driven decision making to underpin and showcase our investment in digital technologies that are transforming the way that we deliver our services to our communities.

This is only possible by ensuring that we embed key principles about how we use data to ensure that we deliver the 'right information, to the right people, at the right time.'

By taking a collaborative approach to acquisition of datasets it is possible to reduce costs and maximise value and a good example of this is the Public Sector Geospatial Agreement whereby this data is available free of charge to the organisation at the point of use. There is potential and ambition to use more of the data available to us to tackle challenges such as climate change and sustainability by considering not only the data we currently use about the built environment but datasets about geology and what lies beneath the surface. We are continuing to build an awareness of funding streams and taking a wider holistic outlook about new innovations and initiatives.

There are four key tenets to maximising the value and benefit that can be derived from our organisational data.

'Blend of data that allows for retrospective performance monitoring, real-time turning of data into intelligence, and considers data that is future focused.'

Analytics

'To develop our people to have the capabilities and commitment to a data driven culture that underpins how we identify and deliver against our priorities.'

People

Develop a data driven culture delivered through clear leadership encouraging the right behaviours

Architecture

'Allows synergy between platforms using common referencing systems for all data to be accessed at a singular point. Built with end user focus and engagement'

Governance

'That is robust but does not act as a barrier to Data Driven Decision Making, and considers, as well as influences, national work streams.'

Governance

Commitment to delivering organisational outcomes using quality, timely, accurate and relevant data is a priority of the Strategic Enabling Team (SET) spearheaded by the Senior Information Risk Owner (SIRO).

Our governance is underpinned by policies that are transparent and clear to ensure that the right balance in terms of privacy and usability is in place. This is contained in our Management of Information Policy which is based upon the Government Data Quality Framework and considers the life cycle of data from creation to destruction.

Determining risks to data is a key consideration to ensure that the organisation is using data within its legislative framework to deliver our priorities and services to our communities. Risks to data are captured within our Corporate Risk Register, Portfolio, Programmes, Projects and Tasks (3PT) and weekly BRAG status. Risks are mitigated by considering Data protection by design and default using tools such as Data Protection Impact Assessments and Data Protection Compliance Checks

Regular scrutiny of our policies and processes is undertaken by internal audit by Sandwell MBC, the Audit and Risk Committee of the West Midlands Fire Authority and external specialist companies to ensure that our information governance framework is fit for purpose.

Annual Report of the SIRO is published to provide assurance and overview as to how we are using data.

Principles

- We respect peoples' rights to privacy in line with legislation.
- We enable end users to exercise their rights over how we use their data in line with legislation.
- We use data and information in a way that is morally and ethically right and leads to positive outcomes for employees, service users and the wider communities we serve.
- We are transparent about where data and information originate and work with other agencies to ensure that partnership data sharing is effective.
- We will effectively protect data to minimise disruption to the services we provide.

Architecture

We have adopted a 'digital by design' approach to how we deliver services to our employees and communities using a simplified approach to the systems and architecture and investing in technologies that are cloud based, agile and use industry standards.

By procuring systems that use Open Standards will lead to improved interoperability between our internal systems reducing inefficiency and double entry of data by ensuring interfaces between systems work effectively to break down data silos. This will also enable opportunities for improved partnership working with trusted agencies leading to better outcomes for communities we serve across the prevention, protection, and response areas.

Controlled access to our systems will be simplified to enable Single Sign On (SSO) where possible and will comply with and exceed the Government Minimum Cyber Security Standard. Conditional Access also known as multi-factor authentication (MFA) using industry standards will deliver robust protection for our systems and data without impeding service delivery.

The right technology will enable us to catalogue our information datasets and identify duplication, redundancy (data no longer used) and latency (time from acquisition to use) to derive maximum benefit from our investment in data. We have aspirations to explore the implementation of an shopping basket/pick and mix style catalogue to select and 'mash up' data sets to identify themes and increase organisational intelligence.

Principles

- We will continue to simplify our architecture to reduce the number and complexity of systems to deliver efficient, effective systems to process our data.

- We will adopt COUNT in respect of data collection - Collect Once Use Numerous Times.

- We will catalogue information assets and make them available responsibly through simple interfaces.

- We will procure systems that enable the use of common referencing conventions without the requirement of extract, transform, load (ETL) processes.

- We will use technology to ensure that we manage our data effectively.

Analytics

Data analytics is the key to unlocking the most value that can be extracted from data across the organisation and can be used reflectively to look at past performance but also to inform future direction. Modern data analytics spans a range of technologies, from dedicated analytics platforms, dashboards and databases such as Microsoft PowerBI to sentiment analysis and artificial intelligence (AI).

The organisation pro-actively uses analytics in real-time to ensure that it has the most up to date position on which to base decisions. Intelligent analytics captured as near real-time as possible offers opportunities to make better decisions in fast moving situations such as at incidents. Quarterly reports have value, but better decision making can be achieved with more reactive analysis.

To compare, contrast, and analyse data to inform decisions, standard formats and consistent referencing are crucial to ensure that holistic views are possible and comparison of like for like is achieved. Examples where this is critical to our activities is when we are considering risk and mitigations within a building for example. By using the standard Unique Property Reference Number (UPRN) for a building across all organisational systems enables all activities for that building to be captured across protection, prevention and response and an informed view of risk is available.

We are innovative when considering analytics and keen to harvest maximum value from our digital investment by exploring the automation of information retrieval for statutory information requests, analysing sentiment analysis and participating in data initiatives such as the NHS Accelerator program Multi Agency Safeguarding Tracker (MAST)

Principles

- We will ensure standards and common referencing systems are used to enable effective analysis of data.

- We will take a blended approach to retrospect and reflective analysis tempered with near real-time analytics to deliver robust data driven decision making.

- We will use data innovatively to capture sentiments and act appropriately upon feedback.

- We will work in partnership with other agencies to share collective data ethically and legally to improve outcomes for our communities.

People

Our people are our most valuable asset and instrumental in the collection of some of the data that drives our organisation. The systems, devices and processes provided will have quality, innovation and simplicity as their foundation and stakeholder engagement will inform direction to deliver a positive user experience.

Data collection will be designed in line with 'Our Plan' to provide mobile, flexible and cloud first ways of data acquisition and reporting so that our employees are able to deliver their services out in the communities they serve.

Supported learning and development is critical to ensure that we take our employees on the journey to becoming a data driven organisation. The implementation of a new Human Capital Management (HCM) system offers opportunities to deliver new ways of training and development.

Principles

- We will build capabilities through supported learning and development within our workforce to improve understanding of data and its organisational importance.

- We will encourage employees to become more data literate and actively champion data quality and availability through the creation of a Data Steering Group with organisational representation.

- We will improve systems, devices, and processes to be flexible and balance security with usability.

- We will provide the right information, to the right people, at the right time.

- We will streamline the number of systems and devices we use to deliver a positive user experience.

The Future

West Midlands Fire Service has ambition and determination to continue to be a data driven organisation turning data into information and intelligence; making decisions based on evidence built upon firm foundations of robust governance, best of breed digital architecture, innovative analytics and a workforce that is digitally enabled and data centric.

Our annual strategic priorities and rolling three-year strategy is built from our Community Risk Management plan (CRMP). Understanding and assessing all foreseeable risk is key in determining how we can deliver the most effective services to our communities; this understanding and analysis is underpinned by evidence and data from a wide range of both internal and external sources. We will continue to use real time data to support the ongoing development of our CRMP and inform the day-to-day decisions that impact on the delivery of our Serices.

We have a duty to consult with all stakeholders on our CRMP, including our communities, to be open and transparent we publish our data and CRMP outcomes on our website. Our Community Safety Strategy is a publicly facing interactive representation of our CRMP, we will continue to develop this this tool to reflect the most update date, live prevention, protection and response data so our communities can see how we are keeping them safer, stronger and healthier on a day to day basis, whilst understanding the range of data sets that inform our approach.

Digital investment has transformed the way that we deliver our services, and we plan to harvest maximum value from this investment by innovatively using data to improve insights and continue to deliver better outcomes to the communities we serve.

Like many other organisations, there are challenges that we face from increased cyber criminality. However, we continually assess the risks to our data and adjust controls to ensure that our systems and data contained therein are adequately protected. The balance of security and usability that is in-built to our systems, processes and policies provides a high level of assurance and we can confidently continue our data transformation journey.