CPNI

Centre for the Protection
of National Infrastructure

DIGITALISATION INITIATIVES

ESTABLISHING HIGH-LEVEL INFORMATION NEED AND MANAGEMENT REQUIREMENTS

OVERVIEW

Digitalisation initiatives leverage the power of information in order to:

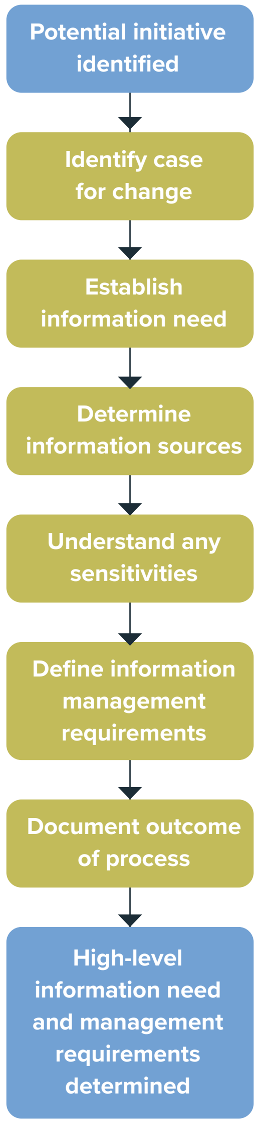
- drive better decision-making and service delivery across a whole range of existing public services and societal goals; and
- facilitate innovation and experimentation to create new products and services.

However, just increasing the volumes of data we collect and store will not necessarily deliver the benefits we seek. Storing, processing and consuming information also comes at a cost, both monetary and in terms of energy consumption, which is especially relevant in light of net zero carbon targets.

It is therefore valuable to spend some time establishing the specific information that needs to be acquired, processed, stored and consumed in support of an activity or service. As part of this, any information which is likely to be sensitive and which may compromise security or privacy can be identified early. This allows appropriate decisions to be made about managing associated risks before any information is collected, aggregated or released.

The process set out in detail in the guidance document 'Digitalisation Initiatives – Establishing information need and management requirements: Guidance document', and summarised below, provides a structured method for teams working on digitalisation initiatives to determine high-level information need and any associated security and management requirements. It does not replace the processes and outputs required for investment decision-making and project delivery, such as business cases, project plans and detailed information specifications.

PROCESS FOR ESTABLISHING HIGH-LEVEL INFORMATION NEED AND MANAGEMENT REQUIREMENTS


Potential initiative identified

Identify case for change

Establish information need

Determine information sources

Understand any sensitivities

Define information management requirements

Document outcome of process

High-level information need and management requirements determined

IDENTIFY CASE FOR CHANGE

Undertake high-level scoping of the initiative and define the planned outcome.

By having clarity of purpose, you can focus on your key information needs to prioritise requirements and avoid the temptation to collect information simply because you can.

ESTABLISH INFORMATION NEED

Determine the essential information and information quality required to support achieving the planned outcome.

Applying a counterfactual test to all identified information is a good way of understanding the impact of not having access to information and/or the information being of poor quality.

DETERMINE INFORMATION SOURCES

Establish where the information could, or will, be obtained from and whether any new information will need to be generated.

Where information is likely to be provided by third parties, that third party may have its own requirements for the processing, storage and consumption of that information that you will need to implement.

UNDERSTAND ANY SENSITIVITIES

Assess the sensitivity of the information that will be acquired, processed, stored and consumed and determine the impacts that could result from unauthorised use or disclosure.

Determine the appropriate and proportionate measures that need to be put in place to manage any security risks. This should include determining whether there are any obvious constraints on who needs access to information or who should be denied access. For more information see www.cpni.gov.uk/security-minded-approach-digital-engineering

DEFINE INFORMATION MANAGEMENT REQUIREMENTS

Establish the information management processes required to assure information quality and to manage it over its lifecycle. For more on information quality see

www.cpni.gov.uk/security-minded-approach-information-management

DOCUMENT OUTCOME OF PROCESS

Document and retain the outcome of each step of the process, summarising the outcome of investigations and assessments outlined above.

This document can provide a sound basis for project initialisation as well as acting as a useful reminder of the assumptions that were made at this early stage.

Disclaimer:

Reference to any specific commercial product, process or service by trade name, trademark, manufacturer, or otherwise, does not constitute or imply its endorsement, recommendation or favour by CPNI. The views and opinions of authors expressed within this document shall not be used for advertising or product endorsement purposes. To the fullest extent permitted by law, CPNI accepts no liability for any loss or damage (whether direct, indirect or consequential, and including but not limited to, loss of profits or anticipated profits, loss of data, business or goodwill) incurred by any person and howsoever caused arising from or connected with any error or omission in this document or from any person acting, omitting to act or refraining from acting upon, or otherwise using the information contained in this document or its references. You should make your own judgment as regards to the use of this document and seek independent professional advice on your particular circumstances.

CPNI

Centre for the Protection
of National Infrastructure

DIGITALISATION INITIATIVES

ESTABLISHING HIGH-LEVEL INFORMATION NEED AND MANAGEMENT REQUIREMENTS