Information is the lifeblood of successful organisations. Without it, they cannot operate. Equally, if it is untrustworthy, every activity is suspect, and no-one can make a reliable decision. This is especially important in research, where data accuracy is vital. Finally, some information, such as commercial research findings, personnel records and medical data, is so sensitive that even knowledge of it by the wrong people is dangerous to the organisation.

Because everyone in any organisation needs to create, access and use information, everyone is responsible for protecting it and using it appropriately. This protection requires a culture where information is seen as being valuable and worth protecting, where effective data management is established, and where student and staff privacy are respected.

In order to achieve and maintain a good approach to information risk management, or information security, organisations can benefit from the well-developed international standards in this area.

ISO/IEC 27001 is the international standard describing the creation and maintenance of an information security management system (ISMS). It can be used by any size of organisation, and is flexible enough to fit any sector. It has been in existence for over twenty years, and is used by many universities in the UK and abroad.

The UCISA Information Security Management Toolkit has been constructed for use by information security/ governance professionals wishing to put in place an ISMS in their organisation. It also addresses how to convey the importance of information security to the organisation, since the need for an ISMS is based upon the acceptance that information security is worth investing in. This edition of the Toolkit outlines an approach to successfully implement an ISMS based on ISO/IEC 27001:2013 (Information technology — Security techniques — Information security management systems — Requirements). It is intended as a practical resource, providing an overview of the key aspects of a successful ISMS and guidance on how to implement them. It also includes case studies, as well as templates and example resources which organisations can tailor to suit their needs.

The Toolkit has evolved from edition three of the UCISA Information Security Toolkit, which was based upon the 2005 version of ISO/IEC 27002 (Information technology — Security techniques — Code of practice for information security management), and included sample policies for all the Standard's controls, grouped according to the internal functions of the organisation.

The different approach taken this time reflects the need of organisations for advice and guidance upon setting up and maintaining the organisational infrastructure (including top level policies, processes, and governance) which enables policies and other security measures (controls) to be appropriate, well maintained, and effectively implemented. Information on how to implement controls is not included.

The document has also been revised to reflect the changing trends in the workplace, such as: the growth of the use of personal devices to access organisational systems and services; the increase in off-site working; and the complexities of the research agenda (e.g. protecting intellectual property in an open environment).

Information is not the sole domain of the IT department— it is a crossinstitutional concern. The UCISA Information Security Management Toolkit will:

- assist those who have responsibility for implementing information security across the organisation by providing advice and guidance to them;
- help them to provide senior university management with an understanding of why information security is an important, organisation-wide issue.

### The structure of this document

Good information security requires a proportionate, risk-based response. The Toolkit is arranged in chapters, each one covering a key aspect of an ISMS and providing advice, instructions and examples to aid implementation. At the end of each chapter is a summary of key points and references. At the end of the document, in the Conclusion, is a collection of all the chapters' summary points.

## **Definitions and standards**

Please note that this document uses the definitions in ISO/IEC 27000 Information technology — Security techniques — Information security management systems — Overview and vocabulary. These definitions may differ from standard dictionary definitions.

It is also strongly recommended that readers read this document in conjunction with the standards ISO/IEC 27001 and ISO/IEC 27002.

# Route map for using the UCISA Information Security Management Toolkit

Toolkit Route Map

Stages to build ISMS - Objectives	Toolkit Chapters
Stages to baild ISMS Objectives	rookki chupters
Stage 1	
Foundations	
Understand the organisation	[§1] What is information security?
Establish leadership and commitment	[§2] Information security
Gain initial top management support	governance
Set policy/strategy	[§3] Drivers
Define roles and responsibilities	[§8] Roles and competencies
	[§13] Policies
Stage 2	
Planning, assessment and evaluation	
Define scope of activity	[§4] Scoping
<ul> <li>Define risk assessment methodology</li> </ul>	[§5] Risk assessment
Assess risk and establish risk treatment plan	[§6] Controls
Select controls	[§7] Information management
Define necessary resources	[§8] Roles and competencies
Deliver business case and review	[§9] Awareness raising
Define competencies	[§2] Information security
	governance
Stage 3	
Implementation, support and operation	
Establish operational support (resource,	[§5] Risk assessment
competencies, awareness etc.)	[§6] Controls
Implement policies/controls and manage risk	[§8] Roles and competencies
Address communication and awareness building	[§9] Awareness raising
Implement compliance checking vs regulations	[§1] What is information security?
Stage 4	
Measure and evaluate performance	[810] Mascurament
Respond effectively to incidents and	[§11] When things go wrong.
when things go wrong	non - conformities and
Deliver continual improvement	incidents
Implement iterative risk assessment	[§12] Continual improvement
	[§5] Risk assessment

#### **Resources**

Different elements of an Information Security Management System - Cardiff University

Stages for implementing an Information Security Framework (ISF) programme - Cardiff University

## **Reading list**

ISO/IEC 27000:2014 Information technology — Security techniques — Information security management systems — Overview and vocabulary [2] www.ucisa.ac.uk/ismt1 http://standards.iso.org/ittf/PubliclyAvailableStandards/

ISO/IEC 27002:2013 Information technology — Security techniques — Code of practice for information security controls ∑ www.ucisa.ac.uk/ismt3

The Business Dictionary

 www.ucisa.ac.uk/ismt4