



KNOWLEDGE ECONOMY SKILLS PASSPORT

CURRICULUM OVERVIEW

APRIL 2006

INTRODUCTION

The Knowledge Economy Skill Passport (KESP) has been developed using the results of intensive research and consultation into the needs of organisations and individuals working in the knowledge economy sector. The programme is intended to equip workers with the knowledge and skills required to participate effectively and excel in the knowledge economy.

The programme consists of the following modules:

- What is the Knowledge Economy?
- Information and Knowledge in the Knowledge Economy
- Innovation in the Knowledge Economy
- Business Fundamentals of the Knowledge Economy
- Intrapreneurship & Entrepreneurship in the Knowledge Economy Enterprise

Each module will be taught using an innovative blend of lecture-based, self-paced eLearning, collaborative, electronically assisted learning, independent study and applied work-based learning activities.

WHAT IS THE KNOWLEDGE ECONOMY?

Purpose

This module will provide students with an introduction to the knowledge economy and its significance for the Irish economy. The materials covered in it will provide the groundwork for the four succeeding modules.

General Aims

Learners who successfully complete the module will:

- Understand what the knowledge economy is, recognise its economic importance and explain the impact of the knowledge economy on the global economy and individual work practices
 - Understand how the knowledge economy sector has developed in the Irish economy, and recognise how their employer organisation fits into it
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Constituent Units

The module consists of 3 units. These are:

- **What is the Knowledge Economy? - Key Concepts**
Introduces learners to the fundamental concepts of the knowledge economy.
 - **The Knowledge Economy Sector - A Global Perspective**
Outlines how the knowledge economy has developed, by providing an overview of the technology, industries and government policy that have contributed to its development.
 - **The Knowledge Economy in Ireland**
Provides an overview of the knowledge economy in Ireland, and encourages learners to consider how their employer organisations fit into it.
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INFORMATION AND KNOWLEDGE IN THE KNOWLEDGE ECONOMY

Purpose

This module will provide learners with a range of knowledge skills that will allow them to effectively work with information and knowledge in the knowledge economy sector. In addition, it will also provide them with an understanding of how information and knowledge is formally and informally generated, developed and distributed within the knowledge economy.

General Aims

Learners who successfully complete the module will:

- Understand the information technologies and resources that are central to the knowledge economy and how they can be used to gather, analyse and develop information and knowledge.
 - Possess a number of the core skills required to efficiently access, gather and use information in a knowledge economy context, create their own knowledge resources and contribute to the development of collaborative resources.
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Constituent Units

The module consists of 6 units. These are:

- **The Role of Technology in the Knowledge Economy**
Addresses the manner in which technology has brought about, and helps to drive, the knowledge economy.
 - **The Role of the Internet in the Knowledge Economy**
Describes how Internet technologies have contributed to the development of the knowledge economy and how they can be utilised by knowledge economy businesses and workers.
 - **Business Applications in the Knowledge Economy Enterprise**
Provides an overview of the technology used to improve organisational processes and provide new channels for sales and marketing.
 - **Knowledge Management**
Addresses the role of knowledge in providing competitive advantage to organisations, and outlines the key technologies used by enterprises and workers to manage and exploit knowledge resources.
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- **Acquiring Knowledge: Conducting Online Research**
Teaches learners how to use the Internet to find, store and share knowledge.
 - **Building Knowledge Competencies**
Addresses how learners can use collaborative technologies, such as forums, blogs and wikis to share and develop knowledge.
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INNOVATION IN THE KNOWLEDGE ECONOMY

Purpose This module focuses on the role of innovation in the knowledge economy. Using a series of case studies it will examine innovation as a process, how it is capitalised upon and the role of government and funding in driving innovation. The case studies will also be used to introduce learners to the scientific and technological disciplines that are driving the development of the knowledge economy (e.g. biotechnology and nanotechnology).

General Aims Learners who successfully complete the module will:

- Understand the theory and practice of innovation in science and technology, and recognise its importance in the knowledge economy
- Develop their own knowledge resources relating to the science and technology that directly impact on their roles in the knowledge economy

Constituent Units The module consists of 7 units. These are:

- **Understanding Innovation**
Introduces the subject of innovation, and describes its importance to the knowledge economy.
- **The Scientific Method**
Introduces the scientific method to provide a foundation for discussion on scientific innovation.
- **Scientific Innovation in the Knowledge Economy**
Addresses the importance of scientific innovation to the knowledge economy, how it occurs and how it is capitalised upon, using case studies in biotechnology and nanotechnology.
- **Technological Innovation**
Introduces learners to technological innovation, how it arises, how it affects business practices and how technology is predicted to evolve over the next decade.
- **Collaborative Innovation**
Introduces learners to the concept of collaborative innovation, using the example of open-source software, its impact on the knowledge economy and how it is predicted to evolve.

- **Measuring Innovation**

Equips learners to measure innovation by teaching them how to use indicators and data resources.

- **Developing an Innovation Knowledge Base**

Encourages learners to take responsibility for developing an innovation knowledge base relevant to their job, so they actively stay informed about industry developments.

BUSINESS FUNDAMENTALS OF THE KNOWLEDGE ECONOMY

Purpose The purpose of this module is to provide learners with an overview of the business environment in which knowledge economy enterprises operate. Its aim is to provide participants with the skills needed to effectively contribute to an enterprise's operation.

General Aims Learners who successfully complete the module will:

- Understand the knowledge economy business environment, including business models, functions and the roles of individuals
- Appreciate the importance of innovation in businesses, and recognise how they can apply their skills to making a productive contribution to a knowledge economy enterprise

Constituent Units The module consists of 8 units. These are:

- **Business Fundamentals**
Provides an introduction to knowledge economy business, describing various roles and functions as well as the key skills required by workers.
- **Business Models**
Outlines the various business models used in the knowledge economy, and how the appropriate model is selected by an enterprise.
- **Marketing in the Knowledge Economy**
Provides an introduction to marketing and uses several case studies to describe how advances in technology have affected marketing activity in the knowledge economy.
- **Financial Markets and the Knowledge Economy**
Addresses how financial markets affect knowledge economy businesses, from raising capital to how financial markets can affect value and profitability.
- **Team Working**
Addresses the types, structure and development of teams within organisations, as well as the social and business skills required to work effectively as part of a team.

- **Management, Leadership and Mentoring**

Defines, describes and distinguishes between the roles of managers, leaders and mentors and outlines their importance within knowledge economy organisations.

- **Project Management**

Addresses various theoretical and practical approaches to project management, and outlines the characteristics of an effective project manager.

- **Developing your Career in the Knowledge Economy**

Introduces learners to the concept of continuing professional development, and encourages them to take an active part in developing their own careers.

INTRAPRENEURSHIP & ENTREPRENEURSHIP IN THE KNOWLEDGE ECONOMY ENTERPRISE

Purpose This module will provide learners with an understanding of the importance of intrapreneurship and entrepreneurship in knowledge economy enterprises. Successful intrapreneurial and entrepreneurial activity will be explored through Irish case studies. Learners will also be encouraged to develop their own intrapreneurial and entrepreneurial skills.

General Aims Learners who successfully complete the module will:

- Understand intrapreneurship and entrepreneurship and its importance in the knowledge economy
- Be able to research and validate a business idea, formulate a business plan and recognise the different types of financing available

Constituent Units The module consists of 6 units. These are:

- **What is Intrapreneurship & Entrepreneurship?**
Introduces the key concepts of intrapreneurship and entrepreneurship using case studies.
- **Intrapreneurship & Entrepreneurship in the Knowledge Economy**
Describes the role of knowledge-based entrepreneurial activity and government policy in driving the knowledge economy in Ireland.
- **Intrapreneurship/Entrepreneurship in Practice: the Fundamentals**
Introduces learners to value propositions and business plans and outlines how they are developed.
- **Developing a Business Idea and Formulating the Value Proposition**
Details the steps required to research and develop a business plan and formulate a value proposition.
- **Financial, Organisational and Operational Considerations**
Defines the specific information required in a business plan, why it is important and how it should be organised.

- **Sources of Financing**

Introduces learners to the various forms of finance available to fund intrapreneurial and entrepreneurial activity.
