



**PRIORITY AREA C**  
**DIGITAL PLATFORMS, CONTENT AND APPLICATIONS ACTION PLAN**  
**JULY 2013**

## Digital Platforms, Content and Applications (Priority Area C)

### Context

The previous two priority areas outlined; “Future Networks & Communications” and “Data Analytics, Management, Security & Privacy” provide the underlying capacity and infrastructure that enable the digital products, applications, services and content that can be delivered to end users. “Digital Platforms, Content & Applications” is the priority area that provides direct engagement with end users across society and monetises the developments from all three priority areas. “Digital Platforms, Content & Applications” offers significant potential to transform the economic, social and environmental fabric of Ireland by:

- Developing and delivering products and services that will improve the productivity of enterprise and the public sector;
- Offering improvements in quality of life for citizens through products targeted at independent living and healthcare;
- Progressing the ‘smart economy’ by realising developments in smart grid, smart cities, smart homes, smart environment, smart oceans etc.;
- Boosting Ireland’s image and reputation through the global exposure of Ireland’s culture and heritage through digital means;
- Becoming a global leader in the research, development, exploitation and export of digital technologies.

The focus of this priority area is on content development and the development of applications and services in areas such as eGaming, eLearning, eEnvironment and eTourism. Key research fields include digital media, human machine interface (physical and software components), social sciences, digital humanities, behavioural psychology, localisation (including language technologies) and personalisation. Implicit within the priority area are the subject areas of advertising and design, both of which have significant potential to impact on the development of digital products, applications and services and their exploitation. Ireland’s internationally recognised contribution to cultural creativity is a key driver and strength.

“Digital Platforms, Content & Applications” can contribute to addressing key global and national drivers by improving eLiteracy, increasing quality of life through for example eHealth, eTransport, eEnvironment and eLearning applications and services. It can also provide a framework for converting data into knowledge. In the national context, it has a key role to play in delivering on the technology actions for the establishment of an International Digital Services Centre and the facilitation of Ireland becoming an early mover in the commercialisation of the ‘internet-of-things’.

The potential economic benefit to be derived from cloud computing and data analytics has already been outlined in other priority areas. These benefits can only be realised if relevant digital content and services are accessible over and through the cloud. Digital Platform, Content & Applications will provide the mechanism for identifying and productising such content and services. Building partnerships particularly with cultural institutions will serve to enhance this area.

The digital media global market which includes education, entertainment, consumer information and infrastructure was estimated at \$258 billion in 2010. Between 2005 and 2010, the sector experienced a CAGR of 11.7 per cent. Within the overall sector sub-markets, such as eGames, have experienced rapid growth (currently worth \$52.5 billion with an expected CAGR of 10.6 per cent between 2009 and 2014). It is estimated that the eLearning market will be worth \$107.3 billion in 2015. Creative Industries have been in decline in their traditional forms (film and music) over the last 5 years; the digital markets for such products however are on the increase. The development of cloud computing is expected to have a positive impact on these markets going forward.

Ireland has good representation of leading players from both the eGames and eLearning sectors. A solid indigenous base is being built up also in these areas. In tourism, the digitising of content, development of linked data and e-readiness of tourism companies is critically important to the Irish economy. Indigenous firms have been particularly successful in eLearning, animation and in the enabling wireless infrastructures and middleware (Jam Media, Nooked, Skillsoft Ireland). There is a strong dynamic emerging in eGames development (Open Emotion, Digital Sideburns). Ireland has a strong reputation in the production of cultural and creative products.

Software Technology and the Digital Arts have key underpinning roles in the “Digital Platform, Content & Applications” area. Research in this area is being undertaken in topics such as Internet technologies, digital content and localisation, sensor technologies, embedded systems, computer vision, computational science and informatics, digital humanities, digital repositories, eLearning systems, animation, cultural heritage, cultural tourism and cyber-psychology.

Ireland has a number of key research centres in this space which include centres focused on web science, software and evolving critical systems, localisation of digital content and sensor web. Technology Centres in the digital platform, content and applications area are focused on developing practical tools and approaches to maximise ICT investments, helping to establish Ireland as a leader in green computing and support research and innovation in technology enhanced learning products and methods.

## Digital Platforms, Content and Applications

**Vision/opportunity:** To focus on Digital Platforms, Content and Applications to further develop Ireland’s global positioning in the ICT field, by building on existing research strengths and well established indigenous and FDI sectors, to enhance human capital and research capacity to address the current and future needs of this rapidly moving sector and to underpin Ireland’s global reputation through active participation in the development of technology and regulatory standards.

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<b>Objective 1</b>	<p>To fund research to address the strategic needs of the core areas that comprise Digital Platforms, Content and Applications; namely:</p> <ul style="list-style-type: none"> <li>▪ Digital Content and Applications; content development and the development of applications in areas such as eGaming, eEnvironment, eLearning and eTourism.</li> <li>▪ Human-Machine Interface, multi-media, multi-modal service creation environment.</li> </ul>
<b>Objective 2</b>	<p>To realise value add by elaborating links with other research priority areas that will depend on the outputs from Digital Platforms, Content and Applications; for example, Future Networks and Communications (priority area A), Data Analytics, Management, Security &amp; Privacy (priority area B), Connected Health &amp; Independent Living (priority area D) and Smart Grids &amp; Smart Cities (priority area K).</p>
<b>Objective 3</b>	<p>To create an environment to bring together the necessary disciplines from enterprise and academia and also drawing on the relevant state functions (e.g. regulators) to work collectively on opportunities in the Digital Platforms, Content and Applications area at both early stage and applied research.</p>
<b>Objective 4</b>	<p>To support the development of relevant skillsets in graduates, postgraduates and researchers to achieve the critical mass to meet the strategic needs of enterprise and the research community, including the development of structured training programmes at postgraduate level, to address relevant skills gaps as identified and validated by the Expert Group on Future Skills Needs.</p>
<b>Objective 5</b>	<p>To establish a position of leadership and credibility for Ireland in the Digital Platforms, Content and Applications area such that Ireland is able to influence and contribute to the development of international standards and regulations for the area.</p>
<b>Objective 6</b>	<p>To scope a digital strategy and policy position for Ireland.</p>
<b>Objective 7</b>	<p>To highlight/address copyright issues in complex areas such as heritage, art and culture.</p>

No	Action	Deliverable	Benefit	Lead	Support	Timeline
<b>Objective 1</b>	<p>To fund research to address the strategic needs of the two core areas that comprise Digital Platforms, Content and Applications; namely:</p> <ul style="list-style-type: none"> <li>▪ Digital Content and Applications; content development and the development of applications in areas such as eGaming, eEnvironment, eLearning and eTourism.</li> <li>▪ Human-Machine Interface, multi-media, multi-modal service creation environment.</li> </ul>					
<b>C 1.1</b>	Building on the national research prioritisation exercise, identify and map the key enterprise and academic expertise for the 2 core areas of Digital Platforms, Content and Applications.	Up-to-date picture of the enterprise and research ecosystem for the 2 core areas.	Knowledge and awareness of where research strengths and enterprise capability and capacity lie.	EI, IDA, SFI	HEA, IRC, MI, DJEI + any other agencies of relevance	Q4, 2013
<b>C 1.2</b>	Assess the current strategic research needs and gaps for each of the 2 core areas through liaison with IDA, EI and other agencies.	Mechanism for mapping enterprise needs against research activity.	A clear picture of enterprise needs.	EI, IDA, SFI	HEA, IRC, MI, DJEI + any other agencies of relevance	Q2, 2014

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No	Action	Deliverable	Benefit	Lead	Support	Timeline
C 1.3	Continue or extend funding of current research activity to meet needs or run a new thematic call for new areas of need.	Mechanism for allocating research funds against enterprise needs.	Research activity remains fully aligned with enterprise needs.	SFI, EI	IDA, HEA, IRC, MI, DJEI + any other agencies of relevance	Q1, 2014
C 1.4	Continue to fund research in underpinning platform technologies and sciences of relevance to Digital Platforms, Content and Applications through bottom up calls.	Mechanism for allocating research funds for underpinning platform technologies and sciences.	The underpinning research requirements of the Digital Platforms, Content and Applications area are addressed.	SFI, EI	IDA, HEA, IRC, MI, DJEI + any other agencies of relevance	Q1, 2013
C 1.5	Devise appropriate mechanisms to facilitate on-going collaboration between relevant research initiatives.	Collaboration programme for researchers to share research initiatives and findings.	Synergies between research initiatives are fully explored and developed.	SFI, EI	IDA, HEA, IRC, MI, DJEI + any other agencies of relevance	Q3, 2013
<b>Objective 2</b>	To realise value add by elaborating links with other research priority areas that will depend on the outputs from Digital Platforms, Content and Applications; for example, Future Networks and Communications (priority area A), Data Analytics, Management, Security & Privacy (priority area B), Connected Health & Independent Living (priority area D) and Smart Grids & Smart Cities (priority area K).					

No	Action	Deliverable	Benefit	Lead	Support	Timeline
C 2.1	Identify the research priority areas in which Digital Platforms, Content and Applications will have role to play.	Mapping of dependencies and linkages between research priority areas.	A clear picture of how Digital Platforms, Content and Applications can fit with and contribute to other research priority areas.	Forfás	SFI, EI, IDA, HEA, IRC, MI, DJEI + any other agencies of relevance	Q3, 2013 and on-going
C 2.2	For each relevant research priority area identified in 2.1 engage in inter-agency discussions to assess their requirements of Digital Platforms, Content and Applications.	Definition of requirements of Digital Platforms, Content and Applications from other research priority areas.	A clear picture of expectations from Digital Platforms, Content and Applications from other research priority areas.	DJEI (via TI)	SFI, EI, IDA, HEA, IRC, MI + any other agencies of relevance	Q3, 2013
C 2.3	Ensure appropriate funding mechanisms are in place to encourage and facilitate on-going collaboration between Digital Platforms, Content and Applications and other research priority areas.	Facility for collaboration for research priority areas to share research needs and future requirements.	Dependencies between research areas are fully explored and addressed.	DJEI (via TI)	SFI, EI, IDA, HEA, IRC, MI + any other agencies of relevance	Q4, 2013

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No	Action	Deliverable	Benefit	Lead	Support	Timeline
<b>Objective 3</b>		To create an environment to bring together the necessary disciplines from enterprise and academia and also drawing on the relevant State functions (e.g. regulators) to work collectively on opportunities in the Digital Platforms, Content and Applications area at both early stage and applied research.				
C 3.1	Engage key enterprises (both indigenous and FDI) with strengths in the Digital Platforms, Content and Applications field to discuss the opportunities arising from the research gaps identified in action 1.2.	Company awareness of the opportunities in Digital Platforms, Content and Applications area is enhanced.	Enterprise will have the opportunity to exploit the Digital Platforms, Content and Applications area.	EI, IDA, HEA	SFI, IRC, MI, RPOs, CTTO + any other agencies of relevance	Q4, 2013
C 3.2	Ensure appropriate funding mechanisms are made available to facilitate the identified enterprises collaborating with the relevant research expertise on both early stage and applied research on an on-going basis.	Focused enterprise and research collaboration.	Key capabilities are supported to work together to realise the commercial potential in the research areas.	EI, SFI, HEA, IRC	IDA, MI, RPOs, CTTO + any other agencies of relevance	Q1, 2013



No	Action	Deliverable	Benefit	Lead	Support	Timeline
<b>Objective 4</b>		To support the development of relevant skillsets in graduates, postgraduates and researchers to achieve the critical mass to meet the strategic needs of enterprise and the research community, including the development of structured training programmes at postgraduate level, to address relevant skills gaps as identified and validated by the Expert Group on Future Skills Needs.				
C 4.1	In undertaking their work the Expert Group on Future Skills Needs (EGFSN) will seek to consider the likely skills needs for the Digital Platforms, Content and Applications area going forward.	“Addressing the high level ICT skills across sectors of the economy of Ireland” report.	Ireland will build competitive advantage by planning for future skills needs.	EGFSN	SFI, EI, IDA, HEA, IRC, MI + any other agencies of relevance	Q4, 2013
C 4.2	Linking in with the HEA foresight group map the skills needs against existing postgraduate programmes to identify where gaps exist.	Reporting on mapping of existing postgraduate programmes against skills needs.	A clear picture of current postgraduate programmes of relevance.	HEA	SFI, EI, IDA, IRC, MI + any other agencies of relevance	Q4, 2013
C 4.3	Work with the ICT Action Plan, the forthcoming HEA framework on doctoral education and the relevant	Specification for specific postgraduate training programmes.	A clear picture of gaps to be addressed in postgraduate training programmes.	HEA	SFI, EI, IDA, IRC, MI + any other agencies of	Q1, 2014

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	academic institutions in collaboration with enterprise to modify existing postgraduate programmes or to scope new research and education programmes to address the gaps identified.				relevance	
No	Action	Deliverable	Benefit	Lead	Support	Timeline
<b>Objective 5</b>		To establish a position of leadership and credibility for Ireland in the Digital Platforms, Content and Applications area such that Ireland is able to influence and contribute to the development of international standards and regulations for the area.				
<b>C 5.1</b>	Map, co-ordinate and link relevant standards and special interest groups for the Digital Platforms, Content and Applications area.	Map of relevant international standards and special interest groups.	A clear picture of standards of relevance to the Digital Platforms, Content and Applications area.	EI, IDA, NSAI	SFI, HEA, IRC, MI, NDA + any other agencies of relevance	Q4, 2013
<b>C 5.2</b>	Identify standards groups and special interest groups where Ireland has representation.	National register of Irish representation on standards groups and special interest groups.	Transparency as to which standards groups and special interest groups Ireland is engaged in.	EI, IDA, NSAI	SFI, HEA, IRC, MI, NDA + any other agencies of relevance	Q4, 2013

No	Action	Deliverable	Benefit	Lead	Support	Timeline
C 5.3	Identify which standards and special interest groups Ireland should get involved in.	List of standards and special interest groups of interest to Ireland.	A clear picture of standards and special interest groups of relevance to Ireland.	EI, IDA, NSAI	SFI, HEA, IRC, MI, NDA + any other agencies of relevance	Q4, 2013
C 5.4	Build credibility and presence in relevant standards groups and special interest groups by participation in standards related events and relevant research on an on-going basis.	Increased credibility and participation in identified standards and special interest groups.	Credibility and secured seat at the table for Ireland.	SFI, EI, HEA, IRC, NSAI	IDA, MI, NDA + any other agencies of relevance	Q4, 2013
C 5.5	Facilitate sharing of information from Irish representatives on standards groups and special interest groups.	Mechanism to disseminate information on relevant standards and special interest groups.	Intelligence on standards and special interest groups will be more accessible to enterprise and researchers.	EI, IDA, NSAI	SFI, HEA, IRC, MI, NDA + any other agencies of relevance	Q1, 2014
<b>Objective 6</b>	To scope a digital strategy and policy steer for Ireland.					

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No	Action	Deliverable	Benefit	Lead	Support	Timeline
C 6.1	Investigate and scope a digital strategy and policy steer for Ireland.	Policy and Strategy statement.	A clear policy and strategy steer for Ireland in digital field.	DCENR	EI, IDA, SFI, HEA, IRC, MI + any other agencies of relevance	Q3, 2013
<b>Objective 7</b>	To highlight copyright issues in complex areas such as heritage, art and culture.					
C 7.1	Complete the report of the Copyright Review Committee on barriers to innovation	Recommendations in Copyright Review Committee report.	Guidance on specific IP issues in heritage field.	DJEI & Copyright Review Committee	Copyright Review Committee	Q2, 2013
C 7.2	Following publication of report, implement relevant Copyright Review Committee report recommendations.	Implementation plan for report recommendations.	IP issues in heritage field will be addressed.	DJEI	EI, IDA, SFI, HEA, IRC, MI + any other agencies of relevance	Q1, 2014

**Forfás**



An Roinn Post, Fiontar agus Nuálaíochta  
Department of Jobs, Enterprise and Innovation