



Metadata: increasing the value of digital content

**COMPETITION FOR COLLABORATIVE R&D FUNDING
SEPTEMBER 2010**



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Summary

We have allocated up to £5m to invest in collaborative R&D projects that will demonstrate how businesses may increase revenues from the metadata relating to their digital content.

While the internet has enabled digital content industries to gain greater access to the global market, it has made it more difficult to control, manage and monetise digital assets. The ease with which content can be copied and distributed is threatening the economic viability of content-based businesses. These companies are challenged by illegal file sharing and by the shift of advertising to online media.

Digital content companies can no longer rely on historic business models but need to secure other sources of income. Better metadata systems – ways of storing information about individual items of content – offer a possible route to improving consumer access to content and to helping rights holders better manage and exploit their assets.

This competition addresses the new challenge of generating revenue from digital content, by supporting projects that demonstrate the value of metadata. A second competition in early 2011 will support the development of tools and solutions to produce higher quality metadata and use metadata to produce digital content more efficiently.

In this competition we will invest in business-led collaborative R&D projects to develop prototypes and demonstrators with the potential to enter the market within 1-2 years of completion.

We will fund two types of project:

1. Fast-track projects: less than £100k in total project value. These should be completed within 12 months and must be led by a creative industry¹ SME. We will

hold three rounds of funding for fast-track proposals and will invest up to £200k in each round, with a total of up to £600k.

2. Mainstream projects: more than £100k in total project value. These will typically last between 12 and 24 months and must be business led. There will be one round for mainstream projects, and we will invest up to £4.4m in total.

All UK-based companies and research organisations are eligible to apply. Successful proposals will receive a grant for up to 50% of the total project costs. The competition opens on **13 September 2010**.

Background and challenges

Although there has been considerable investment within the sector in developing metadata infrastructure (eg, databases, schema and tools), the development has been restricted to individual subsectors and to largely proprietary solutions. This has led to fragmentation with many different, incompatible solutions. This competition encourages solutions that increase interoperability between different approaches.

Rather than exploiting commercial opportunities, metadata has been developed for logistical purposes (eg, in music and publishing distribution). Because of this, metadata is often seen as an operational overhead and a business cost, rather than something of strategic importance that can be used to drive value. We highlighted metadata as a strategic priority in our report *Creative Industries Technology Strategy 2009-2012*, published in July 2009.

Another challenge is to ensure that metadata remains persistently and dynamically associated with an item of content. Today's solutions rely either on a file header or on integrated techniques such as watermarking, but neither of these approaches has seen significant take up in commercial applications, suggesting that further research is needed.

Systems that use digital fingerprinting techniques to link content with its metadata have had some success, with the audio recognition system Shazam being perhaps the best known example. The potential to extend digital fingerprinting to create applications that would allow all types of content to receive updateable metadata over the network offers interesting new possibilities; for example, enabling information about a product (such as price, rights or licensing data) to be updated dynamically.

This more sophisticated use of metadata may support the emergence of new revenue models. Better quality, more consistent and more readily available metadata will improve understanding of the ways – both authorised and unauthorised – in which content moves around networks and interacts with consumers. Metadata-based solutions may also help address some of the complex licensing challenges that rights holding organisations face, such as trying to find ways of releasing value more efficiently from orphan works (where it is difficult to trace the copyright owner).

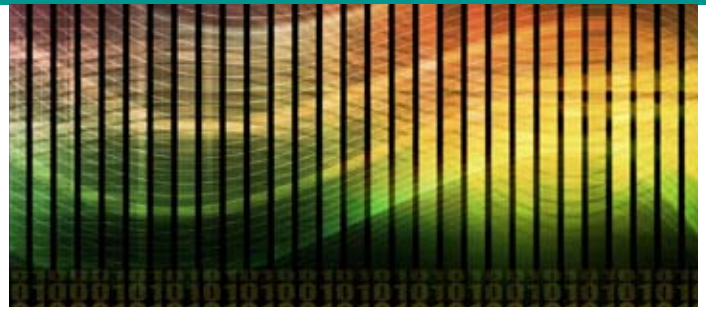
Such insights may help rights holders develop stronger relationships with their consumers and help identify new commercial opportunities. This will only increase as the more advanced 'next-generation access' networks emerge with greater intelligence built-in that can read, understand and interpret the metadata.

Scope

We will invest in collaborative R&D projects to develop prototypes, demonstrators, tools or solutions that use metadata to address the challenges identified above. Such solutions may create, but are not restricted to creating, any of the following:

- commercially exploitable interoperability between different existing metadata systems such as databases, ontologies and schema (eg, by developing translational algorithms)

¹ Creative industry sectors include TV and radio, film and video, computer games, music, advertising and media, performing arts, publishing, arts, crafts, design, architecture, and fashion design.



- technologies to ensure the persistent association of content with its metadata
- increased understanding, analysis and exploitation of patterns of content use in networks (eg, peer-to-peer traffic) that could lead to new revenue opportunities for content owners
- increased accessibility of content through more effective navigation and discovery services at the consumer and business interface
- novel approaches to visualisation of metadata (eg, in processing search results)
- increased efficiencies in licensing, rights clearance and remuneration for the use of digital content (eg, to enable more rapid even real-time licensing)
- new services or business models that exploit the value of metadata as an asset in its own right.

Other innovative proposals to develop metadata-driven solutions to derive economic value from content not mentioned above may also fall within the scope of this competition. Proposals that centre on new metadata creation and content production are out of scope – these challenges will be addressed in the second competition, to be held next year.

This competition is particularly relevant to any company that develops commercially exploitable content-based services – as a vendor of services (advertising, social media), a producer of creative product (film, music, games, TV and radio, publishing), an archive of content (galleries, libraries, museums) or a data specialist (information engineering, large-scale simulation and modelling).

Funding allocation and project details

All projects must be collaborative, with at least one partner. Proposals must demonstrate that each partner will make a significant contribution to the project and will expect to derive value from the

outcome. Partners can be drawn from large or small businesses, academia, research and technology organisations, and not-for-profit organisations, but the projects must be led by a revenue-earning business entity. Applicants who intend to apply for funding of £1m or more should contact us before submitting a proposal.

Successful projects will receive a grant to cover up to 50% of total project costs, with the partners providing the balance in matched funding. For example, applicants for fast-track project funding can apply for a maximum £50k grant.

The project must result in a prototype, demonstrator, tool or solution built around a specific content-based service or application, with the potential to enter the market within 1-2 years of project completion. It should be the precursor to a new commercial service or product, or it should significantly enhance existing products or services. Solutions that have the potential for wider, global adoption across other businesses and market sectors will have an advantage over niche, geographically discrete applications.

Applicants must:

- explain how their proposal will enable digital content businesses to increase their commercial revenues
- show that they understand the opportunity or problem their solution is looking to address, and are aware of potential competing approaches
- explain what is innovative about their proposed solution and what benefits it will offer over existing approaches
- show an understanding of the standards relating to metadata and an appreciation of the relevant legislative environment
- provide an outline of how they will exploit the result of their project commercially, and describe the anticipated:
 - target market
 - business model (how you intend to earn revenue)

- route to market
- time from project completion to launch of the product, service or capability
- attempt to quantify the annual global revenue potential for the solution for the first five years from launch.

Application process

Full details of the application process will be included in the Guidance for Applicants. This will be available from **13 September 2010** at www.innovateuk.org under Competitions. Applicants must read this document before submitting a proposal.

Briefings for fast-track and mainstream projects will be held on **23 September 2010** to explain the application process and competition requirements. We strongly advise that all applicants attend.

Fast-track projects

Applicants must complete a single application form. Applicants who are unsuccessful in the first or second round of the competition may revise and resubmit their proposal in the subsequent rounds until the third round has been completed, when the competition will close.

Mainstream projects

Applicants must submit a compulsory expression of interest application form by **21 October 2010**. An optional expression of interest may be submitted by **14 October 2010**. In this case we will review the proposal and give feedback before the compulsory expression of interest is submitted.

The compulsory forms will be assessed and we will invite a shortlist of applicants to submit a full application. Applicants who are not shortlisted will take no further part in the competition. Applicants who intend to apply for £1m or more of funding should contact us before submitting an expression of interest.



Key dates

Fast-track projects	
Competition opens	13 September 2010
Briefing (optional)	23 September 2010
Deadline for submission: round 1	21 October 2010
Decision to applicants	19 November 2010
Deadline for submission: round 2	16 December 2010
Decision to applicants	21 January 2011
Deadline for submission: round 3	17 February 2011 (TBC)
Decision to applicants	11 March 2011 (TBC)
Mainstream projects	
Competition opens	13 September 2010
Briefing (optional)	23 September 2010
Deadline for submission of optional expression of interest	14 October 2010
Deadline for submission of compulsory expression of interest	21 October 2010
Decision to applicants	5 November 2010
Deadline for submission of full-stage applications	16 December 2010
Decision to applicants	21 January 2011

Further information

For more information about this competition, and details of how to register and apply, visit **www.innovateuk.org** under Competitions.

Competition helpline:
0300 321 4357

Email:
competitions@tsb.gov.uk

Publicity

The Technology Strategy Board frequently publicises the results of competitions and this includes engagement with the media. All applicants will be given a chance during the competition process to opt out of any publicity. Willing applicants will be asked to provide an agreed form of words for use in publicity material. E-mail pressoffice@tsb.gov.uk with any queries.

The Technology Strategy Board is a business-led executive non-departmental public body, established by the Government. Its role is to promote and support research into, and development and exploitation of, technology and innovation for the benefit of UK business, in order to increase economic growth and improve quality of life.

Collaborative research and development is part of the Government's Solutions for Business portfolio.

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