

# Evaluative framework



# Introduction



In many areas of research, there are multiple sources of funding which may come from government, industry, academia, and the not-for-profit sector. In some cases, it may be unclear who funds what research activity, what the strategic priorities are for specific research areas, and who is responsible and accountable for performance. Such issues present risks and may also offer opportunities to better prioritise government investment and improve coordination and collaboration in research activities.

Drawing on National Audit Office and external expertise, we developed an evaluative framework which sets out four principles of effective coordination. We have used the framework to direct and inform our examination of arrangements in six areas of research, resulting in our published report on cross government funding of research and development, and a [series of complementary case studies](#).

We are publishing this framework with the aim of supporting funders and researchers to evaluate the effectiveness of coordination arrangements in their areas of interest.

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# The evaluative framework



## 1 Leadership and coordination

Are there effective leadership arrangements in place for coordinating research activities and resources?

## 4 Evaluation

Is it clear whether investment is achieving the intended outcomes?



## 2 Priority setting

Are research activities and resources focused on addressing the principal challenges, priorities and objectives?

## 3 Informed decision-making

Is the rationale for investing in specific programmes of research, skills and infrastructure supported by good information and analysis?

# Leadership and coordination



## Why is it important?

Understanding the environment and context for research activity, and identifying the key organisations and people involved, will help funders to identify opportunities for collaboration and address any barriers. Strong leadership arrangements will help to ensure that efforts to address research priorities are coherent and coordinated.

[Further details](#)

## What does good look like?

- Strong leadership and a culture of coordination and collaboration across the sector
- Collective action is facilitated by various groups and forums who coordinate and align activities within the research area
- Key players (including government, academia, industry and charities) come together to identify opportunities, tackle barriers to collaboration, coordinate activities, discuss future needs and developments, understand available resources, and develop partnerships. This may involve setting strategic direction for the sector as a whole or for particular areas

# Priority setting



## Why is it important?

Funders need to be clear about principal priorities, opportunities and challenges across the area of research. This will enable them to work together to ensure that efforts are aligned and directed towards common goals.

[Further details](#)

## What does good look like?

- A common understanding of the principal challenges facing the sector.
- Clarity about the research priorities, opportunities, objectives and direction for the sector.
- Roles and contributions of key players in addressing objectives are understood and agreed.
- Outputs of horizon-scanning influence decisions about future priorities.

# Informed decision-making



## Why is it important?

Maximising the value of public investment in research requires accessible, comprehensive, and coherent information on what and where others are investing, and a strategic approach to allocating resources. Funders need comprehensive information and analysis with sufficient granularity on current and past activity to help them identify funding gaps or duplication, inform and direct investment decisions, and strengthen the rationale and justification for investment.

[Further details](#)

## What does good look like?

- Data analysis of research investment has facilitated discussions on funding gaps and opportunities, improved coordination, and directed investment
- Investment decisions take account of where others (e.g. industry, charities and other nations) are investing in research programmes, skills and infrastructure.
- Information on proposed research programmes and the results of completed research are shared across the sector to avoid duplication of effort.
- Funders use information and knowledge of the sector to coordinate and align priorities and submit joined up funding bids, where appropriate.

# Evaluating the impact of investing in research



## Why is it important?

Evaluating the impact of investing in research is challenging. The scientific, societal and economic returns from such investment are often long-term and it is difficult to put a value on ground-breaking research. There are also costs associated with carrying out in-depth assessments of impacts achieved.

But funders need to know whether investment in research is securing the desired outcomes and whether strategic objectives are being achieved across an area of research. By taking a systematic approach to evaluating impact funders are able to assess whether investment in research is delivering what was expected, learn lessons, and collect valuable information which can direct future spending decisions. Evaluations will highlight opportunities or gaps such as whether investment in pure research is translating into commercial applications. This will make the case for continued investment or prompt decisions about whether resources would be better directed elsewhere.

[Further details](#)

## What does good look like?

- There is available data on research activity funded by the main players.
- Work is undertaken to bring together and evaluate the benefits of investment in the sector and to make the case for continued investment.
- A clear strategy for translating and exploiting the results of research, e.g. in terms of new innovations, products, services and wider public benefits.

# Detailed evaluative framework

## Why is it important?

### Leadership and coordination

**1** Understanding the environment and context for research activity, and identifying the key organisations and people involved, will help funders to identify opportunities for collaboration and address any barriers. Strong leadership arrangements will help to ensure that efforts to address research priorities are coherent and coordinated.



Question	Sub question	What might you expect to find?
1.1 Are there effective leadership arrangements in place for coordinating research activities and resources?	<ul style="list-style-type: none"> <li>Is there a group or forum with responsibility for coordinating research activity in the research area?</li> </ul>	There is a group in place that draws together all key players in the sector. It plays an active part in identifying opportunities, tackling barriers to collaboration, understanding available resources and coordinating activities. It facilitates conversations and partnerships and drives the strategic agenda. Funders and stakeholders take this direction into account when planning research and taking funding decisions.
	<ul style="list-style-type: none"> <li>Are the roles, responsibilities and accountabilities of this group clearly defined?</li> </ul>	There are terms of reference which clearly define and shape the role of the group, set out lines of responsibility and accountability, and how the group aligns with and influences the interactions between the key strategic players.
	<ul style="list-style-type: none"> <li>Does the group include all key funders and stakeholders in the research area?</li> </ul>	The majority of publicly-funded research and development in the sector is within the coordinating body's span of control and influence. There is representation from all UK government funders and, where appropriate, the devolved administrations, academia, industry and the charity sector. Membership may be split according to core and associate members according to the significance of their role in the research area.
	<ul style="list-style-type: none"> <li>Are there effective communication mechanisms?</li> </ul>	There are mechanisms for bringing key players together. For example, regular forum meetings where funders and stakeholders can provide feedback on progress on key initiatives and recent policy activity to all partners. Sub-groups/committees may be set up so that a coordinated approach to emerging priorities can be discussed.
	<ul style="list-style-type: none"> <li>Are there incentives in place to encourage collaboration?</li> </ul>	Examples could include enhanced knowledge and insight into developments in the research area, giving coherence to individual funding bids, opportunities to network, and, for industry or third sector partners, insight into government's focus and strategic direction. Pooled budgets or special funds may also incentivise good coordination and alignment, and facilitate joint working to achieve objectives.
	<ul style="list-style-type: none"> <li>Is there evidence of the use of influencing skills and other "soft" enablers to encourage coordination?</li> </ul>	There are good examples whereby influence and other "soft" enablers have been used to encourage coordination and coherence and maximise the use of resources for the benefit of the research area.



### Why is it important?

#### Priority setting

**2** Funders need to be clear about principal priorities, opportunities and challenges across the area of research. This will enable them to work together to ensure that efforts are aligned and directed towards common goals.



Question	Sub question	What might you expect to find?
2.1 Are research activities and resources focused on addressing the principal challenges, priorities and objectives?	<ul style="list-style-type: none"> <li>Is there consensus on the principal challenges the sector should be tackling?</li> </ul>	The principal challenges facing the sector have been discussed and agreed by key players. Activities and resources are coordinated and targeted at tackling these challenges.
	<ul style="list-style-type: none"> <li>Is there a well-defined process for identifying and prioritising research needs across the sector?</li> </ul>	Priorities are selected on the basis of a robust consideration of which research projects will generate optimal value for the sector.
	<ul style="list-style-type: none"> <li>Are objectives specific and well-defined?</li> </ul>	Objectives for the sector and the roles and contributions of key funders have been clearly articulated. (Both for the research area and for individual funders).
	<ul style="list-style-type: none"> <li>Are research funding priorities revisited in response to changes or developments?</li> </ul>	The outputs of horizon-scanning (e.g. emerging research areas, capability issues, skills gaps, and long-term global changes technology development), other analysis and assessments are considered and used to shape decisions about future priorities.

**Why is it important?**

**Informed decision-making**

**3** Maximising the value of public investment in research requires accessible, comprehensive, and coherent information on what and where others are investing, and a strategic approach to allocating resources. Funders need comprehensive information and analysis with sufficient granularity on current and past activity to help them identify funding gaps or duplication, inform and direct investment decisions, and strengthen the rationale and justification for investment.



3.1

**Question**

Do funders and stakeholders have and use information on how the research area is funded?

**Sub question**

- Is there analysis of the level of sector funding from all available sources?

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- Is there analysis of the allocation of funding to strategic priorities/objectives?

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- Is there analysis of which institutions receive funding for the sector?

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- Is there analysis of funding gaps, duplication or potential overlaps?

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- Is there analysis of interdisciplinary links between research in this area and others?

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- Is there analysis of the balance of funding between basic, applied and translational research?

**What might you expect to find?**

Detailed analysis and assessments have been made of each of the areas listed. Funding programmes have been subjected to examination, and opportunities for re-prioritising and coordinating funding have been identified and agreed between funders and other stakeholders. Funding decisions have been informed by this analysis.

*Continued* →

### Why is it important?

#### Informed decision-making *continued*

**3** Maximising the value of public investment in research requires accessible, comprehensive, and coherent information on what and where others are investing, and a strategic approach to allocating resources. Funders need comprehensive information and analysis with sufficient granularity on current and past activity to help them identify funding gaps or duplication, inform and direct investment decisions, and strengthen the rationale and justification for investment.



	Question	Sub question	What might you expect to find?
3.2	Do funders and stakeholders have and use information on skills and infrastructure?	<ul style="list-style-type: none"> <li>Is there analysis of skills and capabilities across the sector?</li> <li>Is there analysis of research infrastructure in the sector?</li> </ul>	<p>Skills and capabilities across the sector have been assessed. Gaps have been identified, and the sector has identified its skills and capability requirements. Funding decisions have been informed by this analysis.</p> <p>Research infrastructure across the sector has been assessed (including consideration of condition and usage). Gaps in strategic priority areas, or duplication of infrastructure have been identified. The sector has prioritised its infrastructure requirements and funding decisions have been informed by analysis.</p>
3.3	Do funders and stakeholders have and use information on individual research projects?	<ul style="list-style-type: none"> <li>Is there accessible information on proposed and ongoing research projects?</li> <li>Is there accessible information on the results of completed research?</li> </ul>	<p>There are databases in place that allow ready sharing of this information across the sector. The information is accessible to all players and is used by funders when making funding decisions. This helps to ensure that efforts are coordinated and any potential overlaps are avoided.</p>
3.4	Is there a clear rationale for government investment?	<ul style="list-style-type: none"> <li>Are investment decisions supported by analysis?</li> <li>Do funders make the case for investment in the sector in a coordinated, joined-up manner?</li> </ul>	<p>The rationale for government investment is supported by analysis. There is good engagement with other nations, industry and academia which means that government invests in those research areas or stages of the process where the research community is unlikely to deliver or will not deliver without support.</p> <p>Funders use information and knowledge of the whole sector to coordinate and align priorities and submit joined-up funding bids, where appropriate, to HM Treasury.</p>

## Why is it important?

### Evaluating the impact of investing in research

**4** Evaluating the impact of investing in research is challenging. The scientific, societal and economic returns from such investment are often long-term and it is difficult to put a value on ground-breaking research. There are also costs associated with carrying out in-depth assessments of impacts achieved.

But funders need to know whether investment in research is securing the desired outcomes and whether strategic objectives are being achieved across an area of research. By taking a systematic approach to evaluating impact funders are able to assess whether investment in research is delivering what was expected, learn lessons, and collect valuable information which can direct future spending decisions. Evaluations will highlight opportunities or gaps such as whether investment in pure research is translating into commercial applications. This will make the case for continued investment or prompt decisions about whether resources would be better directed elsewhere.



Question	Sub ref	Sub question	What might you expect to find?
4.1 Is it clear whether investment is achieving the intended outcomes?	4.1.1	Is there evidence of progress towards meeting priorities?	There is evidence of progress in meeting priorities.
	4.1.2	Do funders know whether investment in research is leading to (a) original, significant and rigorous research outputs; (b) economical or societal impacts; (c) contribution to the wider discipline?	Funders require researchers to demonstrate the impact and contribution of the research undertaken. This information is used to demonstrate the benefits of research in the sector as a whole and to make the case for continued investment.
	4.1.3	Is there evidence of improved outcomes as a result of greater coordination and collaboration of research efforts?	There are good examples which demonstrate that partners have coordinated their activities and managed their work programmes collaboratively.
	4.1.4	Is there a clear strategy to support translation of research into benefits?	The approach to translating the results of research into new innovations and products which can be exploited has been mapped out and gaps identified.

