

Public engagement within Pathways to Impact planning: exploring the experiences of the STFC research community

A report of research conducted for the Science and Technology Facilities Council (STFC)

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Summary

Aim and methods

- Pathways to Impact (PtoI) planning is a requirement for most applications for research grant funding from the Science and Technology Facilities Council (STFC). The PtoI process includes two components: the impact summary and the two-page Pathways to Impact document. Grant applications can be submitted electronically via Je-S¹, where online guidance is available. Guidance is also available on STFC and UKRI websites.
- In 2017, STFC convened a small Working Group², as a sub-group of its wider Advisory Panel for Public Engagement (APPE). The remit of the Working Group was to examine support for public engagement across STFC's research and innovation portfolio.
- As part of this project, the Working Group commissioned qualitative research to explore the experiences of public engagement (PE) within Pathways to Impact planning for the STFC community.
- Telephone interviews and face-to-face focus groups with 12 STFC staff and 36 grant-holders (PIs/Co-Is³) and panel members representing the main STFC grants programmes were conducted by Ruth Townsley, an independent researcher, between February and March 2018.
- This summary, and the subsequent full report, present the findings of the qualitative research, structured as follows:
 - Developing and drafting Pathways to Impact (PtoI) planning
 - Assessing and reviewing PtoI planning as part of grant applications
 - Implementing and monitoring PtoI plans: the experience of grant-holders
 - Evidencing and reporting the outputs and outcomes of PE within PtoI
 - Suggestions from those interviewed for changes to the current process for reviewing, assessing, monitoring and evidencing PE within PtoI.

Key findings

Developing and drafting Pathways to Impact (PtoI)

- There was lack of clarity amongst grant-holders and panel members about what counts as potential academic, societal or economic impacts of STFC-supported research and how 'quality' in PtoI planning is defined and understood.

¹ Joint Electronic Submissions (Je-S); <https://je-s.rcuk.ac.uk/JeS2WebLoginSite/Login.aspx>

² Comprising: Ian Fuller (STFC), Derek Gillespie (STFC), Richard Holliman (Open University), Neville Hollingworth (STFC), Katherine Leech (University of York) and June McCombie (University of Nottingham).

³ Principal Investigators/Co-Investigators

- A few respondents highlighted the inherent difficulties of planning for unintended, or unforeseeable, impacts of scientific research, particularly in the fields covered by STFC grant funding.
- Use of online guidance from STFC/RCUK⁴ was piecemeal and rarely recalled by respondents in any detail.
- Respondents suggested that current guidance on drafting and developing PtoI could be improved by defining what counts as impact, including more case studies of different types of societal impact including public engagement, and showcasing what quality in PtoI planning and PtoI activities might look like.
- Expertise⁵ in public engagement, knowledge exchange (KE) or impact more generally was not widely accessed when preparing plans, although members of the STFC community were aware that this was available to them.
- Public engagement was the most commonly cited route for potential impact and respondents described a large range of activities delivered through a variety of internal and external partnerships.
- There were very few examples of applicants working with external partners to plan Pathways to Impact. The development of PtoI plans which featured public engagement as a form of impact was often the result of individual/personal interests and contacts, or the use of existing platforms and partnerships.
- Applicants rarely included requests for resources within PtoI plans - the majority of respondents explained that they sought funding for impact generation work (including public engagement activities) from elsewhere.
- There was confusion and ambivalence about whether funding could, or **should**, be requested for Pathways to Impact work. This was largely due to the belief that it was 'better for the community' that the research element of a proposal be as fully-funded as possible, and that other routes be explored for funding Pathways to Impact work.

Reviewing and assessing Pathways to Impact planning as part of grant applications

- There was no agreed process for considering and assessing Pathways to Impact planning across the STFC portfolio. It appeared that every grant panel used a slightly different process. Two panels scored PtoI planning against set criteria, but most panels simply considered whether the plan met an acceptability threshold, as required by STFC and RCUK/UKRI⁶. Overall, most panels judged applications on the science alone and thus PtoI plans made no quantifiable difference to the assessment process.
- There was no separate or panel-specific guidance on assessing and reviewing PtoI planning – panel members used the same online guidance as applicants. The majority

⁴ During the course of this research, RCUK transitioned into UK Research and Innovation (UKRI) which brings together the seven Research Councils (including STFC), Innovate UK and Research England.

⁵ Within STFC, universities and elsewhere e.g. NCCPE.

⁶ The requirement for acceptability is outlined here: <https://www.ukri.org/innovation/excellence-with-impact/pathways-to-impact/>

of panel members, however, thought that current documents were fit for the purposes of the current system in that they were not overly prescriptive.

- Individuals' experiences of different STFC grants panels – both in terms of submitting applications and as panel members - led to different beliefs about how PtoI planning was considered and assessed. In some cases (but not all), this had an impact on the level of input and significance afforded to drafting and developing impact summaries and PtoI plans.
- The role of STFC staff in supporting the assessment and review of PtoI has changed in the past five years. Previously, STFC's public engagement team was involved in assessing PtoI plans and liaising with panels to provide feedback to applicants. In line with the remit of other research councils⁷, this is no longer the case. Many panel members expressed a preference for the previous system due to lack of time and expertise within panel meetings and called for more expert assessment of PtoI planning.

Implementing and monitoring Pathways to Impact plans: the experience of grant-holders

- Most grant-holders described PtoI planning as part of the wider engagement strategy of their group, department or school. Some groups had particular individuals who led on impact planning and organised the delivery of activities. In other places, individual researchers worked to their own plans for impact work with regular reporting to departmental committees or oversight groups.
- In a few cases there was no clear sense of leadership for planning impact work. For these respondents, it did not appear there was a plan with objectives for a programme of work; rather, that they were 'doing what they already do with people they already know'.
- Monitoring the progress of Pathways to Impact planning within wider project grants was not a standard practice and is not currently a requirement by STFC. There was little sense from most grant-holders that PtoI plans were 'living documents' that were amended or updated as the grant progressed.
- Respondents reported that they were unaware of how they could, or should, be monitoring and reporting progress and changes to Pathways to Impact planning to STFC: some people said it was the first time they had thought about, or been asked about, this issue. This view was corroborated by STFC grant managers, who explained that they did not follow up Pathways to Impact plans with applicants during their awards.

⁷ See for example, RCUK's Review of Pathways to Impact:
<http://webarchive.nationalarchives.gov.uk/20170110105910/http://www.rcuk.ac.uk/documents/documents/ptoiexecsummary-pdf>

Evidencing and reporting the outputs and outcomes of public engagement within Ptol

- Although most grant-holders told us that they were evidencing public engagement by logging activities, quantifying reach and beginning to measure the significance and outcomes of their Ptol work, this appears very much to be ‘work in progress’.
- Several people highlighted that (a) it would be useful to measure significance and outcomes, but they did not do so at present; (b) they were unsure how to do so and lacked knowledge/expertise in this area.
- Researchers talked about trying out different techniques and working with partners to explore methods for evidencing the impact of their public engagement work. Amongst more conventional approaches to evaluation such as pre/post survey design, there were also examples of more innovative work in this area. There was also some evidence of using reflective evaluation to develop and improve activities, and an appetite for guidance and tools on effective methods for evaluating public engagement.
- Feedback from STFC grant managers indicated they were not aware of the state of play regarding how funded projects evidenced and reported public engagement within their Pathways to Impact work, nor about the potential link between the data generated through these activities and its potential for use within returns to Researchfish.
- Most of the PIs and Co-Is interviewed had completed a Researchfish return. A few people expressed no view on the process, had no complaints, or had found using Researchfish straightforward. Most people expressed negative feelings towards Researchfish and suggested that it was time-consuming, cumbersome, difficult to use and duplicated data capture for other systems. Across all respondents, very few people were aware of the purpose of Researchfish, or how the data they submitted were used by STFC.
- Respondents called for STFC to clarify the purpose of Researchfish and why certain data are needed, and to better disseminate any council-level outputs⁸ based on these data. Some people also wanted feedback on their own returns to ensure they were inputting the right information.
- The focus group with STFC grant programme managers highlighted a need for more information and understanding about the purpose and benefits of Researchfish within the council itself, as well as amongst the external community.

Recommendations and suggestions for changes from grant-holders and panel members

We asked participants to offer suggestions for changes to the process for reviewing, assessing, monitoring and evidencing public engagement within Pathways to Impact planning.

⁸ These include STFC’s annual Impact Reports; available at: <https://stfc.ukri.org/about-us/our-impacts-achievements/annual-impact-reports/>

Around one-third felt that the current system was fit for purpose and that changes should only be introduced if more funding was made available to support these.

The other two-thirds of respondents made suggestions for changes relating to different parts of the Ptol process as summarised below.

- STFC and UKRI should provide clarity about the nature of different types of impact that could potentially be realised through research-council funded research – academic, societal and economic.
- STFC should provide more examples and case studies to demonstrate different types of potential societal impact including public engagement, and to showcase quality in Ptol planning and Ptol activities that support public engagement as a potential form of societal impact.
- STFC and UKRI should develop and signpost clearer and more specific guidance for panels on assessing Ptol planning and/or consider the use of public engagement expertise on panels.
- There should be more clarity and transparency about how Ptol planning is reviewed and assessed by panels including feedback on the quality of plans, consideration of a higher profile for Ptol within the assessment of funding applications, and the potential for criteria-based scoring.
- Discussion is needed between STFC and the research community about how best to encourage requests for resources for Ptol work and where these should be directed.
- There is a need for improved support and guidance on evidencing the reach, outcomes and potential impact of public engagement within Ptol – this may come from STFC or from others working in this space such as the National Co-ordinating Centre for Public Engagement (NCCPE).
- There is a need for more information about the purpose and benefits of reporting through Researchfish and consideration of changes and improvements to enable Researchfish to better meet the needs of the STFC community.

Concluding comments

This small-scale piece of research has highlighted a lack of clarity, consistency and transparency across many aspects of the Pathways to Impact planning process as experienced by the STFC research community. There is an appetite for reform of the current system, but also a need for further dialogue to ensure that any proposed changes are appropriate, proportionate and evidence-based.

The purpose of the research reported here was to support the APPE Working Group (see footnote 2) in devising a series of draft recommendations and actions for discussion with wider members of APPE and with STFC grant managers. This process is now underway and an overview report, recommendations and action plan will be published by STFC in 2018.

Acknowledgements

This short report has benefitted from the time, input and insights of many people, to whom I am very grateful. The report, and the research on which it is based, was envisaged and commissioned by STFC's public engagement team (Neville Hollingworth and Derek Gillespie), supported by a small Working Group chaired by Richard Holliman (Open University) with expert input from Ian Fuller (STFC), Katherine Leech (University of York) and June McCombie (University of Nottingham). Members of this group have offered encouragement and guidance throughout the work, alongside helpful and constructive comments on earlier report drafts and summaries.

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Examples and quotations used in this report have been amended and/or paraphrased to ensure anonymity of research participants.

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1. Context and methodology

1.1. Introduction

This report summarises the findings of interviews and focus groups with the Science and Technology Facilities Council (STFC) research community to explore their understanding, perceptions and experiences of public engagement within Pathways to Impact planning. The research was commissioned by a sub-group of the STFC's Advisory Panel for Public Engagement (APPE), as part of a wider project looking at support for public engagement (PE) across STFC's research and innovation portfolio. The research, analysis and preparation of this report were undertaken by Ruth Townsley, an independent researcher, between February and June 2018.

1.2. STFC and Pathways to Impact planning

STFC provides research grant funding to UK Higher Education Institutions (HEIs) and other eligible research organisations for research in the fields of astronomy, particle physics and nuclear physics, and for associated technology development, research infrastructure and knowledge exchange.

Pathways to Impact planning is a requirement of most applications for research grant funding. The Pathways to Impact planning process includes two component parts: the impact summary and the two-page 'Pathways to Impact' document. Grant applications can be submitted online, via Je-S⁹, where online guidance is available. Guidance on Pathways to Impact planning is also available on STFC¹⁰ and UKRI¹¹ websites, summarised as follows:

- The 'impact summary' section (up to 4,000 characters) is where applicants need to address the following two questions: Who (outside the academic community e.g. public, schools (teachers and students), industry, government, etc.) will benefit from this research? How will those outside the academic community be changed, effected and/or benefit from this research?
- The two-page 'Pathways to Impact' document: This document should address communications and engagement, collaboration, exploitation and application, capability and resources.

1.3. Research aim and objectives

The research reported here aimed to explore the experience of public engagement within Pathways to Impact for the STFC community via the following key objectives:

⁹ Joint Electronic Submissions (Je-S); <https://je-s.rcuk.ac.uk/JeS2WebLoginSite/Login.aspx>

¹⁰ <https://stfc.ukri.org/funding/research-grants/peer-review-and-assessment/>

¹¹ <https://www.ukri.org/innovation/excellence-with-impact/pathways-to-impact/>

- To explore the experience of preparing, implementing and monitoring Pathways to Impact planning as part of successful grant applications to STFC, with a focus on public engagement as a potential route for generating impact
- To explore the experience of the assessment of Pathways to Impact planning within STFC grant applications
- To establish the support and guidance available from STFC about Pathways to Impact planning and assessment
- To explore how successful applicants go about evidencing the reach and significance of their public engagement activities
- To investigate the use and knowledge of Researchfish as a means for reporting impact amongst the STFC community
- To seek feedback about potential changes and make recommendations to the APPE sub-group responsible for commissioning this research.

1.4. Methodology

The research was conducted between February and April 2018 and involved 24 telephone interviews and four focus groups with a total of 36 grant-holders and grant panel members and 12 STFC-employed grant programme managers and administrators. The interviews and focus groups used a set of questions designed and reviewed by the STFC APPE Working Group¹². The questions focussed on gathering data relating to individuals' experiences of preparing, monitoring, assessing and supporting Pathways to Impact planning, with a specific emphasis on public engagement. Key themes relating to the main question areas were drawn out from the data and provide the basis for this report.

Telephone interviews

Telephone interviews were conducted with 13 grant-holders (Principal Investigators [PIs] and Co-Investigators [Co-Is]) and 11 grant panel members, panel chairs or deputy chairs (many of whom were also PIs or Co-Is). Participants were selected and contacted by the STFC public engagement team. Interviews lasted from 20 to 50 minutes and were audio-recorded (with permission) and transcribed for recall and data analysis purposes. Participants were offered the chance to check and amend their transcripts and several people made amendments or asked for redactions.

Focus groups

Four focus groups were undertaken with a total of 24 individuals. The first, with 12 STFC grant programme managers, lasted around 30 minutes during a scheduled meeting at STFC's offices. With permission, the discussion was audio-recorded and transcribed. The other three focus groups were undertaken concurrently, with three groups of public engagement grant-holders

¹² Comprising: Ian Fuller (STFC), Derek Gillespie (STFC), Richard Holliman (Open University), Neville Hollingworth (STFC), Katherine Leech (University of York) and June McCombie (University of Nottingham).

(12 participants overall). The focus groups lasted 60 minutes and were scheduled as part of an annual symposium run by STFC at their Swindon base.

Sample

Participants included 28 men and 20 women. 29 participants worked for universities; 7 were non-academic or private sector-based; and 12 worked for STFC. Research participants represented the following STFC grants programmes, as grant-holders and/or panel members:

- Astronomy
- Nuclear physics
- Particle physics (experiment)
- Particle physics (theory)
- Ernest Rutherford Fellowships
- Projects Peer Review Panel (PPRP)
- Challenge Led Applied System Programme (CLASP)
- Industrial Partnership Scheme (IPS).

1.5. Structure of this report

This report follows the structure of the topic areas covered during interviews and focus groups, which included:

- Developing and drafting Pathways to Impact (PtoI) documents
- Assessing and reviewing Pathways to Impact documents as part of grant applications
- Implementing and monitoring Pathways to Impact plans: the experience of grant-holders
- Evaluating and reporting the outputs and outcomes of public engagement within Pathways to Impact
- Suggestions from those interviewed for changes to the current process for reviewing, assessing, monitoring and evidencing public engagement within Pathways to Impact.

2. Developing and drafting impact summaries and Pathways to Impact plans

A set of questions sought information about participants' understanding, perceptions and experience in relation to the following topics:

- What makes a good quality Pathways to Impact plan?
- Do applicants use any guidance, advice or support when developing their Pathways planning?
- How do applicants generate their impact summaries and Pathways to Impact plans?
- How are public engagement and other partners located?
- What types of potential impact (including public engagement) are covered within Pathways to Impact planning?
- How is impact work which includes public engagement funded?

2.1. What makes a good quality Pathways to Impact plan?

The wide variety of responses to this question suggested there was no consensus or clarity about the key components of a good quality plan for Pathways to Impact. Table 1 below lists the main criteria referred to by respondents, in order of frequency of mentions. It shows that a quality Pathways to Impact plan was most often described in terms of the range of activities to be undertaken, or where people were planning innovative activities or partnerships.

Table 1 - Respondents' ideas about what makes a good quality Pathways to Impact plan

Key criteria of a good quality Ptol plan as suggested by members of the STFC research community
A range of Ptol work, which includes creative or innovative collaboration with partners that has benefits for both partners and researchers
Clear objectives and methods for delivering specific, targeted Ptol activities
Evidence of evaluation – quantifying the Ptol work and the difference it makes to participants
Sets impact goals which are achievable and realistic
Shows evidence of talking to impact specialists and/or showing how the HEI will support impact plans
Relates to what you've done in the past
Clearly states what Ptol work you have done in the past and what you plan to do in the future
Demonstrates linkage between Ptol plans and REF criteria
Is closely related to the research covered by the grant
Involves depth of contact rather than lots of superficial engagement
Contains evidence of leadership around Ptol
Only includes non-academic impact i.e. not the education and training of PhD students

Although around two-thirds of respondents were able to provide at least one or more of the above criteria when asked about what makes a quality PtoI plan, over one-third of those interviewed indicated some ambivalence and uncertainty in relation to this question, as the following quotations demonstrate.

“I’m really uncertain about what makes a good plan. I’ve always written from the perspective of public engagement as this is what I know about. In the case of the [grant], the Pathways to Impact covered five years of ‘blue skies’ research and it was difficult to pre-empt what the impact might be.” (Grant-holder)

“I’ve never had to write one. I have been involved as Co-I in projects that have done so, so my personal experience is that different PIs have different agendas and that the community as a whole do not have a particularly good sense of what impact is. Some people have said, impact is achieving something that you’re not being paid to do. i.e. it’s something beyond the direct purpose of the grant funding. Which always struck me as being rather a large ask.” (Panel member)

A few respondents highlighted the inherent difficulties of planning for unintended or unforeseeable impacts of scientific research, particularly in the fields covered by STFC grant funding.

“We try and do a good job within the ludicrous nature of the exercise. I was reading ours just this evening - it reads quite well, but it could be the same for anybody else who was doing research in this field. Even if you did find something that would make an enormous change, you wouldn’t know [at the planning stage]. For example, would Berners-Lee have realised he was about to create the World Wide Web? Or Higgs have anticipated the full nature of the discovery he was about to make.” (Grant-holder)

“The long-term research is what produces the golden egg. But for some disciplines that can be ten years off; for other disciplines 20 years off, and for mine it’s probably 50 years off. So until the system acknowledges that research is a process with lots of different timescales, some of them very long, then it’s impossible to fit anything into any framework they come up with. That’s the fundamental problem with it.” (Grant-holder)

2.2. Applicants’ use of guidance and advice when developing Pathways to Impact planning

Members of the STFC community were asked about their use of guidance and advice when developing Pathways to Impact planning. This included ‘official’ guidance from STFC/UKRI (online or within Je-S) and any use of expertise or other advice/guidance from their host HEIs. Just over half of those interviewed said they had referred to STFC and/or UKRI guidance and had found it helpful for creating a clear, structured plan.

“I like to look for a structure and I used the guidance headings as a structure for my plan. This really helps from a panel perspective - most people do this, rather than just their own narrative.” (Panel member/grant-holder)

“I looked carefully at the RCUK and STFC guidance as to the specifics of what to write. I used the template and followed the headings they suggested. I also looked at how our plans fitted into this template. I found it helpful although I followed the STFC guidance more than RCUK.” (Grant-holder)

However, several comments indicated that people found the current official guidance vague, too broad and overly general:

“I looked at the guidance online - not in Je-S. It is quite vague, deliberately so I think as it is just about producing a plan that will 'pass'.” (Grant-holder)

“[The] guidance could be better - I've got some sympathy about the need to be general - but it's not at all specific to our community - so would be good to have suggestions about what they are asking for – examples or case-studies - to get a feel for the work they want to see undertaken.” (Panel member/grant-holder)

It was suggested that the guidance could be improved by including more case-studies of different types of impact, by showcasing what quality PtoI planning might look like, and by spelling out exactly what counts as potential impact. For example, several people questioned whether academic impact could be included within Pathways to Impact planning as they had noted some discrepancy in guidance from different research councils.

Around one-third of those interviewed said they had not referred to STFC/UKRI guidance as they felt no need to do so. Reasons for this included: access to internal advice and expertise within their HEIs (see below); prior experience of the task; and use of previous plans as a template:

“The group has a lot of experience of applying for consolidated grants and know what is expected. I don't recall any particular discussions or reference to any written guidance. We did not request any input from research support or impact staff - but I know there are specialists who are ready to help with impact plans and are doing presentations about this at present to support impact case studies for the REF. We will definitely ask them for their advice for future grant applications.” (Grant-holder)

Respondents were asked if they had accessed any support or advice on developing Pathways to Impact documents from within their universities, either from central HEI departments or from colleagues with prior experience of the Pathways to Impact process or who sat on grants panels. Central expertise in public engagement, knowledge exchange (KE) or impact was not widely used, although people were aware that this was available to them.

“We do have a Research Support Office and Knowledge Exchange Managers (there is one assigned to our school) - they help with the bids - but I have not asked them about Pathways to Impact as yet.” (Grant-holder)

Some people referred to use of departmental support through experienced/knowledgeable colleagues, or via information on an intranet.

“The main advice I used was via our Departmental [specialist public engagement] fellow.” (Grant-holder)

“I fed in pointers about quality from my experience as panel member. This role has involved looking at other plans and also I've been party to input from STFC about what they think makes a good plan.” (Panel member)

“I looked at what's on the staff website - also we get public engagement input from the Department and within the University there is outreach support which ties us in with things like Open Days, science fairs, Physics networks etc.” (Panel member)

Use of STFC specialist staff was very rare at this stage, although one person did mention it as he felt his HEI did not offer support internally:

“I don't access any university expertise as there isn't really anyone who has this. We contact STFC directly if we need help or have questions.” (Grant-holder)

2.3. Working in partnership to plan Pathways to Impact?

Three main approaches to developing Pathways to Impact were identified amongst those interviewed:

- Co-ordinated authorship
- Sole authorship
- Co-developed documents.

Co-ordinated authorship – where one person wrote the plan then circulated it for amendments and additions – was the most frequently cited approach.

“Someone else in the group took responsibility for the plan but everyone saw it and was able to comment.” (Co-I)

The second most popular approach was sole authorship:

“We just did our consolidated grant. I wrote the Pathways to Impact section. I consulted no one, and I did it in about two hours and that included a coffee break.” (Grant-holder)

There were fewer examples of applicants taking a co-developed approach where one person co-ordinated a plan which was co-drafted with other team members.

“I'm the PI for one consolidated grant and PI for a project grant. I wrote the plans for both. I read the guidance first (I'm a guidance person) and followed it. I split the plan into 2 sections - one about public engagement impact and the second about the knowledge exchange impact. Then I drafted and asked others to add to it, and for the knowledge exchange part, to write a few paragraphs about their plans for working with industrial partners which I turned into English.” (Grant-holder)

There were very few examples of applicants working with external partners to develop Pathways to Impact documents. Indeed, the choice of planned public engagement activities (as a form of impact) was often the result of individual/personal interests and contacts, or the use of existing platforms and partnerships. Many responses seemed to indicate that Pathways to Impact planning by applicants was focussed on ‘doing the public engagement they already do with people they already know’.

“For our plans for public engagement impact, we have general annual events in the diary that we contribute to – festivals, teacher conferences, local society meetings, and so on. For our

plans for knowledge exchange and economic impact, we focussed on the links we had already with two companies. It would have been difficult to fit any new relationships in!” (Grant-holder)

This is not to say, however, that the planned activities were not appropriate, innovative or likely to generate impact; just that there was little evidence that public engagement as a form of impact was planned in response to an aim, goal or need identified by researchers and/or external partners. There was also evidence that in planning partnerships for public engagement, applicants were keen to keep their plans realistic and achievable, and to some extent agile and flexible, to account for new opportunities that may arise during the funded grant. This meant that many people were not actively seeking new partners, and expressed a desire to keep partnerships local:

“I think the only thing I would really like to see is an honest assessment of what people can actually do in a circumstance. I think, depending on what kind of science you do, depending on what kind of university environment you have, there's different things that are possible... I doubt very much that playing the role of some political science advisor or so is really possible outside of the Westminster bubble. So, I see that in different places you can do different things. Up here, for me, it's very clear: if you're in a place like XX, you should go to the villages, and try to do something at a local level...I think it would be good to have an honest assessment, in this Pathway to Impact, of what is possible.” (Panel member/grant-holder)

2.4. Types of potential impact and activities covered by Pathways to Impact planning

Respondents talked about including plans for societal, economic and academic impact within Pathways to Impact documents. Plans for societal impact included many examples of public engagement (usually discussed or referred to as ‘outreach’) and some examples of non-commercial knowledge exchange. Plans for economic impact included commercial knowledge exchange, of which a few examples were cited. Overall, public engagement was the most commonly cited route for potential impact and applicants described planned (or actual) activities that fell into four main categories¹³ as summarised in Table 2 below.

Table 2 - Forms of public engagement cited in respondents’ Pathways to Impact plans

Outreach	Dialogues	Inquiry	Creative
Lectures, talks and demonstrations at science fairs, other public events and in schools.	Social media, via a range of platforms.	Bidding for/ conducting research & activities with non-academic partners	Collaborations to produce creative artefacts, which included: musical/dance performances; sculptures; exhibitions; films, web videos & documentaries; and children’s stories
Press releases	Cafés scientifiques	Supporting citizen science	
Contributions to TV and radio broadcasts	‘Pub-science’		
Inclusion in popular publications	Workshops		

¹³ With reference to Holliman, R. and Davies, G. (2015) ‘Moving beyond the seductive siren of reach: planning for the social and economic impacts emerging from school-university engagement with research’. *Journal of Science Communication*, 14(3), article no. C06. Online: <http://oro.open.ac.uk/44415>

2.5. How is impact work which includes public engagement funded?

Evidence from interviews confirmed that it was rare for applicants to include requests for resources within Pathways to Impact planning. The majority of respondents explained that they sought funding for impact generation work (including public engagement activities) from elsewhere. Many people perceived that public engagement through Pathways to Impact planning was part of their team's existing 'outreach' work, where staff time was not formally costed and small amounts of personal expenses (e.g. train tickets or taxi fares) were claimed back from departmental funds or were met from individuals' own pockets.

"I've happily made up those costs if they do come up, because it's usually pretty minimal, you know. It's a taxi ride, or a train ride or something. I'm not going to break the bank over something like that. But generally – like the amateur astronomy groups or so, they'll pay for your taxi down to them. It's never a flight involved or anything, it's always just something local that I'm doing, so the costs are pretty minimal. And I'm more than happy to engage...If I'm in XXX [local city] and I'm going to an event in the city centre, you know, it's sort of pounds, less than a fiver probably to get there. I'm not going to quibble over that." (Grant-holder)

Around one third of grant-holders said they applied for public engagement grants and awards from STFC (although none had been successful), from other funders, or from internal university funding sources to support their plans for engagement work.

"Have tried applying to STFC but I've been unsuccessful. We use departmental and Faculty level slush funds and some university-level public engagement money." (Grant-holder)

"For public engagement we have a School-level Outreach committee which provides £10-20K of funding per year - this covers all our needs in the way of travel etc. - people's time is covered as part of their work contracts - everyone is expected to do engagement from PhD students onwards - this can be backstage or frontstage - we have people who don't want to speak to schools or the public and they can help behind the scenes instead - but it's a requirement at interview for new posts - we ask what they have done and whether they are happy to do more. I also look for small external grants where needed." (Grant-holder)

"I look for external or University funding. For example the arts work was funded by the XXX [charitable] Trust. Internally, we look to departmental or university small funding schemes to cover travel etc." (Grant-holder)

Where engagement plans were elaborate or involved external partnerships, funding or part-funding may be agreed with the partner, or an application made for resources from other funders, like trusts and foundations.

"For public engagement work there's not usually much cost involved, and I can request resources from our School outreach committee to cover small items. If I needed more elaborate equipment I would need to look for external grants. For example, we have a specific grant for outreach from the EU for our XX work - £10-20K - to cover promotional material, a stand for exhibitions, a model, etc." (Grant-holder)

Other respondents explained that they used a mix of external funds alongside plans which covered the costs of the Pathways to Impact work through the wider project grant or as part of the work of the group, team or department.

“In general, it comes out of the grant. Except for, I guess, if I have a student doing something like Soapbox Science then I think we paid for it out of the grant; when she does her STEM ambassador stuff, then the STEM ambassador system pays for it. And then our links with the rest of the UK community, it would be attending conferences, summer schools, etc., which generally comes out of the grant pot.” (Grant-holder)

For the few who did request funding, it appeared more common for Fellowship grants and individual awards (e.g. Ernest Rutherford Fellowships) to be successful; there appeared to be less success when requests were made within consolidated grants or larger awards.

“Yes I requested £2,500 to cover transport costs and demonstrations.” (Grant-holder)

“Yes - £2-3K for the exhibit.” (Grant-holder)

“We did make a request. I think it wasn't successful. It was commended. So how do we fund it? I think a lot of departmental funds. I'm not aware that we explicitly use consolidated grant income to fund it. Although we are aware that it is allowed.” (Grant-holder)

Across all interviews there was some confusion and ambivalence about whether funding could, or **should**, be requested for Pathways to Impact work. There were two elements to this. Firstly, there was a widely-held belief that it was ‘better for the community’ that the research element of a proposal be as fully-funded as possible, as there were other potential routes available for funding Pathways to Impact work. Secondly, there appeared to be some confusion about the status, within some grants programmes, of additional ‘outreach plans’ and their relationship and/or any overlap with Pathways to Impact plans. Outreach plans are not consistent across all of STFC’s grants portfolio and thus not available to all applicants as an additional route for seeking resource.

3. Reviewing and assessing Pathways to Impact planning as part of grant applications

Grant-holding PIs/Co-Is and grant panel members were asked about their perceptions and understanding of the assessment and review of Pathways to Impact planning, as part of grant applications to STFC. Question topic areas covered:

- Assessing and reviewing Pathways to Impact planning: beliefs of grant-holders
- What difference do beliefs about assessment of Pathways to Impact planning make?
- Feedback on Pathways to Impact: the experience of grant-holders
- Assessing and reviewing Pathways to Impact planning: panel members' use of guidance
- Assessing and reviewing Pathways to Impact: panel members' use of criteria for assessing quality
- The role of Pathways to Impact in the overall assessment of grant applications
- Panel review of requests for resources within Pathways to Impact
- Feedback on Pathways to Impact planning: the experience of panels
- Support and guidance offered by STFC at the assessment stage.

3.1. Assessing and reviewing Pathways to Impact planning: beliefs of grant-holders

Individuals' experiences of different panels – both in terms of submitting applications and as panel members - led to different beliefs about how Ptols were considered. A few people said they genuinely did not know how their plans were assessed by panels:

"I don't know. But they certainly didn't ask me anything about Ptol in the interview. The interview was only 25 minutes and focussed on the science." (Grant-holder)

For those who expressed some level of knowledge, three main beliefs about the assessment process of Ptols within STFC grant applications were identified:

- Ptols were not considered by panels and played no part in assessment (20% of grant-holding respondents believed this)
- Ptols were considered during panel meetings but played no quantifiable part in the assessment of the application (50% of grant-holding respondents expressed this view)
- Ptols were assessed by panels either before or during the meeting (30% of grant-holding respondents thought this was the case).

Some people believed that Ptols were not looked at, or assessed, within panel meetings and so played no part whatsoever in the consideration of applications. This included beliefs that Ptols were either considered outside the meeting (by individual panel members) or by 'others', for example reviewers or STFC staff.

"I doubt they consider them as an important part of the process." (Grant-holder)

“They want to see an element of your time going into impact work but they acknowledge that this is a tiny part of the project overall.” (Grant-holder)

One person who believed Ptols currently played no part in assessment said that Ptols should be properly considered and this should make a defined contribution towards the overall assessment of applications, alongside assessment of the science.

Around half expressed the view that Ptols were considered during panel meetings but played no quantifiable part in assessment of the application. People felt that panels referred to Ptols for context or background and noted their contribution in a qualitative sense; they thought that plans were probably not scored or evaluated in any concrete way, simply rated as ‘acceptable’ or ‘not acceptable’¹⁴. People suggested that a poor Pathways to Impact section would not preclude the funding of the science. Indeed where a plan was deemed ‘unacceptable’ the perception was that it would be sent back for revision until it passed the threshold for ‘acceptability’.

“The impact plan is not the major aspect discussed. The current situation in the UK means that the main issue is consideration of the scientific merit of applications and how to distribute the very limited resources. In this context Pathways to Impact plans are discussed and presented but not used as part of the criteria for judging the applications. It would be very unfair if non-scientific aspects took precedence.” (Grant-holder who was previously a panel member)

“We have a ‘threshold of acceptability’ test - either it's Ok/good enough or it's not OK. This is about whether they have thought through what they can do within the context of the project.” (Panel member)

“If the Pathways to Impact is really terrible they will still get a chance to revise it and still be funded – this is not the case for the science – if the scientific case was terrible the application would not be funded.” (Grant-holder)

Some other respondents thought that Pathways to Impact planning was assessed by panel members, either before or during the meeting. They believed that this assessment sometimes involved a scoring system and/or a set of defined statements which show the extent to which applicants had identified the potential to deliver impact and had developed a means to achieve this. While an unacceptable plan could be revised and the science would still be funded, an exceptional plan may positively predispose the panel towards the science. If an exceptional plan also included costings for impact work, some people thought that a panel might be more likely to consider providing this additional funding.

“Panels have bought into the importance of acknowledging impact. STFC ran a day ahead of the main panel meetings to review Pathways to Impact plans separately... We were mainly focused on, is this above threshold? But again, having said that, in the end, from what we felt was a limited budget, we were able to make a couple of small awards ... we felt a minimum

¹⁴ The requirement for acceptability is outlined here:

<http://webarchive.nationalarchives.gov.uk/20170110105910/http://www.rcuk.ac.uk/documents/documents/ptoiexecsummary-pdf>

requirement was some evidence that the group had engaged with impact officers, or whoever they would be within their university... We looked pretty dimly on people who said, this is nothing to do with us, we're doing pure science. We didn't let that statement stand.” (Panel member/grant-holder)

One person was unclear about how plans were assessed even though he knew that they were:

“We know they look at them separately from the science and they are scored from 1-5 and this feeds into the assessment but it's not clear how. We know if they are unacceptable as they get sent back before the science is considered. This has never happened to me.” (Grant-holder)

3.2. What difference do beliefs about assessment of Pathways to Impact planning make?

The evidence above shows that most grant-holders either did not know how PtoIs were considered/assessed by panels or believed that they were not considered in any quantifiable way.

For some people, their understanding of the review process had no significant influence on how they developed their plans:

“I think I pretty much wrote it off the top of my head. I referred to the last one, because internal consistency is considered very important. I don't make any attempt to write down what I think is the real impact of our work, what I try to do is to write down what I think the research funder wants to hear.” (Grant-holder)

For others, their belief that Pathways to Impact plans were not adequately considered by panels led them to adjust their input accordingly:

“I didn't take the process seriously or give it much thought.” (Grant-holder)

“I'm still not sure what is the purpose of Pathways to Impact? The grants panels judge the scientific merit of grants. We know we have to include Pathways to Impact to get the grant. But what difference does it make to write a really good plan? I'm not convinced it makes any difference to your scientific case.” (Grant-holder)

“So, I would not pay as much attention to Pathways to Impact as I would to the main proposal, I don't think as deeply about impact as I would about the science as I know the panel are not going to assess the Pathways to Impact documents in the same way as the rest of the application.” (Grant-holder)

“The focus on impact is as it should be - as opposed to the REF where there is a huge over-focus on impact.” (Grant-holder)

For those who understood that PtoIs were considered seriously by the panel and played a part in the overall assessment in a defined sense, there was more emphasis on writing a 'quality' plan and of 'doing their best':

“We know it factors into the assessment, so we do our very best.” (Grant-holder)

“I took the writing of it seriously.” (Grant-holder)

There are two factors at play here. The first factor relates to beliefs about the difficulties inherent in trying to plan for the potential impacts of some STFC-funded research. A few respondents questioned whether societal or economic impact, as defined by STFC and UKRI, was possible or achievable in their research areas. Where respondents held this view, they tended to perceive the Pathways to Impact process as largely irrelevant:

“I think the politically incorrect statement is that I do not think that this makes any sense. I think it's a waste of time, because what we do is a window-dressing exercise. We write something because RCUK believes everything must have impact. The impact we have is that our PhD students are very, very well-educated young people. They're very good in all possible aspects of quantitative analysis, of model-building, and typically very adept in computing. But if I write as an impact statement, I will produce high-quality PhD students, who will be ready to take on lots of problems ... I would probably have to write something again and the stuff would be sent back because it's not good enough. So, I think this quest for impact, in this very narrow sense of direct, touchable, economically relevant stuff leads to stupid ways of trying to write something. So, when I read the impact statements, it's typically along the lines of, Oh, we did beautiful outreach. Now to be brutally honest, all of us do some kind of outreach.”
(Panel member/grant-holder)

The second factor relates to what actually happens to PtoI plans during the assessment process. If this is seen as a meaningless, box-ticking, exercise then it is understandable that less effort will be expended, and quality will be less of a consideration. If there is confusion about the process, then confusion will be evidenced in the plans, since grant-holders are unclear about what is being asked of them.

“Ideally it would be good to see plans that go beyond public engagement – for example how skills developed as part of the grant will have wider impact; or if there's an algorithm that's been developed that has potential impact in industry for example within the financial sector. Anything which explored these areas would be good to see – such as a workshop for industry where postdocs present their algorithms - if I saw something like this with costings I'd be minded to fund it. But, it's very unusual to see... I think that as the stakes are so low, at some level, people are rather cynical about developing much beyond a 'passable' Pathways to Impact plan.” (Panel member/grant-holder)

3.3. Feedback on Pathways to Impact planning: the experience of grant-holders

The responses showed that applicants routinely received feedback from panels and copies of referees' reports relating to the application as a whole; but within these, feedback in relation to Pathways to Impact plans was non-existent or rare. Where examples of feedback were given, these were limited to a single sentence/agreed statement or a grading. It was very rare for any comments to be made on the **quality** of the plan.

“Didn't get any from the panel on Pathways to Impact, or from referees. In the interview there was one question but it just asked about what I was going to do – there was no advice or feedback.” (Grant-holder)

“I've never had any comments. It would be good to know whether they think it's OK, good, or great – for example, 'great to see you are doing x,y,z'. I know they give comments to people

who need to revise or resubmit their plans. So, I guess that no news is good news. We really have no idea about what STFC think is good quality impact - we just do as well as we can, but we don't know if this is good enough. We hope it is!" (Grant-holder)

"There's this second thing that we send off separately, which we're told is evaluated by a panel that specialises in impact things, but I don't recall ever getting any feedback or thought from them." (Grant-holder)

Detailed feedback was generally only offered to those applicants who were asked to re-write the plan as a condition of the award.

3.4. Assessing and reviewing Pathways to Impact planning: panel members' use of guidance

Most panel members said that their panels used the guidance available to applicants, online or within Je-S; panels did not appear to use any separate guidance for assessing Pathways to Impact. One panel member talked about having access to some extra notes from STFC about assessing PtoIs.

More than two thirds of panel members said they **did** use or refer to guidance and believed it was currently adequate for the purposes of assessment within the current parameters of the task – i.e. it was fairly broad and not overly prescriptive.

"Yes, there's guidance for the whole process. I got the impression that the other committee members were very thorough. So, I think they would have gone through that guidance very carefully." (Panel member)

"Yes. The impact section is one of the criteria we look at when we're assessing proposals. We tend to split the proposals into themes, which may be part of a proposal, and then for each of those themes we will do an assessment of the various criteria... Pathways to Impact is one of those criteria. And for the impact criteria, we look at what the guidelines are, and we will judge that against those criteria." (Panel member)

"We were given one document with guidance on the whole process, and I can't remember right now if that explicitly included guidance on the impact cases. If it was, then yes, we would have been given it to read it, and we would have read it. For the fellowships... generally I found the guidance we were given very detailed and very helpful. And like I said, I can't explicitly recall a section on the Pathways to Impact. But, for the role it plays in assessing the fellowship, I think we were adequately prepared." (Panel member)

A few people thought their panels did not explicitly refer to any guidance about Pathways to Impact planning during the assessment process.

"Not really. I know there is some and we must have looked at it... I had a look today and saw there are a few statements about economic and societal impact but to be honest it's something that's not normally discussed in any great details in panel meetings." (Panel member)

"Not explicitly. We don't have it in front of us on the table. And we don't ask 'does it do x,y,z?'. But we do have STFC staff on the panel who are very well informed about the

requirements and we accept their guidance on the suitability of the documents. The previous Chair told us to remember it's about looking at whether the Pathways are likely to generate plausible impact.” (Panel member)

Some panel members talked about deferring to the expertise and knowledge of STFC staff and several said they preferred it when STFC staff had an official role in reviewing and assessing the Pathways to Impact plans, as had been the case a few years previously.

“Yes, we have some notes from STFC which we pass onto the ‘introducers’ for each project. They are very broad - to be honest with you I would prefer it if public engagement was assessed by the STFC public engagement team. I would be more comfortable with the plans being assessed by the experts.” (Panel member)

One person felt that a lack of specific guidance was problematic, and his quote below indicates a lack of clarity and potential for confusion around the submission and assessment requirements relating to Ptols and separate ‘outreach statements’.

“There is almost no guidance about assessing Pathways to Impact. Nothing which is panel-specific anyway. Any guidance would be helpful to be honest, particularly some indicators about what we are supposed to be assessing in the Pathways to Impact plans. I'm sure there are links to the RCUK guidance. STFC does give guidance about assessing the outreach statement - this is a separate document to the Pathways to Impact plan - and in this, applicants can request resources that are specifically related to the research.” (Panel member)

Another panel member also commented on potential confusion and lack of awareness of the purpose of the Ptol and suggested clearer guidance and inclusion of some case studies would be helpful.

“Yes - most people on the panel are PIs anyway and will have seen it. I think there is some confusion and lack of awareness about the purpose of Pathways to Impact - we know the research councils want to see them but it's not really clear how they are used and what their purpose is. Are they used to report to Government? Maybe some case studies could show the link between a successful Pathways to Impact and a successful project?” (Panel member)

Overall, however, despite these issues and concerns, the majority of panel members thought that current documents were fit for the purposes of the current system. Indeed many panel members expressed the view that if the guidance for reviewing and assessing Pathways to Impact became more prescriptive than at present, then the current process would need to change in two ways: (1) to involve more panel or external expertise in assessing impact; and (2) to potentially change the process for resource allocation to ensure that the funding of the science component of applications was not adversely affected.

“... none of the panel members are experts on impact. They're appointed to panels because they're experts on the physics, and they're able to make a judgement on what is cutting-edge physics... If we were to increase the relative importance of that in the future, perhaps we would need some experts on impact to make an independent assessment of that part of grant applications, and to report that back to the grants panel.” (Panel member)

3.5. Assessing and reviewing Pathways to Impact planning: panel members' use of criteria for assessing quality

Evidence from interviews with panel members showed that there was no agreed process for using criteria to assess Pathways to Impact planning across the STFC portfolio. It appeared that every grant panel used a slightly different process.

Representatives from two panels said they scored Pathways to Impact plans against set criteria – in one case the scoring of economic and societal impact was a quantifiable component of the overall assessment of the application; in the other case Ptols were scored against criteria but the score did not count towards the assessment overall:

“Recently, after much agitation from those involved, we've introduced, prior to the meeting, a scoring system for the proposals, that's done by the panel members. That is an unweighted 1 to 5 scoring system on each of the four criteria that we have for the projects... they are: technical excellence, knowledge exchange, economic and societal impact, and added value. [Do you have criteria statements relating to each of these?]. I certainly don't have objective criteria. I think it's just one is poor, two is fair, medium, good, very good. The 3s are my mediums. I look at them and I say, Are they all about the same? 4s are better. And I look at them and say, Can I quantify- can I see something that makes that better than the ones that are getting 3? And usually you can't. So, I do find it's a very difficult thing to do. But it is actually do-able. Once you start comparing things with each other, then they do tend to fall into categories. And credibility is a big thing in economic and societal impact, I think. Have you measured it? Have you shown that it's possible to achieve it? Have you shown what the impact is?” (Panel member)

“We get guidance to grade them between 1 and 5, in terms of the impact plan. And then there is guidance in terms of what 1, 2, 3, 4 and 5 mean. In terms of, 1 they do nothing! When plans are 'vague' it's difficult to judge the quality. And I generally assume that if it is vague, it probably means they haven't done as much as they are required to.” (Panel member)

Most grants panels did not score Pathways to Impact; they simply considered whether the plans met an acceptability threshold. In a few cases this involved reviewing Ptols against defined criteria (but not using a scoring system); but in most cases, panels neither scored nor used set criteria to define a level of acceptability:

“We don't score plans - they are OK or not OK - we have criteria which are shared - we want to see that applicants have thought about what they have done in the past and link this to a plan for the future, and that it links very clearly to the research. We are looking for a convincing argument - for clarity. We will grade the plan as unacceptable if it is not clearly linked to the research (i.e. it is generic rather than specific public engagement); there are other grants available if this is the case and we will signpost those. We are very clear about this - if you are asking for public engagement resources in the grant then it must be closely-linked to the project.” (Panel member)

“We assess Pathways to Impact plans outside of the meeting and give them a 'pass' or a 'fail'. They are allowed 2 pages and in terms of threshold for quality it just has to be a plan that 'passes'. We would expect to see: evidence of engagement (metrics, who, when, how many, where); plus an indication of how they will assess the impact of engagement (people's responses, what did they think, what they learnt, and how the team will use the impact data to make changes, etc).” (Panel member)

“Everyone read the plans before they came along. Then we had a discussion around (1) if applicants were doing outreach and engagement (2) if there was a clear plan for the future. If these were sufficient they were a 'yes' and we moved onto look at the research; if a 'no' then the Head of panel asked the Group to submit another plan. Simply a pass or fail, no other criteria for judging plans.” (Panel member)

“We take a threshold approach. Have they shown diligent engagement with the topic? Does it say something specific about the activities? If there are just a couple of sentences saying something vague about working with a hospital or that they will do talks in schools, then that's not acceptable. But we don't really have defined criteria. It's really just yes or no.” (Panel member)

Findings from panel members indicated a small mismatch between grant-holder beliefs about the assessment process and the reality of the process conducted by panels. The difference in process and a lack of transparency about how plans were assessed by different panels was reflected in the range of different, and sometimes erroneous beliefs held by grant-holders (described in 3.1). For instance, a few grant-holders thought that Ptols were not considered by panels and played no part whatsoever in assessment – this belief was not corroborated by panel members.

3.6. The role of Pathways to Impact in the overall assessment of grant applications

Interviews with panel members indicated that most panels judged applications on the science alone (the Industrial Partnership Scheme Panel was the exception). Pathways to Impact plans were considered but made no quantifiable difference to the assessment process. Impact plans were noted if they were exceptional and this might positively predispose panel members towards an application. Different panels had different approaches, so the application process, in terms of Ptol, lacked consistency and transparency and provided no incentive for applicants to develop quality plans that did any more than ‘pass’.

“The only place Pathways to Impact plays a remote role – and we only ever had one case – is when you see, out of 40 or so science proposals, an outreach programme from a very small group, that was really impressive. That was the only place, really, where this was even brought up in the discussion of scientific merit... So, I think that there's kind of a soft factor that maybe makes you a little bit more lenient. I'm not saying because of that they got a post-doc. I don't think that's the case. But I think the panel was maybe slightly more sympathetic. I think, by and large, in the theory world the Pathways to Impact have absolutely nothing to do with how we distribute the money. It's just not enough.” (Panel member)

“We see it as more a case of 'due diligence' for Pathways to Impact - in the panel our focus is on the physics and we try to award as much of the allocated budget to the science as we can - there's always a huge pressure on resources.” (Panel member)

“Formally it's not a show-stopper. But we will ask for a revised version of the document if it's not acceptable.” (Panel member)

“In the context of the [panel] the plan simply has to pass or fail. If it fails then it will be passed back for revision and resubmission. There is no additional reward for doing anything more unless applicants are requesting resources, which they rarely/ever do.” (Panel member)

3.7. Panel review of requests for resources within Ptols

Panel members were asked if they reviewed researchers' plans for funding Pathways to Impact work and if not, how researchers were expected to resource their activities. Findings from panel members were consistent with those from grant-holding PIs/Co-Is. Most panel members suggested it was rare for applicants to make requests for resources, the reasons being: applicants were aware of the intensely-tight budgetary restrictions; they knew the request was unlikely to be granted; there was a sentiment among the community that funding of the science was the priority and no-one wanted to see a portion of the science funding being cut for allocation to impact work.

"It's unusual to see a Pathways to Impact that requests resources. I think that applicants are aware of the funding pressures so don't make a case for £20K towards public engagement in their Pathways to Impact where they could ask for £20K towards the science instead... And I think that is an assumption of the applicants, and it's a reality for the panel members... I've been on the panel two years, and I've not seen a Pathways to Impact that has requested resources... And I should also say you should not get from all of this that people are not doing impact or public engagement, because they absolutely are. And in universities it's seen as absolutely critical with the REF 2021 coming up, and the impact cases we have to produce, we're all under pressure to do this....so actually some of the Pathways to Impact do look quite good, because they're written with those things in mind, but ultimately there's no reward for doing that." (Panel member)

"It's pretty clear that everything is so tight just funding the research that for any applicant to get funding for Impact then it has to be pretty exceptional and there are other routes available for STFC impact funding and these tend to be used." (Panel member)

"Don't get many plans that ask for funding. The Call is not clear about this - whether it's acceptable or not - it is not explicit - this works OK though." (Panel member)

However representatives from a few panels suggested that their panels would always consider cases for resource within Ptols if these were requested:

"The majority of applicants don't ask for money to do their Pathways to Impact work. However, if they do ask for resources in the plan then we consider this in more detail and will give feedback. If we decline the request it is usually because the work is generic, rather than not of good quality." (Panel member)

Some panel members said their panels did not review researchers' plans for funding Ptol work, even if these were received. The main reasons given were that: the assessment process does not facilitate this level of review as an option; limited resources mean the priority is to fund the science; there are other pots of money available to which applicants are directed.

"No, that's not the way it works, because what we do is we rank the various proposals, in scientific order, and then we have a very close look to see how much work can be done with the very limited funds that are available. And we usually pare things back to the absolute minimum, we're working under extremely tight financial constraints. So the way that is approached is really to see what is the best scientific programme that we can fund. And we do not ring-fence any particular funds for aspects such as impact. We generally expect the people who are awarded the grants to do the best they can with the funds that we do allocate to them." (Panel member)

"[Do you ever discuss how Pathways to Impact might be funded?] Yes, and it's typically squashed very quickly. Because we don't have enough money. So, what typically happens is, when you look at the proposals, there's people asking for more travel budget; absolutely no chance. It's a blanket £1,500 per year, per faculty, that's it. People ask for money for computers, and if it's small computers, typically nothing happens, if it's anything large, people try to engineer it a little bit, that it's just below the £10k, and the typical attitude is push it above 10k and put it somewhere else. So the money is so tight, I think it's really pitiful. And I think there is an STFC pot funding outreach, with small grants up to £10k." (Panel member)

"No. We kind of expect that to be included. There are also separate grants, so I remember in the last grants round there was one of the groups were actually bidding for money as part of their consolidated grant to build [something] to use for outreach purposes. Things were very tight, and although it was an excellent proposal, we told them that there are specific pots of money for that kind of thing within STFC, and they should apply to that. So, I think if people did actually start putting numbers in, even if it was just for travel, it may be knocked back to them and saying, 'No, you need to apply [to someone else]'. If these teams didn't exist, and there was no other way, we might then well contribute towards it and say, 'We think the university should pay half and we will pay half', or something like that. But at the moment, because those things exist and funding is tight, we don't fund them through the grants panel." (Panel member)

Despite these caveats, there was some level of willingness and interest amongst panel members to consider requests, both within the current system and within a system where additional resource overall was made available:

"I have never seen any plans for funding public engagement work. Which now I think about it this is odd as the grants we award are between £1 million and £30 million and £5K for public engagement would go a long way considering the scale of the project overall." (Panel member)

"So we have a fixed budget, which you have to tension across all the areas that the grant covers. If there were a separate, earmarked amount for public engagement, or Pathways to Impact, I am convinced you would see far stronger proposals there, if there were real money on the table. But suggesting such a thing – well, unless STFC have a separate pot of money, which they probably don't, but maybe they should, I think the community would not want to see that, if that meant resources coming away from research." (Panel member)

3.8. Feedback on Pathways to Impact planning: the experience of panels

Panel members were asked if they ever gave specific feedback on Pathways to Impact planning. Their feedback broadly concurred with the experience described by grant-holders.

Around half of those interviewed said that panels rarely or never gave feedback about Pathways to Impact unless plans were deemed unacceptable (which was rare).

The other half said their panels did routinely provide feedback about PtoI planning as part of the wider comments on the proposal as whole, including for plans that were deemed acceptable as well as not acceptable. This included directing applicants to other sources of

funding. Some panels appeared to be using a feedback template from STFC which stated whether PtoI planning was acceptable or exceptional or whether it needed to be updated.

“There have been occasions when applicants have been redirected to other, more appropriate, sources of Pathways to Impact funding. So, if a piece of outreach doesn't fit with the consolidated grant but would be a useful piece of work, they might be told about another pot of money. We do give that advice. And STFC will work with the PI to help them put that application in.” (Panel member)

“The STFC office has given us three different sentences to use. One is words to the effect of not good enough, one is words to the effect of good enough, and one is words to the effect of, wow, this is really quite good... We are free to change them, but I'm prepared to bet nobody does.... it all comes back to the fact that there's no money in the game. So there's no incentive for the proposers to really put a lot of effort into it, and there's no incentive for panel members. If there were resources, I think you'd see it taken quite seriously.” (Panel member)

“It's as part of the feedback for the proposal as a whole. When I [give] feedback on proposals, I write it strictly in terms of the four assessment criteria [but] I don't think that's the general way that people write it on the panel. I've never been asked to write it in that way. The other feedback I've seen is generally focused on an aspect of the proposal that wasn't liked, if the proposal's being rejected.” (Panel member)

3.9. Support and guidance offered by STFC at the assessment stage

The focus group with STFC grant managers and programme support staff explored their role in the assessment of grant applications and their views on the process. Findings confirmed that:

- Most applicants used online guidance for completing the Pathways to Impact section of their grant applications – it was rare for people to contact STFC directly for advice
- Questions received by STFC from applicants around Pathways to Impact mostly related to allowable costs
- STFC's public engagement team produced a FAQ document about drafting Pathways planning a few years ago – this is currently available on STFC's website but grant managers were unclear about its location and did not appear to be signposting it to applicants
- STFC drafted a feedback template for panels to support them with their assessment of Pathways to Impact and with suggested text to include in feedback to applicants – some panels used this, some did not
- STFC grant managers were aware that there was currently no consistency in the approach and importance given to the review of Pathways to Impact planning within the overall assessment of grant applications
- STFC staff suggested that panels lacked the time and expertise to assess Pathways to Impact planning within what was already a very heavy workload over a tight timescale – many panels had told grant managers they preferred the previous system whereby PtoIs were assessed by STFC's public engagement team.

4. Implementing and monitoring Pathways to Impact plans: the experience of grant-holders

Grant-holding PIs and Co-Is were asked about their experiences of:

- Implementing Pathways to Impact plans – how they put their plans into action
- Monitoring progress and revising plans if needed.

4.1. Implementing Pathways to Impact plans

Most grant-holders described how their PtoI plans were part of the wider work of their group, department or school and the impact work they were planning would feed into their overall strategy in this respect.

“We work to deliver impact through synergies with other grants - so in reality the impact plans for one grant link to other work on-going and new.” (Grant-holder)

“Implementing the Pathways to Impact plan is part of a bigger strategy for running the group and for impact and engagement work more generally.” (Grant-holder)

Some groups had particular individuals who led on impact and organised the delivery of activities:

“Our group has two people who take responsibility for impact in both areas (PE and KE). Both these are seen as flagship activities that will be used as impact case studies for the REF.” (Grant-holder)

In other places, individual researchers worked to their own plans for impact work with regular reporting to departmental committees or oversight groups:

“It's down to the individual concerned to get on and do their work. But for public engagement this is a standing item on our monthly group meetings - we keep a list of what we do and new requests. At School level there is ongoing reporting requirement in preparation for the REF. For KE I don't check up with colleagues about what they are doing - just assume they are doing it.” (Grant-holder)

In a few cases there was no clear sense of leadership for impact work. For these respondents, it did not appear there was a plan with objectives for a programme of work; rather, again, that they were ‘doing what they already do with people they already know’.

“Public engagement and outreach? We do this all the time. We deliver talks to non-specialists, to astronomy groups, to children in schools. We write press releases to try to get our work reported in the mainstream media. We host meetings of amateur astronomy groups in our department. This is on-going and pretty much planned into our day-to-day work.” (Grant-holder)

For three PIs who were Ernest Rutherford Fellows (ERFs), their award was an individual one and they explained that it was up to them to progress the impact work. There was some

evidence of this feeding into a wider departmental strategy but, largely, the Pathways to Impact work seemed to be an individual pursuit for ERFs, although much-valued.

4.2. Monitoring progress and revising plans if needed

Overall, responses from interviews and focus groups indicated that monitoring the progress of Pathways to Impact work within wider project grants was not a standard practice and is not currently a requirement by STFC. Only one person said they had updated a plan or added actions to a plan during the course of the grant. There was no sense from most PIs and Co-Is that Pathways to Impact plans were ‘living documents’ that were amended or updated as the grant progressed. As seen above, some grant-holders referred to team meetings as a way of monitoring progress; but overall, responses indicated that people undertook PtoI work with little internal, or external, scrutiny, within the wider academic context.

Respondents indicated that impact work which was innovative or new to a department was easier to map and log, especially where a new and specific activity was developed within the context of a new grant.

“I am revising the plan with our [specialist public engagement] fellow, as the activities I was going to do need to change slightly to fit the fact I now have less time and will need to work with schools in a slightly different way. The impact and interaction will be the same - but the pathways/activities need to be less travel intensive.” (Grant-holder)

However where existing platforms were used (e.g. regular talks or media appearances), it was often unclear if these were linked and logged as Pathways to Impact work for a specific grant.

“I don’t revise them - I make them as general as possible – we need to be agile and respond to developments from the research as they arise.” (Grant-holder)

“We wouldn’t revise our overall Pathways to Impact objectives, but we would make changes to the way we did the work to take advantage of a funding opportunity or new development for example.” (Grant-holder)

Respondents reported that they were unaware of how they could, or should, be monitoring and reporting progress and changes to Pathways to Impact work to STFC: some people said it was the first time they had thought about, or been asked about this issue.

“I’m unaware of any means to tell them once the 5-year plan is in place.” (Grant-holder)

“I’m not aware of any mechanism to tell STFC about any successes or failures in impact.” (Grant-holder)

This view was corroborated by STFC grant managers, who explained that they did not follow up Pathways to Impact plans with applicants during their awards and had never been contacted by any grant-holders about revising PtoI plans. Similarly, panel members reported that they only ever saw Pathways to Impact plans once, even those that have been returned to applicants for revision and resubmission. Panel members said that if a grant was awarded then the assumption was that the PtoI had been updated in line with any feedback – however there was no feedback loop between the panel and the STFC office in this respect.

5. Evidencing and reporting the outputs and outcomes of public engagement within Pathways to Impact

Questions for PIs and Co-Is covered three aspects of evidencing the outputs and outcomes of public engagement within Pathways to Impact:

- Experiences of evidencing the reach and impact of Pathways to Impact work
- Experiences of using Researchfish to report outputs and outcomes
- Awareness of the purpose of Researchfish.

5.1. Evidencing the reach and impact of Pathways to Impact work

Grant-holding PIs and Co-Is (some of whom were also panel members) were asked to describe how they went about evidencing the reach and impact of public engagement within their Pathways work.

- 10% were unable to offer any clear explanation
- 30% responded by talking about how they logged engagement activities and quantified the reach of their activities
- 60% talked about logging activities, quantifying reach and gave some examples of how they had begun to measure the significance or outcomes of their Pathways to Impact work.

"The [specialist public engagement] fellow brought this up and told me it was important to measure and assess the impact of the public engagement work with schools. We decided I would do a short questionnaire for pupils at the beginning of Year 6 and at the end of Year 6 to see if there had been any impact in terms of their knowledge about what scientists actually do, and whether they feel this is something they could do in the future." (Grant-holder)

Several highlighted that (a) it would also be useful to measure significance, but they did not do so at present; (b) they were unsure how to do so and lacked knowledge/expertise in this area.

"One person in our team keeps a log of media entries, talks in schools, attendance at sciences fairs etc - tends to just be a log with some element of counting i.e. 1,100 newspaper pieces. We don't systematically log numbers reached or attended; but some organisers of science fairs do this and tell you. Significance - no, don't do this. It would make sense to do it though. Sometimes we get feedback from organisers of events." (Grant-holder)

"I try to keep a rough idea of the events that I do myself... number-keeping to make sure we're doing something. Sometimes it's just a talk to a classroom with 20 or 30 people rather than a TV show to 100,000 viewers... just try to keep track of everything... I don't know how you would [assess significance] unless you hand out a survey at the end of a talk and get people to say if they found it interesting... useful, would they do another one? That's usually what the organisers would do, rather than me. So, I'm not sure I have much to contribute to that side of things." (Grant-holder)

"I am very conscious that it is very hard to make these measurements in reality. For example, I can fill a tent at a music festival with 800 people and get a great response from them and I

can estimate the numbers, but it's impossible to gauge the impact in any other way although I can sense that the talk has been influential. I would get easier feedback from talking to a few cubs or scouts as I can give them a pre/post questionnaire, but this would not have the same impact. From the panel perspective, then, we take a realistic view and look for techniques that seem reasonable and achievable.” (Panel member)

One person did not know that STFC was interested in collecting data about how she evidenced reach and significance:

“I do this anyway, for me. We always have a goal in mind for any training or outreach we do - that is just common sense. But I didn't realise until I read your questions that I was supposed to be doing it for STFC. Where does it say this? No-one has ever talked about it to me. I keep a head-count and details of events/engagement work I do. I also do exit surveys and some pre-post surveys for most training events - e.g. with teachers, I would ask how much they know already and then how much they've learnt. We need this data to help us, but I don't do it to evidence impact. I didn't realise I had to. I know I could pull out data over past four years if I needed to for STFC - some data on reach and some quotes and feedback.” (Grant-holder)

Currently, the process of activity-logging and assessing reach appears to be ‘work in progress’. Researchers talked about trying out different techniques and working with partners to explore methods for evidencing the impact of their public engagement work. Amongst more conventional approaches to evaluation such as pre/post survey design, there were also examples of more innovative work in this area, for example the commissioning of independent research and inter-departmental partnerships. There was also some evidence of using reflective evaluation to develop and improve activities, and an appetite for guidance and tools from STFC on effective methods for evaluating public engagement.

“We keep a log of schools worked with and numbers of students. The press office keep records of reach for articles and audience figures for TV/radio broadcasts. For our work with schools and other audiences - we use a before/after questionnaire to map changes in perceptions. A colleague within the team is responsible for developing this. It's not currently being used as a method by the whole department, but we think it might be as it is a good way to gauge the impact of our work on people and to see how their perceptions might be changing over time too. It does involve a lot of work though. But it might be worth it as we have seen a similar effect with effort put into awareness raising around STEM subjects.” (Grant-holder)

“Unconventional outreach like YouTube provides lots of quantitative evidence, and, for REF 2014, we commissioned an independent study to look at the demographics of the audience. We are now liaising with some linguistics experts [from our university], who are doing a linguistic analysis of the comments on those videos, looking at issues related to gender, or whether the videos have made a difference to the viewer in that respect...I'm currently running a small project to link the videos into the national curriculum and create a website hopefully when that's done, we'll have some direct feedback from schools. We have a very wide social media link because all of this is done on YouTube, and because we're active on Twitter. We have a direct two-way conversation with our users a lot of the time.” (Panel member)

“We do feedback forms for the people [attending events], asking them.. did they enjoy it, did they learn something, were they engaged? We measure footfall by stickers. Classic technique, but it works. We try and monitor social media and press engagement, here I get help from the

press office at the university... When we do engagement with schools we can at least tell you the number of pupils that we've interacted with through master classes, or sessions, or going to the school, or them coming in for other events with us. So again, it's counting heads. A little bit harder to measure the total impact. We do ask the teachers what they thought of it, and we do have feedback forms which usually rate how interesting they thought it was, whether they learnt anything, that sort of thing... We then try to use it to improve what we offer the next time... One of the things that we learnt through the feedback [was] to try to make it clearer what the target age range is for these events.” (Grant-holder)

“I'm a fan of 'quick and dirty' - e.g. giving out free stickers to gauge numbers. But it should be easier than it is to do something with mobile phones - to develop an app which you could reskin for different purposes. It just needs some cash and expertise to develop it. We need an infrastructure in place to help us capture this data quickly and easily.” (Panel member)

Feedback from STFC grant managers indicated they were not aware of the state of play regarding how funded projects evidenced and reported public engagement within their Pathways to Impact work, nor about the potential link between the data generated through these activities and its potential for use within returns to Researchfish.

5.2. Experiences of using Researchfish to report outputs and outcomes

Most of the PIs and Co-Is included in interviews and focus groups had completed a Researchfish return. A few people expressed no view on the process, had no complaints, or had found using Researchfish straightforward:

“Yes - it's quite straightforward for me as I do not have much to input.” (Grant-holder)

“Yes - it was fine. I consider it as in draft state still as I'm currently waiting for input from colleagues on the collaborative publications. Not had much to write in the impact sections at the moment so it all seemed quite straightforward.” (Grant-holder)

“Yes I've just done one and have done them before. I thought the process was much more straightforward than previously and much improved. It was easier to input outputs and to link these to grant. The process for doing so was more helpful and natural.” (Grant-holder)

Most people expressed negative feelings towards Researchfish, such as frustration, irritation, resentment, and anger, for the following reasons:

- It is not easy to use, is cumbersome and not intuitive
- It takes too long to complete a return – up to a week for one PI
- There is no perceived point or purpose to the exercise
- It duplicates data capture for other systems
- Issues that had been identified by a previous stakeholder consultation exercise some eight years ago had still not been addressed.

“I just completed this year's Researchfish exercise and it was as annoying, as I remember. It is like dealing with a minefield - if you tick yes to any question, it will explode with menus full of further questions which are subtly phrased to just miss the point, and yet are compulsory...”

Apart from the issue of importing large publication lists, nothing much has changed.” (Grant-holder)

“It's a pain. I don't really know what the point of it is. Where does the information go and why is it needed? The website is very cumbersome. There seems to be a lot of duplication of effort between Researchfish and grant applications – for instance, you have to input publications and past experience into grant applications that is already in Researchfish - why can't there be synergy?” (Grant-holder)

“The last return took me nearly a whole week. I covered a few grants. The system is not intuitive, and it is very cumbersome to complete. It feels like it was developed without input from academics who are going to use it. Entering publications is a real pain - the other stuff is also hard and it can be very slow and clunky.” (Grant-holder)

Overall, the community felt that Researchfish was ill-suited for collecting the types of data for which it is currently being used. Despite a definite sense of resentment and irritation surrounding their use of the system, people also expressed their wish to be conscientious and accountable.

5.3. Awareness of the purpose of Researchfish

Across all interviews and focus groups, very few people were aware of the purpose of Researchfish, or how the data they submitted was used by STFC.

“STFC say it's a requirement to complete it but it's not clear why, and what they want the data for. I suspect no-one will ever look at the publications so why do they need so much detail. They have this data anyway.” (Grant-holder)

“I have no idea what happens to the data. We make this huge effort and it would be good to know where it all goes and what STFC use it for.” (Grant-holder)

“What do they do with the data? Which bits are Government most interested in? What's the benefit of the scale and level of the information? They ask for a lot. I suspect I've been told but I don't recall details.” (Grant-holder)

“No. I'm assuming that they use it in some way in the impact reports. But there isn't much of a feedback there. I think most researchers regard it more as a chore than anything else. It's very hard to see what the benefit to us is.” (Grant-holder)

“I have seen the Impact and Science reports from STFC and I wonder if these are based on the Researchfish data?” (Grant-holder)

Respondents called for STFC to clarify the purpose of Researchfish and why certain data are needed, and to better disseminate any council-level outputs based on these data. Some people also wanted feedback on their own returns to ensure they were inputting the right information:

“It would be useful to have some headline information about how it's used.” (Grant-holder)

*“I would like to know what they do with the data as I have no idea. It would be good to have more examples of what they are looking for and what **not** to include - I found a grid that helped - an outcome map in Researchfish.” (Grant-holder)*

Participants were asked about the sorts of outputs they would like to see based on Researchfish data but responses did not provide much detail or consensus: some people talked about short reports, some about statements from STFC¹⁵. This might be an area to explore further with the STFC community as timely and appropriate feedback is essential for supporting on-going commitment to completing Researchfish returns.

5.4. Support and guidance from STFC with Researchfish

The focus group with STFC grant programme managers highlighted a need for more information and understanding about Researchfish within the council itself, as well as amongst the external community. Grant managers were aware that the community found completing returns for Researchfish time-consuming and difficult.

“...the community are not that keen on using it as it is time consuming... [they] accept providing information for Researchfish is a requirement, but they would like it to be easier.” (Grant programme manager focus group – notes)

They were, however, unable to comment on the appropriateness and relevance of Researchfish questions since they admitted that they had not seen them and currently had no involvement at the reporting stage of the grant.

“We don’t know whether the Researchfish questions are appropriate because we haven’t seen them and don’t have any involvement. Any questions are referred to the evaluation team.” (Grant programme managers focus group – notes)

¹⁵ STFC already produces annual Impact Reports based on Researchfish data analysis; available at: <https://stfc.ukri.org/about-us/our-impacts-achievements/annual-impact-reports/>

6. Suggestions for changes to the current process for reviewing, assessing, monitoring and evidencing public engagement within Pathways to Impact

6.1. Suggestions for changes from grant-holders and panel members

An open question at the end of interviews and focus groups encouraged people to offer suggestions for changes to the process for reviewing, assessing, monitoring and evidencing PE within Pathways to Impact planning. Around one-third of those involved in the research felt that the current system was fit for purpose and that changes should only be introduced if more funding was made available to support these.

“At the moment it's done quite sensibly - given the amount of money available that is available for it.” (Panel member)

“If it remains the case that no resources are available then the process is fine as it is. If STFC want the process to be more meaningful then more resources are needed.” (Panel member)

“If we end up using Pathways to Impact to judge the science, I think that would be complete mission creep.” (Panel member)

The other two-thirds of respondents made suggestions for changes relating to different parts of the Ptol planning process as set out below.

- Defining and understanding what counts as impact:

“Making it clear to proposers what impact is. The RCUK three headings [academic, societal and economic impact] are helpful - they seem to be saying that Pathways to Impact can be any one of those three impact areas - but my understanding was that academic impact was not generally thought by STFC to be acceptable as impact on its own. So, it would be good to have some clarity about this.” (Panel member)

- More information about how STFC defines quality in Ptol plans:

“Feedback and advice from the panel/STFC on the quality of the Impact plan - more than just to say it is 'acceptable'”. (Grant-holder)

- Clearer guidance for applicants which includes more examples and case studies to help with Ptol planning:

“When putting together a plan it would be useful to have an example on the form of a piece of outreach and its impact as a guide to those who are new to the process. Without forcing people to write more, don't set too many limits on how much information people can give and give more examples, with feedback. Examples make it much easier for panels to compare plans. On guidance: I'm guessing with the more centralised UKRI, this is something that's going to become less peripheral. As an academic, we're very focused on the physics, so when it's something that's slightly detached, any extra instructions, advice, examples are useful, particularly for writing rather than assessing. (Panel member)

“Often, the most interesting outreach and engagement comes at the frontiers of disciplines – and so my own [research] is close to the edge of environmental and climate research but STFC don't fund in that area so how do I get a project funded? There is no cross-remit of different research councils and this feel like an obstacle. How do we cross boundaries? How do we do stuff at the interfaces?” (Panel member)

“Some exemplars might be good - e.g. this is what we would count/not count as impact - e.g. for my mind, training for post-docs is only ever impact if it's about gearing them to work with industry - other training we would not see as impact.” (Grant-holder)

- Clearer and more specific guidance for panels on assessing impact summaries and Ptol plans and signposting for this:

“Some clearer guidance on exactly what is expected of applicants and panel members when writing/assessing the plans. The first time you do this it's not clear what you have to do. There is probably excellent guidance but I'm not aware of it.” (Panel member)

- Clarity and transparency about how Ptol planning is reviewed and assessed by panels including feedback on the quality of plans, consideration of a higher profile for Ptol within the assessment of funding applications, and the potential for criteria-based scoring:

“I feel that Pathways to Impact should be a more important part of the review and assessment process. That panels should score the plans and that STFC should pay more attention to them.” (Grant-holder)

“For more clarity about the purpose of the Pathways to Impact process and the planning documents - what are they used for?” (Panel member)

- More encouragement to applicants to make requests for resource for Ptol work:

“Could we give everyone a little bit of money without having to review what they will do but with the expectation that they will report on it to us?” (Panel member)

- Improved support and guidance on evidencing the reach and outcomes of public engagement within Ptol:

“Another colleague who was involved in a Nucleus award showed me a little booklet he has on how to measure impact - why can't other grant-holders get this too? Also, some more support from STFC.” (Grant-holder)

- More information about the purpose and benefits of reporting through Researchfish and consideration of changes and improvements to enable Researchfish to better meet the needs of the STFC community:

“I think they should scrap Researchfish, it doesn't really play the role it should do. Whether the STFC can do that, I don't know.” (Grant-holder)

“The most important impacts are not always what are recorded in the system... They don't always fit into what Researchfish measures: e.g. metrics, profit, extra staff employed... I think our biggest product in particle physics, in probably the whole university sector, is the people that we turn out. So our students who go off and stop doing particle physics, but start doing...”

founding industries, or, you know, working in banks or whatever, have a vastly bigger effect on society, and that isn't counted in any way. But it's apparently not impact. So I think they're missing all of the output.” (Grant-holder)

“I wouldn't change anything to do with the grants side of things. This is good as it is - relatively light-touch. I would change the REF and I would change Researchfish. Why don't we merge these things? Why is it the research councils are gathering information and then the REF is gathering information? It would be good if we actually just did all of this stuff once, rather than multiple times. Because we are in effect doing the same reporting multiple times.” (Grant-holder)

6.2. Concluding comments

This small-scale piece of research has highlighted a lack of clarity, consistency and transparency across many aspects of the Ptol planning process. There is an appetite amongst the STFC research community for reform of the current system, but also a need for further dialogue to ensure that any proposed changes are appropriate, proportionate and evidence-based.

The purpose of the research reported here was to support the Working Group in devising a series of draft recommendations and actions for discussion with APPE and STFC grant managers. This process is now underway and an overview report, recommendations and action plan will be published by STFC in 2018.