

November 2020

Pre-award Process Review of the IRC Laureate Award

Final Report



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Executive summary

This report presents the findings of a pre-award review study of the Irish Research Council's Laureate Award scheme. This study was commissioned by the IRC and has been carried out by Technopolis.

Our headline conclusion is that the IRC's Laureate Award scheme is a critical and timely addition to the Irish research landscape, with all groups of study participants noting high demand for basic research funding in Ireland. The scheme has highlighted a wealth of high-quality basic research capacity across disciplines and has gone some way towards realising this potential.

The great majority of applicants have strong track records in terms of publication and prior research funding, and review panellists rate the overall field of applications to be of high quality. Whilst this is good news, it also means that with a success rate of 14% (Starter/Consolidator) and 8.4% (Advanced), the scheme is somewhat oversubscribed.

In terms of the pre-award process aspects covered by our study, the scheme is broadly in good health. In particular, applicants praised the overall ease and user-friendliness of the process, while reviewers and panellists consistently praised IRC staff's support.

Reviewers we were able to survey are highly experienced academics with substantial track as application reviewers, often including for EU funding schemes. Applications were matched well to reviewers' expertise.

While the assessment process largely operated well, a particular point of concern lies in the area of feedback and transparency of funding decisions, where substantial portions of applicants voiced dissatisfaction. This does not result from a genuinely untransparent process as such, but is instead attributable to two factors. First, applicants who were unsuccessful at stage 1 of the assessment process received less comprehensive feedback than those who progressed to the final stage. Second, despite an essentially clear and transparent process, the low application success rate combined with the evident presence of many high-quality applications means many applicants struggled to understand why they were not funded.

Part of the aim of the Laureate Award scheme is to facilitate greater success of Ireland-based researchers in ERC grant competitions. Many applicants acknowledge greater ability to do so as an important outcome not only of winning a Laureate Award, but even of applying through a process that mimics that of ERC grants. However, the noted difficulties around feedback and transparency of decisions limit this learning experience somewhat.

Our headline recommendation is that the Laureate Award scheme ought to continue in the shape of regular, predictable calls. There is also a case for contemplating changes to the award size, if this would mean that a greater number of awards could be made. This is especially the case for the arts, humanities and social sciences. We set out our full list of recommendations in the concluding section of this report. In brief, there are some possibilities for cost and time-savings in terms of the overall review numbers required per application and with regard to assessor fees for remote reviews. The IRC may also want to consider introducing a minimal past research track as an eligibility requirement and, importantly, re-appraise the shape of feedback given to unsuccessful applicants, especially to those unsuccessful at stage 1 of the application process. The IRC should also consider addressing the gender imbalance in the overall applicant pool (which reflects the Irish research landscape more broadly), as well as on the Advanced award and physical science panels.



1 Introduction

This report presents the findings of the pre-award review study of the Irish Research Council's Laureate Award scheme. This study was commissioned by the IRC and has been carried out by Technopolis.

The mandate for this study is to complete a full review of the pre-award process of the Starting and Consolidator Laureate call, as well as of the subsequent Advanced Laureate call. The following areas were instructed to be covered by this review and we address them in this report:

- The profile of applicants and awardees, to include discipline and gender
- The application, assessment and selection process, including
 - The eligibility and selection criteria
 - The criteria for selection of remote peer reviewers
 - Selection of panel members and chairs and the performance of the Council in securing peer reviewers and panel members
 - Use of the online application system as a critical enabler to the process
- Communication and promotion of the awards, including launch of the scheme, pre-call notices and webinars provided
- The monetary value/duration of the awards and budgetary criteria
- The organisational costs of running the scheme, including staffing, system costs, assessor fees, travel and accommodation¹
- Any other relevant aspect and/or notable trends of the pre-award process identified during the review

1.1 Overview of the Laureate Award scheme

Innovation2020, Ireland's strategy for research and development, science and technology, recommended the establishment of a frontier research funding programme, to be administered by the IRC. This key action was in recognition of the fact that there was a dearth of funding for frontier (discovery) research beyond post-doc stage for talented researchers across all disciplines, including the arts, humanities and social sciences.

Funding to launch the first iteration of the programme was made available by the Minister for Education and Skills under the 2017 budget, with subsequent funding made available under the 2018 budget. The first iteration of the Irish Research Council Laureate Awards programme, for researchers at the early and mid-career level (Starting and Consolidator), was run in 2017/18, with the Advanced call for established research leaders to continue to pursue world-class research being rolled out in 2018/19.

The aims and objectives of the Irish Research Council Laureate Awards programme are as follows:

- To enhance frontier basic research in Irish research-performing organisations across all disciplines

¹ We note that exact financial cost of the scheme cannot fully be calculated (and providing an accurate figure for comparator schemes is likewise not feasible). However, we highlight various areas for efficiency savings in both effort and investment throughout the report, including with reference to comparators where feasible.

- To support exceptional researchers to develop their track record appropriate to their discipline and career stage
- To build the international competitiveness of awardees and Ireland as a whole
- To leverage greater success for the Irish research system in European Research Council awards
- To retain excellent researchers in the Irish system and to catalyse opportunities for talented researchers currently working outside Ireland, to relocate to Ireland

Table 1 Award overview

Award type	Call launch	Duration	Value*	Apps. received	Progressed to stage 2	Awards	Success rate	Total investment
Starting	2017	Up to 4 years	Max. €400k	258	71	18	14.0%	€17.5m
Consolidator	2017	Up to 4 years	Max. €600k			18		
Advanced	2018	Up to 4 years	Max. €1m	140	69	12	8.6%	€11.8m

*All inclusive of 25% overhead

The design of the scheme was modelled on the European Research Council (ERC) Starting, Consolidator and Advanced Grants. It involved a two-stage evaluation process for the Starting, Consolidator and Advanced Laureate funding calls. All applications to the programme were evaluated by an international panel supported by remote peer reviewers, across three panel domains: life sciences, physical sciences and engineering, and social sciences and humanities.

1.2 Method note

We provide full details on the method components of this study in Appendix A of this report. In brief, our findings are based on the following method components:

- Desk research: programme document review and programme data analysis
- An online survey of Laureate Award applicants (successful and unsuccessful)
- An online survey of reviewers and panellists for the Laureate Award scheme (including only individuals who remotely reviewed at least three applications and acted as review panellists)
- A programme of ten interviews with individuals connected to the scheme at various strategic and operational levels (e.g. scheme managers, university VPs for Research, panel chairs)
- A call for evidence from research officers at eligible institutions
- Benchmarking the scheme against two international comparator schemes (the Austrian FWF's START programme and the Dutch NWO's Talent scheme)

We draw on data from all these components throughout the report. However, in the interest of keeping the main report to a suitable length, we have included several pieces of detailed data presentation in the final annex section and refer to this where relevant.

2 Applicants – profile and success factors

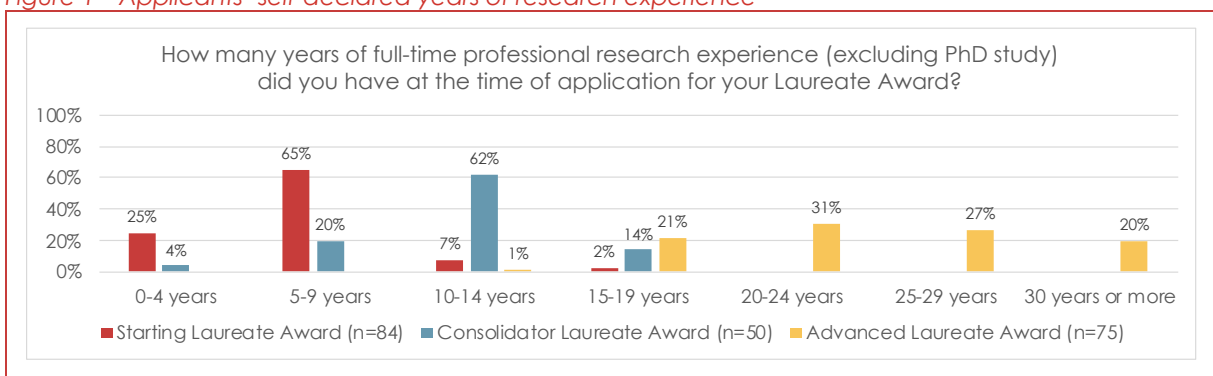
In this section, we present findings on the profile of Laureate Award applicants. This is an important point of investigation for three reasons. First, it shows whether the IRC has fulfilled the aim of 'supporting exceptional researchers to develop their track record, appropriate to their discipline and career stage'. Second, it highlights whether there are any imbalances in terms of representation among applicants and awardees. Third, it gives insight into whether there are any determinants of success in the application process, i.e. whether any particular applicant characteristics are associated with higher likelihood of winning a Laureate Award.

2.1 Applicant's research experience and track

Applicants for Starting awards should have had their PhDs conferred between 1 January 2010 and 1 January 2015, while applicants for Consolidator awards should have had their first PhD conferred between 1 January 2003 and 1 January 2010. Advanced Laureate award applicants should have had their PhD conferred before 1 January 2004, or 1 January 2002 for those holding a medical degree.²

Applicants' self-reported years of full-time research experience map onto these eligibility requirements quite well and are generally spread out over the three time-windows somewhat evenly. In other words, applicants do not appear to be clustered near the very start or very end of the intended range of research experience for any of the three award types, indicating that the eligibility criteria are broadly suitable in this respect.

Figure 1 Applicants' self-declared years of research experience



Applicants' self-declared numbers of academic publications follow a similar pattern, with Starting award applicants most often noting 10-24 publications, the majority of Advanced award applicants reporting more than a hundred publications and Consolidator award applicants occupying a middle-ground between the two.

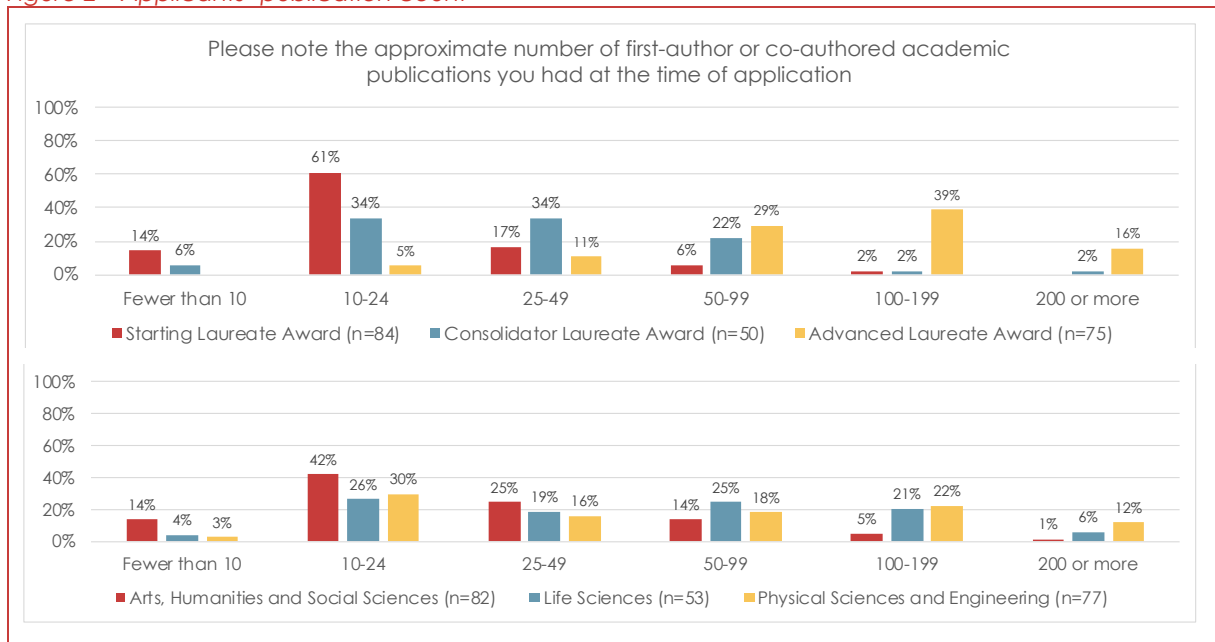
Publication numbers are hard to compare of course: different disciplines have very different standards about publication types, lengths and frequencies, and the volume of publications says nothing about quality. However, taken as broad average measures, we can conclude nevertheless that Laureate Award applicants most often have a substantial track of academic

² Applicants could extend their eligibility period (i.e. the time deemed to have elapsed since the conferring of their first PhD) for reasons including parental leave, long-term illness leave, military service or clinical qualifications.

publication, indicating suitable levels of experience to apply for large, single investigator awards.

We note that there is a small ‘tail’ of respondents reporting fewer than ten academic publications at the time of application. However, these are mostly concentrated among the Starting award applicants and in the Arts, Humanities and Social Sciences, where a small number of monographs (as opposed to large numbers of short journal articles) is a typical publication profile. In short, only a vanishingly small share of applicants may have had genuinely insufficient publication track to warrant application to a large and prestigious single-investigator award.

Figure 2 Applicants' publication count

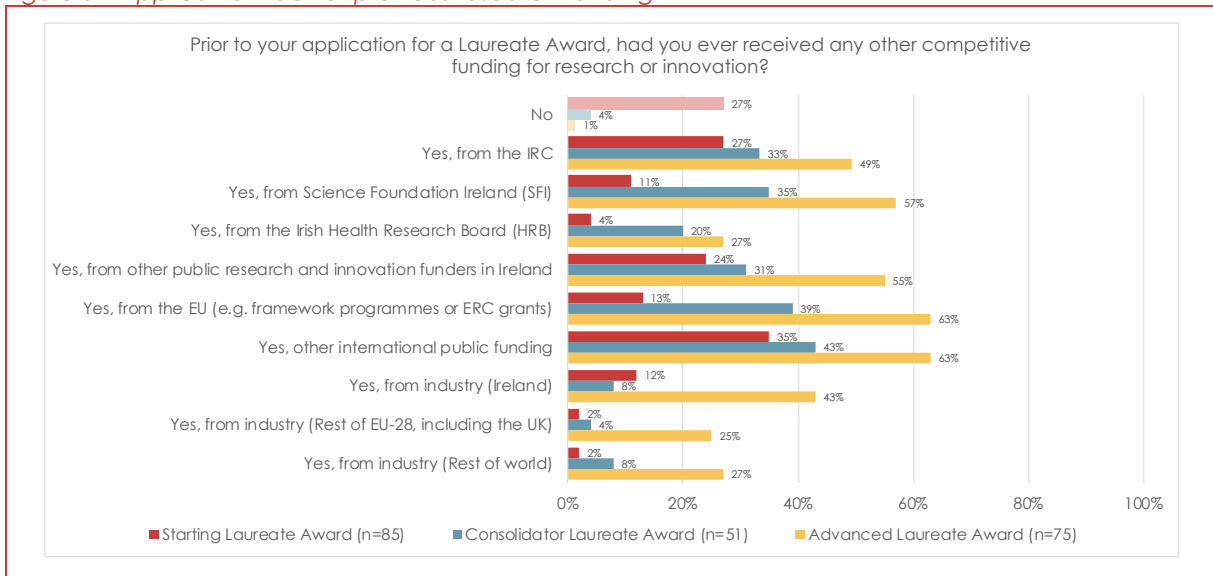


Respondents were instructed to approximate as closely as possible, including monographs, book chapters, and research articles and review papers in peer reviewed academic journals (excluding book reviews and editorials).

Likewise, we find that applicants generally have substantial track in securing research funding prior to application for a Laureate Award. The great majority of applicants report having previously secured research funding from several different sources (excluding PhD funding and small grants worth less than €5,000). Even among the Starting award applicants, almost three quarters of our survey respondents reported having previously been in receipt of research funding in some form.

It is particularly noteworthy that large proportions of applicants report having been in receipt of EU funding, as well as of other international sources of public funding. Firstly, this suggests that many applicants were already competing for research funding at the international level, which may be an indicator of the high quality and relevance of their research work. Secondly, it may indicate that applicants previously based outside Ireland were likewise successful in securing research funding in their countries of residence. In other words, applicants who were based outside Ireland at the time of application but may have been considering a move into the Irish research system were by no means ‘fruitless’ in their country of residence. This also points to some success in terms of the scheme aim of ‘catalysing opportunities for talented researchers currently working outside Ireland’.

Figure 3 Applicants' track of previous research funding

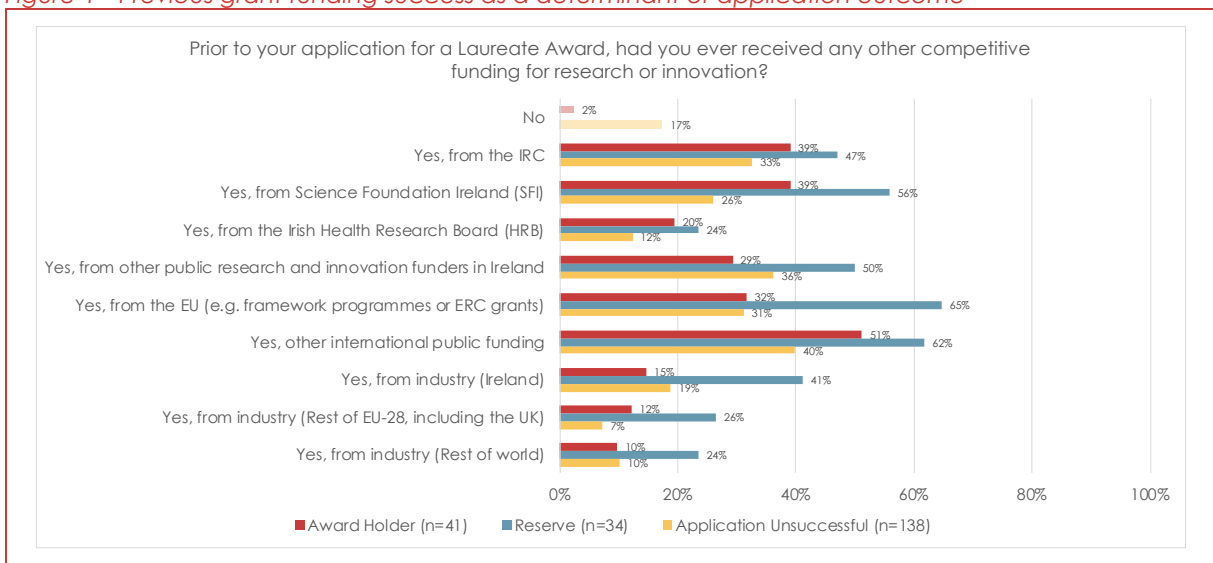


Respondents were asked to disregard PhD funding or any awards of a value lower than €5,000, such as small travel vouchers or workshop funding. Respondents could select either 'No' or multiple options, so totals add up to more than 100%.

Further analysis of this survey item shows that prior success in grant funding is associated with success in the Laureate Award application process: of the 12% of respondents reporting no prior research funding success at all, only one individual won a Laureate Award and none made it to the 'Reserve' list.

No prior success in research funding may therefore indicate insufficient experience to apply for an award as substantial as the Laureates with much realistic hope for success. We note that in the Austrian FWF's START programme (one of our two comparators, see Appendix B), some form of prior grant funding is expected from applicants, even at the early career stage. To increase overall success rates (and potentially reduce the review burden), a similar expectation could be considered for future iterations of the Laureate Awards.

Figure 4 Previous grant funding success as a determinant of application outcome



As above (see notes to Figure 3)

The figures above also show that across all funding types, Laureate Awardees generally report lower levels of prior research funding success than reserve-list (i.e. best-rated unsuccessful) applicants, although both groups consistently have higher success levels than non-reserve unsuccessful applicants.

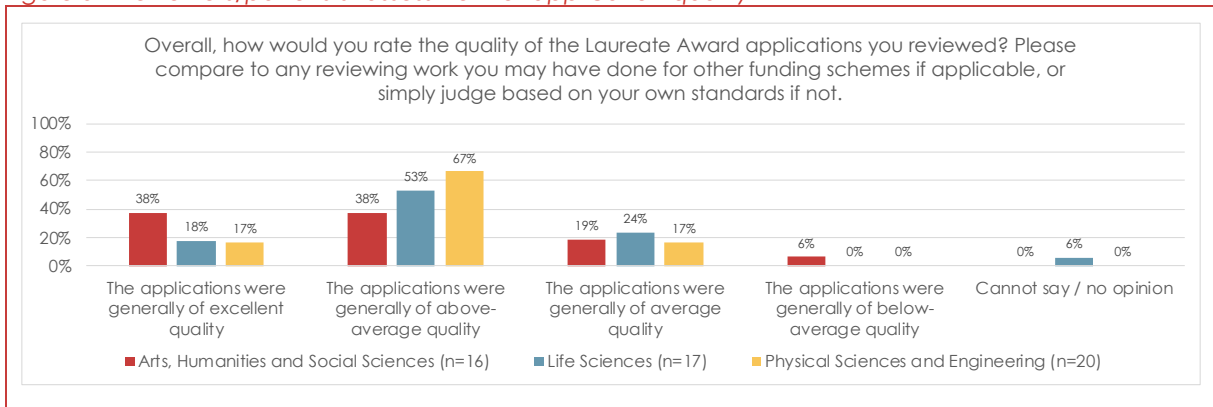
This may initially appear counter-intuitive, and our data cannot provide a definitive explanation of this. One explanation may be because the ideas of those who were previously funded are less likely to be at the very highest levels of novelty. However, a likelier explanation lies in the type of research suggested by different types of funding track: the discrepancy between award holders and 'reserves' is especially large in relation to Irish public funders other than IRC, SFI and HRB (Enterprise Ireland may be an example of these), as well as to EU funding and funding from industry. Each of these funding types are likely to be focussed more on development, innovation and applied research rather than on basic research, the latter being the focus of the Laureate Awards. This indicates that whilst more extensive overall research funding track is associated with success, those whose track is less focused on basic research tended more often to end up as 'reserves' rather than as grant winners. The Laureate Award scheme therefore appears to have been particularly successful in funding those researchers whose work is focused most strongly on the basic as opposed to the applied research domain. We stress that this is inferential and would require substantial additional research to fully confirm. However, if correct, this would indicate that the scheme managed to reward precisely the types of researchers it intended to.

So far, we have focussed on applicant's self-reported experience levels. Whilst this can act as a proxy for assessing the quality of their research, it is important to add an external perspective to this. We therefore asked respondents to our survey of reviewers and panellists to give us a view on the overall quality of applications.

The responses to this survey item are highly positive. Across all discipline domains, the great majority of reviewers rate the Laureate Award applications as 'above average' or 'excellent'. Reviewers' feedback on applications on the Arts, Humanities and Social Science domain is especially positive – an issue we return to later in this report. We also note that all our interviewees who had visibility of applications strongly echoed this positive assessment of quality.

The IRC – and the Irish research system more broadly – can take great encouragement from this finding, as it underscores the quality of basic research in this pool of applications, notably including the unsuccessful ones. As we detail later in this report, the respondents to this survey were almost without exception highly qualified individuals with substantial grant application reviewing experience. The judgements in the survey item are made against a benchmark of many international grant applications, including EU-level research funding in many cases.

Figure 5 Reviewers/panellists' assessment of application quality



2.2 Representation

In this sub-section we turn from issues around track, experience and research quality to issues around representation. The primary objective here is to establish whether any particular applicant groups are in any way disadvantaged in the pre-award stages of the Laureate Award scheme.

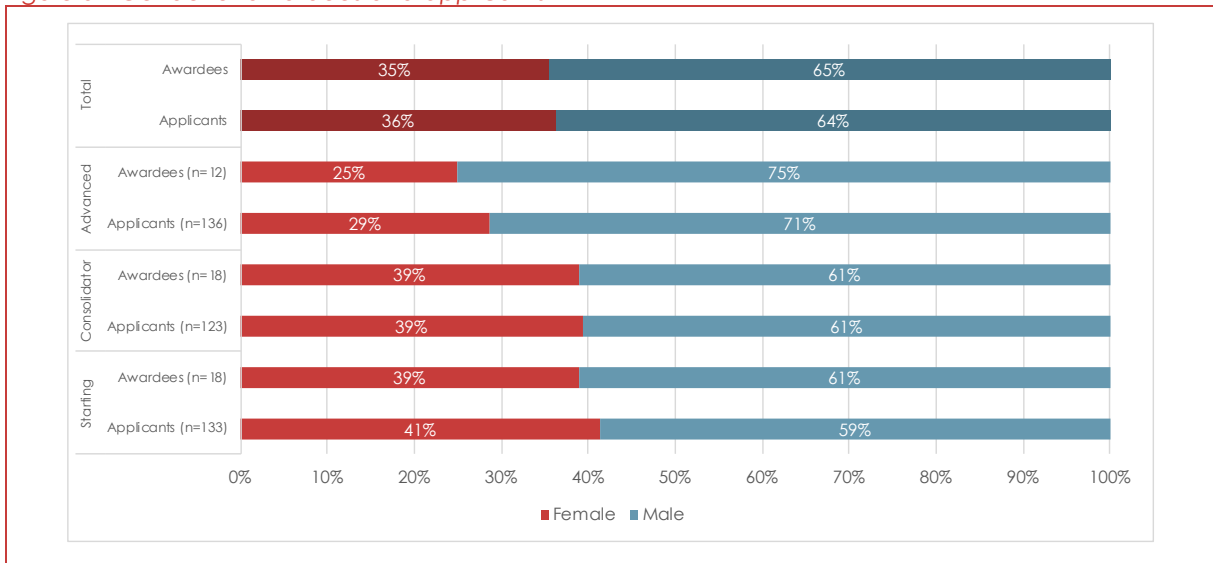
In terms of gender, we find that 36% of applicants were female, and that this proportion is almost identical among the Laureate awardees. At the level of individual Laureate Award types, there are likewise no significant differences in gender ratio between applicants and awardees. There is therefore no evidence of any skewed or discriminatory outcomes in the application assessment process. Indeed, we note that unconscious bias training took place for all panels, so precautions to prevent inequitable outcomes were taken.

This of course does not change the fact that there is a gender imbalance in the applicant pool to begin with. The overall 35/65 ratio closely reflects the gender distribution of the overall research system in Ireland,³ including the overall propensity for female researchers to be even less well represented in the most senior researcher positions – reflecting the particularly unbalanced gender proportions in the Advanced Laureate Awards.

In short, the pool of applicants reflects the overall Irish research system and there is no evidence of biased outcomes. There is of course a question around whether schemes like the Laureate Awards can be used to proactively redress this overall gender imbalance. Whether or not this should be done is a political and moral question rather than an evaluative one. However, we note that both our comparators have taken steps in this direction. In the FWF's START programme, proactive outreach and specific encouragement to female researchers led to higher female participation; The NWO added extra budget to its Talent scheme for several additional grants specifically for female researchers.

³ See e.g. latest [EC SheFigures](#)

Figure 6 Gender of awardees and applicants



Source: IRC monitoring data. Figures for awardees reflect final numbers after a small number of awards were declined or terminated shortly after commencement.

In terms of nationality of applicants, we find little evidence of a skewed process. The proportions of Irish and non-Irish nationality are broadly the same among applicants and awardees, and we also note the substantial presence of non-Irish nationals as a proxy for applicants based outside of Ireland (though many non-Irish nationals were nevertheless employed in Ireland at the time of application). The only anomaly in the data on nationality is the disproportionately large share of UK-nationals in the pool of award holders. Several interviewees for this study reported being aware of many highly experienced UK-based researchers currently contemplating a move to Ireland due to Brexit, and that the Laureate Awards may have presented an opportunity for them to do so. The high success rate of UK-nationals may reflect these circumstances.

Table 2 Nationalities of applications and awardees

Applicants			Awardees		
Country	No.	%	Country	No.	%
Ireland	247	63%	Ireland	31	65%
UK	33	8%	UK	8	17%
Italy	17	4%	Italy	2	4%
United States	14	4%	Poland	1	2%
Spain	12	3%	Russia	1	2%
All others	69	18%	All others	5	10%

Source: IRC application data

Our interviews for this study also highlighted a wide-spread view that institutions other than the top research-intensive Irish institutions were under-represented among the awardees. IRC

monitoring data indeed highlight varying success rates. TCD, UCD, the National University of Ireland and University College Cork jointly account for 68% of applications but 81% of awards.

Table 3 Comparison of applications and awards by different host institutions

	Total applications	Share of total applications	Total awards	Share of total awards
Combined total for: <ul style="list-style-type: none"> • Trinity College Dublin • University College Dublin • National University of Ireland, Galway • University College Cork 	268	68%	39	81%
Combined total for others	124	31%	9	19%

Source: IRC monitoring data

To an extent, such outcomes are likely in any research system. More research-intensive or ‘elite’ institutions (e.g. Oxford, Harvard) tend to have greater overall success in most funding competitions, based on their existing research strength. Different countries take different views on this: the UK encourages competition and a degree of concentration of research funds in the most renowned or highest-performing institutions, including through its allocation mechanism for institutional research funding. Other countries (especially those with federated systems such as Germany, Switzerland and to a lesser extent the USA) emphasise the need to have strong research institutions in all its geographical regions.⁴

The IRC’s mandate is of course to fund excellent science wherever it may be found. It is therefore once again a matter of wider strategy and national policy whether the Laureate Award scheme should take steps to redress the different success rates noted above. The Austrian science system for instance has a disciplinary strength in physics (particularly at the University of Innsbruck) and a geographical strength in Vienna. To address this, the FWF tries to consider these biases when choosing between two applications of similar academic quality. In other words, all else being equal, systemic imbalances can be used as a secondary criterion to inform funding decisions, which could also be a future possibility for the Laureate Awards.

Finally, we turn to the issue of balance between the discipline domains. A strategic decision was taken to ensure equal numbers of awards would be funded from each domain. The monitoring data show that this did indeed happen. This of course does not mean that each domain began with equal numbers of applications, so a degree of skew has occurred. This is most evident in the Starting awards, where the Arts, Humanities and Social Sciences were ‘under-awarded’ while the Life Sciences were ‘over-awarded’. The overall imbalances are minor, although the Physical Sciences and Engineering have a lower success rate than the other two domains when considering all three award types together.

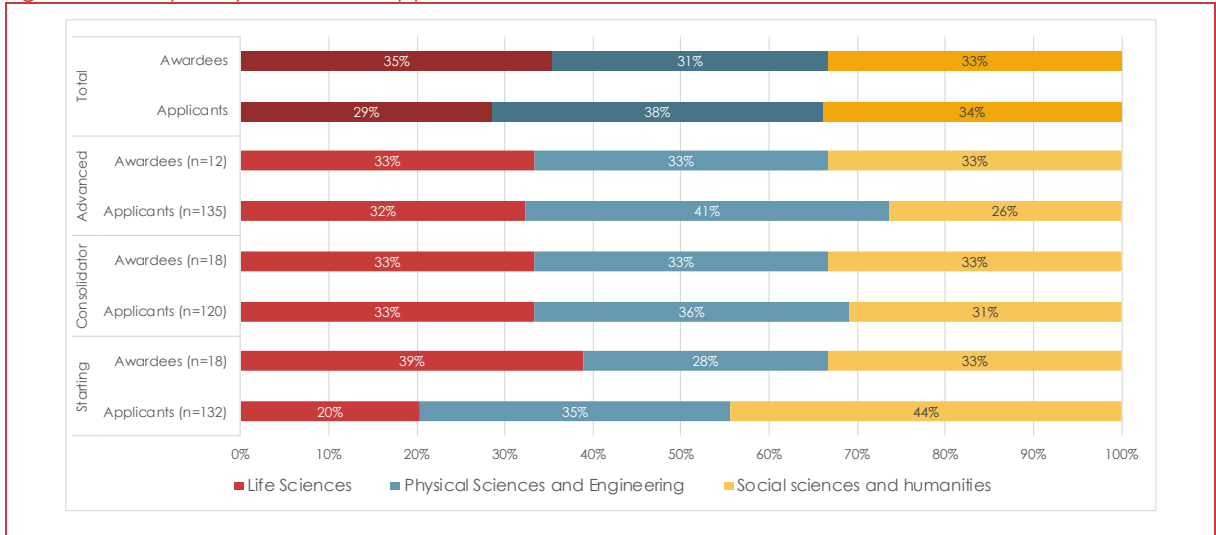
We note that these imbalances are almost certainly not a corollary of better or worse overall quality of applications in the different domains. Our survey data (see above) and our interviews consistently noted the high quality of applications and that there were many additional ‘fundable’ ones across all domains. We return to this issue in the final main section of this report,

⁴ See e.g. a recent [study for Research England](#) comparing 20 different countries on these matters.



when we consider the place of the Laureate Awards in the wider Irish funding landscape, especially in relation to funding for the Arts, Humanities and Social Sciences.

Figure 7 *Disciplinary domain of applicants and awardees*



Source: IRC monitoring data

3 Appraisal of the application review process

The last section focused on the applicants themselves in order to establish whether the scheme was able to attract the intended 'clientele', whether there were any evident imbalances in the outcomes, and to provide an assessment of the quality of applications and applicants. These issues pertain to several of the Laureate Award scheme's principal aims.

In this section and the next, we turn to an assessment of the application and review process, providing a 'health check' of the various components involved. This pertains to several of the review criteria set out in the introduction to this report and focusses on suitability and proper functioning of the application and review process, as well as on the possibility for any efficiency savings that could be undertaken in future iterations of the scheme.

In this section, we focus on 'inside' perspectives on the assessment process and consider at a more technical level the various parts of the process. In the next main section, we focus on applicants' perspectives and satisfaction levels with the various process elements.

3.1 The assessment process in brief

For the Starting and Consolidator awards, the process began with the launch of a call in early April 2017. In late April 2017, the IRC ran a webinar outlining programme details. After this event, the IRC also gave applicants the opportunity to submit questions until early June 2017. The IRC set an application deadline for the end of June 2017, three months after the launch of the call. Applications were submitted via the IRC web portal and the assessment process then involved the following steps:

- The assessment process began with eligibility checks in July 2017. Applicants the IRC considered to be ineligible were able to appeal this decision
- Stage 1 took place from August to October 2017, with peer reviewers submitting their assessments based on the applicants' extended synopsis, track record and CV
- Over the same period, the IRC formed each domain's review panels. The panel met between October and November 2017 to decide which applications would progress to Stage 2, with 71 applicants progressing to this stage
- Stage 2 of the assessment took place between December 2017 and February 2018, involving reviews of full proposals (extended synopsis, detailed proposal, track record, CV)
- Each domain's panel met to review all the applications, and also conducted interviews with applicants
- By March 2018, the final decisions were reached with those unsuccessful at Stage 2 being classed as 'reserve'. Awards commenced on 1 June 2018

For the Advanced awards, the IRC launched a call in May 2018 with the application deadline in July of the same year. Stage 2 of the assessment took place in February 2019 and funding decisions were communicated to applicants by April 2019, with all projects starting between May and September 2019. The process was broadly similar to that of the Starting and Consolidator awards. Three main differences were, first, that full applications rather than just extended synopses were assessed at Stage 1, second, that the Advanced awards assessment process did not involve interviews at Stage 2 but was based on full application review alone and, third, that there was no webinar for applicants, although applicants were still able to submit questions directly to the IRC. Advanced applicants were also asked to submit a Letter of Intent outlining their research field and proposed topic prior to the call opening. This was to allow additional time for recruitment of assessors before the call closed.

3.2 Reviewer volume, outreach and engagement

IRC figures indicate that a total of 2,347 reviews were submitted across the two Laureate Award calls by a total of 1,404 reviewers. This yields an average of 5.9 reviews per application across both assessment stages. This figure is slightly higher for Advanced awards and slightly lower for the others.

Table 4 Numbers and return rate for reviews

	Starting & Consolidator	Advanced	Total
No. of applications	258	140	398
Total number of application reviews assigned at review stages 1 and 2*	1818	980	2798
The total number of reviews submitted	1448	899	2347
Return rate by review	80%	92%	84%
Mean reviews per application	5.6	6.4	5.9
The total number of reviewers assigned one or more applications	793	792	1585
The total number of reviewers who submitted a review	690	714	1404
Return rate by reviewer	87%	90%	89%

Source: Information supplied by IRC. *IRC data could not be separated into stage 1 and stage 2 reviews

The return rate (i.e. the percentage of commissioned reviews that were actually submitted) is 84% overall. This figure rises to 89% when we measure not individual reviews but individual reviewers who may have been assigned more than one application and completed a review for at least one of these. These figures are broadly in line with what can be expected from research funding schemes anywhere – a certain degree of non-return is natural and may for instance be driven by reviewers deciding that an application is in fact beyond their subject expertise.

We understand from our interviews and our document review that a substantially higher number of review requests were sent out. Though exact numbers are not available, a 'rule of thumb' communicated to us was that ten requests may be necessary to secure three reviews, suggesting a total in excess of 6,000 review requests. Once again, this is quite usual in the context of our own extensive experience of evaluating research funding schemes.

Two issues are apparent in the area of reviewer numbers and selection:

- First, the overall numbers of reviews per application are unusually high for awards of this size: research funders typically require around three external reviews for standard basic research grants worth in the order of €200-600,000 (e.g. the 'response mode streams of the UK Research Councils). Rather than doubling this in two-stage application processes, short outline applications at the first stage of an assessment process may be reviewed by a standing panel with external reviews only occurring at the second stage. For larger awards, the required number of external reviews may increase to four or five, but rarely beyond this number.

The IRC has taken care to model the Laureate Award assessment process on the ERC assessment process and the high review numbers certainly evidence of the IRC's commitment to ensuring the highest levels of rigour. However, in terms of the number of reviews per application, it may be possible to make some efficiency savings without losing any of the 'learning experience' for applicants of going through an ERC-like process. Several of our survey participants and interviewees also noted that while replication of the ERC process is appropriate to a degree, the extent of assessment may be rather too substantial, given the size of the grant. In short, a process designed for €1.5-2.5m awards (ERC) has been used for €400k-1m awards, and while process replication is useful to an extent, there is a case to reduce the volume of reviews

- Our interviews and consultation with IRC staff highlighted that the IRC (like other Irish funders) pays reviewers an honorarium per application. Internationally, this is occasionally done in innovation-focused funding organisations (and especially in schemes that require reviewers who work in commercial sectors). However, this practice is very rare among funders focused on basic research, regardless also of whether reviewers are sourced nationally or internationally.⁵ Panel reviews requiring travel, subsistence and one or several days of meetings are of course a different matter.

There is therefore an opportunity for the IRC to make cost-savings here, as well as to remove part of the administrative burden of managing the review process. We note that this would mean divergence from other Irish funders, but on the basis of international comparison there is little justification for this practice, especially for the IRC's remit of funding basic research.

3.3 Reviewers' and panellists' profile and qualifications

For this study, we could not survey the full population of reviewers. However, we surveyed those individuals who reviewed at least three Laureate Award applications remotely and who also acted as review panellists for the scheme. Since panel members were largely drawn from the pool of remote reviewers, our survey therefore covers almost the entire population of panellists as well.

The IRC has succeeded in securing reviewers and panellists who appear to have strong track records as academics, but also (and critically) as reviewers: all our respondents had conducted application reviews previously, usually for a range of different organisations. Over 70% had reviewed EU-level applications. All indications are therefore that the reviewers/panellists are highly capable and experienced in these tasks.

We stress that this includes only those individuals who had substantial involvement in the Laureate Award scheme. Some individuals not captured by our survey due to less substantial involvement in the scheme may have been less well qualified (though there is no evidence to suggest this is the case). Nevertheless, the data show that those most substantially involved in the review process had strong credentials as researchers and reviewers.

⁵ To confirm this point, we went beyond just the two comparator programmes selected for this study and consulted internally across Technopolis' European offices, drawing on a large body of work with research funders covering the past 20 years and including several Nordic, Baltic, Benelux and central European countries, where research funders often use only non-national reviewers, as the IRC does. Payment for remote application review only ever occurs for in-person panel meetings, in innovation-focused funding, or for particularly large investments of several million euros (e.g. centres, large strategic collaborations) where applications might be in the order of 100+ pages long. Even in these cases, payment actually appears to be quite rare. For remote review of single-investigator basic research grants, consultations of our large body of experience did not yield a single case of funders paying honoraria.

Figure 8 Reviewers/panellists – years of research experience

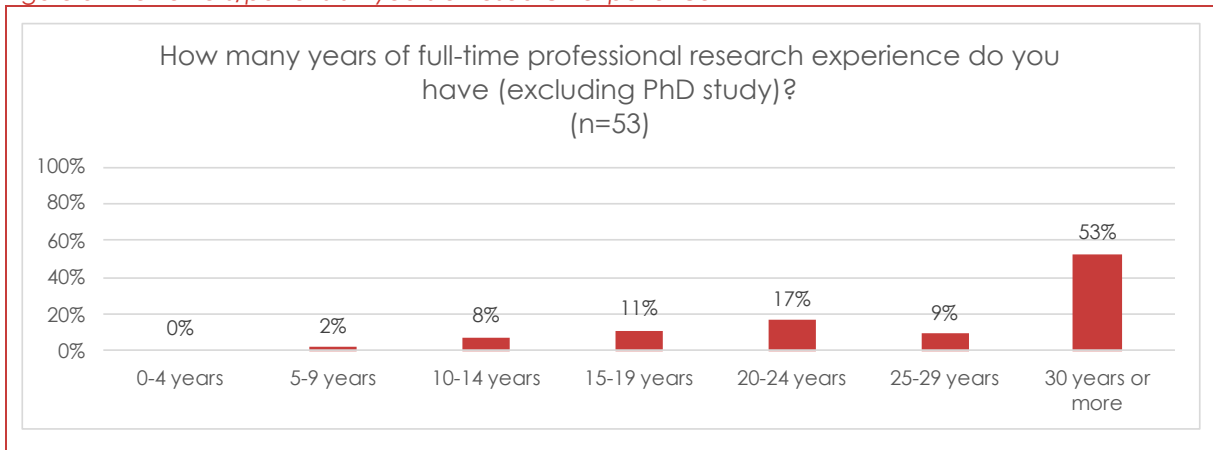
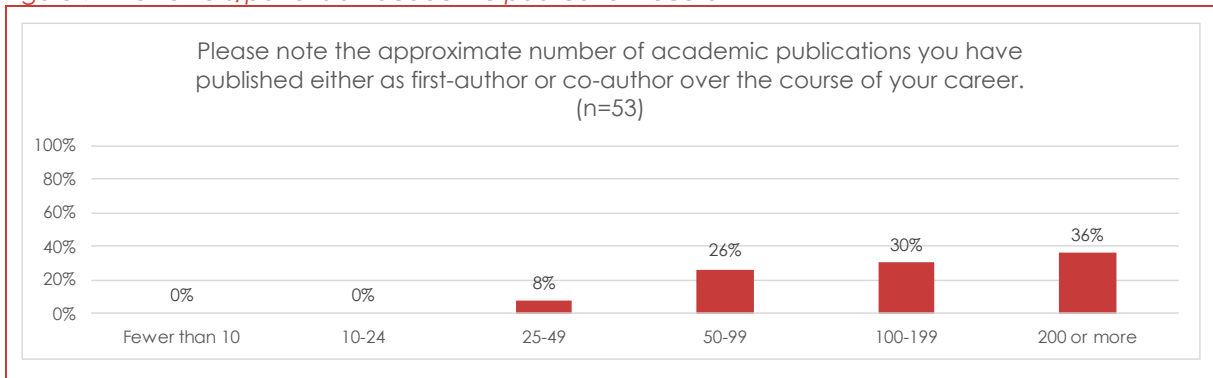


Figure 9 Reviewers/panellists – academic publication record



Respondents were instructed to approximate as closely as possible, including monographs, book chapters, and research articles and review papers in peer reviewed academic journals (excluding book reviews and editorials).

Figure 10 Reviewers/panellists – application reviewing experience by organisation type

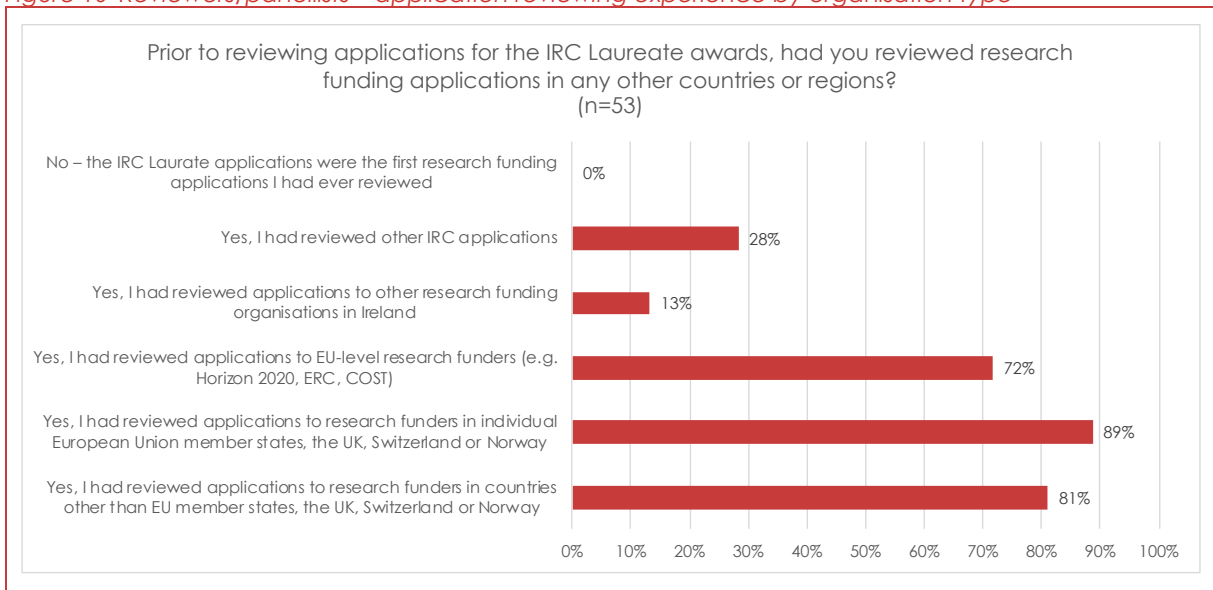
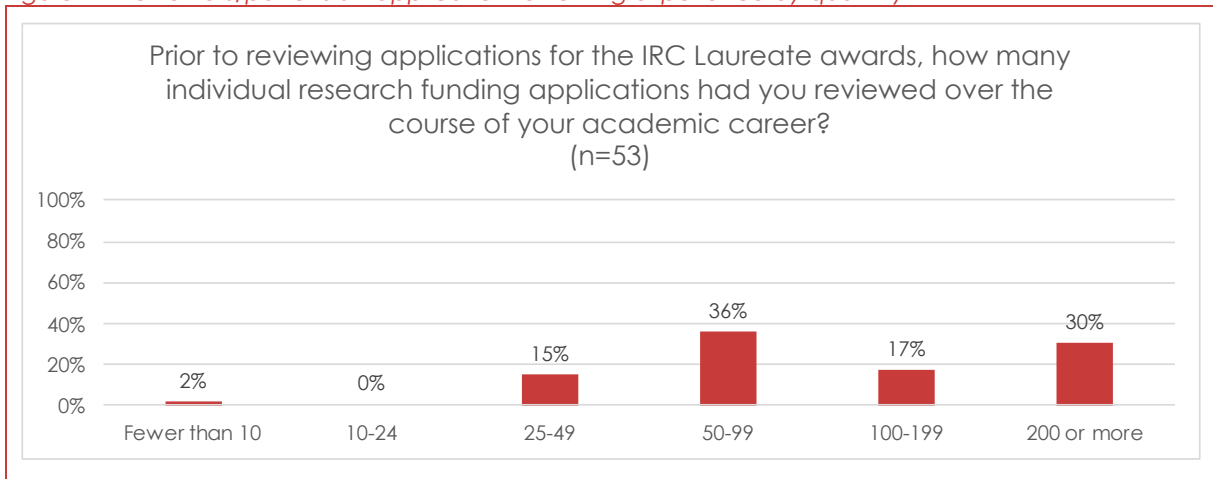


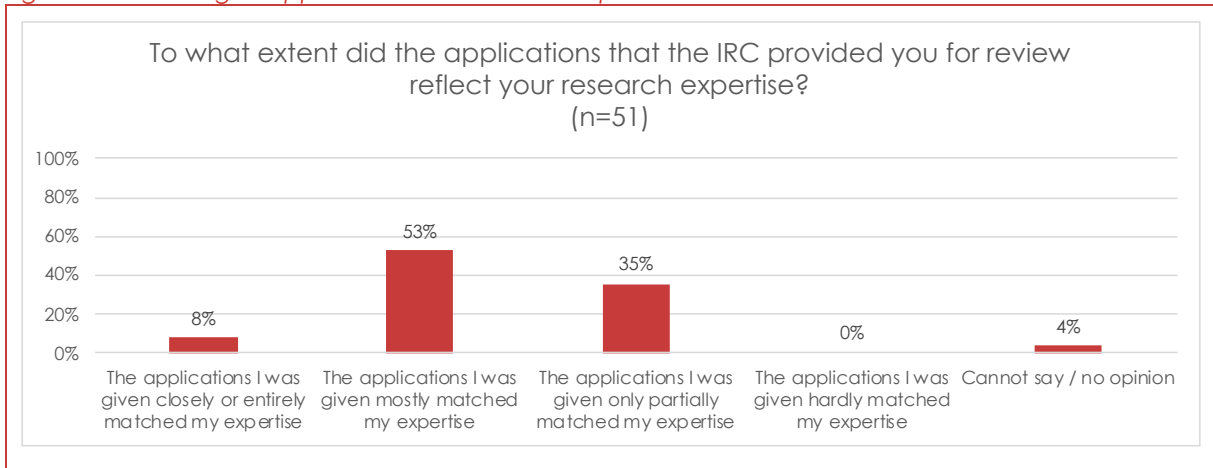
Figure 11 Reviewers/panellists – application reviewing experience by quantity



3.4 Reviewers' perspectives on the peer review stage

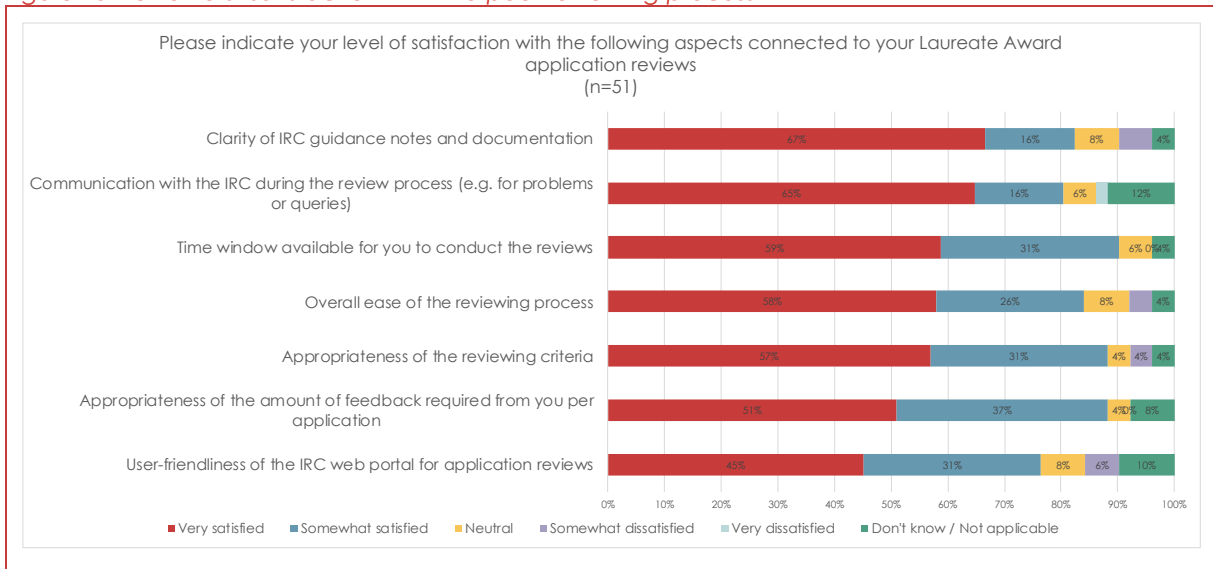
Beyond assessing reviewers' experience and expertise in itself, we can also note that applications were generally well matched to expertise. Over 60% of respondents note that the applications they received for remote review either 'mostly' or 'entirely' matched their expertise. None report to have received applications that were entirely mis-allocated to them, though 35% report only a partial match. This may present a slight point of concern, though with multiple reviews necessary per application, our survey data nevertheless indicate that applications were reviewed by partial or complete topic experts.

Figure 12 Matching of applications to reviewers' expertise



We also asked respondents to note their satisfaction with various aspects of the remote reviewing process. Results from this survey item do not highlight any areas of noticeable dissatisfaction with the peer reviewing process. The great majority of respondents were either 'very' or 'somewhat' satisfied with all aspects for which we surveyed.

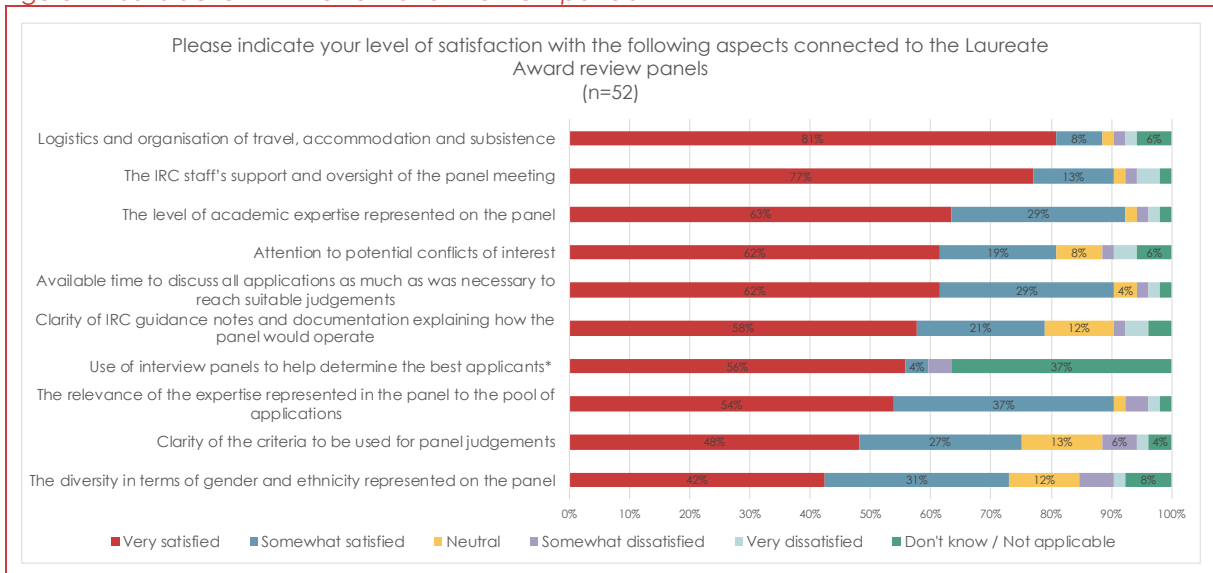
Figure 13 Reviewers' satisfaction with the peer reviewing process



3.5 Panel reviews – satisfaction and decision-making

As with the external peer review process, respondents' satisfaction levels are also very high when asked about the panel review and interview panel events. There is particularly positive feedback on the help and support of IRC staff around these panels, which is also reiterated by many respondents in supplementary comments submitted alongside this survey item. Several of our interviewees likewise noted the highly professional and helpful conduct of IRC staff.

Figure 14 Satisfaction with review and interview panels



*Respondents were asked to select 'don't know/not applicable' if they did not participate in interview panels. For this item n=52.

The least positive responses concern the clarity of criteria to be used for panel judgements, as well as diversity of the panel in terms of gender and ethnicity. We note that even here, around three quarters of respondents are broadly satisfied, but they are minor points of caution. On the issue of panel diversity, we note that the overall gender balance of panellists is better than

among the applicants and awardees. However, there is a substantial gender imbalance among the panellists in the Physical Science and Engineering domain, and more generally in the Advanced awards panels.

Table 5 Gender balance of panellists

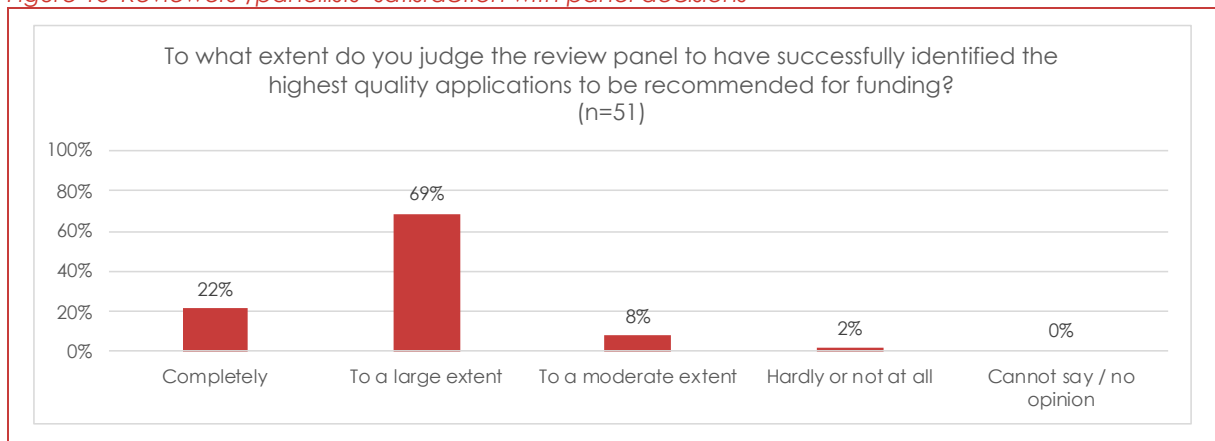
Panel	Total members	Chair gender	Identify as female		Identify as male	
Starting/Consolidator awards						
LS	16	F	7	44%	8	56%
PS	20	F	3	15%	16	85%
AHSS	22	M	16	73%	5	27%
Total	58	2/3	26	45%	29	55%
Advanced awards						
LS	10	F	4	40%	5	60%
PS	12	F	3	25%	8	75%
AHSS	8	M	3	38%	4	63%
Total	30	2/3	10	33%	17	67%
Total						
	88	4/6	36	41%	46	59%

Source: IRC data

Besides satisfaction with administrative and organisational aspects, we also asked respondents to comment on the efficacy of the panels. I.e., did the panels actually succeed in identifying the highest quality applications?

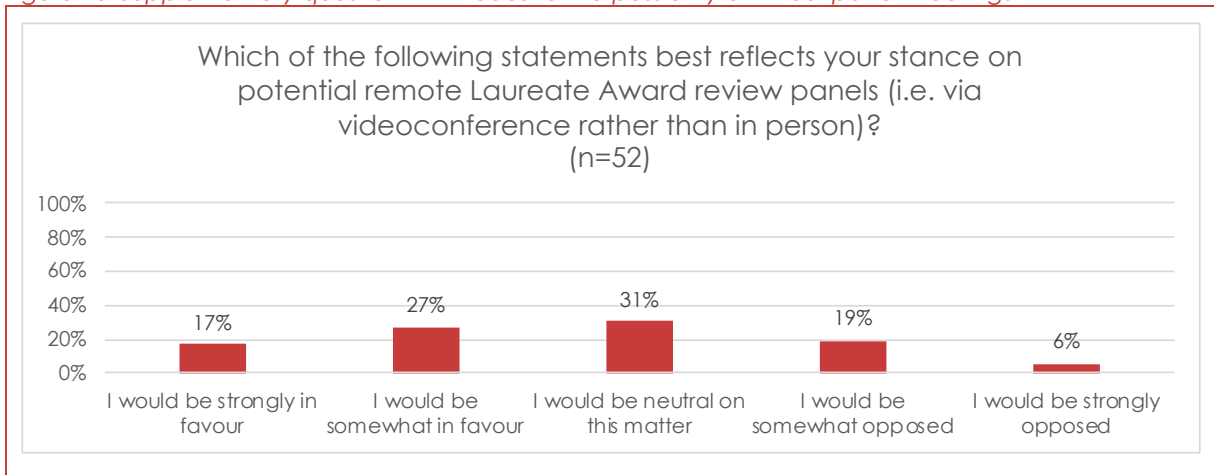
The findings here are once again positive. However, answers converge on the 'second-best' option ('To a large extent'). This may owe to the fact that the scheme is very competitive, meaning that many high-quality applications (see section 2 of this report) could not be funded, and the final decision in some cases may have come about by 'hair-splitting', as is inevitable in such situations, especially in schemes with low success rates and many high-quality applications – this is an issue to which we return in the next main section of this report.

Figure 15 Reviewers'/panellists' satisfaction with panel decisions



In light of the current Covid-crisis and social distancing measures, we also asked a supplementary question about respondents' stance on switching to virtual review panels. There appears to be a broad range of opinions on this matter. Although the 'mean' lies somewhere between 'neutral' and 'somewhat in favour' there is clearly a diversity of views here and likely a need for some consultation and debate. However, there is certainly no blanket-rejection of such possibilities, which would of course also entail efficiency savings in terms of expense.

Figure 16 Supplementary question – Attitudes to the possibility of virtual panel meetings



4 The assessment process – applicants’ perspectives

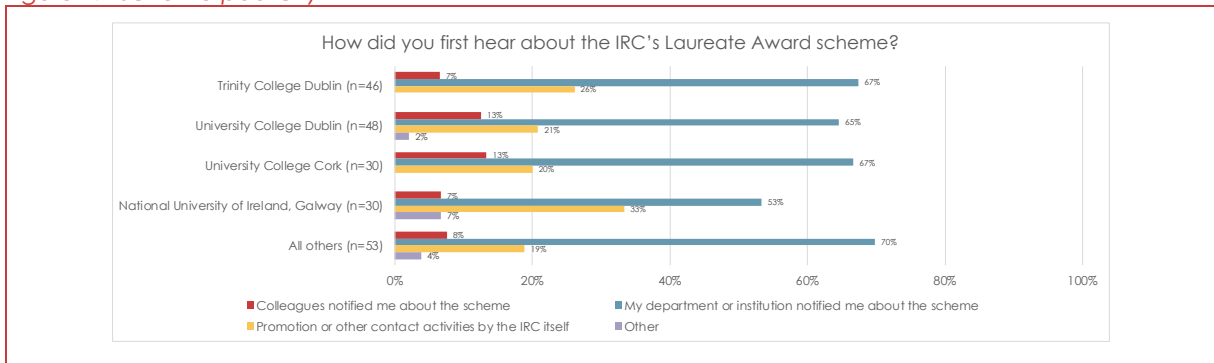
In this section we continue to focus on the assessment process. However, we draw here on the perspective of applicants, rather than on the ‘inside perspectives’ covered in the last section.

4.1 Pre-application and timelines

In terms of the profile of the scheme, departments and institutions play a lead role in informing applicants of this funding opportunity. Around two thirds of applicants report that they first heard about the Laureate Awards via communications from their institution or department. Direct publicity by the IRC played this role for around a quarter of applicants, while word-of-mouth among colleagues played a much smaller role.

Importantly, this picture is similar across institutions. In other words, the institutional imbalances highlighted in the previous section do not appear to result from different patterns of publicity (e.g. from lacking levels of IRC or institutional/departmental outreach to potential applicants).

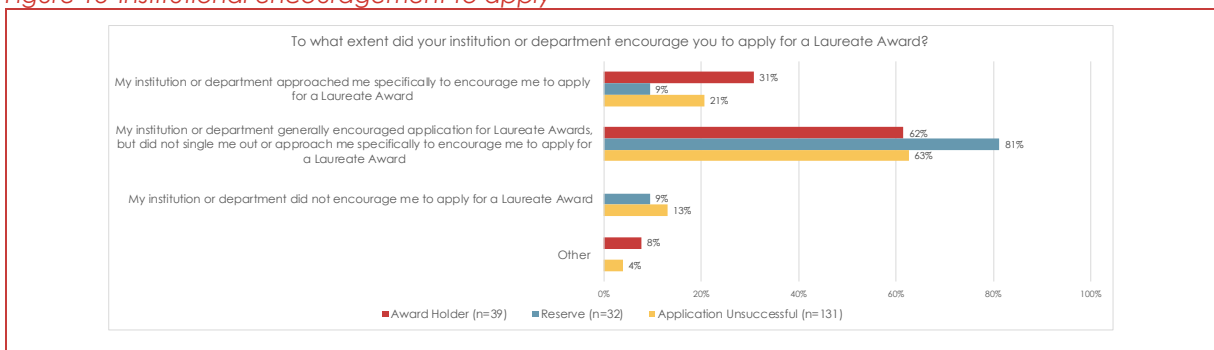
Figure 17 Scheme publicity



NB: we do not report individual figures only for institutions with sufficiently high survey response numbers, as figures for other institutions could easily be skewed by one or a few ‘outlier’ experiences.

Around two thirds of applicants report that their institution generally encouraged application but did not single them out specifically. However, 20% of respondents report that they were specifically targeted by their institution or department and encouraged to apply. Eventual Laureate Award winners are considerably more prominent in this group than unsuccessful or reserve applicants. This suggests that departments or institutions generally did well at identifying and encouraging the right people to apply. But given the relatively small share of respondents reporting specific encouragement, there appears to have been a light-touch approach by departments and institutions.

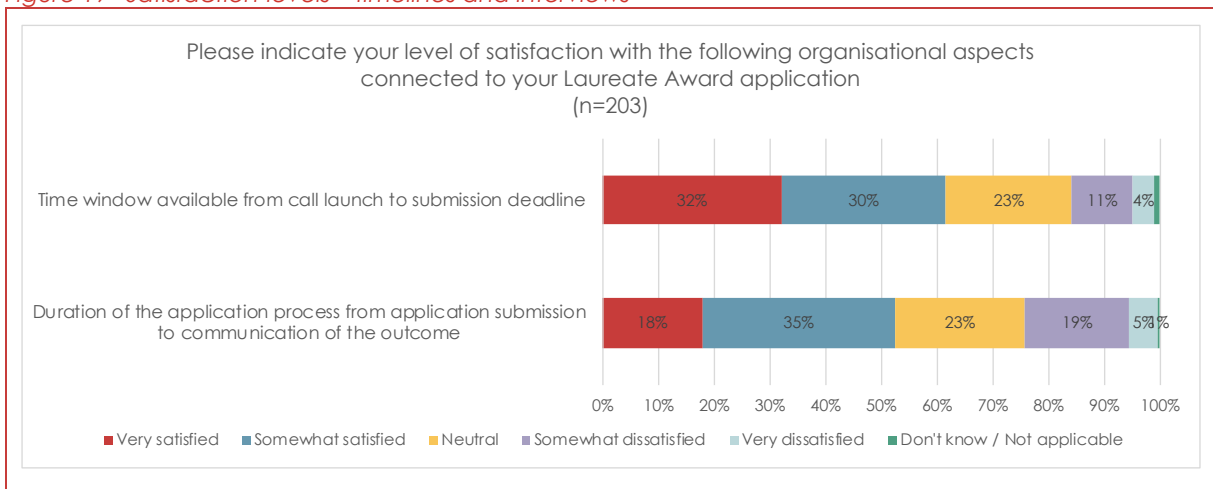
Figure 18 Institutional encouragement to apply



For the most part, applicants are satisfied with the timelines for applications. A small share voiced some dissatisfaction with the available time from call launch to submission deadline, but we stress that these are a minority. We also note that this is likely a by-product of the fact that this was the first call of its type. Both our comparator schemes have similarly short timelines between call announcement and submission deadline (see Appendix B). However, both comparator schemes have been in existence for some time and in both cases there is an annual call. This means that potential applicants have a rough idea of ‘what is coming’ and can think about and prepare applications long before the call is formally announced. Future iterations of the Laureate Award scheme may benefit from this effect as well.

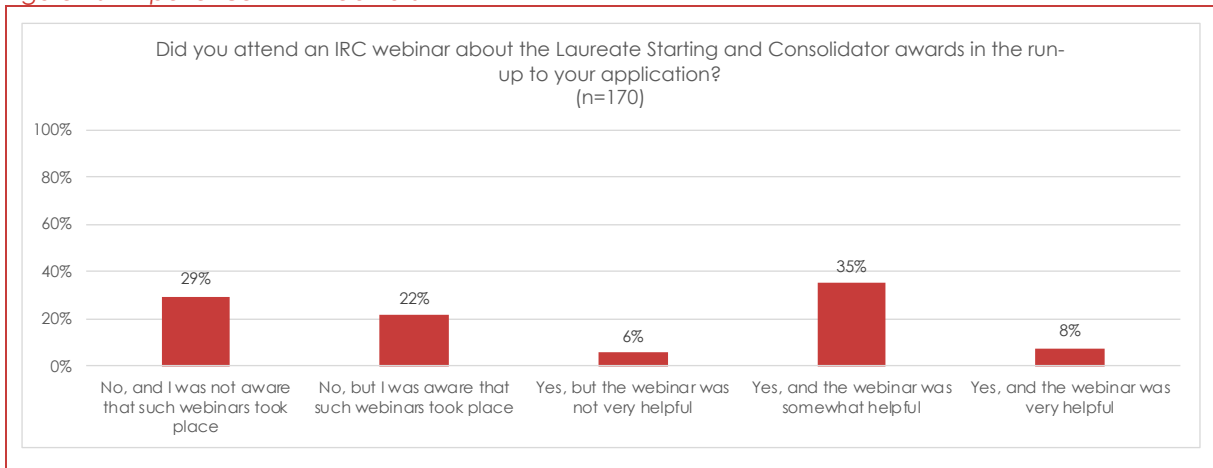
Our survey respondents are slightly less positive about the timeline from application submission to announcements of application outcomes, though even here, around three quarters are either neutral or positive on the matter. Few respondents provided further reasoning for dissatisfaction in this respect, but some noted that a long wait simply means that other plans for research and career development may need to be on hold. As a large competitive research award, the application assessment process for Laureate Awards inevitably takes some time. However, these findings do highlight the need to consider possible efficiency savings where possible – not just monetary but also in terms of time.

Figure 19 Satisfaction-levels – timelines and interviews



Prior to the application deadline, the IRC hosted webinars for potential applicants to the Starting and Consolidator streams. The same occurs for both of our comparator schemes and therefore appears to be good common practice. Our survey results indicate that a substantial share of applicants did in fact attend these seminars and most who did so found these to be at least ‘somewhat’ helpful. Several respondents also reported that although they did not attend an IRC webinar, they had attended an in-house information session at their institution and found it useful.

Figure 20 Experience with webinars



Respondents were asked to skip this question if they applied for an Advanced Laureate Award for which there were no webinars.

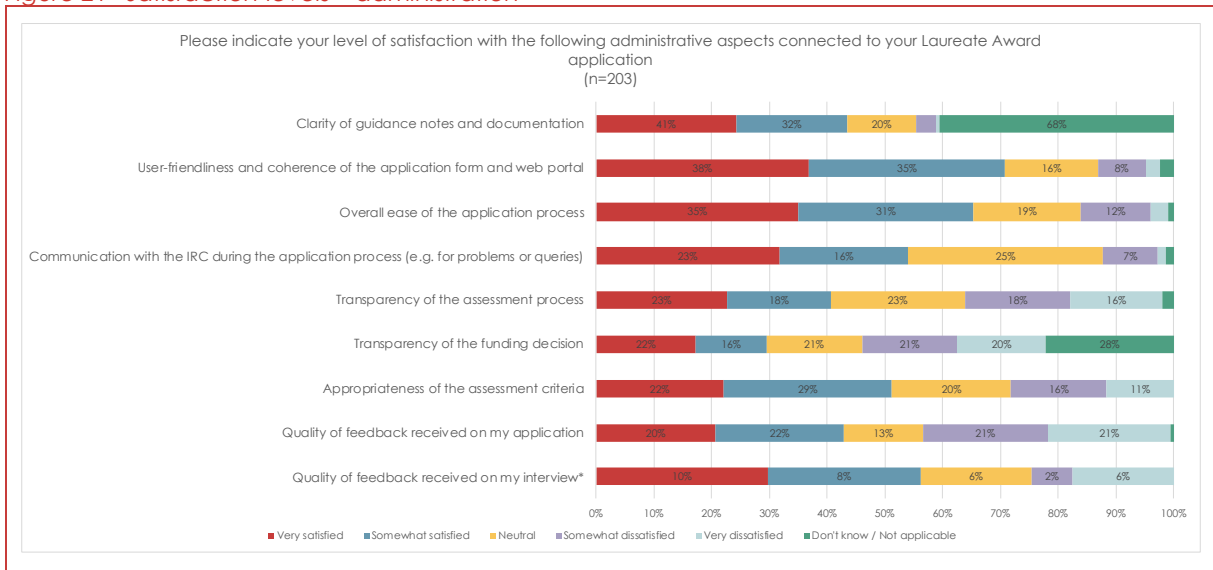
4.2 Application process satisfaction

We asked applicants to indicate their satisfaction with a range of aspects connected to the application process. On most aspects, feedback is broadly positive. Particular areas of high satisfaction are the IRC web portal's user-friendliness and the overall ease of the process.

However, sizeable minorities of applicants report varying levels of dissatisfaction on issues around the quality of feedback and the clarity or transparency of decision-making outcomes.

In terms of the application process itself, this is the single most concerning aspect of our review findings, especially due to the Laureate Award scheme's function as a 'pipeline' towards greater ERC engagement. Unsuccessful applicants in particular may benefit substantially from detailed and constructive feedback in order to improve their application, increasing its success chances for re-submission elsewhere (including to the ERC).

Figure 21 Satisfaction-levels – administration



*Respondents who did not have an interview were asked to skip this item. For this item n=121

We note that ‘transparency’ refers to the process being in any way unclear or poorly presented: process auditors were used for all panel meetings, and further findings indicate that the problem lies not with clarity of the process as such, but with communication of its outcomes.

Of our respondents to this survey item, 59 provided some additional written input to further describe any problems they had experienced. Around a quarter of these described a lack of clarity explaining their results and the feeling that the feedback was not helpful. A common theme was that the feedback they received did not allow them to clearly understand the reasons for their result and what they could do to improve their bids in future applications. Around a quarter also expressed dissatisfaction with the quality of reviewer comments. Some applicants felt that a single ‘outlier’ negative review (sometimes felt not to be justified) had a disproportionate effect on their application. Several respondents asked for a chance for a rebuttal. To an extent, such criticisms are simply a by-product of the Haldane principle. However, as we show below, the highly competitive nature of the scheme may have exacerbated such criticisms.

We conducted additional analysis on those parts of this survey item that relate to transparency and feedback to ascertain whether particular groups of applicants are driving the higher dissatisfaction levels in these areas. We find that there are some differences along lines of discipline, as well as substantial differences along lines of award outcomes. On the latter, it is inevitable that award holders are much happier than other applicants. However, there are important contrasts between applicants who made the ‘reserve’ list and those who did not.

Figure 22 Feedback and transparency satisfaction – by award outcome and discipline



Most importantly, we find that ‘unsuccessful applicants’ are far more likely than ‘reserves’ to report dissatisfaction with feedback to their application. We probed this discrepancy further in our interviews and found that the extent and type of feedback received differs between these two groups. Those who make it to the final stage of the process received reports from review panellists, including edited versions of external reviews and further comments by the panellists, drawing on the panel discussion. Those whose application did not progress to the final review stage tended to receive only edited⁶ versions of remote reviews, meaning they may have had some reflection on their application, but no comparative dimension to help them understand their performance against those that did proceed to the next stage.

Ordinarily, this would not present a significant problem: applications that failed relatively early on in an application process may require substantial revision or even a full re-think of the project idea. Those much closer to the ‘funding line’ may stand a far better chance of becoming fundable with just a little more work and helpful feedback. However, several elements of our research (notably our survey of reviewers and interviews with panellists and chairs) indicate that there were many high-quality applications throughout the field, including many that did not make it to the final assessment stage. Even for these, more detailed feedback could therefore make a difference for future funding successes.

As noted, calls were monitored by a process auditor and the PAs all signed off that the outcome was fair. These were critical safeguards for the process, and the system of panel discussion and use of ranked lists are publicly documented. The issues noted by applicants around transparency therefore are highly unlikely to indicate a problematic process.

Instead, the observed criticisms are likely a corollary of the highly competitive nature of the scheme which, combined with the high quality of applications, means that many very good applications do not get funded. In turn, the funding decision may not appear entirely clear to all unsuccessful applicants. Several aspects of the detailed survey data presented above suggest this relationship:

- Our survey item ‘Transparency of the funding decision’ receives the most critical feedback from ‘reserve’ applicants. These are most likely to have produced excellent applications that nevertheless did not get funded. The question ‘why not?’ is likely especially pertinent for these individuals
- Along lines of discipline domain, levels of dissatisfaction pertaining to transparency of process as well as outcomes, and on the appropriateness of the criteria (in other words, on what basis decisions were made) are highest in the Arts, Humanities and Social Sciences domain. Here, demand was particularly high in the Starting awards and the need for balance between discipline domains meant a lower overall rate of funded awards. We also note that application quality was rated especially highly in this domain by our reviewers and panellists (see section 2)
- Likewise in terms of award type, dissatisfaction pertaining to transparency is highest among Advanced award applicants, which had a far lower success rate (8.4%) than the other two award types combined (14.0%)

Criticisms around transparency therefore increase when we look at the most competitive parts of the applicant pool. We return to the issue of demand pressure in the final main section of

⁶ Reviews needed to be scanned and edited prior to being sent to applicants, largely to remove any information compromising anonymity

this report. However, we note here that our comparator schemes have similar success rates to the Laureate Award scheme (though slightly higher in the case of NWO's Talent scheme), and both are considered to be oversubscribed. International comparison therefore indicates that the unhappiness among Laureate Award applicants about transparency and funding decisions is somewhat to be expected at these success rate levels. However, both of our comparator schemes take additional steps when it comes to feedback:

- In the FWF's START programme, unsuccessful applicants are sent their reviews (excluding confidential comments) and their score of between C1 (reviews entirely positive) and C5 (reviews predominantly critical). Extensive informal feedback is also available by phone, email or in person. Applicants have the chance to discuss their proposal and reviews both with the scheme staff and also subject experts who sit on the FWF Board. Applicants are given the contact details of a subject relevant Board member on their notification emails
- Likewise, NWO programme officers summarise and collate all the comments and reviews in a report to the applicants. Unsuccessful applicants can then also phone up the scheme staff for further explanations or questions.

Importantly, in NWO's Talent scheme, the external reviews are sent to the applicants during the assessment process, and they are given a chance to put in a rebuttal to the points raised. The applicant is given about one week to respond. In the rebuttal, the applicant may provide additional information that has been requested by the external reviewer, refute any misconceptions they can identify and provide differences in insight between their view and the external reviewer's viewpoint

Whilst over-subscribed schemes with many high-quality but unsuccessful applications are always likely to encounter discontent among unsuccessful applicants, the approaches noted above could be drawn on to mitigate against some of this, and to ensure the 'learning experience' of Laureate Award application is optimised in this respect.

5 Profile and value of the scheme in context

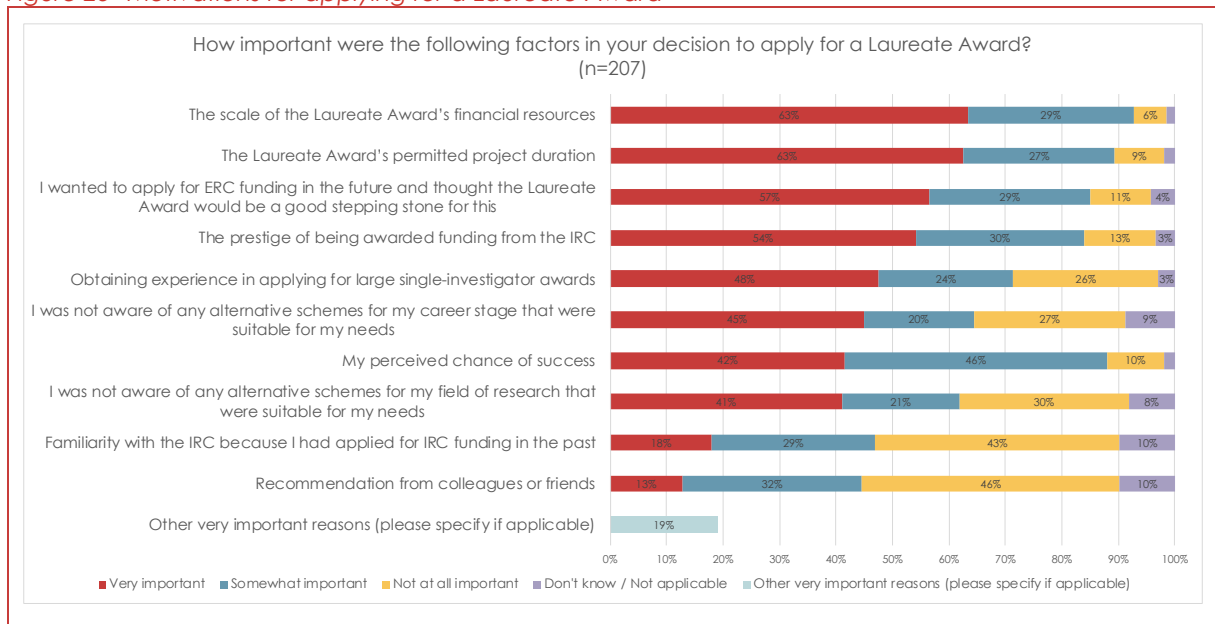
This section covers various aspects pertaining to the value and function of the Laureate Award scheme, as well as to its wider place in the Irish research landscape.

5.1 Benefit and motivation

The main intended aims of the Laureate Award scheme are to enhance frontier basic research in Irish research-performing organisations and support and attract excellent researchers, as well as to leverage greater success for the Irish research system in European Research Council awards. Findings from our survey of Laureate Award applicants indicate that these scheme aims are well understood, and that both winning a Laureate Award and even the process of application to these awards are perceived to go some way towards fulfilling these aims.

The centrality of ERC grants is emphasised in response to our survey item about motivations to apply for a Laureate Award. The size and duration of the awards are – perhaps unsurprisingly – the most important motivations for applying. However, the function of the Laureate Award as a stepping-stone towards ERC application is the third most important reason. The link between the Laureate Award and ERC grants therefore appears to be well-understood by applicants.

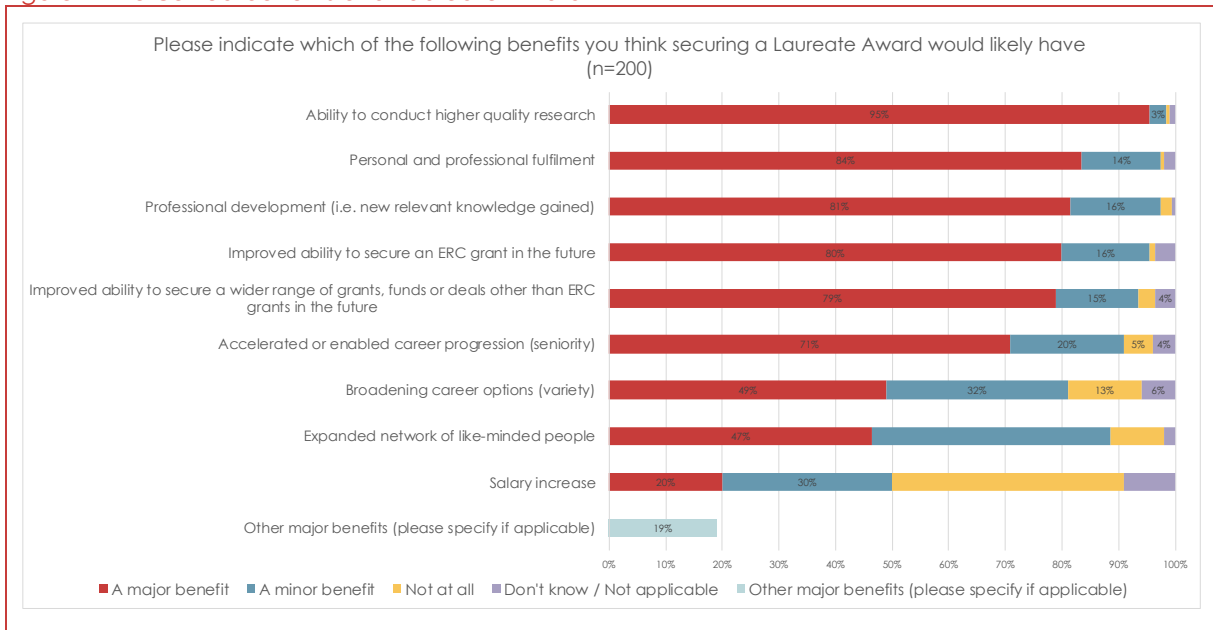
Figure 23 Motivations for applying for a Laureate Award



When a major national research funder launches a new scheme, there can be a danger that many people apply simply by 'default': they may be familiar with the funder's systems and processes, so application can become a matter of convenience. Our survey data suggest that this is hardly the case here: familiarity with the IRC does not appear to have played a significant role in applicants' motivations to apply.

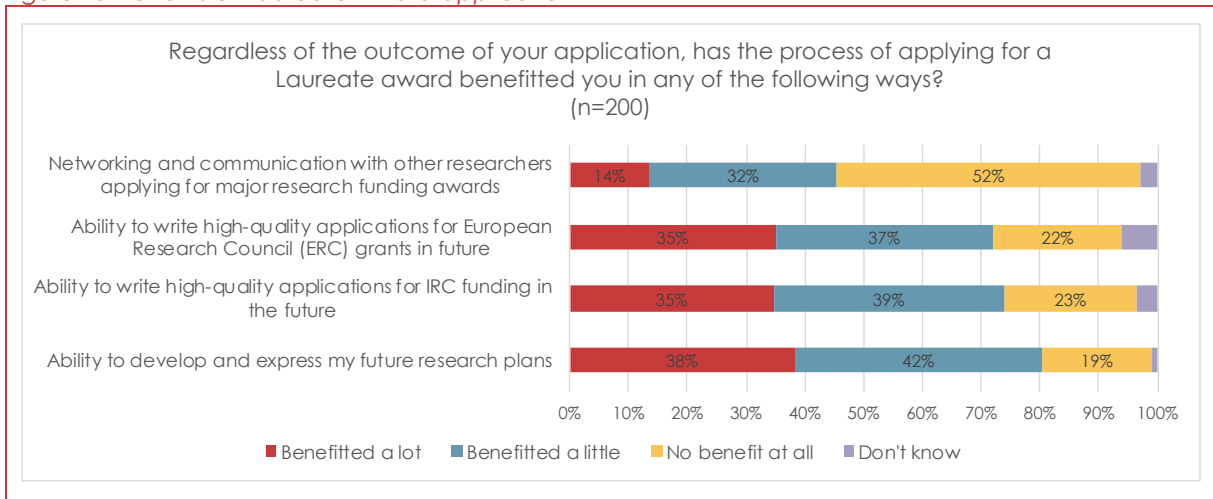
Asked about the potential benefits of securing a Laureate Award, respondents overwhelmingly list major benefits across several areas around improved research quality and capacity, as well as personal and professional development. However, here too the ability to secure ERC grants – as well as other types of research funding – is rated as a major benefit of winning a Laureate Award.

Figure 24 Perceived benefits of a Laureate Award



Disregarding the benefits of winning a Laureate Award and looking only at the application itself, applicants also note that the process has benefitted them both in terms of developing and expressing future research plans, as well as in terms of their ability to write funding applications in future (both for ERC and IRC). Despite the overall positive picture here, around a quarter of respondents could not identify any benefit in this respect. This may be an effect of the critical points made about feedback to unsuccessful applicants in the previous section of this report.

Figure 25 Benefits of Laureate Award application



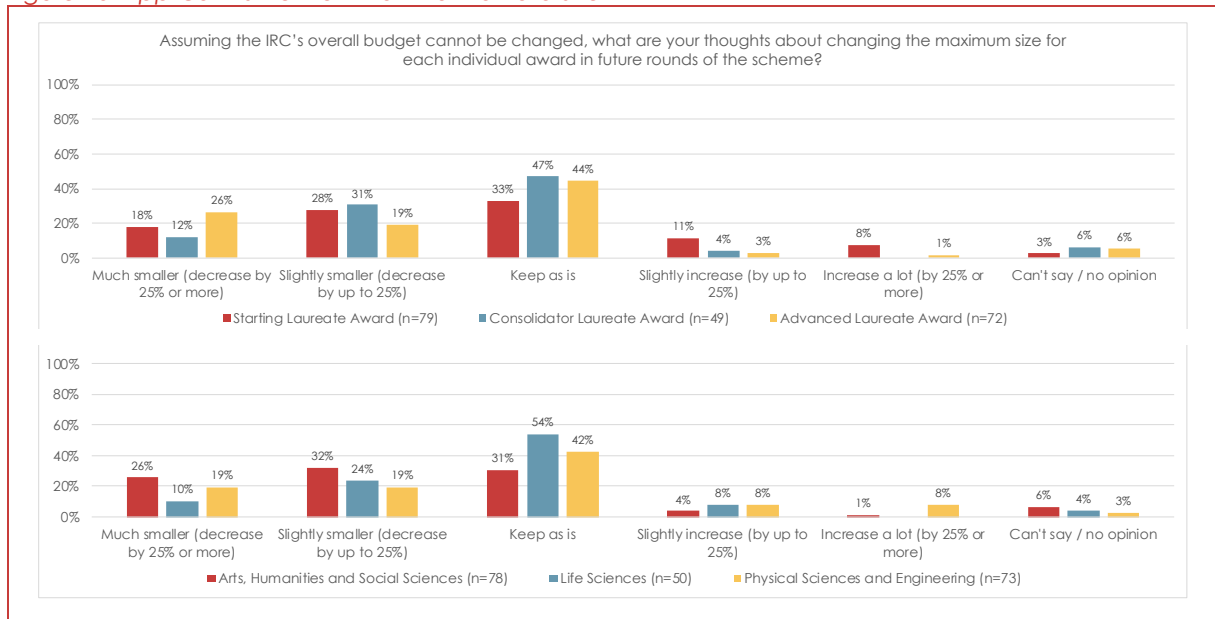
5.2 Size and other award characteristics

We asked respondents to reflect on the size of the award, and specifically whether the size ought to be changed relative to the number of awards that could be made on the current budget. Notably, almost 45% of respondents suggested that the award size should be decreased if this means more awards could be made, while 41% felt it should remain as it is.

Only a small portion of respondents suggested the award size should be increased even in the face of tougher competition for fewer awards.

Further analysis of this survey item shows that this is broadly consistent across the three award types. However, when analysing by discipline, calls for a larger number of slightly smaller awards are more prominent among applicants in the Arts, Humanities and Social Science domain: almost 60% of respondents in this group advocate more awards of smaller size.

Figure 26 Applicant's view on maximum award size



NB: the wording of answer options has been abridged here (see Appendix C.2 for full wording). All answer options clarified that a smaller award size would mean a greater number of available awards while a larger award size would mean fewer

Aside from the maximum grant size, we asked respondents to submit additional comments on other areas where they felt improvements could be made, such as award duration, review method or eligible costs. Among the 91 submitted comments there are no consistent critical messages on any of these aspects. However, many chose to elaborate on the issue of award size. Around a quarter of respondents called for a higher success rate for the scheme, most often suggesting that there be a larger number of smaller grants.

Several respondents made a link with the arts, humanities and social sciences, highlighting firstly that the scheme is absolutely essential to these disciplines as there are no comparable opportunities, and secondly that it is often not necessary to have such a large grant in these disciplines.

An additional strong theme, with just under a quarter of respondents commenting on it, was the frequency of calls to the scheme. Several respondents noted that the scheme should run regular calls on a predictable timescale to allow researchers and departments to plan around it. We note that this is the case for both of our comparator schemes (see Appendix B).

5.3 Alternative opportunities to the Laureate Award scheme

In order to gauge the uniqueness of the Laureate Award scheme in the Irish research funding landscape, we asked applicants whether they knew of any other comparable schemes to which they could have applied instead and if so, to specify these alternatives.

Of our respondents to this question, 44% reported knowing of alternative schemes. However, three quarters of respondents reporting that they knew an alternative scheme listed ERC grants as the alternative. Very few respondents in fact listed any other options. SFI is the only frequently cited Irish funder (though still noted by just 18 respondents), followed by UK funders the Royal Society and Wellcome. Aside from the ERC itself,⁷ there is therefore a very low awareness of any alternative schemes to the Laureate Award scheme.

Figure 27 Knowledge of alternative schemes – by discipline area

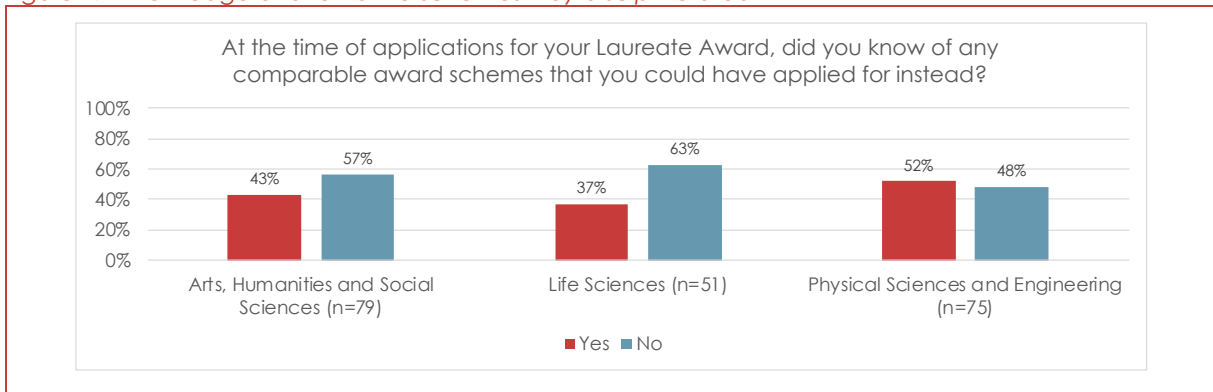


Table 6 Funders of alternative schemes – top-four

Funder	No. of mentions (n=84)*
ERC	66 (76%)
SFI	18 (21%)
Royal Society	5 (6%)
Wellcome	4 (5%)

Respondents could name more than one alternative if they wished, so totals add up to more than 100%

Since the Laureate Award calls were run, SFI has launched the ‘Frontiers for the Future’ programme,⁸ a new scheme with similar aims and award characteristics to the Laureate Awards, though not with the same disciplinary coverage and focus solely on excellence. We asked our survey respondents to note alternative schemes available to them at the time of application, when SFI’s scheme did not yet exist. However, we note that SFI’s scheme is only relevant to certain disciplines and applications to it are expected to relate to SFI’s six (formerly 14) priority areas.

In selected fields and topic areas within the STEM domains, there may therefore now be a higher prevalence of alternative funding options. However, this does not change the fact that outside of those specific research areas, applicants’ awareness of large single-investigator grants for basic research other than ERC grants and Laureate Awards is vanishingly low.

⁷ It is worth noting that the Laureate Award scheme has made far more awards than the number of ERC grants likely to be won by Ireland-based researchers over two calls. These figures are about perceived alternatives, not about equivalent coverage and supply.

⁸ See [SFI web site](#) for programme details.

This brings us to the final issue we address in the report, namely the place of the Laureate Awards scheme in the wider Irish research landscape.

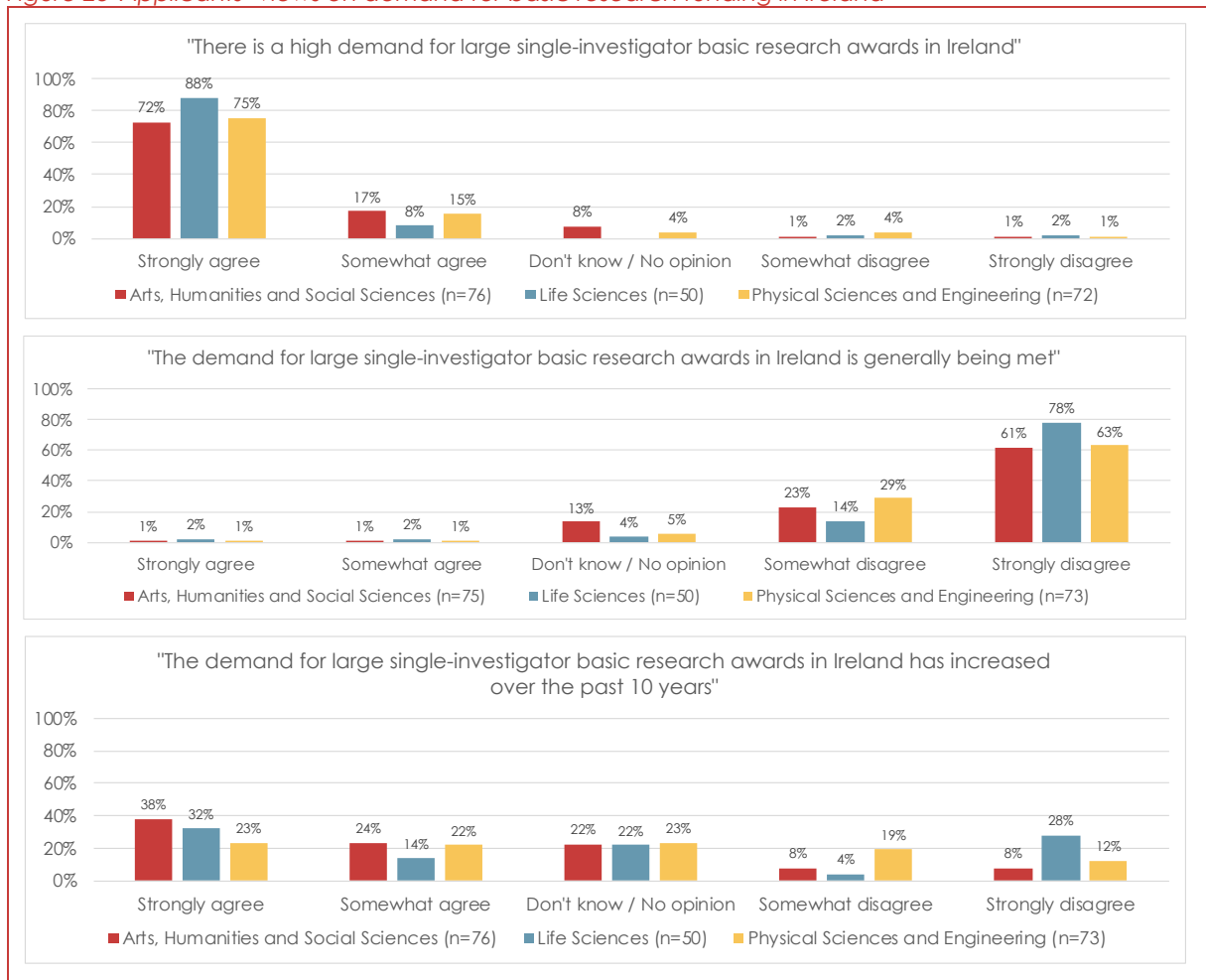
5.4 The wider context

In our survey results, across our programme of interviews and in our call for evidence from institutional research officers, there is a strong and consistent message that the Laureate Award has been a critically important addition to the Irish research landscape, and that more awards of this type are in fact needed to satisfy the demand for basic research grants across all disciplines, and especially in the arts, humanities and social sciences.

The survey data below suggest quite unequivocally that there is high demand for such awards and that this demand is currently not being met. Indeed, whilst the Laureate Awards provide large basic research grants across all disciplines, many of our study participants noted that smaller basic research grants are also missing. Such smaller grants could act as further steps on a 'funding ladder' from postdoctoral work towards large grants like the Laureates and ERC.

We also asked whether respondents perceive the demand for such awards to have increased over the past decade. Here, the results are not quite as clear-cut, although over half of respondents do perceive such an increase in demand, whilst only around a quarter do not. Once again, there is an especially strong message around increased demand in the arts, humanities and social sciences.

Figure 28 Applicants' views on demand for basic research funding in Ireland



It is important to view these findings in combination with those presented in the first main section of this report on the high quality of the applications submitted to the Laureate Award scheme. In conjunction, this review study has found evidence of ample capacity for high-quality basic research in Ireland, coupled with insufficient available basic research grant funding to bring this promising landscape to full fruition. The Laureate Award scheme has gone some way to addressing the evident demand for such funding, but more appears to be needed, be that an expanded Laureate Award scheme or other schemes for smaller basic research awards.

To summarise, very few applicants can name alternative funding schemes (other than ERC) and more generally, the IRC Laureate Award is for the most part seen as the 'only option' for large single investigator basic research grants in Ireland, and as a stepping-stone to ERC. There are many calls across the submitted comments to have more single investigator grant schemes, including smaller ones. In short, there is a broader message across all components of our data collection that the demand for single investigator grants in Ireland is not currently being met.

6 Conclusion and recommendations

Our headline conclusion is that the IRC's Laureate Awards scheme is a critical and timely addition to the Irish research landscape. It has highlighted a wealth of high-quality basic research capacity across disciplines and has gone some way towards realising this potential. Further needs for research funding of this type nevertheless remain, to ensure that Ireland is supporting frontier basic research in any discipline, especially in the case of STEM fields which tend to fall outside the coverage of other funders, and of course in the arts, humanities and social sciences. Our study is a pre-award review rather than an evaluation of award outcomes, so we cannot summatively judge the impact of the scheme. However, its systemic value is evident even at this stage.

In terms of the pre-award process aspects covered by our study, the scheme is broadly in good health, though there are some areas where improvements could be made in future iterations of the scheme.

To summarise our key findings, we return now to the review criteria set out in the introduction to this report and provide a brief comment on each.

The profile of applicants and awardees, to include discipline and gender

The great majority of applicants have strong track records in terms of publication and prior research funding track, and review panellists rate the overall field of applications to be of high to very high quality.

There is a strong gender imbalance among applicants and awardees alike, especially in the Advanced awards call, reflecting the overall imbalance in the Irish research system. However, there is no evidence of inequitable outcomes in this respect.

Institutions other than the top-four research-intensive Irish universities are somewhat under-represented among awardees (though we find no evidence of faulty or inequitable processes behind this), and there is also a slight under-representation of arts, humanities and social sciences in the Starting awards, and of physical sciences in the scheme overall. This owes to the decision to fund equal numbers of awards in each discipline domain even though application numbers were not so evenly distributed.

The application, assessment and selection process

The process largely operated well. Many specific elements received very positive feedback and, above all, panellists are generally confident that the best applications could be identified and recommended for funding.

We note more details on specific aspects below. However, one point of concern around the process lies in the area of feedback and transparency of funding decisions, where substantial portions of applicants voiced dissatisfaction. This does not signal an untransparent process as such, but is most likely attributable to two factors. First, applicants who were unsuccessful at stage 1 of the assessment process received less comprehensive feedback than those who progressed to the final stage. Second, with a success rate of 14% (Starter/Consolidator) and 8.4% (Advanced) the scheme is oversubscribed. Combined with the evident presence of many high-quality applications, this means many applicants are unsure why they were not funded.

The eligibility and selection criteria

The eligibility and selection criteria appear broadly appropriate. Our only caveat is that applicants with no prior research funding track are very unlikely to be successful in the

assessment process. To address demand, a slight tightening of eligibility criteria in this respect could be considered.

The criteria for selection of remote peer reviewers

The reviewers we were able to survey are highly experienced academics who also have substantial track as application reviewers, including for EU funding schemes. Applications were also matched well to reviewers' expertise so there do not appear to be any issues of concern here.

We do however note that the number of reviews per application is very high for awards of this scale. Whilst the Laureate Award process was designed to mimic that of ERC grants, this is an area where the Laureate Award process could be brought more into line with common international practice for research grants of equivalent size.

Selection of panel members and chairs and the performance of the Council in securing peer reviewers and panel members

As above, panel members had strong scientific and application-reviewing track. In terms of return rates for review requests, we do not find any cause for concern. However, the IRC's practice of paying small honoraria per application review is highly unusual for grant funding in basic research. Compared with international practice, this introduces extra cost and also entails an additional administrative burden in the administration of the reviewing process.

Use of the online application system as a critical enabler to the process

We find no issue with the online application system. Especially among applicants it is one of the most positively rated aspects of the process.

Communication and promotion of the awards, including launch of the scheme, pre-call notices and webinars provided

These pre-call aspects all worked well and the webinars were generally helpful for attendees. There is some dissatisfaction around the time-window from call launch to application deadline. However, this appears to result mainly from this being the first ever call. Comparator programmes in Austria and the Netherlands have similar timelines, but reliable annual calls mean applicants essentially 'know what is coming'. In future calls, the IRC can therefore safely opt for much the same timelines.

The monetary value/duration of the awards and budgetary criteria

There are no evident issues around these 'physical' characteristics of the awards, although there is a case for contemplating changes to the award size, if this would mean that a greater number of awards could be made. This is especially the case in the arts humanities and social sciences.

The organisational costs of running the scheme, including staffing, system costs, assessor fees, travel and accommodation

There are some possibilities of cost and time-savings in terms of the overall review numbers required per application and with regard to assessor fees for remote reviews. In light of the Covid-crisis, we also surveyed panellists about the possibility of virtual panels. There is a broad range of views on this matter, ranging from 'strongly in favour' to 'strongly opposed'. This possibility will likely necessitate additional consultation, piloting and exchange with other funders who have trialled virtual panels. However, there would of course be an opportunity here for considerable cost savings. We understand the IRC has already begun to do so on other schemes.

6.1 Recommendations

Our headline recommendation based on our review findings is that the Laureate Award scheme ought to continue in the shape of regular, predictable calls (e.g. annually or every two years on roughly fixed calendar dates), so that applicants can anticipate call dates and plan and refine their research ideas long in advance.

We set out our further recommendations below. These relate variously to better enabling the scheme to meet demand, as well as to optimising the efficiency and appropriateness of the assessment process.

- A slight reduction of the maximum award size should be considered in order to enable more high-quality applications to be funded. A small reduction could be considered for all awards, though a more substantial reduction (and consequent larger number of awards) could be considered for the arts, humanities and social sciences
- To further manage demand, the IRC should consider imposing a minimal past research track as an eligibility requirement, certainly for Consolidator and Advanced awards, but also for Starting awards. We stress that the bar need not be high in this respect: a minimum requirement would likely be sufficient to ensure all applicants are principally ready and able to compete for large single-investigator awards, e.g.: €10,000 in previous funding secured (excluding PhD stipends) from any research funding organisation or a field-appropriate minimal publication track or a minimum track of postdoctoral positions
- The number of remote reviews required per application should be reduced to bring the Laureate Awards more into line with other awards of this scale. The IRC could consider the review in stage 1 of the assessment process to be solely conducted by the review panel, or at the very least to specify no more than two external reviews be required at Stage 1 and three at stage 2
- The practice of payment of honoraria for remote reviews should be reconsidered, as this is a highly unusual practice in basic research funding
- The IRC should re-appraise the shape of feedback given to unsuccessful applicants, especially to those unsuccessful at stage 1 of the application process. Schemes with low success rates and many high-quality applications inevitably encounter a degree of discontent among unsuccessful applicants. However, the capacity-building function of the scheme could be augmented by ensuring that feedback goes beyond abridged remote reviewers' comments even for applicants who 'failed early'. The IRC may also want to consider a 'rebuttal' stage for applicants, as practiced in the NWO's Talent scheme, especially if this could be implemented relatively unproblematically through the IRC's application and review portal
- The IRC may want to consider addressing the gender imbalance in the overall applicant pool (which reflects the Irish research landscape more broadly). Outreach and scheme publicity could mention and explicitly encourage female applicants, as practiced by FWF. Though dependent on additional budget becoming available, a further step could be to make an additional number of awards available specifically for female applicants, as practiced by NWO. Whilst the overall gender balance of review panellists approaches parity, the gender balance of the physical sciences panel and for the Advanced awards more broadly also ought to be improved in future calls

Appendix A Methodological details

A.1 Overview

This study was commissioned by the IRC and is being carried out by Technopolis. It commenced in April 2020 and involved as its core method components:

- Desk research: programme document review and programme data analysis
- An online survey of Laureate Award applicants (successful and unsuccessful)
- An online survey of reviewers and panellists for the Laureate Award scheme (including only individuals who remotely reviewed at least three applications and acted as review panellists)
- A programme of interviews with individuals connected to the scheme at various strategic and operational levels (e.g. scheme managers, university VPs for Research, panel chairs)
- A call for evidence from research officers at eligible institutions
- Benchmarking the scheme against two international comparator schemes

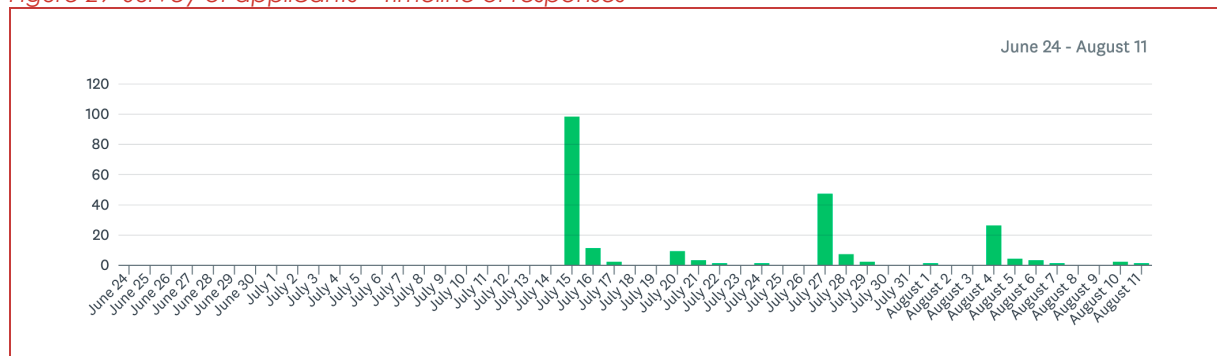
A.2 Survey details

A.2.1 Response rate breakdown – Survey of applicants

Table 7 Survey of applicants – headline response rate

Survey of Laureate Award applicants					
Total Population:	383	Survey responses:	218	Response rate:	56.9%
Population notes: Population includes all individuals who applied for a Laureate Award, across all award types (Starter/Consolidator/Advanced) One invitation bounced and one respondent had opted out of receiving surveys, so 381 could be invited to take the survey		Response notes: Responses were collected between 15/07/2020 and 11/08/2020, Involving one initial invite and two reminders (see graph below). The population of respondents very closely reflects the total population on all characteristics we are able to control for (see table below). This means that our survey data are likely strongly representative of the total population of Laureate Award applicants.		Response rate notes: For this population size, 192 responses would have been necessary to analyse for statistical significance at a confidence level of 95% and a confidence interval of 5. Our response rate comfortably passes this threshold.	

Figure 29 Survey of applicants – Timeline of responses



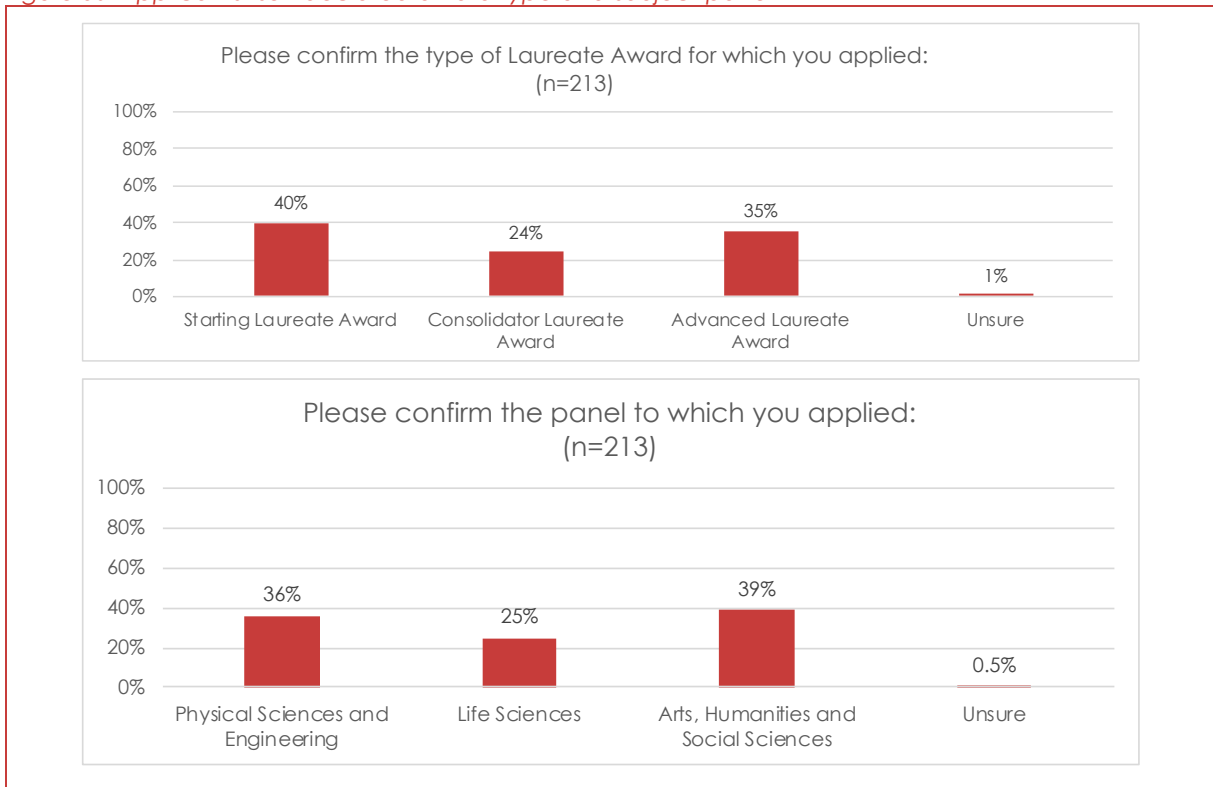
Source: SurveyMonkey

Table 8 Survey of applicants – response rates in detail

	Total population (N=383)		Response pool (n=218)	
Application outcome				
Application Unsuccessful	281	73%	138	63%
Award Holder	48	13%	41	19%
Reserve	48	13%	34	16%
Award type				
Starter/Consolidator (2017)	252	66%	143	66%
Advanced (2019)	131	34%	75	34%
Home institution				
Trinity College Dublin	85	22%	51	23%
University College Dublin	77	20%	50	23%
University College Cork	55	14%	30	14%
National University of Ireland, Galway	46	12%	31	14%
Maynooth University	33	9%	18	8%
Dublin City University	30	8%	12	6%
University of Limerick	19	5%	7	3%
All others	38	10%	19	9%
Gender (estimate)*				
Female	n/a	36%	n/a	40%
Male	n/a	64%	n/a	60%

*We do not have any information on applicants' gender (other than aggregate figures), so we took a random sample of 100 individuals from the total population and from the response pool respectively and created an estimate of gender balance based on first names. This is an imperfect technique and we stress that these are merely estimates. However, the results allow us to largely rule out the presence of any substantial gender bias in our results.

Figure 30 Applicants' self-declared award type and subject panel

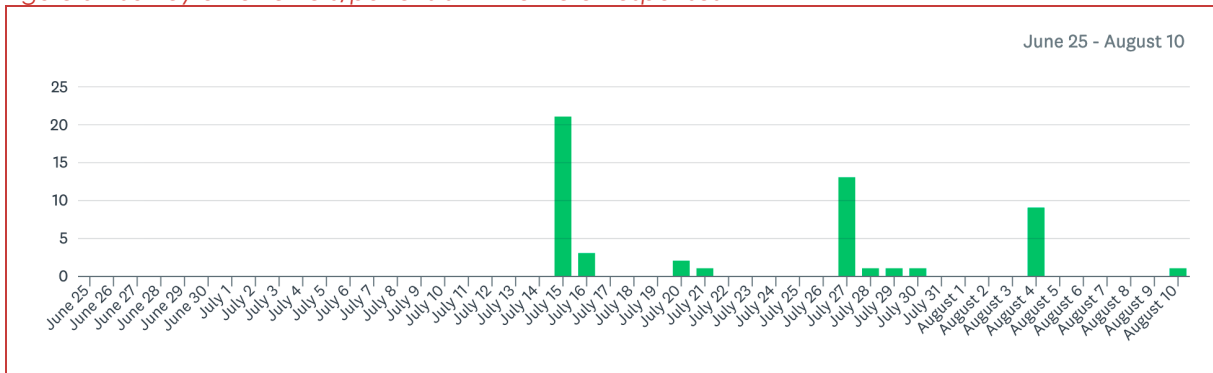


A.2.2 Response rate breakdown – Survey of Reviewers and panellists

Table 9 Survey of reviewers/panellists – headline response rate

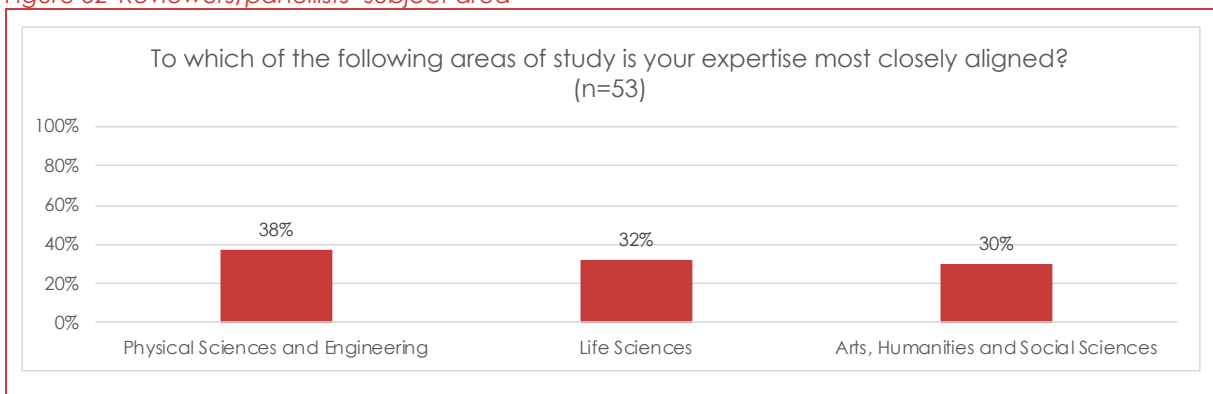
Survey of Laureate Award reviewers/panellists					
Total Population:	76	Survey responses:	53	Response rate:	69.7%
<p>Population notes:</p> <p>Population includes all individuals who remotely peer reviews at least three applications (of any Laureate Award type) and acted as a review panellist for any laureate Award. This more narrowly defined approach was chosen so that we would only survey individuals who had substantial experience and oversight of the scheme, rather than individuals who may only have done a single remote review.</p> <p>No invitations bounced and no respondents had opted out of receiving surveys, so all 76 could be invited to take the survey.</p>		<p>Response notes:</p> <p>Responses were collected between 15/07/2020 and 11/08/2020, involving one initial invite and two reminders (see graph below).</p> <p>Unlike for the survey of applicants, we do not have personal identifiers for the reviewers/panellists that would allow us to gauge representation of different groups. We did however ask respondents to tell us to what IRC subject area their expertise is most closely aligned. The results from this question suggest a fairly even balance between the three subject areas, though physical sciences and engineering make up a slightly larger share of respondents than the other two groups (see graph below).</p>		<p>Response rate notes:</p> <p>With a population (N) of 76 it is not possible to analyse for statistical significance. However, this extremely high response rate ensures that our survey data can produce the strongest possible indicative and robust findings.</p>	

Figure 31 Survey of reviewers/panellists – Timeline of responses



Source: SurveyMonkey

Figure 32 Reviewers/panellists' subject area



A.3 Interview details

A.3.1 Interviewees

Table 10 List of interviews

Name	Relevance to LA scheme	Organisation and role	Interview date/time	Interviewer
Catherine Godson	IRC Council Member (STEM)	University College Dublin - Professor of Molecular Medicine	27/08/2020 12:00	Charlie Dobson
Jane Ohlmeyer	IRC Council Chair (AHSS)	Trinity College Dublin - Erasmus Smith's Professor of Modern History at Trinity College Dublin and Director of the Trinity Long Room Hub	12/08/2020 12:00	Peter Kolarz
Laura Green	Panel Chair - LS - Advanced	University of Birmingham - Pro-Vice-Chancellor and Head of the College of Life and Environmental Sciences	02/09/2020 15:00	Peter Kolarz
Lesley Yellowlees	Panel Chair - PE - Start/Consol	University of Edinburgh - Vice-Principal and Head of the College of Science and Engineering	26/08/2020 10:00	Charlie Dobson
Linda Doyle	Strategic perspective	Trinity College Dublin - VP Research	12/08/2020 16:30	Peter Kolarz



Name	Relevance to LA scheme	Organistaion and role	Interview date/time	Interviewer
Maria Nash	Strategic perspective	SFI - Programme Manager and NCP for Horizon 2020	03/09/2020 14:00	Peter Kolarz
Orla Feely	Strategic perspective	University College Dublin - VP Research	26/08/2020 12:30	Charlie Dobson
Peter Brown	IRC staff	IRC - Director	27/08/2020 10:00	Peter Kolarz
Robin Jackson	Panel Chair - AHSS - Starter/ Consol/ Advanced	British Academy - CEO	18/08/2020 09:30	Peter Kolarz
Ronan Fahey	IRC staff	IRC (formerly) - Programme manager for the Laureate Award scheme	13/08/2020 16:00	Peter Kolarz

A.3.2 Interview tool

IRC Laureate Awards review Interview template

Name:	
Organisation:	
Role:	
Interview:	dd-mm-yyyy; xxxhrs; [Interviewer name]

Points to make prior to interview start

- The IRC has commissioned Technopolis to carry out this evaluation
- We have already carried out an online survey of applicants and reviewers/panellists of the scheme. Now we want to follow up with these interviews to hear in some more detail about the pre-award process, including the application and review process, publicity, as well as the scheme's wider significance in the Irish research landscape (and connected to that, the award characteristics such as size, eligibility and duration).
- What you say in this interview will only be reported in aggregate non-attributable form, and the notes to this interview will not be shared with anyone, not even with the IRC.
- However, we would like to note the names of all our interviewees in the method annex to the final report. In other words: we'd like to report that we spoke to you, but not what you specifically said. Is this ok with you?



Interview questions

- What is your role in relation to the LA scheme? What aspects are you most familiar with?
- What do you see as the main strengths and weaknesses of the scheme?
- To what extent do you think the LA scheme is the right tool for enabling greater ERC engagement and success by Irish researchers?
- Can you comment on the LA scheme's significance in the wider Irish research landscape? In particular, does it meet the demand for single-investigator basic research funding?
- What happens during each part of the awarding process, and does the process, or particular parts of the process, aid/hinder optimal outcomes?
- Have any design/operational/procedural challenges arisen, and (how) has the Scheme been amended to overcome these challenges?

[for non-panel chairs or non-IRC staff there might be little visibility, but you can still ask them if they are aware of any difficulties in the bits that they can see]

- In terms of building capacity not just for grant winners but also for unsuccessful applicants, do you have a view on whether feedback on applications and the transparency of funding decisions are of a good standard?
- If you could change one thing about the LA, what would it be?
- Any other points?

A.4 RO call for evidence

The following call for evidence was sent by the IRC to research officers of Irish research-performing institutions, with instructions to return any responses directly to us. Six institutions submitted responses.

Figure 33 Call for evidence to institutional research officers

Dear [recipient],

The Irish Research Council (IRC) has commissioned Technopolis to carry out a review of the Laureate Award scheme, which ran its first funding rounds in 2017-19. As part of this review, the study team at Technopolis has already conducted online surveys of all applicants to the scheme – successful and unsuccessful – as well as of application reviewers and review panellists. Technopolis are now collecting views from wider stakeholders of the scheme whose perspectives and views we consider to be important. This includes research officers of the eligible institutions in Ireland.

We therefore invite you to share any views you might have on the Laureate Award scheme with Technopolis. If you are happy to participate, you can simply e-mail your response no later than Monday 17th August 2020 to Dr Peter Kolarz, who is the project manager for this study at Technopolis: peter.kolarz@technopolis-group.com

Technopolis have set out two main questions. Please feel free to respond to either one or to both, as you like, focussing on any issues that you find to be important:

1. What is your view on the importance and value of the Laureate Award scheme in the Irish research landscape? To what extent does it satisfy the demand for single-investigator awards for basic research, and to what extent does it provide a useful pipeline towards greater success of Ireland-based researchers in European Research Council (ERC) participation? Would you recommend changing the characteristics of the award (e.g. size, duration, eligibility) to further these goals? In short: is the IRC doing the right thing?
2. What is your view on the operation and administration of the Laureate award scheme? In your interaction with the scheme, have you experienced any challenges, inefficiencies or indeed, anything that is working especially well? Please feel free to include any aspects, including e.g. scheme publicity, application process, application review, IRC support, timelines, or any other aspects you consider to be worth highlighting. In short: is the IRC doing it well?

Please feel free to be as brief or as detailed as you wish. However, to ensure that meaningful analysis of many different views can take place, please do not exceed around 1,000 words per question.

Technopolis and the IRC are committed to strict standards of research ethics and data protection. You do not need to copy us in when sending your response to Dr Kolarz. Your response will be kept in confidence by Technopolis and reported only in aggregate, non-attributable form.

We hope you are happy to participate in this study and we thank you for your time. Please don't hesitate to get in touch either with us or with Dr Kolarz, should you have any questions before deciding to submit your views on the scheme.

[IRC signature]

Appendix B Comparator scheme information

B.1 Comparator 1: START programme, FWF (Austria)

Scheme name	START programme
Award size	€800,000 - €1.2m
Award duration	6 years (an interim review after 3 years decides on continuation)
Operational since	1996
Frequency of calls	Annual
Eligible costs	Any personnel and non-personnel costs necessary for carrying out the project and that go beyond the resources provided by the infrastructure of the research institution
Eligible applicants	<p>Criteria are:</p> <ul style="list-style-type: none"> • Doctoral degree completed between 2 and 8 years ago • Applicants should already have acquired competitive third-party funds independently since earning their doctorate • In addition, it is desirable that applicants have completed a research stay abroad of at least one year • The proposed project must be carried out in Austria or under the responsibility of an Austrian research institution.
Success rate	Approximately 8-12%

The aim of the FWF START programme is to identify young researchers who have already produced scholarly work of a top international standard and to enable them to become project leaders consolidating and/or leading research groups, thereby qualifying themselves for senior research positions (especially as university professors) within Austria or abroad.

The procedure for selecting applicants relies on the use of external written peer reviews and an International Jury. Based on the reviews and their deliberations the International Jury make recommendations to the FWF Board, which is responsible for making the final decision. The FWF Board consists of a five-person executive board and a large number (currently 34) of subject specific “reporters” split across three domains: natural and technical sciences, humanities and social sciences, and biological and medical sciences. The International Jury is made up of twelve eminent scientists (including two Nobel laureates) across the three FWF domains. At the start of the process, the International Jury members are each assigned around ten applications in their subject area and are then involved in the whole process, observing and commenting on the progress of their assigned applications.

The steps for selecting awardees is as follows:

- The scheme guidelines are published in the summer prior to application deadline in September each year
- The applications are submitted online (including project description, financial aspects, CV, letter of recommendation, collaboration letters)
- All applications that meet the mandatory requirements and eligibility criteria are sent for external written peer review
- The reviewers (generally persons working outside of Austria) will be selected by the members of the FWF Board and confirmed by the decision-making bodies of the FWF. A minimum of three reviews is required for a decision. Applicants can request up to three

academics who they do not want to review their applications. The International Jury will also look at the choice of reviewers and can request certain reviewers are not used, or ask that other reviewers be added

- A pre-selection FWF Board meeting is held with representatives from all subject domains. The applications and reviews are compared and discussed, and a list of applicants is agreed and sent to the International Jury. The International Jury also have a chance to comment on this selection and make some amendments to the list
- The International Jury then prepares a shorter list of applicants to be interviewed and applicants are notified
- A two-day international Jury meeting takes place with interviews taking place on the first day of the meeting
- Decisions on the award of START Grants are taken by the FWF Board based on recommendations of the International Jury. The board always follows the recommendations of the International Jury
- The awardees are honoured at an annual summer gala hosted by FWF (combined with the Wittgenstein award winners)

The START programme has a strong emphasis on providing guidance and feedback to unsuccessful applicants. Applicants can apply multiple times for the START programme and an estimated 60-70% of successful applicants have applied at least once before successfully obtaining a grant.

Unsuccessful applicants are sent their reviews (excluding confidential comments) and their score of between C1 (reviews entirely positive) and C5 (reviews predominantly critical). Extensive informal feedback is also available on the phone, in person or by email. Applicants have the chance to discuss their proposal and reviews both with the scheme staff and also subject experts who sit on the FWF Board. Applicants are given the contact details of a subject relevant Board member on their notification emails.

The START programme is designed to be closely intertwined with the ERC Starting Grant. Applicants for the START programme are required to put in a grant for the ERC Starting grant at the same time based on the same idea. If they are awarded both then they are required to accept the ERC grant but can keep €200,000 of the START grant. There is a view at the FWF that there is enough talent and good ideas for both schemes to have their place and that the two are complementary. The START grant is differentiated from the ERC grant because it guarantees external written peer review of the applicant's idea (contrary to the ERC's preselection process) which can be important in helping the applicant hone their idea for future rounds. If applicants are awarded a START grant, they are also encouraged after three or four years to apply for an ERC Consolidator grant.

It is expected that applicants to the START programme have already been awarded competitive grant funding. However, the FWF has identified a lack of funding opportunities for postdocs in Austria to get this necessary experience. This issue was also identified in a 2016 evaluation of the START programme by Fraunhofer ISI.

To respond to this, the FWF is planning to reform their post-doctoral funding schemes by merging their existing programmes (Hertha Firnberg and Lise Meitner programmes) and extending funding for them. The new scheme will aim to maximise support in the postdoc phase through a three-year grant with an emphasis on structured mentoring. It will also have an emphasis on supporting female researchers.



Historically the START programme has lacked female representation and therefore, in recent years, the programme staff have been pro-actively seeking to encourage women to apply. The situation has now improved, with five out of the seven START grants last year awarded to women. This improvement is likely attributable at least in part to the initiative of the scheme manager, who personally travelled around Austrian universities to identify promising female researchers, using his networks to provide role models, support and help where needed.

A further reported challenge is the oversubscription to the scheme and a lack of funds to meet the increased demand, which has led to a low application success rate. Whilst no definitive solution has yet been identified to this problem, the FWF is reluctant to ask universities to help filter numbers as they fear this could lead to a restriction in access for applicants to those who are already well established in universities.

A point from the 2014 START programme evaluation worth noting here is that there is some tension within the programme between rewarding scientific excellence and achieving a balance of geographical and disciplinary focus. This is because the Austrian science system has a disciplinary strength in physics (particularly at the University of Innsbruck) and a geographical strength in Vienna. To address this, the FWF tries to consider these biases if they are faced with choosing between two applications of similar academic quality.

Documents/ other links or resources	Fraunhofer ISI and KMU Forschung Austria (2016) <i>Evaluation of the START programme and Wittgenstein Award</i>
Interviewee(s) (and e-mail correspondences, if applicable)	Mario Mandl, programme Manager of the START programme at FWF

B.2 Comparator 2: Talent scheme, NWO (Netherlands)

Scheme name	The Talent Scheme
Award size (maximum amounts)	Veni (€250,000) Vidi (€800,000) Vici (€1.5m)
Award duration	Veni (3 years) Vidi (5 years) Vici (5 years)
Operational since	2000
Frequency of calls	Annually for each type of award
Eligible costs	Veni: salary costs of the researcher, and "direct non-staff costs" (meaning general non-staff costs plus the costs of knowledge transfer, knowledge utilisation and internationalisation). Costs of additional personnel and infrastructure costs (accommodation and office) and other overheads are not covered. Vidi and Vici: same as above but personnel costs are eligible.
Eligible applicants	Eligibility is based on the number of years since the applicant has finished their PhD: Veni- within the last three years; Vidi within the last eight years; Vici within the last 15 years. ⁹ The host institution must be an NWO approved institution based in the Netherlands.
Success rate	Veni (15 %) Vidi (16%) Vici (14%) ¹⁰

The aim of the NWO Talent scheme is to provide individual encouragement for talented postdoctoral researchers at various stages of their careers. The scheme is structured by dividing the grants into Veni, Vidi and Vici grants depending on career stage and the number of years since achieving a doctorate. The scheme aims to provide an open call for adventurous, talented, pioneering researchers to do research of their own choice and to encourage them to make a permanent career of academic research.

The stages of the application and decision process are as follows (nb. the general procedure is described below, with any differences between the Veni, Vidi and Vici grants highlighted):

- The call is published two months before the deadline (call deadlines are kept the same every year). If there are any changes to the scheme, these will be published on the website six months before the deadline. There are two public information sessions held each year in spring and autumn. Practical information is given and selection committee members, NWO secretaries and researchers who have already acquired a Veni, Vidi or Vici award share their experiences during a Q&A session
- The selection committees are domain-specific and appointed by the relevant NWO domain boards (four domains: applied and engineering sciences, science, social sciences and humanities, health research and development)
- Applications are submitted online (including a CV, outline of research idea, knowledge utilisation section, data management section and a budget estimate)

⁹ Formally there is no minimum number of years since doctorate for each type of grant. However, if researchers ask for advice the NWO say Veni 0-3 years, Vidi 3-8 years and Vici 8-15 years, in this way it covers the different stages of a researcher's scientific career. But these figures are an indication and not a criteria for the eligibility check.

¹⁰ Success rates were based on mean average percentage over last three years available i.e. 2017-2019. For Vidi it is based on the years 2016-2018 as the year 2019 was not available. Figures were obtained here: <https://www.nwo.nl/en/research-and-results/programmes/Talent+Scheme/awards> (accessed on 17/08/2020).

- For the Veni grants, a pre-proposal stage is carried out for all domains excluding science. Applicants are required to submit a short proposal and CV prior to the main proposal. The selection committees prioritise them according to likelihood of funding and notify those deemed unlikely to succeed that they cannot submit a full proposal. If applicants have legitimate grounds to object to the committee's decision, they may send a reasoned response to the domain handling the application. On the basis of this response, a selection committee may change its decision and select the application for further processing after all
- For the Vidi grant, if the number of applications received are over four times the number of grants available then a pre-selection stage is followed. The selection committee members assess the full proposals to decide whether to send them for external review or not. If unsuccessful applicants see legitimate grounds to object to the committee's decision, they may send a reasoned response to the domain handling the application. On the basis of this response, the committee may change its decision and select the application for further processing after all
- The remaining proposals are sent for external review. The minimum number of reviews for a valid decision differs across the type of grants: Veni (a minimum of two reviews), Vidi (a minimum of three reviews), and Vici (a minimum of five reviews)
- The external reviews are then sent to the applicants who are given a chance to put in a rebuttal to the points raised. The applicant is given about one week to respond. In the rebuttal, the applicant may provide additional information that has been requested by the external reviewer, refute any misconceptions they can identify and provide differences in insight between their view and the external reviewers viewpoint
- The selection committee then meets to decide who to invite for interview. This decision is based on the applications, the reviews and the rebuttals. They interview approximately twice the number of grants they can make
- The selection committees then conduct the interviews and the proposals are awarded either excellent, very good, good or unsatisfactory
- The selection committees send their recommendations to the relevant domain boards, with rankings. The boards then adopt the advice and approve the list of successful applicants. All applicants are then emailed to notify them of the result. A few days later they are provided with the justification of the decision. A summary of the successful applications is then published on the website

Providing high levels of feedback to unsuccessful applicants is a central aim of the scheme. Programme officers summarise and collate all the comments and reviews in a report to the applicants. Unsuccessful applicants can then also phone up the scheme staff for further explanations or questions. Unsuccessful applicants can re-apply for Veni and Vidi twice and for Vici three times. It is common for unsuccessful applicants to re-apply and many have gone on to be successful having amended and improved their applications based on the detailed feedback.

In terms of the wider funding landscape in the Netherlands, the Talent scheme is seen as the primary pathway for emerging researchers to become established as independent researchers. There are no particular requirements of applicants to have held previous types of grants or specific expectations of what they go on to do. There is a grant called the Rubicon that applicants have routinely been awarded previously which is a one-year international mobility grant for post-docs. Similarly, after the grant, some applicants are awarded the Spinoza award, which is a nomination-only, highly prestigious award. Otherwise NWO hopes that they may apply for thematic NWO grants or for an ERC grant. NWO does not focus on



trying to secure more ERC grants in particular and sees the Talent scheme as a stand-alone scheme. However, applicants often do go on to apply for ERC grants after being awarded the Talent scheme grants and so the scheme does function in part as a 'learning school' for the ERC.

The main challenge that the Talent scheme has faced is oversubscription caused by lack of funds to meet increasing demand. In 2017, the NWO held a number of consulting events to plan how to reduce numbers applying to their schemes. The Talent scheme was one of a number of schemes that was oversubscribed. This led to the introduction of the pre-proposal and preselection processes described above and in 2018 the introduction of an 'embedding guarantee' for the Veni and Vidi grants, which requires host institutions to sign a statement that they will support the candidate by allowing them to make use of all the facilities required to do their research. For Vidi applicants the guarantee must also include a promise to offer the applicants a tenure track or permanent position. The scheme organisers have found this has been successful in reducing numbers as institutions now put in place their own filtering and selection processes. However, there is some concern about whether this could reduce access to the scheme for those that are not already well established in institutions. An evaluation of the embedding guarantee's effect on access will be conducted this year.

The NWO has introduced a number of other innovations for the Talent scheme. Firstly, there is an extension clause that extends the post-PhD limits for the awards for new parents: biological mothers are given an extra eighteen months per child; other parents (fathers and non-biological mothers) are granted a standard extension of six months per child. Extra grants for female researchers are another innovation: last year an additional six grants were given in the Veni 'applied science' and 'science' domains to high quality female applicants. Finally, in 2020 the NWO has introduced a uniform narrative curriculum vitae format for the Vidi awards. This measure dovetails with a new approach in NWO for recognising and rewarding scientists and follows on from the position paper *Room for everyone's talent*, which NWO recently published with its partners. The aim is to support more dynamic career routes and to avoid a focus on publications and metrics only. Applicants can describe a wider range of research outputs and will not be judged on the number of publications and where they have published.

Documents/ other links or resources	NWO (2019) <i>Room for everyone's Talent position paper</i> NWO (2017) <i>Measures to reduce application pressure position paper</i>
Interviewee(s) (and e-mail correspondences, if applicable)	Mw. drs. Rosemary van Kempen-Vonk, programme manager of the Talent scheme

Appendix C Supplementary data

C.1 Aggregate findings – institutional research officers' evidence

What is your view on the importance and value of the Laureate Award scheme in the Irish research landscape?

- All of the six written responses expressed the opinion that the scheme was highly valued in the Irish research system.
- Two of the responses particularly valued the scheme for supporting applications to the ERC. One states "It is the right thing. It is an important resource for someone who is serious about pursuing an ERC, and a huge bump to the CV. One of its best features is the clarity of its purpose- ERC preparation."
- Four of the responses valued it in broader terms for supporting basic, curiosity-led research.
- One response highlighted that the landscape had changed in two ways since the IRC Laureate Award was first developed. Firstly, the SFI have created a scheme called Frontiers for the Future, which is an open rolling programme for discovery science in the SFI priority areas. It is not exactly the same because it is not focused on the ERC in the same way and also isn't as wide in scope (it does not cover humanities and social science for example). The second change is that SFI and IRC are now under the same parent department. They believed IRC may need to reflect on what these changes could mean for the scheme.

To what extent does it provide a useful pipeline towards greater success of Ireland based researchers in ERC participation?

- Two responses express the opinion that the way the scheme is established does usefully support the pipeline for ERCs. However, they offer some relatively minor suggestions for how it could be improved. One suggests that IRC should amend the eligibility timelines so that there is a full year after the IRC grant finishes where the applicant would still be eligible to apply for the relevant ERC grant. The second response, from an Institute of Technology, asks that there is more money per grant. They say "€400,000 for a 4 year project for the Starting Grant is quite limiting, it would be great if this could be increased." However, another response, further detailed below, believed that grants could be smaller in the case of the humanities and social sciences and still be effective training for the ERC.
- Two respondents highlighted that there could be an issue with the timing of the calls causing a clash with the ERC applications process. The Laureate Award timings were close to the ERC deadlines for the Starter and Consolidator grants and respondents were concerned that this could lead to applicants having to make difficult strategic decisions about which scheme to apply to.
- Four responses expressed some deeper concerns with the way in which the scheme is currently established in terms of how it supports the ERC pipeline. They questioned whether taking the approach of mirroring the ERC scheme is the best way to prime candidates to get an ERC grant. In particular they queried whether obtaining an IRC Laureate award would use up the applicants "big idea" and that they would need to develop a new different idea from the one they used to obtain the IRC grant to get ERC funding. This is because they believe the ERC is not interested in the incremental development of an idea that is already being funded but wants a novel, groundbreaking idea.
- They also question whether, in a more general sense, the Laureate Award grant is the most effective and efficient way to prime applicants for an ERC application. One said that they believe the IRC should have invested more time when the scheme was being designed in analysing the gap and what would meet it. By looking at barriers and enablers for

researchers in Ireland to be in a strong position to apply for an ERC grant. One respondent believed that smaller grants might be just as effective in many disciplines to prime applicants. Another respondent said that they believe that a grant to give a year writing up and thinking space might be just as effective.

- Four responses state that the IRC Laureate Awards need to become regular to have a major effect on the system and meaningfully support the ERC pipeline. One says "If the Laureate scheme is to have serious impact in raising success rate at ERC level - something which we are all seriously committed to working towards - it must become a regular feature of the national research landscape." Others highlighted the importance of allowing researchers to plan and develop strategies around the scheme and this would depend on predictability.
- One response detailed important ways in which the current Laureate Award scheme does not fully mirror the ERC scheme. Firstly, they were concerned that panel members are mainly UK based and have a particular perspective. They thought this could particularly be the case for humanities and social sciences, where the UK perspective may be very different from a US perspective. More importantly they believed the panels were not reflective of the multinational nature of ERC panels. They also questioned whether the panels were well set up to deal with interdisciplinary proposals, where they felt that a lot of the truly ground-breaking work, that would be likely to get an ERC grant, would be focused.
- Three responses suggest that an important step to amend the scheme would be to have a section in the application, and a corresponding scoring criteria, asking for the ways in which the Laureate Award will help the applicant prepare for an ERC application.

What is your view on the operation and administration of the Laureate Award scheme?

- Most of the comments from the five responses were positive. One said that an element they liked is the flexibility the IRC have shown in deciding whether an ERC grantee should have to surrender a previous Laureate Award. One said that the way the scheme was launched, administered, and managed was to the highest possible standard. Another commented that the quality of feedback was high and very useful. Another commented that they greatly appreciated the webinars for offering guidance to applicants. However, they did say that the webinar could usefully focus more on the relationship between the Laureate Awards and the ERC and offer guidance on how the Laureate Award could be used strategically to help with the ERC application.
- Two responses were critical of a number of elements of the operation and administrations of the scheme. One response was concerned that there were only three out of 12 females selected for the Advanced round. They suggested looking at the SFI Futures Frontiers criteria which have focused particularly on increasing female participation. A second response felt the process could have been more transparent, specifically on the ranking process and the funding cut off scores. This respondent felt that the number of applicants placed on the reserve list was very high and that the reason for creating a large reserve list was not made clear.
- Two responses were concerned that the IRC had not sought enough feedback from research offices in the design of the scheme. However, another respondent highlighted that the IRC had sought feedback from research offices following the starting and consolidator awards and made useful amendments.



C.2 Raw response data – survey of applicants

Please indicate below that you give consent for Technopolis to process your response to this questionnaire for the purposes of this study only		
Answer Choices	Responses	
I give my consent for Technopolis to process my response to this questionnaire for the purposes of this study only	100.00%	218
	Answered	218
	Skipped	0

Please confirm the type of Laureate Award for which you applied:		
Answer Choices	Responses	
Starting Laureate Award	40%	85
Consolidator Laureate Award	24%	51
Advanced Laureate Award	35%	75
Unsure	1%	2
	Answered	213
	Skipped	5

Please confirm the panel to which you applied:		
Answer Choices	Responses	
Physical Sciences and Engineering	36.15%	77
Life Sciences	24.88%	53
Arts, Humanities and Social Sciences	38.50%	82
Unsure	0.47%	1
	Answered	213
	Skipped	5

How many years of full-time professional research experience (excluding PhD study) did you have at the time of application for your Laureate Award (2017 for Starting and Consolidator applications, 2018 for Advanced applications)?		
Answer Choices	Responses	
0-4 years	10.85%	23
5-9 years	31.13%	66
10-14 years	18.87%	40
15-19 years	11.79%	25
20-24 years	10.85%	23
25-29 years	9.43%	20
30 years or more	7.08%	15



	Answered	212
	Skipped	6

Please note the approximate number of first-author or co-authored academic publications you had at the time of application. Please approximate as closely as you can, including monographs, book chapters and research articles and review papers in peer reviewed academic journals (excluding book reviews and editorials)

Answer Choices	Responses	
Fewer than 10	7.08%	15
10-24	33.96%	72
25-49	19.81%	42
50-99	17.92%	38
100-199	15.09%	32
200 or more	6.13%	13
	Answered	212
	Skipped	6

Prior to your application for a Laureate Award, had you ever received any other competitive funding for research or innovation? Please disregard PhD funding or any awards of a value lower than €5,000, such as small travel vouchers or workshop funding (please tick all that apply)

Answer Choices	Responses	
No	12.21%	26
Yes, from the IRC	36.15%	77
Yes, from Science Foundation Ireland (SFI)	33.33%	71
Yes, from the Irish Health Research Board (HRB)	15.49%	33
Yes, from other public research and innovation funders in Ireland	37.09%	79
Yes, from the EU (e.g. framework programmes or ERC grants)	37.09%	79
Yes, other international public funding	46.95%	100
Yes, from industry (Ireland)	21.60%	46
Yes, from industry (Rest of EU-28, including the UK)	11.27%	24
Yes, from industry (Rest of world)	12.21%	26
	Answered	213
	Skipped	5

How did you first hear about the IRC's Laureate Award scheme?

Answer Choices	Responses	
My department or institution notified me about the scheme	65.22%	135
Colleagues notified me about the scheme	9.18%	19
Promotion or other contact activities by the IRC itself	23.19%	48

Other (please specify)	2.42%	5
	Answered	207
	Skipped	11

To what extent did your institution or department encourage you to apply for a Laureate Award?		
Answer Choices	Responses	
My institution or department did not encourage me to apply for a Laureate Award	9.66%	20
My institution or department generally encouraged application for Laureate Awards, but did not single me out or approach me specifically to encourage me to apply for a Laureate Award	65.70%	136
My institution or department approached me specifically to encourage me to apply for a Laureate Award	20.77%	43
Other (please specify)	3.86%	8
	Answered	207
	Skipped	11

At the time of applications for your Laureate Award, did you know of any comparable award schemes that you could have applied for instead?		
Answer Choices	Responses	
Yes	44.44%	92
No	55.56%	115
If yes, what were these?		84
	Answered	207
	Skipped	11

Three quarters of respondents reporting that they knew an alternative scheme listed ERC grants as the alternative. Very few respondents in fact listed any other options. SFI is the only frequently cited Irish funder (though still noted by just 18 respondents), followed by UK funders the Royal Society and Wellcome. Aside from ERC itself, there is therefore a very low awareness of any alternative schemes to the Laureate Award.

Funder	No. of mentions (n=84)
ERC	66 (76%)
SFI	18 (21%)
Royal Society	5 (6%)
Wellcome	4 (5%)

How important were the following factors in your decision to apply for a Laureate Award?										
	Not at all important		Somewhat important		Very important		Don't know / Not applicable		Total	Weighted Average
	%		%		%		%			
I was not aware of any alternative schemes for my field of research that were suitable for my needs	29.95%	62	20.77%	43	41.06%	85	8.21%	17	207	2.12
I was not aware of any alternative schemes for my career stage that were suitable for my needs	26.83%	55	19.51%	40	44.88%	92	8.78%	18	205	2.2
Familiarity with the IRC because I had applied for IRC funding in the past	43.41%	89	28.78%	59	18.05%	37	9.76%	20	205	1.72
My perceived chance of success	10.14%	21	46.38%	96	41.55%	86	1.93%	4	207	2.32
The scale of the Laureate Award's financial resources	5.80%	12	29.47%	61	63.29%	131	1.45%	3	207	2.58
The Laureate Award's permitted project duration	8.74%	18	26.70%	55	62.62%	129	1.94%	4	206	2.55
The prestige of being awarded funding from the IRC	12.68%	26	29.76%	61	54.15%	111	3.41%	7	205	2.43
Obtaining experience in applying for large single-investigator awards	25.73%	53	23.79%	49	47.57%	98	2.91%	6	206	2.23
I wanted to apply for ERC funding in the future and thought the Laureate Award would be a good stepping stone for this	10.63%	22	28.50%	59	56.52%	117	4.35%	9	207	2.48
Recommendation from colleagues or friends	45.59%	93	31.86%	65	12.75%	26	9.80%	20	204	1.64
Other very important reasons (please specify if applicable)									41	
	Answered									207
	Skipped									11
<ul style="list-style-type: none"> A strong theme in the responses was the lack of alternative options for this type of grant funding with about one third of responses citing this reason. Several respondents mentioned that the scheme was particularly crucial for humanities academics. One said "There's no other major national funding to apply for as a researcher in the Humanities in Ireland" Around a quarter of respondents described how it was the flexible and open nature of the scheme which attracted them to apply. Several respondents referred to a concern with how Science Foundation Ireland has become too applied and top down. They liked the freedom to pursue research based purely on excellence criteria only and not societal / industry relevance. Several respondents described how they applied for the grant due to feeling pressure from their department to bring in funds and in many cases as part of their efforts to secure a permanent contract. 										

Did you attend an IRC webinar about the Laureate Starting and Consolidator awards in the run-up to your application? (If you applied for an Advanced Laureate Award, for which there were no webinars, please simply skip this question)		
Answer Choices	Responses	
No, and I was not aware that such webinars took place	29.41%	50



No, but I was aware that such webinars took place	21.76%	37
Yes, but the webinar was not very helpful	5.88%	10
Yes, and the webinar was somewhat helpful	35.29%	60
Yes, and the webinar was very helpful	7.65%	13
	Answered	170
	Skipped	48

OPTIONAL: Feel free to share any thoughts you may have on webinars for applicants to Laureate Awards. Please also feel free to comment if you did not attend webinars or if none were offered to you.	
[Freetext answer – individual responses omitted to preserve anonymity]	
Answered	24
Skipped	194
<ul style="list-style-type: none"> The majority of comments were either neutral or positive. Only a couple of respondents were negative and highlighted that they did not like the way IRC delivered webinars. One said “a webinar in which the presenter just read the slides is a non-sense”. Several respondents reported that although they did not attend an IRC webinar they had attended an in-house information session at their institution and found it useful. One respondent made a specific request for the webinar to include advice on how to prepare for the interviews. 	

Please indicate your level of satisfaction with the following administrative aspects connected to your Laureate Award application														
	Very dissatisfied		Somewhat dissatisfied		Neutral		Somewhat satisfied		Very satisfied		Don't know / Not applicable		Total	Weighted Average
Overall ease of the application process	2.96%	6	12.32%	25	18.72%	38	30.54%	62	35.47%	72	0.00%	0	203	3.83
User-friendliness and coherence of the application form and web portal	2.48%	5	8.42%	17	16.34%	33	34.65%	70	37.62%	76	0.50%	1	202	3.97
Clarity of guidance notes and documentation	1.00%	2	5.97%	12	19.90%	40	32.34%	65	40.80%	82	0.00%	0	201	4.06
Communication with the IRC during the application process (e.g. for problems or queries)	0.99%	2	6.90%	14	24.63%	50	16.26%	33	23.15%	47	28.08%	57	203	3.75
Transparency of the assessment process	15.84%	32	18.32%	37	23.27%	47	17.82%	36	22.77%	46	1.98%	4	202	3.14
Appropriateness of the assessment criteria	11.44%	23	16.42%	33	20.40%	41	28.86%	58	21.89%	44	1.00%	2	201	3.34



Transparency of the funding decision	19.50 %	39	21.00 %	42	21.00 %	42	15.50 %	31	22.00 %	44	1.00 %	2	200	2.99
Quality of feedback received on my application	20.79 %	42	21.29 %	43	13.37 %	27	21.78 %	44	20.30 %	41	2.48 %	5	202	2.99
Quality of feedback received on my interview [please select don't know/not applicable for this item if your application process did not involve an interview]	5.62 %	10	2.25 %	4	6.18 %	11	8.43 %	15	9.55 %	17	67.98 %	121	178	3.44
	Answered													203
	Skipped													15

Please indicate your level of satisfaction with the following organisational aspects connected to your Laureate Award application														
	Very dissatisfied		Somewhat dissatisfied		Neutral		Somewhat satisfied		Very satisfied		Don't know / Not applicable		Total	Weighted Average
Time window available from call launch to submission deadline	3.94 %	8	10.84 %	22	22.66 %	46	29.56 %	60	32.02 %	65	0.99 %	2	203	3.76
Duration of the application process from application submission to communication of the outcome	4.95 %	10	18.81 %	38	23.27 %	47	34.65 %	70	17.82 %	36	0.50 %	1	202	3.42
Duration of the process from award decision to start of the award period [please select don't know/not applicable for this item if your application was not successful]	1.03 %	2	4.64 %	9	7.73 %	15	13.92 %	27	10.82 %	21	61.86 %	120	194	3.76
Organisation, logistics and management of my interview [please select don't know/not applicable for this item if your application process did not	2.65 %	5	2.12 %	4	5.29 %	10	8.47 %	16	13.76 %	26	67.72 %	128	189	3.89

involve an interview]																		
	Answered																	203
	Skipped																	15

OPTIONAL: Feel free to comment on any of the aspects above, or any other administrative aspects around the Laureate Award application process, particularly if you had any noteworthy positive or negative experiences:	
[Freetext answer – individual responses omitted to preserve anonymity]	
Answered	59
Skipped	159
<ul style="list-style-type: none"> • The vast majority of the 59 responses (which, we note, constitutes only a minority of the total survey response population), over three quarters, were negative in some way about the process • Around one quarter of the minority of respondents who did submit further comments described a lack of transparency in the process and the feeling that the feedback was not helpful. A common theme was that the feedback they received was contradictory and did not allow them to understand the reasons clearly and what they could do to improve their bids for future applications. • Around one quarter (again, of those who submitted comments, not of the entire survey respondent pool) expressed dissatisfaction with the quality of reviewer comments. A common theme was that they received highly differing reviews and that there were one or two outlier negative reviews which they felt were not justified and which, they felt, had had a disproportionate effect on their application. Several respondents asked for a chance for a rebuttal. • Around half a dozen respondents reported that the time between the call and the deadline was too short for a proposal of the size and complexity of the Laureate Awards Programme. • Several respondents felt that the level of detail required and length of the proposal was disproportionate to the size of award. A number of them recognised that this was because it was designed to replicate the ERC award process but still felt it was disproportionate. • There was one specific concern raised about the ability of the panels to handle interdisciplinary proposals: "I felt that given the interdisciplinary nature of my proposal was completely misunderstood as the representatives of each discipline related to my project interpreted it only within the narrow confines of his/her own discipline. IRC and its experts need to have a far more clear and constructive guidance on evaluation of interdisciplinary proposals otherwise interdisciplinarity will remain just a slogan" • Around half a dozen respondents said that they felt the time lag between application and decision was not justifiable and had impinged negatively on them. One said "I felt it was too slow overall from submission (early July?) to notification of decision (following April). That holds up advancing alternate plans if the application is unsuccessful, and so failure carries an additional penalty." 	

Assuming the IRC's overall budget cannot be changed, what are your thoughts about changing the maximum size for each individual award in future rounds of the scheme		
Answer Choices	Responses	
I think the grant size should be increased a lot (by more than 25%), even if this means much tougher competition for fewer grants	3.47%	7
I think the grant size should be increased a little (by up to 25%), even if this means more competition for fewer grants	6.44%	13
I think the maximum award size should remain as it is	40.59%	82
I think a slightly smaller maximum grant size (decreasing by up to 25% less) should be considered if this would mean more grants and less competition	25.25%	51
I think a much smaller maximum grant size (decreasing by 25% or more) should be considered if this would mean significantly more grants and less competition	19.31%	39
Can't say / no opinion	4.95%	10

	Answered	202
	Skipped	16

Aside from the maximum grant size, please feel free to enter any thoughts you might have on how to improve the scheme. This could include award duration, review method, eligible costs, or any other areas where you feel improvements could be made	
[Freetext answer – individual responses omitted to preserve anonymity]	
Answered	91
Skipped	127
<ul style="list-style-type: none"> • Around a quarter of respondents called for a higher success rate for the scheme, most often suggesting that there be a larger number of smaller grants. Several respondents made a link with the humanities, highlighting firstly that the scheme is absolutely essential to the discipline as there are no comparable opportunities, and secondly that for the humanities it is often not necessary to have such a large grant and can even have negative consequences. A number of respondents gave the opinion that the size of award was also not necessary to help applicants go on to get ERC funding. For example one said: "If one sat down to come up with a way of limiting the number of Irish scholars who get ERCs, one could not do better than the Laureate scheme. The ERC wants to see that you have gotten a grant already of about 100k. More does not matter. So this limits the number of people with that much money, and the productivity of the whole sector, which has almost no other access to money. It also encourages humanities scholars to have doctoral students working on the PI's own projects, which is widely viewed in many of our fields as unethical and which NEVER produces good doctorates." • A strong theme, with just under one quarter of respondents commenting on it, was that the scheme should be regular and predictable to allow researchers and departments to plan around it. One said "The scheme is a crucial mid-step for excellent mid-career researchers who otherwise have little opportunity to make themselves into competitive prospects for ERC applications. It is vital that the programme be restored, and that it be put on a stable footing rather than announced late, with uncertainty about its future, all of which stymies planning for applying for it." 	

Please indicate which of the following benefits you think securing a Laureate Award would likely have										
	Not at all		A minor benefit		A major benefit		Don't know / Not applicable		Total	Weighted Average
Professional development (i.e. new relevant knowledge gained)	2.01%	4	16.08%	32	81.41%	162	0.50%	1	199	2.8
Ability to conduct higher quality research	0.50%	1	3.02%	6	95.48%	190	1.01%	2	199	2.96
Accelerated or enabled career progression (seniority)	5.03%	10	20.10%	40	70.85%	141	4.02%	8	199	2.69
Broadening career options (variety)	13.00%	26	32.00%	64	49.00%	98	6.00%	12	200	2.38
Salary increase	41.00%	82	30.00%	60	20.00%	40	9.00%	18	200	1.77
Expanded network of like-minded people	9.50%	19	42.00%	84	46.50%	93	2.00%	4	200	2.38
Improved ability to secure an ERC grant in the future	1.01%	2	15.58%	31	79.90%	159	3.52%	7	199	2.82
Improved ability to secure a wider range of grants, funds	3.02%	6	14.57%	29	78.89%	157	3.52%	7	199	2.79

or deals other than ERC grants in the future										
Personal and professional fulfilment	0.50%	1	14.00%	28	83.50%	167	2.00%	4	200	2.85
Other major benefits (please specify if applicable)									37	
	Answered									200
	Skipped									18
<ul style="list-style-type: none"> A strong theme from the responses to this question was that securing this type of grant is often essential to building a viable career in academia in Ireland. Again the particularly precarious situation for humanities scholars was highlighted by a number of respondents. One said: "There is currently an extraordinary mismatch between the available funding opportunities for humanities researchers in Ireland and university benchmarks for promotion. One way of mitigating this--and helping humanities researchers (who are often women) not to have their careers stalled is to offer a more frequent, greater range of small and medium scale IRC grants. If I remain in Ireland, I honestly do not see a way to forward my research career or achieve promotion in the absence of a more robust national scheme." Others though did report that obtaining a Laureate award had not secured the career benefits that had been expected and that treatment of beneficiaries across institutions varies. One said: "I saw colleagues who were awarded grants treated very badly by their institutions. There was a reluctance to promote amid a view amongst senior management that these grants were a financial liability to the institution and a nuisance as they disrupted teaching plans. It began to expose a lack of alignment with the broader ERC research model." 										

We are interested in the wider importance and demand for awards of this kind. Please indicate your level of agreement with the following statements.												
	Strongly disagree		Somewhat disagree		Don't know / No opinion		Somewhat agree		Strongly agree		Total	Weighted Average
There is a high demand for large single-investigator basic research awards in Ireland	1.51%	3	2.51%	5	4.52%	9	14.57%	29	76.88%	153	199	4.63
The demand for large single-investigator basic research awards in Ireland is generally being met	65.83%	131	22.61%	45	8.54%	17	1.51%	3	1.51%	3	199	1.5
The demand for large single-investigator basic research awards in Ireland has increased over the past 10 years	14.50%	29	11.00%	22	22.50%	45	21.00%	42	31.00%	62	200	3.43
	Answered											200
	Skipped											18

Regardless of the outcome of your application, has the process of applying for a Laureate award benefitted you in any of the following ways?												
	No benefit at all		Benefitted a little		Benefitted a lot		Don't know		Total	Weighted Average		
Ability to develop and express my future research plans	18.59%	37	42.21%	84	38.19%	76	1.01%	2	199	2.2		

Ability to write high-quality applications for IRC funding in the future	22.61 %	45	39.20 %	78	34.67 %	69	3.52 %	7	199	2.13
Ability to write high-quality applications for European Research Council (ERC) grants in future	22.00 %	44	37.00 %	74	35.00 %	70	6.00 %	12	200	2.14
Networking and communication with other researchers applying for major research funding awards	51.50 %	103	32.00 %	64	13.50 %	27	3.00 %	6	200	1.61
	Answered									200
	Skipped									18

Please feel free to enter any further comments about the Laureate Award scheme in the box below.	
[Freetext answer – individual responses omitted to preserve anonymity]	
Answered	86
Skipped	132
<ul style="list-style-type: none"> • Respondents largely took this opportunity to re-iterate points already made in the earlier open comment boxes. A number, for example, talk positively about the openness and intellectual freedom of the scheme compared to other opportunities in Ireland and others re-iterate the desire for increased feedback and more regular calls. • A significant number of respondents took the opportunity to offer their concluding thoughts on the scheme. What emerged is that many of them believe that whilst the scheme is essential for the Irish research system it is currently underfunded meaning that the success rates are unacceptably low and that there is a lot of waste in the amount of resource that applicants put into applying. One concludes "There's a disproportionate amount of effort that goes into applications considering the relatively low budget. This is particularly true for those who end up fundable but unfunded (on reserve). The feedback on such applications generally has little impact on being able to further improve the quality of any future submission." 	



C.3 Raw response data – survey of reviewers and panellists

Please indicate below that you give consent for Technopolis to process your response to this questionnaire for the purposes of this study only.		
Answer Choices	Responses	
I give my consent for Technopolis to process my response to this questionnaire for the purposes of this study only	100.00%	53
	Answered	53
	Skipped	0

To which of the following areas of study is your expertise most closely aligned?		
Answer Choices	Responses	
Physical Sciences and Engineering	37.74%	20
Life Sciences	32.08%	17
Arts, Humanities and Social Sciences	30.19%	16
Unsure	0.00%	0
	Answered	53
	Skipped	0

How many years of full-time professional research experience do you have (excluding PhD study)?		
Answer Choices	Responses	
0-4 years	0.00%	0
5-9 years	1.89%	1
10-14 years	7.55%	4
15-19 years	11.32%	6
20-24 years	16.98%	9
25-29 years	9.43%	5
30 years or more	52.83%	28
	Answered	53
	Skipped	0

Please note the approximate number of academic publications you have published either as first-author or co-author over the course of your career. Please approximate as closely as you can, including monographs, book chapters and research articles and review papers in peer reviewed academic journals (excluding book reviews and editorials)		
Answer Choices	Responses	
Fewer than 10	0.00%	0
10-24	0.00%	0
25-49	7.55%	4
50-99	26.42%	14



100-199	30.19%	16
200 or more	35.85%	19
	Answered	53
	Skipped	0

Prior to reviewing applications for the IRC Laureate awards, had you reviewed research funding applications in any other countries or regions? (Please tick all that apply)		
Answer Choices	Responses	
No – the IRC Laureate applications were the first research funding applications I had ever reviewed	0.00%	0
Yes, I had reviewed other IRC applications	28.30%	15
Yes, I had reviewed applications to other research funding organisations in Ireland	13.21%	7
Yes, I had reviewed applications to EU-level research funders (e.g. Horizon 2020, ERC, COST)	71.70%	38
Yes, I had reviewed applications to research funders in individual European Union member states, the UK, Switzerland or Norway	88.68%	47
Yes, I had reviewed applications to research funders in countries other than EU member states, the UK, Switzerland or Norway	81.13%	43
	Answered	53
	Skipped	0

Prior to reviewing applications for the IRC Laureate awards, how many individual research funding applications had you reviewed over the course of your academic career? (If you are unsure, please estimate as closely as you can)		
Answer Choices	Responses	
Fewer than 10	1.89%	1
10-24	0.00%	0
25-49	15.09%	8
50-99	35.85%	19
100-199	16.98%	9
200 or more	30.19%	16
	Answered	53
	Skipped	0

Please indicate your level of satisfaction with the following aspects connected to your Laureate Award application reviews														
	Very dissatisfied		Somewhat dissatisfied		Neutral		Somewhat satisfied		Very satisfied		Don't know / Not applicable		Total	Weighted Average
	%	Count	%	Count	%	Count	%	Count	%	Count				
Overall ease of the reviewing process	0.00%	0	4.00%	2	8.00%	4	26.00%	13	58.00%	29	4.00%	2	50	4.44



User-friendliness of the IRC web portal for application reviews	0.00 %	0	5.88%	3	7.84 %	4	31.37%	16	45.10%	23	9.80 %	5	51	4.28
Clarity of IRC guidance notes and documentation	0.00 %	0	5.88%	3	7.84 %	4	15.69%	8	66.67%	34	3.92 %	2	51	4.49
Communication with the IRC during the review process (e.g. for problems or queries)	1.96 %	1	0.00%	0	5.88 %	3	15.69%	8	64.71%	33	11.76 %	6	51	4.6
Appropriateness of the reviewing criteria	0.00 %	0	3.92%	2	3.92 %	2	31.37%	16	56.86%	29	3.92 %	2	51	4.47
Appropriateness of the amount of feedback required from you per application	0.00 %	0	0.00%	0	3.92 %	2	37.25%	19	50.98%	26	7.84 %	4	51	4.51
Time window available for you to conduct the reviews	0.00 %	0	0.00%	0	5.88 %	3	31.37%	16	58.82%	30	3.92 %	2	51	4.55
	Answered													51
	Skipped													2

OPTIONAL: Feel free to comment on any of the aspects above, or any other administrative aspects around the Laureate Award application review process, particularly if you had any noteworthy positive or negative experiences:	
[Freetext answer – individual responses omitted to preserve anonymity]	
Answered	19
Skipped	34
<ul style="list-style-type: none"> • Around a third of respondents took the opportunity here to comment positively on their experience of the process and of working with IRC staff. For example one said "IRC staff are unfailingly helpful, efficient and friendly - a real pleasure to work with". • There were only three negative comments. Two referred to the website "being a bit clunky" while the third suggested that the process would be enhanced if the applicants were given a right to respond to reviewer comments. 	

To what extent did the applications that the IRC provided you for review reflect your research expertise?		
Answer Choices	Responses	
The applications I was given closely or entirely matched my expertise	7.84%	4
The applications I was given mostly matched my expertise	52.94%	27
The applications I was given only partially matched my expertise	35.29%	18
The applications I was given hardly matched my expertise	0.00%	0
Cannot say / no opinion	3.92%	2
	Answered	51
	Skipped	2

Overall, how would you rate the quality of the Laureate Award applications you reviewed? Please compare to any reviewing work you may have done for other funding schemes if applicable, or simply judge based on your own standards if not.		
Answer Choices	Responses	
The applications were generally of excellent quality	23.53%	12
The applications were generally of above-average quality	52.94%	27
The applications were generally of average quality	19.61%	10
The applications were generally of below-average quality	1.96%	1
The applications were generally of poor quality	0.00%	0
Cannot say / no opinion	1.96%	1
	Answered	51
	Skipped	2

Please indicate your level of satisfaction with the following aspects connected to the Laureate Award review panels														
	Very dissatisfied		Somewhat dissatisfied		Neutral		Somewhat satisfied		Very satisfied		Don't know / Not applicable		Total	Weighted Average
Clarity of IRC guidance notes and documentation explaining how the panel would operate	3.85%	2	1.92%	1	11.54%	6	21.15%	11	57.69%	30	3.85%	2	52	4.32
Clarity of the criteria to be used for panel judgements	1.92%	1	5.77%	3	13.46%	7	26.92%	14	48.08%	25	3.85%	2	52	4.18
The IRC staff's support and oversight of the panel meeting	3.85%	2	1.92%	1	1.92%	1	13.46%	7	76.92%	40	1.92%	1	52	4.61
Logistics and organisation of travel,	1.92%	1	1.92%	1	1.92%	1	7.69%	4	80.77%	42	5.77%	3	52	4.73

accommodation and subsistence															
The level of academic expertise represented on the panel	1.92 %	1	1.92 %	1	1.92 %	1	28.8 5%	15	63.4 6%	33	1.92 %	1	52	4.53	
The relevance of the expertise represented in the panel to the pool of applications	1.92 %	1	3.85 %	2	1.92 %	1	36.5 4%	19	53.8 5%	28	1.92 %	1	52	4.39	
The diversity in terms of gender and ethnicity represented on the panel	1.92 %	1	5.77 %	3	11.5 4%	6	30.7 7%	16	42.3 1%	22	7.69 %	4	52	4.15	
Available time to discuss all applications as much as was necessary to reach suitable judgements	1.92 %	1	1.92 %	1	3.85 %	2	28.8 5%	15	61.5 4%	32	1.92 %	1	52	4.49	
Attention to potential conflicts of interest	3.85 %	2	1.92 %	1	7.69 %	4	19.2 3%	10	61.5 4%	32	5.77 %	3	52	4.41	
Use of interview panels to help determine the best applicants (Please simply select 'Don't know/Not applicable' if you did not participate in interview panels)	0.00 %	0	3.85 %	2	0.00 %	0	3.85 %	2	55.7 7%	29	36.54 %	1 9	52	4.76	
	Answered													52	
	Skipped													1	

OPTIONAL: Feel free to comment on any of the aspects above, or any other structural, cultural or administrative aspects around the Laureate Award application review panels, particularly if you had any noteworthy positive or negative experiences:	
[Freetext answer – individual responses omitted to preserve anonymity]	
Answered	18
Skipped	35
<ul style="list-style-type: none"> • Again many respondents commented positively on the scheme and the process generally. • There was a concern held by several respondents that the panels may be too broad in subject matter to allow for sensible comparison. One said "One issue is the breadth of disciplines that the panel needed to judge. It is very difficult to compare say a mathematics proposal with one in chemistry. I would suggest breaking the panel into sub-groups so similar proposals can be judged." • One respondent had a specific concern about inter/multi disciplinary proposals. They said "Some further consideration of proposal that are multidisciplinary and cross the life science/physical science panels should be considered. e.g ranking by a member in each panel would help" 	

To what extent do you judge the review panel to have successfully identified the highest quality applications to be recommended for funding?		
Answer Choices	Responses	
Completely	21.57%	11
To a large extent	68.63%	35
To a moderate extent	7.84%	4
Hardly or not at all	1.96%	1
Cannot say / no opinion	0.00%	0
Please briefly explain your answer		26
	Answered	51
	Skipped	2
<ul style="list-style-type: none"> The comments to this question are split between those that were happy with the panel process and discussion and then several respondents who expressed concern that there was a lack of relevant expertise on their panel. One said "there were two applicants we struggled to separate, at least in part because they happened to be in the same area for which there was a lack of relevant expertise on the panel." Another made the link between the relatively small amount of funding available and the type of panel being used together leading to a biased process. They said "The amount of funding is far too low compared to the number of applications (if I remember well it was below 4%). Given the interdisciplinary nature of the panel and the fact that panelists have to review proposals outside their domain, the results at the end are very sensitive to panel biases, how a domain is represented (or not) in the panel, to individual panellists, etc." 		

Which of the following statements best reflects your stance on potential remote Laureate Award review panels (i.e. via videoconference rather than in person)?		
Answer Choices	Responses	
I would be strongly in favour	17.31%	9
I would be somewhat in favour	26.92%	14
I would be neutral on this matter	30.77%	16
I would be somewhat opposed	19.23%	10
I would be strongly opposed	5.77%	3
	Answered	52
	Skipped	1

Please feel free to enter any further comments about your experience as a reviewer and/or panellist for the IRC Laureate Award in the box below. Suggestions about how to improve the scheme and review process are also welcome.	
[Freetext answer – individual responses omitted to preserve anonymity]	
Answered	23
Skipped	30
<ul style="list-style-type: none"> This question followed a question on online versus in-person panel meetings so a number of responses addressed this issue specifically. Only a couple of respondents were unequivocally keen on the idea of online panels. Several recognised the need for them considering the circumstances of the Covid-19 pandemic but felt that significant work would need to be done to enhance the online experience to make it work (though specific recommendations were not forthcoming). One said "I understand the need for remote reviews under today's circumstances, but the process would need to be substantially re-thought (as I am having to do for my online courses). Remote processes do not work well with complete strangers who may have differing opinions." 	

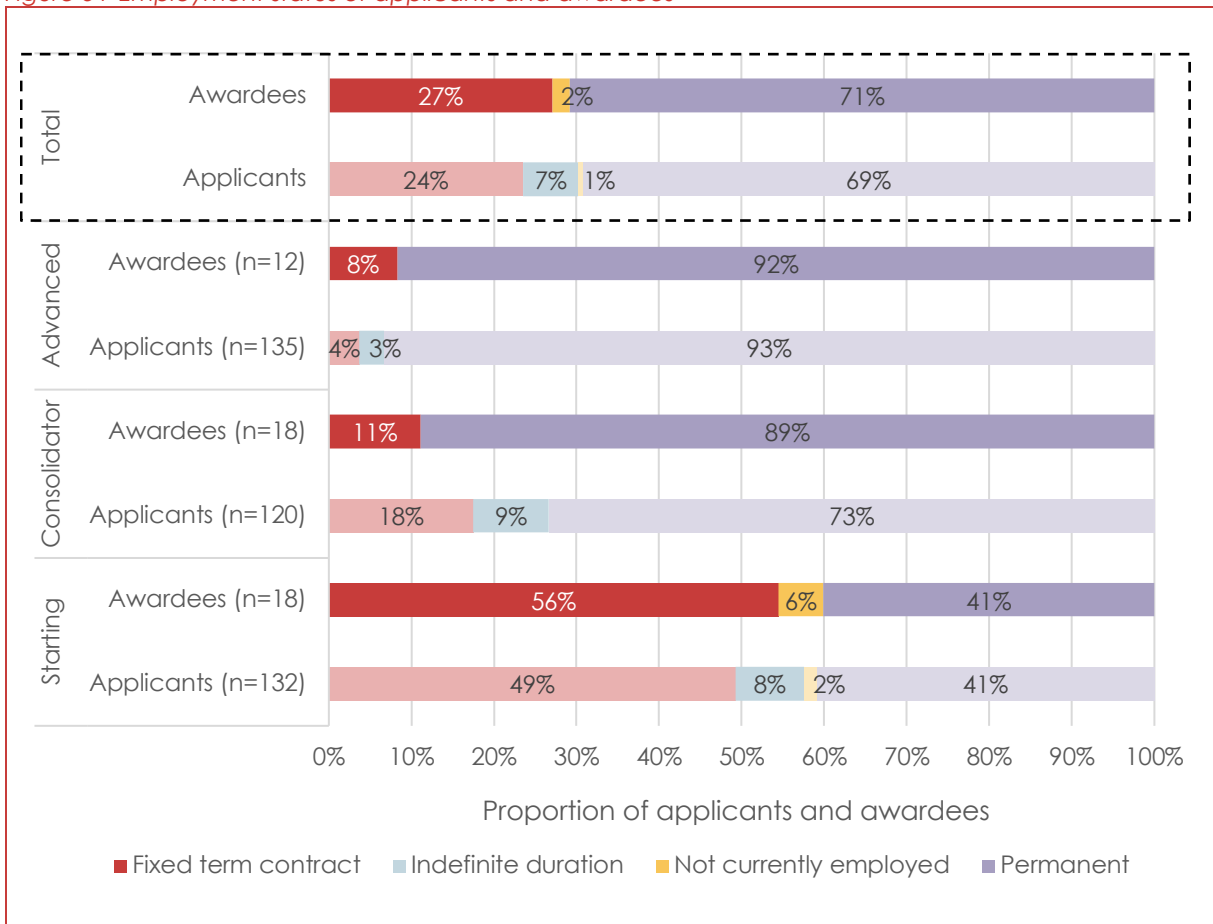
C.4 Additional data

Table 11 Nationalities accounting for the largest share of applications and awardees

	Applicants			Awardees		
	Country	No.	%	Country	No.	%
Starting	Ireland	71	53%	Ireland	10	56%
	UK	9	7%	UK	4	22%
	Italy	8	6%	Poland	1	6%
	Spain	6	4%	Spain	1	6%
	United States	5	4%	United States	1	6%
	All others	37	26%	All others	1	6%
Consolidator	Ireland	75	61%	Ireland	12	67%
	UK	11	9%	UK	2	11%
	Germany	6	5%	Italy	1	6%
	Italy	6	5%	Russia	1	6%
	United States	4	3%	Germany	1	6%
	All others	21	16%	All others	1	6%
Advanced	Ireland	101	74%	Ireland	9	75%
	UK	13	10%	UK	2	17%
	United States	5	4%	Italy	1	8%
	Spain	4	3%	-	-	-
	Italy	3	2%	-	-	-
	All others	7	7%	-	-	-
Totals	Ireland	247	63%	Ireland	31	65%
	UK	33	8%	UK	8	17%
	Italy	17	4%	Italy	2	4%
	United States	14	4%	Poland	1	2%
	Spain	12	3%	Russia	1	2%
	All others	69	18%	All others	5	10%

Source: IRC application data

Figure 34 Employment status of applicants and awardees



Source: IRC monitoring data

Table 12 Three most cited intended host organisations for applicants and awardees

Award	Applicants	Awardees
Starting	<ul style="list-style-type: none"> University College Dublin – 22% (30) Trinity College Dublin – 19% (25) The National University of Ireland, Galway – 13% (17) All other institutions – 46% (61 from 15 different institutions) 	<ul style="list-style-type: none"> University College Dublin – 39% (7) Trinity College Dublin – 33% (6) All other institutions – 28% (5 from three different institutions)
Consolidator	<ul style="list-style-type: none"> Trinity College Dublin – 21% (26) University College Dublin – 19% (23) The National University of Ireland, Galway – 14% (17) All other institutions – 46% (57 from 14 different institutions) 	<ul style="list-style-type: none"> Trinity College Dublin – 33% (6) University College Dublin – 22% (4) The National University of Ireland, Galway – 22% (4) All other institutions – 22% (4 from three different institutions)
Advanced	<ul style="list-style-type: none"> Trinity College Dublin – 26% (36) University College Cork – 24% (32) University College Dublin – 28% (25) 	<ul style="list-style-type: none"> Trinity College Dublin – 50% (6) University College Cork – 33% (4)



Award	Applicants	Awardees
	<ul style="list-style-type: none">• All other institutions – 32% (43 from 7 different institutions)	<ul style="list-style-type: none">• All other institutions – 17% (2 from two different institutions)
Total	<ul style="list-style-type: none">• Trinity College Dublin – 22% (87)• University College Dublin – 20% (78)• University College Cork – 15% (57)• All other institutions – 43% (170 from 20 different institutions)	<ul style="list-style-type: none">• Trinity College Dublin – 38% (18)• University College Dublin – 23% (11)• The National University of Ireland, Galway – 13% (6)• All other institutions – 27% (13 from six different institutions)

Source: IRC application data

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