



Foresight Exercise

Discussion paper for
the GRC 2017 Annual Meeting

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Prepared for:
The GRC Governing Board

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Executive summary

At its meeting of 25th May 2016, the Governing Board of the GRC mandated the Executive Support Group (ESG) to carry out a foresight exercise, with the threefold aim of allowing the GRC to:

1. take stock of the past GRC activities, their interconnections and impacts;
2. reflect on the current GRC processes;
3. look forward and identify future directions, topics and activities for the GRC.

The following provides a summary of findings for each of the three aims.

Taking stock of past GRC activities

Both regional and annual meetings have seen year on year **attendance growth** by responding GRC organisations.

The GRC's activities are considered to have a significantly higher impact on **collaboration** between organisations and other GRC participants, than the GRC's activities have had on **policy development and implementation**, or indeed on **policies of stakeholder organisations**.

While the GRC is deemed to perform relatively well in the area of *Representative participation*, performance in the areas of *Collaboration among GRC participants*, and *Transparent and effective governance* is deemed to be poorer.

The GRC's impact is seen to be more proven in a global as opposed to a regional or indeed national context.

Reflecting on current GRC practices

The GRC is perceived to perform fairly well at **choosing discussion topics** for annual meetings and **endorsing topic outputs**; however these aspects could be improved slightly for regional meetings, particularly by choosing more relevant topics. The way topics are developed and discussed for regional meetings is deemed to be better.

GRC regional and annual meeting **interconnection** is perceived as good, however there is room for improvement in the interconnection of the GRC regional/annual meetings and **follow-up events**, for example by increasing awareness of and circulating information about follow-up events.

Engagement with HORCs as GRC representatives is perceived to be the most effective to meet GRC purposes. Engagement with senior staff is slightly less effective and engagement with experts even less so.

Considering future GRC directions

In considering future directions for the GRC, there is some desire from respondents for the GRC to revisit previously discussed topics rather than to address new topics at each meeting.

The **range of GRC meetings, events and activities** is deemed to be sufficient for most participants, in particular due to the time and costs involved in preparing and travelling to these events.

There is understanding that the **resources** for a virtual organisation such as the GRC are limited, and the GRC is seen to work well in spite of these limitations.

Introduction

Background

The Global Research Council (GRC) is a virtual organisation, comprised of the heads of science and engineering funding agencies from around the world, dedicated to promoting the sharing of data and best practices for high-quality collaboration among funding agencies worldwide.

2016 marked the five year anniversary of the GRC Annual Meeting. In response to this, and growing participation across the globe, the Governing Board considered it timely to take a more focused and evidence-based approach to the future direction of the GRC to ensure that it remains a valuable and unique forum for high level discussion of global research policy.

At its meeting of 25th May 2016, the Governing Board of the GRC mandated the Executive Support Group (ESG) to carry out a foresight exercise, learning from the past to focus on the future.

The GRC commissioned DJS Research, an independent market research agency, to conduct the foresight exercise.

Objectives

The aim of the foresight exercise is to allow the GRC to:

1. take stock of the past GRC activities, their interconnections and impacts;
2. reflect on the current GRC processes;
3. look forward and identify future directions, topics and activities for the GRC.

The foresight exercise is intended to act as a discussion paper for the GRC 2017 Annual Meeting. The trends identified in this analysis will help GRC participants hold informed discussions on future directions of the GRC.

Methodology

In order to address all three objectives, DJS Research adopted a phased research approach, with each completed research phase providing the basis for subsequent phases.

The first phase of research employed desk research in which DJS Research sourced and reviewed a range of GRC published materials, carrying out a systematic content analysis of these materials to map historic topics and outputs.

Informed in part by the desk-based review, DJS Research in consultation with the ESG leads, designed, piloted and hosted an online survey in which 112 GRC participant organisations were invited to participate.

The response rate of 56 percent, equivalent to 63 responding organisations, is exceptionally high for surveys of this nature.

Following the online survey, 12 Heads of Research Councils (HORCs) and influencers at GRC participant organisations provided qualitative feedback in either a telephone depth interview or in the form of a written response, allowing for an exploration of opinions in more depth.

Table 1: Overview of Research Participation

Region	Response rate (online survey)	# of depth interviews
Africa	43%	3
Americas	57%	3
Asia-Pacific	62%	1
Europe	70%	3
MENA	27%	2
TOTAL	56%	12

Due to the relatively small sample sizes, findings should be viewed as directional rather than being statistically robust.

Previous GRC activities

Attendance of GRC Meetings

Most of the GRC participants who completed the foresight consultation survey have sent and continue to send representatives of their respective organisations to attend the **Annual Meetings** of the Global Research Council.

Amongst responding GRC participants, the 4th Annual Meeting in Tokyo was the best attended, with 41 of the 63 organisations sending representatives.

While organisations from Africa, the Americas and MENA were noticeably under-represented at the first two Annual Meetings, representation of responding organisations from these regions increased in particular for the Annual Meetings held in 2015 and 2016.

Table 2: GRC Annual Meeting attendance: Overall attendance and attendance by HORCs participating in the foresight exercise

	TOTAL		Africa		Americas		Asia-Pacific		Europe		MENA	
	113	63	21	9	15	8	20	13	46	30	11	3
The Global Summit on Merit Review, hosted by the U.S. National Science Foundation, 2012	38%	46%	–	–	40%	38%	60%	46%	50%	63%	18%	33%
The 2nd Annual Meeting of the Global Research Council in Berlin, 2013	48%	56%	19%	22%	47%	38%	55%	69%	63%	67%	27%	33%
The 3rd Annual Meeting of the Global Research Council in Beijing, 2014	41%	51%	10%	11%	33%	50%	70%	69%	43%	53%	45%	67%
The 4th Annual Meeting of the Global Research Council in Tokyo, 2015	49%	65%	38%	56%	53%	50%	70%	77%	46%	63%	36%	100%
The 5th Annual Meeting of the Global Research Council in New Delhi, 2016	44%	62%	48%	56%	33%	50%	60%	77%	43%	60%	27%	67%
Have not attended any Annual Meetings	23%	17%	38%	33%	20%	38%	20%	8%	17%	13%	27%	–

Annual meeting attendance data provided by the GRC Executive Secretary indicates that representation of HORCs at annual meetings has fluctuated over the years, but has been higher in the last two years than in 2014, with 55 and 50 of a total of 113 organisations represented at the 2015 and 2016 Annual Meetings respectively.

The 2016 Annual Meeting in Delhi was attended by approximately half of all organisations from Africa (48%), Asia-Pacific (60%) and Europe (43%), with lower representation by organisations from the Americas (33%) and MENA (27%).

More than a third (38%) and a quarter (27%) of organisations in Africa and MENA respectively have never attended an Annual Meeting. The figures are lower for the Americas (20%), Asia-Pacific (20%) and Europe (17%).

The following table highlights attendance of HORCs at the Annual Meetings according to the **GRC Executive Secretary data**, as well as attendance by *HORCs participating in the foresight exercise*.

In keeping with the increased attendance at Annual Meetings, so too have the **regional meetings** in each GRC region seen attendance by a growing proportion of responding GRC organisations.¹

Responding organisations from within the **Africa** region were in full attendance at the most recent meeting in Maputo.

Table 3: GRC Annual Meeting attendance: Africa

	Africa (9)
Addis Ababa/Ethiopia, November 29, 2012	11%
Pretoria/South Africa, November 25–26, 2013	22%
Stellenbosch/South Africa, November 24–25, 2014	67%
Swakopmund/Namibia, November 16–18, 2015	56%
Maputo/Mozambique, November 24–25, 2016	100%

Organisations in the **Americas** have all attended at least one regional meeting, with meetings in Lima and Buenos Aires being attended by three-quarters of all responding organisations.

Table 4: GRC Annual Meeting attendance: Americas

	Americas (8)
Playa del Carmen/Mexico, October 29–30, 2012	38%
Ottawa/Canada, October 17–18, 2013	50%
Lima/Peru, November 19–20, 2014	75%
Bogota/Colombia, December 14–15, 2015	50%
Buenos Aires/Argentina, October 25–26, 2016	75%

The overwhelming majority of organisations responding from the **Asia-Pacific** region attended both the Canberra and Kuala Lumpur regional meetings in 2015 and 2016 respectively.

Table 5: GRC Annual Meeting attendance: Asia-Pacific

	Asia-Pacific (13)
Sendai/Japan, December 5–7, 2012	31%
Jeju Island/Korea, November 18–19, 2013	54%
Singapore, December 3–4, 2014	54%
Canberra/Australia, December 3–4, 2015	69%
Kuala Lumpur/Malaysia, November 20–21, 2016	77%
Don't know	8%

While the most recent regional meeting in Küsnacht was attended by the largest proportion of responding organisations in **Europe**, a small number of participants have never attended a regional meeting.

Table 6: GRC Annual Meeting attendance: Europe

	Europe (30)
Brussels/Belgium, October 22, 2012	50%
Paris/France, October 30, 2013	50%
Brussels/Belgium, October 22–23, 2014	60%
Rome/Italy, November 5–6, 2015	60%
Küsnacht/Switzerland, November 2–3, 2016	63%
Have not attended any Regional Meetings	7%
Don't know	7%

¹GRC Regional Meeting attendance data only refers to attendance by participant organisations participating in the foresight exercise.

The relatively small number of responding organisations based in **MENA** have attended every regional meeting since Doha in 2013.

Table 7: GRC Annual Meeting attendance: MENA

	MENA (3)
Riyadh/Saudi Arabia, December 3, 2012	67%
Doha/Qatar, December 8–9, 2013	100%
Kuwait, November 9–10, 2014	100%
Muscat/Oman, January 10–11, 2016	100%
Rabat /Morocco, January 13–14, 2017	100%

In summary, an increasing number of responding organisations have participated in the more recent regional and Annual Meetings.

Value of GRC activities

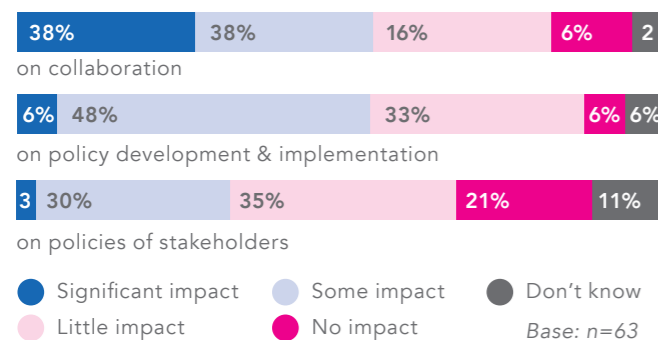
Respondents were asked to **what extent they believed the GRC's activities had had an impact on the following aspects of their respective organisations:**

1. **Policy development** and implementation of your organisation
2. **Policies of stakeholders** (e.g. governments, universities, other funding agencies who don't participate in the GRC) of your organisation
3. **Collaboration** between your organisation and other GRC participants

More than three-quarters (**76%**) of respondents indicated that the GRC's activities had had **some** or **significant impact** on **collaboration** between their organisation and other GRC participants.

In comparison, just more than half (**54%**) and a third (**33%**) of respondents adjudged the GRC's activities to have had **some** or **significant impact** on **policy development and implementation** of their organisation and **policies of stakeholders** of their organisation respectively. More than 1 in 10 respondents (**11%**) were unable to comment on the impact of the GRC's activities on the **policies of stakeholders** of their organisation.

Table 8: Level of impact of the GRC's activities



Responding organisations across all regions are more likely to consider the GRC's activities to have had at least some **impact** on **collaboration** than not at all. This is particularly the case for respondents in Asia-Pacific where all (**100%**) responding organisations consider the GRC's activities to have had an impact on collaboration. Responding organisations from the Americas region (**50%**) are less likely to consider the GRC's activities to have had an impact on collaboration than organisations from any other region.

In outlining how the GRC's activities had impacted upon collaborations, almost a third (**31%**) of respondents point to the **strengthening** or **extension** of **regional and/or international collaborations**. Others (**15%**) highlight the **opportunities presented to explore bilateral collaboration**. In some instances (**8%**), respondents point toward the impact on or **signing of MOUs**.

The following comments reveal some specific areas in which the GRC's activities have impacted upon organisations' collaborations:

"Through our participation in the GRC, we are collaborating with the German Research Foundation (DFG) of Germany and are currently developing more collaboration with the National Commission for Science and Technology (NCST) of Rwanda and Malawi."
National Science and Technology Council, Zambia

"The Global Research Council has excellent networking value and consistently provides optimal venues for discussing new models of international collaboration and for advancing existing bilateral partnerships. NSERC has organized several bilateral meetings around past Annual Meetings to advance bilateral collaborations."

Natural Sciences and Engineering Research Council of Canada (NSERC)

"The GRC Meetings were used for discussions with representatives from partner organizations. Also, on one occasion Memoranda of Understandings were signed."
Austrian Science Fund (FWF)

"Our organisation has learned from the interaction and policies of other organisations in particular other countries in Europe of similar size to Denmark, e.g. Switzerland and Ireland."
The Danish Council for Independent Research

Few organisations considered the GRC's activities to have had no or little impact on collaborations. Those that did, cited the lack of funding and the fact that existing collaborations are merely being reinforced.

In the context of the GRC's activities impact on **policy development** and **implementation**, respondents in Africa (**56%**), Americas (**50%**) and in particular Asia-Pacific (**85%**) are more likely to consider the GRC's activities to have had at least **some impact**, than organisations in either Europe (**47%**) or MENA (**0%**). Indeed, all responding organisations in MENA consider the GRC's activities to have had no or little impact on policy development and implementation.

When asked to provide specific examples of how the GRC's activities have impacted on policy development and implementation of their organisation, a large proportion of respondents (**41%**) pointed toward the fact that **Statements of Principles** had either been **adopted** or **reflected in their organisation's activities**. A smaller number of organisations (**12%**) highlighted that the Statements of Principles had **influenced discussions**.

The following comments reveal some specific examples of how selected **Statements of Principles** have impacted:

"NSF, Sri Lanka is currently developing guidelines on Research Integrity and Scientific Merit Review, in keeping with the GRC Statement of Principles. We have also taken the initiative to activate the principles and actions promoting the Equality and Status of Women in Research through establishing a National Programme on Women in Science."
National Science Foundation, Sri Lanka

"Diversity and transformation within the South African research platform has been a key component of the NRF's priorities. The Statement of Principles and Actions Promoting the Equality and Status of Women in Research further strengthened existing conversations and actions by providing additional action points for consideration by the organisation."
National Research Foundation, South Africa

Support in the **development of organisations** (**15%**) and the impact on **strategy development** (**15%**) were referenced more frequently than the benefits gained as a result of **global benchmarking** (**9%**) in explaining how the GRC's activities had impacted upon organisations' policy development and implementation. Other comments that underline the value of the GRC's activities relate to the beneficial experiences shared between organisations, as well as the impact of discussions on strategy development.

"Our organisation has benefitted a great deal from the experiences of older research councils. Such experiences have shaped our organisation to introduce, develop, refocus and manage our small grant scheme. One of the key principles in the scheme is to ensure interdisciplinarity of the proposed projects. This is one of the many principal aspects of emphasis advocated by GRC."
National Commission for Science and Technology, Malawi

"The discussions that we participated in in the field of interdisciplinarity during the meeting in New Delhi have been effectively used while creating Turkey's new National Science, Technology and Innovation Strategy."
The Scientific and Technological Research Council of Turkey (TUBITAK)

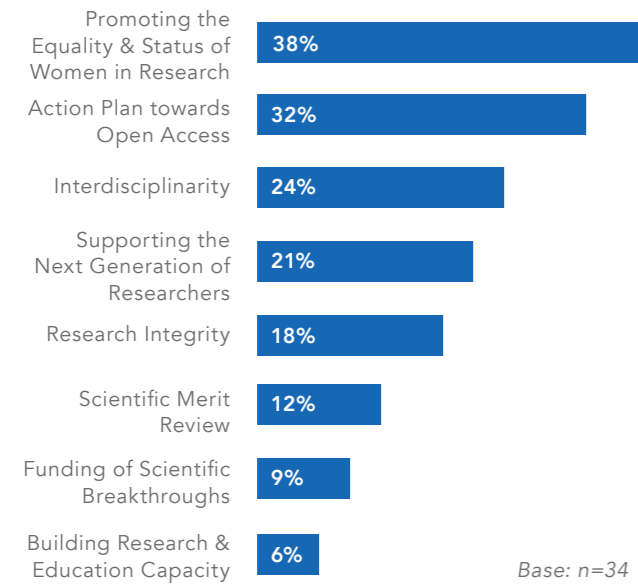
"The GRC activities related to Open Access over the years have allowed Science Europe to share its own results and progress on the matter, do some benchmarking and assess its position against those adopted in the other GRC regions."
Science Europe

"We recently formulated our International Cooperation Framework, and some ideas from attendees in the recent regional GRC were considered."
Anonymous

"The knowledge gained on the latest trends and common issues through the GRC's activities has had some impact on our policy planning."
Anonymous

The following chart highlights which of the **topics** discussed at the GRC Annual Meetings are cited most frequently by respondents who consider the GRC's activities to have had an impact on policy development of their organisations.

Table 9: GRC Annual Meeting topics referenced in connection with the impact on policy development and implementation



Almost two fifths (**38%**) of respondents mentioned the topic *"Promoting the Equality and Status of Women in Research"* and a third (**32%**) referenced the *"Action Plan towards Open Access"*.

Respondents who considered the GRC's activities to have had little or no impact on policy development and implementation of their organisation often (**28%**) explained that the GRC's activities **only confirmed rather than influenced current policies**. In several cases, the lack or recency of involvement with the GRC is the reason for the limited impact.

As discussed previously, the GRC's activities are deemed to have had the least impact on **policies of stakeholders**. Indeed, respondents in Americas (**63%**), Europe (**60%**) and in particular MENA (**100%**) are more likely to consider the GRC's activities to have had **no or little impact** on **policies of stakeholders** of their organisations, than organisations in either Africa (**44%**) or Asia-Pacific (**38%**).

More than half of respondents (**52%**) who do deem the GRC's activities to have had an impact on the policies of stakeholders either refer to the **"Action Plan towards Open Access"** or a consolidated **approach to Open Access** as key examples. The fact that stakeholders receive **best practice guidelines** is referred to by a fifth (**19%**) of respondents.

The following comments reveal some specific areas in which the GRC's activities have impacted upon organisations' stakeholders' policies:

"The Statement of Principles for Funding Scientific Breakthroughs adopted at the Tokyo annual meeting in 2015 has a significant impact on stakeholders, allowing them to understand the importance of scientific research in the context of innovation."
Anonymous

"The statements of the GRC in the past years have been released among our stakeholders. Especially the statement on Open Access has greatly influenced the initiation of our organisation's relevant announcement."
Anonymous

"Some events have had reasonable impact in that they enabled a unique approach to an issue, such as the Open Access 'Unlocking the Future' event in 2015, which brought together funders, publishers, libraries and repositories from around the world."
Anonymous

One in five (**20%**) respondents who considered the GRC's activities to have had little or no impact on policies of stakeholders explained that the stakeholders were simply not aware of the GRC's activities, and hence had no impact.

In some instances (**17%**), respondents explained that it was too early to assess the impact the GRC's activities may have had on their stakeholders at present.

In summary, respondents from the **Asia-Pacific region** are **more likely** to consider the GRC's activities to have had some or a significant impact on all three assessed aspects of their respective organisations. Respondents from the **MENA region** are **less likely** to have experienced an impact from the GRC activities on the same aspects of their organisations.

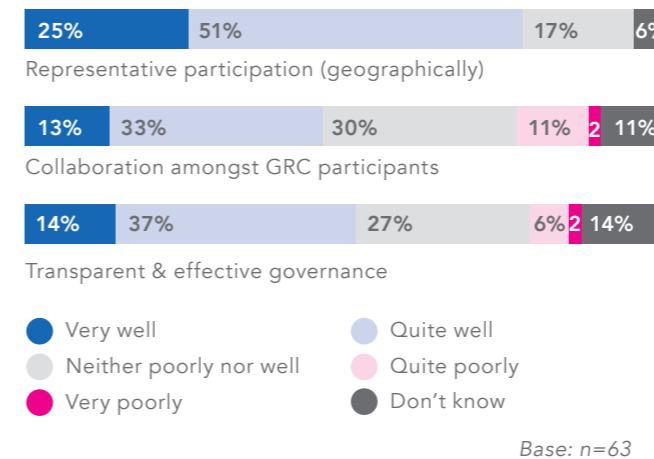
GRC performance in selected areas

In order to assess respondents' views on how well the GRC performs in areas such as representative participation, but also proven impact, reputation and advocacy, participating organisations were asked to provide a score on each aspect, using a five-point scale, with 5 reflecting a very good performance by the GRC.

While the GRC is seen to perform relatively well in the area of **"Representative participation"** (Mean score: **4.08**), performance in the areas of **"Collaboration among GRC participants"** (Mean score: **3.50**) and **"Transparent and effective governance"** (Mean score: **3.65**) are deemed to be poorer.

Respondents in Asia-Pacific (**85%**) and Europe (**80%**) are more likely to consider the GRC to perform well in **representative participation** than respondents in Africa and MENA (**67%**) and the Americas (**63%**).

Table 10: GRC performance in selected areas



Collaboration amongst GRC participants is seen to work well by respondents in Asia-Pacific (**85%**), while all (**100%**) respondents in MENA rate performance in this area as poor.

Respondents in Asia-Pacific (**92%**) and the Americas (**63%**) believe the GRC perform well in the area of **transparent and effective governance**, compared to approximately a third in Europe (**37%**), MENA and Africa (**33%**) respectively.

Indeed, responses from several depth interviews suggested that the GRC had work to do in clarifying the way it is governed, with the following illustrating a commonly held view:

"I know it's an organisation with a steering committee and nominations, but the whole process is not very clear to me and could be better understood."
Anonymous

When rating the GRC's performance in the areas of **"Proven impact"**, **"Reputation"** and **"Advocacy"**, the GRC is considered to perform better at a global than either at a regional or national level.

Overall, the GRC is seen to perform better on **"Reputation"** (Mean score: **3.80**) than either **"Advocacy"** (Mean score: **3.41**) or **"Proven impact"** (Mean score: **3.24**).

Respondents in Asia-Pacific are more likely than respondents from other GRC regions to deem the GRC's **performance regarding reputation** and **proven impact** at either a national, regional or global level to be good.

Respondents in MENA are more likely than respondents from other GRC regions to deem the GRC's **performance regarding advocacy** at either a national, regional or global level to be poor.

Reflecting on current GRC practices

Selection, development, discussion and endorsement of discussion topics

Respondents were asked to provide an assessment of how they rate the GRC's current processes regarding topic discussions from choosing, developing and discussing a topic through to the way the resulting outputs are endorsed.

Table 11: GRC practices in relation to Annual Meetings



The way discussion topics are chosen



The way outputs resulting from topic discussions are endorsed



More than half (55%) of respondents rate the way the discussion topics are chosen for annual meetings as well. Similarly, more than three-fifths (62%) rate the way outputs resulting from topic discussions are endorsed as well.

However, at least 1 in 6 respondents were unable to comment on the way discussion topics are chosen (19%) and the way outputs resulting from topic discussions are endorsed (16%).

Respondents who were positive about the GRC's processes in connection with discussion topics for annual meetings referred in particular to the aspect that attendees can input into the discussion topics prior to the meetings so they are relevant to themselves.

Respondents who reported they thought the GRC's processes in connection with the discussion topics for annual meetings were very poor, poor or neither poor nor well, highlighted the relevance of discussion topics and failure to share discussion topics prior to meetings as being the two areas for improvement for annual meetings.

Participating organisations indicated that they were slightly less satisfied with the choice of discussion topics for regional meetings, than they were with the choice of discussion topics for Annual Meetings.

Respondents are in the main quite positive in terms of their opinion of the way the GRC develops discussion topics and discusses these topics in regional meetings. These two aspects are rated as well by more than two thirds (68%) and almost three quarters (73%) of respondents respectively.

Table 12: GRC practices in relation to Regional Meetings



The way discussion developed



The way discussion topics are discussed



Respondents in Asia Pacific are more likely to be pleased with the GRC's current processes regarding the way topics are developed when compared to other regions. Respondents in MENA are less likely to rate the GRC's processes regarding topic development positively.

The way discussion topics are discussed is rated well across all regions.

For regional meetings, allowing for a focused discussion on specific topics is particularly valued.

Some European organisations reference the involvement of Science Europe in the regional meetings as beneficial.

Less frequent explanations of what works well in regional meetings included for instance the inclusion of subject experts, the fact that the requirements of developing countries are taken into account, but also that the topics are made available on time.

The relevance of discussion topics specifically for each region was a key area for improvement in regional meetings.

The interconnection of meetings

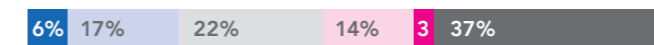
Respondents were asked to provide an assessment of how they rate the GRC's current processes regarding the interconnection of regional and annual meetings as well as follow-up events.

The evaluation of the way regional and annual events in particular are interconnected is fairly mixed. Just over half (54%) of respondents rate the current level of interconnection positively.

Table 13: Interconnection between GRC meetings and follow up events



Interconnection between regional & annual meetings



Interconnection between regional/annual meetings & GRC follow up events



While European respondents are particularly muted in their response concerning the way regional and annual events interconnect, with only two fifths rating it well in this region (40%), more than three quarters of respondents in Africa (78%) and approximately two thirds in Asia-Pacific (69%) and MENA (67%) rated the interconnection positively.

However, when it comes to the interconnection between regional/annual events and the follow-up events, the GRC rated even less positively, with the largest proportion rating the process as 'neither poor nor well' and with less than a quarter (24%) rating it positively.

Respondents from Europe and the Americas are again less likely to consider the connections between regional/annual events and the follow-up events to work well.

A considerable proportion of respondents (18%) are unable to think of any ways in which the GRC could improve the interconnection between meetings and events but a similar proportion (18%) also felt that the GRC could better promote follow-up events by circulating more information. Other popular suggestions centre around improved distribution of invitations, better dissemination of key outcomes and better planning.

In terms of what currently works well in regards to the interconnection between regional and annual meetings, there is a fairly clear consensus that the regional meetings are very good at preparing the topics for the global meetings (49%). Other fairly common commendations to emerge reference the ample time set between meetings and the level of engagement with meetings.

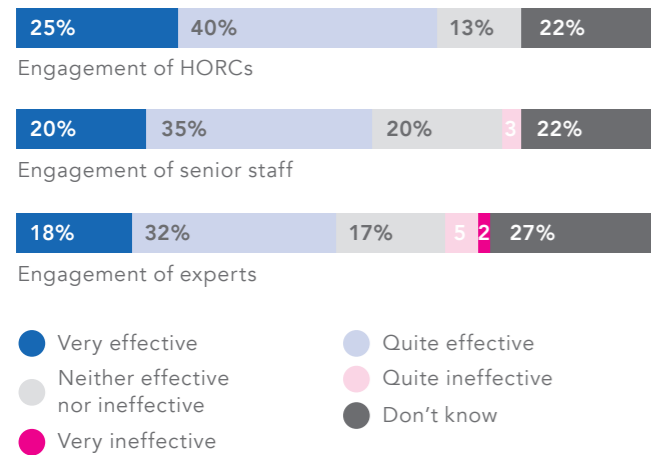
Engagement of GRC participants

When asked how they rate the GRC in terms of the effectiveness of their engagement with various representatives in meeting GRC purposes, respondents have varying opinions depending on the representative in question.

Overall, the **engagement of HORCs** is predominantly felt to be effective with almost two thirds of respondents (**65%**) considering the engagement of HORCs to be either quite or very effective. The **engagement of experts** is deemed to be less effective with only half of respondents considering their engagement to be very or quite effective (**50%**).

The chart below demonstrates the differences between the perceived effectiveness of the engagement by various representatives:

Table 14: Effectiveness of the engagement of GRC representatives



Base: n=60

The perceived effectiveness of the engagement of these representatives appears to vary greatly by region too, with the Asia-Pacific region in particular rating the **engagement of HORCs** highly. This is in contrast to the Americas where there appears to be a far less positive sentiment.

The perceived effectiveness of the **engagement of senior staff** is seen to be higher by respondents in Asia-Pacific and MENA.

The same is the case regarding the effectiveness of the **engagement of senior experts** where respondents in Asia-Pacific and MENA rate this more highly. However, a number of respondents from Asia Pacific (**15%**) deemed the engagement to be ineffective.

In terms of improving the effectiveness of the engagement of HORCs, senior staff and experts, a large proportion of respondents (**28%**) were not able to think of anything in particular. The more frequent suggestions usually centred around the **creation of regional hubs**, the **increased engagement of experts** and **more engagement between meetings**.

Respondents recognise the priority that GRC meetings are given, with the extent to which HORCs and senior staff have given **high priority to (active) participation** being impressive (**31%**). This was by far the leading reason as to why the engagement of GRC representatives was deemed effective.

Time for discussions outside the formal agenda is seen as a further factor that facilitates the effective engagement of GRC representatives, while the **distribution of work** between senior staff, experts and HORCs is also deemed to enhance engagement efficiency.

Considering future GRC directions

Future discussion topics

Respondents were given the opportunity to suggest future discussion topics for GRC meetings. While many suggestions were of a relatively unique nature, respondents quite frequently suggested topics that had been discussed at previous meetings/events, or simply stated that they wished previous topics to be revisited in upcoming meetings.

Research impact assessment and research councils' role in addressing **Sustainable Development Goals** were mentioned by the largest number of respondents overall. A range of further suggestions were made by a handful of respondents each, including:

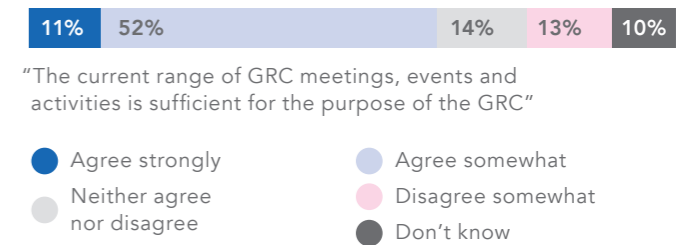
- Assessing models for international collaboration
 - Open science/data
 - Strategies for funding research
 - Research ethics and research integrity
 - Mega science infrastructure facilities in advancing international cooperation
 - Linking science, technology and innovation to industry
- Other suggestions included: Standards and guidelines for **research evaluation**, **research mobility** and **science and society**.

Sufficiency of meetings and events for GRC purposes

Respondents were further encouraged to provide feedback on whether they thought the current range of meetings, events and activities were sufficient for the purposes of the GRC.

Overwhelmingly (**63%**), respondents agreed that the range of meetings and activities were sufficient for the purposes of the GRC, with approximately 1 in 10 respondents (**13%**) believing these to be insufficient.

Table 15: Sufficiency of GRC meetings, events and activities



"The current range of GRC meetings, events and activities is sufficient for the purpose of the GRC"

Base: n=63

Participating organisations from Africa (**78%**) and Europe (**73%**) were most likely to be satisfied with the range of events. In contrast, almost a third (**31%**) of respondents from Asia-Pacific disagreed with the notion that the current range of GRC events were sufficient.

Participating organisations who understood the range of meetings, events and activities to be sufficient for GRC purposes referred to the **time and cost implications (15%)** associated with these meetings as one reason for why they were sufficient for the GRC purposes. Others simply stated that the range seemed to **fulfil GRC objectives (13%)**. Around 1 in 10 suggested that meetings and events are a **valuable platform for communication and collaboration** with other research councils. Other comments made by a small number of respondents included the suggestion that activities are **sufficient for updating knowledge** and **strong networking among HORCs**, and that **preparatory regional meetings** are needed to have good GRC meetings.

Appendix 1: Overview of past topics and related outputs

The general consensus amongst participants in the qualitative phase of research is that the number of GRC meetings is more than sufficient, and indeed an increase in the number of meetings would potentially decrease the likelihood of participants' involvement due to the relatively significant preparations required to make the current range of meetings a success. The following quote is reflective of a large proportion of respondents' views:

"How much time, effort and resources would need to be put into effectively participating in these meetings are key considerations in establishing the nature and extent of our involvement with the GRC."

Anonymous

Resources dedicated to the GRC

At least half of all responding organisations agreed that the resources dedicated to the GRC were either sufficient to **achieve the intended purposes of the GRC (50%)**, or indeed sufficient to **ensure the organisation and follow up of meetings and activities (56%)**.

Opinion amongst respondents in some GRC regions appears to be split over the sufficiency of GRC resources to **achieve the intended purposes of the GRC**, with more than two-fifths (**43%**) of respondents in the Americas agreeing, yet almost a third (**29%**) disagreeing on this issue. Similarly in Europe, half of respondents (**50%**) agree with the sufficiency of resources, yet almost 2 in 10 (**18%**) disagree.

DJS Research conducted a detailed assessment of each output, with the aim of identifying common and frequently referred to themes across all outputs. The assessment was conducted chronologically, starting with the first Statement of Principles on Scientific Merit Review published at the Global Summit hosted by the U.S. National Science Foundation, in 2012.

The intention is to understand whether and how the principles and actions agreed on at one year's Annual Meeting are linked to or revisited in the topics selected for and outputs flowing from subsequent years' Annual Meetings.

Table 16: Sufficiency of resources dedicated to the GRC

"The resources dedicated to the GRC (i.e. virtual organisation, relying on the (personal) engagement of HORCs, senior staff members and individual organisations) are sufficient to achieve the intended purposes of the GRC."



"The resources dedicated to the GRC (i.e. virtual organisation, relying on the (personal) engagement of HORCs, senior staff members and individual organisations) are sufficient to ensure the organisation and follow up of meetings and activities."



- Agree strongly
- Agree somewhat
- Neither agree nor disagree
- Disagree somewhat
- Disagree strongly
- Don't know

Base: n=60

Figure 1 provides a visual assessment of the links between agreed principles, actions and subsequent year's topics. The chart only includes principles and actions that are clearly linked to principles or actions raised in subsequent years. All principles and actions displayed are physically linked to the respective research topic and year in which they were agreed.

In contrast, the colour coding indicates when the theme of the respective principle or action was first discussed, e.g. the principle of Nurturing research integrity, flows out from the principle of Integrity, included in the first Statement of Principles on Scientific Merit Review published at the Global Summit in 2012, and therefore both principles are coded using the same colour. Finally, the link between a topic and principle discussed in a previous year is indicated using a bold line.

Figure 1: Common and frequently referred to themes across GRC outputs (right)



2012: Scientific Merit Review

In 2012, the GRC held a Global Summit on *Scientific Merit Review*.

The principle of *Integrity*, becomes the main topic of the 2nd Annual Meeting the following year, discussing *Research Integrity*.

This topic is mentioned again in the principle *Review and Evaluation* in the Statement of Principles for Funding Scientific Breakthroughs at the 4th Annual Meeting in 2015.

2013: Research Integrity

The topic of the 2nd Annual Meeting in 2013 is *Research Integrity*.

Having first been mentioned in the 2012 Global Summit on *Scientific Merit Review*, *Research Integrity* is highlighted again in the actions of the 4th Annual Meeting in 2015, discussing *Building Research and Education Capacity* under the principle *Sharing good practice in research management*, with research integrity being an “essential component of research management practices”.

The principle of *Education*, i.e. promoting training in research integrity, can be found again in the *Statement of Principles and Actions for Shaping the Future: Supporting the Next Generation of Researchers, 2014*, under the principle of *Nurturing research integrity*.

Furthermore, the first principle on *Freedom, Flexibility, Risk-taking* of the 4th Annual Meeting in 2015 on *Funding of Scientific Breakthroughs* mentions integrity as being necessary in the “implementation of publicly funded projects”.

2013: Action Plan towards Open Access to Publications

The *Action Plan towards Open Access to Publications* was endorsed during the 2nd Annual Global Meeting in Berlin in 2013.

Action 2 of the *Action Plan* discusses remuneration of researchers in the context of the researcher’s career and is therefore linked to the 2014 topic of *Shaping the Future*.

Integrity is raised in *Action 8*, and in particular in relation to protecting integrity of publications, linking this action to the 2013 topic of *Research Integrity*.

Action 12 discusses the ability to assess impact of research, linking it to the principle of *Review and Evaluation*, endorsed in the 2016 *Statement of Principles on Interdisciplinarity*.

Action 13 discusses the need to measure the impact, and how open access implementation enhances *collaboration*, a theme addressed in principles in the 2013 *Statement of Principles on Research Integrity*, the 2015 *Statement of Principles on Funding of Scientific Breakthroughs*, as well as the 2015 *Statement of Principles on Building Research and Education Capacity*.

The *Action Plan* highlights throughout the need to access *infrastructure*, linking it to the 2015 topic of *Building Research and Education Capacity*, which in turn discusses “*integrating robust capacity building approaches within infrastructures, networks and centers of excellence to set the conditions for better access to and sharing of these assets*”.

2014: Shaping the Future: Supporting the Next Generation of Researchers

The topic of the 3rd Annual Meeting in 2014 is *Shaping the Future*. Several principles of this topic can be identified in the topics and principles of other Annual Meetings and Statements.

The principle *Attracting and retaining the best talents in all their diversity* which relates to equal opportunities is developed further in one of the two topics of the 2016 Annual Meeting regarding *Promoting the Equality and Status of Women in Research*.

The 2014 principle of *Developing interdisciplinary research* resurfaces in the other 2016 Annual Meeting topic of *Interdisciplinarity*.

The 2014 principle of *Facilitating mobility* can be found in the 2015 actions resulting from the *Building research and education capacity* statement, which include staff exchange programmes.

Lastly, the 2014 principle of *Nurturing research integrity* flows out from the topic of the 2nd Annual Meeting in 2013, *Research Integrity*.

2014: Review of Implementation of the Action Plan towards Open Access to Publications

The *Action Plan towards Open Access to Publications* was reviewed at the 3rd Annual Meeting in Beijing in 2014.

The *Review of Implementation of the Action Plan* discusses in the key finding *Broad Implications*, how open access intersects with peer review, research integrity and career progression, aspects of the research ecosystem that were addressed in the topics of *Scientific Merit Review* (2012), *Research Integrity* (2013) and *Shaping the Future* (2014) respectively.

2015: Building Research and Education Capacity

The first topic of the 4th Annual Meeting in 2015 is *Building Research and Education Capacity*.

All three principles of the 4th Annual Meeting in 2015 are linked to topics from other years: the principle of *Collaboration, partnerships and networking* can also be found in the principles endorsed at the 2nd Annual Meeting on *Research Integrity* in 2013, in the form of *International Cooperation* to support and facilitate research integrity worldwide. It also links to the principle of *Partnership with Stakeholders*, part of the *Statement of Principles for Funding Scientific Breakthroughs* also discussed at the 4th Annual Meeting, 2015.

The principle of *Sharing good practice in research management* refers to research integrity as “an essential component of research management practices” and can therefore also be seen to flow out of the 2nd Annual Meeting on *Research Integrity* in 2013.

The principle of *Funding across the entire research pipeline to ensure the sustainability of research and education capacity* is related to the 2015 principle of *Diverse Portfolios of Funding Approaches*, as found in the *Statement of Principles for Funding of Scientific Breakthrough*, endorsed at the same Annual Meeting in 2015. This last principle also mentions the development of researchers which was the topic of the 2014 *Statement of Principles and Actions for Shaping the Future: Supporting the Next Generation of Researchers*.

2015: Funding of Scientific Breakthroughs

The second topic of the 4th Annual Meeting in 2015 is *Funding of Scientific Breakthroughs*.

All five principles of the 2015 *Statement of Principles for Funding Scientific Breakthroughs* are linked to topics from other years: the first principle *Freedom, Flexibility, Risk-taking* refers to *Integrity*, which was endorsed at the 2nd Annual Meeting, 2013 and *Interdisciplinarity*, which was endorsed at the 2016 Annual Meeting on *Interdisciplinarity*.

The second principle, *Diverse Portfolio of Funding Approaches*, links to the 2016 principle of *A diverse approach to research*, which was endorsed at the 2016 Annual Meeting on *Interdisciplinarity*, and to the 2015 principle of *Funding across the entire research pipeline to ensure the sustainability of research and education capacity*, recorded in the *Statement of Approaches: Building Research and Education Capacity*, endorsed at the 4th Annual Meeting.

The third principle of *Review and Evaluation* builds on the *Scientific Merit Review* Statement, published at the Global Summit on Merit Review in 2012.

The fourth principle of *Partnership with Stakeholders* is linked to the 2015 principle of *Collaboration, partnerships and networking* which refers to partnerships with “other agencies and institutions”, and is recorded in the *Statement of Approaches: Building Research and Education Capacity*, 2015.

The principle of *Partnership with Stakeholders* also refers to the *Action Plan towards Open Access to Publications*, published at the 2nd Annual Global Meeting, 2013.

The fifth principle of *International Collaboration* relates to the 2015 principle of *Collaboration, partnerships and networking* endorsed in the *Statement of Approaches: Building Research and Education Capacity* at the 4th Annual Meeting, 2015, as well as *International Collaboration* in relation to *Research Integrity*, highlighted at the 2nd Annual Meeting, 2013.

The fifth principle of *International Collaboration* also mentions diversity initiatives which is related to the 2014 principle of *Attracting and retaining the best talents in all their diversity*, recorded in the *Statement of Principles and Actions for Shaping the future: Supporting the Next Generation of Researchers*, 2014, and the 2016 topic of *Promoting the Equality and Status of Women in Research*.

Furthermore, the fifth principle includes the action that GRC participants should provide “access to core research facilities and infrastructures”, infrastructures being a topic raised in the 2014 principle *Promoting a high-quality professional environment*, including an “appropriate physical infrastructure”, as recorded in the *Statement of Principles and Actions for Shaping the future: Supporting the Next Generation of Researchers*, 2014. Infrastructures are again mentioned in the 2016 principle *Research infrastructures* in relation to *Interdisciplinarity*.

2016: Interdisciplinarity

The first topic of the 5th Annual Meeting in 2016 is *Interdisciplinarity*.

The principle of *A diverse approach to research* is linked to the principle of *A Diverse Portfolio of Funding approaches*, endorsed in the 2015 *Statement of Principles for Funding Scientific Breakthroughs*.

The principle of *Research infrastructures* also appears in the 2014 principle of *Promoting a high-quality professional environment* which includes an “appropriate physical infrastructure”, part of the 2014 *Statement of Principles and Actions for Shaping the Future: Supporting the Next Generation of Researchers*.

The principle of *Review and Evaluation* links back to the 2012 topic of *Scientific Merit Review* endorsed at the Global Summit, and the principle of *Career development* follows on from the 2014 *Statement of Principles and Actions for Shaping the future: Supporting the Next Generation of Researchers*.

2016: Promoting the Equality and Status of Women in Research

The second topic of the 5th Annual Meeting in 2016 is *Promoting the Equality and Status of Women in Research*.

The second topic of the Annual Meeting in 2016 flows from the second principle of the 2014 *Statement of Principles and Actions for Shaping the Future: Supporting the Next Generation of Researchers*, i.e. *Attracting and retaining the best talents in all their diversity which addresses equal opportunities*.



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