

Structure-Function Analysis of SEFARI

A report to The Scottish Government

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Glossary of Abbreviations and Acronyms

ABRG: Agricultural & Biological Research Group

ARD: Agriculture and Rural Delivery Directorate

BioSS: Biomathematics and Statistics Scotland

CoE(s): Centre(s) of Expertise

CKEI: Centre for Knowledge Exchange and Impact

DEC: Directors' Executive Committee

ECC: Energy and Climate Change

ECCLR: Energy, Climate Change and Land Reform

ENFOR: Environment and Forestry

HRI: Hannah Research Institute

JHI: James Hutton Institute

MLURI: Macaulay Land Use Research Institute

MRI: Moredun Research Institute

MRP(s): Main Research Provider(s)

RAE: Rural Affairs and Environment

RAFE: Rural Affairs, Food and Environment

RBGE: Royal Botanic Garden Edinburgh

RD: Research Deliverable

REC: Rural Economy and Connectivity

RERAD: Rural and Environment Research and Analysis Directorate

RESAS: Rural and Environment Science and Analytical Services

RINH: Rowett Institute of Nutrition and Health

RO: Required Output

SAB: Strategic Advisory Board for RESAS-funded science

SABRI(s): Scottish Agricultural and Biological Research Institute(s)

SAC: Scottish Agricultural College

SCRI: Scottish Crop Research Institute

SEERAD: Scottish Executive Environment and Rural Affairs Department

SEFARI: Scottish Environment, Food and Agriculture Research Institutes

SG: Scottish Government

SRPB: Strategic Research Programme Board

SRUC: Scotland's Rural College

SSAP: Strategic Science Advisory Panel (SEERAD / RERAD programmes)

1 Introduction

In May 2019, the Scottish Government commissioned a study to conduct a structure-function analysis of the Scottish Environment Food and Agriculture Research Institutes (SEFARI).

1.1 SEFARI Context

The Scottish Government's Rural Affairs, Food and Environment (RAFE) research strategy for 2016-2021 informs its expected five-year investment of over £250 million in a Strategic Research Portfolio composed of the following elements:

- A Strategic Research Programme and associated Centre for Knowledge Exchange and Impact (CKEI), delivered principally through six main research providers (MRPs)¹
- Underpinning Capacity funding of MRPs to sustain infrastructures considered essential to current and future research outputs
- Four Centres of Expertise (CoEs)² designed to focus resources from across the publicly funded research sector in areas of high policy importance
- A Contract Research Fund, providing flexibility to commission short-term policy led projects.

SEFARI, developed as an entity that would sharpen the collective focus of MRPs in delivering and communicating their Strategic Research Programme contributions, was launched by the Cabinet Secretary for the Environment, Climate Change and Land Reform in March 2017. The funded CKEI element of the Strategic Research Programme was re-positioned as SEFARI Gateway, currently described³ as the knowledge exchange and impact hub for SEFARI.

1.2 Objectives of the Study

The objectives of this study are to:

- Understand the spectrum of research and knowledge exchange activities performed by MRPs and other research providers in the context of the Strategic Research Portfolio

¹ Biomathematics and Statistics Scotland (BioSS); James Hutton Institute (JHI); Moredun Research Institute (MRI); Rowett Institute for Nutrition and Health (RINH); Royal Botanic Garden Edinburgh (RBGE); Scotland's Rural College (SRUC).

² CREW Centre of Expertise for Waters; ClimateXChange Centre of Expertise on Climate Change; The Plant Health Centre of Expertise; EPIC Centre of Expertise for Animal Disease Outbreaks.

³ <https://sefari.scot/sefari-gateway>

- Analyse how the research providers currently relate their research and knowledge exchange activities to the MRP collective identity as SEFARI, and how they benefit from this collective identity
- Identify opportunities to optimise the design of the next cycle of funding beyond 2021 to deliver the best outcomes, drawing on the MRPs and joint SEFARI activity, alongside the CoEs and other bodies

Following a 2019 review of the funding models of RESAS-funded science⁴, and in order to understand the complex landscape for SEFARI research, we need to understand: the interactions of the Strategic Research Portfolio with stakeholders; the contributions of MRPs, CoEs, the SEFARI and SEFARI Gateway to the knowledge exchange and impact agenda of the Strategic Research Portfolio; and how strategic intent and value of the SEFARI identity can be best realised and contribute to the next cycle of funding (2021 onwards).

1.3 Methodology

The research project was conducted in two phases.

First, we used desk-based analyses of publicly-available documents to review and map out key actors engaged in the selected areas of research and knowledge exchange. This was analysed against Scottish Government food, environment and agriculture research strategies articulated since 2005. We paid particular attention to the governance arrangements in place to guide research and knowledge exchange activities in successive programmes and to key operational responses elicited by those arrangements. The results of these analyses are presented in Section 2.

Second, we conducted semi-structured interviews to ask: how Scottish Government, MRPs, CoEs and SEFARI / SEFARI Gateway interact within the Strategic Research Portfolio; and how they perceive the current and future utility of the SEFARI identity in the context of those interactions.

Interviews were conducted in the following groups: (i) representatives of Scottish Government RESAS and related policy teams; (ii) directors, deputy directors (or equivalent) and scientific staff of MRPs; (iii) directors and deputy directors (or equivalent) of CoEs; and (iv) current and former staff of SEFARI Gateway. Interview questions posed to each of these groups are provided in Appendix 2. Key findings from 26 recorded and transcribed interviews are presented in Section 3.

1.4 Structure of Report

Section 2 maps out the key actors and activities of RESAS-funded research, and analyses the historical background of the RESAS-funded research landscape. Key findings from the interviews are presented in Section 3. Observations from Sections

⁴ “Implications for current funding model and providers”, presented as notes 48-50 in the May 2019 report of the SAB <https://www.gov.scot/publications/report-strategic-advisory-board-resas-funded-science-supporting-evidence-commentary/>

2 and 3 are discussed in Section 4, and Section 5 presents the conclusions and recommendations

2 Mapping the Strategic Research Landscape

The first phase of the study mapped the spectrum of key actors and activities in the evolving Scottish Government, RESAS-funded research landscape. The historical contexts and emphases of successive Scottish Government research strategies are reviewed in Section 2.1. The governance arrangements put in place in successive Strategic Research Programmes and Portfolios are summarised in Section 2.2, and their influence on the SEFARI research landscape where MRPs and other actors interact in Section 2.3.

2.1 Scottish Government Research Strategies 2005-2021

The structure of successive Strategic Research Programmes and Portfolios in the area of environment, food and agriculture is outlined in Table 1.

The Scottish Executive Environment and Rural Affairs Department (SEERAD) was, until 2007, responsible for advising ministers on policy relating to agriculture, rural development, food, the environment and fisheries and for ensuring the implementation of those policies in Scotland. SEERAD's strategy for biological research for 2005-2010 signalled a departure from earlier project-based, grant-in-aid approaches by introducing commissioned programmes of work for which the Scottish Agricultural and Biological Research Institutes (SABRIs) were invited to submit proposals. The change in strategy⁵ was signalled as follows:

“In the past, research funded has aligned to changing needs through changes to the remits, missions and scientific disciplines employed by the Main Research Providers (MRPs). They reflected the views of the MRPs themselves and their capability and aspirations rather than being primarily informed by the Government's overriding concerns. This approach is no longer appropriate”.

The reorganisation of Scottish Government Directorates after 2010 resulted in their research strategies being assigned to cross-directorate portfolios, viz. Rural Affairs and Environment (RAE, 2011-2016) and Rural Affairs, Food and Environment (RAFE, 2016-2021). Further adjustment of Scottish Government Directorate titles resulted in the RAFE remit being split across two portfolios – Rural Economy and Connectivity (REC) and Environment, Climate Change and Land Reform (ECCLR), each subject to scrutiny by a Scottish Parliament committee.

Since 2011, Scottish Government research strategies have been delivered through commissioned Strategic Research Portfolios in which MRP-delivered Strategic Research Programmes were complemented by investment in Centres of Expertise, Strategic Partnerships, Innovative Partnerships and Underpinning Capacity.

⁵ <https://www2.gov.scot/Topics/Research/About/EBAR/StrategicResearch/research-strategy/programmes>

When their pre-2011 designation as SABRIs ended, MRPs adopted the Scottish Environment, Food and Agriculture (SEFA) focus for their collective SEFARI identity. CoEs are described in their websites as Scottish Government funded Centres of Expertise in their particular domains.

The RAE (2011-2016)⁶ and RAFF (2016-2021)⁷ research strategy documents placed strong emphasis on the policy and stakeholder relevance of sponsored research and knowledge exchange activities. The focus on knowledge exchange was sharpened by the inclusion of a formal KTE plan in the RAE (2011-2016)ⁱ strategy and a commissioned CKEI – subsequently named the SEFARI Gateway – in the RAFF (2016-2021) Strategic Research Portfolio.

Our mapping of historical documents identified changes in Scottish Government's strategic emphases and their introduction of governance structures that reflect (i) a move away from grant-in-aid and towards commissioned programmes) and (ii) a desire to focus research providers not just on commissioned research but on the associated knowledge exchange and impact agenda. We examine the Strategic Research Portfolio governance arrangements in more detail in the next section.

⁶ <https://www2.gov.scot/Resource/0044/00443642.pdf>

⁷ <https://www.gov.scot/publications/rural-affairs-food-environment-research-strategy-2016-2021/>

Table 1: Strategic Research Programmes and Portfolios, 2005-2021*

	Prior to 2006	2006-2011	2011-2016	2016-2021
Government Department/ Directorate/Portfolio	SEERAD	SEERAD / RERAD	RAE	RAFE (later ECCLR, REC)
Strategy Document	SEERAD Programme of Agricultural, Biological and Related Research	Strategic Research for SEERAD 2005 – 2010	RAE Strategic Research Strategy 2011-2016	RAFE Research Strategy 2016-2021
Governance unit	SEERAD	SEERAD / RERAD	SRPB	SAB
Advisory unit	-	SSAP (2006-2008)	-	-
Administrative Unit	ABRG	ABRG / RESAS	RESAS	RESAS
Main research providers	SABRIs: HRI; MLURI; SCRI; MRI; RINH, BioSS	MRPs: MLURI; SCRI; MRI; RINH; BioSS, SAC; RBGE.	MRPs: JHI; MRI; RINH; SRUC; BioSS.	MRPs: JHI; MRI; RINH; SRUC; BioSS; RBGE.
Other research providers	SAC; RBGE		RBGE; Non-MRP CoE participants	Non-MRP CoE participants
Portfolio descriptor	-	-	Strategic Research Portfolio	Strategic Research Portfolio
Programme descriptor	Programme	Programmes	Strategic Research Programmes	Strategic Research Programme
Commissioned Strategic Research Programme Outputs	-	Required Outputs	Research Deliverables	Research Deliverables
Strategic Research Programme Framework	Projects	Work Packages focused on programme objectives	Work Packages focused on scientific themes	Work Packages focused on scientific themes
Strategic Research Programme Knowledge Exchange Framework	-	Creation of KnowledgeScotland	Knowledge Transfer and Exchange (KTE) Strategy	Centre for Knowledge Exchange and Impact (CKEI)
Other portfolio elements			Centres of Expertise Strategic Partnerships Underpinning Capacity	Centres of Expertise Innovation Partnerships Underpinning Capacity

*For acronyms, refer to glossary at the beginning of the report

2.2 Governance arrangements

The need for a dedicated Strategic Research Portfolio governance structure to sit above the operational level of research providers and RESAS was addressed in both the RAE (2011-2016) and RAFE (2016-2021) research strategies. The RAE strategy refers to the appointment of a Strategic Research Programme Board (SRPB) as the “ultimate governance authority” for the Strategic Research Portfolio. The remit⁸ of the SRPB was to

- Provide oversight and be responsible for giving direction, when required, to different elements of the research portfolio.
- Ensure coordination of the different elements of the research portfolio.
- Receive reports on performance and delivery from each of the different elements of the strategic research portfolio.
- Make decisions to resolve issues that impact on delivery.

The RAE strategy made the newly-established MRP Directors Executive Committee (DEC) accountable for delivery of the Strategic Research Programme element of the Strategic Research Portfolio, in compliance with the (also newly-established) Performance Management Framework (PMF) administered by RESAS. Centres of Expertise (CoEs) and Strategic Partnerships had their own steering groups and/or science advisory panels. Representatives of the MRPs, CoEs and Strategic Partnerships were not included in the membership of the SRPB.

The RAFE (2016-2021) strategy document did not articulate its Strategic Research Portfolio governance arrangements as clearly as its RAE predecessor, although we noted the existence the “RAFE Delivery Board” whose members included the chief executives or equivalent of the main delivery bodies and senior officials from Scottish Government⁹. The RAFE Delivery Board is mentioned in MRP tender documents for both the CKEI and the Natural Assets theme¹⁰ of the Strategic Research Programme, but its governance role is not affirmed. In contrast, proposal documentation for all three science themes and for the CKEI includes an organisation chart (Fig. 1a) that positions the SRPB as the top governance authority. It is unclear whether the SRPB governance authority extended to the entire Strategic Research Portfolio, as the MRP tenders were specific to the Strategic Research Programme element, with few references to Centres of Expertise, Innovation Partnerships or Underpinning Capacity. A later version of the Strategic Research Programme organisation chart (Fig. 1b) replaced the SRPB with a Strategic Advisory Board (SAB), and the website link to the RAE (2011-2016) SRPB¹¹ redirects to

⁸ <https://www.gov.scot/publications/rural-affairs-environment-rae-consultation-research-strategy-2016-2021/pages/14/>

⁹ <https://beta.parliament.scot/parliamentary-debates-and-questions/questions/2017/02/21/s5w07371?qry=RAFE>

¹⁰ <https://www2.gov.scot/Resource/0049/00499278.pdf>

¹¹ <https://www2.gov.scot/Topics/Research/About/EBAR/StrategicResearch/future-research-strategy/Themes/StratResearchProgBoard>

current SAB information. RESAS appears to confirm the portfolio governance role of the SAB in its written response¹² to ECCLR Committee scrutiny of the 2018-2019 Scottish Government draft budget, by stating:

“A Strategic Advisory Board (SAB) chaired by the Chief Scientific Adviser for Rural Affairs, Food and Environment and involving key Scottish Government Directors has been established to have oversight and provide advice on the portfolio investment in science”

The title of the Chief Scientific Adviser (CSA) has since changed to that of CSA for Environment, Natural Resources and Agriculture (ENRA). The SAB¹³ defined its agreed mission in May 2019, stating that it will

- Drive improvements in the quality, relevance, impact, visibility and leverage of the RESAS science research programmes
- Help prioritise areas for strategic research in alignment with policy and stakeholder needs and RAFE portfolio outcomes
- Ensure synergies and opportunities with the wider research landscape are maximised.”

The governance roles of the SRPB and/or the SAB are articulated to different degrees in the foundation documents of successive knowledge transfer and exchange initiatives. The KTE Strategy (2011-2016) document makes no reference to the governance authority of the SRPB and it is essentially a management plan for KTE aspects of the Strategic Research Programme. The RAE Strategic Research Strategy document describes the KTE plan as being “prepared by the MRPs and agreed by RESAS”, suggesting a shared management role for RESAS and the MRPs in its delivery. The governance authority of the SRPB (2016-2021) was explicitly acknowledged in the proposal that led to the creation of the CKEI¹⁴. Management authority (called “internal governance” in the CKEI proposal) was assigned to the MRP Directors’ Executive Committee, as illustrated in Fig. 1a. The exclusive Strategic Research Programme focus also persisted, as did the apparently shared management role of RESAS and the MRPs, in the sense that the CKEI proposal was MRP-prepared and RESAS-agreed. The degree to which RESAS and MRPs share, or indeed contest, management roles in Strategic Research Programme knowledge exchange activities is an open question of relevance to the CKEI’s successor organisation, SEFARI Gateway.

¹²https://www.parliament.scot/S5_Environment/General%20Documents/012_Rural_and_Environmental_Science_and_Analytical_Services.pdf

¹³ <https://www.gov.scot/publications/report-strategic-advisory-board-resas-funded-science-supporting-evidence-commentary/>

¹⁴ A copy of the CKEI proposal was provided directly to us by SEFARI Gateway



Figure 1a Diagram setting out the Governance Structure for Strategic Research Programme 2016-2021

(MRP tender submission <https://www2.gov.scot/Resource/0049/00499278.pdf>)



Figure 1b Diagram setting out the Governance Structure for Strategic Research Programme 2016-2021

(<https://www2.gov.scot/Topics/Research/About/EBAR/StrategicResearch/strategicresearch2016-21/srp2016-21/programmegovernance>)

2.3 Mapping MRP and SEFARI identities to the evolving research landscape

We expected MRP responses to the evolving Scottish Government research landscape to be diverse, given their different identities, histories, research missions and resources, and their varying degrees of dependence on the Strategic Research Programme as a source of funding. Drawing on the web-based study of the six MRPs, we provide an overview of that diversity in Appendix 1.

MRPs responded to heightened expectations around stakeholder engagement in their tendered Strategic Research Programme proposals for both the 2011-2016 and 2016-2021 funding cycles, building a narrative of stakeholder relevance around their scientific themes, work packages and research deliverables. The presentation of research deliverables in the SEFARI website suggests that they are treated as ongoing projects within thematic work packages rather than as tangible outputs of the Strategic Research Programme.

The broad relevance of Strategic Research Programme scientific themes as inputs to Scottish Government policies and policy actions is illustrated in Figure 2. The alignment of research providers (SEFARI and CoEs) and a wide range of external stakeholders with the same set of policies and policy actions is shown in Figure 3.

We were unable to find documentary evidence of the strategic decisions, agreements and briefings that led to the introduction of the SEFARI identity and branding of the CKEI as SEFARI Gatewayⁱ. By late 2017, however, SEFARI was sufficiently recognised as an organisational entity to be invited to comment on the RAFE Strategic Research Portfolio by the ECCLR and REC parliamentary committees, as part of their scrutiny of the Scottish Government draft budget 2018-2019. The SEFARI Gateway Director's responses to the ECCLR Committee¹⁵ described SEFARI as a collective of six Scottish Research Institutes, each with their own global capability, expertise and reputation, with a mission of delivering 'Leading Ideas for Better Lives' in eight sectors (Plant and Animal Health; Rural Economy; Agriculture; Land and Communities; Climate and the Environment; Food and Drink Innovation; Healthier Food; Science Education). The SEFARI Gateway was described in the response document as the knowledge exchange and impact hub set up to coordinate and develop the knowledge exchange and engagement activity of all the SEFARI members.

The depiction of SEFARI as a collective of MRPs with a mission to deliver "Leading Ideas for Better Lives" eschewed the Strategic Research Programme focus of the CKEI in favour of a broader approach based on engagement across eight stakeholder-relevant categories. Notwithstanding this shift in emphasis, SEFARI Gateway inherited the Strategic Research Programme-focused strategy and governance structures originally specified for the CKEI.

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https://www.parliament.scot/S5_Environment/General%20Documents/010_SEFARI.pdf

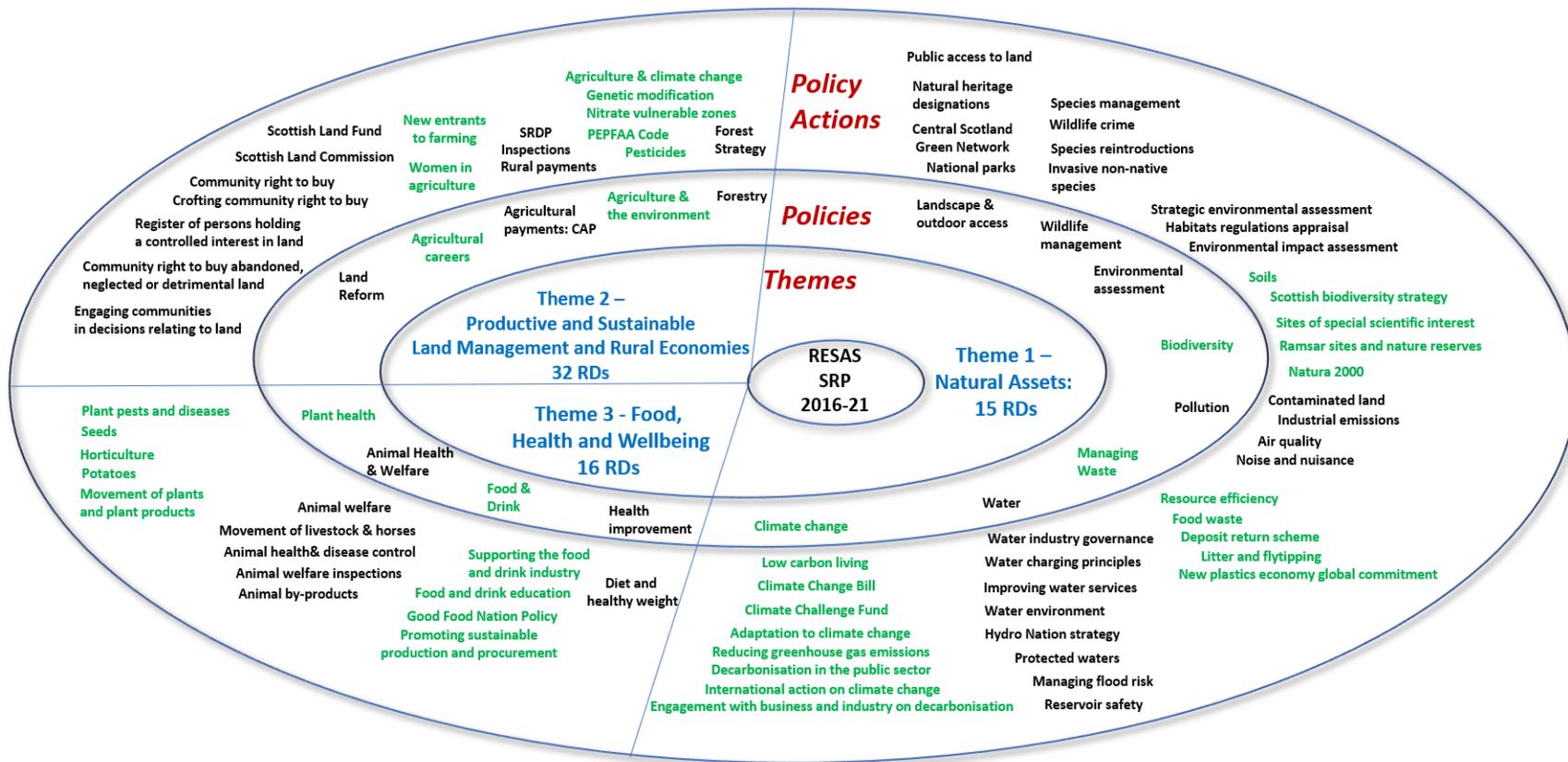


Figure 2 Diagram that Maps the Strategic Research Programme 2016-2021 Science Themes to Scottish Government Policies and Policy Actionsⁱⁱⁱ



Figure 3 Diagram that illustrates how key stakeholders map to Scottish Government policies and policy actions

SEFARI Gateway is currently governed by a Collaboration Agreement¹⁶ in which SEFARI is defined as “the collective Scottish Environment, Food and Agriculture Research Institutes (aka MRPs), as defined by RESAS from time to time”. It is further noted in the Collaboration Agreement that “the Leading Ideas categories (constructs) may be subject to change as necessitated by Gateway knowledge exchange strategy and in agreement with the DEC”.

The current website description of SEFARI is as “a consortium of six globally renowned research institutes”¹⁷. In contrast to the earlier description of the SEFARI Collective and its mission of delivering “Leading Ideas for Better Lives”, the SEFARI Consortium defines its scope as delivery of “the Scottish Government funded Strategic Research Programme”. It is unclear which of the two SEAFARI missions prevails, but we note that scientific content can be searched in the SEFARI website using either (Strategic Research Programme) RDs or “Leading Ideas” filters.

SEFARI acknowledges its position as a partner in the wider Strategic Research Portfolio, alongside CoEs and SEFARI Gateway. SEFARI Gateway is described as an independent partner in the Strategic Research Portfolio, notwithstanding its embedded role as knowledge exchange and impact coordinator for the Strategic Research Programme. This role addresses the original CKEI remit by presenting scientific progress in the context of Strategic Research Programme RDs and seeking to act as a “shop front” for the Strategic Research Programme.

A RESAS-convened review¹⁸ of SEFARI’s first two years of operation, conducted in 2018, focused its attention on SEFARI Gateway. The review panel expressed concern that SEFARI Gateway was building a brand for the MRPs, rather than for the Strategic Research Programme and the wider Strategic Research Portfolio. The current SEFARI Gateway web page (within the SEFARI website) does little to allay that concern, stating that SEFARI Gateway “aims to enhance the existing strong brands and reputations of the Institutes by adopting a dynamic, innovative, cooperative and collaborative approach that has policy, business and public engagement at its core”.

¹⁶ Kindly provided to us by SEFARI Gateway with permission of the DEC

¹⁷ <https://sefari.scot/about-us>

¹⁸ Kindly provided to us by RESAS

3 Interview Findings

In the second phase of the study we sought to augment the observations from our desk-based analyses with findings from 26 semi-structured interviews, conducted in the autumn of 2019. We sought the views of four stakeholder groups (Scottish Government/RESAS, MRPs, CoEs and SEFARI Gateway) on the dynamics of the Strategic Research Portfolio and their individual and collective contributions to it. Quotes from interviewees are presented in italics.

We present the main findings as follows: (i) we identify different actors within the Strategic Research Portfolio, paying particular attention to MRPs' views on the Strategic Research Programme and the roles and interactions of MRPs and CoEs; (ii) we elucidate different actors' perceptions of SEFARI and SEFARI Gateway; and (iii) we investigate stakeholder perceptions of the Strategic Research Portfolio governance arrangements that were the subject of the desk-based analysis in Section 2.

We tailored our questions (see Appendix 2) to the four stakeholder groups as follows:

- MRPs and CoEs were asked for their perceptions of Strategic Research Portfolio governance, their contributions to the Scottish Government policy arena, their interactions with internal and external stakeholders, and the perceived challenges of achieving a balance between the scientific excellence and policy-relevance of their outputs.
- Current and former SEFARI Gateway staff were asked about their knowledge exchange coordination roles within the Strategic Research Programme and across the Strategic Research Portfolio.
- Scottish Government (primarily RESAS) were asked about the design and governance of the current Strategic Research Portfolio and the balance among its component parts, paying particular attention to the key differences between the Strategic Research Programme and CoE contributions.

3.1 Actors and dynamics of the Strategic Research Portfolio

The findings in this section address MRPs' views on the Strategic Research Programme and the perceived roles and interactions of MRPs and CoEs within the wider Strategic Research Portfolio.

3.1.1 MRPs' views on the Strategic Research Programme

All MRPs were able to articulate, in a general way, the link from their RESAS-funded Strategic Research Programme themes to Scottish Government policy areas. This link was much better articulated by those who identified specific Scottish Government policy groups as their immediate stakeholders – i.e., those that would naturally receive attention as part of an MRP's individual mission.

The question “what is the Strategic Research Programme?” was posed to our MRP interviewees and generated answers ranging from “a pot of money” to “a lever for

additional external (MRP) resources” to “a network of scientists”. None of these responses approached the idea of “a coherent programme” expressed by RESAS.

Those responding in terms of the Strategic Research Programme being a “pot of money” conveyed the sense that scientists were conducting research on behalf of their individual institutes, within the RESAS funding envelope. There was little sense that the Strategic Research Programme was constituted as a consortium set up to pursue goals above and beyond those of its members:

“It's not like a Horizon 2020 or RCUK proposal where (we say) ‘this is what we want to achieve’” - MRP

Those who saw the Strategic Research Programme as a “lever for additional resources” understood that this included creation of policy linkages within and beyond Scotland, not just for their own institute:

“We argue very strongly, both institutionally and personally, that the Strategic Research Programme acts (not only) as a means of us leveraging additional research funding but acts as a means of us leveraging additional linkages into other aspects, not necessarily just of Scottish policy but other policy spheres whether it's in the UK or Europe” - MRP

The “network of scientists” answer draws attention to the bigger question of whether the Strategic Research Programme can be seen as an organisational actor in its own right (e.g., a consortium, rather than simply a network of scientists benefitting from their institutes’ RESAS funding):

“I would say it's probably a series of actors rather than a single one. I don't think it's probably achieved a unitary state as an individual actor” – MRP

Underpinning Capacity funding was not included the main scope of this study, but it was mentioned several times in answers to Strategic Research Programme questions.¹⁹ In most cases respondents saw Underpinning Capacity as being closely aligned with the Strategic Research Programme, in the sense that you can't have the latter without the former. One Scottish Government respondent also noted some “opacity” as to what was considered Underpinning Capacity, and the use of this category as a “flexible fund” was mentioned in this context. Much of what MRPs do under the heading of Strategic Research Programme could be viewed as the provision of underpinning capacity (research infrastructures, including people and skills) for RESAS-funded science.

3.1.2 Roles and interactions of MRPs and CoEs

In contrast to the broad thematic approach of the Strategic Research Programme, Centres of Expertise focus on “rapid response” to pressing policy questions and challenges pertinent to specific Scottish Government policy teams and other immediate stakeholders. In keeping with their individual operating models, they are

¹⁹ BioSS. receives “Underpinning Capacity” funding however some BioSS funding is directly linked to SRP deliverable and reported on in the RDF .

involved (according to their different operating models) in providing direct policy advice, commissioning short-term research projects or maintaining their own responsive research capacity. The fact that the CoE consortia are distinct organisational entities with their own governance structures insulates them, and perhaps isolates them, from the wider governance concerns of the Strategic Research Portfolio.

We asked MRPs and CoEs about their interactions in the context of the Strategic Research Portfolio. Both groups were aware of the desirability of these interactions while noting that the Strategic Research Programme and CoEs were historically uncoupled due to their separate funding and governance arrangements and different research timescales. A Scottish Government interviewee commented on this apparent disconnect:

“Yes I think I think that's fair to say (that there's a disconnect) although we expect, but maybe have to push a bit, that (between) these strategic researchers and Centres of Expertise that there's a continuous exchange” – SG.

Another Scottish Government respondent advocated structural change in the balance of long and short term research across the Strategic Research Portfolio:

“So you know these two things sit so far apart from each other. There is a massive challenge in trying to bring these two things together. And this is part of what we're seeing right now is that policy can only naturally see about two or three years in advance, if you're really looking. And obviously we have examples at the minute where two or three years feels pretty far off. But researchers tend not to think in those same timescales, so we need to find (balance) between those. And so I think what we need to be able to do is have a much better mixture of commissioning than we do currently have, where 60-70 percent of our funding is in strategic longer term research” – SG.

Competition for scarce funding is an obvious source of tension between MRPs and CoEs:

“I think that's where we see our frustration with the Centres of Expertise lie, and the funding structure has been very prescriptive for RESAS, which resulted in us being excluded from the (named) Centre of Expertise. We thought we had a very valid case to be members” - MRP

CoE respondents were generally enthusiastic about cross-CoE collaboration, seeing this as both desirable and possible, albeit somewhat constrained by incompatible funding models and project durations across the different CoEs. Coordination across CoEs, and ultimately across the Strategic Research Portfolio, also helps mitigate what one CoE respondent referred to as “stakeholder fatigue”. Another CoE interviewee noted the importance of trust in establishing effective cross-CoE working arrangements:

“we have to maintain a relationship with (other CoEs), so that customers don't get confused about who they should come to. And that comes down to personal relations. And whether the Centres want to work together or don't want to work together. And that tends to be driven by personal choice”

We asked both MRP and CoE interviewees about the existence of tension between maintaining both scientific excellence and policy relevance in their research outputs.

Such tension was generally acknowledged and respondents generally agreed that achieving the balance between excellence and relevance requires a nuanced approach to incentives at the institutional level. CoEs were generally confident about achieving the excellence-relevance balance, perhaps due to their operational models of choosing projects and participants in a way that minimises tensions:

“And so our model has always been 'get the community functioning', and that's the science community and the policy community to build the network and then identify what the challenges are, what the key priority areas are. Then, through the community, work to a consensus of what that means, and then by having that consensus know what the output should be for maximum impact” - CoE

Sectoral differences between universities and the MRPs were also acknowledged in the excellence vs relevance context, partly as a result of university-based scientists needing their outputs to qualify for REF assessments. Extension of UKRI funding eligibility to MRP-based scientists is not yet seen as promoting the more individualistic academic focus perceived as existing in universities:

“I think I wouldn't see it (MRPs) like a university segment where their focus is very much more on the fundamental research but (also) in a very much more individualistic way. I've always seen university departments as being led by the individuals and the research is very much led by the individuals, whereas in the institutes everybody knows that there is this an overriding Government program and things have to fit into that. So it is a different kind of environment” - MRP

3.2 Perceptions of SEFARI and SEFARI Gateway

All four of our stakeholder groups (MRPs, CoEs and SEFARI Gateway and Scottish Government) were asked (see Appendix 2) for their views on the vision that inspired the introduction of the SEFARI and SEFARI Gateway entities, and on the realised and potential future value of these entities to stakeholder activities and interactions across the Strategic Research Portfolio. The main findings are grouped thematically below.

3.2.1 SEFARI^{iv}

MRP interviewees generally understood the vision behind SEFARI as being the creation of an organisation to better represent the collective activities of the MRPs in delivering RESAS-funded science (as represented by the Strategic Research Programme). This vision did not appear to encompass the individual and collective activities of CoEs in the Strategic Research Portfolio.

When asked whether, or how well, this vision had been realised, interviewees consistently noted the emergence of the SEFARI identity as a collective brand for the MRPs.

MRPs generally embraced SEFARI as their collective brand. Most understood it as applying only to their RESAS-funded activities (represented by the Strategic Research Programme), and not to other partnerships that they might enter with each other and with third parties:

“We have a wide range of other national and international partnerships and SEFARI is seen as just one of those partnerships rather than an overall branding for the Institutes” – MRP

CoEs that recognised SEFARI as a collective brand for MRPs also understood its scope to be restricted to the Strategic Research Programme and therefore not of direct relevance to their activities. CoEs generally engaged with individual institutes rather than with the SEFARI collective:

“So in what way has SEFARI impacted (my CoE)? Not really at all because I still deal individually with people from (the MRPs). Obviously the SEFARI collective, as such, don’t have anybody in (my CoE)” – CoE.

One Scottish Government respondent expressed concern that the SEFARI identity drew insufficient attention to RESAS-funded science:

“In my book because the very thing we didn’t want was, we didn’t want the institutes; we wanted the program to be at the front” - SG

3.2.2 SEFARI Gateway

There was little consensus among interviewees around the difference between SEFARI and the SEFARI Gateway. This confusion may be due to the “chicken and egg” relationship between the two entities. It appears that the SEFARI brand was developed and applied to MRPs in the context of the Strategic Research Programme, with little subsequent development of the SEFARI vision and mission. Meanwhile the brand was quickly applied to SEFARI Gateway, which could draw on the CKEI governance structure and funding, effectively retrofitting the CKEI mission to SEFARI.

We asked interviewees about their expectations for SEFARI Gateway at its inception, and how these expectations had been met in its first years of operation. Four general areas were identified:

(i) Delivery of research products and information

Scottish Government and MRP interviewees had strong transactional expectations. Both RESAS and the MRPs expected SEFARI Gateway to deliver on its CKEI-derived obligations (principally with respect to the Strategic Research Programme):

“And part of the whole thing about wanting to improve knowledge exchange and translation was to get the institutes - you know, they are the people who were doing the work - to do the communication. And SEFARI Gateway is part of that” - SG

(ii) Promotion of the delivery organisation(s)

Scottish Government and MRPs had similar expectations but differed in their views on how well these expectations were being met. Scottish Government expected the SEFARI Gateway to provide a “shopfront” for RESAS-funded science, exemplified by the Strategic Research Programme. They expressed the need for the value of their investment in research to be recognised by the public – effectively nominating the Strategic Research Portfolio delivery organisations (including the Strategic Research Programme, CoEs and RESAS) as the ones to be collectively promoted.

MRPs were largely content with the MRP-oriented promotion provided by SEFARI Gateway, but did acknowledge the need to expand efforts to promote the wider collective:

“The focus on Gateway, delivering the Gateway, having to focus on (the wider) Portfolio, was very much part of the last review process (2018 SEFARI Review). It was just very strongly signalled that this money came from Scottish Government to promote the wider entities, include other universities as well” - MRP

(iii) Development of collective identity

The expectation that SEFARI Gateway might promote cohesion among the Strategic Research Portfolio delivery organisations was expressed more strongly by CoEs and SEFARI Gateway itself than by Scottish Government and the MRPs. SEFARI Gateway characterised the challenge as one of relationship building with its internal stakeholders:

“So that was one thing that we did, come in and create a platform for knowledge exchange that nobody else would have had the capacity to be able to do. The same with the Centres of Expertise and having those wider conversations and making sure that we're aligned to do things collectively (or not, in cases where that doesn't work). That all takes time and that's all about relationship building” – SEFARI Gateway

CoEs generally appreciated and valued the integrative efforts of SEFARI Gateway:

To have this coordinated, bigger, much bigger approach is invaluable and I couldn't imagine actually going back and not having it. Even for the Centres it's valuable. Because it's a way of allowing the Centres to work together and get a coherent message across” – CoE

(iv) Development of external stakeholder networks

Scottish Government, MRP and CoE interviewee groups did not strongly articulate their initial expectations for SEFARI Gateway to work on cultivating and extending external stakeholder networks. SEFARI Gateway itself set the direction in this regard:

“We were engaged around building stakeholder networks. developing capacity and expertise for knowledge exchange with stakeholders. bringing the expertise, the portfolio knowledge, the Strategic Research Programme into those stakeholders” – SEFARI Gateway.

MRP respondents saw the advantage of gaining access to stakeholder networks beyond those in which they routinely operate. They stressed the importance of SEFARI Gateway's contributions – directly and through its formal Think Tank, Fellowship and Responsive Opportunities programmes - to relationship-building. These efforts extend the stakeholder networks that MRPs and CoEs can access, while not 'getting in the way' of their bespoke knowledge exchange interactions:

“(SEFARI Gateway) got us embedded in a way, and conversations were being had, which perhaps we weren't having before. Making sure we got dialogues going on with a whole variety of people interested, stakeholders interested. It is actually starting now to feel to me like we are having substantive interactions with the stakeholders, that one is allowing the research from the program to go out, which is good. But also allow the stakeholders flow back into the program in terms of identification of need and refocusing” – MRP

It was noteworthy that CoEs were happy to view SEFARI Gateway as an independent centre, analogous to their own, within the Strategic Research Portfolio. CoE interviewees made a clear distinction between SEFARI and SEFARI Gateway. They engaged with MRPs as individual institutes, not as SEFARI, underlining their understanding that the latter title applied only to MRPs in the context of the Strategic Research Programme.

3.3 Governance of Strategic Research Portfolio

The importance of cross-directorate Government portfolios (e.g., RAE, RAFF) as the top-level “owners” and promoters of Scottish Government research strategies published under their auspices was evidenced in our desk-based analysis in Section 2. We formed the tentative view that the cross-directorate portfolio(s) provide a reporting level above that of the Strategic Research Portfolio’s assigned governance units (SRPB or SAB). That view was tested in the interviews.

Only one MRP interviewee noted the accountability structure of cross-directorate Government portfolios as being relevant to their activities across the Strategic Research Portfolio:

“Then there’s the two select committees (that) encompass what we do. So there’s Rural Economy, and a select committee on Environment, Climate Change and Land Reform” – MRP.

When asked about the role of RAFF in Strategic Research Portfolio design and governance, one Scottish Government interviewee explained that the RAFF acronym (which is no longer used) was simply a descriptor, useful in delimiting the particular block of Scottish Government research funding administered by RESAS:

“At the time RAFF was, if you like, the business conglomeration that best reflected what we (RESAS) were attempting to service” - SG

In a follow-on question we asked if RESAS, as *de facto* owners of the Strategic Research Portfolio, might adopt a higher profile in its promotion to external stakeholders. The answer made it clear that RESAS did not see itself in such a role:

“There’s two distinct things happening. One is the RESAS, which is kind of a funder of research, and so we’re getting acknowledged as that. But we are not ourselves the promoter of that research” – SG

We also asked if RESAS’ role might be analogous to that of a UK Research Council, a suggestion that was also rejected:

“Our function is to administer grants and make sure that stuff gets out there. But we’re not the holders of the conversation” - SG

Answers to our questions about the SAB indicated a level of uncertainty as to whether this body was the ultimate Strategic Research Portfolio governance authority or simply advisory to RESAS. Both the former and latter assumptions are illustrated in the following quotes:

“What they (SAB) want is they want a report from a mandated group that tells them what progress looks like, and that’s why the operational group is there” – SG

“SAB are advisors to RESAS. We (DEC) sit on that” – MRP.

“It (SAB) didn't feel like (advisory to SEFARI) to me. I felt very much like (we were) reporting in to (the SAB)” – SEFARI Gateway.

The question “who runs the Strategic Research Programme?” had two different answers. Scottish Government interviewees claimed that RESAS (through the SAB Operations Group) run the Strategic Research Program, while MRP respondents claimed this authority for MRPs (acting through the DEC). These answers resonate with the document analysis (Section 2) which noted the apparently shared RESAS-MRP management of the CKEI / SEFARI Gateway function.

Although interpretations of governance arrangements differed, many responses acknowledged the evolution towards more prescriptive commissioning of research in successive Scottish Government research portfolios. One of our Scottish Government interviewees noted the increased emphasis on commissioning coherent programmes rather than on funding individuals and their institutions, but felt that this emphasis may have gone unnoticed by MRPs:

“but the point I think that the institutes missed, and it was the key point, is that we don't fund individual institutes. We fund a programme which is meant to be coherent” – SG

One MRP interviewee saw the change in emphasis from the funding of institutes to the funding of programmes as creating an unhelpful distance between SG and their research providers:

“And there's been that sort of continual shift to push us away, which I think is an unhelpful development. I think we need to be part of the conversation rather than (a model of) 'we'll tell you when we've decided what we're going to do, what you can bid for'. Because that's too late in the day. So we should be part of a co-evolution”- MRP

4 Discussion

4.1 Strategic Research Programme and Strategic Research Portfolio

The Scottish Government has shifted emphasis over the last 15 years from funding of grantee-initiated research programmes to assembling Strategic Research Portfolios focused on commissioned research and knowledge exchange outputs such as RDs. The introduction of Strategic Research Portfolios coincided with that of relevant government portfolios – most recently RAFE, ECCLR and REC – as research commissioners.

RAFE's documented status as owner and ultimate governance authority in the Strategic Research Portfolio does not resonate strongly with either RESAS or the MRPs. RESAS understands the RAE, RAFE and ENRA acronyms as descriptors that delimit the tranche of Scottish Government funding under their administrative control. MRPs continue to respond to the Strategic Research Programme funding stimulus and associated "rules of the game" provided by RESAS. RESAS continues to be seen as the ultimate funder of the MRPs rather than as a key intermediary acting on behalf of the Scottish Government commissioners of the Strategic Research Portfolio.

It was easier to recognise the role of RAFE (or RESAS, if they are the Strategic Research Portfolio governance authority) in the commissioning of CoEs as consortia, each with an independent organisational structure and knowledge exchange presence, focused on specific stakeholders and desired outputs. CoEs are effectively centres for knowledge exchange and impact (CKEIs), not just centres of expertise. The CKEI governance structure, later adopted by SEFARI Gateway, was also that of a commissioned consortium, with its constitution agreed and documented in the Collaboration Agreement among its partners.

Scottish Government's intent for the Strategic Research Programme to adopt a higher public profile and knowledge exchange presence as part of the Strategic Research Portfolio hinges on its ability to perform as a purposeful research and delivery organisation, over and above its perceived status as the MRPs' "pot of money", "lever of additional resources" or "network of scientists". If the Strategic Research Programme had been constituted as a standalone consortium it might have attended to its own public profile and knowledge exchange commitments, as CoEs do. We recognise that a standalone consortium of the scale of the current Strategic Research Programme would be unwieldy, but smaller consortia might in future assemble around existing and emerging scientific and policy priorities.

4.2 SEFARI and SEFARI Gateway

The Strategic Research Programme-specific CKEI proposal did not fully address the strategic intent of creating an organisational profile and knowledge exchange presence to represent the Scottish Government investment in the entire Strategic Research Portfolio. Although we were unable to verify the decision process that led to the naming of SEFARI and re-branding of the CKEI as the SEFARI Gateway^v, the SEFARI title clearly aligns research institutes (however defined) with a SEFA identity

that represents the Scottish Government's Environment Food and Agriculture research investment. Questions around the use of the SEFARI title centre on whether it should be narrowly understood as referring to the six incumbent MRPs or taken to include consortia of different scope and scale (including the Strategic Research Programme, CoEs and SEFARI Gateway) commissioned as research and knowledge exchange delivery organisations within the Strategic Research Portfolio.

All MRPs and CoEs have individually developed stakeholder networks as well as their own knowledge exchange mechanisms and public engagement channels. The Strategic Research Programme could be recast as one or more similarly purposeful organisations, as noted in Section 4.1. The SEFARI Gateway seems to be making progress in inspiring closer working relationships across SEFARI, if SEFARI can be seen as a Strategic Research Portfolio-spanning collective. In that sense it is meeting the **“development of collective identity”** expectation, noted in Section 3.2.2, despite its strong initial association with the incumbent MRPs. That association was largely derived from the CKEI remit (**“delivery of research products and information”**) on behalf of MRPs in the Strategic Research Programme context. If all research delivery organisations within the Strategic Research Portfolio continue to work more closely together as a collective, they might all make use of the SEFARI collective identity **“promotion of the delivery organisation(s)”** and **“development of external stakeholder networks”** expectations assigned to SEFARI Gateway in the interview findings.

There is no doubt that the Gateway function is important, and could be positioned as an independent unit within a more broadly drawn SEFARI (or other) collective entity that represents the entire Strategic Research Portfolio. The SEFARI Gateway Collaboration Agreement allows that RESAS might change the definition of SEFARI to include other research delivery organisations, potentially allowing CoEs, the Strategic Research Programme (or its successor consortia) and other organisations to participate fully as “MRPs” under the SEFARI banner.

The four “categories of expectation” drawn from our interview findings in Section 3.2.2, show that SEFARI Gateway is being pulled in multiple directions by its stakeholders, including the Gateway leadership, who naturally have their own vision for its future. Given the diverse expectations, there is a tendency for “mission creep” (e.g. whether public engagement extends to science education, including schools programmes, as has been mooted). Not all desired roles can be fulfilled within available resources. It remains the case, as the 2018 review panel agreed, that a clearer forward plan is needed for SEFARI and SEFARI Gateway.

5 Conclusions and Recommendations

Given the project objective to identify opportunities to optimise the design of the next cycle of Scottish Government funding beyond 2021, this section discusses possible opportunities to deliver the best outcomes, drawing on the MRPs and joint SEFARI activity, alongside the CoEs and other bodies.

5.1 Conclusions

There is an opportunity now for the Strategic Research Programme to become less focused on funding individual institutions to maintain their current research trajectories. Change could be achieved by encouraging MRPs to form consortia with other institutions to address existing and new areas of evidence need.

Our in-depth analysis of the governance arrangements suggests that there is an opportunity to build more cohesion around the Strategic Research Portfolio, making clear the relationships between its governance, advisory and operational structures.

SEFARI has developed as a brand, but its scope and mission are not consistently understood by its internal and external stakeholders. There is an opportunity to re-position the SEFARI organizational entity and its relationship with SEFARI Gateway.

SEFARI Gateway has been developing synergies between MRPs and CoEs, promoting the collective identity of the Strategic Research Portfolio and cultivating and extending external stakeholder networks on its behalf. There is an opportunity to maintain or increase the scope of these activities in the next funding cycle, but this depends on the strategic re-positioning of SEFARI itself.

5.2 Recommendations

All of the Strategic Research Portfolio delivery organisations (including CoEs and other future consortia) could be considered as MRPs and represented in these deliberative structures. They could also be jointly promoted under a single (SEFARI or other) identity that represents the Scottish Government's investment in RESAS-funded science.

Existing MRPs could remain major players in the Strategic Research Consortium context outlined above.

Maintaining the unique national capabilities and infrastructures of existing MRPs could involve re-classification of some Strategic Research Programme funds as Underpinning Capacity.

Appendices

Appendix 1: MRP Overview

	BioSS	JHI	MRI	RINH	RBGE	SRUC
Research aims/focus	interface between the mathematically-based sciences and a wide span of applied sciences covering agriculture and the rural economy, the environment, food and health	To be at the forefront of innovative and transformative science for sustainable management of land, crop and natural resources that supports thriving communities.	greater understanding of disease pathogenesis, the development of diagnostic tests and the creation of novel vaccines. applies cutting edge science and technology to develop effective treatments, diagnostic tests and vaccines to safeguard livestock health.	play a major role in the UK research capability in nutrition and human health molecular studies on the impact of diet and health, social science and behaviour change, and population based studies.	a scientific centre for the study of plants, their diversity and conservation Scottish biodiversity Plants & Climate change Conservation	A focus on the natural economy with expertise in Animal & Veterinary Sciences, Crops & Soils, Land Economy & Environment and Future Farming Systems

Users of research knowledge	support and research on mathematics and statistics to the other Main Research Providers, government agencies and other research institutions”	Land managers; Land agencies; NGOs; international science community; Business and enterprise e.g. crop breeders, extractive industries	Scientists work with farmers and vets to improve animal health and wellbeing and to support sustainable agriculture	food and drink industry policy e.g. food security; obesity schools, community	Public Schools	National and internal sectors associated with the natural economy and rural industries
Main activities; Missions	To develop and apply quantitative methodologies with a rigorous mathematical and statistical basis. Research, Knowledge Exchange e.g. Consultancy, Training	Combines existing strengths in crops, soils and land use, social science and environmental research	conducts world class scientific research to improve livestock health and welfare through the prevention and control of infectious diseases of livestock.	Offering specialist support to industry, the Institute contributes to public policy and supports education at school, university and community levels.	a Non-Departmental Public Body and its functions are defined by the National Heritage (Scotland) Act 1985 including research, education, collections and public access	HEI - research, education and consultancy

<p>Scottish Government relevance</p>	<p>Delivery of the Strategic Research Programme. BioSS provides support in quantitative science across the whole RESAS portfolio</p> <p>e.g. The Forum for Quantitative Science (FQS), with support from the Scottish Government, attended by staff from CAMERAS partnership organisations and RESAS MRPs. Collaboration with <i>EPIC</i> (CoE)</p>	<p>Delivery of the Strategic Research Programme, SEFARI Gateway and all of the Centres of Expertise</p>	<p>Delivery of the Strategic Research Programme</p>	<p>Delivery of the Strategic Research Programme</p> <p>Much of the current research is sponsored by the Scottish Government and aims to address the big issues of our time, including food inequalities, food security and obesity, as well as the sustainable development of Scotland's food industry.</p>	<p>Delivery of the Strategic Research Programme</p>	<p>Delivery of the Scottish Government Veterinary Surveillance Programs; Delivery of the Scottish Government Farm Advisory service; Delivery of RESAS SRP</p>
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Other funding sources	UKRI, EU, agencies and industry		Commercial, industry income	Major programmes of food and health-related research are also funded by the EU and research councils.		SFC, UKRI, industry
Organisational Characteristics / activities	BioSS has a distributed structure, with staff located within offices of other MRPs, to enable close collaboration and full integration	offices and laboratories in Aberdeen and Dundee and employs approximately 550 staff. supports postgraduate students. a commercial subsidiary, James Hutton Limited, competitive advantage through science and technology, including consultancy and analytical services for research and commercial purposes.	The Moredun Foundation is a registered charity, with over 12,000 members from the farming, veterinary and associated industries. The Moredun Group now employs over 150 scientists, vets and support staff		MSc programmes Online courses Short courses	Tertiary education from FE through HE to MSc and PhD; Research; Consultancy ”

Authors' construction. Sources – websites last accessed 30 March 2020.

[Scottish Government, Rural Environmental, Science and Analytical Service –Strategic Research – Research providers](#)

[BioSS – Biomathematics & Statistics Scotland](#)

[The James Hutton Institute](#)

[The Moredun Research Institute](#)

[The Rowett Institute](#)

[Royal Botanic Gardens Edinburgh](#)

[Scotland's Rural College \(SRUC\)](#)

Appendix 2: Interview Protocol

SEFARI Structure-Function Analysis: Interview Protocol

1. Questions for Scottish Government (RESAS)

1.0 Introduction/ Scottish Government, RESAS and the Strategic Research Portfolio

- Can you provide some background on RESAS and on the composition of the Strategic Research Portfolio (e.g., balance among Strategic Research Programme, Innovation Partnerships, Underpinning Capacity, CoEs, SEFARI Gateway)?
- Briefly explain the Governance and management structure of the Strategic Research Programme

1.1 About SEFARI

- Can you tell me a little bit about the expectations of the Scottish Government / RESAS in establishing the SEFARI “brand”?
- How has adoption of the SEFARI collective identity contributed to the quality and relevance of Strategic Research Programme scientific activities and outputs? Can you discuss some examples?
- What improvements would you like to see in the SEFARI contribution to the next iteration of the Strategic Research Programme?

1.2 About Centres of Expertise (CoEs)

- Briefly discuss the key differences between the SEFARI and the CoEs contributions to the Strategic Research Portfolio.

1.3 About the SEFARI Gateway

- What prompted the evolution from CKEI to SEFARI-Gateway? What did the Scottish Government hope the Gateway to achieve?
- How did the Scottish Government envisage the SEFARI Gateway’s relationship to (i) RESAS, (ii) the Strategic Research Programme, (iii) SEFARI and (iv) the Centres of Expertise?
- How is the SEFARI Gateway performing since its inauguration? Is it meeting expectations?
- What improvements / additional contributions would you like to see from the SEFARI Gateway in the next iteration of the Strategic Research Portfolio?

2. Questions for MRPs

2.0 Introduction/ Scottish Government, RESAS and the Strategic Research Portfolio

- In which government policy areas is your organisation active?
- How does your organisation interact with Scottish Government policy teams around existing and/or future evidence needs?

- What contribution(s) does your organisation make to the Strategic Research Portfolio?
- How does your organisation deliver both the 'excellence' and 'relevance' agenda of scientific activities as an MRP?
- What are the incentive mechanisms for different types and timescales of scientific knowledge production and exchange within your organisation? How do you measure the outcomes/impacts?

2.1 About SEFARI

- How has the introduction of the SEFARI structure influenced your organisation?
- How do you see your organisation's relationships with the other MRPs? How have these relationships changed since the establishment of the SEFARI structure and identity?
- Who are your key external stakeholders? Has SEFARI changed the way your organisation works with these stakeholders?

2.2 About Centres of Expertise (CoEs)

- How does your organisation work with CoEs (and vice versa)? What are the advantages and disadvantages of the CoE model?

2.3 About the SEFARI Gateway

- Please tell us how you work with the SEFARI Gateway. What are the impacts of SEFARI Gateway so far?
- How do you envisage the SEFARI Gateway's relationship to (i) RESAS, (ii) the Strategic Research Programme, (iii) SEFARI and (iv) the Centres of Expertise?
- What are the key challenges facing the SEFARI Gateway regarding knowledge exchange activities? Can you provide examples?
- Is there anything you would like to see changed to make the system work better?

3. Questions for Centres of Expertise

3.0 Introduction/ Scottish Government, RESAS and the Strategic Research Portfolio

- What contribution(s) does your CoE make to the Strategic Research Portfolio?
- How does your CoE interact with Scottish Government policy teams around existing and/or future evidence needs?
- How does your CoE deliver both the 'excellence' and 'relevance' agenda of scientific activities?
- What are the incentive mechanisms for different types and timescales of scientific knowledge production and exchange within your CoE? How do you measure the outcomes/impacts?

- Who are your key external stakeholders? How does your CoE work with these stakeholders?

3.1 About Centres of Expertise

- How do you view the development of the CoE model? What are the advantages and disadvantages of the model?
- How do you see your CoE's relationships with the other CoEs? How have these relationships changed since the establishment of the CoE model?

3.2 About SEFARI

- How does SEFARI influence your CoE (and vice versa)?
- How does your CoE work with SEFARI (and vice versa)?
- How do you see your CoE's relationships with individual MRPs? How have these relationships changed since the establishment of the SEFARI structure and identity?
- Has SEFARI changed the way your CoE works with external stakeholders?

3.3 About SEFARI Gateway

- Please tell us how you work with the SEFARI Gateway. What are the impacts of SEFARI Gateway so far?
- How do you envisage the SEFARI Gateway's relationship to (i) RESAS, (ii) the Strategic Research Programme, (iii) SEFARI and (iv) the Centres of Expertise?
- What are the key challenges facing the SEFARI Gateway regarding knowledge exchange activities? Can you provide examples?
- What are your recommendations to address these challenges?
- Is there anything you would like to see changed to make the system work better?

4. Questions for SEFARI Gateway

4.0 Introduction/ About SEFARI Gateway

- Please tell us how the SEFARI Gateway operates. What are the impacts of SEFARI Gateway so far? What is your vision for the future of the SEFARI Gateway?
- What prompted the evolution from CKEI to SEFARI-Gateway? What did the Scottish Government hope the Gateway to achieve?
- How does the SEFARI Gateway interact with Scottish Government policy teams around existing and/or future evidence needs?
- What contribution(s) does the SEFARI Gateway make to the Strategic Research Portfolio?

- How do you envisage the SEFARI Gateway's relationship to (i) RESAS, (ii) the Strategic Research Programme, (iii) SEFARI and (iv) the Centres of Expertise?
- How does the SEFARI Gateway currently work with SEFARI (and vice versa)? What are the advantages and disadvantages of the SEFARI structure?
- How does the SEFARI Gateway currently work with CoEs (and vice versa)? What are the advantages and disadvantages of the CoE model?
- Who are your key external stakeholders? How does the SEFARI Gateway work with these stakeholders?
- What are the key challenges facing the SEFARI Gateway regarding knowledge exchange activities? Can you provide examples?
- What are your recommendations to address these challenges?
- Is there anything you would like to see changed to make the system work better?

Appendix 3: Document revisions

A number of revisions to factual elements have been accepted after this report was finalised on 31 March 2020. The notes below are linked by superscript numbers in the sections indicated.

ⁱ **Page 5 Section 2.1– Final paragraph**

Rather than being initiated in the RAE (2011-2016) strategy as suggested, formal KTE strategy and structures were explicitly included in the 2006-2011 Programme. In particular, a “Knowledge Exchange Group” was established with representatives of each MRP and RESAS (chaired by RESAS, Dr P Balls). Further a dedicated website was created to support Scottish public policy bodies:

<https://knowledgescotland.webarchive.sefari.scot/>.

ⁱⁱ **Section 2.3 Page 10 – para 4**

The Director’s Executive Committee have confirmed that documentary evidence is present in DEC minutes and the then CKEI Director, Graham Cook’s communications between DEC and RESAS.

For information, Dr Alan Rowe (Rowett) constructed the public tender for the branding organization in liaison with DEC. RESAS were kept informed throughout. “The Gate” were commissioned and a series of meetings took place from 21st December 2016 with a set of final brand options for consideration agreed on 3rd March 2017. The decision on the final wording of “SEFARI, Leading Ideas for Better Lives” was made in a meeting between Scottish Government, CKEI and The Gate on 7th March 2017. SEFARI Gateway was launched on 29th March 2017, by the Cabinet Secretary, Ms Cunningham.

ⁱⁱⁱ **Page 11 – Figure 2**

- Two of the policy areas under Theme 3 (plant health and animal health and welfare) are considered better placed in Theme 2
- The diagram omits the following policy areas which are within Theme 3 (community empowerment and nature-based health and wellbeing)

^{iv} **Section 3.2 – Perceptions of SEFARI and SEFARI Gateway** Page 17 –section 3.2.1.

The Directors Executive Committee have noted that this section does not record the support of Cabinet Minister to the collective brand “SEFARI”.

^v **Section 4.2 – SEFARI/ SEFARI Gateway**

Page 21

The Directors Executive Committee confirm that there was a clear process of the naming of SEFARI and SEFARI Gateway, involving RESAS and the DEC, as in note ii above.



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