RI-VIS
Increasing visibility of
research infrastructures

COMMUNICATION GUIDELINES FOR EUROPEAN RESEARCH INFRASTRUCTURES:

engaging with stakeholders in African countries

Communication guidelines for European research infrastructures: engaging with stakeholders in African countries

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1. Note: Daniel Adams is both an author (as member of the Organising Committee) and a survey respondent; as such he is listed under contributors as well, and counted among the 22 survey respondents.

2. The contributors are the individuals who filled out the survey and agreed to make their name and responses public. In the event that the person did not tick the consent box to be listed publicly as an author, we indicated the person as "anonymous contributor" (concerns three individuals).

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Introduction

This document provides tips and guidelines to help European research infrastructures (RIs) better communicate with potential partners and 'users'[3] in Africa. This document is an output of the Horizon 2020-funded project entitled 'RI-VIS: Expanding research infrastructure visibility to strengthen strategic partnerships' (grant agreement number 824063).

Let it be noted that several European RIs already collaborate with African scientists, either through bilateral research collaborations or as part of international consortia (eg Square Kilometre Array, ICPerMed, International Mouse Phenotypic Consortium, Global BioImaging), but strive towards extending these partnerships further. Other RIs may be interested in developing collaboration and partnerships in African countries. This document is intended to support RIs' communications in this regard.

Potential partners and users in African countries:

- Scientists and their affiliated institutions and networks
- Relevant government institutions such as ministries of research or science
- Industry stakeholders
- Other relevant groups (eg funders)

These tips and guidelines are intended to be applied by European RI communications officers and interested parties who may support regional communications in/with African countries[4], including 'Access Officers'[5] and RI Managers (among others).

Considering that effective communication works two-ways, this document encompasses two complementary approaches:

1) A proactive approach to give tips on what European RIs can do to reach out to potential partners and users in African countries;

2) A passive approach to ensure that potential partners and users in African countries successfully reach out to European RIs, by improving the visibility and clarifying the communications of the later.

This document draws on findings from a survey distributed in October 2021 to local stakeholders in (English-speaking) African countries, as well as individuals with in-depth knowledge/experience of one or more African countries (not necessarily located in Africa currently).

Based on the information provided in the 'country' field, the 22 respondents were from the following countries: Belgium (1), Botswana (1), Gambia (1), Kenya (1), South Africa (14)[6], Tanzania (1), Uganda (1), Zambia (1), not indicated (1) (for more information on the survey, see the Appendix).

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3. Users' can be understood here as the individuals or organisations that use research infrastructure services or facilities; in general, this includes individual scientists/researchers (from academia or the private sector).

4. One survey respondent, Mylène S. Ndisi, noted that she refers to 'African countries' rather than 'Africa' in her writing, because of the reality of its size and diversity. We adopt this logic/reasoning in this document and refer therefore to 'African countries' throughout. This makes sense as our survey respondents were concentrated in South Africa (and a handful of other countries), so we cannot say that our findings are representative of all of Africa.

5. Note: this term is not necessarily understood/widely known; keep this in mind when communicating with stakeholders in African countries, and use an alternative or provide an explanation (ie 'the person in charge of service requests or coordination'). See RI-VIS toolkit on how to address the term 'access' in your communications.

6. The significant number of South African respondents can be explained by the role the Organising Committee member Dr Daniel Adams played in survey dissemination; in effect, he sent the survey to many of his coworkers, many of whom are located in South Africa.

Using this document

Structured like a roadmap for a communications strategy targeting stakeholders in African countries, this document includes sections on goals, target audiences, key messages, channels/activities, and evaluation.

Each section is presented as a step and provides both survey findings and tips, this way providing the necessary background information and tools for European RIs to develop their own strategy for the region (or country/ies within the region). As the region is vast and highly diverse, and stakeholder interests will vary considerably, there is no 'one-size-fits-all' solution.

When feasible, the document provides tips on key stakeholders, networks, institutions, and other contacts in African countries (see Appendix 2). Yet these should only be considered as a basis to build from. We strongly advise that comprehensive research is done when including stakeholders in African countries as potential partners and users of a European RI. This includes research on the issues facing specific African countries and how RIs can fit into the local political, socio-economic context or landscape.

When reading the guidelines below, and subsequently developing your own RI communications strategy, we would like to stress the importance of 'self-awareness', as raised by one survey respondent (Jim Todd, professor of Applied Biostatistics, London School of Hygiene & Tropical Medicine (LSHTM), Tanzania). Stakeholders in African countries (and other regions of the world) may interpret language or messages in a very different way than you. For example, words that have a specific (and supposedly neutral) meaning for you may not be interpreted the same way by your target audience(s), based on factors such as their historical, political, economic, and other experiences and/or context.

> **Tip: When reading the guidelines below, keep in mind the importance of your own cultural/socio-economic lens or biases – and the fact that you have them.**

In effect, we all have our own 'cultural baggage', ie the way we see/interpret information and interact based on our own experiences. Please be aware of this and, of course, be always respectful of your audiences. Think of how EU RI/African collaboration will fit into the local context and benefit African stakeholders, without sweeping in with your research agenda or policy proposals.

According to survey respondents, collaborative initiatives will be more effective when developed in partnership (between EU RI and African stakeholders), including African stakeholders in leadership/decision-making roles, and taking into consideration the local political and scientific context.

Furthermore, collaborative initiatives should aim to enhance visibility of African researchers (eg through co-publication), and to build capacity locally (researcher skills and infrastructure) for sustainable, long-term scientific impact.

Executive summary

Guideline structure/overview

The guidelines are structured like a communications strategy, providing steps and tips to develop context-appropriate communications to enhance engagement with African stakeholders. In sum:

Step 1: Do your homework

• Identify and read background materials, identify any existing collaboration with other RI's (and reference this information in your strategy!)

• Read academic literature to better understand the national/regional politics and see how your RI can add value by (co-)developing context-appropriate solutions to meet local needs

Step 2: Identity your communications goals

• Your communications goals are not necessarily the same as your business goals, but the former should support the latter

• Be clear in your expectations of the potential collaboration, and know what you want to get out of the collaboration!

• Know that your goals might not be the same as your target audience'(s') goals; listen to your target audience(s), and adapt your approach as needed

• Make sure that everyone in your RI is on the same page in terms of goals

Step 3: Get to know your target audiences[7]

• Get in touch with your RI peers to identify potentially interested parties or 'target audiences' (as they may be the same as those in existing collaborations/projects with other RIs; if not, your RI peers will likely be able to point you in the right direction)

• Consider all target audiences (ie primary and secondary): while you may want to engage with researchers directly, sometimes it can make more sense to reach them via an alternative route (eg by contacting their university network); consider additional audiences which may be very important in disseminating information and/or enabling collaboration (like funders, governments, etc.)

• Consider in-person events such as community engagement workshops to better understand local needs and how your RI and local stakeholders could work together to address local needs[8]

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7. While the term 'target' is frequently used in communications strategies, based on feedback from the Organising Committee, the expression 'target audience' was identified as more readily understandable and appropriate.

8. Note: this recommendation is based on a minority of respondents expressing the limitations of the survey format. In-person meetings may also be helpful in developing the business strategy underpinning your communications in African countries.

Step 4: Develop your key messages

• Keep in mind that people have differing understandings of an RI, so start with a basic definition, supported by examples. (Note: this is not necessarily an issue in South Africa, but may be in other African countries). And consider if you even need to use the term! It might just lead to greater confusion initially. Ease your audience into the concept if it's novel – and recognise that some stakeholders think they have a local equivalent, some don't

• Highlight your RI's specific areas of research in a short (1-2 sentence) summary

• Develop messages to grab stakeholders' attention using phrases like 'funding opportunity', 'knowledge-sharing opportunity', 'collaboration', 'science diplomacy', 'capacity building'; other messages, which could be considered, include 'internationalisation of research', 'increased visibility', 'enhanced research outputs' and so on

• Personalise your messages for each target audience – choose your words/messages appropriately for each, keeping in mind that words/messages may have a different meaning for different groups and within groups (so choose terms carefully, and provide definitions as appropriate). Avoid scientific/technical language for policymakers.

• Be aware of your 'cultural baggage' and how your own socio-cultural experience/lens can affect your word choice, the way in which you present yourself, the degree of respect that you show, etc.

• Be clear on the proposed business model (for EU/African collaboration) and participation requirements for collaboration (eg cost of being a member of a consortium, or an associate member of a collaboration agreement); if there are flexible paying models, present these, and focus on mutual benefit and return on invement.

• Make sure your key messages for international/African audiences are included in the relevant website section (see below for making yourself 'findable' and understandable); be clear about your value proposition and potential return on investment in international/African collaboration opportunities.

Step 5: Identity relevant activities, tools, channels

• Make it easy to find relevant information for international/African audiences on your website, social media, etc. While it may be useful to translate content for certain international stakeholders, the survey results did not imply that English would be a problem in English-speaking African countries

(as Francophone (and other) African stakeholders did not respond, we cannot assume that the same applies to other languages; so it is recommended to determine the appropriate language of communication based on your specific target region)

• Use websites/blogs targeting African stakeholders to disseminate information; similarly, identify local newsletters and those for relevant H2020/Horizon Europe projects

• Use social media (within reason/capacity) and tag local thought leaders/relevant accounts

• Create a specific mailing list for information relevant to stakeholders in African countries, as well as funders and other parties with an interest in the region

• Work with local press/media; participate in local events/conferences

Step 6: Evaluation

• Develop a roadmap to evaluate and fine tune your regional communications strategy

Key survey takeaways

Survey findings are incorporated into the guidelines. A few key findings can be highlighted here:

- There is an apparent desire among African stakeholders to collaborate and partner with EU RIs to:

  › Gain access to state-of-the-art equipment and services in Europe

  › Develop joint projects and staff exchanges

- A primary goal of potential collaboration is to build capacity and infrastructure in Africa, in view of meeting African countries' needs

- It should not be presumed (by our EU RI peers) that stakeholders in African countries are another potential market for EU RI services, whereby services would be paid for at full market cost. However, there may be funding possibilities for collaborative projects from American (eg Bill & Melinda Gates foundation), European, and other sources of funding. Moreover, provided that EU RIs clearly communicate their value proposition and potential return on investment, certain African countries (particuarly South Africa) may be willing (and expect) to financially contribute to collaboration or other agreements.

- In some cases, respondents indicated difficulty knowing which RI to get in contact with, who to contact, and how to get in touch (and/or follow up). Potential solutions for enhancing EU RIs' communication in this regard, as well as their visibility (to be more 'findable') are thus also included below.

Guidelines

These guidelines can be considered as a roadmap for developing your own communications strategy for African countries. This strategy may be separate from (or incorporated into) your RI's annual communications strategy and/or international outreach or development strategy – this will depend on your specific situation and desires.

Step 1: Do your homework (prep work)

Communications strategy section: Introduction

A good starting point is to read relevant literature on research infrastructures in South Africa. In particular, we recommend reading the following:

- South African Research Infrastructure Roadmap, SARIR (first edition, 2016 Department of Science and Technology, Republic of South Africa). For more information on SARIR, see here.

- Promoting African – European Research Infrastructure Partnerships (PAERIP) Final Report Summary

- Individual country long-term RI plans

It is also advisable to read literature related to EU RI collaboration with stakeholders in African countries (including South African RIs). In particular, the **RI-VIS white paper** entitled 'Recommendations towards cooperation between African and European research infrastructures' (available for download here: https://ri-vis.eu/network/rivis/white-papers) will ultimately help you to better understand the regional context, and to be aware of existing RI efforts to develop collaboration with stakeholders in African countries.[9]

In addition, we recommend getting in touch with European RI peers, as well as individuals involved in Horizon 2020/Europe projects (if different), to identify individuals who have already developed or are developing collaborations with stakeholders in African countries. These EU stakeholders will likely have information on key contacts, relevant approaches (including relevant targets, messaging, and channels), best practices, lessons learned, and more.

> **Tip: In your communications strategy, reference any background materials and examples of RI collaboration (obtained through your 'prep work') in the introduction**

Depending on how you develop your strategy (as a separate document, or incorporate it into your RI's main communications strategy), your introduction may contain different elements of information. In regard to African countries, you can provide information on what your organisation has done there already, what 'prep work' you have done in preparing for the strategy (eg the pre-reads and background work suggested above), and other factors to consider – such as your RI's current communications resources, strengths/weaknesses, lessons learned or best practices from relevant projects of initiatives, and so on.

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9. This web page (https://ri-vis.eu/network/rivis/white-papers) also includes download links to the other two white papers (on EU RI collaboration with Latin America and Australia).

Why do you need to write this down?

The purpose of having a written communications strategy is to set the tone and direction so that all communication activities, products, and materials are deployed to achieve the desired organisational goals. With an agreed-upon communication strategy, staff and partners have a map they can refer to through the various development and implementation stages.

What if my RI wants to target other geographic regions, not just African countries?

You can certainly have a single 'international communications' strategy for different countries/regions. However, keep in mind that your strategy will need to be adapted to each specific context. Within a single geographic region, you may find that you have to deploy various activities through diverse channels (based on behaviour/preferences in a given country or group of countries); so expect that your international strategy will not be 'one-sizes-fits-all' or even 'fits most'.

> **Tip: Avoid surveys when you can obtain information yourself and/or by discussing with peers**

Based on survey respondent input, the survey that was used for the purpose of these guidelines was a bit general and/or repetitive. Yet, our goal was to provide general insights to allow EU RI communications officers (and relevant RI staff) to develop their own tailormade communications strategies. However, it may be worth noting that if you can obtain information through alternative means (eg consulting EU RI peers, researching scientific literature, organising focus groups or community engagement groups), then by all means, explore these avenues. Workshops or focus groups, COVID-permitting, are indeed more 'engaging' than an online survey. (However, they bring their own challenges, and we would recommend that you include local stakeholders in the development, organisation, and implementation.)

Insights from stakeholders in African countries...

Know the context and propose context-appropriate solutions

As recommended by one of the survey respondents, RIs should also be intimately aware of the issues facing the African country(ies) with which they wish to work. This means studying the political, socio-economic, and scientific context (among others) to understand how the RI can fit into the local context and address local needs. Admittedly, this information may already be included in your RI's international or African outreach strategy, if one exists.

> RIs need to have 'their thoughts and plans on the table when approaching [lower middle income country, LMIC] institutions' – Jim Todd, professor of applied bio-statistics, LSHTM, Tanzania

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Step 2: Identify your goals and your target audiences' goals

Communications strategy section: Goals

This step involves defining your communications objectives, which need to be in line with your organisational / business objectives. Part of developing your communications goals requires an understanding of your target audiences' goals, interests, and needs[10]. Ask yourself: What do you want to achieve by engaging with stakeholders in African countries? Do you want to develop joint projects, either in Africa or Europe? Offer training opportunities or staff exchanges, including for local scientists and African RI managers, as relevant? Do you want to make your service offer better known so that users/institutions can come to you? Note: you can have more than one goal. Just be realistic, and always consider funding.

Insights from stakeholders in African countries...

Main interests and goals of partners and users in African countries

In the survey, many participants ticked the following options (from a set list) for their main interests and goals:

- Gain access to equipment/services that are otherwise unavailable in their home country

- Organise/participate in knowledge exchange activities

- Attract international funding

- Establish formal collaboration agreements

- Develop joint projects

- Develop scarce skills of high importance for the country (Science Diplomacy)*

When asked why individual scientists would be interested in engaging with EU RIs, one respondent said:

> 'It is difficult to develop technologies without access to the infrastructure to take these technologies to the next level. The engagement with European research infrastructure will greatly assist to rectify the situation and gain access to skills and capabilities in their field' - Dr Manfred Scriba, research group leader, Council for Scientific and Industrial Research (CSIR)

Survey answers are indicative of a strong desire for collaborative initiatives, and those to develop capacity in African countries, rather than sheer paid use of EU RI services. In fact, survey respondents did list 'financial constraints in paying for EU RI services' as a main constraint in engaging with EU RIs (for a more detailed list of constraints per target group, as well as their wants/needs, see Step 3 below and the Appendix). Note, there was relative balance between the various proposed options for goals; however, for research networks, there was slightly less interest in collaboration agreements. This could be due to the preconceived notion or perception that these agreements come at a high cost (they may indeed have a cost, or variable costs, which should be made clear).

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10. This is a very important section. The nuancing must be carefully stated so that the goals are not seen as trying to find another business partner, or serving only your needs, assuming that the African partner has nothing to offer.

Tip: Know that your goals might not be your target audiences' goals

Keep in mind that even if your business goal is to increase users by 'tapping into' the African market, this might not be their goal, and based on survey responses, it may be far from it! They are more interested in building something together, with mutual benefits and opportunities for the long-term development of science/scientists in African countries. That is not to say, however, that there is an expectation that all collaboration with EU RIs will be free-of-cost. On the contrary, South African partners in particular are aware that they have to contribute financially in some form.

For this section, we recommend that you focus on joint goals – keeping in mind what your targets would also like to achieve (eg networking, collaboration, joint activities). However, if you have a specific business goal (eg xx% increase in international collaboration agreements), you can include this information here. Remember that your communications strategy is not your business strategy, yet the former serves to help achieve the latter.

Tip: Make sure everyone in your RI is on the same page in terms of goals

While it may go without saying, all RI stakeholders involved in your African communications strategy should share a common understanding of your RI's goals in terms of communications for the region. (You may consider presenting the strategy to your team prior to implementation; this would also be a good opportunity to identify roles, responsibilities, and other relevant information.) Step 3: Get to know your target audiences Communications strategy section: Target audiences

Step 3: Get to know your target audiences

Communications strategy section: Target audiences

Before we dive into this section, note that target audiences are not necessarily the future potential/current users. The target audiences (or 'stakeholders') are the people or entities (organisations, networks, etc.) who you need to get your information to. There are all kinds of target audiences, and these can be classified or ranked according to relative importance/hierarchy (ie primary and secondary, see below).

> **Tip: Connect with other RI peers to identify potential target audiences**

Insights from stakeholders in African countries...

Better understanding the target audiences...

Several survey respondents highlighted the need to consider target audiences' individual experiences, which may be starkly different than those of their EU RI peers.

> 'You need to understand that some of them (individual scientists) come from difficult backgrounds, more than research, it is also about survival. Even the institutions they come from may have not had enough infrastructure, but they managed to make it anyway. That mostly means that they are resilient and determined, ready to prove themselves beyond all odds' – Anonymous respondent (South Africa)

Another respondent highlighted the need to understand target audiences in the context of the policy environment, and to be wary of a potential expectation or fear (based on historical experience) that Europeans may sweep in with their projects/solutions, without a mutually respectful, collaborative approach. This also points to the need for approaches that actively empower the African stakeholders.

> 'A very important point ... is that there is tremendous resistance to the idea of Europeans telling Africans what to do. So (there needs to) be a mechanism whereby African leadership on research infrastructures can be established and understood in order to facilitate access and use of research infrastructures by individual scientists. Although the focus of this questionnaire ... is scientists, in fact this cannot be separated from the policy environment'. – Declane Kirrane, chairman, Intelligence in Science - ISC, Belgium

You might have already done this during your prep work (Step 1 above)! But the idea here is to connect with RI peers to identify the specific people or groups to target.

• The white paper mentioned in Step 1 is a starting point (as well as any discussions you had with other RIs during your prep work).

• You can also use the RI Slack channel (use this link) or email any available lists for life-science RI's or environmental RI's (ENVRI Community) to ask specifically about target audiences.

• If you are aware that an EU RI is already collaborating with your target country/ies, contact the relevant RI stakeholder(s), asking them about their experience, the status of the collaboration, and, based on your needs/goals, who the pertinent target audiences would be.

When relevant (eg after or while mapping out all potential target audiences, see below), you can ask your EU RI peer(s) to make an initial introduction to their contact(s). There are two reasons for this: the introduction will likely help you to get your 'foot in the door' more easily, and, because of General Data Protection Regulation (GDPR)[11] 2016/679, providing personal information including names/email addresses is problematic.[12]

Insights from stakeholders in African countries...

Who to communicate with in African countries?

Survey respondents indicated the following targets in African countries (non-exhaustive list, see Appendix for more details):

• Universities and/or associations of African universities; foreign universities with research centres in African countries

• Science councils, research centres and institutes, specialised laboratories, research centres within a specific university department

• Directors (of universities, departments, etc.); individual researchers from universities; doctoral students

• Professionals who work for programmes and projects (which are currently working with, have worked with, or potentially interested in working with EU RIs)

• Government entities in African countries including Ministries (science, research, innovation, etc.)

• International governmental entities (eg United States Agency for International Development, USAID) and funders (eg Bill & Melinda Gates Foundation)

• Regional networks

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11. GDPR is a regulation in EU law on data protection and privacy in the European Union and the European Economic Area.

12. For this survey, we asked our respondents to name individuals who may be interested in working with EU RIs – we received many answers, but, for GDPR reasons, we cannot share this information in this document.

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Tip: Know your primary and secondary target audiences

When developing your communications strategy, it is important to not only know your target audiences, but to designate primary and secondary target audiences. Before you initiate collaboration in African countries, you should identify who you are primarily trying to reach (note: this may change over time).

Keep in mind, however, that if your primary target audience is researchers, you may also need to target government entities, as they may play a key role in enabling (eg funding or providing approval for) international collaboration. As such, they may be your secondary target audiences. Networks and associations may be a crucial way to get information about opportunities to researchers and, as such, may qualify as primary target audiences.

Insights from stakeholders in African countries…

Perceived obstacles to communication / collaboration

Participants indicated various perceived constraints in engaging with EU RIs, including:

- Financial issues (lack of funding, or lack of awareness of funding opportunities for using EU RI services, and/or how existing national funding could be used for this purpose)

- Logistical constraints in accessing EU RI services

- Understanding which are the EU research infrastructures they should contact

- Cultural or language barriers

- Training / capacity building needs

- Understanding which are the EU research infrastructures they should contact

While financial constraints are the main limitation for researchers, and potentially limited capacity (insufficient 'critical research mass' according to one respondent), understanding which RI to contact (and how) seems to be the biggest problem for government stakeholders and networks. This point is addressed in the section 'Making your RI more accessible' (see below).

Regarding funding, respondents did not necessarily convey an inability of African countries to pay for EU RI services or collaborative activities, provided adequate funding (either from the country itself or an external funding source). Note that some countries, namely South Africa, are already paying for EU/other international RI access through memberships (eg 'ESFR', CERN). (Yet, again, the general message was that collaboration is the more desirable means of 'engagement'.) A communications strategy should anticipate funding questions and clearly spell out the various models for financial participation, as relevant.

For a complete visual representation of the main interests/goals for each main stakeholder group, as well as the main constraints each group may have in engaging with European RIs, see the Appendix.

Tip: Personify your target audiences to craft relevant key messages and determine how best to engage with them

After you identify your target audiences, try to characterise them. This exercise will help you to understand the messages to craft for each persona (target group) and the channels to reach them most effectively.

To better understand them, you can ask questions like: What are their interests? How do they operate? How old are they? What social media platforms, if any, do they use? Facebook? Do they have reliable Internet access? Would printed materials be more appropriate? Note that the best way to get to know your targets is arguably through (in-person) contact and mutually respectful discussion. For that purpose, workshops and courtesy visits may be helpful, as recommended by survey respondents.

Tip: Always keep local perspectives/identities in mind

It is important that all your communications materials/actions keep local language/identities in mind. As stated above, keep in mind that each region (in Africa and elsewhere) has its own cultural 'prism' or lense, and it is important to consider local perspectives and recognise that European perspectives may differ. (This does not come down to 'European perspective' versus 'African perspective'; be mindful that the continent is heterogenous and there are different relationships between regions/countries. Likewise there are a multiple of backgrounds at EU RIs, with individuals coming from all corners of the world, not just continental Europe.)

One respondent highlighted the need for:

> 'Mutually respectful relationships, environments that are inclusive and accommodate diverse views' (anonymous contributor from Kenya).

In terms of language, it appears that communicating to stakeholders in English in English-speaking countries is expected and acceptable. However, this may not apply to Francophone Africa (and other countries), where there may be an expectation to communicate in French or another official language; as we did not have respondents from non-English-speaking countries, this can only be inferred, based in part on the authors' previous experience in West Africa.

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Tip: Think of how you can better serve African needs

In the survey, we asked how could European RIs better serve stakeholders in African countries, and the responses were extensive, with key themes/words including 'mutual benefit', 'engagement', 'collaboration', 'driving a research agenda', and opportunities for internships, staff exchanges, training, research, capacity building, and science diplomacy. As such, when communicating with stakeholders, we recommend that you focus on areas such as mutual benefit sharing and capacity building (in the region or the institution or country with which the EU RI wants to work with).

The need for funding and scholarships was also emphasised. For European RI stakeholders, we recommend striving to understand how existing financing programmes work in African countries, and exploring ways to make EU RI services eligible for those funding schemes. This includes exploring possibilities with international funding (eg Bill & Melinda Gates Foundation).

Tip: Identify possible obstacles to communication/collaboration

During your target audience characterisation exercise, try to understand if your audiences perceive or experience potential obstacles to collaborating and/or communicating with EU RIs. This will help you to devise a communications strategy that overcomes/bypasses those obstacles.

> The main constraint that researchers face in developing countries is the limited funding. Without investments in R&D it is difficult to build the critical research mass. This then also affects the ability to have meaningful interactions with EU researchers and EU infrastructure. For academics it is easier as post-graduate research students can make use of the opportunity to use EU infrastructure. – Dr Manfred Scriba, research group leader, Council for Scientific and Industrial Research (CSIR)

Insights from stakeholders in African countries...

Key messages that will capture the attention of African researchers

The key messages/phrases that respondents recommended to capture local scientists' (and other stakeholders') attention and get them interested in EU RIs included:

- Funding and training opportunities; sponsored education or placement; exchange programmes

- Knowledge-sharing opportunities (several respondents)

- International funding

- Empowerment, mobility grants

- 'Solving Africa's Problems by Africans'

- Collaboration, joint projects; 'Research collaboration with European scientists'

- Low cost, easy to access, high quality, fast turnaround time, etc.

- Opportunity to make African research visible on the global stage; publication opportunities

- 'Impactful research that will develop right people with the right set of high-valued skills'

- Capacity building and skills transfer

- Keywords including: women and girls, inclusiveness, disability, policy, regulation, science capacity, medical devices, clinical trials, regulations, GDPR, medical devices regulation, clinical trials regulation, digital services, trust, access to data, use of data, artificial intelligence, data bias against women, policy-making, policy options, enabling policy environment, enabling regulatory environment, funding, finance, private sector finance, private sector investment, sustainability, UN Sustainable Development Goals, Agenda 2030, nature-based solutions, biodiversity, diagnostics, data-enabled science

- Access, benefit, serving (society):

> 'The concept that the RIs are there to benefit / serve researchers, including those outside the institution housing / hosting the RI is important - often this is not understood. Accessible is a key word that needs to be used. Serving - society / scientists is also important as a concept. The power and impacts of big collaborative research projects vs fragmented / repetitive science that is done to address small, parochial questions is a powerful concept...' – Michelle Hamer, South African National Biodiversity Institute, lead on research infrastructure projects

Step 4: Develop your key messages

Communications strategy section: Key messages

Based on your target audience analysis, you can now develop your key messages and determine appropriate communications channels and actions (Step 5). Depending on your organisational goals, you can consider what type of approach is most appropriate for your target group(s): passive, whereby you aim to enhance your RI's communication to make it easier for stakeholders in African countries to reach you; or active, whereby you actively target African stakeholders to pursue collaboration.

What are key messages? They are the most important statements that you want to share with your target audiences. They should be tailored specifically to target audiences' interests and motivations, hence the personification exercise proposed above.

Tip: Keep in mind that people have differing understandings of an RI

When developing your key messages, keep in mind that there are differing views of the definition of an RI in Europe (and among EU RI internal stakeholders, even within the same RI!). This divergence can be anticipated among stakeholders in African countries, even within the same country, as illustrated by survey responses. Yet, as the survey revealed, the term 'RI' might not be problematic in itself; rather, terms like 'engaging', 'targets', or 'access' may be misconstrued, so be aware of possible misinterpretations and take care to define terms, even when you believe they have a common understanding.

Tip: Start with a basic definition, supported by examples

Given that the concept of RIs is not universally agreed upon, it is recommended that when engaging with regional stakeholders in African countries, you use a common definition. Assume that even if stakeholders think they understand the term RI (and/or believe that a compatible term exists), explain it in simple, understandable terms (see the RI-VIS communications toolkit here or here).

Note as well that even if the term is readily understood by scientists in a particular African country, additional stakeholders such as national/regional policymakers or (international) funders may not have the same understanding.

Insights from stakeholders in African countries...

The RI concept in African countries

In response to the question: 'Are relevant stakeholders aware of the concept of an RI', roughly 60% of respondents believe stakeholders are aware of the concept, with about 40% saying they are not aware, or only aware to a limited extent.

When asked to provide compatible terms, respondents listed:

- Science capacity building
- South African Research Infrastructure Roadmap (SARIR)
- CRO - Contract Research Organisation
- National facilities, research facility, research centre
- Universities and national research foundation, research institutes
- Technology platform
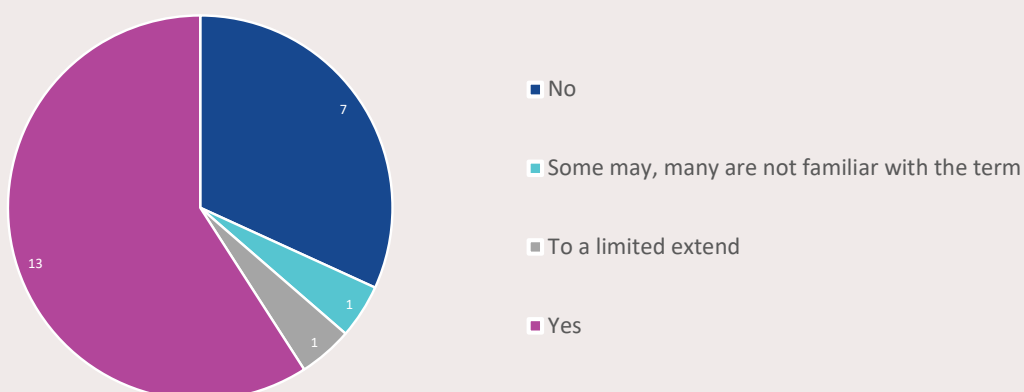
Figure 1: Awareness of the RI concept in African countries, as perceived by the survey participants (n=22).

> 'Research institution is the closest in Kenya. Otherwise the word network is most relevant. The word platform or infrastructure is still new and barely relevant in country institutions.' – Mylène Ndisi, University of Clermont Auvergne, PhD student

Certain respondents provided their own definitions of an RI (as opposed to listing compatible terms). One respondent defined an RI as including 'major scientific equipment and infrastructures, cyber-infrastructures, scientific collections and archives'. Another respondent defined an RI as something to 'accelerate scientific achievements and promote sustainable research and foster collaboration between researchers'.

Thus, while the RI concept is likely well-known in South Africa (thanks to SARIR), it is good to keep in mind that your targets may have different understandings of RIs and different local equivalents. Moreover, while researchers may understand the concept, this may not be the case for local/regional policy/decision-makers or international funders.

When explaining the RI concept, you can use your own RI as an example, or, alternatively, an RI that is perhaps more well-known. Here is an example of a small text explaining what an RI is:

> 'What are research infrastructures, or RIs? A European concept, they're essentially organisations which may be located at a single site, or bring together research centres in different countries, to provide services, facilities, or expertise to researchers. One well-known example is CERN (the European Organization for Nuclear Research), one of the world's largest and most respected centres for scientific research. CERN provides a unique range of particle accelerator facilities to researchers, to advance the boundaries of human knowledge. Our organisation, EMBRC (European Marine Biological Resource Centre) (insert your own organisation here) is also an RI, albeit it one with multiple sites, unlike CERN (more than 45 in all!). EMBRC provides access to marine resources, as well as services and facilities that allow researchers, from both academia and industry, to study the ocean and develop innovative solutions to tackle societal issues (adapt your description based on your activity)'.

> **Tip: Hold off referring to 'research infrastructures' (if relevant)**

You might consider avoiding the term 'research infrastructure' in initial communication, at least until you have a chance to clarify what it means (in Europe). Focus on what your RI does, and what kind of collaboration you're looking to develop (and why). Then, as a second step, and as relevant, you can introduce the European RI concept using the tips above and terminology from the RI-VIS communications toolkit. (Again, keep in mind that the concept is already understand in South Africa, so be careful to not undermine local understanding of the term; focus instead on what your RI does.)

> **Tip: Highlight the specific research areas of your RI. Prepare a 1 or 2-sentence, simple phrase presenting what you do, and your research areas**

It is recommended that you highlight the specific research areas of your RI, as this may not be obvious to your potential targets. If you focus too much on your identity as an RI, you may overlook communicating about the actual research you're facilitating. When presenting yourself, focus on key messages about what you do.
For example:
We are EMBRC (insert your RI name) and we support marine biology and ecology research. Examples include X, Y, Z (list research areas here)'.

So, to summarise: introduce yourself, what you do (using the term 'research infrastructure' or not, based on your audience), and then dive into the key messages!

Then, as suggested by one survey respondent, explain how your RI will benefit African researchers, indicate where to find information online, including on how to access and use the RI.

> **Tip: Craft specific messages or 'catch phrases' to grab stakeholders' attention**

Think of this as the initial entry point – how you are going to get into the door (figuratively speaker) and get stakeholders to listen. The key is to incorporate wording based on target audiences' needs and to anticipate their perceived constraints.

Tip: Include phrases/keywords that reflect two-way interaction (collaboration) and the ease of working with your RI

Based on the findings of the survey, it is recommended to develop messages focusing on the ease of accessing/using research infrastructures (and in particular yours!), and to anticipate any funding requirements or political issues that may deter potential users. This means that you would need to do some 'homework' on funding opportunities and present the information in a clear way to the targets. If the target audiences feel as if they're 'left to their own devices' for funding, this could be a strong deterrent. (Consider that certain countries, particularly South Africa, do have some national funding possibilities for collaboration with EU RIs, provided that the collaboration is presented in a strategic, impactful way, with a strong value proposition and return on investment.)

Messages should assuage African users' (eg scientists, students, institutes) possible fears that access and funding procedures will be overly complicated. In addition, the tools / facilities / equipment / services that RIs offer should be presented in a visually appealing, easy-to-understand way.

Tip: Include supporting materials/links and make materials easy to find on your website

When communicating these messages, or others, to your target audiences (via email, social media, or other, see channels section below), make sure to include appropriate links to your website, where this information should be visible and clear.

To improve visibility, you could consider having a **new main tab for 'International users'** or something along those lines. Here you could include information on how international users can pay for EU RI services, and include any information regarding special rates or discounts for specific countries/regions, if applicable.

You could also include **user stories** here, and/or examples of existing international partnerships, MoU's, collaboration agreements, and so on. The messaging of 'We are open for business to international users' will be more poignant, in effect, if you can point to examples of previous collaboration. (Admittedly, this will not be possible until you have had at least one international user experience.)

This strategy is applicable for both 'active' and 'passive approaches' – even when you are not actively reaching out to international stakeholders, you should make it easy for them to find the information they need on your website to consider collaboration.

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Step 5: Identify relevant communications activities, tools, and channels

Communications strategy section title: Activities, tools and channels

Once you have identified your target audiences and relevant messages, you can determine which communications tools, activities, and channels are appropriate to get your messages across. This involves thinking about what information to convey and how (ie via social media, newsletters, websites, media outreach).

This step is two-fold: it includes the proposed communications actions to actively reach out to international target audiences, as well as the actions to enhance information on the RI's own existing channels (eg website, social media) to make it known that international collaboration is possible and that 'we're open for business'.

This section includes general tips and best practices, with occasional country-specific examples to better explain the proposed approach.

> **Tip: First consider your approach and know where to start (usually the director's office!)**

Before diving into the proposed tools/channels section, it's important to briefly address approach – essentially who you will be reaching out to (and how). Because, ultimately, if you're 'Tweeting into the wind', that will not help your EU RI to get its foot into the door and a meeting with a research institution director (if that's the goal).

Many respondents suggested starting with governments (including heads of Ministries of Education, Research, Science, Technology, etc.) and organisational directors, managing directors of relevant national facilities, and so on.

> " 'It would be better to have first a **structural approach, i.e., identify and engage the research institutions or large research groups rather than the individual researchers'**, Umberto D'Alessandro, unit director, MRC Unit The Gambia at LSHTM.

Another respondent recommended in-person meetings:

> " '**Protocols** are very important. Hence **EU-RI should invite Directors at Ministries for Science and at Universities to visit the R**I', Rakeshnie Ramoutar-Prieschl, head of department, University of Pretoria

Others advised connecting with the international liaison person at the National Research Foundation (or the country's equivalent if one exists)[13] or research offices at universities. It was also advised to connect with communications officers at universities, national research institutes, national funding agencies, government science departments, and science NGOs (Karen Cloete, Senior Researcher, University of South Africa).

This does not mean, however, that individual scientists cannot be the recipients of your messages (although ultimately the directors decide on collaboration proposals):

> 'Contact press officers and individual scientists in their field. Ultimately, they will need to come to the Director with a positive proposal for collaboration...' (Jim Todd, LSHTM).

Now that we've discussed approach, we can move on to the tools / channels that are at your disposal. Please note that it will be part of the 'homework step' to identify relevant existing newsletters, websites, and other tools in your target countries. (We do not include detailed information here.)

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13. 'A good point of entry would be the National Research Foundation (NRF) in South Africa. The NRF will then inform the research offices of all the South African Universities about a potential collaboration with a ERI. The ERI is also welcome to make contact with research offices at South African Universities or with individual scientists at universities, research institutions and companies. The ERI could also contact the Department of Science and Innovation (DSI) to assist with a point of entry', Johannes Neethling, professor in physics at Nelson Mandela University, Director of the Centre for HRTEM.

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WEBSITE

If your future potential African partners can't find you online, or they can, but leave your website scratching their heads in confusion, you have a problem. Here are some ideas for enhancing your website:

- **Dedicated section:**

  › Add a section to explaining how your organisation currently works with international users.

  › Feature user stories once they exist.

  › Make contact information visible.

  › You could add a short explanatory video of how international collaboration with your RI works – what is the gain for all parties involved (ie mutual benefit), and how the 'access process' works (from project development, to implementation, and so on).

  › Any information on the cost of services for international users (and potential funding sources per region) is recommended. If being part of a collaboration agreement or other formal arrangement comes with a monetary cost, make this clear. Furthermore, if there are 'flex pay' models (eg different fees for different levels of participation), provide the details and the value for each level; you can create, for example, a table with different columns ticking the advntages of each level of membership, as relevant.

  › To ensure that you're easily findable online, you could consider conducting an SEO (search engine optimisation) audit, and improving the quality/quantity of search engine traffic to your website

> **Tip:** Make it easy to find relevant information on your website (and node websites) and make yourself findable!

- **Focus on messages:** Remember to incorporate the messages you developed for your target(s) and highlight the mutual benefits of EU/ African ollaboration, and in particular for African countries. Make it clear that African stakeholders will play a key leadership role in the development of collaboration activities.

- **FAQ page:** Consider having an FAQ on the RI website specifically addressing international collaboration questions and in particular those related to funding.

- **Translation:** If you are targeting African countries which do not have English as an official language (eg Francophone West Africa), you may consider translating this part of your website into the appropraite language(s).

- **Node websites:** If your nodes have their own websites, you could have them add similar information, or simply redirect from their website to the 'main RI website' to find relevant information on opportunities for international/African stakeholders.

• **Funding/calls:** Again, funding is a primary concern, so make sure that any information related to funding (either provided directly by the RI, or available via funding agencies/bodies working in African countries) is presented clearly. If you (ie the EU RI) has a call, or are publicising a call, make sure that the procedure is clear.

• (future possible development) **Centralised RI portal:** Various respondents suggested that there be a single website centralising EU RI opportunities for international/African researchers, for example:

> 'The RIs must have a web page that contains a **reference to the country** they would want to use it, as well as an **explanation of how to gain access** etc. Most researchers will do an internet search to find an infrastructure. Also, **make a central European Infrastructure webpage that can be the portal'**. – Dr Manfred Scriba, research group leader, CSIR

Tip: Use other websites / blogs targeting African stakeholders to disseminate information about your EU RI

In addition to your own EU RI website, identify the relevant university or other websites targeting African researchers. For example, in the case of South Africa, one respondent suggested the following approach:

> **'Provide the details of the [EU RI] to the research offices at universities** and ask them to email the information to all academics at the institutions. This is normal practice and African scientists are in general eager to collaborate with Europe. Secondly, **ask the [National Research Foundation]** to put the information about the [EU RI] **on their website**. Thirdly, provide the same information to the **Department of Science and Innovation (DSI)** - the DSI strongly support international collaboration'. – Johannes Neethling, Professor in physics at Nelson Mandela University, Director of the Centre for High Resolution Transmission Electron Microscopy (HRTEM), South Africa

You can also see if your target audience (eg institutions, networks, associations, or any other entity) has a website, and request the inclusion of your communications/outreach material here. Think to identify other websites consulted by your target audiences, which could include, for example, EU project websites with a focus on African countries, event or conference websites, (international) donor websites, etc.

However, keep in mind the approach discussed above. While it is important that researchers are aware of potential collaboration opportunities, if the director is the individual who will have the ultimate say, focus on reaching that individual in a relevant, impactful way. That might mean printed brochures, a request for an in-person meeting, etc.

SOCIAL MEDIA

Recommended communications practices on social media include:

- Regularly updating your existing social media channels (Facebook, Instagram, Twitter, LinkedIn, YouTube, etc.) with information on international collaboration, and specifically on African collaboration.

- Encouraging your nodes to 'engage' with your social media content on international collaboration to increase reach/impact. Provide additional training to the nodes on how this can be achieved.

- Considering campaigns that support your goals, highlighting for example an African researcher's experience collaborating with your RI (eg staff/knowledge exchange, joint project), and the benefits of the experience for all parties involved. These 'user highlights' could include interviews or testimony from EU RI stakeholders as well. You could consider several years down the line conducting follow-up interviews (a 'Where are they now' type series), focussing on the benefits for local/regional development, as relevant.

- Considering additional social media accounts that have readership among African stakeholders.

- Connecting with relevant LinkedIn (or other) groups (eg Universities South Africa on LinkedIn).

In terms of process, the question can be raised again if social media is an effective place to start to reach potential targets in Africa, or should EU RIs start with government organisations and heads of (research) institutes? One anonymous respondent provided some insight:

> 'Although I say ... to start with **government organizations**, they can also be dead ends because they are too institutional and slow to respond. **Universities can be a good place to spread your message, but social media and other forms of quick, visual media will be more effective**. Start with a few **success stories** and promote those **through videos** distributed on **social media'**.

Tip: Use more than one social media channel, but do not spread yourself too thin!

Rather than creating accounts on all of the channels referenced by survey respondents (which is hard to do effectively, given typically limited social media/communications resources), you can tailor your approach to your specific targets. By discussing with your RI peers who have experience, or the target audiences themselves, you can determine where it will be appropriate to include information.

**Tip: Identify the local thought leaders, follow relevant accounts**

Follow your target audiences' accounts on social media. Follow their followers (they usually follow back). Ask stakeholders for information on the 'thought leaders' and/or influential scientific personalities on Twitter, LinkedIn, and elsewhere. You can send direct messages to these individuals, if you have not yet been in touch, inform them who you are, and ask them for support in spreading your messages/posts to their followers.

Identify the thought leaders in the African country/ies that you are targeting; tag individuals, networks, universities, or other accounts that have been identified as key targets.

Insights from stakeholders in African countries...

Social media channels used by stakeholders in African countries

The survey revealed a diversity of social media channels that would be relevant for RIs to reach African stakeholders, as shown in the Figure below:
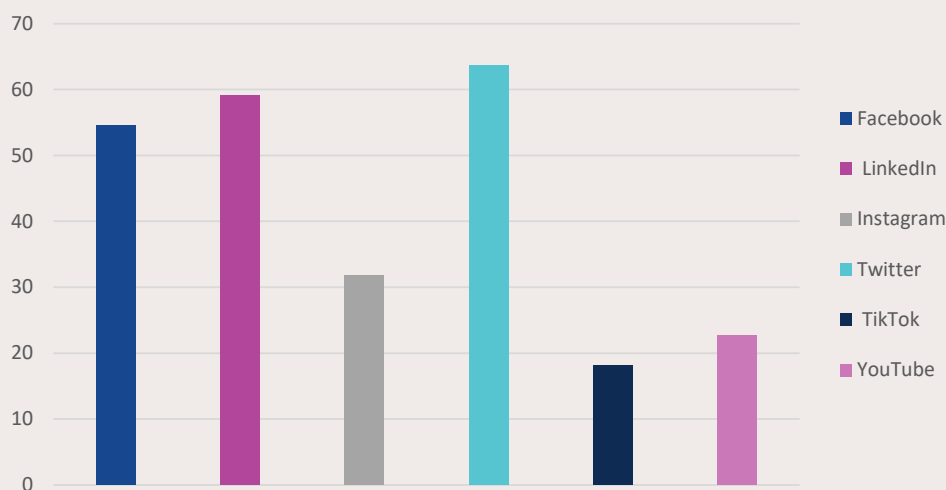
Figure 2: Appropriate social media channels for communications, as perceived by the survey participants (n=22).

As shown here, the three recommended channels appear to be Twitter, LinkedIn, and Facebook. Considering that YouTube was not in the top three, EU RIs may consider posting their videos on the three aforementioned platforms, in addition to YouTube, to increase viewership.

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MULTIMEDIA

Videos: Consider developing a short video providing an overview of how international (specifically African) users can collaborate with your RI; this could include different situations, like the development of an MoU (and the potential mutual benefit), a collaboration agreement, a joint project, staff exchange programme, etc.

Webinars: To attract African users, you could develop a webinar series, targeted as them. Ideally this would be done in collaboration with a local partner, and would feature both African and EU RI speakers, and would link to how EU RIs and African stakeholders can work together. A recommended format would be 20 minutes talk, 10 minutes discussion, with talks in English as feasible (to avoid the occasional awkwardness of live translation).

PRINT / ONLINE DOCUMENTS

Brochures: Consider developing a short and long brochure talking about your RI's experience with international users, and any specific experience collaborating in African countries; you could present your goals for the region in terms of joint project development or other, and present the benefits for both parties in engaging in collaboration. Make sure to make it clear why African stakeholders would be interested in working with your RI, how it would advance their own research agenda / publication potential, and why you would want to work with them.

> **Questions to address in brochures (and other promotional materials):** What can your RI provide? How are collaborative projects developed, taking into consideration international (African) stakeholder needs, desires, and long-term scientific objectives. What do international users need to to apply to use services? What are the funding sources available, and what role can the EU RI play in making the funding application process as smooth and easy as possible (for example).

> **Develop other materials as relevant:** If you are going to visit local stakeholders, you can create additional printed materials like posters or goodies (eg a tote bag – but keep in mind, those cotton bags require a lot of water to make!).

> **Policy briefing:** Consider developing relatively simplistic (minus the jargon!) materials for funders/policymakers communicating the value of working with your RI, and the potential benefits for the country/region in question.

NEWSLETTERS

RI newsletters (and/or joint newsletters): If relevant, you could develop a newsletter focusing specifically on the collaboration between your EU RI and local stakeholders – if an MoU or collaboration agreement has been created with a specific institution, this could be a joint editorial effort, featuring both logos, and you could ask African scientists and EU RI stakeholders (RI director, site service providers, technicians, etc.) to provide editorials, short texts, or interviews. Any scientific articles stemming from collaboration between the RI and the local institution (or 'RI' depending on the country/partner – again, there are RIs in South Africa) could be featured here as well.

Tip: Create a mailing list for your communications materials for African countries

In addition to asking local partners in African countries to disseminate information, you should also build your own mailing list.

Dissemination via local newsletters and/or those of relevant European (H2020) projects focussing on the region: Consider disseminating information about your EU RI (collaboration opportunities, staff exchanges, services, etc.) via existing newseltters in African countries.

Tip: Identify local newsletters as well as newsletters for relevant H2020/Horizon Europe projects

Check local stakeholder websites (see section above for tips/URLs for select countries), and see which ones have newseltters. Use the website contact information (or your local focal point) to explore the possibility of including information about your RI in the newsletter.

PRESS, MEDIA & OUTREACH (INCLUDING TV & RADIO PRESENCE)

Press / media: Draft and disseminate press releases, as relevant; coordinate interviews and press conferences, with both European and African stakeholders. Coordinate with local journalists/communications officers to lead these activities. As feasible, contact local television networks as well as radio stations.

In effect, several respondents indicated that local and international TV as well as radio and print newspaper could be effective channels in reaching stakeholders in African countries. Your use of these tools will depend on your strategic goals and the context of your collaboration in the region. For example, if a joint project is launched, which is relevant for the region, then it may be appropriate to contact local (or international) TV or radio stations. An idea is to have an interview with the EU RI director (or other individual) and the African leaders/scientific directors involved in the project.

Tip: Locate the relevant news sources

For example, in South Africa, Mail & Guardian is apparently a highly visible publication. As relevant, you could connect with individuals there to disseminate news (via their website, or other means). They would likely have valuable resources on the intracacies of communicating via the press in the country.

If a press conference were to be held, this would need to be done in conjunction with the relevant press office – either at the research institute, or, as relevant, with a Ministry's communications director. For in-person press events, there are certain protocols to respect for the invitation of local journalists. See below.

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Some institutions in African countries may have a dedicated press office. Contacting the head of this department would be a good starting point to discuss strategy and potential collaboration opportunities for information dissemination / promotion. It will be much easier to engage with local media if you have a local contact to assist you with this purpose (they may also recommend local agencies for the purpose of organising press conferences, if they cannot perform this service themselves). If the research institutions do not have a press or communications office, this might be the case at relevant government ministries (eg Ministry of Health). Make sure to ask your local partners for input on how to reach the media, and ask for introductions to relevant individuals as needed.

REGIONAL EVENTS

Respondents pointed to local or regional events, national scientific conferences, local research forums, and other types of networking or university events as relevant venues to present opportunities to collaborate with European RIs. We recommend that you attend in-person events and conferences with flyers, brochures, and posters (with should include links to additional information on your EU RI website). Some examples provided by respondents include:

- Annual conferences of the South African Institute for Physics, the Microscopy Society of Southern Africa as well as many other academic conferences

- AfLS Conferences

- ASSAf Annual General Meeting

- Big Africa Summit

- International Conference on Higher Education (ICHE)

- National / regional professional society conferences, eg:

  › Entomology Society of Southern Africa

  › South African Association of Botanists

  › South African Microbial Society

  › Southern African Society for Systematic Biology

  › Zoological Society of Southern Africa

- National Science Week

- Science Forum South Africa

- SciFest Africa

- USAf Higher Education Conference

It was noted that the research offices at the main research universities in South Africa in particular should be able to provide more information about the different annual conferences.

Step 6: Evaluation & next steps

(Communications strategy section title: Evaluation)

As for any communications strategy, evaluation is an important step. Anticipate how you will evaluate your regional communications strategy, and when. Evaluation questions could include the following:
(Note these are relatively generic suggestions, you will need to tailor them to your specific communications objectives/actions, and make them more specific):

- Have we achieved our objectives? If not, what potential factors (internal or external) interfered with the successful achievement of these objectives?

- Did we reach the right audience, and did we use the right tools?

- Did you encounter any issues, such as negative feedback regarding approach or word choice? How can you incorporate this feedback and make future contact/communication more appropriate?

- Were all pre-identified tools used? Or did budgetary or other constraints prohibit the creation of all anticipated tools?

- What worked? What did not, and why? How could we act differently next time? Who could you talk to to better understand what did not work, and, in turn, understand what is needed to be more effective?

- Were decisions taken as a result?

- Was the budget respected? Was the proposed budget adequate, or did we under-evaluate the required resources, in an effort to keep the communications budget low?

- Did we achieve our objectives in terms of events?

- How many people signed up for the event?

- How many people ended up attending the event?

- How does the above ratio compare to previous years?

- What was behaviour like on social media leading up to, during, and following the event? How many people visited the event web page? How many people Tweeted about the event? How many new Twitter followers did we get immediately following the event? Was there any press coverage in local/international media?

- Were specific conference objectives reached?

- Did the event lead to any new service requests or new collaboration agreement(s), MoU(s), joint projects, etc.?

Tip: add a timeline to your evaluation

Decide if you will evaluate the success of your regional communications strategy every six months, yearly, or something else.

Appendix

This section contains more detailed information about the respondents (see below) as well as detailed information regarding resources in the region and/or in individual African countries. As we did not have respondents from every single African country, please keep in mind that the resources are just a sample and can give you an idea of the kinds of resources to look for when developing your communications in the region.

Creating the guidelines: approach

Organising Committee

Following a recommendation from the RI-VIS project management team[14], the task leaders created an Organising Committee, including both EU stakeholders and one regional stakeholder, to oversee the creation of the guideline document. The Organising Committee developed the survey and managed its dissemination and analysis.

This Committee is composed of the following individuals:

- **Daniel Adams**, Chief Director: Basic Sciences and Infrastructure, Department of Science and Innovation (Republic of South Africa)

- **Bahne Stechmann**, Head of Operations & Scientific Strategy, EU-OPENSCREEN

- **Rita Costa Abecasis**, Communications Officer, European Marine Biological Resource Centre (EMBRC) Portugal / Centro de Ciências do Mar (CCMAR)

- **Sabrina Gaber**, Communications Officer, EMBRC headquarters

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14. Claudia Alén Amaro (Instruct) and Natalie Haley (Instruct) suggested the creation of an Organising Committee. In addition, Lisa Vincenz-Donnelly (formerly EMPHASIS) also lent support by providing a list of initial recommendations for respondents (with input from the white paper author, Meeri Kim).

Survey

Survey structure

The survey aimed to assess existing level of awareness and understanding of European research infrastructures (RIs). It also sought to identify the main interests and goals, as well as the main constraints in terms of engaging with European RIs for four pre-identified groups:

- Individual scientists

- Research organisations / institutions

- Research networks / associations

- Government entities

Respondents were asked to provide information such as how European RIs can better serve African scientists, what RIs can to ensure that they are found by researchers and entities from African countries, what channels are relevant to communicate on, and more. The idea was to gain a global yet detailed looked of current perceptions and proposed means to enhance collaboration using tailored, context-appropriate (and culturally sensitive) approaches.

Dissemination and respondents

The survey was in English, and respondents replied in English. The primary 'targets' (or desired respondents) were the individuals who contributed to the RI-VIS white paper 'Recommendations towards cooperation between African and European research infrastructures', as well as any new individuals recommended by the Organising Committee, and in particular by the local regional stakeholder (Daniel Adams). Bahne Stechmann supported dissemination to participants (primarily the speakers) in the Africa-Europe Symposium on Research Infrastructures, which was held online from 1-2 February 2021 as part of the RI-VIS project.

The Organising Committee did not have a set target for the number of respondents yet aimed for a similar number of respondents as for the survey previously disseminated to stakeholders in Latin America (which received 26 responses). After extending the deadline for contributions once, the Committee determined that an adequate number of individuals (from or representing a diversity of southern African countries) had been reached.

As stated in the Introduction, in all, 22 individuals responded to the survey, all of whom provided their consent to be authors of these guidelines and to share their findings. The country split for the 22 respondents is as follows: Belgium (1), Botswana (1), Kenya (1), South Africa (14), Tanzania (1), The Gambia (1), Uganda (1), Zambia (1), not indicated (1) (see Figure below).

Indeed, we had a disproportionate number of respondents from South Africa (63.6%) (and from southern, English-speaking African countries in general). However, the goal here is not to provide a country-by-country analysis of stakeholder perceptions of RIs. Rather the aim is to capture local perceptions regarding RIs to inform context-appropriate communications strategies/techniques. The lead authors/Organising Committee felt as if they could extrapolate the results and make them applicable in general, at least for English-speaking countries on the continent.

Note that some respondents were not 'local Africans'; there was a small number of European respondents with in-depth knowledge of the region, either by living and/or working in African countries. We found these perspectives to be valuable as the insights did differ slightly from those of other survey respondents, particularly in regards to the need to be wary of history and cultural differences and to jointly develop contextually appropriate, culturally 'sensitive' and locally empowering actions.

Finally, the composition of survey respondents does not necessarily help to capture an important element not discussed in the guideline document: internal power dynamics which may exist between different countries/ regions throughout the continent. This could potentially be developed in future potential work by EU RIs on communications African stakeholders (eg through additional project funding or as part of an individual RI's international/African outreach strategy development).

The large majority of respondents includes high-level scientists and directors (eg unit director, chief director, head of department, professor, researcher) working in research centres, universities, or similar academic institutions. There were no respondents from industry. One particularity of this group was having respondents who are not native to the region, yet have in-depth knowledge of the region (either by working physically in the region or collaborating with the region for several years).
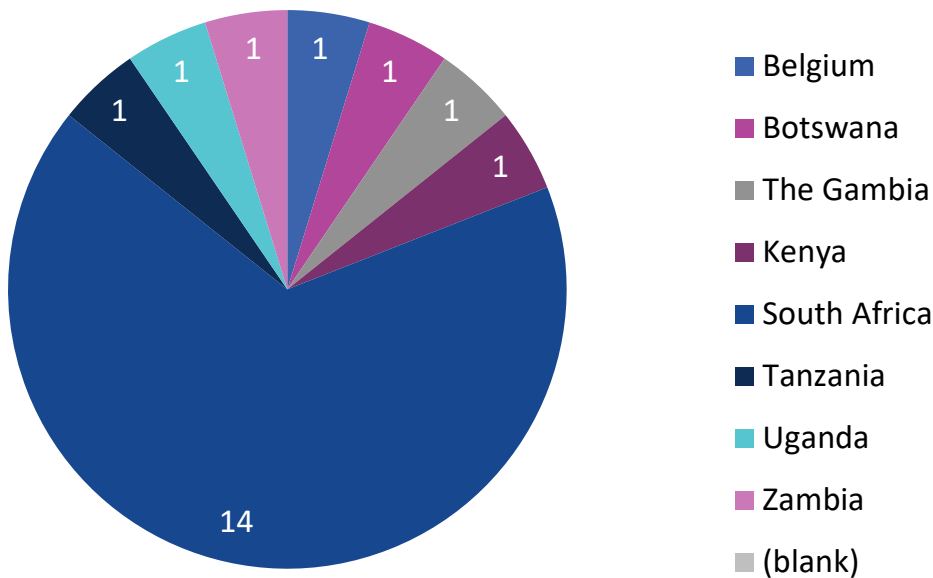
Figure 3: Survey respondents by country

Detailed survey respondent list[15]

First name	Affiliation	Position	Country
Daniel Adams	Department of Science and Innovation (DSI), South African	Chief Director: Basic Sciences and Infrastructure	**South Africa**
Markus Boettcher	North-West University	Professor and SARChI Chair of Astrophysics and Space Physics	**South Africa**
Karen Cloete	University of South Africa	Senior Researcher	**South Africa**
Umberto D'Alessandro	MRC Unit The Gambia at the London School of Hygiene and Tropical Medicine	Unit Director	**The Gambia**
Michelle Hamer	South African National Biodiversity Institute	Lead for two Research Infrastructure projects	**South Africa**
Kobus Herbst	DSI-MRC South African Population Research Infrastructure Network	Director	**South Africa**
Gregory Hillhouse	Botswana International University of Science and Technology	Head of the Department of Physics and Astronomy	**Botswana**
Langa Khumalo	South African Center for Digital Language Resources	Executive Director	**South Africa**
Agnes Kiragga	Infectious Diseases Institute, Kampala	Head of Statistics and Data Management	**Uganda**
Declan Kirrane	Intelligence in Science	Director	**Belgium**
Mylène Ndisi	University of Clermont Auvergne	PhD Student, Public Policy Innovation	
Johannes Neethling	Professor in physics at Nelson Mandela University	Director of the Centre for High Resolution Transmission Electron Microscopy (HRTEM)	**South Africa**
Rakeshnie Ramoutar-Prieschl	University of Pretoria	Head of Department	**South Africa**
Mike Sathekge	Nuclear Medicine Research Infrastructure (NuMeRI) and University of Pretoria, Pretoria	CEO of NuMeRI	**South Africa**
Manfred Scriba	Council for Scientific and Industrial Research (CSIR)	Research Group Leader	**South Africa**
Anjali Sharma	Centre for Infectious Disease Research in Zambia (CIDRZ)	Sr Research Technical Advisor	**Zambia**
Adrian Tiplady	South African Radio Astronomy Observatory (SARAO)	SARAO Deputy Managing Director: Strategy & Partnerships	**South Africa**
Jim Todd	London School of Hygiene & Tropical Medicine (LSHTM)	Professor of Applied Biostatistics	**Tanzania**
Marcello Vichi	University of Cape Town	Professor	**South Africa**
Anonymous			**South Africa**
Anonymous		Researcher	**Kenya**
Anonymous			**South Africa**

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15. Note: this table excludes the six anonymous contributors. Their countries are, however, indicated in the country statistics, as the authors felt as if this information was important and would not jeopardise the contributors' anonymity.

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Additional country-specific information

This section includes additional information provided by survey respondents, which may be helpful in developing a communications strategy for specific countries. Please consider that the information is limited to the countries we surveyed and is not exhaustive; there is naturally more information for South Africa, where the large majority of respondents are located, and where the RI concept is the most developed.

However, the information provided can provide a solid starting point to identify similar institutions in additional target countries. As we asked respondents to indicate interested parties in their 'region', in some cases they provided country-specific information, as well as relevant information for neighbouring countries. This led to a slight degree of repetition, which we tried to address in our lists.

Targets per country

Specific examples of potential targets per survey respondent country include the following[16]:

BOTSWANA

- **Research organisations / institutions:**
  - › Botswana International University of Science & Technology (BIUST)
  - › Botswana Institute for Technology, Research and Innovation
  - › iThemba LABS (South Africa)
  - › North-West University (South Africa)
  - › Stellenbosch University (South Africa)
  - › University of the Witwatersrand (South Africa)

- **Research networks:**
  - › The World Academy of Sciences (TWAS)

- **Governmental entities:**
  - › 'National Research Foundation in South Africa. As of the present, Botswana does not have a national funding agency for research and innovation' (Gregory Hillhouse)

KENYA

- **Research organisations / institutions:**
  - › African Population and Health Research Center (APHRC)
  - › Aga Khan University and Teaching referral Hospital
  - › Amref Health Africa
  - › International Livestock Research Institute (ILRI)
  - › Kenya Medical Research Institute (KEMRI)

16. Note: hyperlinks are included when individuals provided them; also, when there is potential confusion regarding the entity, we added hyperlinks to the institutional website to avoid confusion (eg for an institution that exists in more than one country such as MRC). One respondent noted that the institutions he listed in Tanzania 'will be replicated in Kenya, Uganda, Rwanda, Malawi, Zambia and South Africa'.

- › Kenyatta University
- › Masinde Muliro University of Science and Technology (MMUST)
- › Population Council
- › United Nations Children's Fund (UNICEF, Kenya chapter)
- › University of Nairobi
- › World Vision (Kenya office)

• **Governmental entities:**

- › 'All the relevant ministries have specific departments mandated to oversee research under the mandate of that ministry eg Ministry of Health, Ministry of Agriculture, Ministry of Forestry, Ministry of Education etc' (anonymous contributor)

SOUTH AFRICA

Starting point: Consult this comprehensive list of South African Organisations (involved in research, science and technology).

In addition, you can refer to any of the individual entities that survey respondents indicated as relevant for engagement with EU RIs including: 23 South African universities that conduct research, Science Councils, National Research Factilities of the National Research Foundation (5), RIs on the South Aftrican Research Infrastructure Roadmap (11), Centres of Excellence (14 SoEs), Centres of Competence.

• **Research organisations / institutions:**

- › **South African universities** (and specific departments/research centres, as relevant; note, only listed listed by survey respondents included here; click on hyperlink for additional online list):
- › Cape Peninsula University of Technology (CPUT)
- › Nelson Mandela University* (NMMU)
- › North-West University
- › Rhodes University*
- › Stellenbosch University
- › University of Cape Town (UCT) and Centre for Social Science Research (CSSR), an interdisciplinary research centre at the University of Cape Town
- › University of Fort Hare
- › University of Johannesburg (UJ),
- › University of KwaZulu-Natal (UKZN)
- › University of Limpopo
- › University of Pretoria (UP)
- › University of South Africa (UNISA)
- › University of the Western Cape (UWC)
- › University of the Witwatersrand, Johannesburg (WITS)
- › University of Venda
- › Walter Sisulu University

*Both NMMU and Rhodes University were said to have 'mature research programmes in physical and life sciences'

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- **Science Councils:**
  › Agricultural Research Council (ARC)
  › Council for Geoscience
  › Council for Science and Industrial Research (CSIR)
  › Human Science Research Council (HSRC)
  › South African Medical Research Council (SAMRC): DSI-MRC South African Population Research Infrastructure Network (SAPRIN) hosted by SAMRC

- **Medical Research Council (MRC)**

- **National Research Foundation (NRF)**, and its National Facilities (or 'linked institutes):
  › High Energy Stereoscopic System (H.E.S.S.)
  › iThemba Laboratory for Accelerator Based Sciences – iThemba LABS
  › South African Agency for Science and Technology Advancement (SAASTA)
  › South African Astronomical Observatory (SAAO)
  › South African Environment Observation Network (SAEON)
  › South African Institute for Aquatic Biodiversity (SAIAB)
  › South African Radio Astronomy Observatory (SARAO)

- **Other relevant institutions / RIs:**
  › African Institute for Mathematical Sciences (AIMS)
  › African Laser Centre
  › Centre for High Performance Computing (CHPC)
  › Mintek
  › National Health Laboratory Services
  › National Zoological Gardens of South Africa
  › Nuclear Medicine Research Infrastructure (NuMeRi)
  › South African National Antarctic Programme
  › South African National Biodiversity Institute
  › South African National Space Agency (SANSA)
  › South African Nuclear Energy Corporation (NECSA)
  › The National Institute for Theoretical and Computational Sciences
  › The South African Center for Digital Language Resources
  › Water Research Commission (WRC)
  › 11 natural science museums

- **Research networks:**
  › Academy of Science of South Africa
  › African Academy of Sciences
  › African Astronomical Society (AfAS)
  › African Regional Cooperative Agreement for Research, Development and Training related to Nuclear Science and Technology (AFRA)
  › African Research Universities Alliance (ARUA)
  › African young and senior academies
  › Association of African Universities (AAU)
  › COHRED

> Deep Learning Indaba, Data Science for Social Impact (DSFSI)
> Digital Humanities Association for Southern Africa
> DIPLOMICS
> DSI-MRC South African Population Research Infrastructure Network (SAPRIN) (also above)
> Implementation Network for Sharing Population Information from Research Entities in East Africa (INSPIRE-EA)
> Masakhane Natural Language Processing (NLP) Research Network
> Microscopy Society of Southern Africa
> PISA: Physics Institute of South Africa
> Research Group, African Institute for Mathematical Sciences (Ghana)
> Science Granting Councils Initiative of Sub Saharan Africa (SGCI)
> South Africa Educators Research Association (SAERA)
> South African Institute of Physics
> South African Institute of Physics
> South African Institute of Theoretical Physics (SA NITHEP)
> South African Nano-Micro Manufacturing Association (SANMMA)
> South African Network for Nuclear Education, Science and Technology (SAN-NEST)
> South African Research and Innovation Management Association (SARIMA)
> South African Young Academy of Science
> Southern African Research and Innovation Management Association (SARIMA)

List non-exhaustive. Many research networks exist in Africa and more details may be found on the internet, NRF and research offices at South African Universities. See also: https://www.gov.za/links/research-science-and-technology

- **Governmental entities [17]:**
  > Academy of Science of South Africa (ASSAf)
  > Council for Scientific and Industrial Research (CSIR)
  > Department of Environment, Forestry and Fisheries
  > Department of Higher Education & Training
  > Department of Science and Innovation
  > Department of Science and Technolgy
  > Department of Trade and Industry
  > Department of Water and Sanitation
  > Human Sciences Research Council (HSRC)
  > National Advisory Council on Innovation (NACI)
  > National Department of Health
  > National Institute of Humanities and Social Sciences (NIHSS)
  > National Research Foundation (NRF)
  > National Research Foundation (NRF) (see above)
  > South African Council for Natural Scientific Professions (SACNASP)

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17. 'Department of Science & Innovation is the main government department. Others such as the Department of Forestry, Fisheries & Environment; Department of Agriculture, Rural Development & Land Reform, Department of Higher Education & Training - do have some research functions. The National Research Foundation is the main government agency for research and this falls under the Department of Science & Innovation' (Michelle Hamer).

› South African National Biodiversity Institute (SANBI)
› South African National Parks (SANParks)
› South African National Space Agency (SANSA)
› South African Weather Service (SAWS)
› Technology Innovation Agency (TIA)

TANZANIA

• **Research organisations / institutions:**

› Catholic University Of Health And Allied Sciences (CUHAS)
› Ifakara (Health Institute)
› Kilimanjaro Christian Medical University College (KCMC) (and affiliates)
› Muhimbili University of Health and Allied Sciences (MUHAS)
› National Institute for Medical Research (NIMR) (multiple centres, focused on health research)
› University of Dodoma (UDom)

See footnote 12 regarding the replication of some of these institutions in other countries

• **Research networks:**

› EACCR2
› International Biometric Society (IBS)
› Sub-Saharan Africa Consortium for Advanced Biostatistics (SSACAB)
› SUSAN
› ThriVE (consortium of African/European institutions including research institutes in Tanzania – as well as Kenya and Uganda)

THE GAMBIA

• **Research organisations / institutions:**

› Institut de Recherche en Sciences de la Santé (IRSS), Burkina Faso
› Institut Pasteur Dakar, Senegal
› MRC Unit The Gambia at the London School of Hygiene and Tropical Medicine (LSHTM)
› Université des Sciences des Techniques et des Technologies Bamako (USTTB), Mali
› University Cheikh-Anta-Diop, Senegal

• **Governmental entities:**

› West Africa Research Organization (WAHO) (note: this is a regional organisation)

UGANDA

• **Research organisations / institutions:**

› Infectious Diseases Institute, Kampala
› Infectious Diseases Research Institute, Kampala
› Lung Institute, Makerere University, Kampala
› Makerere Walter Reed Program
› Medical Research Council (MRC)
› Rakai Health Sciences Program

• **Research networks:**

› European & Developing Countries Clinical Trials Partnership (EDCTP) Eastern Africa Consortium for Clinical Research (EACCR)

• **Governmental entities:**

› Uganda Academy of Science
› Uganda National Council of Science and Technology

ZAMBIA

• **Research organisations / institutions:**

› Centre for Infectious Disease Research in Zambia (CIDRZ)
› Copperbelt University
› National Health Research Authority
› Tropical Disease Research Centre
› University of Cavendish
› University of Zambia
› See also List of Education Institutes

• **Governmental entities:**

› National biosafety authority Zambia
› The National Health Research Authority
› The Zambia Agriculture Research Institute (ZARI)
› Zambia Medicines Regulatory Authority
› Zambian National Institute for Scientific and Industrial Research (NISIR)

OTHER

In addition to the research organisations / institutions, networks, and governmental entities listed by country above, respondents provided valuable information about potentially interested parties in the region as well as internationally. Note that the focus is again on the respondents' countries/regions and is not exhaustive.

- **Research institutions, networks, government entities & other relevant targets:**

  › African Academy of Sciences (AAS)

  › African Union (AU)

  › Association of African Universities (AAU)

  › Ghana Space Science and Technology Institute (GSSTI)

  › Industry ('The industry may be interested as the are commercializing the technologies that are produced by the research entities')

  › Institutes of higher education

  › International organisations / UN bodies (eg xx United Nations Institute for Training and Researc, UNITAR)

  › Legal entities that govern intellectual property rights of African researchers

  › Ministries of Research and Higher Education

  › Policymakers

  › Research Council of Zimbabwe (RCZ)

  › Science Granting Councils Initiative (SGCI) in Sub-Saharan Africa (main African country partners South Africa, Kenya)

  › South African Gamma-Ray Astronomy Programme (SA-GAMMA)

  › Public and private investment communities: European Investment Bank, African Development Bank, World Bank, International Monetary Fund (IMF)[18]

  › The African Academy of Languages

  › Uneswa Research Centre - University of Eswatini

  › Universidade Eduardo Mondlane (Mozambique)

  › University of Namibia (UNAM)

  › US foundations and philanthropies (Ford Foundation, Kresge Foundation, Bill & Melinda Gates Foundation)

  › USAID

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18. 'The European research infrastructures should rapidly develop a engagement plan and operating strategy for these bodies where they can be part of the investment strategy and aligning public policy objectives with public finance private finance as well as research funding, other stakeholders that are very important is the regulatory community. These are the standards and notified bodies in Africa that deal with data protection, data regulation, medical devices, clinical trials and other forms regulations which are emerging rapidly and Africa. For example on biobanking and clinical trials, it's impossible to see the solicitor for such as advancing if the regulatory issues are not an immediate part of the discussion. Again this should be raised in the forthcoming EU-Africa summit' (Declane Kirrane).

Target: main interests & goals by stakeholder group

A To gain access to equipment/services that are otherwise unavailable in their home country

B To organize/participate in knowledge exchange activities

C To attract international funding

D To establish formal collaboration agreements

E To develop joint projects

F To develop scarce skills of high importance for the country (Science Diplomacy)

Figure 4. Main interests and goals in engaging with European research infrastructures by type of stakeholder, as identified by the survey participants (n=22)

Target: main constraints by stakeholder group

Figure 5. Main constraints in engaging with European research infrastructures by type of stakeholder, as identified by the survey participants (n=22)

COMMUNICATION GUIDELINES FOR EUROPEAN RESEARCH INFRASTRUCTURES:
engaging with stakeholders in African countries

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