Coordinated Research Infrastructures Building Enduring Life-science services
- CORBEL -

Deliverable D2.1
Communication Strategy based on stakeholder analysis

WP2 – Documentation, communication and outreach

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Content

Executive Summary

For an effective outreach to stakeholders and to disseminate project results an appropriate communication and outreach strategy is a premise for each project.
The CORBEL communication strategy is based on an extended stakeholder analysis in which the CORBEL consortium identified project-relevant stakeholders and rated their power to support as well as their interest in the project. Described stakeholders were allocated to different categories, i.e. Allies, Supporters, Latents and Bystanders to coordinate the envisaged communication and outreach activities.
The main focus for communication will be on the three most important stakeholder groups a) user communities, b) policy makers and c) research infrastructures (RI). They will be addressed preferably in a direct consultancy (face-to-face meeting, virtual meetings etc.) and via web-based communication (project website, newsletter etc.).
As CORBEL aims to establish a framework of offers to serve the users' needs, it is essential that relevant information on envisaged/established services is transported to the outside. Messages should be precise and simple so that users not familiar with the complex structure of RIs are able to understand. Public relations material will be elaborated and be available for all participants.
It must be emphasised that CORBEL is not to be seen as a competitor for the participating RIs – in contrary, it will act as an amplifier of their outreach.
To ensure a smooth external communication a constant flow of information within the project is a premise. Therefore, this document also sets up a clear concept for internal communication. One main part of the internal communication is the CORBEL-internal web-space on Google Drive in which the consortium finds project-internal documents (e.g. contact list, project calendar, WP folders with working documents, templates) as well as documents to be used for outreach (e.g. info presentations, flyer). Several email-lists were set up which can be used to inform special groups within the consortium.

Project objectives

With this deliverable, the project has reached/this deliverable has contributed to the following objectives:

a) Development of an appropriate communication strategy

The cluster project CORBEL, i.e. Coordinated Research Infrastructures Building Enduring Life-science services, was placed in the H2020 program (INFRADEV-4-2014-2015). CORBEL brings together a critical mass of 11 BioMedical Science Research Infrastructures (BMS RI) from the current ESFRI landscape.

With its objective to establish a collaborative and sustainable framework of shared services between the BMS RI, CORBEL is exceptionally timely: due to new and advanced technologies novel data and insights are generated on a daily basis, but currently the scientific community is hampered to translate these data into applications, e.g. for personalised medicine. The envisaged innovation pipelines established through CORBEL will change this situation dramatically: users will be able to access different pipelines, involving several BMS RIs, to generate data and knowledge, utilize and apply them for the general good.

It is obvious that an extensive project as CORBEL needs an appropriate communication and outreach strategy. Communication to the external stakeholders has to be done on several levels (national as well as international) and needs the involvement of participating RIs. As the audience to reach during outreach is very diverse – 11 RIs and their stakeholders from different fields of biomedical research are involved) – the right message to be delivered has to be identified. On the other hand a smooth and effective internal communication is essential for CORBEL; it is a premise for reaching the projects' objectives and preparing appropriate outreach material.

To implement a successful communication three steps are mandatory: 1) identify relevant stakeholders of CORBEL, 2) define the added value for each stakeholder, resulting from their involvement in CORBEL and 3) use these results to develop and implement an appropriate communication strategy. This document provides the envisaged communication strategy for the CORBEL project.

Detailed report on the deliverable

Background

Analysis of demands

Subject to communication

Communication to external stakeholders has to start from the very beginning of the project, at that point focusing on awareness rising and initiation of user engagement. User communities (i.e. researchers and scientists) may have knowledge of single BMS RIs, but they are not aware of the opportunities which will arise from the framework of services planned by CORBEL. To define the market demand it is essential to inform and involve users as soon as possible. Transferring the message of what CORBEL will offer the user communities is the main objective of communication efforts.

Based on the broad spectrum of user communities the collaboration with and between participating RIs is a premise for communication. RIs will forward CORBEL's messages, thereby multiplying the outreach. The other way round, CORBEL will spread news and information from the different RIs, thereby increasing the RI's outreach. It has to be emphasised that CORBEL is not to be seen as a competitor to single BMS RIs; on the contrary CORBEL will increase its publicity, leading to new users for the RI.
Once the project up and running it is also important to communicate requests (e.g. participants for the use cases) and first results. A constant communication ensures that the stakeholders do not lose interest in CORBEL.

User engagement

The CORBEL project output, if the project is successful, will play a key role in enabling researchers who need access to the facilities or resources of more than one infrastructure. To achieve this, a significant amount of user engagement and feedback is needed. Key user input is built into the use case work packages 3 and 4, where users are resourced to "test" the infrastructure services. However, user feedback is also needed in some other work packages, where the users will be asked to contribute their time and expertise possibly without immediate benefit to them. It is important to be conscious of user time and resources and to plan interactions to be as efficient as possible. To aid this, a list of planned user interactions as per the Description of Action has been compiled (see Table 1).

Table 1: List of planned user engagement (according to the Description of Action)
D= deliverable, M = month

Task	**Type of user/stakeholder**	**User's/stakeholder's field of work**	**Type of user engagement**
Task 2.2	all CORBEL users/stakeholders	all fields of work	- different types of engagement, in close collaboration with the tasks described below
Task 2.3	all CORBEL users/stakeholders	all fields of work	- stakeholder meetings back-to-back with Annual General Meetings (@2nd, 3rd, 4th) - user workshop, back-to-back with workshop from task 5.4 (= open conference for potential users of common services) (M?)
Task 3.1	senior representatives for MIUF	ESFRI RIs, JPIs, ERA-NETs, IMIs, Science Europe, ESFRI Health and Food TWG	- (virtual) meetings - coordinating activities of WP3.2 to WP3.5 - capturing needs of scientific communities/funders through surveys and workshops
Task 3.3	experts for Patient-level Data Taskforce	meta-analyses, trial methodology, transparency/clinical trial registration, public/charity funding bodies, medical journal editors, medicines agencies, informed consent, data protection, IP, commercial confidentiality, IT,	- meetings (M6, M15, M24)

		standardisation bodies	
Task 3.4	IMI-APPROACH	establishing new biomarkers for osteoarthritis	- collaboration (demonstrator for the integrated solution developed in CORBEL)
	preclinical researchers	novel molecular imaging biomarkers for cancer	- collaboration (demonstrator for the integrated solution developed in CORBEL)
Task 3.5	population cohorts	prognostic biomarker for pancreas cancer	- sample and data provider
Task 4.1	researchers	systems biologists, translational scientists/biologists	- access to RI service pipelines in use case 1
Task 4.2	researchers	biologists, chemists, structural biologists, systems biologists, translational scientists, biotech/pharma industry, regulatory authorities	- access to RI service pipelines in use case 2
Task 4.3	researchers	structural biologists, systems biolgists, translational scientists, pharma industry	- access to RI service pipelines in use case 3
Task 4.4	researchers	biomedical researchers, toxicological researchers	- access to RI service pipelines in use case 4
Task 5.4	user communities testing the trans-RI user access model, RI operators	users from all BMS RIs	- survey - feedback workshop (D5.3)
Task 6.1	experts from BMS RIs, IMIS, etc.	assigning, handling and harmonising the identity	- engagement workshop
Task 6.2	users from pilot projects and other user groups	data ontology mapping	- surveys - one-to-one user experience sessions
Task 6.3	RIs, identity federations	federated authentication of data	- collaboration
Task 7.1	RIs, external experts	ELSI	- assessment questionnaire - joint workshop
Task 8.1	researchers, RI operators, industry	all user communities	-'Innovation Office' web portal
Task 8.3	RIs, industry	IP protection	- workshops (M12, M24, M36), whereas the first two are back-to-back with those from task 8.4
Task 8.4	RIs, industry	Expert Centres	- workshops (M12, M24, M?), whereas the first two are back-to-back with those from task 8.3

Identification of stakeholders and their needs

Mandatory for the development of a communication strategy is the knowledge of all potential stakeholders of CORBEL. Identification of stakeholders and their needs as well as the benefits CORBEL has to offer to the stakeholder community are the basis for preparation of appropriate outreach material.

Stakeholders relevant for CORBEL have been identified via an extended stakeholder analysis (milestone MS2.1)[1] that also comprised the definition of the stakeholders' needs. Directors of participating RIs were asked to provide a list of their stakeholders which are also relevant for CORBEL. Feedback was collated and RI directors performed a rating on the stakeholders' level of interest in CORBEL (from the RI point of view) as well as on their power to support CORBEL (from the RI point of view). Rating was performed using a range from 0 (no interest/power) to 10 (maximum interest/power). Ratings were averaged, i.e. the achieved rating points for interest/power for each stakeholder group were added and the resulting sum was then divided by the number of RIs that had provided a rating for this stakeholder (not all RIs provided ratings for all stakeholder groups).

Additionally, the deliverables and benefits for each stakeholder group were identified (see Annex I). Definition of deliverables and benefits are given in Table 2.

Table 2: Definition of deliverables and benefits for the stakeholder analysis

		Definition
Deliverable	Input to CORBEL	input of the stakeholder into CORBEL
	Output from CORBEL	output of CORBEL to the stakeholder
	Input to EU RTD-Strategy	input of the stakeholder matching the EU RTD strategy
Benefit	Input to CORBEL	benefit which CORBEL expects to gain from the stakeholder
	Output from CORBEL	benefit which the stakeholder can expect from participation in CORBEL
	Input to EU RTD-Strategy	benefit which the EU expects to gain for its RTD strategy

Stakeholder analysis – summary of results

Description of stakeholders

The extended stakeholder analysis revealed 36 potential stakeholder groups. A short description of each stakeholder is given in Table 3.

Table 3: Identified stakeholder of CORBEL and their definition

No	**Stakeholder**	**Definition**
1	Participating RIs	RIs participating in CORBEL
2	Member States	countries being a Member State of a participating RI
3	Industrial User	RI users working in industry
4	Academic User	RI users working in academia
5	Clinical User - researcher	RI users working in a clinic, doing research
6	Clinical User - healthcare professional	RI users working in a clinic as healthcare

[1] MS2.1 Stakeholder analysis roadmap to inform communication strategy

		professional
7	Depositor of resources/samples	researcher depositing biological resources at biobanks/mBRCs
8	Disease-oriented scientific communities	e.g. EORTC, EVER
9	Health and Research Ministries/Authorities	of participating countries and beyond (within Europe)
10	Research Funder	national research funders,(e.g. DFG, BBSRC), other national research councils, not-for-profit organisations (e.g. Gates Foundation)
11	Research Establishments	associations which connect independent research institutes, universities, e.g. Helmholtz
12	EU / ESFRI	EU and ESFRI group
13	Executive Board (of CORBEL)	acc. to Description of Action (DoA) and Consortium Agreement (CA)
14	BMS RI Strategy Board	acc. to DoA and CA
15	Scientific and Ethic Advisory Boards (of CORBEL)	acc. to DoA and CA
16	E-Infrastructure Advisory Board (of CORBEL)	acc. to DoA and CA
17	WIPO, national and regional patent offices, Technology Transfer Units	institutes/offices involved in IPR issues, patent issues etc.
18	Legal, regulatory and normative institutions / authorities	institutions/authorities dealing with e.g. ELSI-related issues, certification, ABS
19	Media	e.g. print media, TV, radio, online media
20	Journal Publisher	publisher of scientific articles
21	Ethics Committees	to be built on demand, involved in clinical studies/trials
22	Associations (Note: different associations have been grouped here; communication has to be customised for each type of association)	Society/Organisations that communicate to public, Associations of Researchers, Associations for Training and Education, Biodiversity Associations, Associations Bio-industry, Patient Associations, Associations in Bioinformatics, Labor Union, Education Associations, Equal Opportunity Commissioners and Departments
23	Supra-/International Organisations	e.g. WHO, UN, OECD, UNESCO, WMA
24	EU Infrastructure / Infrastructure projects	European infrastructures/infrastructure projects outside ESFRI BMS group, e.g. ERA-NETs, IMIs, JPIs
25	Regional infrastructures (outside Europe)	RIs outside Europe
26	Health Research Agencies outside Europe	e.g. NIH
27	Opponents of CORBEL	opponents of e.g. animal experiments, clinical studies, biotechnology
28	Industrial Technology Developers and manufacturers	providers of new instrumentation, technologies, software, etc.
29	Lobbying groups	e.g. OpenData/transparency lobbying groups

Analysis of stakeholders in aspects of power and interest

Analysis of stakeholders and handling of data was described above. The average ratings for 'power' and 'interest' for each stakeholder are provided in Table 4.

Table 4: Average rating of stakeholders in terms of 'power' and 'interest'

		Average rating	
No.	**Stakeholder**	**power**	**interest**
1	Participating RIs	9,0	9,8
2	Member States	7,8	6,9
3	Industrial User	5,2	5,4
4	Academic User	7,4	8,9
5	Clinical User - researcher	5,7	6,9
6	Clinical User - healthcare professional	4,9	6,0
7	Depositor of resources/samples	5,9	7,5
8	Disease-oriented scientific communities	6,8	7,7
9	Health and Research Ministries/Authorities	7,3	5,7
10	Research Funder	8,4	7,5
11	Research Establishments	6,1	6,2
12	EU / ESFRI	9,1	8,9
13	Executive Board (of CORBEL)	9,7	10,0
14	BMS RI Strategy Board	8,9	10,0
15	Scientific and Ethical Advisory Board (of CORBEL)	8,7	9,7
16	E-Infrastructure Advisory Board (of CORBEL)	8,6	9,4
17	WIPO, national/regional patent offices, Technology Transfer Units	4,0	4,5
18	Legal, regulatory and normative institutions / authorities	5,6	4,7
19	Media	4,0	2,9
20	Journal Publisher	4,9	4,3
21	Ethics Committees	5,4	5,0
	Associations (22-29)	4,0	4,4
22	Society/Organisations that communicate to public	5,2	4,2
23	Associations of Researchers	5,0	4,9
24	Associations for Training and Education	4,0	5,9
25	Biodiversity Associations	2,8	4,0
26	Associations Bio-industry	3,5	3,9
27	Patient Associations	4,6	4,3
28	Labour Union, Equal Opportunity Commissioners and Departments	3,1	2,4
29	Associations in Bioinformatics	3,9	5,6
30	Supra-/International Organisations	5,0	4,6
31	EU Infrastructures / Infrastructure projects	5,9	6,0

32	Regional infrastructures (outside Europe)	4,0	3,9
33	Health Research Agencies outside Europe	5,0	4,4
34	Opponents of CORBEL	2,3	2,3
35	Industrial Technology Developers and manufacturers	4,5	4,6
36	Lobbying groups	5,2	4,9

Graphic presentation of Table 4 is given in Figure 1. It illustrates that the level of interest in CORBEL as well as the potential power to support CORBEL differs between the stakeholders. It is obvious that for some stakeholders their expected level of interest clearly differs from their potential power.

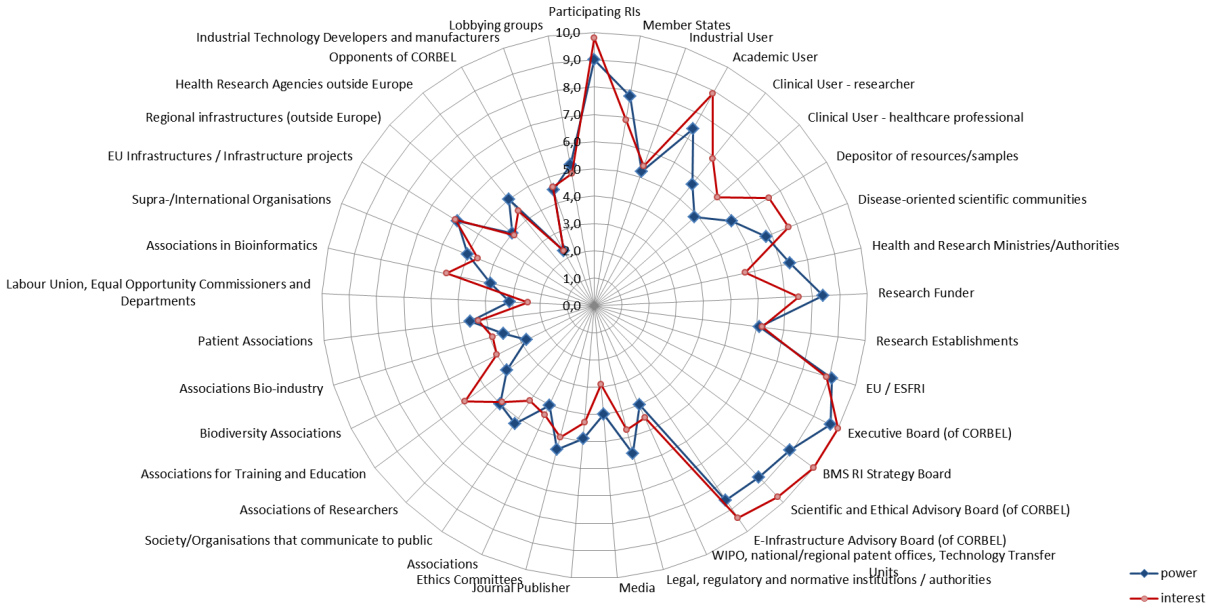


Figure 1: Average rating of stakeholders

The heterogeneous distribution in respect of power and interest between the identified stakeholders affects the communication strategy in a way that several communication mechanisms have to be applied and customised to deliver different messages. To facilitate this process, stakeholders were allocated to specific categories as described below.

Categorisation of stakeholders

The broad spectrum of identified stakeholder clearly affects the project communication: a lot of people have to be addressed, most of them with different messages as their expected added value from CORBEL is different. To prioritise the stakeholders and the efforts of communication invested in them, they are allocated to specific categories:

- Allies: high power and high interest
- Supporter: low power and high interest

- Latents: high power and low interest
- Bystanders: low power and low interest

The threshold for allocation to one of these groups was set at a level of power/interest of '5'; this bisects the range of possible levels of power/interest.

This leads to a categorisation of stakeholders as illustrated in Figure 2.

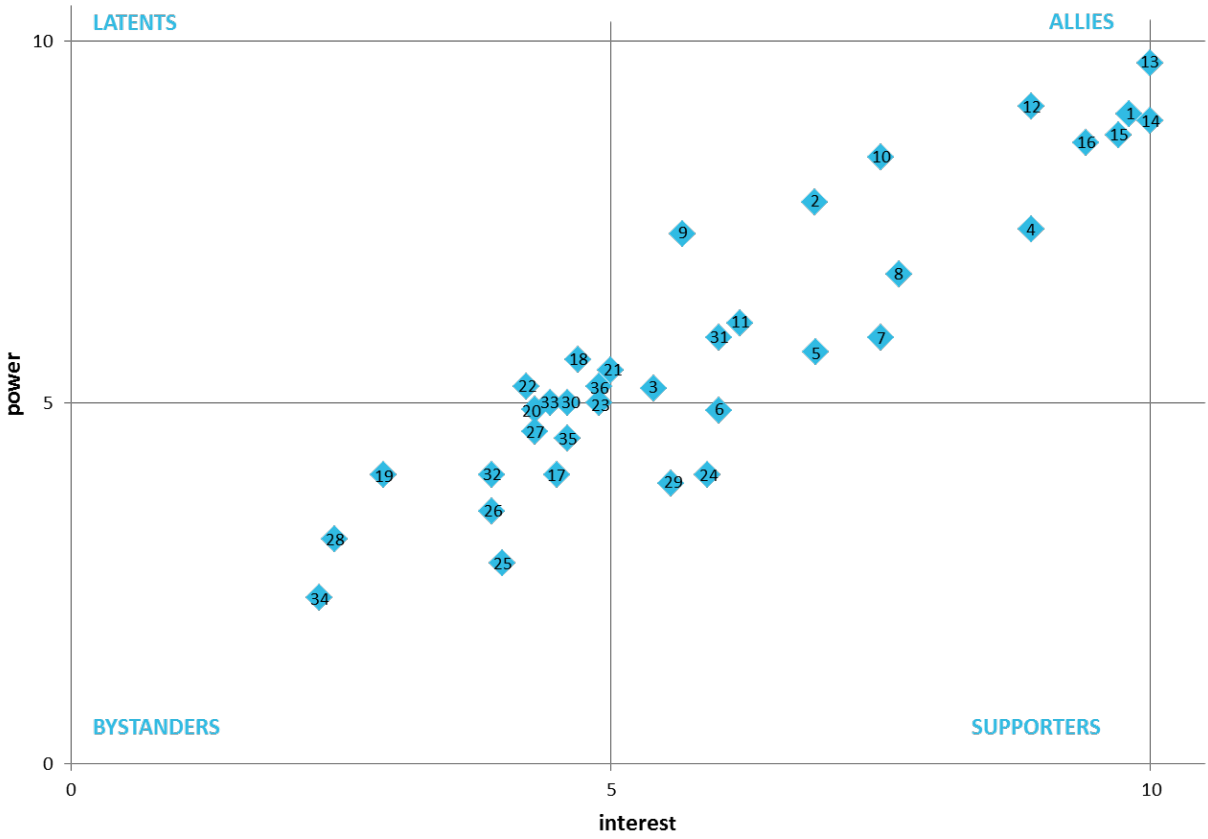


Figure 2: Categorisation of stakeholders

The categorisation clearly identified the most important stakeholder communities for CORBEL:

- the different user communities
- the internal stakeholders
- the different policy makers

As expected, all of them are allocated to the category of 'Allies'.

Description of Work – Communication Strategy

Available tools for communication and outreach

There is a broad spectrum of instruments available for communication with stakeholders. Potential communication channels and corresponding tools are described below:

a) direct consultancy

- face-to-face: probably the most effective way of communication, e.g. during scheduled meetings or at an event; feedback from stakeholders is received directly
- virtual meetings: telephone or video conferences are also efficient communication tools; in comparison to face-to-face meetings there are much more cost-effective; feedback from stakeholders is received directly
- exhibition at relevant events: presentation of the project at international events; feedback from stakeholders is received directly
- participation in relevant events: attendance, poster presentation and giving a talk during events where specific stakeholder groups are in the audience; feedback from stakeholders is received directly
- organisation of events: project-related events like stakeholder meetings, MIUF meetings or Annual General Meetings will introduce and/or continue dialogue with stakeholders; feedback from stakeholders is received directly

b) web-based communication

- website: provision of project information with a special focus on the users' needs and expectations on CORBEL, success stories, overview of offered services, links to participating RIs; feedback from the stakeholder is optional
  The website (www.project-corbel.eu) will also be used to disseminate information from the participating RIs.
  An internal web space (Google Drive) is already established for internal communication, i.e. exchange of documents, provision of templates, project calendar, etc.
- electronic newsletter: dissemination of news from CORBEL as well as from the BMS RIs, distribution as email, no PDF; feedback from stakeholders is optional
- social media: fast and easy way to disseminate information; feedback from stakeholder is optional
- email marketing: targeted email shots to members of a stakeholder group to raise awareness or distribute requests; feedback from stakeholders expected

c) print media

- public relations (PR) material: e.g. leaflets with a take-home-message for potential users or a small brochure introducing CORBEL and its participating RIs (see also ENVRIplus[2]); feedback from stakeholders is optional
- press release: national and international non-scientific articles, adapted to the needs of relevant stakeholders, transport the projects' vision; feedback from the stakeholders is optional
- scientific publication: peer-reviewed articles on scientific output of projects associated with CORBEL, e.g. pilot studies from WP3 or WP4; feedback from the stakeholders is optional
- project reports and deliverables: these public documents inform the stakeholder community on updates and achievements of CORBEL; feedback from stakeholders is optional

Communication Strategy - Outreach

Level of stakeholder engagement

[2] http://www.envriplus.eu/wp-content/uploads/2015/08/Booklet_EnvRIs-in-ENVRIplus.pdf

The effort invested into communication with a specific stakeholder group is defined by the level of their engagement. Stakeholders categorised as 'Bystanders' for example have a lower priority regarding communication efforts as 'Allies'.
The levels of engagement of the four defined categories of stakeholders are:

- 'Allies': This is the most important stakeholder group. Having much power to support the project as well as a high interest in it, it is mandatory to *collaborate* with this group. These stakeholders have to be involved in discussions and, in specific cases, also in decision making processes.
- 'Supporters': Having less power to support the project, but a huge interest in it, these stakeholders should be *involved* in the project. This can be done e.g. by consulting them in areas of their interest.
- 'Latents': These stakeholders would have the power to support the project, but they show no interest. Therefore activities to raise their interest will be undertaken to increase their interest (and potentially reallocate them to the group of 'Allies'). It is advisable to *consult* and engage this stakeholder group in areas of specific interest.
- 'Bystanders': This stakeholder group has neither much interest in the project nor the power to support it. Therefore, the basic level of engagement, i.e. *inform* them, is sufficient. Nevertheless, as a consequence of a good information policy it may be possible to increase their interest in the project, i.e. shift them to the 'Supporters' or at least prevent their adverse effect through misinformation.

The level of a stakeholder's engagement influences the choice of tools used for communication. An overview on suggested communication tools dependent on the different levels of engagement is presented in Table 5.

Table 5: Suggested communication tools for different categories of stakeholders; ***highly recommended, **recommended, *supposable

level of engagement		*collaborate*	*involve*	*consult*	*inform*
communication tool		**Allies**	**Supporters**	**Latents**	**Bystanders**
direct consultancy	face-to-face	***	***	*	
	virtual meetings	***	***	*	
	participation at events	**	**	*	
	exhibition at events	***	**	*	
	organisation of events	**	**		
web-based communication	website	***	***	***	***
	electronic newsletter	***	***	***	***
	social media	*	*	*	*
	email marketing			*	*
print media	PR material	**	**	**	
	press release	*	*		
	scientific publication	*	*		
	project report	**			

Stakeholders in the category 'Allies' require most attention from CORBEL. They collaborate closely with the project and have the highest engagement levels. This requires personal contact – that is why the focus here is clearly on the direct consultancy tools. This includes organisation of events, e.g. CORBEL board meetings and other face-to-face interactions. For a quick update on project news

'Allies' can use the website or subscribe to the newsletter – both services are offered to all kind of stakeholders and will be designed appropriately. The overall aim for this stakeholder group is to keep their interest in CORBEL, drive up its participation and prevent a decrease in the level of their engagement.
'Supporters' show a specific interest in CORBEL, but have less power to support the project. Nevertheless, it is important to involve these stakeholders in the areas of their interest – with the potential side effect to increase in their interest. To achieve this direct consultancy is again the preferred communication tool. Personal conversation, supported by PR material, allows a very efficient transfer of information and will lead to the required results. Additionally, regular project updates will be provided on the website and via the newsletter.
Those stakeholders allocated to the 'Latents' would have a certain power to support CORBEL, but are not interested. To raise their awareness and to increase their interest in CORBEL, communication focusses here on web-based tools. Providing project updates via internet and newsletter as well as consulting these stakeholders in areas of their interest/expertise will raise curiosity and may lead to a willingness of higher engagement.
'Bystanders' are those stakeholders who neither have much interest in CORBEL nor have power to support the project. Nevertheless, this stakeholder group should be monitored for their activity and kept informed on the recent project news. This will be done using web-based communication. The aim here is to increase the stakeholders' interest in CORBEL which would possibly switch them to a different stakeholder category.

Status quo

The stakeholder analysis did not reveal completely novel stakeholders; identified stakeholder groups are already involved in one or more BMS RIs and should therefore be familiar with the basic concepts of RIs and their offered services.
It is assumed that each RI participating in CORBEL has established a constant dialogue to all of its stakeholders. Regarding the communication of CORBEL-related information it is expected that this issue will be included in each RI's communication and outreach strategy.

Implementation

The communication and outreach of CORBEL starts with begin of the project. While some communication tools like website and PR material will be developed as soon as possible, outreach in form of personal communication started from day 1. The existing communication channels of participating RIs were also used from the very beginning to distribute information. As soon as possible the user communities will be engaged in the project and first results are expected around month 18 (see Figure 3). Contents of communication and outreach material will be updated regularly to be able to present the latest project developments.
Even if the CORBEL project ends after 48 months, it is envisaged to establish a sustainable framework of shared services that will be held up afterwards. For practical means, a revision of the communication strategy is necessary at that point.

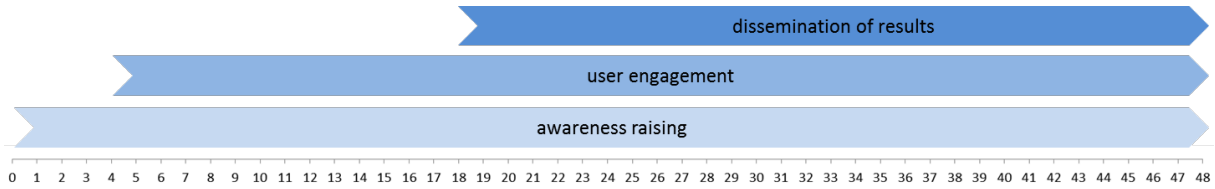


Figure 3: Timeline and contents of communication and outreach

Some general aspects to be considered when using the suggested communication tools:

- face-to-face

  These meetings need to be restricted to strategically important opportunities as they are costly.

- virtual meetings

  Telephone or video conferences are a cost-effective alternative for face-to-face meetings. For an effective performance and useful outputs virtual meetings need a thoughtful preparation.

- exhibition at relevant events

  It has to be ensured that exhibition of CORBEL at a specific event does not interfere with the exhibition of a BMS RI; this would be counterproductive. In case a BMS RI exhibits at an event, they will be provided with appropriate CORBEL outreach material for distribution. To get an overview on potential relevant conferences a list will be available on the internal website in which all RIs can fill in events from their field of work. Decisions on exhibitions will be taken together with the project management unit.

- participation in relevant events

  This should be limited to strategically important events as it is quite cost-intensive and only a small fraction of stakeholders is usually addressed during a conference. It is envisaged to encourage representatives of RIs who are given a talk/presenting a poster at an event anyway to add some information on CORBEL.

- organisation of events

  Due to budget limitation the list of invitees for CORBEL events has to be restricted. To reduce the number of attendees it is envisaged to invite so-called *multiplier* of certain stakeholder groups, e.g. a representative of a bio-industry association who will forward the information and outputs of the meeting to the association members.

- website

  The external website is a living document; it requires regular updates. WP2 is responsible for this, but a smooth flow of information from both the CORBEL WPs and the RIs is a premise.

  Google Drive folders as well as a Google calendar are used for exchange of internal information; this needs activity from all participants: everybody is responsible to upload relevant documents and to check for updates from others. A solution for those CORBEL partners may not being allowed to use Google Drive will be elaborated as soon as possible. Until then, all information will be distributed within the consortium via email, too.

- newsletter

  It is envisaged to distribute the newsletter quarterly, starting in 2016. The first newsletter will be sent to the newsletter recipients' database from the RIs and BMB (recipients will have the option to unsubscribe). Newsletter will be also available from the project website. WP2 will be responsible

for the production of the newsletter, but they are dependent on the provision of information from the WPs (and the RIs).

- social media

Experience from RIs as well as from BioMedBridges show that social media are an efficient and low-cost way to distribute information. CORBEL will establish via the WP2 leader accounts on Twitter, LinkedIn (group) and Facebook. The presence in the social media entails a certain activity – otherwise the accounts are of no use. It is envisaged to place posts on a daily basis; as CORBEL itself does not generate enough news, the CORBEL social media accounts will be used to multiply the posts of the participating RIs. Almost all 11 RIs have well established social media presences and will provide enough input. It is emphasised again that the CORBEL social media accounts are not to be seen as a competitor to those of the RIs; it should be seen as an amplifier, reaching an extended audience. In return it is expected that the RIs act as a multiplier for CORBEL postings, too.

Direct links to the CORBEL social media accounts will be placed on the project website. For an initial awareness raising among stakeholders it is envisaged a) that RIs indicate the CORBEL social media presence to their stakeholders and b) that stakeholder will be invited to follow CORBEL accounts via their own accounts (active acquisition of followers).

- email marketing

This instrument has to be utilised carefully as many stakeholders may feel harassed. In addition, due to the amount of incoming emails per day it may just disappear or be deleted. To avoid this, a concise email header and a short and simple text are necessary. To avoid bothering stakeholders with email shots too often, a proper documentation is needed here.

- PR material

Customised PR material has to be produced communicating the appropriate messages to the different stakeholder groups. Material will be available via the internal website and/or will be sent to all RIs (e.g. leaflets, brochures) so that they have material at hands when needed. Production of PR material is coordinated via WP2, but input from all WPs is required.

- press release

The procedures regarding press releases are described in the CORBEL project handbook (D1.1)[3]. All kinds of press releases have to be forwarded to WP2 leader (in PDF format) for documentation of outreach.

- scientific publication

Scientific peer-reviewed publications originated from CORBEL-related services, e.g. from the use cases in WP3 and WP4, have to acknowledge CORBEL. For the correct acknowledgement see the project handbook. The project management should be informed about articles prior to publication and articles should be provided as PDF file to the WP2 leader for documentation of outreach.

- project reports

All deliverables and project reports are public, i.e. they will be available from the website (as PDF file).

Figure 4 illustrates the timeline of CORBEL, highlighting some occurrences of special importance for communication. Finalisation of shown deliverables as well as announcements of scheduled meetings are of special interest for the stakeholders and should be communicated in a timely manner.

[3] deliverable D1.1 Project handbook

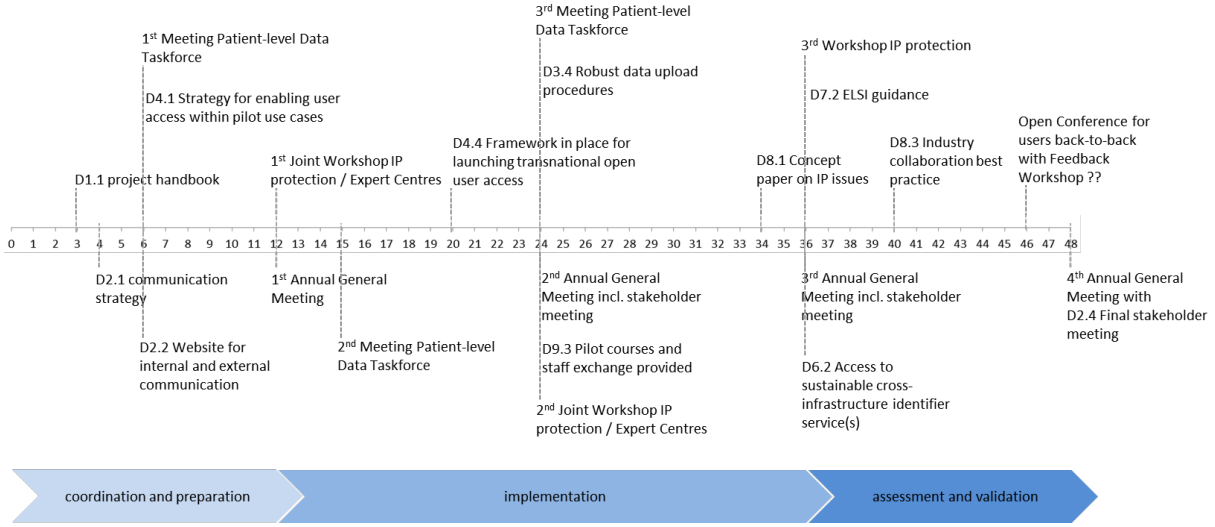


Figure 4: Occurrences of special interest for communication; timeline shows project month 0 to project month 48

Internal Communication

A smooth and efficient internal communication is a prerequisite for the success of CORBEL. To ensure the horizontal (e.g. between WPs) and vertical (e.g. from WPs to coordinator) flow of information a certain level of activity from all participants is necessary (see also Figure 5). There should be one representative of each RI as a contact person for WP2. This person will forward collated information from the RI to CORBEL and *vice versa*. WP co-workers as well as WP leaders are not only responsible for communication within their WP but also for flow of information across the different WPs. Special positions regarding internal communication come up to the technical coordinators of WP3 and WP4. They are responsible to collate and communicate relevant information from the use cases.

Some aspects of internal communication, e.g. the general internal communication policy, will be covered by the project handbook (D1.1).

As CORBEL unites 11 BMS RIs from very diverse fields of work and with different internal structures the project's internal communication will be a challenge.

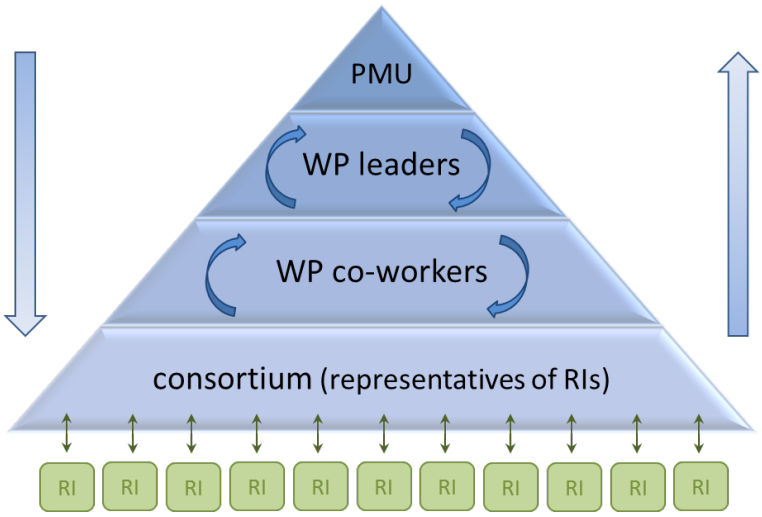


Figure 5: Horizontal and vertical flow of information within CORBEL

Communication channels

There are four main communication channels for internal communication within CORBEL:

- internal website: It was decided that the internal website will be outsourced to Google Drive since many RIs made the experience that people do not use password protected areas on the project website. All participants of CORBEL have access to the Google Drive folder and specific web spaces (folders) have already been generated by the project manager. These folders serve as a source for internal information and as a platform for exchange. Participants can find PR material, templates and other internal documents. Each WP owns a folder in which documents can be exchanged and WP-related information can be stored.

- email lists: The project management unit already generated several email lists addressing specific audience, e.g. the WP leader group, the Executive Board. Participants are encouraged to utilize these lists to distribute information or place requests.
  Note: It is a well-known fact that people receive an increasing amount of emails per day. Therefore, the "Reply to all" function of the email program should be used with care!

- meetings (physical as well as virtual): In order to spare the project budget most of the internal project meetings will be virtual (telephone/video conference). Based on the requirements from the Description of Work there will be a regular schedule of virtual and physical meetings.

- flash reports: It is foreseen that the project management prepares a monthly flash report based on general project metrics (e.g. completed and upcoming deliverables) and input from each WP. This report comprises 1-2 PowerPoint Slides, describing the work done, results achieved etc. Flash reports will be available for the consortium via Google Drive and distributed via e-mail. Project partners will be able to add the flash report slides to any presentation as needed to present and up-to-date status of the project.

Implementation

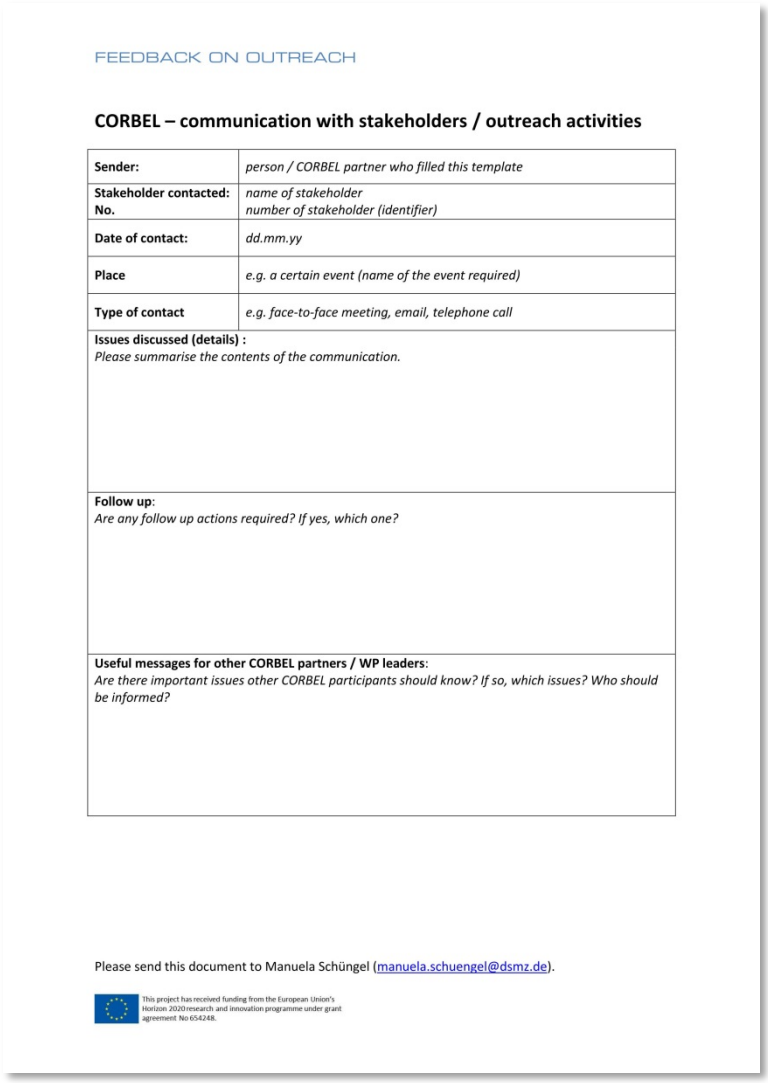
Internal communication has to be set up from the very beginning of the project.

Some general aspects should be reconsidered for the internal communication in CORBEL:
- Use the “Reply-to-all” button of your email program wisely.
- Responsible contact persons in the WPs as well as in the RIs have to be named who will forward information.
- Participants are encouraged to answer requests timely and meet the given deadlines for feedback.
- Furthermore, participants should forward interesting information pro-actively to the consortium.

Next steps

Monitoring communication and outreach

The implementation of the communication strategy and outreach to the different stakeholder groups has to be monitored. To keep it as simple as possible a standardised template, the Feedback on Outreach template was developed (see Figure 6). It is available for all CORBEL partners via the internal website. Partners are requested to report major CORBEL-related outreach activities (e.g. presenting CORBEL at the RI’s exhibition booth at a conference, scheduling a meeting with governmental representatives/research funders, publications ...). Feedback will be collated by the WP2 leader who will add this information to the stakeholder passports.



FEEDBACK ON OUTREACH

CORBEL – communication with stakeholders / outreach activities

Sender:	*person / CORBEL partner who filled this template*
Stakeholder contacted: No.	*name of stakeholder* *number of stakeholder (identifier)*
Date of contact:	*dd.mm.yy*
Place	*e.g. a certain event (name of the event required)*
Type of contact	*e.g. face-to-face meeting, email, telephone call*
Issues discussed (details) : *Please summarise the contents of the communication.*	
Follow up: *Are any follow up actions required? If yes, which one?*	
Useful messages for other CORBEL partners / WP leaders: *Are there important issues other CORBEL participants should know? If so, which issues? Who should be informed?*	

Please send this document to Manuela Schüngel (manuela.schuengel@dsmz.de).

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Figure 6: Template for Feedback on Outreach

Revision

A communication strategy is a living document; stakeholders as well as their needs and expectations may change over time. It is therefore recommended to revise the current document regularly, e.g. in month 24 and month 48.

Abbreviations

ABS	Access and Benefit Sharing in the context of the Nagoya Protocol
BBSRC	Biotechnology and Biological Sciences Research Council
BMS	BioMedical Science (in the context of ESFRI)
CA	Consortium Agreement
CORBEL	Coordinated Research Infrastructures Building Enduring Life-science services
DFG	Organisation of the German Research Foundation / Deutsche Forschungsgemeinschaft
DoW	Description of Work (CORBEL, grant agreement no. 654248)
ELSI	Ethical, Legal and Social Implications
EORTC	European Organisation for Research and Treatment of Cancer
ESFRI	European Strategy Forum on Research Infrastructures
EU	European Union
IMI	Innovative Medicines Initiative
JPI	Joint Programming Initiative
NIH	National Institutes of Health (USA)
OECD	Organisation for Economic Co-operation and Development
PR	public relations
RI	research infrastructure
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organization
WHO	World Health Organisation
WIPO	World Intellectual Property Organization
WMA	World Medical Association

Delivery and schedule

The delivery is delayed: NO

Adjustments made

No adjustments made.

Appendices

Appendix 1: Stakeholder analysis: Identified deliverables and benefits

: delivery of their scientific programme					
al structure of participating)RBEL)	- contribution to research and educational governmental strategies: sustainability for the national location - economic and excellence partner in key technologies	- foster EU RTD-Strategy - strengthening e.g. European employment - partner in solving of the Grand Challenges (health, food, climate, water ...)	- contribution for the sustained CORBEL infrastructure - increase of visibility and reputation	- return of investment on research and educational governmental strategies - confirmation of the political strategy towards ESFRI - image increase in international reputation - access to international grants	- strengthening of the European idea
roject etc.) g	- knowledge-bases - biological and technical resources, data - matching of economic and scientific requests and offers - training	- research and development in EU and national Grand Challenges	- trusted collaboration partner for the industry - network - funding - gaining of project partners - access to technical infrastructure within the industry - commercial income ? (if CORBEL offers specific services the user has to pay for)	- access to external knowledge-base - access to biological resources - access to technical infrastructure - inbound open innovation - customized products and services (increased portfolio) - legal and scientific consultation - access to new regional markets - enlarged possibilities for outsorcing of industrial research (enlarged CRO community) - cost savings (reduction of permanent costs) in internal technical infrastructure and personell costs - increasing knowledge-base for product and service development - reduced evaluation efforts (time and personell) to select potential R&D partners - access to selected partners with respect to quality and standardisation	- realisation of the political strategy (collaborative R&D) - fostering of innovation and patents enlarged markets
roject etc.) opment	- training - knowledge bases - biological and technical resources, data	- research in national and EU Grand Challenges	- increase of methods (not available within CORBEL) - commercial income? (if CORBEL offers specific services the user has to pay for) - scanning of scientific landscape and identification of hot spots	- access to external knowledge-bases - access to training - access to biological resources - joint publications	- strengthening of research / research community - support of scientific excellence
roject etc.)	- training - knowledge bases - biological and technical resources, data	- research in national and EU Grand Challenges	- increase of methods (not available within CORBEL) - commercial income? (if CORBEL offers specific services the user has to pay for) - scanning of scientific landscape and identification of hot spots	- access to external knowledge-bases - access to training - access to biological resources - joint publications	- strengthening of research / research community - support of scientific excellence
amples, patient recruitment)	- training - knowledge bases - biological and technical resources, data	- ultimate end user of tools and health products/changes in practice that result from research and EU strategy	- users - collaboration contacts to increase visibility of project in medical community	- biological and technical resources - new health products and contribution to evidence-based practice	- buy in from end user community
rsity)	- trusted deposit - long-term availability of the holdings		- increase of biodiversity - visability of biodiversity - legal security - synergies	- elevation of research activities - legal confidence in resource usage - harmonised procedures / SOPs - safe / trusted resource deposition	- strengthening of research / research community - sustainability for jobs at mBRCs - improvement of international position
llaboration (research project	- access to data, resources, tools, services, collaborators	- cross-cutting infrastructure building	- buy in from major future users of CORBEL output	- biological and technical resources	- EU funded project benefits EU research communities
nding/membership of RIs in	- services and products that will optimise use of national health and research budgets	- foster EU-RTD strategy	- buy in from future investors in health and research	- beneficiaries of health products/innovations and and services that make more efficient use of health/research budgets	- EU funded project benefits national budgets
ion	- competence - safeguarding diversity / data - quality resources and services to support good science	- partner in solving of the Grand Challenges - share funding burden	- grants in the field of higher education and reseach - link to project partners - increase holdings, data, joint publications	- expansion of holdings, data, joint publications - services ensure more effective research/access to facilities	- strengthening of research / research community - share research burden, positive opinion of EU projects
ion nd instrumentation	- competence - safeguarding diversity / data - technical infrastructure - expertise/knowledge bases	- partner in solving of the Grand Challenges	- research grants - link to project partners - increase holdings, data, joint publications	- expansion of holdings, data, joint publications - enrichment of technical and knowledge-based infrastructure	- strengthening of research / research community - support of scientific excellence
H2020 grants)	- knowledge base - sustainable repositories for biological material and data - high quality material & services - excellence in science - EU projects	- part of the EU RTD-Strategy	- direct access to EU - access to RIs outside the BMS group - financial support (by e.g. H2020 grants) - EU / ESFRI as a conficence-building measure - beeing a part of the European Community	- proof of concept for H2020/INFRADEV-4 - positive impact to face the Grand Challenges - advancement of knowledge and technology	- proof of concept for H2020/INFRADEV-4 - positive impact to face the Grand Challenges - advancement of knowledge and technology

			- research grants	- access to research and associated data	and R&D - strengthening the bio-industry - protection of bio-industry interests
	- equal quality standards - one common entry point - test bed for practicability assessment of regulations	- compliance with international laws and standards	- implementation of CBD / NP - legal certainty - regulatory affairs - harmonized procedures / harmonisation - transparency	- high quality material, data - legal security - transparency and openness - expertise	- trusted biobanks/collections - harmonised standards - implementation of global laws / interests - implementation of political strategies
EL ty	- informing (scientific) society	- inform about implementation of strategy	- publicity / awareness of the project - visibility of social impact	- specific information	- publicity on the success of EC funded programmes
al used in scientific	- expansion of target group (outreach to scientific community)		- increase in holdings in biobanks/mBRCs		
of data sharing	- services and output complying to ethical standards	- ethical compliance	- users reassured of ethical compliance	- compliant research workflows	- highest ethical standards
ORBEL news	- positive content on scientific progress to communicate	- public opinion influences policymakers	- publicity, awareness, visibility, positive image	- increased efficiency in use of public/taxpayers money in research - faster delivery of health tools - transparency of reserach results avoids duplication and waste	- positive public opinion on EU research - improve public acceptance of new technologies and research
ORBEL news	- positive content on scientific progress to communicate	- public opinion influences policymakers	- publicity, awareness, visibility, positive image	- increased efficiency in use of public/taxpayers money in research - faster delivery of health tools - transparency of reserach results avoids duplication and waste	- positive public opinion on EU research - improve public acceptance of new technologies and research
	- technical infrastructure - expertise - tools for career development	- balanced growth of national expertise	- increase of methods / techniques / expertise - higher performance / broader skills of researchers - improvement of quality / quality of products - synergies & collaborations - exchange of experience	- access to international training - access to technical infrastructure - access to expertise - improved career development	- equal quality standards among researchers - excellence of researchers (national & international) - strenghtening of national expertise - job creation
s	- external knowledge-bases - biological resources and data - technical infrastructure	- research in national and EU Grand Challenges	- political influence - publicity	- expansion of stakeholder - access to external knowledge-bases - access to biological resources and data - access to technical infrastructure - training	- safeguarding and developing jobs and R&D
form	- partner network - knowledge platform - projects	- direct linkage between RIs and bio-industry market - mutual stimulation within the bio-industry	- access to network contacts - advanced and customized partner search - part of the horizon scanning - participation at meetings / conferences - access to potential partners / cutomers - access to market needs - expansion of PR possibilities & direct addressing	- access to high potentials in science - access to validated biological material and data - access to potential partners - translation of needs into products, services and science	- strenghtening of bio-industry
f methods for clinical	- faster delivery of preventative, diagnostic and therapeutic tools	- patients associations have strong influence on policymakers and policy	- buy in from participants in clinical research - buy in from beneficiaries of output of medical research	- expansion of use of evidence-based medical practice - increased efficiency in use of patient data	- development of research capacity and priority in line with expectations of patients and citizens
	- career development	- equal rights for all people - social freedom	- attraction of broader range of researchers - quality standards	- attractive and competent employer (institutes within RIs) - facility independence	- equal treatment of gender and social situation - job creation
	- training/ workshops - knowledge bases - biological and technical resources, data		- scanning of scientific landscape and identification of hot spots - outreach to wider research community	- access to external knowledge-bases- access to training	- strengthening of research / research community - support of scientific excellence

ew applications for instruments	- supporting innovation pipeline	- provision of access to latest technologies - collaboration with industry	- getting into contact with new user communities	- support of innovation strategy
h solutions that meet their aims	- lobbying influences policymakers	- vocal, visible groups support CORBEL project	- services and tools that further their goals	- strategy has support of vocal citizens groups