WORKSHOP SYLLABUS

SCIENCE COMMUNICATION

Biodiversity.be

This syllabus contains the information shared on the workshop 'Science Communication' organised by the Belgian Biodiversity Platform on 14 November 2018.

contents

1 | STORY TELLING

I. WHAT IS SCIENCE COMMUNICATION?

As Dr Samuel Brod, a British scientist, said: ***"Excellent science communication can capture the imagination: it can spark meaningful debate and discussions that grant science a stronger presence in our society."***

He's right! This is an exciting time for scientists!

As the flow and freedom of information increases at a seemingly exponential rate, we see ever more innovative and ambitious research carried out across the globe. And the interest of the public is equally growing.

We see a rise of celebrity scientists; scientific documentaries are greatly appreciated by the public; media love to cover science topics. And there is a **growing success of science events for the general public**.

This year, there were over 10,000 visitors to the festival *"I Love Science"* organised by Innoviris in Brussels. There are many others like *Science on Stage*, *Science Trucks Festival*, *the Spring of Science*, *the Pint of Science Belgium Festival*. Popular science has clearly brought research into the public sphere.

At its most aspirational, science communication can change the public consciousness, the very perception of reality. Just as Newton did by sharing his idea that there would be an absolute, true, and mathematical time. A time that would be uniform, independent of things and of their movement. This concept of time which is independent of things and in which we all have to fit our lives into daily, seems simple and natural to us because that's how we encountered time in school books when we were kids and, since then, everywhere else around us.

Newton's idea gradually became the way in which we all think about time. Yet, this idea has long been denied in the physics realm. Einstein replaced this idea by the concept of relativity, the idea that there is no single time, but rather that time and space are not absolute, they pass at different rhythms according to place and according to speed. Meaning that our contemporary way of life, running after time, is based on a so-called absolute time that does not even exist.

That's how powerful science can be. It can shape the mind of people and the way they see reality around themselves.

The unfolding of these physics discoveries was shared by **Carlo Rovelli**, an Italian physicist who published a series of newspaper columns in Italy that became so popular that they were translated into a best-seller book called *"Seven Lessons of Physics"*. Rovelli is able to present **scientific facts** in such a brilliant way that **even non-scientists can understand the most complex discoveries in physics.**

And **all of you have the power to do the same**. As biodiversity scientist, your goal might be to **make people understand the intrinsic value of species around**

us and make them realise that they are necessary to our survival.
And by doing so, you can convince people to take concrete actions daily and to put pressure on governments to save those species, and help our human society having a better future than the one we are currently heading towards.

Science communication can provide a stronger understanding of current research and its wider relevance to society.

In fact, **science communication is all about succeeding in conveying the importance of your research.**

It's about **getting people to understand why you do what you do.** Clear communication amplifies societal support so researchers need the capability and the willingness to explain their work to others and there must be a push to make science consistently open and accessible to the public.

Because **scientific journals are aimed almost exclusively at a scientific audience. But beyond that community, there's a significant number of people that wants to understand your research, both for its own sake, as well as to consider how your findings could have impact on medicine, environmental issues, agricultural policy, and so on**.

Whether you are targeting policy-makers, the media, and by extension, the general public, or even children, **one technique that will work across all types of people is story telling.**

II. WHAT IS STORY TELLING?

Storytelling is wired in our DNA for generations, since the very beginning of humanity. From the pre-historic cave arts to the telling of stories to our kids at bed time.

Story-telling connects human beings.

To give you a simile of why story-telling can help you communicate on your research, think of a dog getting sick.

Getting your dog to take his medicines is not easy, yet there actually is a simple way to get the dog eat the pill. You hide it in the food!

Your research is the pill. That's what you are trying to make others digest. And the story is the appetising food.

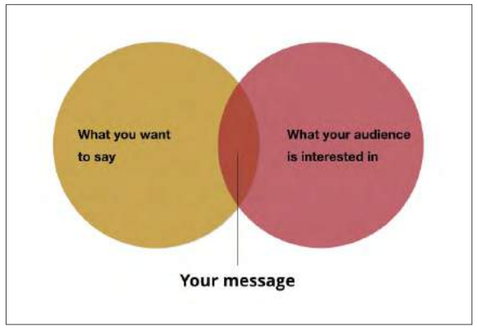
Your way of communicating research with scientific papers works for your peers, but outside the scientific community, you'll need to make it much easier to digest. And for a reader, if your research is hidden in a tasty story then they will understand what you have to say.

But before you start thinking of story-telling, you **first need to identify to whom your story is written for.**

Your message should come at the intersection of what you want to say with what your audience is interested in.

And so your story (the type of food you choose to hide your pill into) will change depending on the audience. Your story will be totally different if you address it to a private company, a journalist, a funding agency, or a local municipality.

For instance, if you work on a project focusing on the management of invasive alien species, and that your audience is a private company in the field of forestry, then you will talk about the risks of invasive species and the externalities for this company — The key message of your story will be that: 'your research results will help the company mitigate social and economic impacts of biological invasions and therefore diminish their costs by x%.'



Your story won't focus on your scientific methodologies, but rather on what is of interest to them, in this case, externalities.

Now if you want to share the result of the same project to a journalist, and by extension, to the general public, your story could start with what people already know about invasive species, maybe the ones they have in their garden. If you manage to grab their attention by starting from something that is of interest to them, something that they can relate to, then you'll have their attention, and from there, you can explain how your research can help them manage these very species that they are struggling with.

Now if you go to a policy maker, then your story will again be different. It will focus on societal issues they could partly solve if they would take up the results of your research.

So, **what you have to ask yourself first, about your audience, is:**

- **What do they care about?**
- **What do they think is important?**
- **Why should they care?**

This is the starting point of your story. Because one of the **biggest mistakes most individuals and organisations make is to try to appeal to everyone.** But that just doesn't work. **You can't address a policy-maker the same way you speak to a private company or a research funding agency. Your messages must be applied to the audience you are targeting.**

Once you have identified an audience, you need to think about their level of understanding: what do they know? and you start from there. Once you've got that, you can start building up the blocks of your story.

III. HOW TO CREATE A STORY?

Here is the **secret of stories! Nine times out of 10, they follow this very basic formula:**

- The first thing you do is **introduce an element**. It can be **a situation, a person, a topic… You set the scene**. And the main thing you've got to do is to make sure that **people can relate to the situation. Your audience has to relate to this element.**
- The next thing you do is **bringing in an obstacle**. This is a very important point in creating a story: clearly identify the conflict, the obstacle. **If there isn't an obstacle to get over, then the reward isn't as good in the end**. You can see that in all the good books and movies: the hero is always going towards some serious hardships and you are totally captivated by it. And in fact, your kids probably love that moment in their stories, when the hero is encountering his big challenge, even if you've read it to them a 100 times.
- And then you **reveal the outcome at the end**. This is the **result, the end of the story, it releases the tension, it creates an emotion, which is generally a positive one. It's the catharsis moment**.

EU4Facts video competition: ETN Demeter

Video illustrating the concept of story-telling in research

You can watch the application of this basic formula in this short video produced by *EU4Facts* that presents a scientific project to the general public. Watch it carefully and try to think of the structure the story follows.

In this video, the **introduction of the element** is the presentation of the magnets that are used in vehicles. The **connection element** is: *"you want to purchase green cars that are good for the environment"*. The **people relate to that. They identify to it**, they think that indeed, if they are going to buy a green car in the future, then it has to be good for the environment.

In the video we saw, the **obstacle** is twofold:

- Magnets are not recycled, yet they could be re-used for wind turbines, or city bikes.
- And the supply issue: the Chinese monopoly that led to the rising of prices due to protectionism; and the fact that this had strong impacts on the green economy of the EU.

Now t**he viewer feels like this is a serious problem, they feel like this situation really needs to be fixed. The tension is there**, the viewer is really listening.

The **outcome** is that the research of these scientists is going to make electric cars truly green and on top of that, Europe will be less dependent on other countries for the ressources needed to produce these cars.
This **gives a sense of relief to the audience. It gives a positive feeling to the viewers, who understood what this research was about but also bound with the idea that there is a need to fund this research that is crucial for our environment and for our economy.**

Clearly, by telling a story about her research in such a way, this scientist has been able to leverage societal support. She didn't need to use complex language. **People understood why this team of scientists work on this topic, and what the added-value of this research project is.**

STORY-TELLING

You don't have to create a fancy video to communicate your message. You can use this principle of story-telling in many situations: a social media post, a brief explanation of your project for a call for proposals, a pitch of your work to journalists or in a science festival…

So next time you read a book, watch a movie, or hear a joke, look at the structure and you'll see that very likely, it will follow this very basic structure.

You can make use of it. Try to tell a story about your research, what you are working on. Maybe give it a try for different audiences. Think about what is their interest, what in it for them. You basically grab their attention by making them relate to the problem in a personal way because you described exactly how they are affected by the situation. Then, think about how you could explain to them the obstacle that needs to be overcome. So you make the issue clearer to them and what it entails. And you give your audience some hope. You describe how things could change for them, and tell them how. And then, explain how your research could help in doing that. You paint a vision of the future, the outcome, that your audience would like to see: a clear vision of the future where their concerns are nonexistent and things are much brighter all around. You just need to make the ending clear and idyllic, enough for your audience to say *"I'd love to see that happen."*

But before you write your story, you've always got to ask yourself: why. Why do I want to even tell this story? What do I want to get from them? What kind of reaction do I want to create? And is my story any good?

Last but not least, stay positive! Research has shown that positive messages containing opportunities and solutions are, in general, more effective in encouraging behavioural changes than negative messages. So if you want to induce behavioural change in people, try to be positive: you might have scientific facts that show how bad things are, but try to end with a positive message that people can take home. Tell them what they can concretely do to make things better. You will have much more impact if you do that. And this is the case for any type of message, any channel you use, and for any target audience you are communicating to.

2 | VISUAL COMMUNICATION

I. WHY IS VISUAL COMMUNICATION SO IMPORTANT FOR SCIENTISTS?

1. TIME

The brain processes images 60,000 times faster than texts. A visual signal is way easier to process quickly than reading a sentence or a paragraph. An image can convey a lot of information within a short time. *"One image is worth a thousand words"* as the saying goes. So rather than explaining results or processes with words, it is really beneficial for scientists and their audience to use visuals to effectively convey a message within a short time. It's a win-win for everybody.

2. CLARITY

Visuals improves the clarity of information. You easily fall in love with the cover of a book or a movie because of the graphics used on the front cover or trailer respectively. This is the same way your audience *falls in love* with your research topic depending on how it is brought forward. When using images for scientific purposes, use simple graphics that will convey the same message as your abstract to the audience.

3. CONSISTENCY

If you work in a team within a project, and if deemed relevant, you may use logos and consistent colors in order to boost the visibility of your research. Using consistent images, logo and colors make it easy for people to identify your project. In marketing it's called *"building brand awareness"*. The power of visual consistency is also relevant in research.

4. MEMORY

The human brain easily forgets what it hears or reads but retains images for long. This is because images are stored in the long-term memory, and words and texts are stored in the short-term memory. Recent studies conducted on active learning showed that between 10-20% of participants were able to remember spoken and written information while over 50% remembered visuals and images.

II. KEY PRINCIPLES TO DESIGN EFFECTIVE POWERPOINT SLIDES

1. A SINGLE MESSAGE

The viewers should always know exactly why they are looking at your slides and where they have to look at. If you want to show your work all at once, the viewers will have to digest it all at once and you will lose them. So focus on one clear and single message at a time.

2. STATING THE KEY MESSAGE

The key message of each slide should be said or shown. Most important is to avoid loose slides without added value for the message. So, simply stating the message helps getting to the point.

3. LIMITING TEXT

Sometimes, best presentations are the ones without any word. PowerPoint is to be considered merely as a visual support. Therefore, try to avoid long list of bullet points with all the text of what you are planning to say. It is best to have only a few keywords and more images. Captivate your audience with your messages, with what you want them to keep as a take-home message, and use PowerPoint as a visual support tool. Your slides should not be filled with your text (use your own notes instead). The slides should help your audience understand your messages, they should not be used as a way for you to remember what you wanted to say.

4. SIMPLE GRAPHS

Use simple graphs, especially when introducing complex scientific concepts. Use graphs to help showing a trend to your audience, but avoid re-using the same complex graphs that you may have used in scientific papers if those are too difficult to understand at a first glance. Or if you use the same graphs, guide the audience to help them focus on what they should look at and what is the key message for them to remember from the graph.

Avoid texts, do not use images as background as this hampers readibility. For instance, use signaling steps with icons instead.

5. SIGNALING STEPS

When a mechanism or a process is shown on your slides, it is essential to help the audience understand the logical reasoning that you are following. Without signaling items with numbers, arrows, or letters, viewers won't know how to read steps, they won't understand the flow of the process. So use visual signaling steps to help your audience follow your messages.

6. ANNOTATING DATA

It is essential to show the viewer explicitly how to read the data, what to focus on.

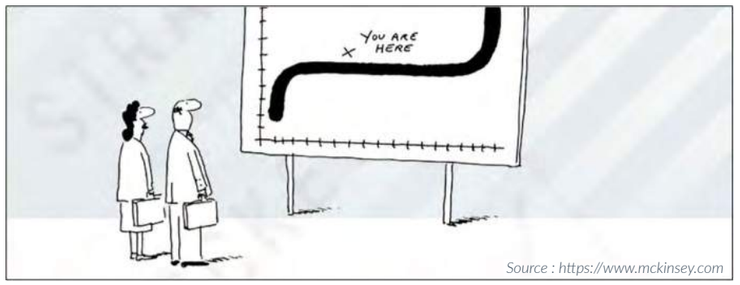
7. TOOLS

Fortunately, tools exist to help presenters improve their presentations:

- **Prezi** is considered by some people as the next-generation presentation tool, because it creates visual mind-mapping and a zoomable user interface. You can zoom in and zoom out of your slides, as if they all belong to a bigger picture. Since the company launched in 2009, Prezi has accumulated more than 26 million registered users. There's a bit of a learning curve, but it is still possible to start from the pre-set designs. And there are plenty of tutorials on YouTube. The first few Prezis can be built for free. https://prezi.com

- **Google Slides** is essentially an easier-to-use version of PowerPoint, with the added-value of being able to work with other people on the same presentation. So you can edit slides together with your colleagues. However, because of very basic templates, the presentations may have a more simple look than regular PowerPoint. Google Slides

- **Ignite Talks** is a tool that provides the presenter with a PowerPoint preset template of 20 slides, each switching after 15 seconds. The presentation is over within 5 minutes when a bell rings. The slides should largely consist of images, graphs and almost no text. On Ignite website, the section *"Cool Science Talks"* presents scientists managing to use the 5 min' timeframe to share their message. Ignite Talks shows good examples of other ways to put forward scientific information and to captivate the audience using communication-friendly material. http://www.ignitetalks.io



Source : https://www.mckinsey.com

Help your audience understand your key messages with clear visual support.

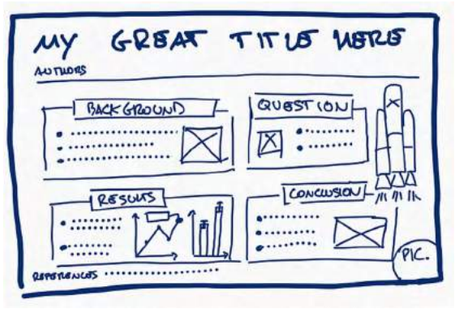
III. HOW TO DESIGN A POSTER

Many scientific posters are overloaded with data and are therefore difficult to understand. Thus, only well-selected information and visuals should go into a poster.

By focusing on attracting people's attention rather than sharing every detail of one's research, your poster will be more effective.

When you are presenting next to your poster, then you can use it as a basis to engage a conversation about your research. And if your poster is visually appealing, and is effective in sharing a story, this will help you share the main points of your research in a very easy and convincing way.

Because you may not always be nearby your poster, it should be self-explanatory, so that your audience may easily understand the contents. However, the poster should not be a long text as most people will not have the time or willingness to read it fully. Therefore, use icons, keywords and a clear structure in order to make sure that anyone passing by can understand your research.



Draft the contents of your poster on paper first: imagine how to simplify your messages in a clear and compelling way.
Source: Animate your Science

To put it in other terms: a scientific poster is simply a visual way of creating an abstract. Here are three steps to achieve that:

STEP 1. THE STORY

Think about your storyline

Before opening the software you are going to use to design your poster, take a piece of paper. Now sit down and imagine what kind of key messages you would like your audience to remember from your poster: what should they know about your work?

So you first develop your storyline and question yourself about why your audience should be intereted in what you have to say, before you actually start designing or writing the contents of your poster. You may refer to the section on story-telling above for more information on how to develop a story for your poster.

STEP 2. THE CONTENTS

Once you have a clear storyline in your head and the key elements of it on your draft paper, you may start elaborating the actual contents of your poster.

Make use of a clear structure

A structure will allow the audience to quickly grasp your messages. Each section should cover the main pillars of your story. The structure will also help you organise your contents: what is the background information, what is the research question, what are the results so far, what is your conclusion, etc.

Fewer words

When you are elaborating the contents of your poster, try to limit the length of the sentences and think about visual ways that could replace some of the text. The word count should ideally stay under 250 in total. If a poster counts too many words, the impact will be limited.

Make use of bullet points

Bullet points are less frightening than a 200-word paragraph. A poster is a visual abstract, so it makes no sense to put a solid block of text that most people will not read. It is better to have a few bullet points with your key messages and visuals to help you convey these messages than to have full paragraphs of text.

Graphs and photos

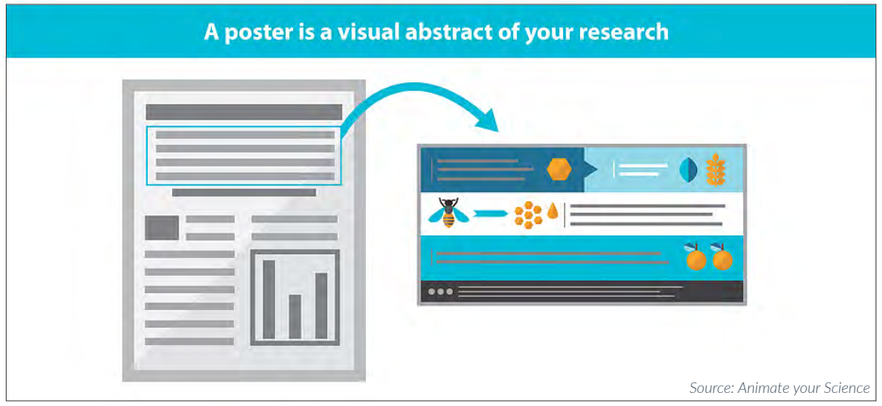
Only the essential graphs and photos should be added to your poster. One or two graphs is usually better than three or four. When selecting the graphs to display, keep your audience in mind: think about whether or not these graphs actually have an added-value for them to understand the message. Similarly, for your choice of photos, pick the one that are relevant and esthetically appealing.

STEP 3. THE DESIGN

Once you have a clear storyline and the contents of your poster, you may start the design process. In order to design a poster, remember one rule: less is more.

Make use of negative space

It is important to leave some blank space around the edges for a couple of reasons. First, avoiding important information to be cut off when printing, and second, avoiding an overall impression of congestion. So leave blank space within your poster as well: clear space, also known as negative space, is an important design concept. It refers to the unmarked areas of the page. By using negative space, you will allow your contents to



Source: Animate your Science

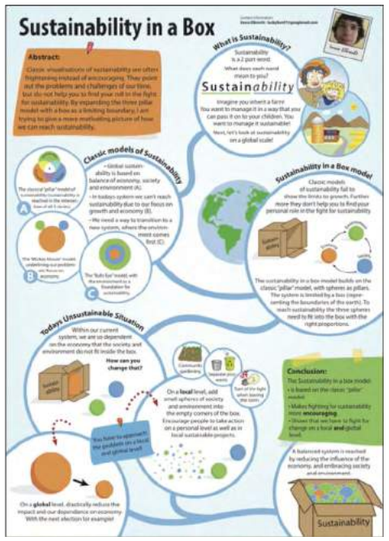
breathe and to be more digestible by your audience. And you will gain in balance of composition. It is better to omit a few details but to have an overall balanced composition than to have all the detailed data on an overloaded poster.

Background
Avoid using a photo as a background of your poster on which text is added on top of it as this is not easily read and it clutters the space of your poster. It is much better to leave the background white, grey, or filled with a light color.

Contact information
Add your contact information on your poster. It is always helpful to put a few business cards or a miniature A4 version of the poster (with contact info) beside the poster for people to take. You may also add your photo near by your contact details on your poster.

Sponsors
It is essential to mention the sponsors behind your work and make sure their logos are visible enough.

Inspiration
For inspiration, you may refer to the work of Vasco Elbrecht, who has a science tutorials channel on YouTube: *"Lukylion"*. He shares tips on how to create academic posters.



Poster produced by Vasco Elbrecht. This poster breaks the column structure to create a dynamic flow. It's different, it stands out and standing out can be a good way to attract people to your poster.

III. HOW TO DESIGN AN INFOGRAPHICS

1. WHAT IS AN INFOGRAPHICS?
An information graphic or 'infographics' is a visual communication genre that combines icons, minimal text, data visualisations, illustrations and information to create an engaging narrative.

Infographics simplify large amount of complex information into simple visual messages that an audience can read and understand easely. Infographics have the power to communicate information to non-academic audiences in an effective way. Most people looking at an infographics will do so for 5 seconds. So the key message of an infographic should be very visible on the page and easy to catch.

Example of an infographics on biodivresity loss. Produced by Nichole Wohlmacher.

2. CREATING AN INFOGRAPHICS
Develop a storyline
Just as for the design of a poster, an infographics starts with a story: what is the key message you want to convey to your audience?

As for the preparation poster, you may start by taking a piece of paper, sit down and imagine what kind of key messages you would like your audience to remember from your infographics: what should they learn from you? What is this one piece of information or this one figure you want them to remember?

Once you have your key element, develop your storyline and question yourself about why your audience should be intereted in what you have to say.

Elaborate a structure
Just as for the poster, the infographics also has a structure, usually composed of 3 elements:

- background information
- key message or the 'ah ah!' element: the information that will make people interested in what you have to say
- a call for action.

Sketch a layout

If your budget allows, hire a professional graphic designer to ensure a good result. You can contact graphic designers on the Behance platform.

If you do not have budget for it and would like to develop infographics on your own, start by assembling the graphs, icons, and images that are currently in your possession and that could help you convey the message of your storyline.

Have a look at other examples of infographics to think about how you could structure and organise the different elements. You may find such inspiration at:

- Cool Infographics http://coolinfographics.com
- Graphs.net https://graphs.net
- uCollect Infographics http://www.ucollectinfographics.com

There are lots of online options and tools for building infographics. Most charge a fee for full access to the tools but they will save a lot of time and effort as they provide ready-made templates and guide you through the different steps of the design process:

- Canva
- Easel.ly
- infogr.am
- Piktochart
- PixCone
- Venngage
- Visme
- Visual.ly Create
- Zanifesto

A wide diversity of icons can be found on The Noun Project.

3 | # COMMUNICATION WITH POLICY-MAKERS

I. WHY COMMUNICATE WITH POLICY MAKERS?

1. IMPACT ON SAFEGUARDING BIODIVERSITY

By making your research usable by policy-makers, you can improve the chances of having policy put in place to safeguard those very species that you are working on. For instance, in 2016, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) released the Pollinators, Pollination and Food Production assessment. Following the release of this assessment, there was a decision made by the Convention on Biological Diversity to encourage the countries to develop a National Pollinators Strategy. In Belgium, we then developed the Federal Bee Plan that focuses on honeybees. At the European level, following the IPBES assessment, the Pollinators Initiative was launched by DG Environment. And at the global level, the Food and Agriculture Organisation had launched its Global Pollination Project quite a few years ago, but with the release of the IPBES assessment, it gained in momentum. These initiatives, projects and strategies are actually used by policy makers to set priorities and to fund initiatives that work on pollinators. And because the IPBES assessments are the results of the work done by scientists, it is clear that the scientific community does have an impact on policy. So, communicating with policy-makers can have an impact on safeguarding biodiversity.

2. IMPACT ON THE POLICY AGENDA

You can actually improve the likelihood of having your research topic put at the top of the policy agenda if you can show that your research is really important for society. This has been seen with the topic of invasive alien species. Scientists were able to show, with scientific evidence, the consequences of invasive alien species on biodiversity loss, public health, economic costs, and so on. And because of that, there has been some considerable attention given on the topic

by policy makers resulting for instance, at the European level, in a regulation on invasive alien species, to be implemented in all European countries. And in Belgium, we do have several initiatives put in place to implement this regulation. So communicating effectively with policy makers can really help in shifting priorities of the policy agenda.

3. IMPACT ON RESEARCH FUNDING PRIORITIES

Some of the policy organisations you may communicate to might also be funding agencies themselves; or they may have an influential impact on funding bodies. So communicating to policy makers can have a direct or indirect impact on the upcoming research funding priorities.

Regarding funding, another aspect is that if you get to know better the priorities and the needs of policy makers, then when you apply for a research call that gives importance to projects that have societal or policy impact, you will be more likely to be selected among the applicants because your proposal will contain better ideas on how to make your research relevant for policy and society.

II. HOW TO COMMUNICATE WITH POLICY-MAKERS?

Even if one is convinced that it is important to reach out to policy-makers, you might be wondering where to start or you find that there are too many obstacles such as differences in timeframes, in each other's motives and ways of operating, and a difference of language or jargon.

As a scientist, you may use the following techniques:

- Research co-design and knowledge co-creation.
- Building relations with policy-makers and getting to know the policy agenda
- The use of policy briefs as a tool to reach out to policy-makers.

1. RESEARCH CO-DESIGN AND KNOWLEDGE CO-CREATION

Research co-design and knowledge co-creation aim to develop research projects and formulate research questions based on discussions with decision-makers, and to work throughout the project with policy-makers to share each other's needs and knowledge.

When you have a research project idea, you may pause for a moment and think about what kind of authorities could be concerned or interested in your project. If you work on biodiversity in cities, then you might approach authorities

Research co-design and knowledge co-creation have many benefits, such as the concrete impacts of such research projects, the ownership of authorities working with scientists, and the involvement of stakeholders.

working on urban planning. If you work on public health, then you might approach the Federal Public Service on Health, Food Chain Safety and Environment. For some local projects, you might prefer to reach out to local municipalities. So once you have established the right contacts, you can start to discuss about how your research could benefit these authorities.

Once you have reached a common understanding, you know from the start that your research will actually have impacts on the ground because you designed your research partly based on their needs.

Throughout the research process, you can invite policy-makers or local authorities around the table to discuss your research results directly with them.

The idea is that the research activity is implemented, from the beginning, by using participatory approaches, in which decision-makers are active participants in each phase of the scientific research process. These regular contacts between scientists and end-users facilitate joint reflection and learning from both sides.
Of course, all research questions do not need to be co-developed with end users, but such an approach could be valuable for those wanting their results to be more applicable or relevant to policy implementation.

A good example of a research project that was set-up based on co-creation of knowledge with decision-makers from the beginning of the process is the Urban Biodiversity and Ecosystem Services (URBES) project funded by Biodiversa, an ERA-Net on biodiversity funded by the European Commission. This video shows how the researchers worked hand in hand with policy-makers from the very beginning of the project. And the results on the ground were really tangible. For instance, in Barcelona, the local administrations used the results of URBES research to develop their Urban City Plan, and in Salzburg, the management of the Donnenberg Parc changed their practices

Video presenting the URBES project and the benefits of co-creation.

to enhance biodiversity. And overall, the researchers participated in a paradigm shift in the way decisions were made in terms of biodiversity in these cities: local authorities shifted from a conservation thinking towards a more 'ecosystem services' approach, and so they could better understand the link between green areas in the cities and air pollution, water, climate regulation, human well-being, etc. So the advantages of research co-design were really consequent.

It is also worth noting that the URBES project was very pro-active in publishing scientific papers. So this project shows that you can do both at the same time: on the one hand, reach scientific excellence, and on the other hand, make sure that your research project is actually creating a change for society because your results are directly implemented.

The key advantage of research co-design and knowledge co-creation is that it generates ownership, by policy-makers and by local authorities that have understood the goals of your research, and that have been able to formulate requests to scientists, throughout the project; to get the scientific data they actually need.
Of course, this is less applicable if you do fundamental research or if you are currently working in a project in which this dimension was not thought through at the beginning. But even if you work on fundamental research, you can have impact on agencies that are funding and programming research by reaching out to them and explain the importance of keeping on having fundamental research funded.

Also, if co-creation of the design of the research is not possible, an option, is to at least set aside some time in the research process to organise some activities that could strengthen the policy relevance of the research or to think about how to efficiently transform research results into knowledge that is usable by policy makers.

In this way, even if your research was not initially planned as a project that would have impact on policy or society, it could, *in fine*, play a role on the ground thanks to communication activities you could organise with policy makers.

2. BUILDING RELATIONS WITH POLICY-MAKERS

If you want your research to be taken into consideration by those who decide on policies related to your field of expertise, you will need to make sure that your research is being communicated to the right people at the right time. And for researchers, this requires a minimum knowledge of policy making processes.

Cultivating relations with policy organisations is very important and having a better understanding of the

policy landscape and ways of working of these organisations will help you in clarifying how you could actually be successful in reaching out to them. Investing time in developing relations with people in the policy community most closely aligned with your research field will greatly help you. Very often, policy makers feel more comfortable listening to advice from researchers they have an existing relationship with and know that they can trust.

Try to establish relationships with relevant policy advisors, where possible arranging face-to-face meetings. Rather than simply telling them about your research, take the time to find out what they are working on. By having familiarity with on-going policy debates and upcoming policy processes, and existing policy frameworks, it will be easier for you to be successful in your reach out.

To do that, you may look for and participate in conferences or workshops that are transdisciplinary, in which policy makers are invited so that you can actually meet and discuss with them and develop your knowledge about what they are working on and what their interests are. Also, just as you are on the look-out for potential calls related to your field of research, get informed about consultations. There are many public consultations on a diversity of topics, including on environmental issues, launched by authorities at the Belgian and European level. Sometimes, it is a mid-term review, to assess whether the policy put in place is actually relevant according to experts. And you can really have an impact on policy when you respond to these. And at the same time, you can sort of understand what their interests are from the questions they ask.

For those of you who work in more fundamental research projects, you can also get to know and influence those who make decisions in terms of scientific policy. You can have tremendous impact on research funding priorities by developing good communication with your funding agency in Belgium and at the European level.

You can also register to experts registries, such as Oppla for instance that is supported by the European Commission. The goal of Oppla is to provide policy makers with short answers to their questions within about 1 or 2 days. Often, policy makers just need the opinion of experts to justify why one policy or the other should be pursued. And for that, sometimes just a short paragraph, a few sentences is enough. And that's the goal of Oppla: a demand-driven online

Ways of reaching out to policy-makers.

platform on which policy-makers can ask questions so that they receive evidence-based knowledge, produced by experts, within the time-frame of policy-makers.

There is also an expert registry in EKLIPSE. Eklipse is an EU-funded project that takes in questions about biodiversity from policy makers and then searches for experts that could respond to the question. It then launches a process to answer the question using different scientific processes.

BES-Net is a network in support of IPBES. BES-Net has a worldwide experts registry that are being asked questions on biodiversity and ecosystem services issues.

The other option is to contact a science-policy interface, such as the Belgian Biodiversity Platform, as we are a public service and we can help you identify the right policy-makers for you. You can send an email to us and tell us about the type of policy makers you would like to reach out to and we will help you identify the right persons you should address.

The Belgian Biodiversity Platform also works on topical issues such as ecosystems and society, invasive species and biodiversity and health. The goal of our activities in these topical issues is precisely to put in contact scientists with policy-makers. In each of these groups, we have registries of experts / contact lists which you can subscribe to, to get updated on their activities, that often have a science-policy component. Our network is quite broad so please feel free to contact us to help you identify the right policy-maker for you.

Sometimes, it is just about getting to know one person: a policy officer, a Member of Parliament at the regional or federal level. There are, for instance, Programme Committees, at national and European level. These members of programme committees play a strategic role in all types of programmes, from research to environment to transport and finance. In Programme Committees of the EU, these people discuss on strategic planning and one of their role is to ensure link with nationally funded activities. These people are delegates and experts of national governments. So you can really have an influence if you know who these people are. For instance, at the Belgian Biodiversity Platform, we represent Belgium on behalf of the Federal Science Policy Office in a number of initiatives such as IPBES, IUCN, and BiodivERsA. We are also part of Steering Groups at Belgian level that advise on policy related to biodiversity.

So do not hesitate to come to our events, subscribe to our newsletter and contact us if you have any question on how to communicate with policy makers.

Another way to reach out to policy-makers is to accept the requests of funding agencies that approach you to be an expert in evaluating research projects, whether for the selection of the projects, or for the final evaluation because by doing so, you will develop your network and you will get to know how to write research proposals or reports as you will have been briefed on how to evaluate them. In any case, once you have established a relation with a policy maker, then they know they can call you when they need an expert. And sometimes, this might happen when they are preparing new strategic and funding programmes.

3. POLICY-BRIEFS

Once you have identified the policy makers you would like to work with, it is good to organise a face-to-face discussion. And a good product to hand out after such meeting is a policy-brief.

A policy brief is a concise document that presents scientific evidence in relation to a specific policy issue in a non-technical and jargon-free language. Passing on a policy brief after a face-face discussion gives greater credibility to your statements and it enables the policy-maker to refer to your policy brief as source of information.

Policy briefs aim to respond to a specific policy need or question. The way in which you elaborate your messages should focus on the policy issue itself. Your research comes in only to justify why you recommend policy-makers to take a specific action.

This assumes that you, as scientist, understands the policy issue you are targeting, and ideally provide some recommendations based on the knowledge you produced. Since this is not always an easy task, you may need the support of communication skills, for example by hiring a consultant in science communication or by requesting support from science-policy interfaces such as the Belgian Biodiversity Platform.

Steps to develop a policy brief:

- **Identify the target audience**

Typical audiences for policy briefs may be very specific on your field of research or more sectorial. It depends on what type of policy they work on.

If they work for a specific policy field related to your research topic, then the policy maker will have a high degree of technical competence and a focused interest in the topic. In this case, your messages should be quite specific and go into enough details to expose why you would recommend one policy option over another.

If they work in other sectors, such as climate, transport, or energy, then your brief needs to be quite general. It will have to explain how your research can have impact on the policy issues related to these sectors. In this case, your messages should be linked to wider issues of political significance.

- A matter of scale

The more targeted your policy brief is, the smaller the audience of decision makers will be. But it can also be more effective.

There is a trade-off in scale and relevance that you need to think about, as scientist, the scale at which you want your policy brief to be effective. And so you have to decide on whether you want to address more general issues or specific ones, and thus, target your audience and elaborate your messages depending on your goal.

- **Identify key messages**

There is this commonly heard idea that policy-makers need simple messages. In fact, that's not true. Most policymakers are very capable of dealing with complexity – but this complexity needs to be set in a context that is relevant to them, and be presented in such a way that helps their decision making.

Policy brief produced by BiodivERsA.

Taking the example of a policy brief developed by BiodivERsA, the structure is the following:
-main findings on the left side
-key policy recommendations on the right side
—> These are the key messages that the scientists wanted to share with the policy makers.

The key policy recommendations are synthesised in a few bullet points on the front page and they are explained in more details on the last page.

In the inner pages, the sections on context and key results of the research allow for policy-makers to understand what the recommendations are based on. Indeed, policy-makers will not only need policy options or recommendations, but also the scientific basis, the evidence that justifies policy actions.

The key information is easy to identify at a quick glance. By putting the most important key messages on the front page and an information 'box' with recommendations on the back page, the policy-maker can easily grab your message in a few seconds or minutes.

In terms of contents, a policy brief is not copy-pasting the conclusion of a published scientific paper: the messages are re-organised and reformulated for a policy audience, and the structure is not based on the research, but on the policy issue itself. These contents are elaborated from the perspective of policy makers.

When elaborating your key messages, it is important to think beyond the facts. Because to you, the facts and statistics that you know may be self-explanatory about what they concretely mean. But for policy-makers, this is not necessarily the case since they did not conduct the research themselves, and they might be working on many other issues so they may not be able to draw the conclusions you would expect them to. Explaining the facts, your data, and put them in context and interpret them for readers is very important.

This policy brief is only four pages with illustrations and negative space included. That's because policy makers want policy briefs to be specific, precise and practical.

Be precise:

Avoid vague and fuzzy language or details that are not relevant to policy. Discuss interpretation of results in terms of 'certainty' to help policy makers understand what is known and what is not known about the subject. You can write a policy brief even if your research is not exhaustive or not yet finished, as long as you already have tangible elements that justify policy action.

Avoid scientific jargon:

To avoid technical jargon is not always easy. Some wordings may sound very logical or usual to you. Try to get someone who is not familiar with the field to proof-read the document. It could be a policy-maker or maybe the communication officer of your institute. And if possible in your budget, then hire a science writer as they are professionals who will ensure that your messages are well written for a policy audience.

Be specific
Don't put in too much. *'Less is more'* in policy briefs. You will have to edit the text down, you will have to leave out some details and nuances that you were very attached to. It's really about editing it down again and again until only the most important points are left.

Be practical
Make sure there is plenty of white space and photos. People are far more likely to read something that looks attractive and easy to digest than something that is presented in a cluttered way, with very small font sizes and not illustrated.

Structure
Break it down into sections. Use sub-headings so people can easily skim through the key points. If you use graphics, make sure they are simple, labelled clearly with simple explanations and have a short, meaningful title. If you take graphs from a journal publication into a brief you might have to edit it to make it more simple.

Language
In terms of language, it's important to have your policy brief written in the working language of the policy maker you approach: in Belgium: Dutch or French, and for EU policy-makers, English. If you are writing in a second language, then try to have the brief edited by somebody who is native-speaker or fluent in the language that is required.

Make sure to avoid prescriptive language such as telling a policy-maker they 'must' or 'need' to change policy as they will view your brief as a lobbying document; impartiality is important to gain credibility. You should also remember that recommendations aim to inform the decision, not to replace it. Because at the end, the decision will depend on other factors than the scientific knowledge alone.

Essentials
You should try to not overstretch the findings. There can be a temptation to try to make concrete recommendations for the purpose of a policy brief that links only tenuously to the research findings. If the findings are relevant to the policy community, it is better to leave the policy brief until there is something more substantial to say.

Get the timing right
Ensuring relevance of a policy brief involves not only answering the need of knowledge of the decision-maker but also its timing. Find out if there are key policy processes, decisions, events or debates coming up that the policy brief could be linked to. Personal networking can very much help in that and your participation in public consultations might be an opportunity to upload your policy papers and therefore be relevant and timely in the way you communicate your results.

Get support
The Belgian Biodiversity Platform can help you in elaborating your policy briefs, so just contact us.

You might also want to approach the science communicators working in your research institutes because they might be able to help you out with that.

There are also science communicators that you can hire to do this type of work. For instance, The Floor is Yours is composed of a team of researchers who have become science communicators. And they can help you with this work. But there are many other science communicators available in Belgium.

You can also check science communication workshops and summer schools. There are some organised by universities. For instance, Let's talk Science in Leuven or Fish Grow Feet, just to cite two examples but there are more.

Remember
You do not have to produce a fancy policy-brief to be effective in your communication towards policy makers. Online platforms like Oppla request only a few sentences, to answer to a specific question. You can also build up a network of just one or a few policy makers that work in your field, and this can even be your funding agency. You now know the structure of an ideal policy brief, but the most important will always be whether or not, you **respond to a specific policy issue at the right time. And whether your findings justify policy actions.**

4 | COMMUNICATION WITH MEDIA

The journalists working for mainstream media are a passageway, a channel for you to reach out to the general public, to the citizens. In other words, when you are reaching out to a journalist, you actually have the intention to reach out to the general public, and your reader could be:

- your children studying at university and reading their news on their mobile
- your father or your mother opening up the pages of their favourite newspaper and suddenly reading about your research topic
- a group of old women gazing through the paper before starting to play a bridge game.
- your neighbour
- Or it could be a fellow researcher.

Now how can you grab the interest of the journalist you will have sent your news to and all these people in one article?

Let's have a look at three key elements:

- First, what is usually considered 'news-worthy' by media outlets, and in so doing, how to attract the attention of this diversity of people.
- Second, we'll look into the tools that you can use to reach out to journalists (so that you know where to start).
- Third, the new practices of journalists using social media.

I. WHAT IS CONSIDERED "NEWS-WORTHY" BY MEDIA OUTLETS?

- **A good story** (positive or negative) Everyone relates to a good story (see the story-telling section).

- **Crisis, conflicts, controversy**
  Readers tend to be interested in disagreements, conflicts and rivalries. It is human nature to choose sides and stand up for that choice. Stories that involve conflicts can include struggles that could be related to your field of expertise, for instance with crisis related to nature. The crisis or controversy can be positive or negative: a negative situation can also be an opportunity to present a positive news. For instance, a crisis related to Asian hornets can be an occasion to present the positive impacts of your research on public health and how this research could help solve the crisis.

- **Proximity**
  Local news impact readers more than than if it was happening somewhere else that doesn't affect them as much. The public is interested in their own environment, close to their house. For example: if you work on a research project related to the management of invasive species, you might bring in a news on your research by using an angle of interest to the people; for instance by first mentioning a few species that they already know

List of criteria of what is news-worthy for media outlets.

because they have a garden and have had problem with them. And from there only, you can present your news and explain how your research can help in managing those species. If your news is not related to issues of daily concerns, at least try to link your news to a Belgian background.

- **Your news is related to the main headlines**
  It is always a good idea to link your news to a major headline, a specific event or a special day. You will have more chances to be published. For example, in March 2018, the Belgian Biodiversity Platform launched a campaign for an open letter signed by Belgian scientists and addressed to decision-makers. The Open Letter was calling for the authorities to take concrete actions based on the evaluations released by IPBES. We published this Open Letter during the media coverage of the IPBES Plenary meeting. And because we linked our news to the main headlines, it received a really good coverage in the media: with a total of 46 articles in the press (counting the articles about the IPBES Plenary, the IPBES Assessments and the Open Letter). Clearly, it is because we launched this Open Letter campaign during the IPBES Plenary that major newspapers accepted to publish it and that other media promoted this initiative. So reaching out to media during a specific event related to the headlines makes it much more likely for your news to be taken up by media.

- **Temporality**
  The public is more interested in the present and the short-term than by the past or by a far away future. When reaching out to the press in relation to biodiversity loss, media will be more interested in first knowing what are the actual consequences

today, of biodiversity loss, especially in Belgium, and then only get information on what this means in a more distant future and for the rest of the world. Your news may relate to a far away future, but the angle of your article needs to be related to more current events if you want to grab the attention of the journalists or the readers.

- **A surprising news**
  People like to hear about new topics, information that will attract their attention, drive them out of their daily lives. For instance, scientific expeditions, discoveries and research with relevant results for society (new treatment, species at risk, new plants, etc.) will be more likely to interest media

- **Emotions**
  Any information that creates an emotional reaction is potentially interesting for journalists. They aim to evoke responses such as fear, worry, interest, hope, satisfaction, optimism…. For instance, when covering news about climate change or biodiversity loss, even if the facts might be gloomy, you can always end your article with a positive statement by sharing ideas of what each individual can do on a daily basis to reduce its environmental footprint.

- **Figures**
  Figures and statistics can constitute a news in itself. For instance, last year, a study published in PLoS ONE showed that three quarters of flying insects in nature reserves across Germany have vanished in 25 years. This figure really stood out and was very much taken up by media because the figure itself makes the rest of the information easy to understand.

- **Visuals**
  People like to visualise so you may send your news to journalists together with pictures, infographics, graphs, anything that helps the reader to understand your statements.

In general, topics of interest to the public include the environment, health, security, work, and consumption; as they have a direct impact on citizens lives.

These criteria can be the core of your article or they can simply be the angle of your story, the hook with which you grab the attention of the readers. Once you've got their attention, then you can explain in more details about your research that may or may not be linked to these criteria. But because you will have gotten their attention, it will be easier for you to get your message across.

II. TOOLS TO REACH OUT TO JOURNALISTS

1. BUILD UP A LIST OF CONTACTS

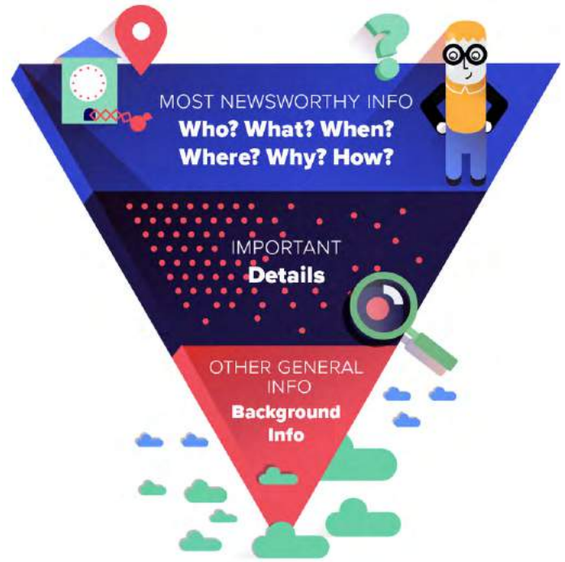
You can build up a list of contacts for instance, by getting into the database of the Association of Professional Journalists of Belgium (AGJPB) that offers an access to their database. For 30 Euros, you can access it for 24 hours (and download an Excel file with the contacts: e.g. journalists working on research or environment). Alternatively, you can send your news to the Belgian Biodiversity Platform, as we do have an extensive list of journalists, so we can transfer your news to our media contacts (if your news is relevant to our media contacts).

To have more chances of being published, what we would advise you to do however is to identify a few journalists that you appreciate. It can be just one or two journalists. If you have read good articles written by specific journalists and that you respect them for their good quality of work, then note down their names and try to find their email address on the website of the media they work for (or call the reception of the newspaper and you'll get their email or phone number). Reach out to them, tell them that you like the way they cover news, let them know what you are working on, what is your field of expertise, and let them know that you are available for interviews if they one day need an expert on this topic. You can also ask this journalist if they'd be interested in receiving your news once in a while so that you can send them a press release when you have a news to communicate.

In terms of timing, you can reach out to journalists at any time of the year, or you may favour a timely moment, such as one or two weeks before an important event (e.g. the CBD COP, the IPBES Plenary, the UNFCCC COP, etc.) Because they might need Belgian experts when covering these news, and it will therefore help you creating solid ties with these journalists.

Identify one or two journalists that you appreciate for their good quality of work and contact them to let them know about your research topic and your willingness to be contacted as expert when they plan to publish articles on your research field.

The advantage of developing a more personal and direct relationship with journalists is that you increase your chances of having your news covered, or of being contacted as an expert when the journalist needs one. Another important benefit is that your collaboration will be based on mutual trust, and therefore it is more likely that the information shared with the journalist will remain intact when published (and will not be distorted as might be the case with journalists who do not know you and that may have less ethical practices).



The inverted pyramid style of writing, as used in press releases.

2. WRITE PRESS RELEASES

A press release is a short, compelling news story of 1 or 2 pages maximum that presents your story. The press release is to be sent to newspapers, press agencies (such as BELGA), and individual journalists.

Everyday, journalists receive many press releases (some receive between 100 and 200 email-news per day -including many press releases-, out of which only two or three will be selected to be covered). There is therefore a challenge in bringing the journalists to read and spread your news. Since journalists mainly read the press releases from sources they know and trust, it is important that you start your media relations with good press releases, relevant for the press, and structured in a proper way. Journalists never have time. You will therefore have more chances to have your news covered if your press release is clear, well written, short, to the point, if it contains clear information, a good story, and if it is complete.

In a press release, you first have to source and date your news:

- **Source:** who is communicating? (name of organisation + logo if you have one) (on top of the page, above the title).
- **Date:** mention the date of your press release.
- **Title:** the title must draw the attention and provide the essence of the message: a good title is informative and attractive; it must be very short -if possible, shorter than a full sentence.

To write a press release, you have to use the **"Inverted Pyramid Style of Writing"**,

which is quite different from a scientific paper. You first say what is the most important, and only after having done that do you go into more details and background information.

- **Lead:** below the title, place the lead. The lead is the first paragraph: it is the most important. Journalists often read no more than the first five lines. So it is very important to provide the key information within these first sentences. Answer to who? what? where? when? why? how? The information must be very clear (black and white). If you want to add details and nuances, do that in the following paragraphs, never in your lead. A lead must easily be copy-pasted into a newspaper and get published as such. *(see the example of a press release published by the European Commission on the next page: the lead is the paragraph in bold characters).*

→ You can look at press articles, and how the first paragraphs are constructed. When you write a press release, the way you write your lead should be done in the same way.

- **Body**: the following paragraphs: they provide the additional information. They usually provide more details to the questions Why? and How? or they inform on the general context of the news. It is always good to have quotes of experts in your press release. In your case, put your own quotes of what you have to say about this news, or ask some of the scientists you work with to give you one sentence about why or how they think the research is important. And you add those in your press release. Because for a journalist, what is important when they write an article, is to explain what is happening through the words of somebody else, of the expert.

Each paragraph of your body must contain one main idea, so create different paragraphs for different ideas. Your body can have two, three, or four paragraphs and more but do not go beyond A4 format. Remember that the main ideas come on top of your press release, the accessory information come at the end of it. And now, press releases are actually shorter and shorter: most of them are no more than 10 lines and contain only one idea.

Regardless of the complexity of your message, make sure to use a simple, jargon-free language, that the general public can understand.

- **Contact:** put your contact details at the end of your press release with a clear visual distinction such as a box. Mention the name, email and phone number of who the journalist can contact for more information and for interviews.

→ Always put the name of someone who will actually pick up the phone (Mobile number is highly recommended). It has to be a person who knows about the topic and what is written in the press release. It is better to put the contact of someone who knows the topic very well and who is available for questions and requests than someone who is higher in

European Commission - Press release

EU calls for renewed international action to protect nature on land and at sea

Brussels, 14 November 2018

Amid recent alarming reports of the dramatic loss of wildlife and ecosystems worldwide, the European Union is calling for stronger global response to biodiversity concerns at the United Nations Biodiversity Conference 2018.

At the 14th Conference of the Parties of the United Nations Convention on Biodiversity in Sharm-el-Sheikh, Egypt, the EU will be leading the international efforts for a post-2020 global biodiversity framework. Wider integration of biodiversity concerns in agriculture, energy, mining, industry and infrastructure projects is instrumental to keep global temperature increases well below 2°C, in line with the commitments of the Paris Agreement.The high-level biodiversity conference is expected to create international consensus on the urgency of achieving global biodiversity targets by 2020.

Representing the European Union at the High-Level Segment, Commissioner for the Environment, Maritime Affairs and Fisheries Karmenu **Vella** said: *"Biodiversity - nature - is our life-support system. The current rate at which we are losing our wildlife and ecosystems is an existential threat as worrying as climate change. I am encouraged by the growing awareness of the links between the two, also at high-level international events such as this one and the upcoming United Nations climate change conference in Poland. Protecting biodiversity on land as in the ocean is important for future generations, but also for our current wellbeing."*

Engaging more than €350 million per year on biodiversity in developing countries, the EU is the biggest donor for the protection of biodiversity in the world. Growing awareness across Europe of the positive role of biodiversity and ecosystems for health and for food security means the European Union is well placed to provide global leadership. The business community is also realising how dependent they are on biodiversity with some businesses taking bold measures to consider their dependencies on natural capital.

Capitalising on these positive examples, the European delegation, headed by Commissioner Vella, will aim to bring biodiversity policy to the political forefront to prepare for an ambitious and united outcome at the Conference of the Parties (COP15) in China in 2020. It will call for integrating nature objectives in the sectors of industry, mining, energy and infrastructure. All the parties will adopt a joint Declaration to that end. Voluntary public and private commitments, with a review mechanism to ensure accountability, will be encouraged, to step up the implementation of biodiversity targets.

Commissioner Vella will also sign the EU's joining of the Coalition of the Willing for Pollinators, as foreseen in the recent EU Initiative on Pollinators. This will help a strong, coordinated international response to the decline of pollinators.

In the spirit of President Juncker's ambition for a new partnership with Africa, the EU delegation highlighted, at the preceding Africa Ministerial Biodiversity Summit, the crucial role of ecosystems and biodiversity for fighting land degradation, climate change adaptation and mitigation, disaster risk reduction and sustainable development. Better resource management and nature preservation is a factor for better economic development.

Background

The 2018 United Nations Biodiversity Conference, which includes the 14th Conference of the Parties of the United Nations Convention on Biodiversity (CBD COP 14) will last from 17 to 30 November 2018 in Sharm-el-Sheikh, Egypt. It will be preceded by an Africa Ministerial Biodiversity Summit on 13 November 2018 and a High-Level Segment on 14-15 November 2018. Representatives from 196 countries, including researchers, scientists, local authorities and members of civil society groups are expected to attend the 2018 UN Biodiversity Conference.

The high-level Conference takes place after recent report by World Wildlife Fund (WWF) revealed that population sizes of wildlife decreased by 60% globally between 1970 and 2014 and a report by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) warned about dangerous decline of biodiversity.

The Convention on Biodiversity (CBD) is the largest and politically most important convention in the field of biodiversity and its sustainable use. A Conference of Parties is held every two years.

The EU has been a key player in the Convention on Biodiversity from its beginning and will continue to shape global biodiversity policy. As the EU's external representative, the Commission has an essential role to play in this context.

IP/18/6384

Press contacts:
Enrico BRIVIO (+32 2 295 61 72)
Daniela STOYCHEVA (+32 2 295 36 64)

General public inquiries: Europe Direct by phone 00 800 67 89 10 11 or by email

Example of a press release published by the European Commission.

the hierarchy, such as a director of a research institute, but who is too busy and not well aware of the contents of the press release: a contact point is very important in a press release, and it must be available to answer questions.

- **Boilerplate**
  A small paragraph, at the end of the press release, which presents, in a few lines, your organisation, its mission and main activities. You can use the same boilerplate for all your press releases.

! A press release is not an advertising message. You should not over-stretch the results of your research. However, do not be too humble about what you have to say: your project might be fascinating; what your research shows might be of great use to citizens so do not hesitate to highlight the benefits of it.

Send your press release via email in attachment as a PDF and Word document. But also, always add the contents of your press release in your email body text: it will have more chance to be read. Journalists may not have the time to open each attachment they receive on a daily basis.
Also, **put the title of your press release in the subject of your e-mail** (do not put "press release" as your subject email).

As for the sender's email, best is to have the name of the organisation rather than your personal name; because journalists might be suspicious that you are a consultant, an advertising company, or a spam… and therefore may not open your email.

If you send your press release to different type of media (press, web, audio…), adjust the format to their needs. Make it attractive: add pictures/ video/ audio files/ links.

3. BE PREPARED FOR INTERVIEWS

Interviews generally take place at the request of a journalist who would like to get more information about a topic, following a press release, a press conference, a crisis, or a headline related to your field of expertise and for which the journalist contacts you as expert.

The golden rule of a successful interview lies in a good preparation. However, with the current way of working in media, it is not likely that you will have time to prepare. Often, journalists will call you to have the interview right at that moment and to publish their article on the same day or the day after. In fact, many interviews are prepared in advance: the journalists already know what type of answer they may receive from experts and therefore may ask questions in order to receive the responses they more or less expect to receive. But if you at least know beforehand how media work then, you can be more prepared for an interview at any time.

Journalists may contact you by phone and start the interview immediately as they may need the information on the very same day. So it is good to clarify from the beginning whether they are actually recording what you say and whether this interview is to be used only as a background information (so that they

get to know better about the topic) or if it is an interview during which they will use some of your words and quote them as such as coming from you in their article. Because then you know better how to place yourself.

Steps to follow to get ready for an interview:

- **Before the interview**

If you have been contacted by a journalist and there are a few hours or a few days before your interview, then make sure that you understand what is the goal of the interview, and what kind of questions you might receive. You can for instance think about: What is the reason why the journalist contacted you? Which information are they looking for? What happened before they contacted you? Were there articles or press releases published? Is it a reaction to your own press release? Has the topic been discussed in the news? If so, how was it handled so far?

You can also check the profile of the journalist to discover what is the level of their expertise. If the journalist is specialised, they will most probably ask you very specific questions linked to your own expertise. If the journalist is covering more general topics, then they will ask you about your topic in general, or general trends, impacts for Belgium, etc. so they won't go into too specific questions, but they will be more likely to try to understand what is the link between your topic and societal issues such as public health for instance, that are of interest to the general public. And they might also ask practical tips or actions that citizens could take in their daily life to help the situation get better.

In the media world, the trend is now more and more going towards general journalists: they have to cover a wide variety of topics simultaneously. Journalists now have less time to collect, process and verify in-depth information. Their articles are getting shorter and their deadlines, increasingly tight. It is good to keep that in mind so that you can provide the journalist with the key points you want them to address in their article: the more short and simple, the better for the journalist.

If you have some time before the interview, you might **prepare some key messages and make sure to be able to summarise the issue in a simple way, in just a few sentences. By preparing your narrative in advance, you have an additional guarantee that your messages will not be misinterpreted and that the information published/ broadcast in the media will be accurate**. In other words: you remain in control of your message and nuances you want to bring if you've prepared it in advance because what you will say will be more clear, concise and precise.

Whichever media you are communicating with (press, radio, tv), remember the principle of the **inverted pyramid: you start by providing the main information**, what is the most important in your message: who? what? where? when? why? how?, what is new or different; then you proceed with the details, the nuances, and the context or background.

Translate your message into understandable vocabulary for the public: avoid any form of jargon: your information must be simple and understandable for everyone, and possibly use a more 'popular' language to communicate to non-specialised media.

If you are able to do so, you can already choose an "angle": the point you are using to introduce your story: that might be the most important element to be remembered by the audience or it might be the novelty in your news.

If you think of some visuals such as photos, graphs, figures or infographics that could complement your key points, you can prepare these in advance and send them to the journalist before or after the interview.

- During the interview

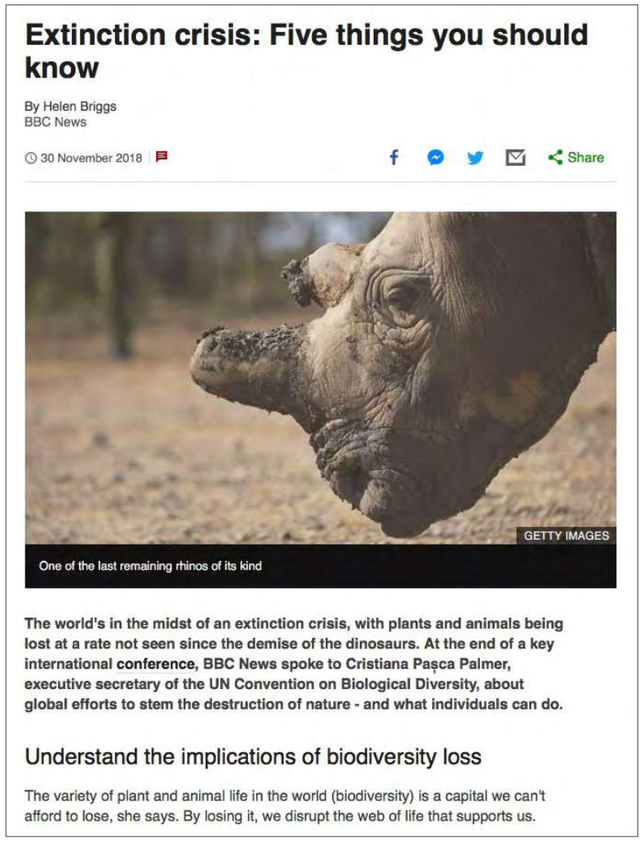
During an interview, it is good to remember the basics: **you are being interviewed because the journalist wants to convey a message to the public. And to do that, they need an expert that can provide legitimacy to what the article says. The journalist can not say what they know or what they think is right or wrong. They pass through you, as expert of the issue, to explain what is at stake to the public.** So first, it is always good to remember that: you are interviewed to explain your topic to the citizens.

Now, when you are being interviewed by the TV or the radio, the non-verbal (posture, facial expression, tone of voice, gestures) often says more than your words. What will be first perceived by the viewer is your general attitude: are you relaxed or tense? Remember to breathe, do not talk too fast, articulate clearly. Use variations in your tone and gestures to focus on the important elements. Adopt a stable position. Your attitude supports your words, so it must be consistent with what you say.

In terms of contents, there are some tricks to make sure that your message is being conveyed clearly. Especially **if you are having difficulties to find space to make your point, because the journalist doesn't ask you the questions that would make you say what you would really like to emphasise. Then, make use of the 'bridge technique'.** This technique is simply to **use sentences such as *"The essential point is..."* or *"If you have only one thing to remember, it is..."*. With such sentences, you can bring back the attention to the main message you want to convey to the audience. And you can also take back the control of the interview if you see that key elements are missing in the questions or if the interview is going a bit off-track.**

It depends on the interviews, but sometimes, the journalist may already have decided what they would like to say. And they are just contacting you to get a quote from an expert to fit what they planned to publish. And this also depends very much on the practices of the journalist and the type of media, and the news itself. There are some media that are more upright than others. Some are more scoop-oriented and they might want you to say things that you do not agree with. Some are very upright, and ask for interview for the purpose of getting accurate knowledge from you as an expert, and will not try to make you say what you do not want to say in any way. So that depends on the media and the journalist.

If the journalist asks the same type of question over and over again with a precise intention of getting a specific answer and that you do not want to say what the journalist implies with their question, then you can simply state to the journalist that you see where they are trying to get but that you do not agree with this idea and that you are therefore not going to say what they would like to hear. In that case, the journalist will move on to another question. If they repeat the same question again and again, it is because they think you did not understand the point they were trying to make and so they are trying to get their statement in a way or another. So that's something you might have to navigate through. But you should know that you can really take back the lead at some point in the interview if needed.



Extinction crisis: Five things you should know

By Helen Briggs
BBC News

30 November 2018 | Share

GETTY IMAGES

One of the last remaining rhinos of its kind

The world's in the midst of an extinction crisis, with plants and animals being lost at a rate not seen since the demise of the dinosaurs. At the end of a key international conference, BBC News spoke to Cristiana Pașca Palmer, executive secretary of the UN Convention on Biological Diversity, about global efforts to stem the destruction of nature - and what individuals can do.

Understand the implications of biodiversity loss

The variety of plant and animal life in the world (biodiversity) is a capital we can't afford to lose, she says. By losing it, we disrupt the web of life that supports us.

Example of a press article using quotes from an expert and providing tips to the general public.

If your interview is not live, then do not hesitate to reformulate several times what you want to say until you properly said exactly what you meant (the journalist will cut afterwards, so do not hesitate to repeat your message if you would like to formulate it in another way until you are satisfied with the way you expressed your idea). Use clear language, understandable and tailored to the audience. Use action verbs, avoid negative or passive constructions.
If you are interviewed by a radio or TV journalist, remember that your statement will have to be edited to keep only a short section of your interview, so do not use "First", "Second"... or other complicated constructions. Make your statement short enough to be kept as one element. Express each of your ideas in a short, simple and clear way. With interviews, a rule to keep in mind is: the simpler, the better.

Never lie, say only what you know. If you do not know something, just say it. Do not start to speculate, or remaining vague or starting to make the issue sound complicated because this might jeopardises your credibility and the one of your research organisation. It is better to say that you do not know something rather than trying to come up with something.
A radio or TV interview format usually lasts no more than 1'30 min, and the time allocated to an interviewee will not be more than 15 to 25 seconds so make sure to summarise the essence of your message in about 20 seconds (if you had time to prepare before the interview, rehearse until you know exactly what you want to say and how you will say it within a 20 seconds timeframe).

- **After the interview**

Make sure the reporter understood and noted down your name and the full name of your organisation or project. After the interview, make sure that the journalist understood the points you raised. Stay available in the following hours, the journalist may contact you for additional information or for checking on some details.

If the information published contains significant errors or is inaccurate, you should contact the reporter and request a correction, for instance with an erratum. Or you can also request another article. Even if some journalists work in a 'scoop'-oriented attitude and are disrespectful of the contents provided by experts on a topic, you should try to keep on developing good relations with the press; and especially with just a few journalists that you trust. Many media and journalists work ethically and professionally despite the various pressures they are facing, so do not only focus on the gloomy side of the current media and use it as a pretext for refusing to speak to the press. Because it is actually really important to have the voice of researchers in the media.

III. NEW PRACTICES OF JOURNALISTS USING SOCIAL MEDIA

Nowadays, journalists are forced to accelerate the traditional journalistic process because people want real time information, they want to have it on their mobile as soon as the journalist or the media outlet receives it. It is now a necessity to give the audience bits of information at a time, as soon as the information is available. And since many breaking news now come first through the social media before getting into the media outlets, many journalists use social media.

The main issue for journalists covering news coming from social media is accuracy because many fake news and rumours are spreading in those platforms. So for the journalist, making sure the news is accurate before reporting on it is very important and it is not always simple with social media because the origin of the source material might not be easy to track.

So trust is actually very important for journalists. As a scientist, you can actually have impact on journalists if you are active on social networks and that you make yourself known to the journalists that might be interested in your work. As mentioned above, it is good to build up personal relations with journalists that you appreciate for their good quality work. And to get to know them, you can actually connect with them through your social media channels.

The advantage of following journalists online is that you will get to understand their interests and point of view, and the type of news they like to cover. You can check how they use social media: are they asking for sources or quotes on their platforms? are they responding directly? are they interacting regularly with researchers? are they telling those researchers to direct message them or are they having public conversations? If you see that they are very active, then interact with them online, react to their posts, and let them know through private message that you are an expert in your field and you are available if they need sources on this topic at some point. Social media can actually be a tool for you to build up a small network of media contacts online. If you see that they mainly use social media for driving traffic to their main website and the stories they covered, and that they tend to not interact, then stick to email.

In terms of choice of social media platforms, many journalists actively use Twitter. If you see they are looking for experts, do not hesitate to react to their requests or put them in contact with an expert you know could fit their need. Follow influential journalists to better understand what they are interested in and seize opportunities to communicate with them.

5 | SOCIAL MEDIA

I. SOCIAL MEDIA CHANNELS

A vast number of scientists are using social media for forming new contacts and collaborations, sharing ideas, communicating on science, inspiring others or for entertainment. Social media can boost the carreer of scientists by giving them greater visibility to a wider audience and it can provide them with different types of opportunities (from media coverage to events invitations, etc).

The average attention span on social media is 8 seconds. This means that followers should understand the displayed message in less than 8 seconds. It is therefore recommended to add a picture to each of your post in order to ensure that your followers are attracted to your post.

1. TWITTER

Twitter is probably one of the most relevant social media channels for scientists. Many researchers are active on Twitter, but also journalists, policy-makers and funding agencies. On Twitter, researchers can follow discussions, post work-related contents and ask questions to peers, and discover other's works and concerns.

When posting on Twitter, make sure to be pro-active in posting contents (ideally, daily. Otherwise, weekly). You may:

- Ask a science question
- Retweet someone's question to help them get an answer
- Reply to someone's question
- Announce the beginning or the end of your project
- Keep your followers updated on how your research evolves along weeks or months.
- Share your daily work life (even if this means pictures of what you do in your lab! People really like that! They can relate to what you do and understand better your research).

When following people and organisations on Twitter or other social media, make sure to **curate well**: follow only those who work in your field or who could be intereted in your research (including peers, policy-makers, journalists and funding agencies). If you follow too many people, your feed will not be in line with what you are interested in and those who receive your news will also not be interested to interact with you.

Also, finding **hashtags relevant to your field** and monitoring them regularly allows you to stay up to date.

Avoid wild broadcasting. These days you can get spammed very quickly. In order to make a meaningful engagement on Twitter, it is essential to not scare people off by tweeting all the time. On Twitter and on social media in general, it is important to talk with followers, and not only at them.

In terms of **timing**, 10am to 1pm might be a good time as morning and lunch time tend to receive more engagement while replying to comments is effective at any time. However, it is important to

check your social media metrics that are embedded in your channel. By doing so, you will gain insights on effective publishing time and on tweets that triggered the most engagement. Based on this data, you can reassess and align your 'strategy' of what kind of information you post and at what time.

Tips for using hashtags:

- Hashtags do not allow spaces or punctuation.
- Three hashtags per Tweet is considered a maximum as best practice for readability, even if it is allowed to use as many hashtags in a Tweet as wanted.
- Typing a hashtagged keyword in the search bar allows to discover potentially interesting content and accounts.

In order to shorten URLs to be embedded into tweets, it is suggested to use a URL shortener, such as Bitly.

2. INSTAGRAM

Instagram is a social media platform that enables users to take and share pictures or videos with their mobile devices. It has recently exploded in popularity.

Instagram works with images so scientists can typically use it to share original images of life in the lab, field, or during an event. Maintaining the same style of photography will give posts a consistent style, which helps to make them instantly recognisable. Images have to be striking and people should be able to immediately connect to them. They have to be edited and posted without any poor or blurred content.

As for Twitter, hashtags allow to follow trends and people.

The best time to post on Instagram is from 12 noon to 2pm, on any day of the week or week-end. As for Twitter, it is best to check the metrics built in Instagram to review the engagement of your followers and post accordingly.

3. LINKEDIN

LinkedIn is an online platform that helps build and engage with your professional network. The three main reasons why scientists should use LinkedIn are:

- to get contacted for work
- to discover peers
- to contact peers

LinkedIn is useful to share and discuss longer posts related to current ongoing debates in the science community, to comment on opinion papers or scientitic papers, to discuss research results, methodologies and processes, and so on.

LinkedIn users favour quality over quantity, so there is no need to be active on a daily basis. Weekly or monthly updates are sufficient, as the content that is posted usually requires more time to read and digest.

The best days to post contents on LinkedIn are from Tuesday to Thursday, either early in the morning, lunchtime or early evening.

4. FACEBOOK

Facebook allows content that is more dynamic and interactive than LinkedIn. The comment section below the post are essential to foster interactivity.

Facebook can be a tool to maintain friendships with former lab members, classmates, and colleagues. Facebook is however less used in the professional field. We would therefore recommend scientists to use Twitter over Facebook.

Scientists use Facebook to:

- Promote recent publications
- Share current news of labs, organisations, research institutes
- Comment on current events or topics of interest in the field.

The best time to post on Facebook is between 12 noon and 3 pm on all weekdays, and on the weekends from 12 noon to 1 pm.

5. YOUTUBE & VIMEO

YouTube and Vimeo are platforms that allow for the publication of videos. Best is to develop 2' to 3' minute videos at best to get messages across and ensure people will watch your video till the end.

It is very important to use social media to promote your video in order to get traffic in the first 24 hours of publishing a video. This will help in the referencing of your video because the YouTube algorithm favours outside traffic. So if the publisher of a video can create a traffic spike the first day the video is published, it will perform better in YouTube. Getting more engagement within that timeframe will help YouTube understand this is a video worth promoting to more people.

In general, the best time to upload videos to YouTube during weekdays is between 2 pm and 4 pm.

Use metrics to track the engagement rate of your posts on social media.

II. MANAGING A SOCIAL MEDIA PRESENCE

If you are not sure of which channel to start with, you may considering the following key points:

- Twitter would be the platform where to engage with other scientists, with journalists and with policy makers.
- Instagram would be the platform where to build project affinity with existing professionals, showing your work environment and research in a visual way.
- LinkedIn would be the platform where to engage professional contacts and have more in-depth discussions.
- Facebook would be for raising attention to friends and colleagues in a more informal way.
- YouTube or Vimeo would be the platforms where to support existing audiences with video content.

Fortunately, tools exist to prevent you from dealing with everything on your own, especially if you use multiple platforms. There are some management tools such as Hoot Suite or Sprout Social. This type of tools have the following key features:

- The user manages networks from one place. It means from one place, you can work across Facebook, Twitter, LinkedIn, Instagram, and others.
- The ability to schedule posts. You could schedule a week in advance, a month in advance, to make your job simpler and be sure to publish at optimal times.
- The built-in analytics are user-friendly. You can immediately see the rate at which posts are growing or the rate at which they are shared. And you can more easily adapt your contents based on these in-depth data.

This type of management tools will help you to take up the role of a community manager with little efforts.

As people spend more time than ever on social media, we might think that the space is saturated or that getting involved would be a waste of time.

Nevertheless, if you succeed in using the right social media platforms, and if you manage them well, this will allow you to connect with many people, including key persons who could provide you with enhanced visibility or who could help ensuring that your research actually has an impact on society. Your profile and work can be put under the spotlight in a short amount of time with limited effort. Therefore, try it for some time, learn how the social media platform you use works, observe what others do and how they use it, and curate your contents according to metrics and you will soon be successful.

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