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TOOLKIT FOR YOUNG RESEARCHERS

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1. Introduction

The Eurofleets+ project offers a number of different opportunities for researchers beginning their career to take part in training activities or gain field experience, such as Floating Universities, Blue Skills Labs and the Co-PI programme. This deliverable provides a "Dissemination Toolbox" for these young researches. A "how to guide" to effectively communicate their research to different people at different times and through different media.

It provides all the resources they need to get the most impact from their Eurofleets+ experience.

The tool box includes:

- Message in a Bottle - How to get your message to the right audience,
- Casting your net - How to use Social Media to showcase your work and reach your audience,
- The Sailor's Guide - Blogging on the go and creating great news articles!
- Into the Open Ocean - All you need to know about Open Science and Open Access,
- Become Jacques Cousteau – Become an ocean film expert with our guide to producing videos to disseminate you research,
- Gear Up – Tools to help you produce the best posters, presentations and reports,
- Navigate to Success - Ten steps to becoming the Captain of your own scientific career.

EUROFLEETS+

TOOLKIT FOR YOUNG RESEARCHERS

www.eurofleets.eu

EUROFLEETS+ is an H2020 project funded under the Infrastructures initiative, coordinated by the Marine Institute that brings together a significant group of key marine research actors (in particular research vessel operators) in Europe, North America and Oceania – 42 marine institutes, universities, foundations and SMEs from 24 countries.

The EUROFLEETS+ project will facilitate open free of charge access to an integrated and advanced research vessel fleet. In addition to ship time, researchers will also have access to new AUVs and ROVs. and a unique portable telepresence system that will enable remote access by researchers and diverse end users including the public; a first for Europe.

In addition to comprehensive transnational access activities, the project will undertake joint research in challenging and highly relevant areas, including deep ocean research and exploration, data management, and enabling future virtual access. Multiple networking activities will ensure robust Call processes, wide stakeholder engagement, and development of a strategic roadmap and sustainability plan.

To maximise the impact of the project, EUROFLEETS+ will implement diverse training and education activities, strong management of innovation in collaboration with industry, and widespread dissemination and communication actions.

As a young scientist you may be interested on the following EUROFLEETS+ Iniciatives:

The **EurofleetsPlus Education and Training program** offers training activities to early career technicians, marine scientists and (future) Research Infrastructure managers:

Floating Universities
A series of ship-based training initiatives in marine related sciences areas such as scientific instrumentation, the collection and processing of samples, data analysis, quality control, and processing.

Blue Skill LABS
During the past ten years new technologies have remarkably extended the scope of marine research and now offer exciting novel perspectives for pioneering research. Unmanned underwater vehicles have reached a high degree of reliability and they develop towards standard equipment on modern research vessels. However, the technical complexity of the systems and their integrated scientific payload is a challenge for both the operational team and the scientists. This is addressed through proposed dedicated training courses to enable the next generation of marine researchers to fully utilize the possibilities offered by this kind of scientific instrumentation onboard European research vessels.

Co-PI programme
A new initiative to allow early career scientists to implement their own research together with experienced scientists in Eurofleets+ scheduled cruises.

Welcome to the Eurofleets+ Toolkit for Young Researchers!

Here you can find all the resources you will need to get the most impact from your Eurofleets+ experience.

We're here to help you promote you and your research with:

Message in a Bottle - How to get your message to the right audience,

Casting your net - How to use Social Media to showcase your work and reach your audience,

The **Sailor's Guide -** Blogging on the go and creating great news articles!

Into the Open Ocean - All you need to know about Open Science and Open Access,

Become Jacques Cousteau – Become an ocean film expert with our guide to producing videos to disseminate you research,

Gear Up – Tools to help you produce the best posters, presentations and reports,

Navigate to Success - Ten steps to becoming the Captain of your own scientific career.

So what are you waiting for? Let's cast off...

MESSAGE IN A BOTTLE

MAKE YOURSELF HEARD

CHOOSE THE RIGHT AUDIENCE

"Not only is it important to ask questions and find the answers, as a scientist I felt obligated to communicate with the world what we were learning."

STEPHEN HAWKING, BRIEF ANSWERS TO THE BIG QUESTIONS

As researchers, we need to communicate with different people at different times and through different media. So as not to fall on deaf ears, our messages must be tailored to their target audience and to the communication channels used.

We have to ask ourselves, what does the audience care about? Why should they care about my research? I've produced all this data, but... "So What?"

By taking time to consider the interests of our audience we can begin to start refining our messages, and to address issues that are relevant to them.

To better understand the "So What?" for different target audiences, take a look at Figure 1, where some of these perspectives have been laid out.

"Figure 1 - The "So What?" Prism adapted from Escape from the Ivory Tower: A Guide to Making Your Science Matter, by Nancy Baron (Island Press, 2010).

SO WHAT?

The "Message Box" was developed by the US-based organisation COMPASS, whose mission is to help life scientists to communicate in a better way. The Message Box is an organisational tool that helps the user to organise large amounts of information and hone in on the information that is of interest or relevance to any given target audience.

The Message Box (Figure 2) is a diagram with five sections, each one designed to help sort and prioritize elements of a message.

The Message Box tool can be used to prepare for interviews, presentations, articles, papers, grant proposals or any other interactive channel through which a message needs to be concisely communicated to a selected audience.

The process helps scientists to look at the significance of the science or message to the stakeholder.

Further details of the template and how to fill it can be found on the Compass website.

“One should use common words to say uncommon things.” ARTHUR SCHOPENHAUER, PHILOSOPHER

The Message Box

Audience: Who is impacted by this? Who can change this? Who cares about this?

What specific dimension of the issue are you addressing?

The COMPASS Message Box: Section-By-Section

Problems?

Issue

Benefits? Who does this help and how? What improves in the short-term? Long-term?

Broadly, what are you working on? What keywords would you search to find your topic online?

So What? What does your audience value? How does this impact them or something they care about?

Solutions?

What can be done to address the problem? Or what are you doing to address it?

COMPASS

CASTING
THE NET

"It's a dialogue, not a monologue, and some people don't understand that. Social media is more like a telephone than a television."

AMY JO MARTIN, WRITER

It's all very well "making discoveries", "saving lives" and "improving the world", Roger. But your research is making barely any impact on social media.

TOM GAULD

WHY USE SOCIAL MEDIA?

According to a Pew Research Center survey, about two-thirds of American adults (68%) say they, at least occasionally, get news on social media. The same study, however, found that consumers are skeptical of the information they see there: A majority (57%) say they expect the news they see on social media to be largely inaccurate.

A large proportion of the "misinformation" presented through social media relates to science. Researchers need to confront this wave with a tsunami of **accurate** scientific information.

As a scientist, social media will also allow you to maximize the reach of your research and to engage your target audience.

A picture says 1,000 words.

Don't sink more time in it than you're benefiting from.

Link with key partners.

Pick your platforms - don't do too much

Keep your audience in mind.

Expand your network.

Decide what you want to achive.

Anything can go viral... and it isn't logical!

Be human - people love stories.

Measure! Use the tools there are to see if you're getting what you need.

TOP 10 SOCIAL MEDIA TIPS FOR RESEARCHERS - UNIVERSITY OF KENT

SAILOR'S GUIDE

"There is a curious idea among unscientific men that in scientific writing there is a common plateau of perfectionism. Nothing could be more untrue. The reports of biologists are the measure, not of the science, but of the men themselves. There are as few scientific giants as any other kind. In some reports it is impossible, because of inept expression, to relate the descriptions to the living animals. In some papers collecting places are so mixed or ignored that the animals mentioned cannot be found at all. The same conditioning forces itself into specification as it does into any other kind of observation, and the same faults of carelessness will be found in scientific reports as in the witness chair of a criminal court. It has seemed sometimes that the little men in scientific work assumed the awe-fullness of a priesthood to hide their deficiencies, as the witch-doctor does with his stilts and high masks, as the priesthoods of all cults have, with secret or unfamiliar languages and symbols. It is usually found that only the little stuffy men object to what is called "popularization", by which they mean writing with a clarity understandable to one not familiar with the tricks and codes of the cult. We have not known a single great scientist who could not discourse freely and interestingly with a child. Can it be that the haters of clarity have nothing to say, have observed nothing, have no clear picture of even their own fields? A dull man seems to be a dull man no matter what his field, and of course it is the right of a dull scientist to protect himself with feathers and robes, emblems and degrees, as do other dull men who are potentates and grand imperial rulers of lodges of dull men."

JOHN STEINBECK, THE LOG FROM THE SEA OF CORTEZ

CREATE GREAT NEWS ARTICLES

As far as he can achieve it, readability is as important for the scientific writer as it is for the novelist.

DONALD O. HEBB, PSYCHOLOGIST

Explaining scientific advances to the general public is of the utmost importance. This can be achieved by writing a piece for a website, journal or blog.

According to Harold Evans, one of the greatest editors and journalists, the key to writing a great news piece can be summarized in few lines: "It is not enough to get the news. We must be able to put it across. Meaning must be unmistakable, and it must also be succinct. Readers have not the time and newspapers have not the space for elaborate reiteration. This imposes decisive requirements. In protecting the reader from incomprehension and boredom, the text editor has to insist on language which is specific, emphatic and concise.

Every word must be understood by the ordinary reader, every sentence must be clear at one glance, and every story must say something about people. There must never be a doubt about its relevance to our daily life. There must be no abstractions."

So keep it simple!

The first phase of writing a news article or editorial is by applying Hermagoras' method (Figure 3).

"Figure 3 - Hermagoras' method.

ORGANISE YOUR CONTENT

Writing a newspaper article or presenting a news story can be imagined as an inverted pyramid. At the top is where you put the most important information. This should be followed by the next most important information, until you come to the least important information at the end of the piece

Leading Paragraph - The most important information

Use the Hermagoras' method

Typically about 30 words

May include a "hook" (provocative question or quote)

Body - The crucial information

This is the argument, story, issue or controversy, and includes information like evidence, background, details Includes quotes, photos, video and audio that support, dispute or expand the story

Tail - Any extra information

INTO THE
OPEN OCEAN

BE F.A.I.R.

Everyone is talking about Open Science and Open Data. Open Science aims to make publicly-funded scientific outputs easily accessible to anyone who wants them, with few or no restrictions. Open Science is all about transparency, repeatability, and sharing knowledge.
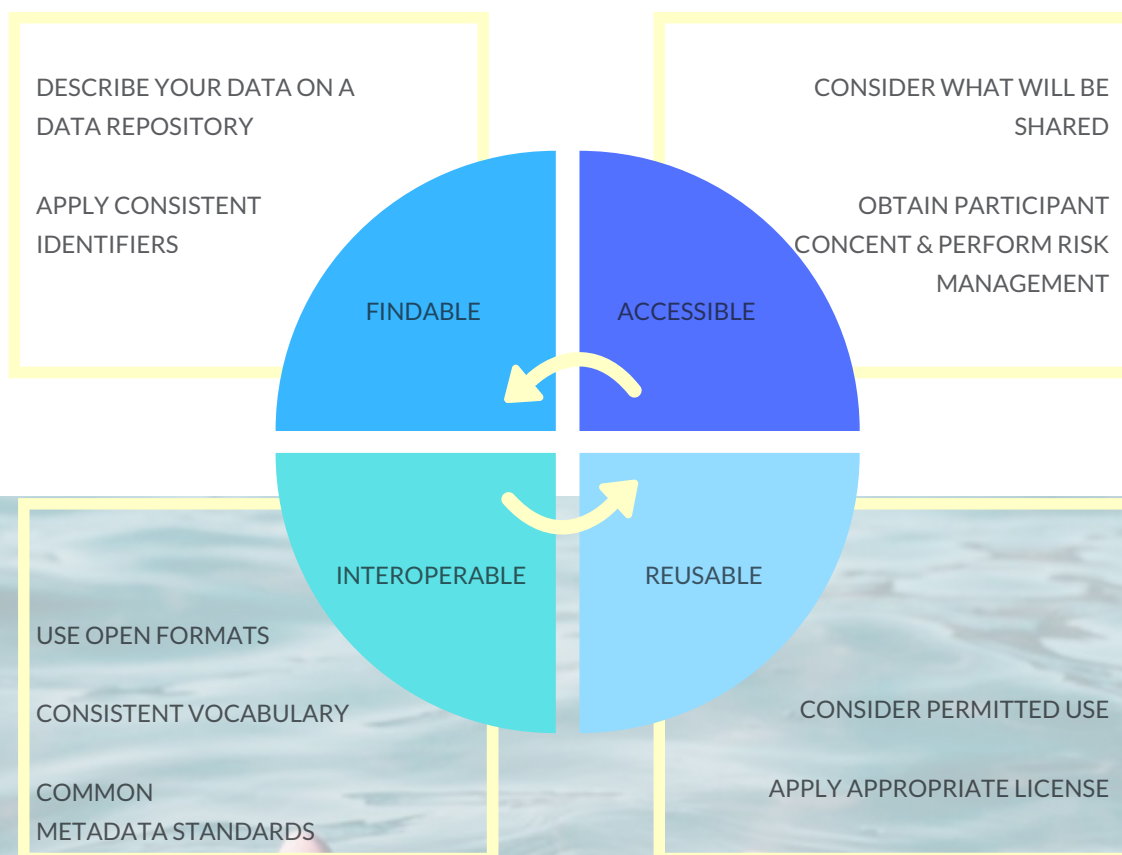
Underpinning the principle of Open Science is good data management that supports the reuse of Open Data. The four F.A.I.R. principals of good data management are:
- Findability,
- Accessibility,
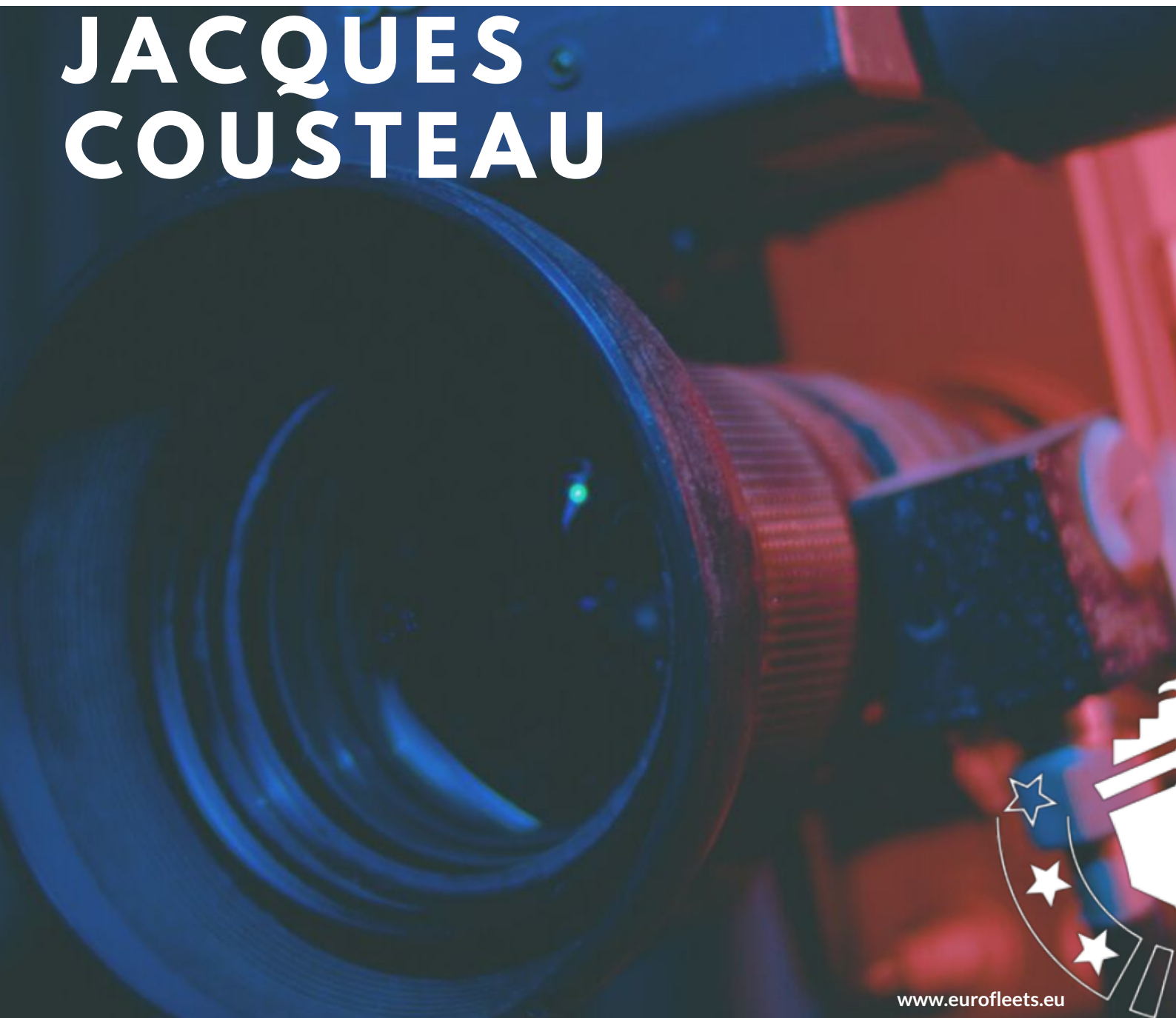- Interoperability, and
- Reusability.

There are many benefits to Open Science:
- **Visibility** (more citations, credit for data and methods),
- **Improved networking** (new opportunities, new collaborations, new applications for existing data),
- **Faster Access to Knowledge** (latest research can be put into practice without delay),
- **Spillover** from Academia to other areas (increased awareness, new ideas, innovation).

In 2012, the European Commission encouraged all EU Member States to make available all public-funded research results in order to make science better and strengthen their knowledge-based economy, via this Recommendation.

DESCRIBE YOUR DATA ON A DATA REPOSITORY

APPLY CONSISTENT IDENTIFIERS

CONSIDER WHAT WILL BE SHARED

OBTAIN PARTICIPANT CONCENT & PERFORM RISK MANAGEMENT

FINDABLE

ACCESSIBLE

INTEROPERABLE

REUSABLE

USE OPEN FORMATS

CONSISTENT VOCABULARY

COMMON METADATA STANDARDS

CONSIDER PERMITTED USE

APPLY APPROPRIATE LICENSE

BECOME
JACQUES COUSTEAU

www.eurofleets.eu

"The more strikingly visual your presentation is, the more people will remember it."

PAUL ARDEN, IT'S NOT HOW GOOD YOU ARE,
IT'S HOW GOOD YOU WANT TO BE

PLAN YOUR DOCUMENTARY

1

    Tell a story - Explain why the subject excites you.

2

    Research - Learn everything you can about your subject. Remember you are the expert.

3

    Make a Plan - Think about how you're going to tell your story.

4

    Create a Shot List - This is a list of the footage and interviews you'll need to make your movie.

5

    Start Shooting - Keep in mind how your movie will be viewed

6

    Write a Script - Identify the most compelling elements.

7

    Begin Editing - Create a sequence.

8

    Check Legal and Copyright Issues

9

    Distribute!   MAKING DOCUMENTARIES, DESKTOP DOCUMENTARIES

Check our youtube channel:

GEAR

UP

EFFECTIVE PRESENTATIONS

According to SkillsYouNeed the are 10 Top Tips for
Effective Presentations:

- Show your Passion and Connect with your Audience
- Focus on your Audience's Needs
- Keep it Simple: Concentrate on your Core Message
- Smile and Make Eye Contact with your Audience
- Start Strongly - You need to grab your audience's attention and hold it
- Remember the 10-20-30 Rule for Slideshows: 10 slides, 20 minutes, font size 30 points
- Tell Stories - Human beings are programmed to respond to stories
- Use your Voice Effectively - Varying the speed at which you talk, and emphasising changes in pitch and tone.
- Use your Body Too - Make your gestures open and confident, and move naturally
- Relax, Breathe and Enjoy

TOP TIPS FOR EFFECTIVE PRESENTATIONS, SKILLSYOUNEED

THE DO'S AND DONT'S OF WRITING A REPORT

If you have an important point to make, don't try to be subtle or clever. Use a pile driver. Hit the point once. Then come back and hit it again. Then hit it a third time – a tremendous whack.

WINSTON CHURCHILL, POLITICIAN

A scientific report is a document that describes the process, progress, and or results of technical or scientific research or the state of a technical or scientific research problem. It might also include recommendations and conclusion of the research. In 2015, the Utrecht University release a guide for scientific writing and they summarize the Do's and Dont's when writing a report here summarized.

✓

- Write in your own words and refer adequately to the literature
- Pursue the IMRAD structure for your report, thesis, or paper
- Formulate a relevant, simple, measurable, and feasible research question
- Make clear to what extent the research question has been addressed by others
- State the research question, research aim or hypothesis in the first sentence of a paragraph
- Only describe methods that you have used to answer your research question
- Only describe relevant data
- Structure your description (e.g. primary - secondary features; geographically)
- Use figures, tables, photographs, and maps
- Discuss what can be inferred given the uncertainties
- Summarize your main findings
- Provide answers to your research questions
- Give a short and informative title to your work
- Include references in the main text in the reference list and vice versa
- Include materials that would obscure the structure and message of the body text in appendices
- Insert page numbers in your document
- Chapter and section titles have a consistent logical hierarchy
- Use the same format for each hierarchical level
- Chapters, sections, and subsections should be numbered using Arabic numerals
- Start chapters at a new page
- Increase the attractiveness and readability of your text by connecting your sentences and varying the length of sentences and the order of clauses

✗

- Do not copy entire phrases/paragraphs from existing texts
- Do not deviate from the basic IMRAD structure without consulting your supervisor
- Do not sum up everything that is somehow related to your topic
- Do not repeat the table of contents in your text
- Do not report results from your own study (for example, results with respect to your study area or precision of your data)
- Leave out irrelevant information (e.g. touristic information or subjective experiences about the fieldwork area)
- Do not repeat a description of the methods how you obtained your results
- Do not give an overview of all flaws and uncertainties proving that your study is actually useless
- Do not present new facts or results
- Do not include redundant phrases in the title
- Do not give a chapter number to the preface, table of contents, summary, and references
- Do not insert page numbers on blank pages
- Do not make subdivide your text in too many sections and subsections that are only one paragraph in length
- Do not be inconsistent in style in sequences
- Do not use different grammatical form in parallel structures

A GUIDE FOR SCIENTIFIC WRITING, UTRECHT UNIVERSITY

POSTER BASICS

Poster presentations are a way to present your hard work, especially when you are starting out in research. They create less stress than oral presentations, but they provide you with networking opportunities and valuable practice at talking about your work.

According to the NYU you should have in mind always 3 questions.

1 What is the most important/interesting/astounding finding from my research project?

2 How can I visually share my research with conference attendees? Should I use charts, graphs, photos, images?

3 What kind of information can I convey during my talk that will complement my poster?

What makes a good poster according to the NYU?

- Important information should be readable from about 3 meters.
- Title is short and draws interest
- Word count of about 300 to 800 words
- Text is clear and to the point
- Use of bullets, numbering, and headlines make it easy to read
- Effective use of graphics, color and fonts
- Consistent and clean layout
- Includes acknowledgments, your name and institutional affiliation

HOW TO CREATE A RESEARCH POSTER: POSTER BASICS, NYU
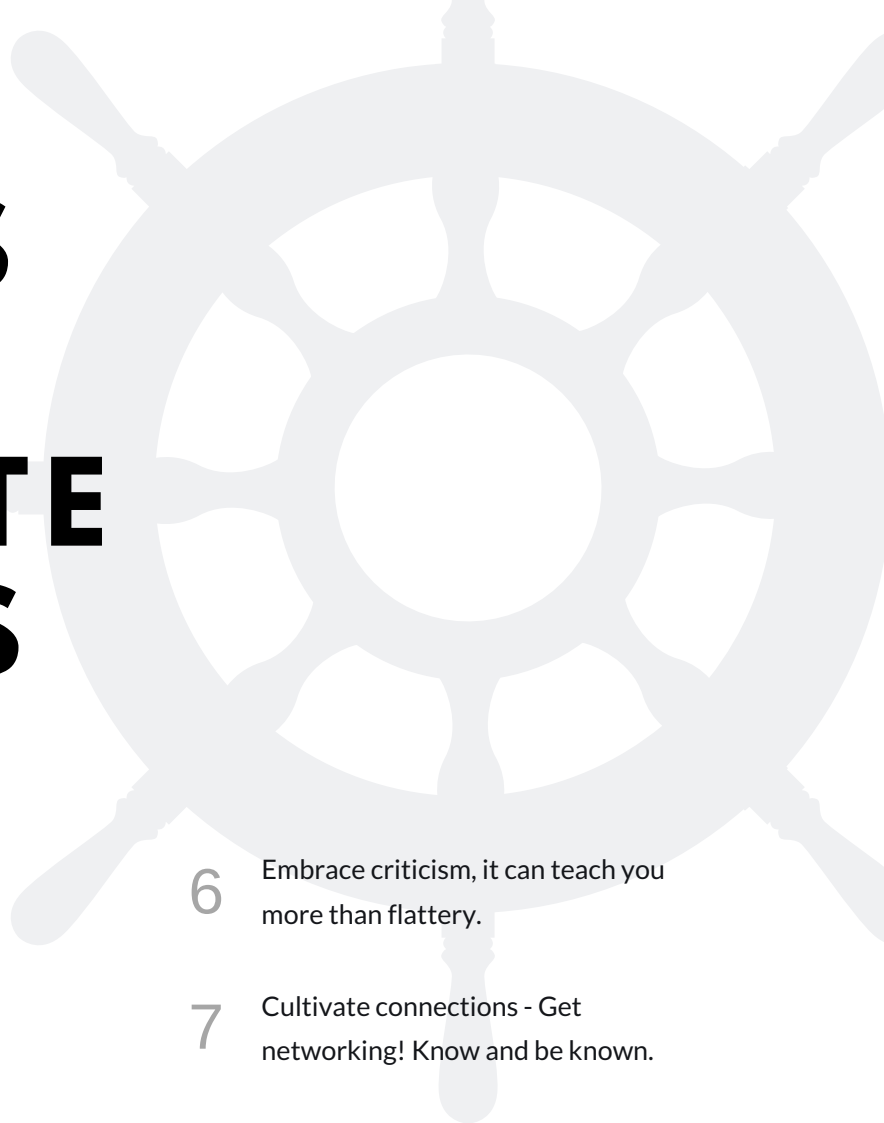
# STEPS FOR SUCCESS

www.eurofleets.eu

"To be successful at sea we must keep things simple."

PETE CULLER, BOAT BUILDER

10 STEPS TO NAVIGATE SUCCESS

1 Remember your audience and their priorities. Ask yourself, "So What?"

2 Use simple language and avoid jargon and technical terms.

3 Get to the point - choose three key points that you want your audience to remember.

4 Have a voice, speak up for your science. You are the expert!

5 Think of solutions, not just problems.

6 Embrace criticism, it can teach you more than flattery.

7 Cultivate connections - Get networking! Know and be known.

8 Have a presence - create and update online profiles, e.g. ORCHID, Research Gate, etc.

9 Keep informed - subscribe to newsletters, follow others, etc.

10 Seize unexpected opportunities - be prepared, practiced and ready for anything.
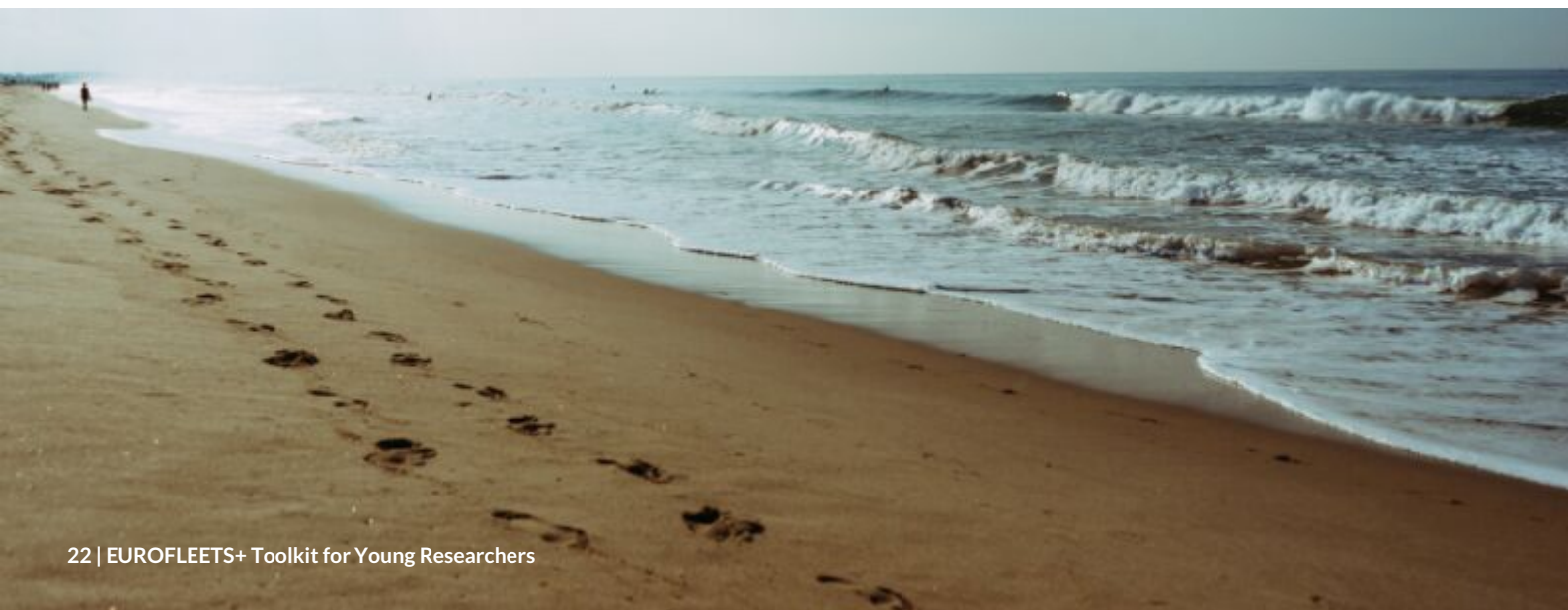
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