





EU ENI East Twinning project
Supporting inter-sectoral collaboration possibilities between
Research and Industry
GE 18 ENI OT 02 19

Training for PhD students and young scientists:

"Pathways towards international networks and leadership of international projects consortia"

13 (2 hours) – 14 (2 hours) July 2021, at 13:00 – 15:00 Tbilisi time (= 11:00 – 13:00 CET)















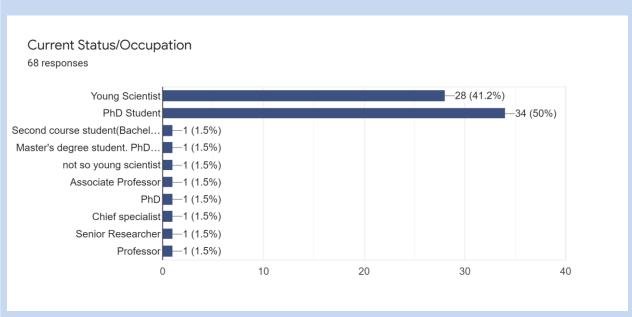


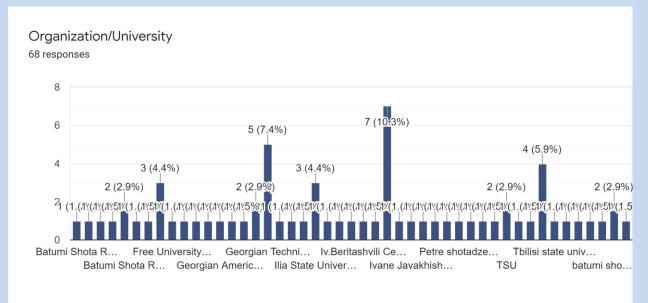






# Thank you for joining us!



















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Day 1





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# Icebreaker: Day 1

Day 1: What was my funniest event – but at the same time typical event—when trying to build up a scientific network and collaboration?





























In one word, how would you describe your mood?

13172021 thoughtful Calm Interesting Excellent oops tine<sub>Aha</sub> energetic Strange Motivated

Happy inspired curious

hardworking:) stressed Amazing

# Icebreaker results from 13 July

What benefits could a good international collaboration have?

Grants Networking collaboration sharing our experience connection articles productivity solves mutual problems opportunities rethink

fruitful Experience Worried

knowledge exchange

Productive Projects Progress

It will be useful for development and sharing of experiences

What was your funniest - but at the same time typical - event when trying to build up a scientific network and collaboration?

> Influence of nature on the immune system cultural misunderstanding different skills misunderstangi Language barrier different work style Dinner party smile

weather smalltalk

Funny escape games confusing internet problem

Elevator meet Similarities

i am not interested in your proposa; They didn'e take it serious...:)) Qualification for a project abroad











New ideas











# **Section 1:**

# Personal communication for networking: Who? How? Why?

Mr. Gilbert Ahamer, Twinning component leader



















## You were just involved in YOUR daily life – Welcome NOW to our seminar!

Let's start with a saying from my country:

This means: when positive **mindsets** become materialised & implemented, success can be found.

Question: on which level will we work?

=> We work on the META-level:  $\mu\epsilon\tau\alpha$  = beyond meta-targets, meta-message

QM: Mental concepts 

physical reality

Therefore, our **first duty** is: **Conceptualise strongly!** 

























### Intro

Therefore, what we need to do today:

## 1. Conceptualise!



- 2. Think of which institutional frames we need to make dreams come true
- 3. Encourage others to view life the same way (= "science networking & consortia")





















## Imagine your *IDEAL* scientific network

### **Possible motivations:**

- Improve your <u>inspiration</u> received from international practice
- Increase your <u>methodologies</u> by professionalizing them internationally
- Widening your <u>background</u> understanding by including dissenting views
- Strengthening your *publications* by co-authorships & better writing style
- 5. Enlarging your <u>reaching-out</u> by enlarging the public for your findings.

These motivations mean quantifiable targets in several dimensions:



\* 1. Conceptual inflow



2. Methodical soundness



\* 3. Contextual framing



4. Products' outflow



5. Resulting outreach



Write down *your* target 2

Write down your target 3

Write down *your* target 4

Write down *your* target 5

























## Our mathematical formula ( @ )

# person = f (target)

your "ideal" person = f ( your target )











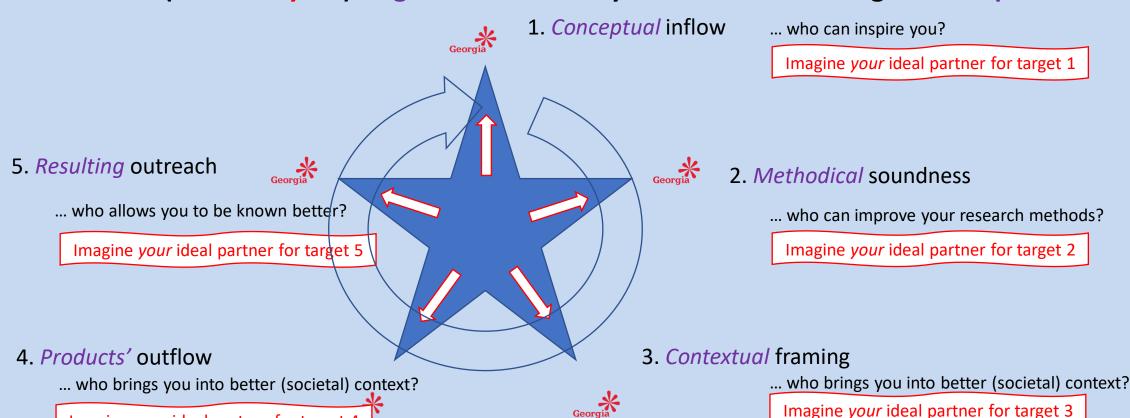






## "person = f (target)": Converting targets into persons

### When you see these (or rather your) targets – how do they translate into finding suitable persons?







Imagine your ideal partner for target 4



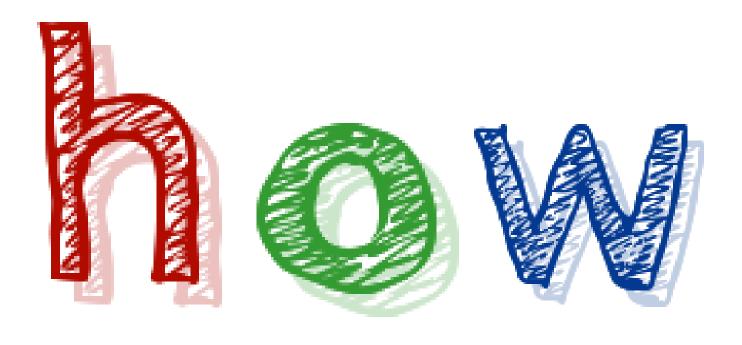














## Our dynamic social equilibrium

Which type of person should you choose?

# Your interest ≅ your partner's interest

(level)

(achievement)

(seniority)

should match (or complement) (level)

(achievement)

(seniority)



















Mapping

Global Dynamics





3. *Contextual* framing

## Converting targets into persons +

idealised

## When you see these (or rather your) targets – how do they translate into finding suitable persons?







1. *Conceptual* inflow

... select an inspirer ...

How you approach person 1

5. *Resulting* outreach

... select an outreacher ...

How you approach person 5

2. *Methodical* soundness

... select a methodologist ...

How you approach person 2

4. Products' outflow

... select an implementer ...

How you approach person 4

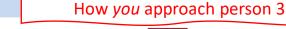
















... select a contextualiser ...





# Interactive work 1:

# "How to choose a most suitable person for my networking"

Mr. Gilbert Ahamer, Twinning component leader





























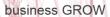






















# **Section 2:**

# Institutional international collaboration: the main obstacles and mistakes



















## Today's sequence of envisaged entities:

# Targets => persons => instituti⊛ns

your "ideal" institution = f ( your target )















## Converting persons into institutions

## Institutions serve as a *framing structure* that allows individuals to *act*

V. Which result is appropriate for which *payment*?

... minimum daily rates can hinder cooperation

IV. What type of *result* brings an institution forward?

... MoU, publications, books, curricula, concepts, policy reports, industrial products, hardware, software, relative attractiveness of cooper. countries

I. Are institutional *concepts* similar? What is considered "progress" for an institution?

... research, administration, consulting, strategy development

II. Do institutions esteem similar *methods*?

... experimental or theoretical, literature analysis, philosophy; mono- vs. trans-disciplinarity

mono- vs. trans-disciplinarity

III. How do institutions function internally & administratively?

... vertical vs. horizontal authority flow, (un)limited sovereignty

















## Main obstacles and mistakes regarding institutions: some examples

### = inconsistencies between institutions' targets or mindsets

One partner calculates only direct, personal costs, while the other partner must finance a huge infrastructure with differentiated internal administration

One partner does research, another partner administration & consulting, but each one has no understanding for the mindset of the other (= lives in another mental world)

One partner aims at publishing only, another partner creates a software product, the third creates a museum exposition; and all *do not respect* the outcome of the others

OANNEUM )))))

One partner is in economics, another partner in natural science, and each one believes doing "real" science – not "illegitimate" methods in science

One partner is a young start-up firm, the other a classical academy or ministry















## The overall image: targets | => persons + => institutions \*\*

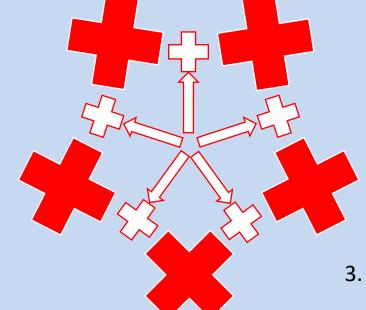
# Our "meta-map":

5. *Resulting* outreach

4. Products' outflow

" means five dimensions for success





2. *Methodical* soundness

3. Contextual framing

"+" means symbiosis, synergy







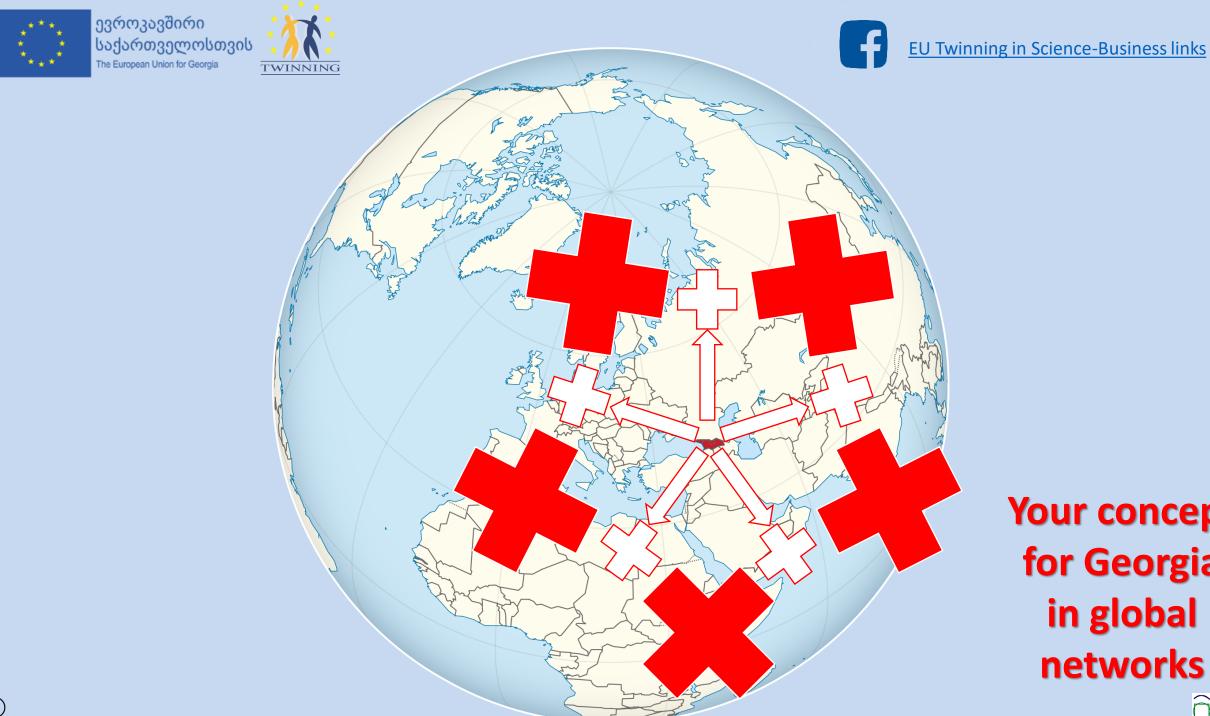












**Your concept** for Georgia in global networks







# Interactive work 2:

# "How to find partner institutions and to initiate collaboration?"

Mr. Gilbert Ahamer, Twinning component leader





















# **Section 3:**

# Young scientist: opportunities & challenges – symbiosis vs parasitism

Ms. Inese Gavarane, Resident Twinning Advisor















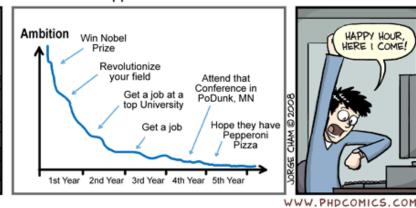


## Profile of famous & successful scientist

- open-minded and flexible involvement in state and private sectors
- write papers and proposals
- communicate with a variety of audiences
- educate others
- keep an attitude of service towards the population
- take responsibility for investigations and actions
- effective communicator
- they can combine work and private life

#### **YOUR LIFE AMBITION** - What Happened??





In front of attempts to take away our enthusiasm ... WE HAVE TO KEEP OUR TEMPO!

















# **Skills are important**

- Develop your own research ideas: actively develop your talent
- Think about context: scientific and societal relevance
- Feasibility of research
- Realistic planning of a project
- Project formulation and planning

#### Think about future!

What should your track record should look like:

- Publications
- Patents
- Grants/awards
- International experience or activities
- Network: scientific and industrial/societal
- Dedication level

Number of publications and impact factors are easy to quantify...

# Thinking 'I can do better' can improve performance



"the paper" is the currency of science

















# **Funding**

### **Research themes:**

Public grants
Private grants
Public Private Partnerships

Personal grants, e.g. scholarships, awards etc. :

Public grants

Private grants

#### **Examples of international actions:**

Horizon Europe

Erasmus+

Marie Skłodowska-Curie Actions NEW CALL!!!

**DAAD** 

Scholarships of scientific societies

COST short-term trainings

Collaboration project announced by embassies

•••

**EUROAXESS:** information on job vacancies & funding opportunities

Create your list of the possible funding sources and regularly check information!





















# Funding: tips & tricks

#### Track record:

You have to be able to show that you are a trustworthy academic person to invest money in!

#### **Build:**

Academic publication list – double check your results Work in consortia: use conferences to initiate seeds of academic cooperation, co-publication Work in public private consortia



#### European Commission, official website (europa.eu)

Home > Research and innovation > Funding > Find funding partners

#### Find funding partners

#### Find a project partner

Information on project partnerships, including search services.

Horizon 2020 - Find partners or apply as an individual

Who can apply, research collaboration, search for

### Do not be upset with:

mistakes declines no feedback

We all are humans, and it is part of a daily communication

















# Funding: tips & tricks

## **EU Findings and tenders:**

Funding & tenders (europa.eu)

CITY \$

**TBILISI** 

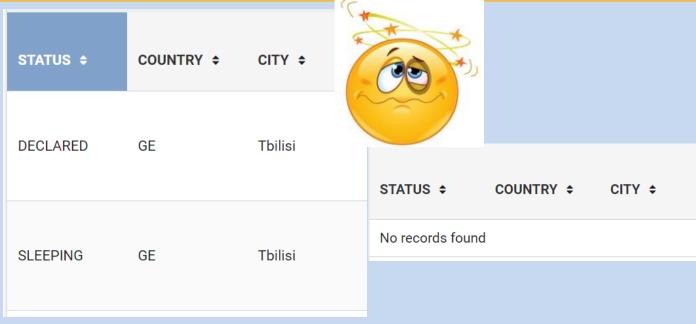
COUNTRY \$

GE



**SCIENCE FOUNDATION** Can check your organisation Participant Identification Code (PIC): <u>Funding & tenders (europa.eu)</u>

SHOTA **RUSTAVELI** 



Make a list of National Contact Points of different programmes Choose the optimal option:

- ✓ individual involvement
- √ institutional involvement















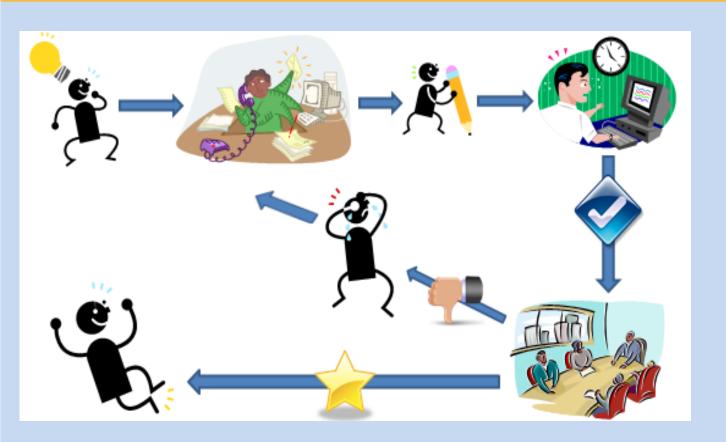
STATUS \$

VALIDATED





# Proposal writing is a process



- Starts from idea and progress through several stages.
- Iterative process (majority of grants do not receive funding the first time around)

If you don't get funded – can learn new information about ways that you can improve your application



















# Symbiotic +/+

## system

## Parasitic +/-

- Working through community to deliver relevant and effective social impact for their members
- Working with the community to develop and facilitate solutions that are community based, as well as relevant and meaningful to the experience of the members within the community
- Connecting communities with more established 'host' communities, to work together for mutual benefit
- Opening pathways for value exchange between individuals and diverse communities and encouraging ongoing relationships
- Creating the link between social capital and social cohesion





- Inappropriate usage of resources
- Benefit only for one side
- Loss of meaningful solutions
- "Alternative" scientific facts fake news

Symbiotic relationship is always preferable to a parasitic one

















"The root causes of the social challenges we face lay in our lack of understanding of how important we are to each other. If we can create environments where communities and their members can unite to each share their unique human value in solving their shared social challenges, adversity can become our advantage. We can become our own teachers and learn the vital lesson of interdependence. Only through this can we begin to undermine the very foundations of conflict and disadvantage"

Gavin Ackerly, Founder of the Symbiotic Innovation

















#### Do not believe what we say: Believe the Nobel prizes







Jules Hoffmann

What is the secret to conducting Nobel prizewinning science?

"Science is a very stressful job because you have **to choose** the right field, get good results and then **publish those results before** your competitors...

Intellectual freedom is also crucial..."

What advice do you give to your students?

"I advise young students to choose a good subject and a good supervisor. In addition, I encourage them to be aware of all the progress in their field... Also, I tell them...: be open and interact with other fields."

Nature 514, doi:10.1038/514S5a











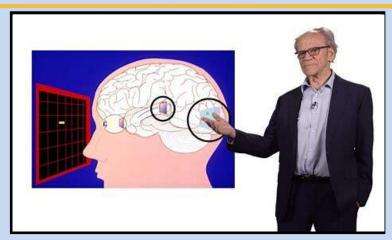






#### Do not believe what we say: Believe the Nobel prizes





Torsten Wiesel

What was your relationship like with David Hubel, the other half of your scientific team?

"We usually carried out two experiments per week on Tuesdays and Thursdays, often working through the night, then the next day we would analyze the data and plan the next experiment..."

What tips would you give to a young scientist today?

"Science should be fun: you should enjoy what you do. My advice for an undecided brilliant young person looking for an area of research is to enter the field with the sincere intention of helping to solve the intriguing questions..."

Nature 514, doi:10.1038/514S11a





















## **Interactive work 3:**

# Fishbone diagram: Fishbone diagram: problems are identified, tackled and solved problem, contributing factors & causes

Ms. Inese Gavarane, Resident Twinning Advisor















# **Explanation of home task:**

# Georgian science achievements 2020/2021

Inese Gavarane and Gilbert Ahamer



















#### Home task: three outstanding Georgian science achievements 2020/2021

What is most telling in your opinion? Which achievements describe best Georgian science?

Provide material from your experience and knowledge!

Scientific field

Publishing date

Journal title, impact factor

Link on publication

Authors, affiliation

Short description for wide public (max 3 sentences)

Other important comments

Your information will be used to develop e-leaflets and will be distributed among wide public and international partners – in order to further promote Georgian science internationally!









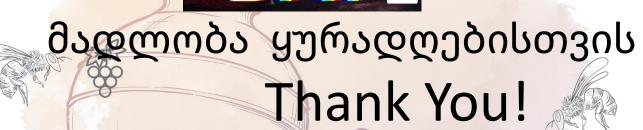




















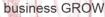






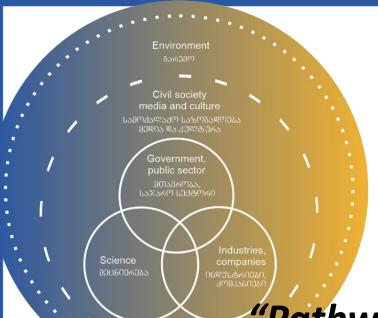
















Welcome to Day 2!

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Day 2





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#### **Icebreaker: Day 2**

Day 2: My favourite "first and only sentence" that I will use to capture and include a new person into my planned scientific cooperation



























How do you feel today?



### **Icebreaker results** from 14 July

My favorite "first and only phrase" that I will use to capture and include a new person into my planned scientific cooperation

> Active Hard working goal oriented industrious inspiration responsibility productive that it gold fine responsible We will do it! Welcome interest exectly Genius Attentive This will work

Message to trainers

excellent We appreciate your effort Productive training it was great

### Thank you

Interestingly Productive

see you well done

Interesting

Good luck good job give more examples awesome

Sie sind sehr nett...



















# **Section 4:**

What are your real personal needs and where are your obstacles? Leadership of an international consortium: big game – big challenges

Please prepare your questions!

Mr. Wolfgang Polt, Project Leader



















### How to become (and remain) part of international consortia

- **Be visible on the international scene** at conferences, in (professional) social media (ResearchGate, Academia, LinkedIn, ...), with a good (personal, institutional) home page
- **Be attentive** follow the international tenders / calls for proposals very closely (best: urge your institution to set up regular screening of international calls and good internal communication; e.g. for Horizon Europe)
- Read the call text very carefully they are often ambiguous and need interpretation. Communicate intensely with your partners and make sure you have a common understanding before elaborating the proposal
- Be prepared for the cumbersome part(s) most international projects involve a good deal of admin and paper work. You will not be well regarded by your partners if you are the one who does not deliver in time / flawlessly. If you want to lead (large) projects make sure your institution has the capacity to support you (→ Twinning with SRNSF should enhance this capacity)















#### How to become (and remain) part of international consortia

**Be reliable** – consortia of projects often establish a longer lasting collaboration of partners in varying combinations. You will not be asked again if you turn out to be an unreliable partner missing deadlines and failing to provide inputs of high quality

Once you have become visible and experienced:

- Be proactive don't (only) wait to be invited, approach potential partners proactively ("Hey, we have a really interesting research idea/approach...")
- Make sure you are part of the Steering fora of the project to have a say on the direction and to best place your interests

Sustained (i.e. on a broad scale and in the long term) success can only be achieved if **individual, organizational** and systemic capacities reinforce each other: as an individual scientist you need supporting institutions and a well-functioning 'research and innovation system'. Hence you have an interest in helping to establish such a setting!



















# Interactive work 4:

# "First steps in creation of an international consortium"

Mr. Wolfgang Polt, Project Leader



















# **Section 5:**

# Profile of a successful scientist: "merge profiles" and follow your carrier

Mr. Gilbert Ahamer, Twinning component leader











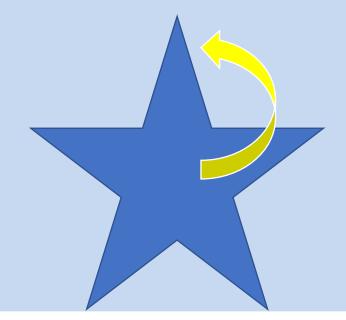






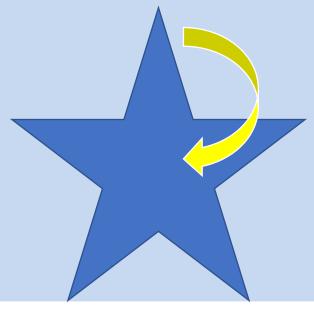
# **Day 1:**

from inside out





from outside in

























1. Create first your ideal mindset in your imagination

Imagine your ideal network!

2. Define your personal targets



3. Conceive your ideal personal partners 🕂



1-4: What you give them and what they give you

















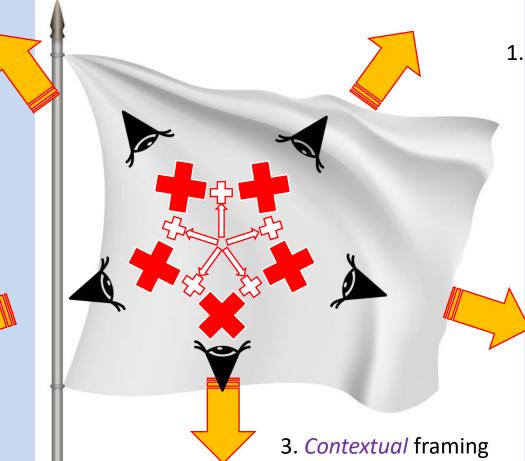






#### How to prepare yourself? - increase your capacity to give

5. *Resulting* outreach



1. *Conceptual* inflow

NOT *only* repeat how great you are in your own view, but perceive how useful and attractive you are in your partners' views!

2. Methodical soundness

4. Products' outflow



















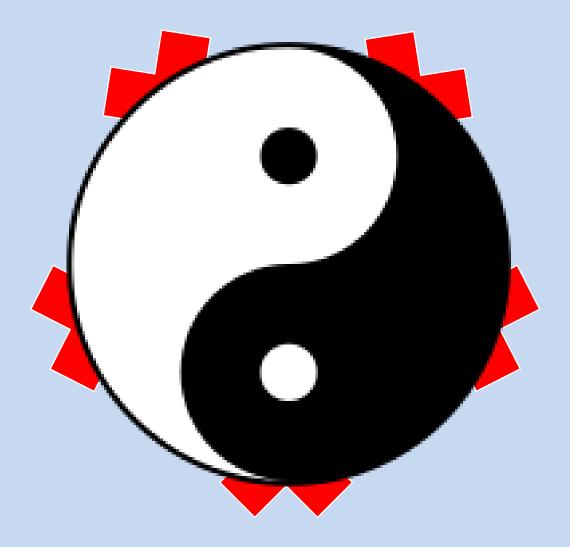


### Our meta-flag means:

- The procedures of network-building
- The 3 circles of equilibrium & harmony
- Created by 3 constructions of consensus
- Using this logo:

Therefore, your task of creating a network translates to creating equilibrium on <u>all</u> levels from <u>all</u> outside perspectives!

=> Switch perceptions: from *your* perceptions towards your *partners'* perceptions!







#### The dimensions of how others may see you

#### Some examples:

- 1. You provide a method
- 2. You provide data
- 3. You come from a "useful" country
- 4. Your institution is well-known
- 5. Within the institutional landscape, you represent a missing role
- 6. e.g.: "important names" need "diligent workers" ... ...





















#### Let us slowly approach this huge task: optimise how others see you

#### One option out of many – widely accepted:

- 1. Search for "objective" indicators of your "qualities" (if ever possible)
- 2. Try to use internationally recognised journals to document your achievements
- 3. Select form *Scopus-listed* journals ...
- 4. ... or, if achievable, from *WoS-listed* journals
- 5. From your universities' premises or via a VPN (virtual private network),
- 6. Use these sites: scopus.com, webofknowledge.com, webofsciene.com



























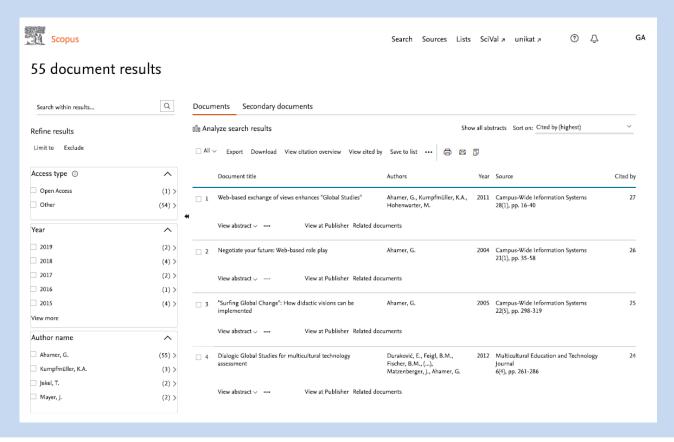




#### **Example of Scopus**

- WoS: Includes the "best" 10,000 journals worldwide
- You may link to the pdf ...
- ... in case your uni bought the journal
- Hirsch's h factor: n public with n citations
- Also journals & universities have h factors







(5)













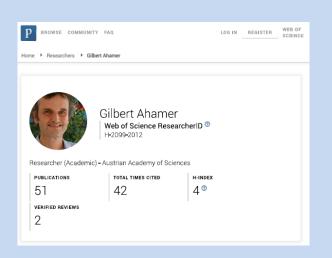


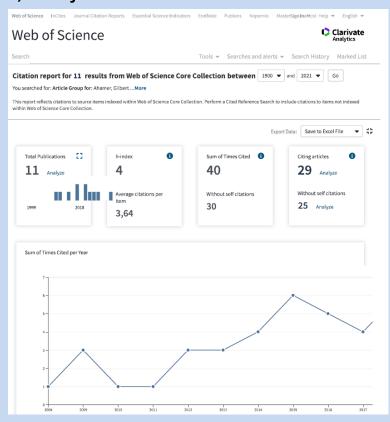


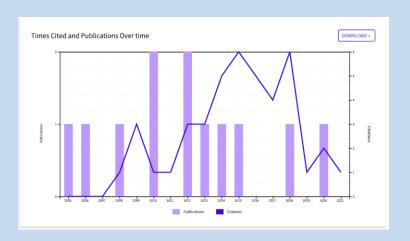


#### Example of World of Science (WoS)

- WoS: Includes the "best" 10,000 journals worldwide
- Similar to Publons



















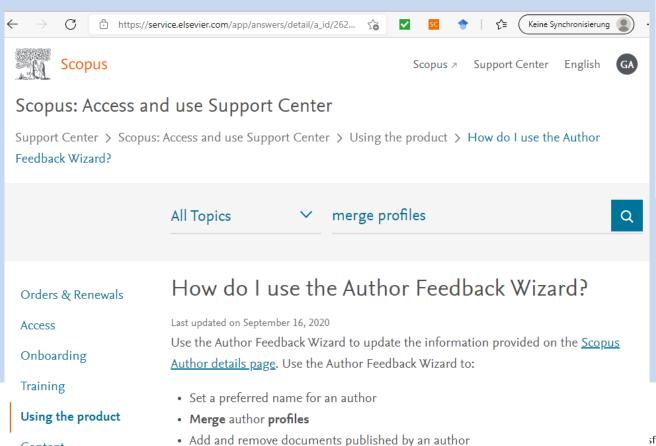






#### In Scopus, you should merge your profiles

- Often, names or affiliations can be misspelled, especially with non-Latin alphabets:
- In such cases, use the "merge profiles" option



- el&st2=A&origin=searchauthorlookup View last title v Merkel, Andreas 6 Friedrich-Alexander-Universität Erlangen-Germany View last title v Merkel, Andreas 3 Universität des Saarlandes Saarbrucken Germany View last title ∨ Merkel, Angela 4 Akademie der Wissenschaften der DDR Germany View last title ~
  - Always, use the same spelling of institutions!
  - Optimally, use the Scopus "author identifier
  - .... and the ORCID identifier









Content

· Update the affiliation associated with an author





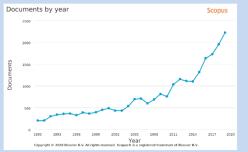


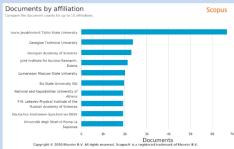


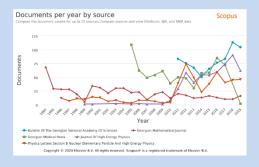
#### In Scopus, you can group your findings along categories

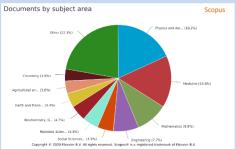
#### If you select a journal, think of:

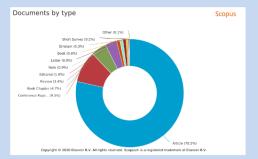
- If it has good impact factor (SJR, SNIP, etc.)
- If you can reach your target to publish in this journal
- If your received reviews have good quality
  - to further improve the quality of your work

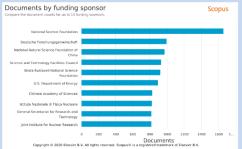












See my <u>analysis of globalisation journals</u>























# **Interactive work 5:**

# "Looking for a suitable journal"

Mr. Gilbert Ahamer, Twinning component leader





























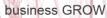






















# **Section 6:**

# Interdisciplinary projects: why are communication skills important?

Mr. Gilbert Ahamer, Twinning component leader























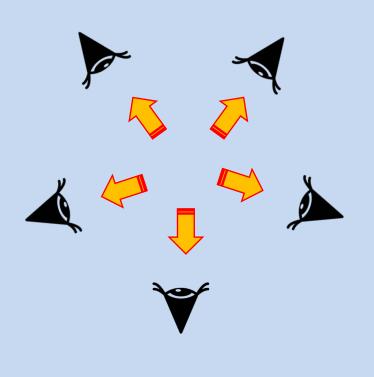
#### Communicational skills optimise how others see you

- Communicate in smooth manner
- Leave chances for the other to "discover" you
- Focus on what you can give
- You may use the "cookbook" from an earlier Twinning workshop in November



























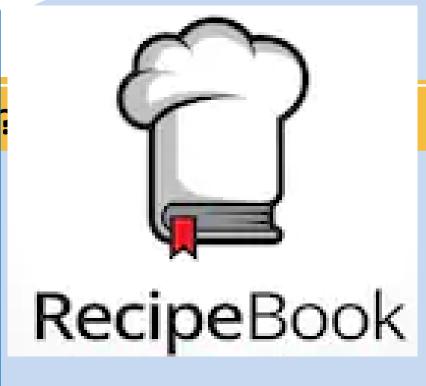
#### How do we communicate science?

#### Science communication skills: top 9 tips

Make sure you understand what your audience is interested in and adapt your communication accordingly.

- 1. Understand your audience. Put yourself in their shoes. How your research affects their lives.
- 2. Build your message. What single idea should they leave the room with? What do you want to achieve?
- 3. Connect with the public. Why should they care about my work? Convey emotion, make them laugh
- 4. Tell your public a story. Storytelling humanises scientists. Share a personal or professional anecdote.
- 5. Talk to journalists. Start by understanding why they care about your research. It's a public service.
- 6. Make your science understandable. We usually overestimate how familiar audience is with the topic. No jargon.
- 7. Deal with controversial topics. Expect your public's preconceived ideas. Respect their opinion.
- 8. Embrace uncertainty. What is true today may not be as accurate tomorrow. Uncertainty excites.
- 9. Mix communication channels. Articles, conference talks, press, social media, blogs, videos.

Source: https://agentmajeur.com/science-communication/, https://agentmajeur.com/humour-science-presentations/



#### Identify your method

The right audience with the right in the right medium at the right lime

- Know your audience (e.g., lay public, the media, policy makers, ...)
- Know your message (including "So what?" and "Why should I care?")
- Know your medium (that I am going to use to communicate my message to my audience)

Sources: General overview or methods: https://lbquides.ncl.ac.uk/sciencecomunication.https://www.nature.com/articles/d41586-019-01389-7, https://www.nature.com/articles/d41586-019-01359-4, https://www.nature.com/articles/d4158

#### Communication message



- Once you know your audience, you can develop your message (see Muza).
- Your message should answer the audience's questions like "So what?" and "Why should I care?" Answers to these questions vary depending on your audience
- As a science communicator, it is important to frame your message in terms that are accessible, relatable, and meaningful for your specific audience.
- Why framing?
- · actively engage your audience with an issue
- build trust and relationships with the public
- encourage the public to participate in dialogues about scientific issues.

Source: Working with Public Information Offices by Dennis Merelith (2015), Working with Prior, Broadcard, and Online Media from AAAS Annual Meeting 2015: Communicating Science Sentiner, Am I Making Myoelf Cl

#### Communication medium



#### Options to choose media:

- Writing about science: Use active verbs; avoid jargon, euphemisms, clichés, wordplays, and puns; use analogies
  and examples; only include critical details; create an outline; tell a story but stay true to the facts; spend a lot of time; revising and
  rewriting; cite your sources.
- Visualizing science: Use a consistent style and format; use colors with purpose; use high-resolution graphics; format your graphics and include labels, legends, and captions.
- Creating a poster: Remember that your title is your message; be intentional in your choice of colors; use high resolution visuals; use photos for the general public; use conceptual diagrams for the informed public and non-specialist scientists; use supporting visuals even if your audience is scientists in your infelic; use text to support your visuals; create a handout of the poster.
- Speaking about science / presentations: Give yourself plenty of time to prepare and practice; state your message at the beginning and end of the presentation; give your audience background on your topic, focus on the aspects that are most your visuals and use them to support your presentation; talk about the process, not just the results; alm to use lest time than you are allotted; leave time for questions; based on what you know about the audience, try to predict their questions and prepare answers. If you use silders good not not to well minutes per silder, each alleds should have a visual element; explain your visuals to your audient include an
- Using social media:

Source: Working with Public Information Offices by Dennis Meredith (2010), Working with Print, Broadcast, and Online Media from AAAS Annual Meeting 2013: Communicating Science Seminar, Am I Making







# Interactive work 6: "Main limitations from different perspectives"

Please identify max 3 main perspectives and 3-5 limitations for each perspective

Perspectives: scientific, business, institutional, personal, economical, geopolitical etc.

Mr. Gilbert Ahamer, Twinning component leader









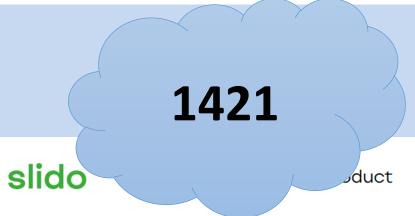








#### Feedback



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# face to face more Gilbert more details

yes do more will be good
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practical exepmles
Positive

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To add the examples
in person make it longer
practical examples it's fine
step by step to go through the answers of the given templates

### face to face

teamwork face tof ace
more concrete examples, links
making longer
include someone from private sector



















