How to allow...

MAKING USE OF RESEARCH RESULTS

AGENDA

> **About**

> **Characterise research results**

> **"Allow" making use**

> **Sharing mechanisms and laws**

> **Organise data**

ABOUT

> **Me:**

>> **Teach and develop web**

>> **IU and Cabri**

>> **For learning, for maths**

>> **Many EU projects**

>> **Some open-source**

> **You:**

>> **Little poll**

>>> **Domain of activity**

>>> **Object of research**

Answers: (order of frequency):

Education, music, teacher, Erasmus teaching, mentoring, maths, internationalisation language, English, test, focus, digitisation, beliefs, impact

RESEARCH RESULTS

> **Classic ideal:**

>> **Theoretical knowledge, argumentation**

>> **Experiment descriptions,**

>> **... results, data**

>> **Their representations**

> **All follow: Producing this knowledge helps society**

Want to disseminate

Others should reproduce

THE OLD METHODS

> **"Under cover" researcher**

>> **Private lab, own elaboration space**

>> **Connection to the world is by reading**

>> **Only results: Papers or project reports**

>>> **Only verification: Peers review for credibility**

> **Troubles: Fakes, biasses, unreproducible, slow, ...**

THE NEW METHODS

> **Results should be: Findable Accessible Interoperable and Reusable (FAIR)**

>> **Communities' exchange means are empowered**

> **Direct transparency can exist and be good**

> **Micro-publications can share faster**

> **New formats emerge**

A RESEARCH RESULT CAN BE...

- Raw unedited or curated data

- A data-set

- A media creation

- Digested and analysed data

    - ... always the result of an elaboration

    - ... possibly with experiment or interviews

- Tables, CSVs, Excel, ...

- With labels, with interpretations

- Visual or Audio => tells a story

- Reflection, argumentation, relations

POLL

> **Find a research result on the sidewalk**

> **Give a verb:**

> > **What can you do with a research result?**

Publish
disseminate
reproducibility
mechanise
reproduce
evaluate
analyse
:-)
share
store
disseminate
check
cite
file
quote
owner
reading
test

"ALLOW" MAKING USE

> "Know" of the research

> What can a recipient do with a result?

>> Videos: listen, show, cut, embed

>> Text: PDF, paper (read)

>> Pictures: read or show

> Reproduce: Experiment protocol, data and calculations => open

> What can a recipient do with a result?

>> Videos: source media, scripts, projects

>> Text: Word, LaTeX, InDesign, ...

>> Pictures: source vectors, media and data, => any software!

AUTHORITY

TRANSPARENCY

REQUIRED OPENNESS

SHARING A RESULT

❯ **Make it with a license: e.g. choose one with the <u>license chooser</u>**

❯ **Your own choice, you just give an authorization: link to a deed**

❯ **Archive the sources**

❯ **Document the creation method, make that available too**

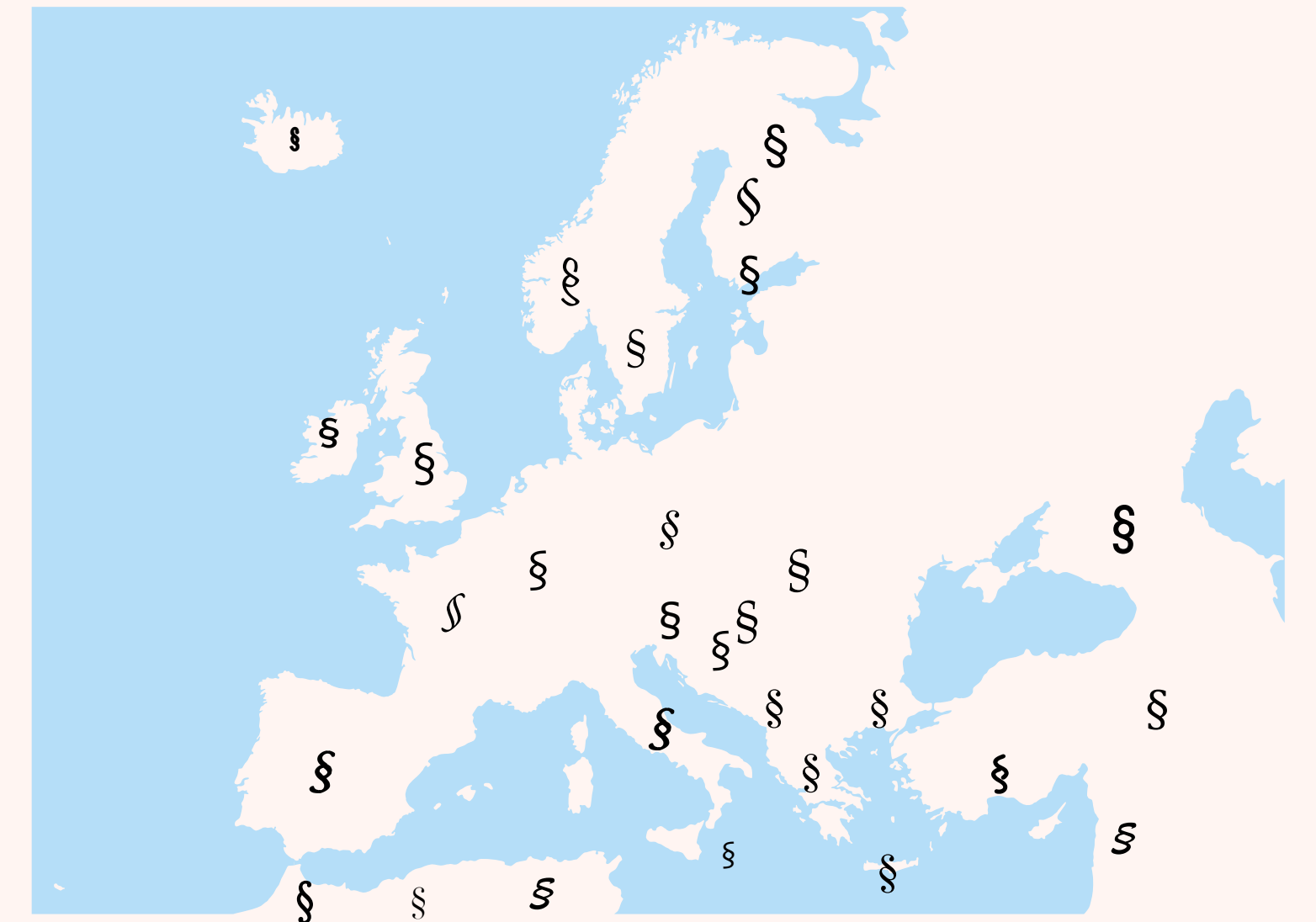❯ **Remember: Expectations you feel will not be the ones of the recipients!**

INTERNATIONALLY?

❯ **Many licenses can be applied**

❯ **"Open content" and "open source" has some precedents in Europe**

❯ **Copyright laws have been somewhat homogenized in Europe**

❯ **Verify clauses by their precedents**

> ❯ **e.g. "non-commercial" has little standing**

MORE LEGAL CONTROL

> What contains the research?

> > Personal information? => consent needed, right to extract and delete

> > > Anonimize to the best of your knowledge

> For who is this personal?

> > => big stats should be safe but individual traces?

> > => could a big-tech "de-anonimize"?

> Protected material?

> > => authorisation or compatibility needed

> All authorisations need to express media and licenses

> Hippie world: all in one open license

> More realistic: Impressum

ORGANISE DATA

> Personal here? => pseudonimize!, ultra-protect personal (encrypt, restrict)

> Share data among project partners (group access)

>> Use Web-shared spaces that you trust

>> Hosting? Does it need an extra protection? Data-processing-order? Measures?

> Regularly ask: What if Delete/Export?

> Use versioning systems and regular "publish previews"

For all content types

PUBLISH !

❯ **A release publish ready… let's export**

　❯ **Own web: Care for readable and unique URLs**

　❯ **Use public repositories**

　　❯ **Data: e.g. Kaggle, Germany's FDB**

　　❯ **Docs: arXiv, E+ Results…**

　　❯ **Code: GitLab, GitHub, …**

Think: In 10 years?

Announce all in a post

> **Questions?**

> **Comments?**

> **Futures?**