

FOSS licenses and Legal Aspects

Bern, 15 November 2024

Suzanna Marazza, MLaw
CCdigitallaw c/o Università della Svizzera italiana

Program

- ❑ Intellectual property rights

- ❑ **What** is protected by copyright?

- ❑ Who owns the rights?

- ❑ **How** can I use copyrighted material?

- ❑ Licenses and **Agreements**

- ❑ What are **Creative Commons Licenses**?

- ❑ What are **Free and Open Source Software Licenses**?

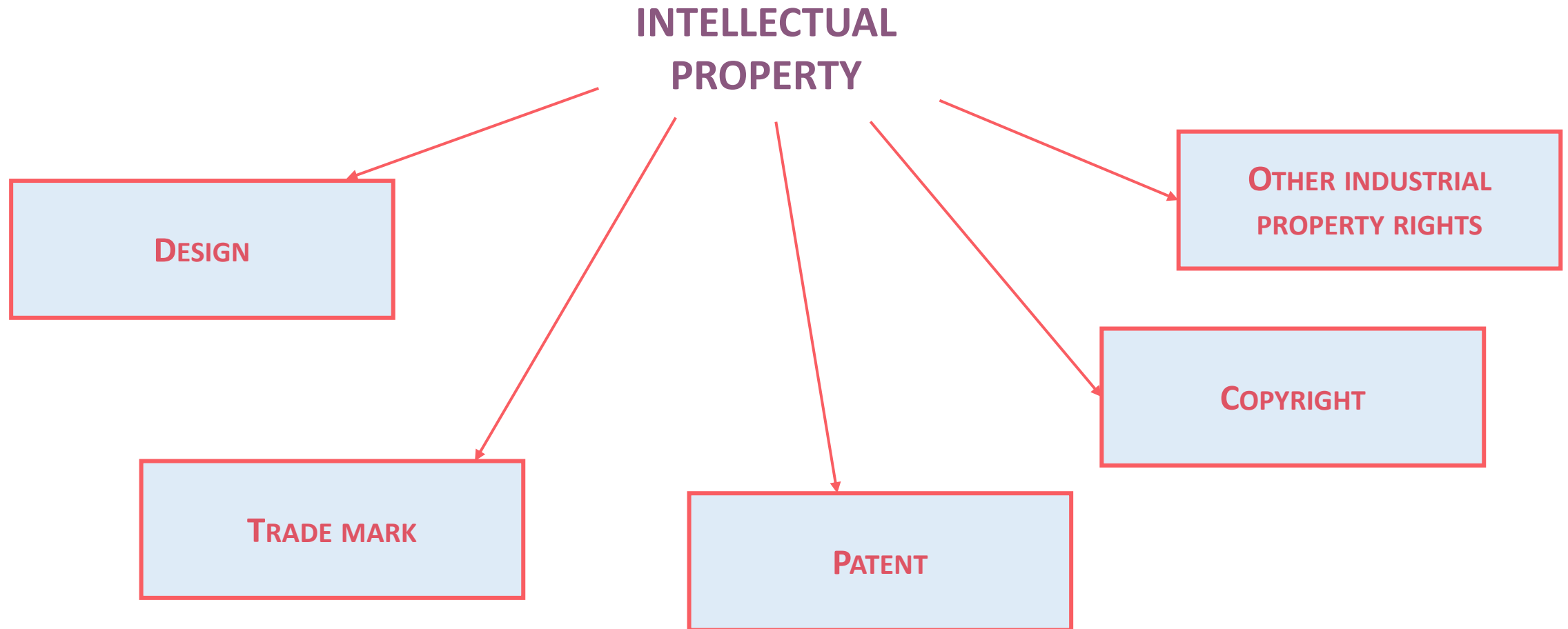
- ❑ Data protection

- ❑ What are **personal data**?

- ❑ How do I **lawfully process** personal data?

- ❑ What is an **informed consent**?

Intellectual property rights



Intellectual property rights of a smartwatch

Technical invention:
PATENTS RIGHTS
KNOW-HOW, TRADE SECRETS

Design of the watch
DESIGNS RIGHTS

Website
COPYRIGHT



AI models and codes
COPYRIGHT
EU: DATABASE directive

Logo
TRADE MARKS RIGHTS

Author of smartwatch image: Nikin

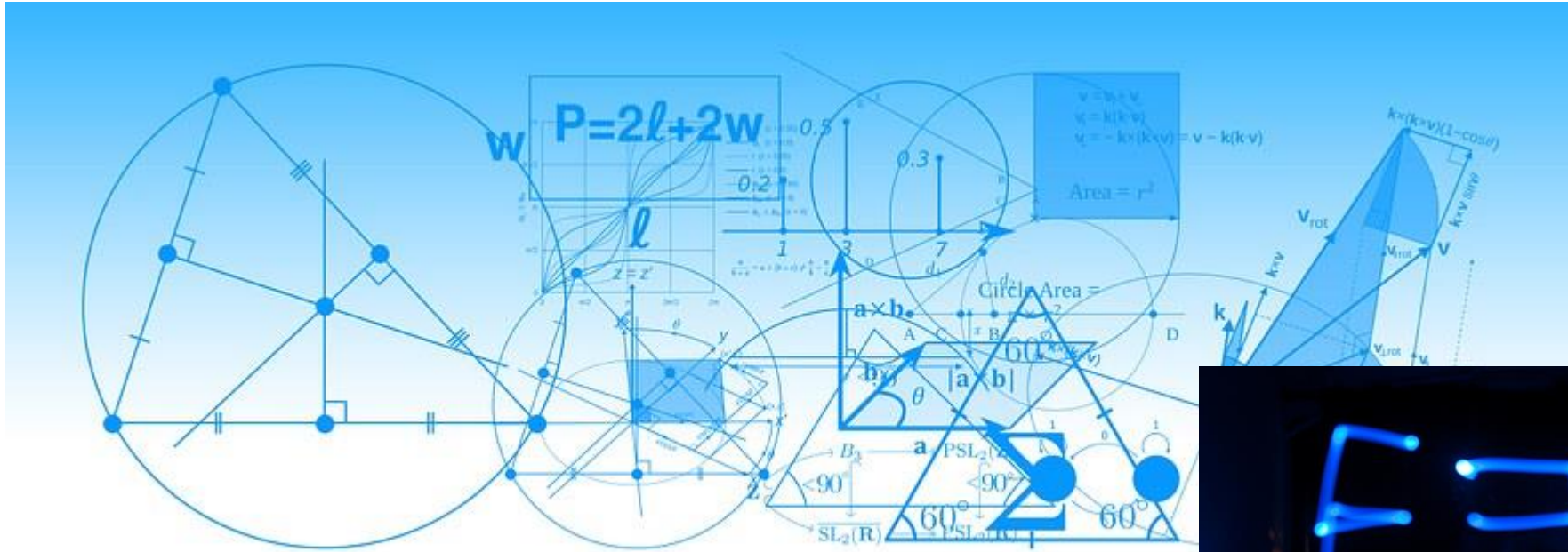
Source: Pixabay, <https://pixabay.com/de/illustrations/smartwatch-apfeluhr-apfel-2845072>

PATENT LAW

- **New inventions** applicable in industry
- **Right to the grant of the patent**
- **Patent register**
- Against imitations and misuses of the invention

COPYRIGHT LAW

- **Literal artistic creations**
- Copyright starts automatically
- **No “copyright” register**
- Against copies and misuses of the creation



- **Patent law** protects technical inventions and their application



- **Patent law** protects technical inventions and their application (content of an idea)
- **Copyright** protects the form of ideas (e.g. the image of the formula $E = mc^2$)

Software program

- Can have both protections:
- **Patents:** the technical invention (method, systems and processes tied to software)
- **Copyright:** the code



Software program

E.g. a **machine learning software** using existing algorithms to detect objects in an image



- **Patent:** Probably not a new invention
→ Not patentable
- **Copyright:** if the code is written in an original way, it is copyrighted.
- **Copyright:** a mobile app, which includes the source code but also multiple components such as texts, music, videos, images, user interfaces, is suitable for copyright protection.

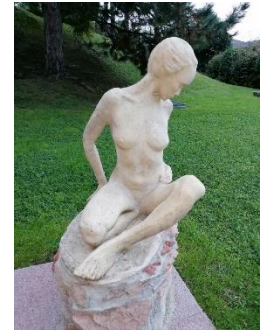
What is protected by copyright?

WHAT IS PROTECTED BY COPYRIGHT?

1. Intellectual creation
2. Individual character
3. Form of expression



Arch. Mario Botta



«Bob Marley»
© Max Messerli

[illegible]

Gratenfeuer.ch

Computer-generated works



James Allen, Midjourney

Computer-assisted works



James Allen, Théâtre d'Opéra Spatial

2. Individual character

Exception:

Photographs without individual character

→ **Are also protected!**



Bundesarchiv, Bild 183-14059-0005 / CC-BY-SA 3.0



Keystone

Derivative works

- ✓ Intellectual creations **with individual character**
 - ✓ **based upon pre-existing works**
 - ✓ the individual character of the pre-existing work remains identifiable.
- Translations
 - Adaptations
 - Modifications
 - ...



<https://pixabay.com/de/photos/salvador-dali-gegeben-uhr-zeit-2615717/>

Collected works

- ✓ **individual character** in selection and arrangement

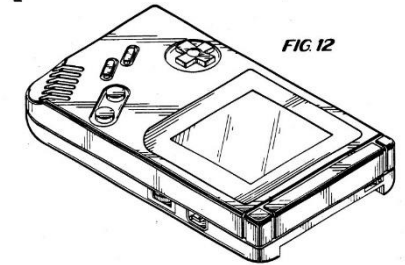


- Newspaper
- Dataset
- CD
- ...

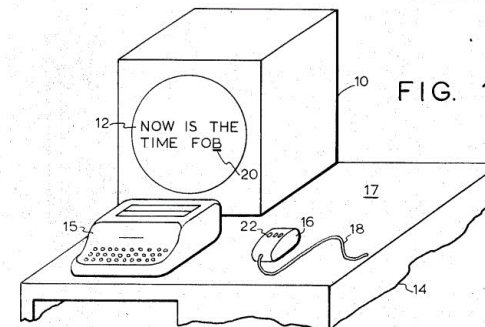
[illegible]

WHAT IS **NOT** PROTECTED BY COPYRIGHT?

- Purely technical inventions → Patent law
 - Patent specifications and published patent applications
 - Laws, ordinances & other official decrees
 - Banknotes and coins
 - Court judgements, minutes & reports from authorities and public administrations
-
- Mere information, facts, data
 - Ideas



Nov. 17, 1970 D. C. ENGELBART 3,541,541
X-Y POSITION INDICATOR FOR A DISPLAY SYSTEM
Filed June 21, 1967 3 Sheets-Sheet 1



Bundesgesetz über das Urheberrecht und verwandte Schutzrechte (Urheberrechtsgesetz, URG)	231.1
vom 9. Oktober 1992 (Stand am 1. Januar 2017)	
<i>Die Bundesversammlung der Schweizerischen Eidgenossenschaft, gestützt auf die Artikel 95 und 122 der Bundesverfassung¹, nach Einsicht in die Botschaft des Bundesrates vom 19. Juni 1989², beschliesst:</i>	
1. Titel: Gegenstand	
Art. 1	
¹ Dieses Gesetz regelt:	
a. den Schutz der Urheber und Urheberinnen von Werken der Literatur und Kunst;	
b. den Schutz der ausübenden Künstler und Künstlerinnen, der Hersteller und Herstellerinnen von Ton- und Tonbildträgern sowie der Sendunternehmen;	
c. die Bundesaufsicht über die Verwertungsgesellschaften.	
² Völkerrechtliche Verträge bleiben vorbehalten.	

HOW LONG IS A WORK PROTECTED FOR?

Lifetime from creation

Non-original photos: 50 years.

Date of work's creation:
27.10.1975



+ 70 years
+ 50 years (software)

Death's date:
05.03.2010

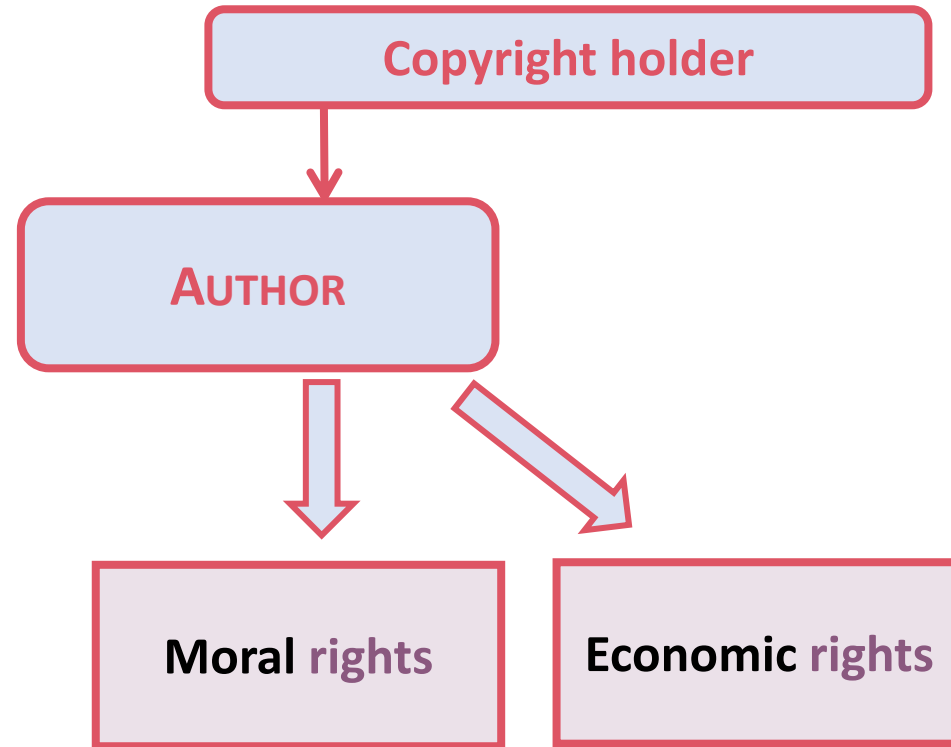
Protection lasts until:
31.12.2080



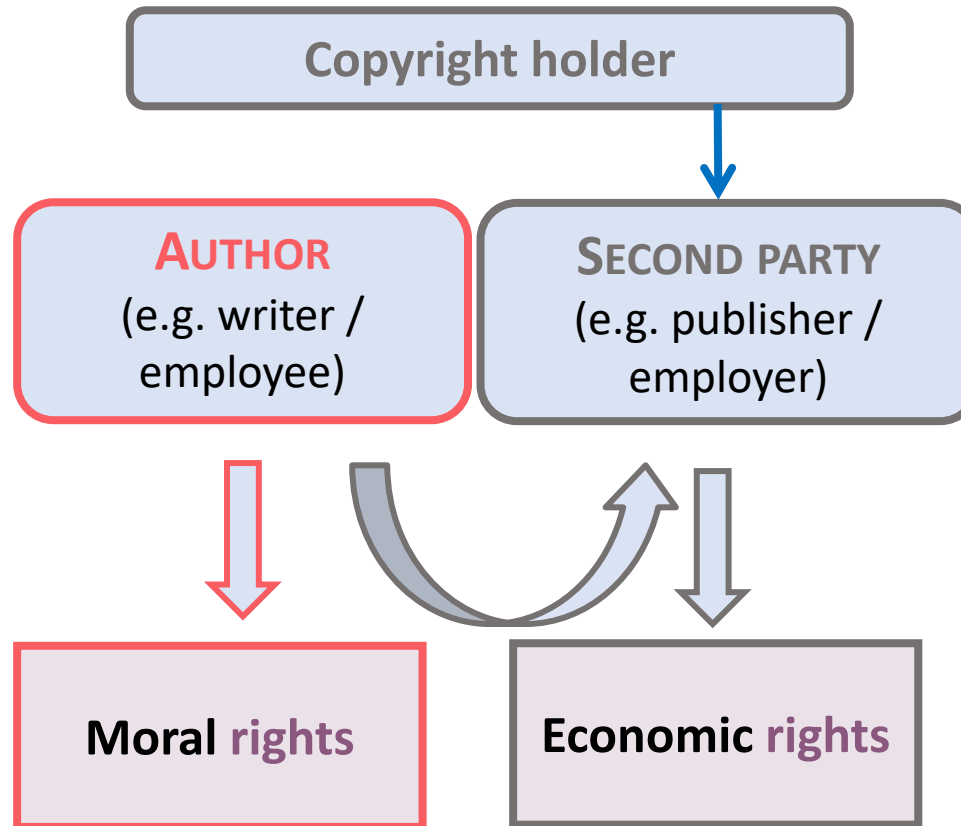
→ **Public Domain Day**
01.01.2081

Who owns the rights?

THE AUTHOR



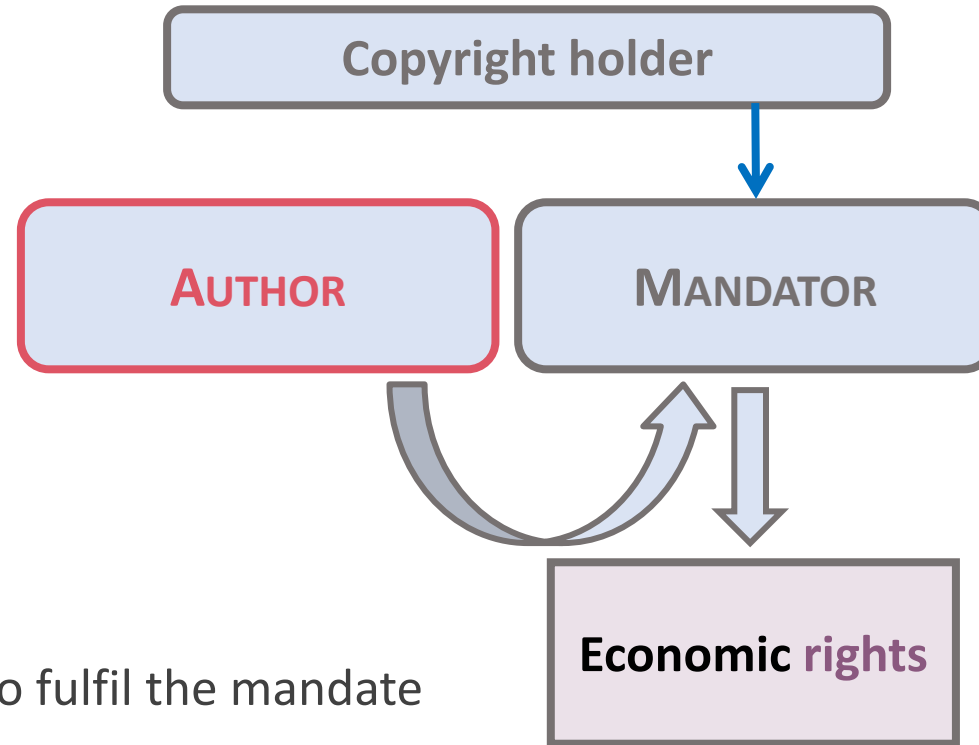
THE RIGHT HOLDER



Through:

- Contract
- Law
- Internal regulation

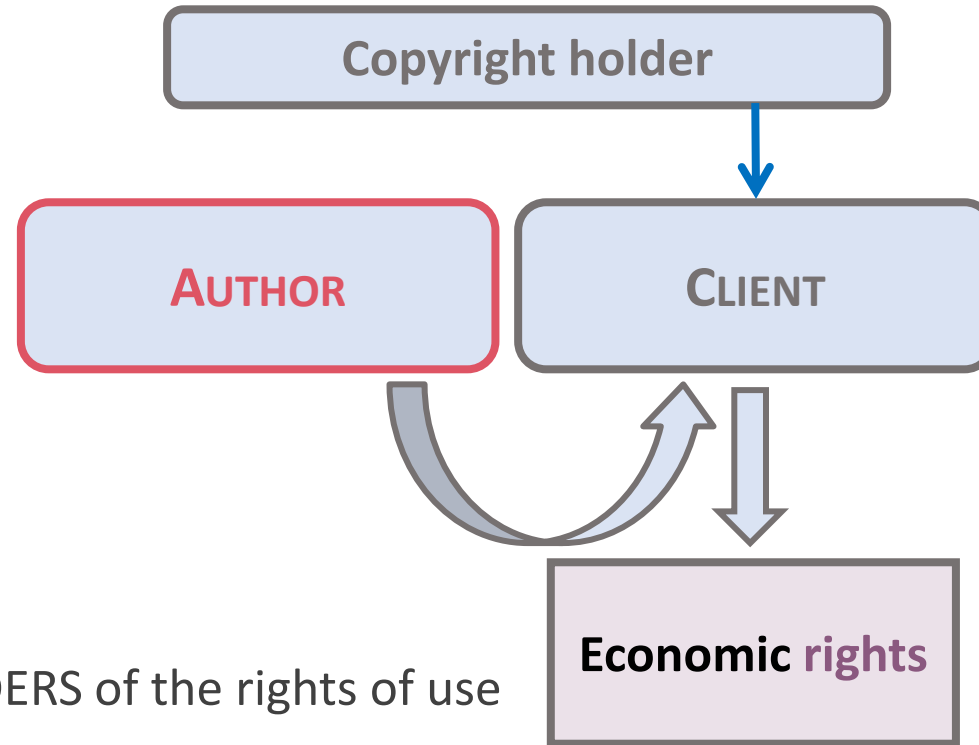
THE RIGHT HOLDER



Contract of mandate:

→ Receives all rights required to fulfil the mandate

THE RIGHT HOLDER

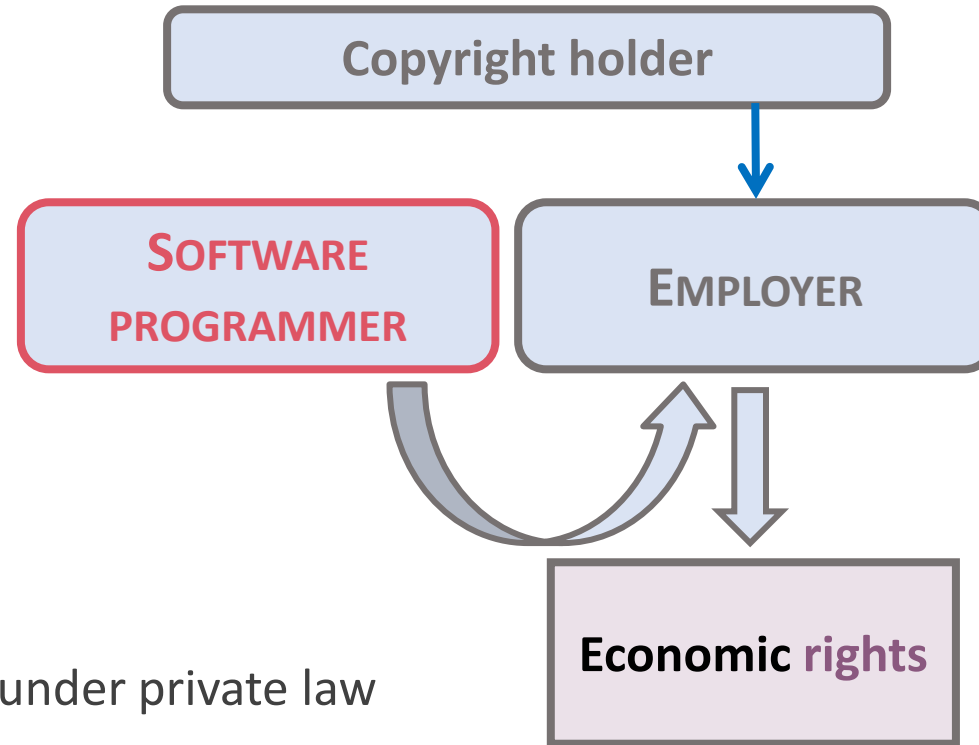


Sale agreement:

- Buyers become RIGHT HOLDERS of the rights of use
- The author no longer has any rights of use!
- Buyers can resell or relicense.

- Which rights of use (all /individual?)
- Duration?
- Which countries?

THE RIGHT HOLDER



Art. 17 Swiss Copyright Act:

- Only employment contracts under private law
- NOT employment relationships under public law
(such as employment contract with university)
- Transfer may be set in internal regulation

How can I use a copyrighted work?

The rule is:

Always ask the rights holder for **permission** to use a protected work (= **license to use**)

There are **exceptions (legal licenses)**:

- Private use
- Educational purposes
- Professional purposes
- Right of quotation
- Text & data mining for research purposes

HOW CAN I USE A COPYRIGHTED WORK?

1.



Legal license

2.



Image by vectorjuice on Freepik

Bilateral license

3.



Vectorial.com

Predefined license

Private use

- **Anything** to use alone (read, watch, view, see, copy, modify, ect.)
- When **sharing**: only with very small circle of persons



Use for professional purposes

- ✓ Only between **colleagues of same company**
- ✓ For **information and/or documentation** purposes
- ✓ Only **distribution** of **excerpt** (no modifications allowed)



(Prolitteris Joint Tariff 8, 9)

Right of quotation

Published works may be quoted if the quotation serves as:

- ✓ **explanation**,
- ✓ **reference** or
- ✓ **illustration**,
- ✓ and the **extent** of the quotation is **justified for such purpose**.



Caution with images and photos!

Text and Data Mining



- ✓ the work used must be **lawfully accessible**,
- ✓ its reproduction and copy is due to the use of a **technical process** and **necessary** for the research activity,
- ✓ the copy must not be done so to avoid supplement costs of the purchase of works,
- ✓ the source must be mentioned.

Text and Data Mining To train AI?



- Yes, if the AI tool (including the output) is used in the field of research

EU: new Court decision, with very wide interpretation of “research”...

- No jurisprudence in CH so far
- Still quiet an open question

HOW CAN I USE A COPYRIGHTED WORK?

1.



Exceptions permitted
by law

2.



Image by vectorjuice on Freepik

Bilateral license

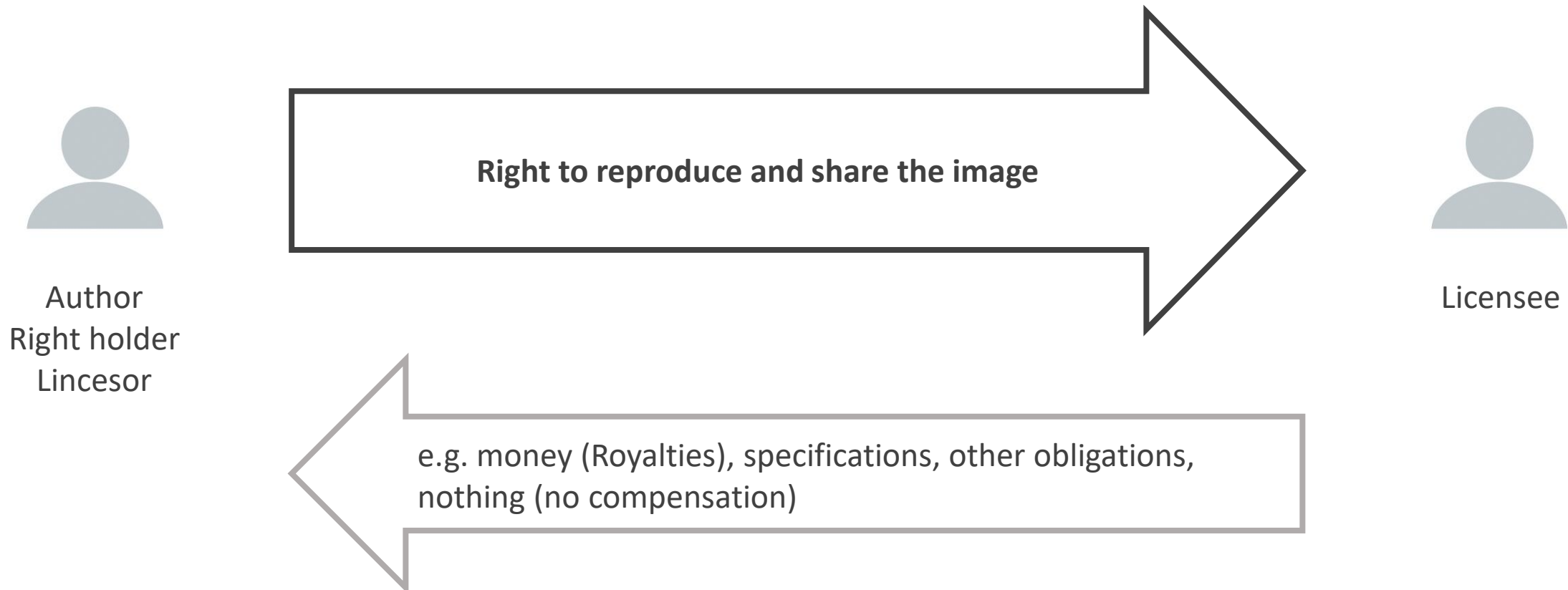
3.



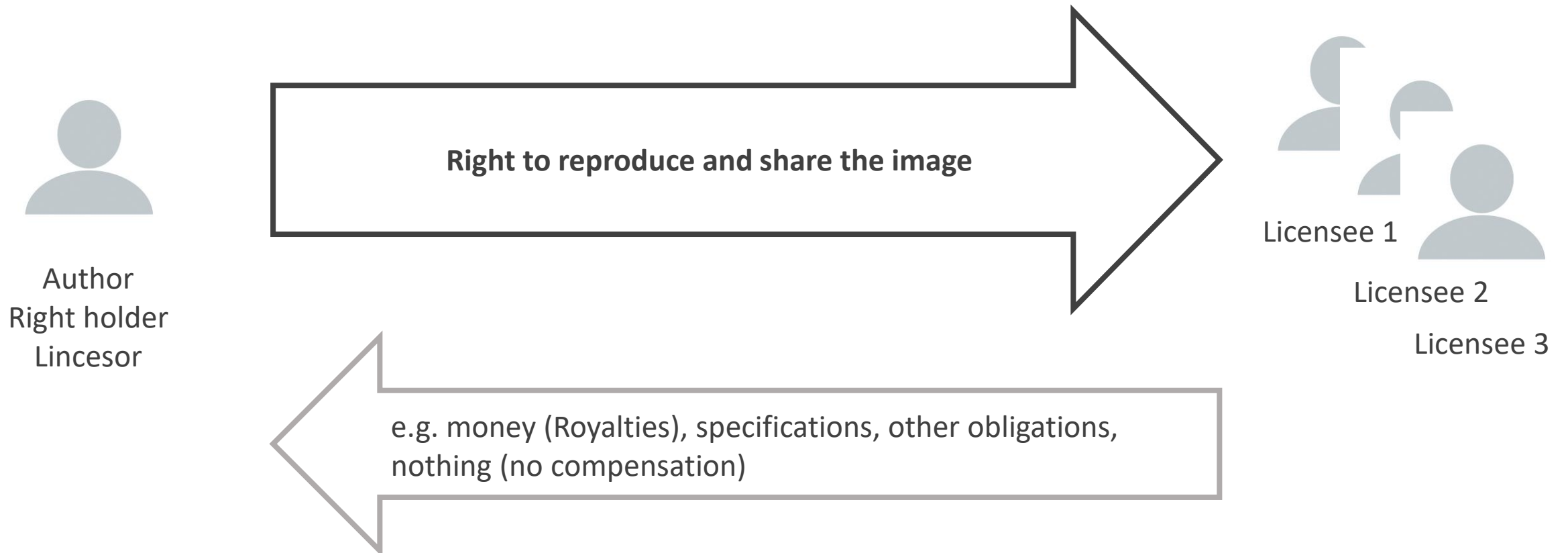
Vectorial.com

Predefined license

Licensing – Exclusive License



Licensing – Simple License



HOW CAN I USE A COPYRIGHTED WORK?

1.



Exceptions permitted
by law

2.



Image by vectorjuice on Freepik

Bilateral license

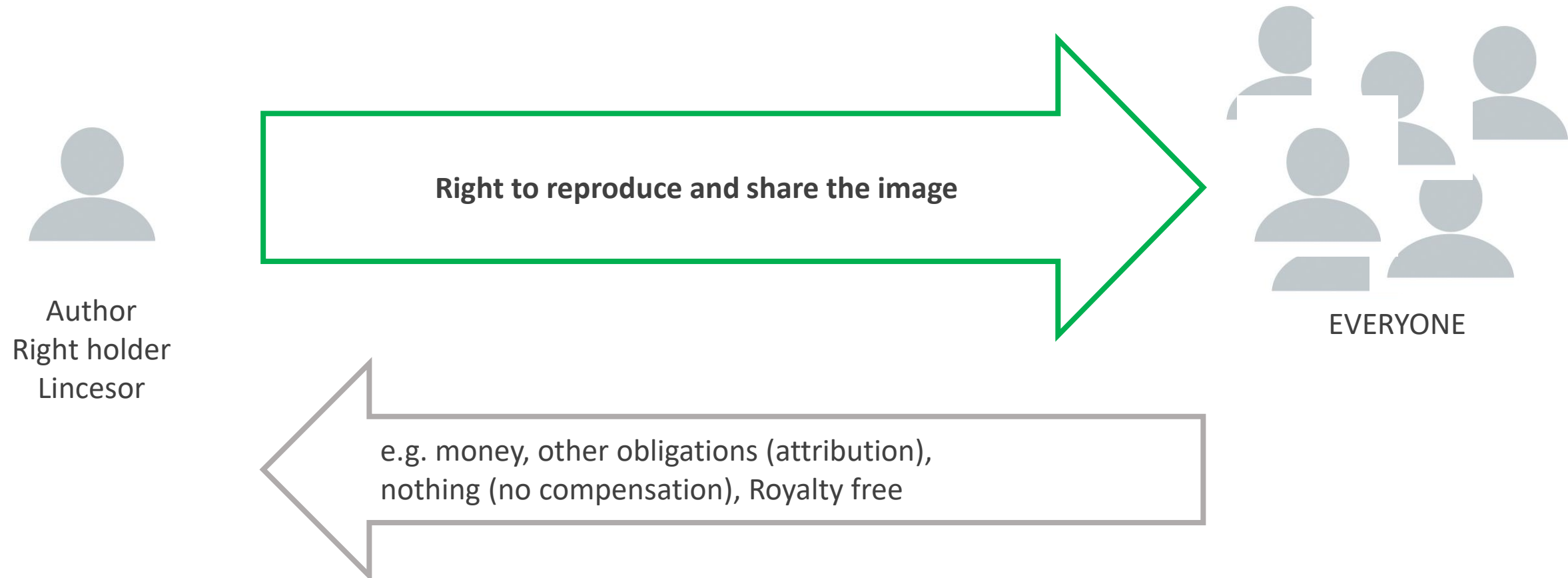
3.



Vectorial.com

Predefined license

Licensing – Open License



WHAT IS PROTECTED BY COPYRIGHT?



Joan Miró



Salvador Dalí

Other Licenses and Agreements

How to protect company information?

- General company information
- Personal data (information about employees, customers, partners persons)
- Know-how
 - Information held in documents;
 - Information engendered in people in the form of skills;
 - Materials.

How to protect company information?

- ❑ Intangible goods absolutely protected by law
 - IP laws

- ❑ Intangible goods relatively protected by law
 - E.g. business data and know-how
 - Criminal law and Unfair competition law
 - Agreements (e.g. non-disclosure agreement, know-how contract)

How to protect company information?

- Intellectual property laws
- Management of sensitive information / documents
 - Contracts (e.g. employment contract, non-disclosure agreement)
 - Restricted access
 - Awareness : “confidential; not to be copied”

Open Science

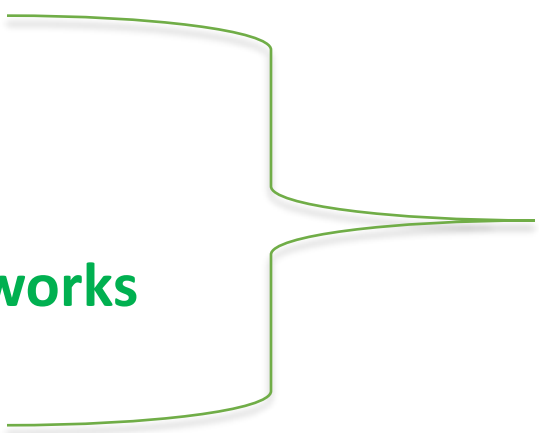
Open Access

The Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities of 22 October 2003

All users should have a **free, irrevocable, worldwide** right of access and a license to:

❑ **copy, use, distribute,...**

❑ **make and distribute derivative works**

- 
- in any digital medium
 - for any responsible purpose
 - attribution of authorship

Open Access

Everybody has to be **allowed** to **use, re-distribute, modify, separate** and **compile** an existing resource with other resources **for any purpose**.

Creative Commons

Everybody is **allowed** to **reproduce, share** in whole or part and **modify** (except: ND licenses, for **any purpose** (except: NC licenses)).

Copyright law

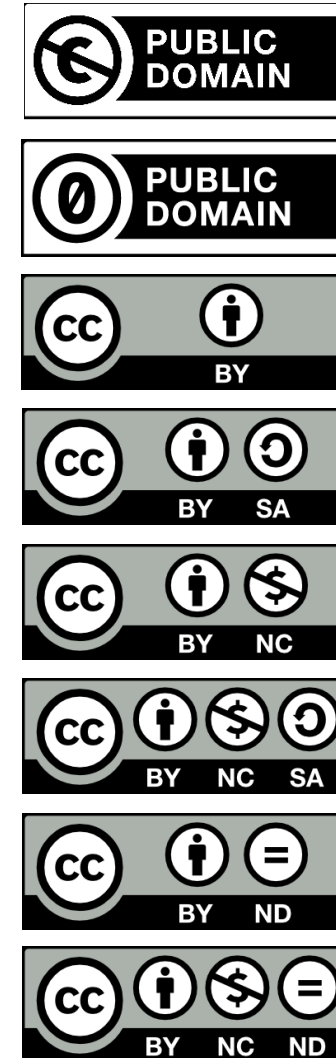
Nobody except owner of the Copyrights is **allowed** to **copy, re-distribute** or **modify** for **any purposes** (apart for exceptions).



https://www.youtube.com/watch?list=PL76RNKr3LU8A_YbvY8BtZMqiiQj-zd411&v=P1j0OA9N4hs

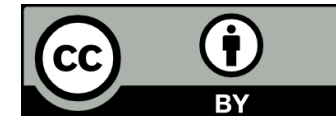


- 7 Pre-formulated licenses
- For copyright protected material
- Often used for research data and open educational resources
- Valid world wide

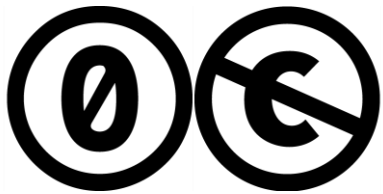


All Creative Commons Licenses:

- Grant permission to
 - **Copy**
 - **Modify** (apart from ND)
 - **Share**
- **all** interested persons
- Some have conditions (BY & SA)
- Some limit the purpose (NC)



License elements



CC0

Zero / public domain

No conditions

→ everything allowed
(apart from respect
personality author)



BY

Attribution

Condition

→ Where can the
original be found and
the author
→ Several attribution
obligations



SA

Share alike

Condition

→ Preservation of
openness

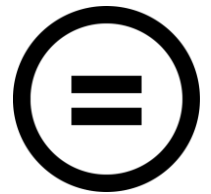


NC

Non-commercial

Limit

Not for
commercial
purposes



ND

No-derivatives

Limit

No modifications



- Conditions for copyright protection are **not met**
- Copyright protection **expired**



- ✓ **Moral copyrights** still apply
- ✓ Rightholder **gives up their economic copyrights**

Public domain



- Conditions for copyright protection are **not met**
 - Copyright protection **expired**
-
- Digitization of images, monographies, ...
(but be careful with the image's content, if it is still protected)
 - Non copyright protected dataset (e.g. dataset with mere information and facts)

CC0



- ✓ **Moral copyrights** still apply
- ✓ Rightholder **gives up their economic copyrights**

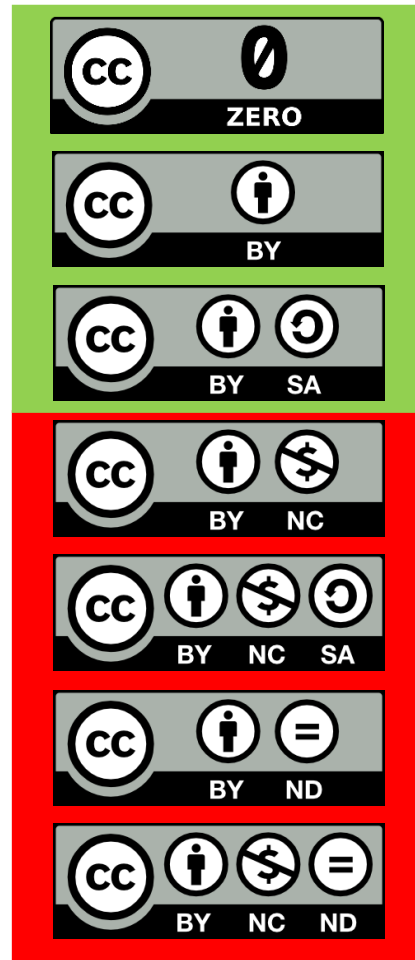
- Often used for research data/datasets

CC-BY-SA license



- All people of the world
- Copy
- Modify
- Share
- For any purpose
- Requirement of attribution!!! (Element BY)
- Requirement for the modified version (Element SA)
 - ❓ Share Alike, “Copyleft”

All Creative Commons Licenses



OER definition from
opendefinition.org
(also Berlin Declaration of Open
Access).

NOT «open» in the sense of
opendefinition.org

License name: CC-BY-SA

License symbol:



„Commons Deed“: <https://creativecommons.org/licenses/by-sa/4.0/deed.en>

License text (legal full text):

<https://creativecommons.org/licenses/by-sa/4.0/legalcode>

→ **It must be read before use!**

Attach the license symbol or the license name to the work

→ Reference to license text

→ Similar to: «Our general conditions and terms apply»

Where should I attach it?

→ Where best visible

→ CC license chooser: <https://creativecommons.org/choose/>

WHAT LICENSE TO CHOOSE?

1 Do you have the **right to license** the work?

No

You must
not
license

Yes

2 Do you want to publish it according to **opendefinition.org**?

No

Choose any
license

Yes

CC0; CC-BY; CC-BY-SA

3 Do you or your organization want to be **named**?

No

CC0

You can also use CC-BY
and CC-BY-SA and
waive to be named

Yes

CC-BY; CC-BY-SA

4 Do you want it to be **kept open**?

I don't care

CC0; CC-BY

CC-BY-SA

Free and Open Source Software Licenses

Copyright and Software

- **Works:**
 - «literary and artistic intellectual creations»
 - with an «individual character»
 - for example a computer program (Source Code and Object Code)
- Bundle of exclusive rights to use
 - Right to **copy** the work
 - Right to **distribute** work
 - Right to **modify** the work
 - (Moral rights)
- **Owner** of the copyrights: Creator or Employer of the Creator



Source Code

- Understandable for humans
- Modifiable
- Not understandable for computers
- Can be trade secret/know-how (you do not need it to run a computer program)



CC0 image, retrieved from: <https://www.pexels.com/photo/close-up-code-coding-computer-239898/>

Object Code

- Translated from Source Code
- Zeros and Ones
- Other terms: *machine code* or *binary*
- Executable or understandable for computers
- Not understandable for humans therefore not modifiable
- Reverse engineering very difficult if not impossible



Google Play



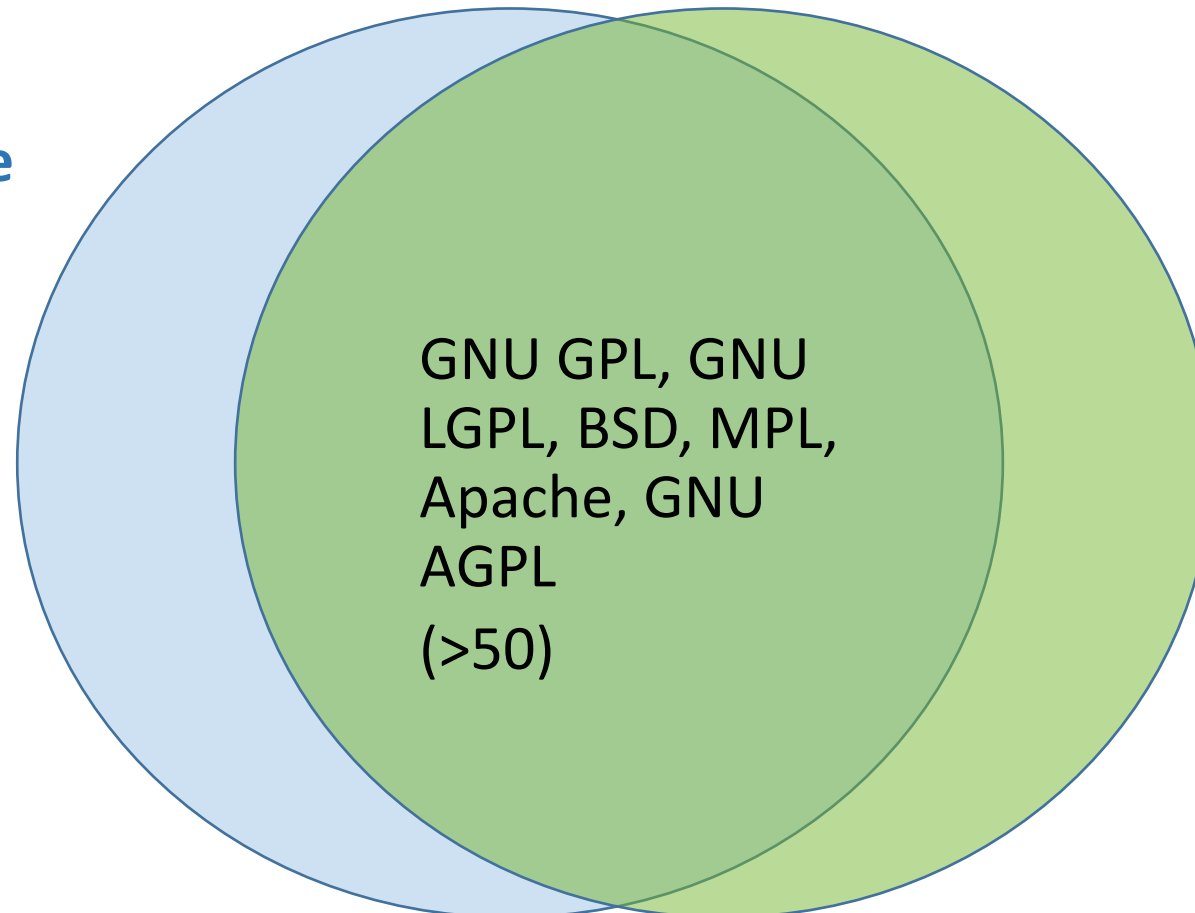
Free and Open Source Software Licenses

- **Free Software** (Licenses):
 - Freedom 0 – the freedom to use the work,
 - Freedom 1 – the freedom to study the work,
 - Freedom 2 – the freedom to copy and share the work with others,
 - Freedom 3 – the freedom to modify the work, and the freedom to distribute modified and therefore derivative works.
- **Open Source Software** (Licenses):
 - 10 criteria, including the right of distribution, the right of creating derivatives, etc.

Free and Open Source Software Licenses

Free Software Licenses

List of approved licenses:
<https://www.gnu.org/licenses/license-list.html>



Open Source Software Licenses

List of approved licenses:
<https://opensource.org/licenses/alphabetical>

Free and Open Source Software Licenses

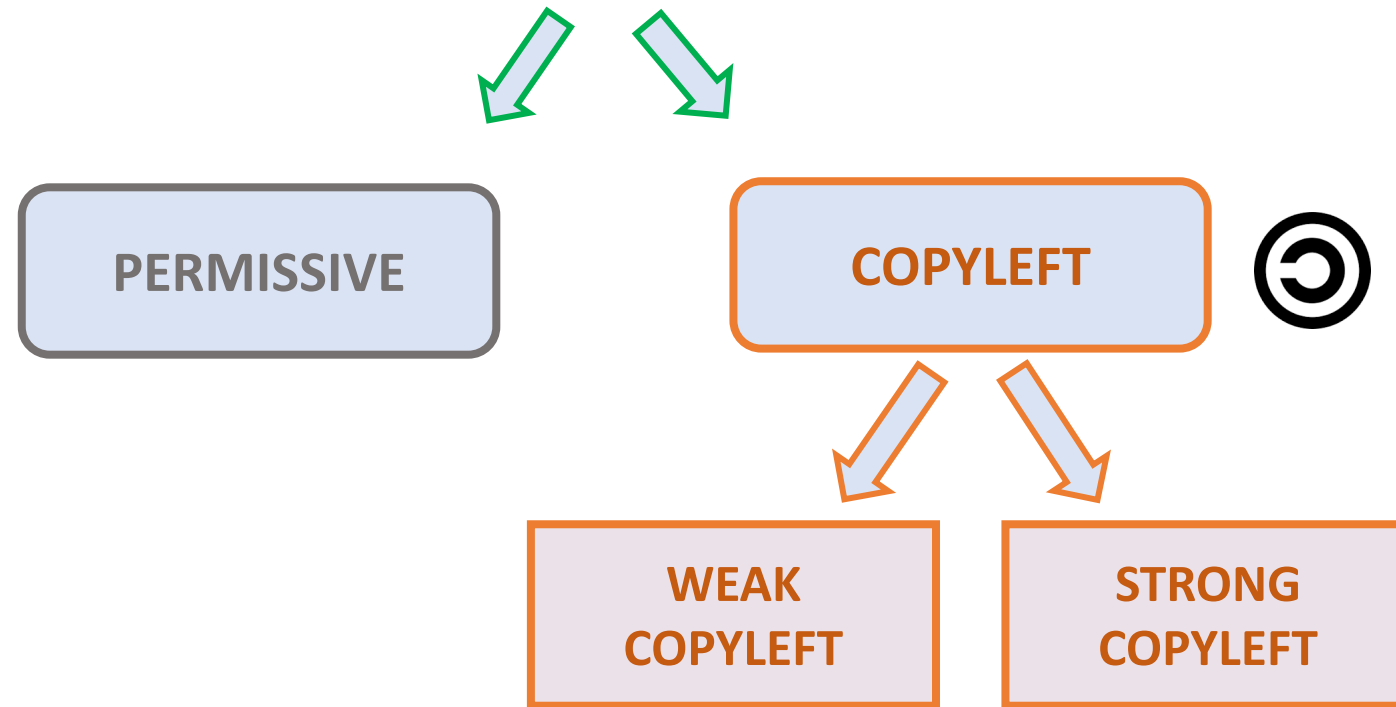
- Content of FOSS Licenses:



- The **Licensor** grants

- Access to the Source Code of the Program
- The Right to **run** the Code
- The Right to **modify** the Code
- The Right to **distribute** the verbatim and **changed** Copies of the Code
- Without claiming license fees for the granted rights (= royalties free)

Free and Open Source Software Licenses



Permissive vs. Copyleft Licenses

Obligations to license **modified** FOSS-Code when distributing the modified Code:

- NONE (**permissive** FOSS Licenses)

→ **free** in your choice on how to license

- SOME (**copyleft** FOSS Licenses)

→ Distribution of modified FOSS-Code only under the **same** or a **compatible** license



Weak vs. Strong Copyleft Licenses



Weak copyleft

- copyleft **only** on the original work, the **core code**
- extensions or composed works can also be proprietary

Strong copyleft

- copyleft on **whole redistributed work**, including derivative and composed works incorporating the work

Permissive vs. Copyleft Licenses

Type	Characteristic	Licenses	Examples
Permissive	No restrictions on reuse / redistribution Derivatives / Compilations may be closed	BSD, MIT, Apache 2	Android, Apache webserver, Open Stack, PHP, Ruby
Weak copyleft	Only copyleft on the original core code, not on extensions or composed works using the code	LGPL, MPL, CPL	JBoss, Mozilla, LibreOffice, Joomla
Strong copyleft	Copyleft on all the redistributed work, including derivatives and composed works	GPL2, GPL3, EUPL	Linux, Asterisk, the GIMP, MySQL, Drupal, MediaWiki

World Intellectual Property Organization (WIPO)

WHAT FOSS LICENSE TO CHOOSE?

1 Do you have the **right to license** the software?

No

You must
not
license

Yes

2 Do you want to publish it according to **FOSS**?

No

Choose any
proprietary license

Yes

Choose between any FOSS license

3 Do you want it to be kept **open**?

I don't care

Any permissive
license

Yes

Copyleft

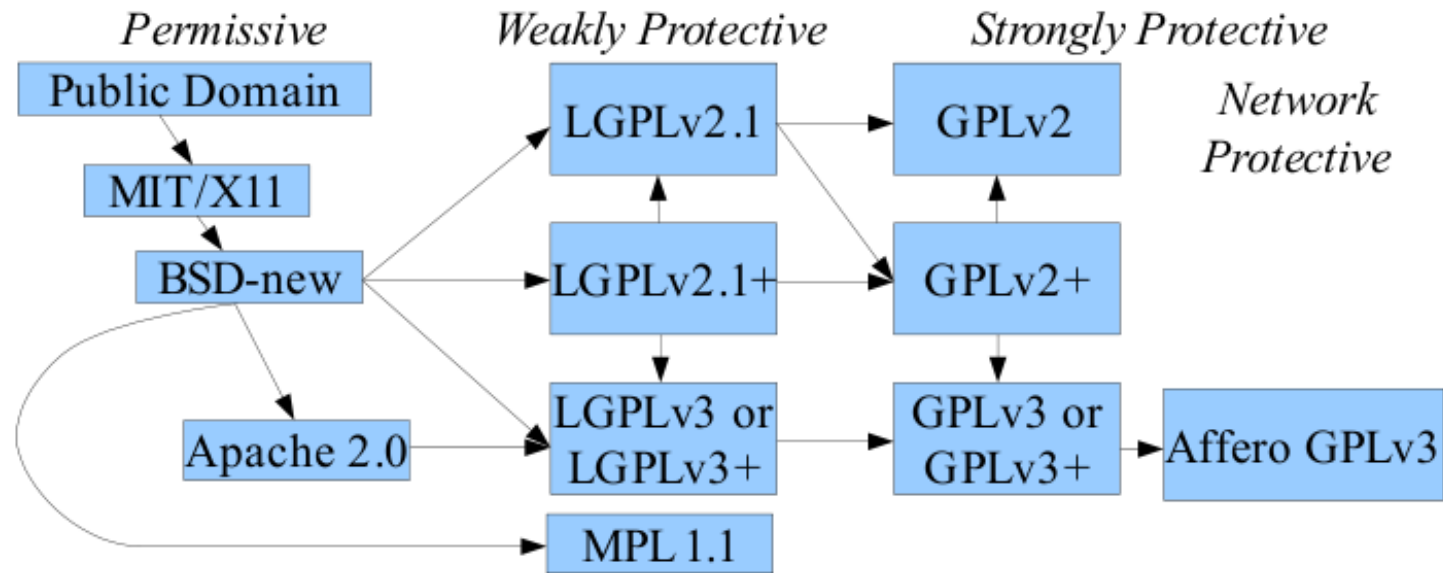
4 Do you want that also extensions or
composed works are **kept open**?

Yes

Any strong
copyleft license

No

Any weak
copyleft license



Source: <https://www.dwheeler.com/essays/floss-license-slide.html>

Author: David A. Wheeler,

Date: 27 September 2007

License: Creative Commons "Attribution-Share Alike 3.0 License" (<https://creativecommons.org/licenses/by-sa/3.0/deed.en>); the GNU Free Documentation License; or the GNU GPL (version 2 or later)

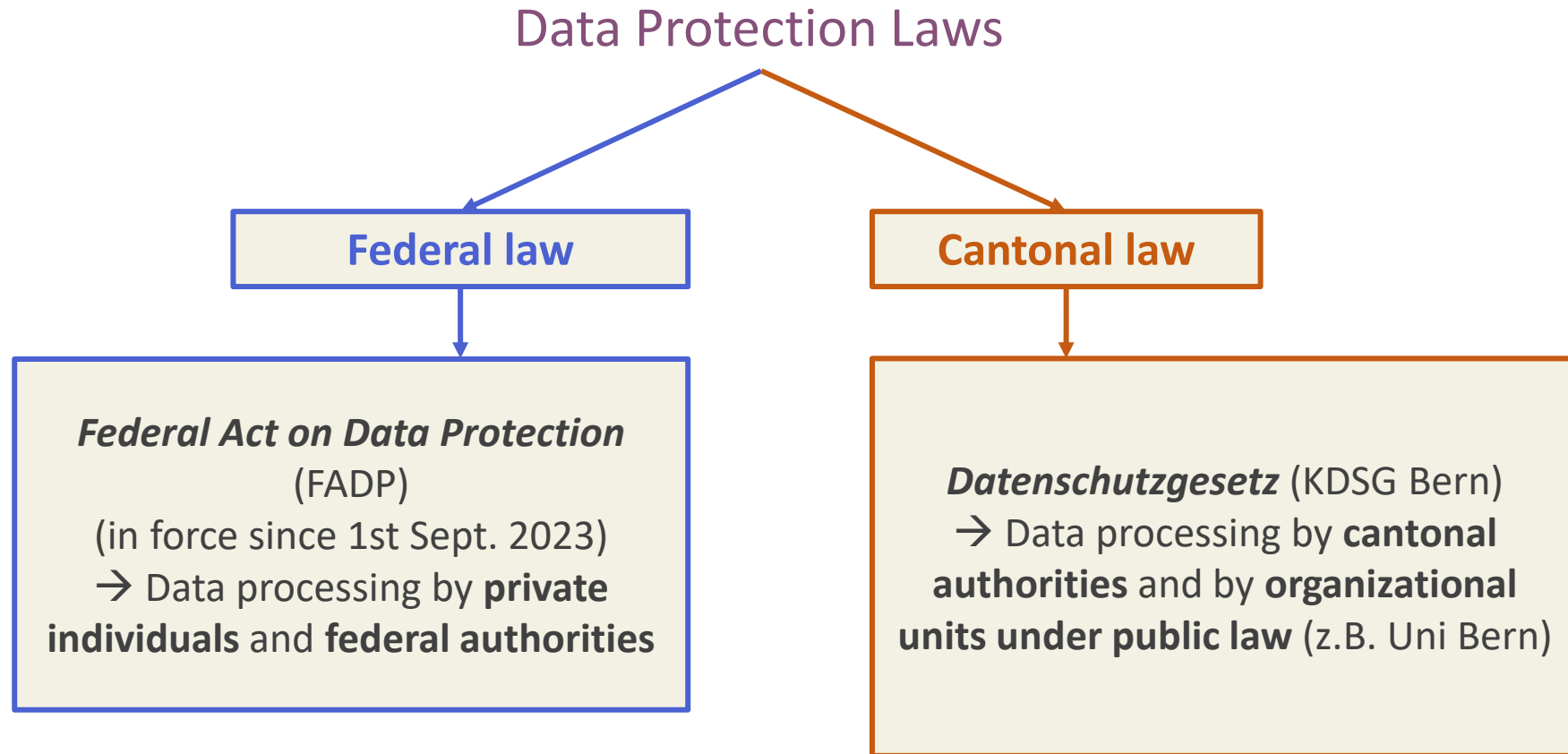
Privacy and Personal data

EU legal acts

→ ***European General Data Protection Regulation*** (GDPR) In force since 28.5.2018

- Has a direct impact on the member states
- Sometimes applies also in Switzerland (extraterritoriality principle)

Swiss legal acts



Swiss legal acts

Specific data protection articles
(Special laws)

Federal laws

E.g. *Federal Act on Research involving
Human Beings HRA,
Federal Act on Health Insurance*

Cantonal laws

E.g. (Cantonal) *Police Act*

Personal data

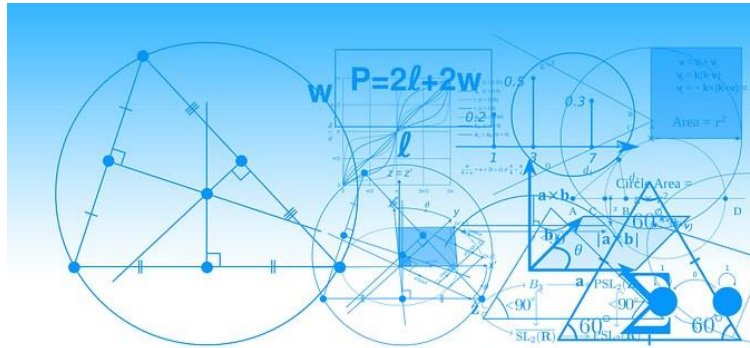
Swiss legal acts



Bildquelle: <https://thispersondoesnotexist.com/>

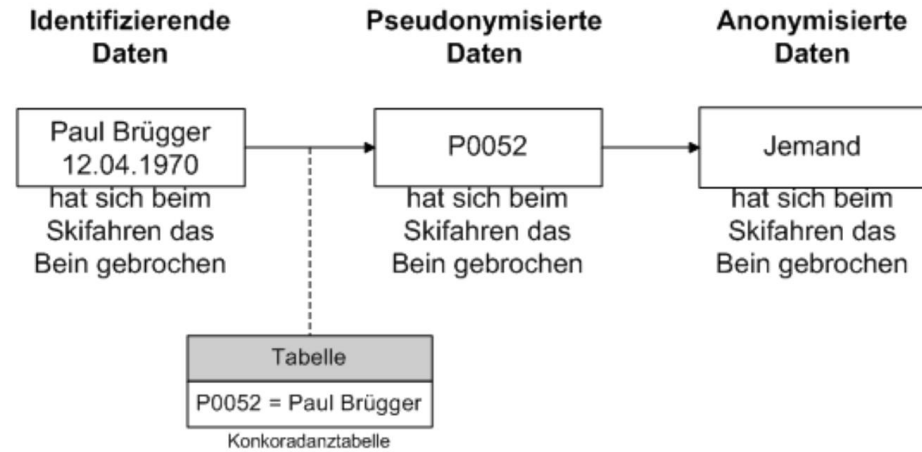
- Name
- Address
- Place of residence
- Age
- Interesses
- Religion
- Sexuality
- Gender
- Appearance: height, skin colour, ect.
- AVS-Number
- ...

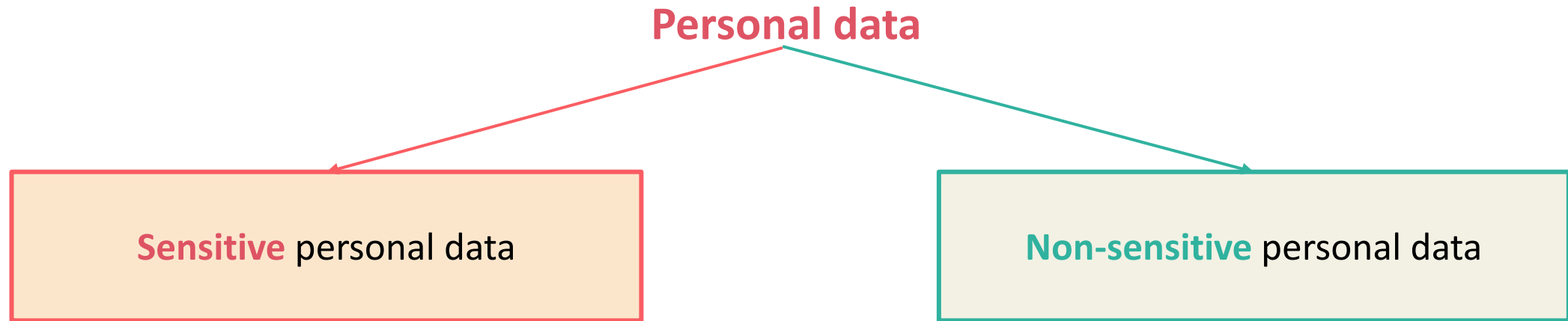
Non-personal data



- Facts of nature
- Calculations
- Anonymised data (cf. pseudonymised data!)

→ Data protection laws do NOT apply!





Personal data



Non-sensitive personal data

Personal data: **any** information relating to an **identified** or **identifiable** natural **person**

Personal data

Sensitive personal data

Information about:

- Religious, philosophical, political or trade union-related views or activities;
- Health, the private sphere or affiliation to a race or ethnicity;
- Administrative and criminal proceedings or sanctions;
- Social assistance measures;
- Genetic data;
- Biometric data that uniquely identifies a natural person.

Processing personal data

Processing personal Data

any handling of personal data, irrespective of the means and procedures used, in particular the **collection, storage**, keeping, **use, modification, disclosure**, archiving, deletion or destruction of data;

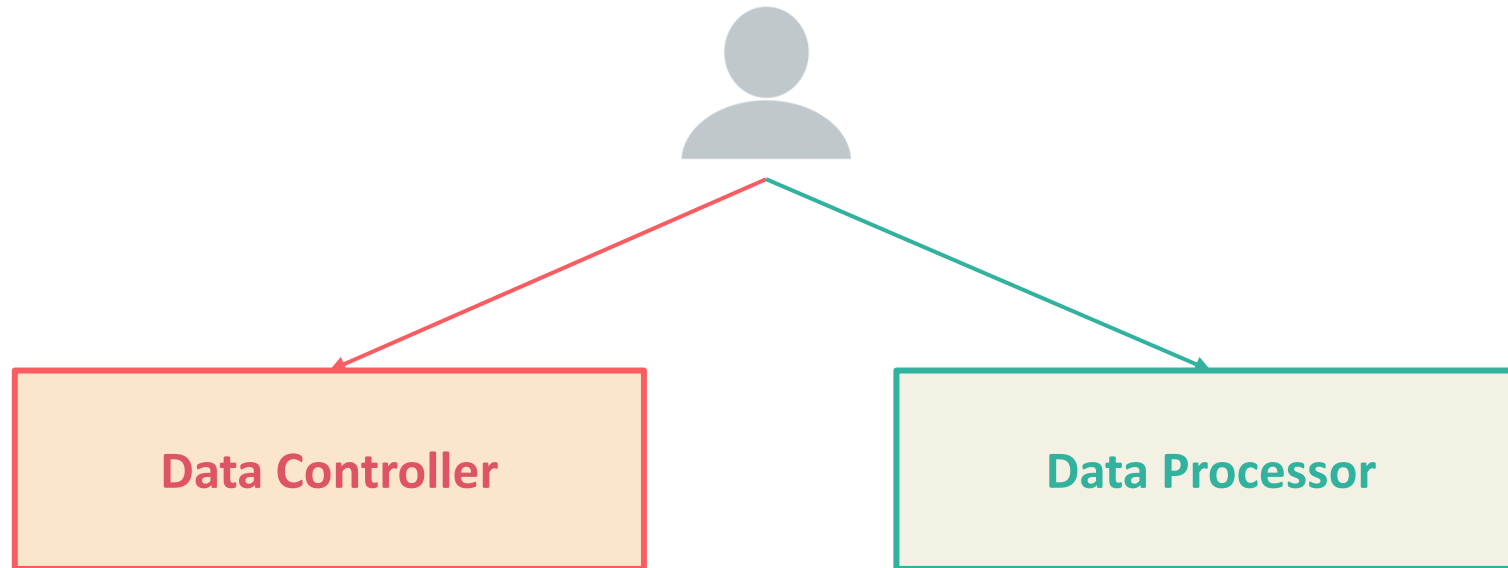
Data protection legislation

- Protects the privacy of individuals by protecting their data;
- Protects the data of all living individuals regardless of their relationship to the data processor → e.g. employee, student, website visitor, supplier, job applicant;
- Provides for obligations to be imposed on all data processors

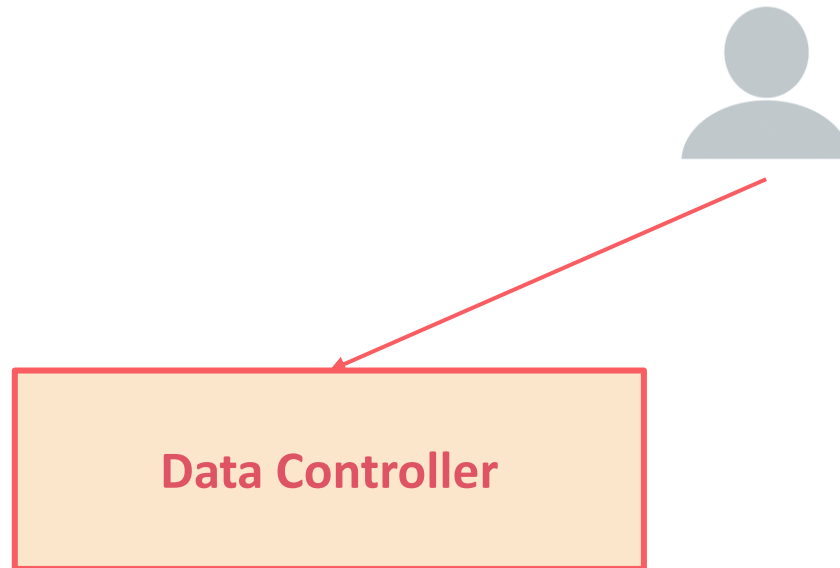
Data protection legislation

- The data must be protected by **organizational** and **security measures** that are appropriate to the risk
- Protection goes beyond maintaining confidentiality

Roles

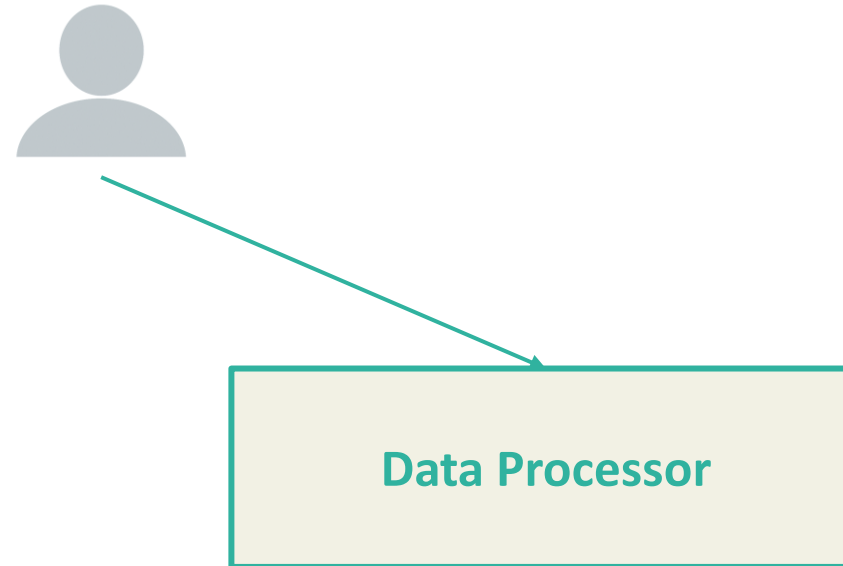


Roles



a private person who or federal body which, alone or jointly with others,
determines the purpose and the means of processing personal data

Roles



a private person or federal body that **processes** personal data **on behalf of the controller**

Principles

- Personal data must be processed **lawfully**.
→ There is either a law or consent.
- Processing must be carried out in **good faith**.
→ If I provide information about the way in which I intend to use data, I must tell the truth.
- The processing must be **proportionate**.
→ I only collect the data that I need for the respective purpose.

Principles

- Personal data may only be processed for a **specific purpose**.
→ I can only use the data for the purpose for which I collected it.
- The data processor must be **transparent**.
→ Information obligation = privacy policy
- If the data processor processes data, they must take all necessary **security measures**...
→ ...to prevent data from being lost or someone breaking into the system and stealing it.

Principles

Personal data must be processed lawfully.

= Legitimate ground:

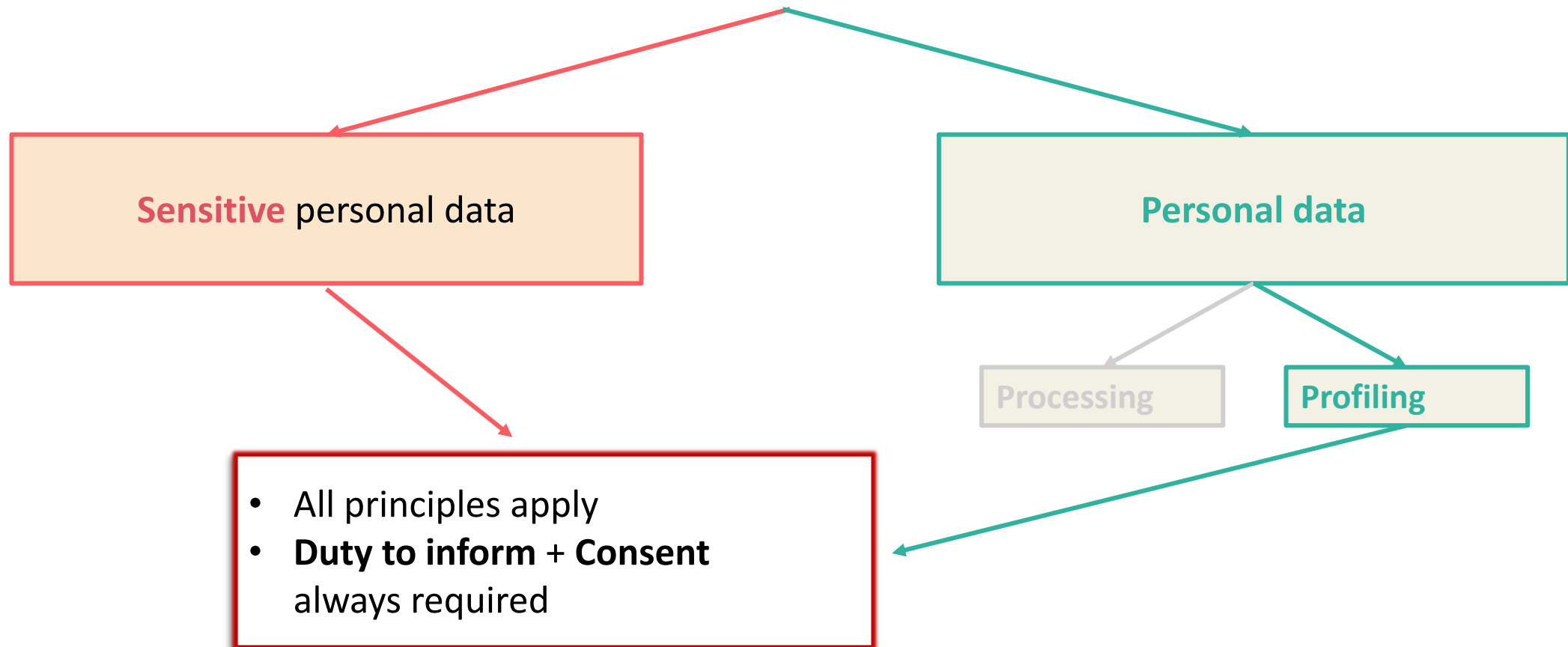
→ **Legal basis** (law)

→ **Consent**

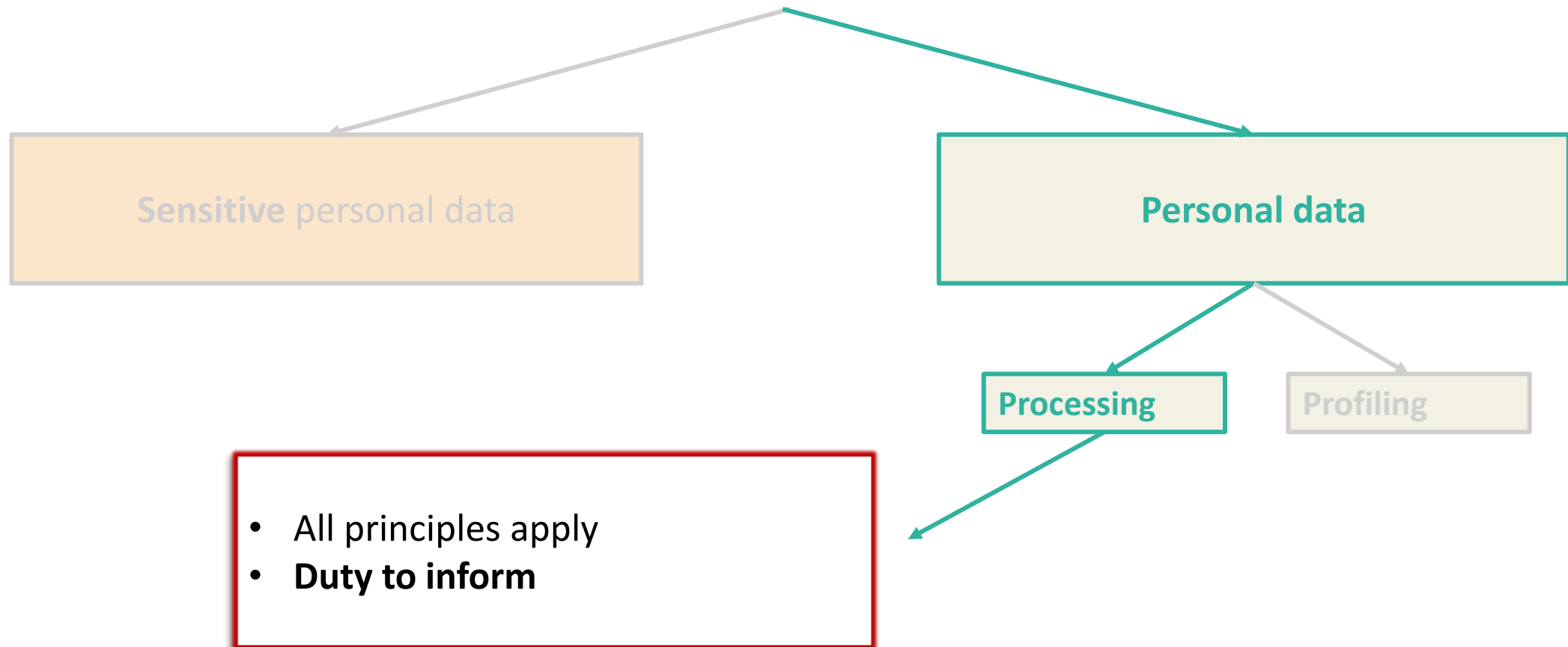
→ Overriding public or private interest

→ The person has published their personal data themselves and does not object to its use.

Processing by private persons



Processing by private persons



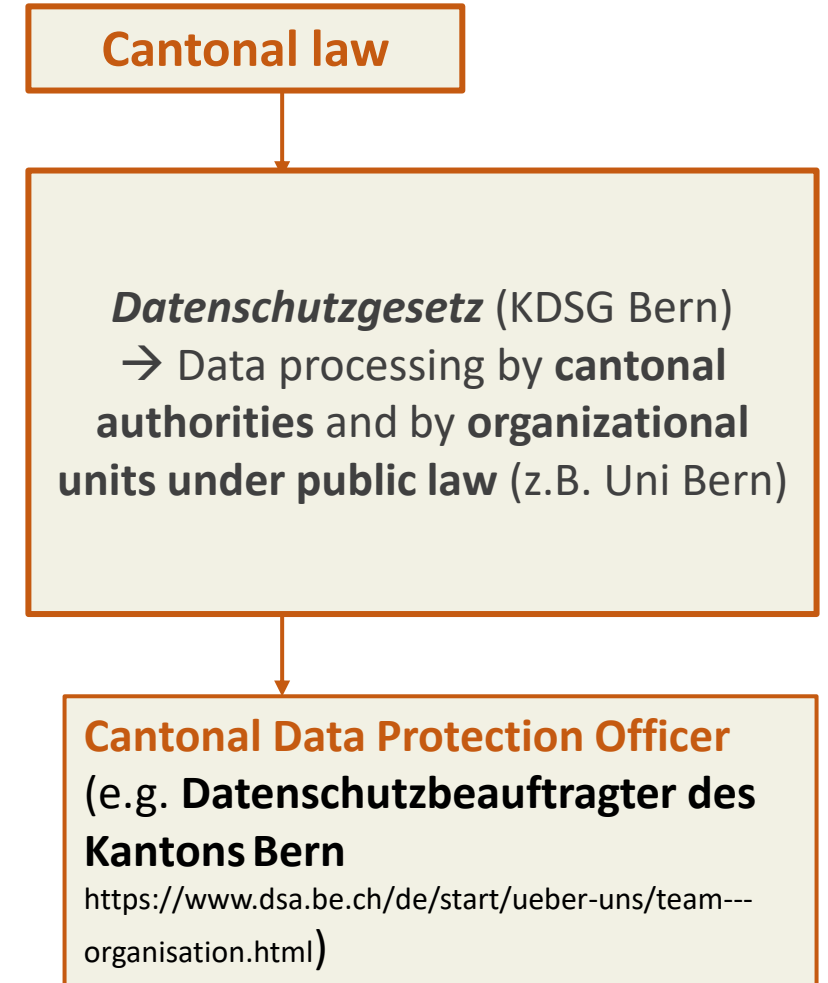
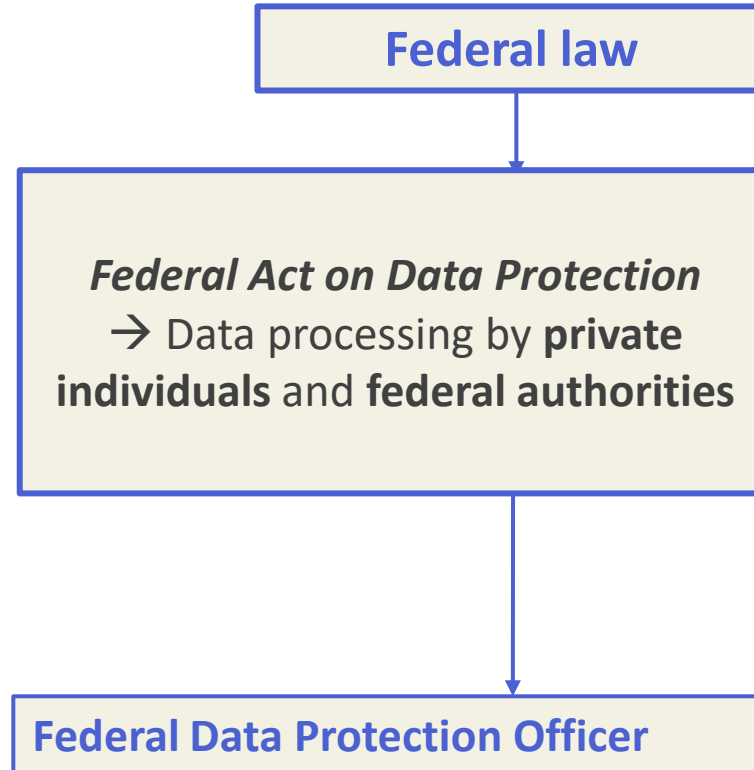
Duty to inform

- No formal requirement, but "in an appropriate manner" (on a website? correspondence?) and you must be able to provide proof!
- At least the following information:
 - the identity of the data controller;
 - the purpose of the data processing;
 - the categories of data recipients (Art. 9 FDPA, e.g. cloud), if data transfer is planned;
 - in the case of transfer abroad: the recipient country.



Competent authority

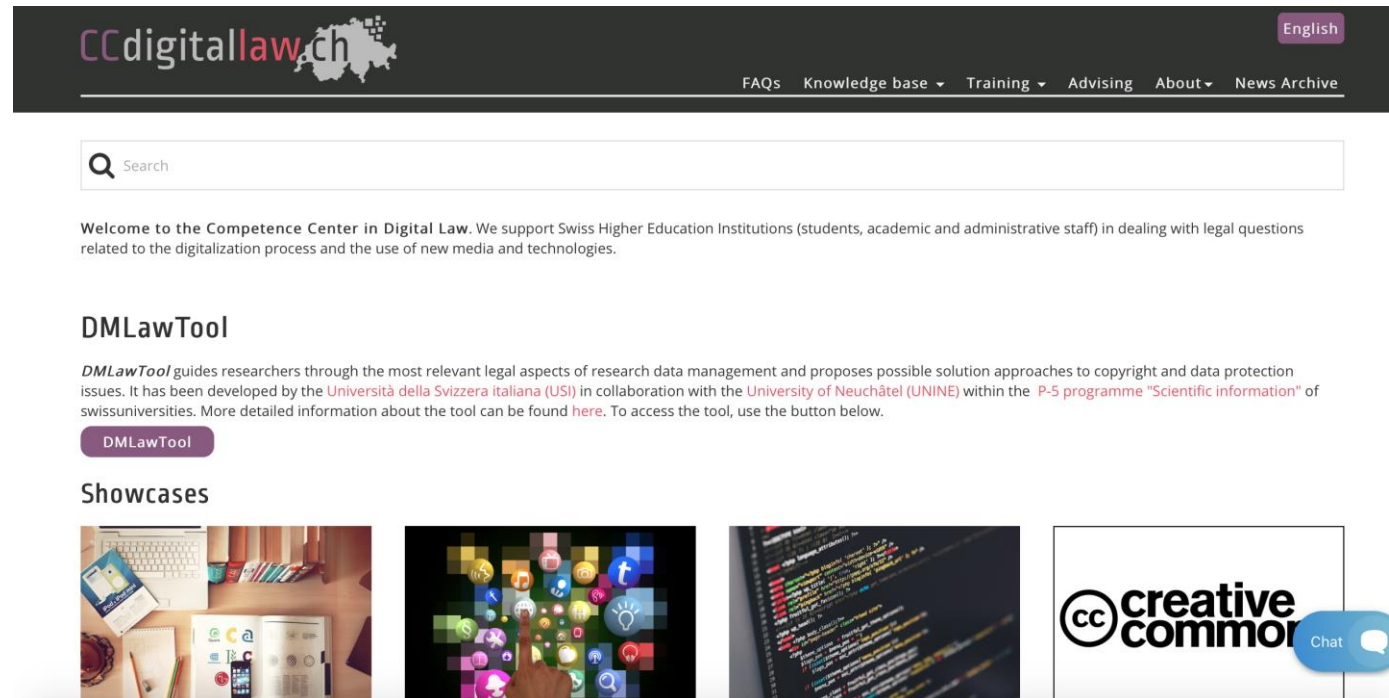
Who can I report a breach of my data to?



Thank you for your attention!

More information @ www.ccdigitallaw.ch

Follow us on our social networks



The screenshot shows the homepage of the CCdigitallaw.ch website. At the top is a dark navigation bar with the logo on the left, a language selector set to 'English' on the right, and a menu with links: 'FAQs', 'Knowledge base', 'Training', 'Advising', 'About', and 'News Archive'. Below the navigation bar is a search bar with a magnifying glass icon and the text 'Search'. A welcome message follows: 'Welcome to the Competence Center in Digital Law. We support Swiss Higher Education Institutions (students, academic and administrative staff) in dealing with legal questions related to the digitalization process and the use of new media and technologies.' Below this is a section for 'DMLawTool', which includes a description of the tool and a purple button labeled 'DMLawTool'. The 'Showcases' section at the bottom features four images: a desk with a laptop and books, a hand interacting with a grid of colorful icons, a close-up of computer code on a screen, and the Creative Commons logo with a blue 'Chat' button.