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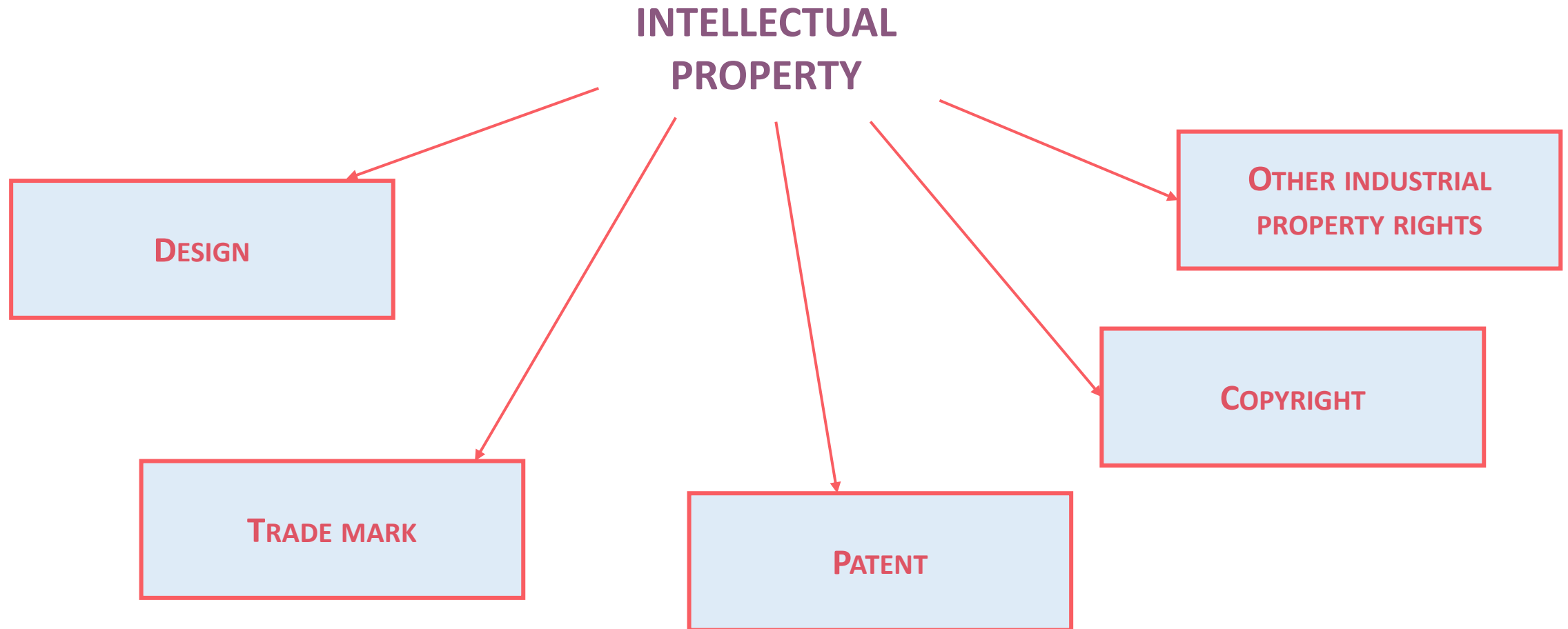
   ❑ What are **Free and Open Source Software Licenses**?

❑ **Data protection**

❑ What are **personal data**?

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

❑ What is an **informed consent**?

Intellectual property rights

Competence Center in Digital Law

INTELLECTUAL PROPERTY

DESIGN

TRADE MARK

PATENT

COPYRIGHT

OTHER INDUSTRIAL PROPERTY RIGHTS

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Intellectual property rights of a smartwatch

Technical invention:
PATENTS RIGHTS
KNOW-HOW, TRADE SECRETS

AI models and codes
COPYRIGHT

EU: DATABASE directive

Design of the watch
DESIGNS RIGHTS

Logo
TRADE MARKS RIGHTS

Website
COPYRIGHT

Author of smartwatch image: Nikin
Source: Pixabay, https://pixabay.com/de/illustrations/smartwatch-apfeluhr-apfel-2845072

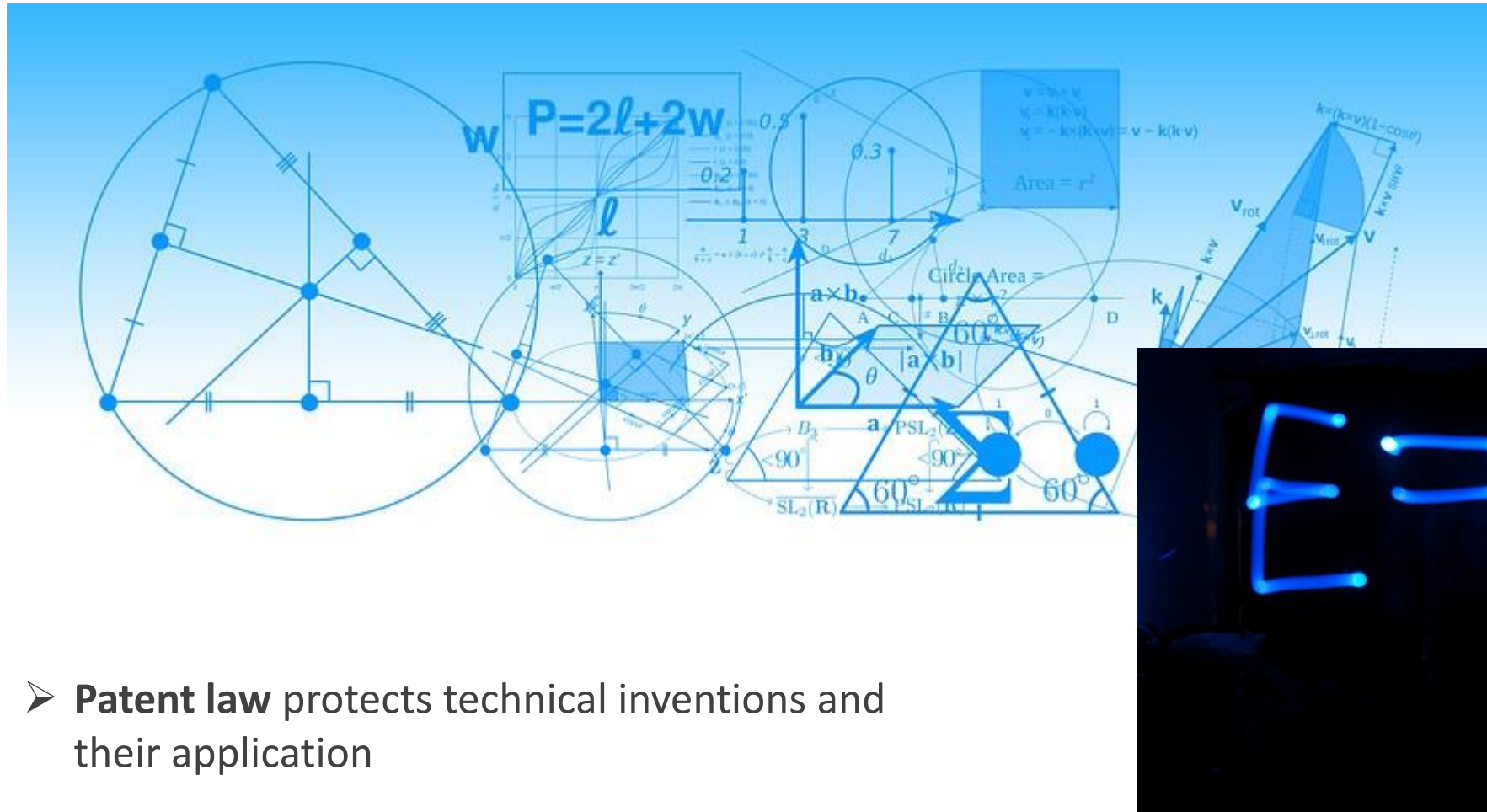## PATENT LAW

- **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 = mc2)

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?

1. Intellectual creation

2. Individual character

3. Form of expression

Arch. Mario Botta

«Bob Marley»
© Max Messerli

Gratenfeuer.ch

Computer-generated works

James Allen, Midjourney

Computer-assisted works

James Allen, Théâtre d'Opéra Spatial

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
- …

- 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

Lifetime from creation

+ 70 years
+ 50 years (software)

Non-original photos: 50 years.

Date of work's creation:
27.10.1975

Death's date:
05.03.2010

Protection lasts until:
31.12.2080

→ **Public Domain Day**

01.01.2081

Who owns the rights?

THE AUTHOR

Copyright holder

AUTHOR

Moral **rights**

Economic **rights**

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THE
RIGHT HOLDER

Copyright holder

AUTHOR	SECOND PARTY
(e.g. writer / employee)	(e.g. publisher / employer)

Moral rights

Economic rights
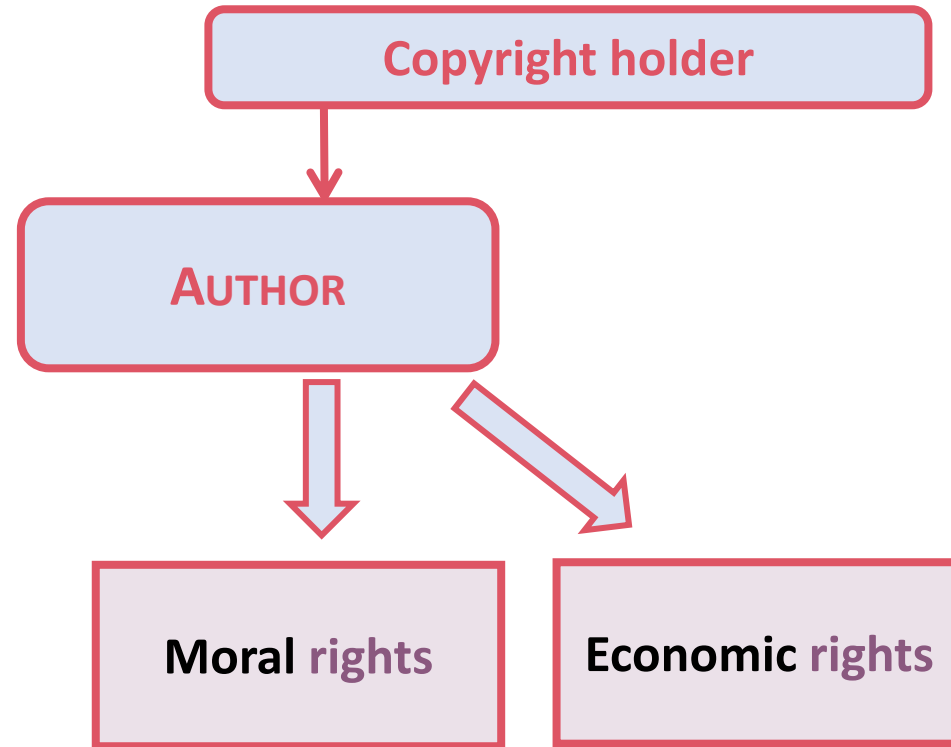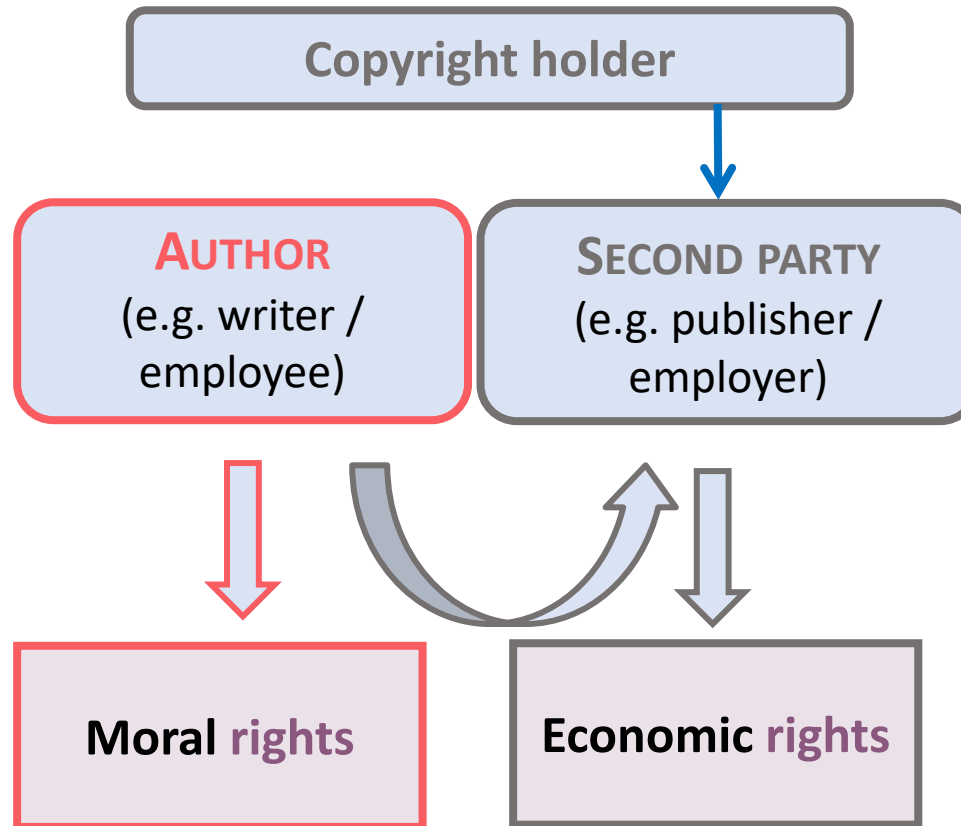
Through:
- Contract
- Law
- Internal regulation

THE
RIGHT HOLDER

Copyright holder

AUTHOR

MANDATOR

Economic rights
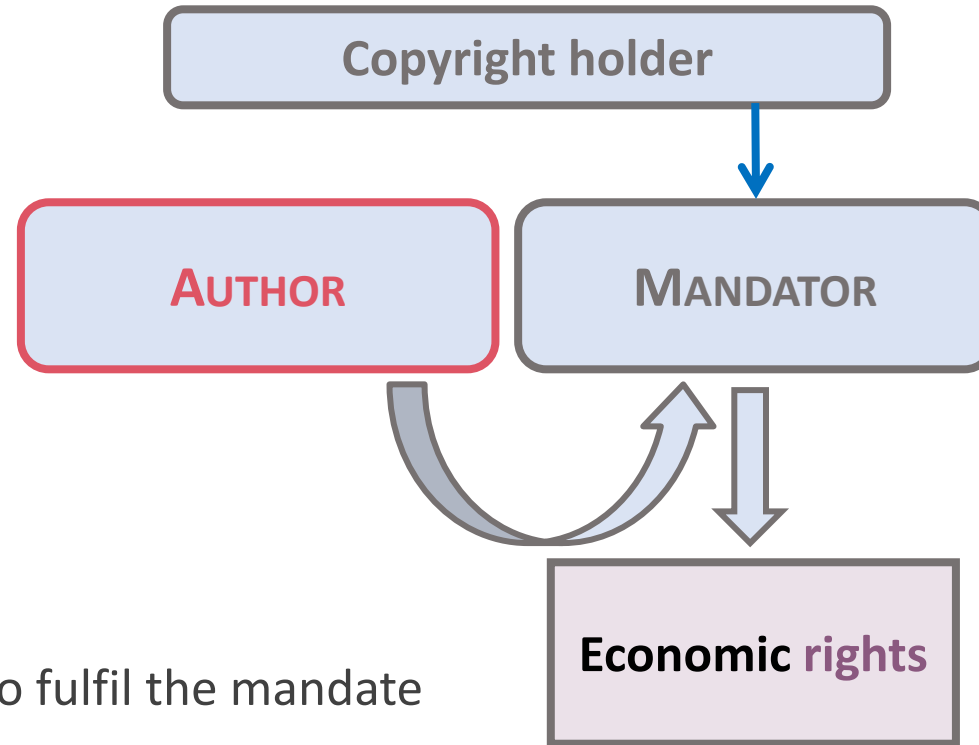
Contract of mandate:

→ Receives all rights required to fulfil the mandate

THE
RIGHT HOLDER

Copyright holder

AUTHOR

CLIENT

Economic rights
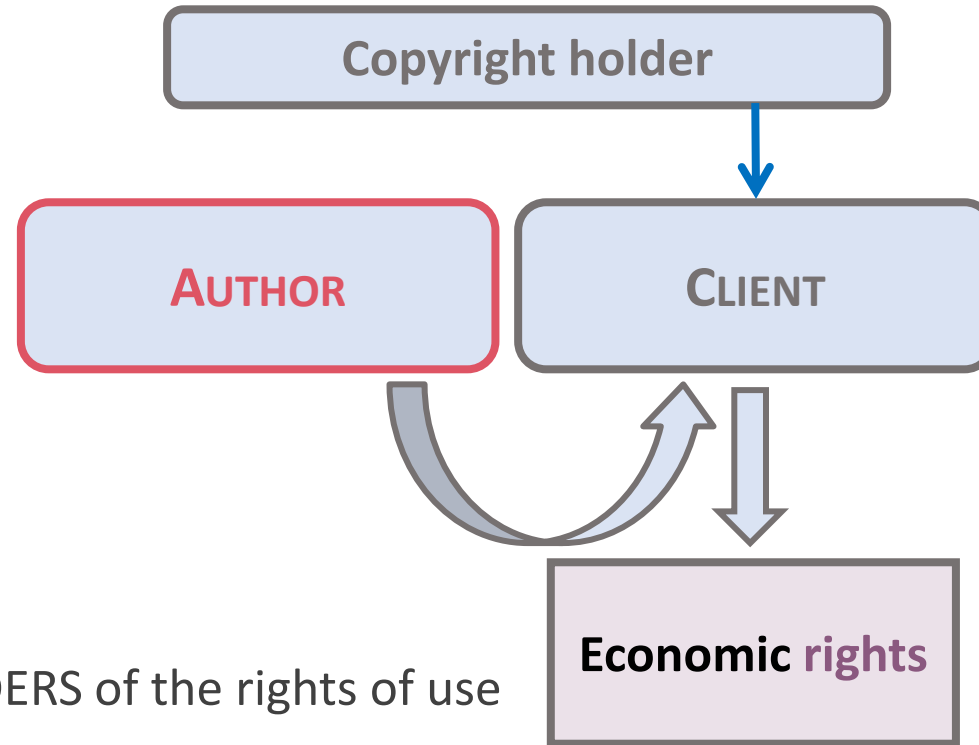
Sale agreement:

→ 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

Copyright holder

SOFTWARE PROGRAMMER

EMPLOYER

Economic rights
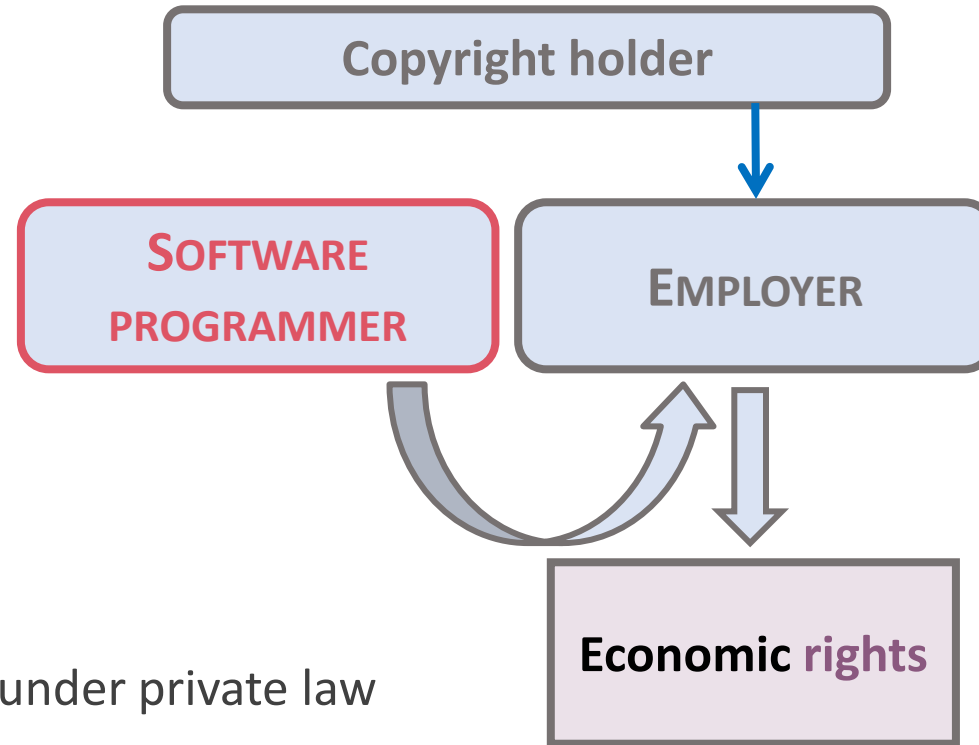
Art. 17 Swiss Copyright Act:

→ 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

RECAP QUIZ

1. The author of the famous story "Le Petit Prince" died during a mission in 1944. Am I allowed to distribute the whole original French text to the citizens of Geneva?

a) No, it's a work protected by copyright and I can't distribute it without the permission of the right holder.

b) Yes, because It's a famous story already published long ago.

c) Yes, because it entered into the public domain in Switzerland.

RECAP QUIZ

1. The author of the famous story "Le Petit Prince" died during a mission in 1944. Am I allowed to distribute the whole original French text to the citizens of Geneva?

a) No, it's a work protected by copyright and I can't distribute it without the permission of the right holder.

b) Yes, because It's a famous story already published long ago.

c) Yes, because it entered into the public domain in Switzerland.

RECAP QUIZ

2. I want to do the same in Bern with the German translated version, am I allowed to do so?

a) No, because the translation is still protected by copyright even if the original text already entered into the public domain in Switzerland.

b) Yes, because the story itself entered into the public domain.

c) Yes, I can distribute the copies as long as I have purchased them.

RECAP QUIZ

2. I want to do the same in Bern with the German translated version, am I allowed to do so?

a) No, because the translation is still protected by copyright even if the original text already entered into the public domain in Switzerland.

b) Yes, because the story itself entered into the public domain.

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RECAP QUIZ

3. May I use a work…?

a. If it's pubblished Open Access in internet, we can take for granted that the author accepted its re-use.

b. Even without the author's permission, in order to make an article more attractive.

c. In my article, if it serves as explanation, reference or illustration.

d. In principle, as long as I give proper credit to the author.

RECAP QUIZ

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How can I use a copyrighted work?

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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

1.

2.

3.

Image by vectorjuice on Freepik

Vectoral.com

Legal license

Bilateral license

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

1.

2.

3.

Exceptions permitted
by law

Bilateral license

Predefined license

Image by vectorjuice on Freepik

Vectoral.com

Licensing – Exclusive License

Right to reproduce and share the image

Author
Right holder
Lincesor

Licensee

e.g. money (Royalties), specifications, other obligations, nothing (no compensation)

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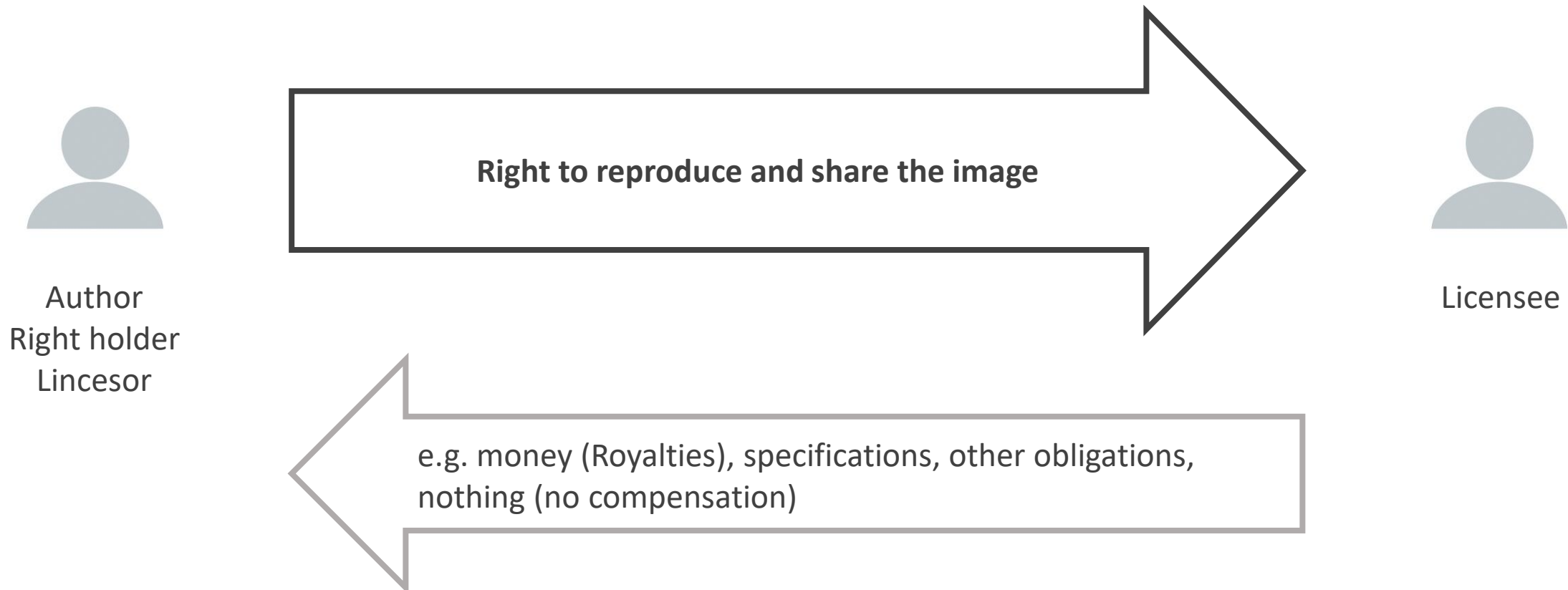
Licensing – Simple License

Right to reproduce and share the image

Author
Right holder
Lincesor

Licensee 1

Licensee 2

Licensee 3

e.g. money (Royalties), specifications, other obligations, nothing (no compensation)

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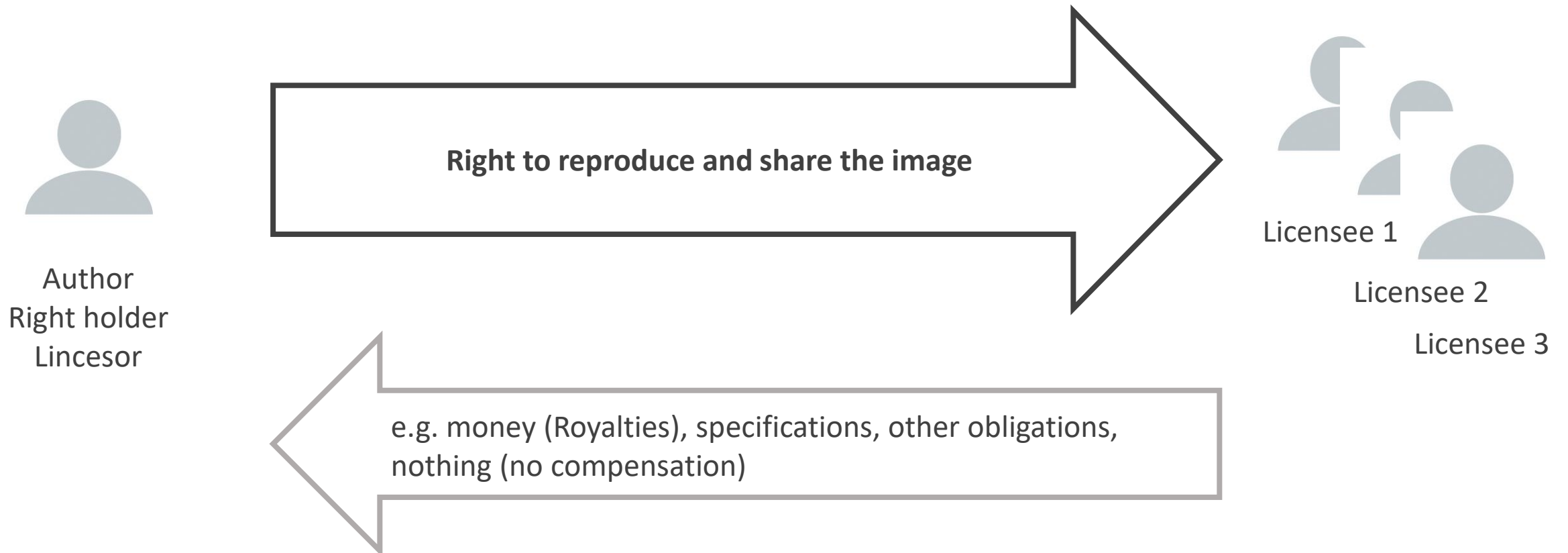
1.

Exceptions permitted by law

2.

Image by vectorjuice on Freepik

Bilateral license

3.

Vectoral.com

Predefined license

CCdigitallaw.ch

Licensing – Open License

Right to reproduce and share the image

Author
Right holder
Lincesor

EVERYONE

e.g. money, other obligations (attribution),
nothing (no compensation), Royalty free

Competence Center in Digital Law
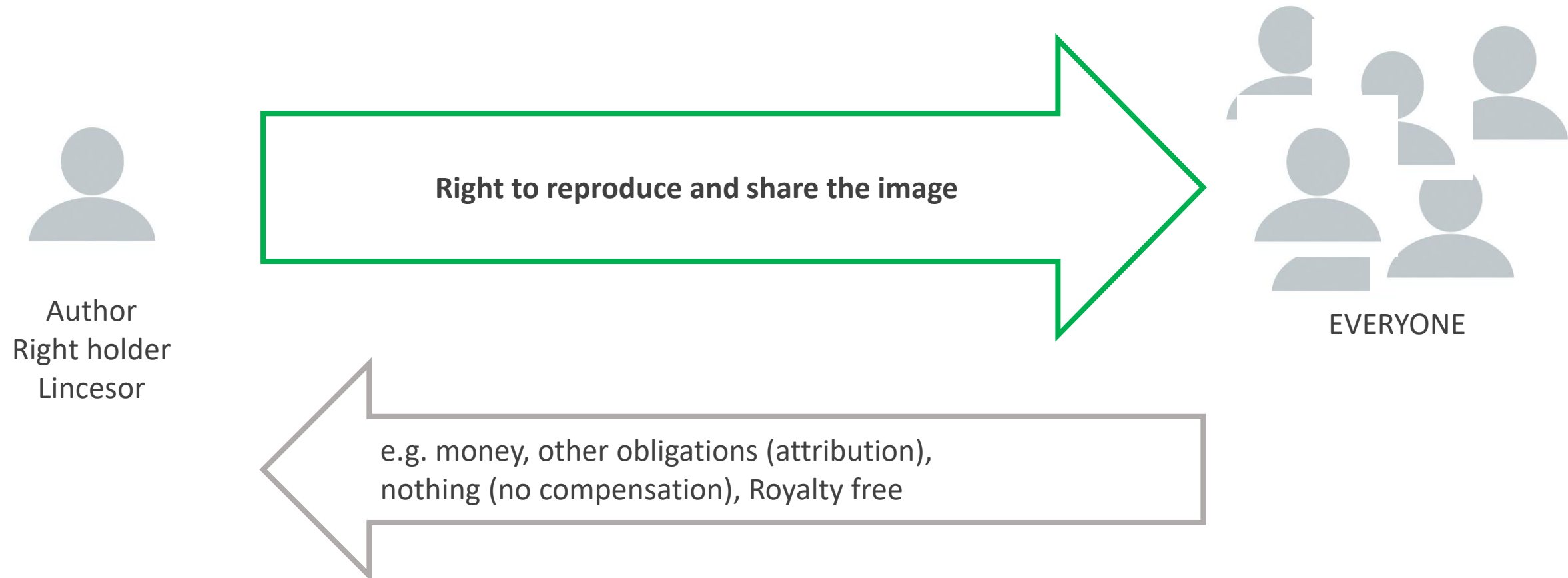
Joan Miró

Salvador Dalí

Other Licenses and Agreements

Competence Center in Digital Law

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"

Coffee break

Competence Center in Digital Law

Open Science

Competence Center in Digital Law
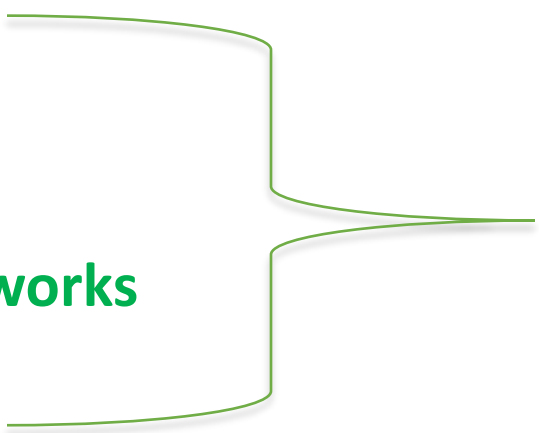
Open Access

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

Competence Center in Digital Law
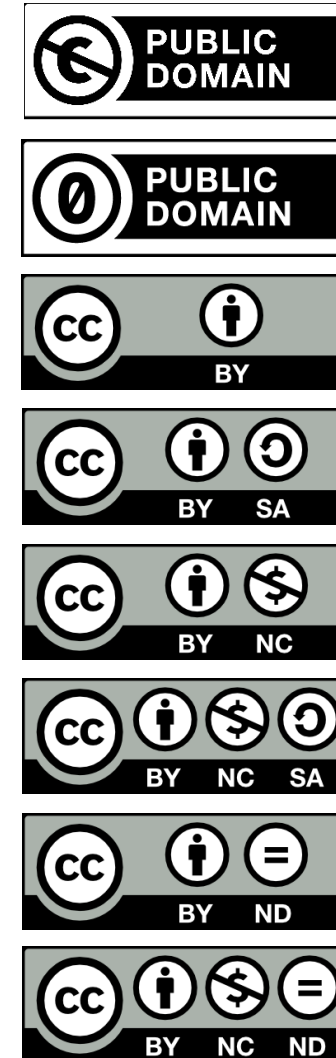
All Creative Commons Licenses:

- Grant permission to

  - **Copy**

  - **Modify** (apart from ND)

  - **Share**

- **all** interested persons

- Some have conditions (BY & SA)

- Some limit the purpose (NC)

Competence Center in Digital Law

License elements
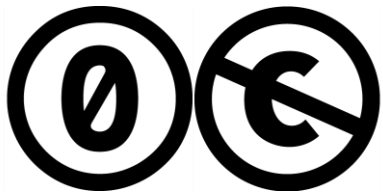
CC0	BY	SA	NC	ND
Zero / public domain	**Attribution**	**Share alike**	**Non-commercial**	**No-derivatives**
No conditions	**Condition**	**Condition**	**Limit**	**Limit**
→ everything allowed	→ Where can the original be found and the author	→ Preservation of openness	Not for commercial purposes	No modifications
(apart from respect personality author)	→ Several attribution obligations			
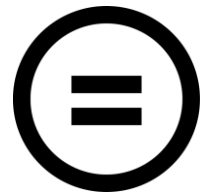
CCdigitallaw.ch

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

- Copyright protection **expired**

- ✓ **Moral copyrights** still apply

- ✓ Rightholder **gives up their economic copyrights**

Public domain

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

PUBLIC DOMAIN

✓ **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)**
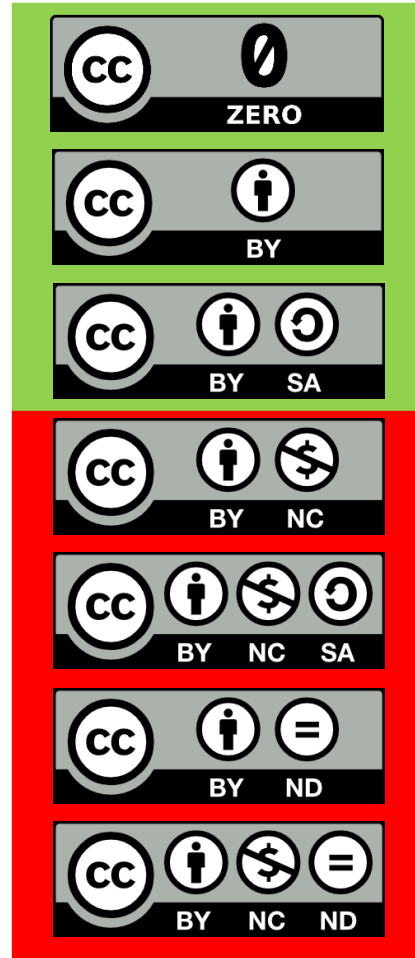   - Share Alike, "Copyleft"

All Creative Commons Licenses

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

NOT «open» in the sense of opendefinition.org

CCdigitallaw.ch

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

CCdigitallaw.ch

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

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 derivates, etc.

Free and Open Source Software Licenses
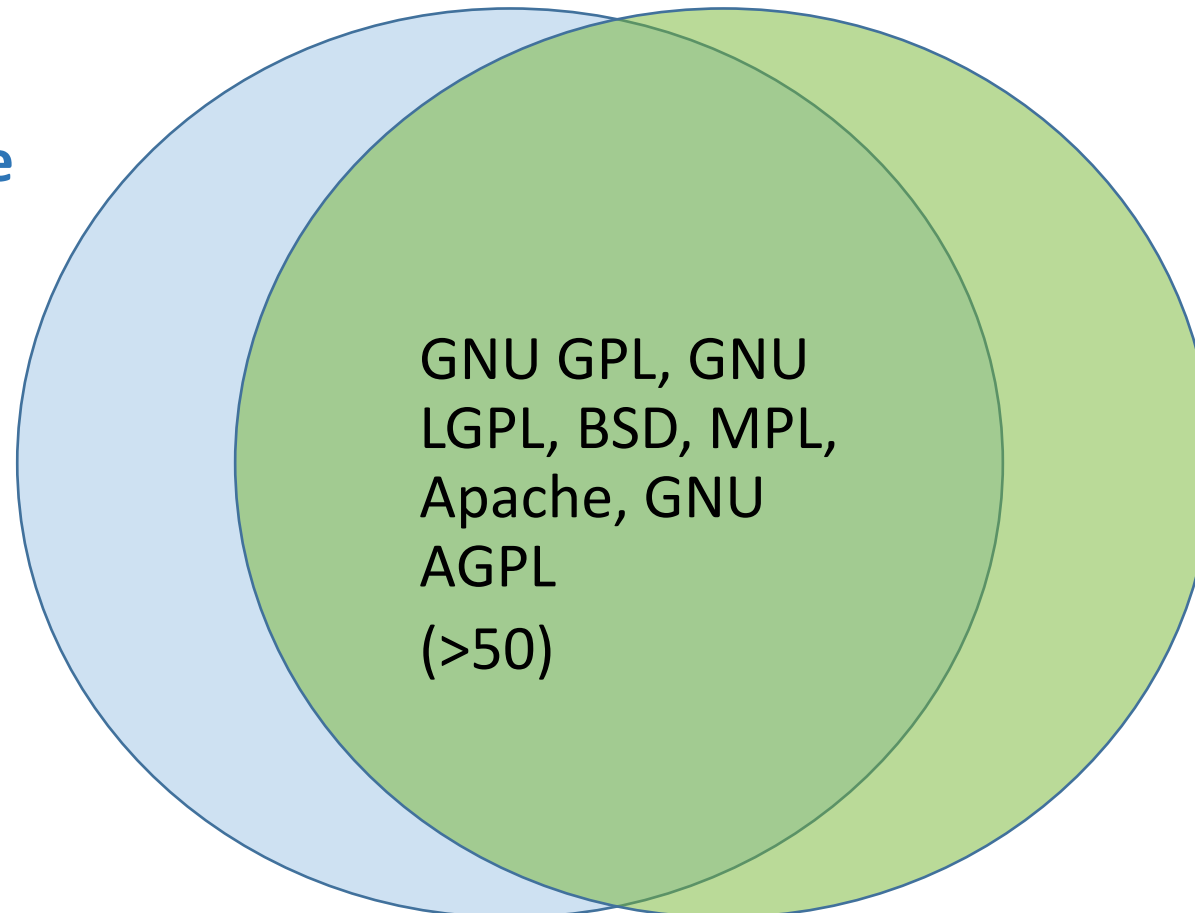
**Free Software
Licenses**

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

GNU GPL, GNU LGPL, BSD, MPL, Apache, GNU AGPL

(>50)

Free and Open Source Software Licenses
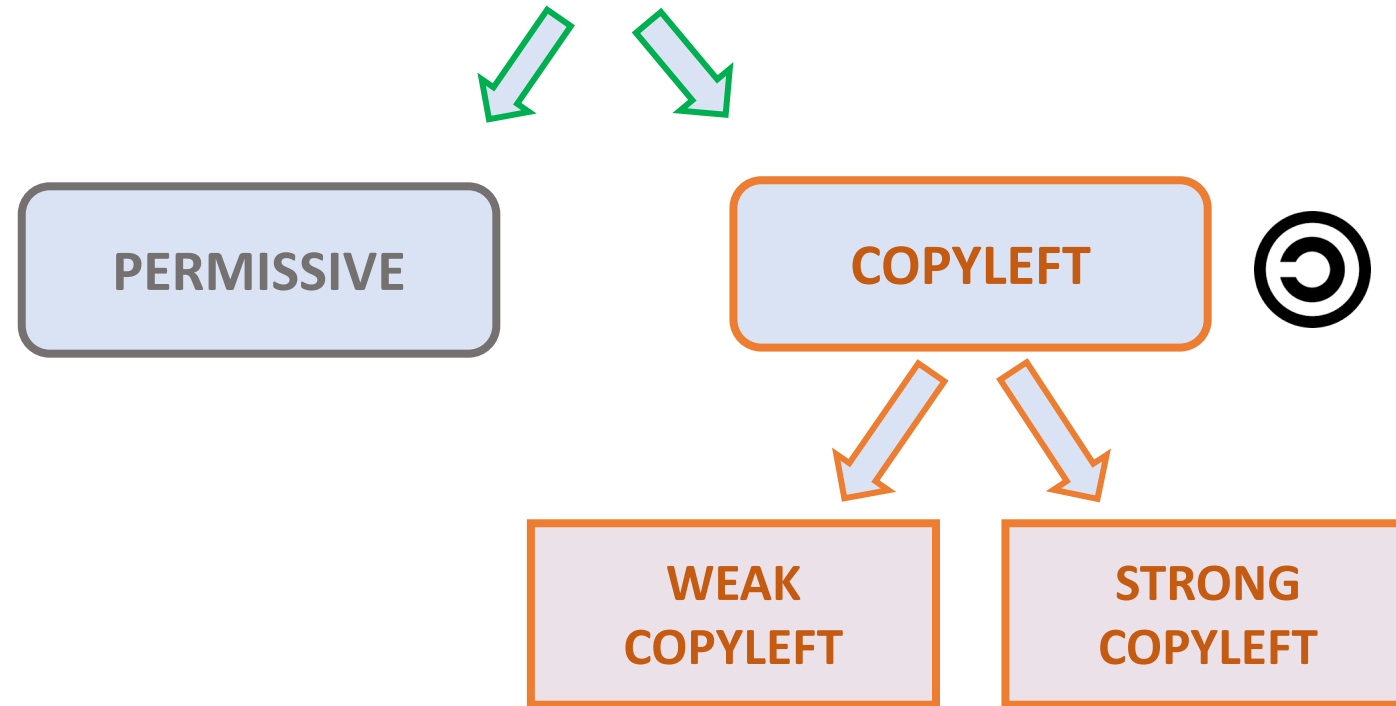
- Content of FOSS Licenses:

- 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**

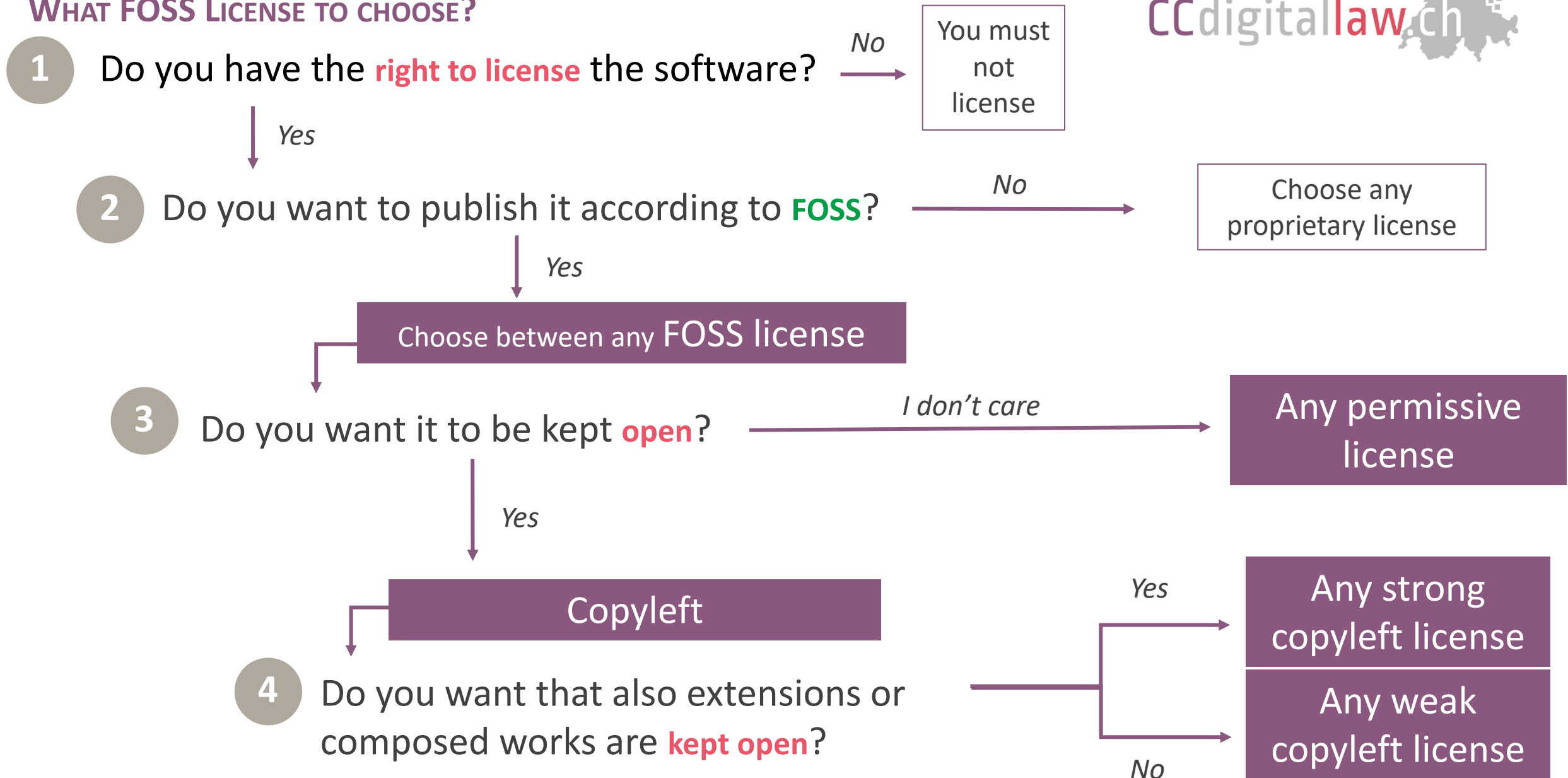➢ extensions or composed works can also be proprietary

Strong copyleft

➢ copyleft on **whole redistributed work**, including derivative and composed works incorporating the work
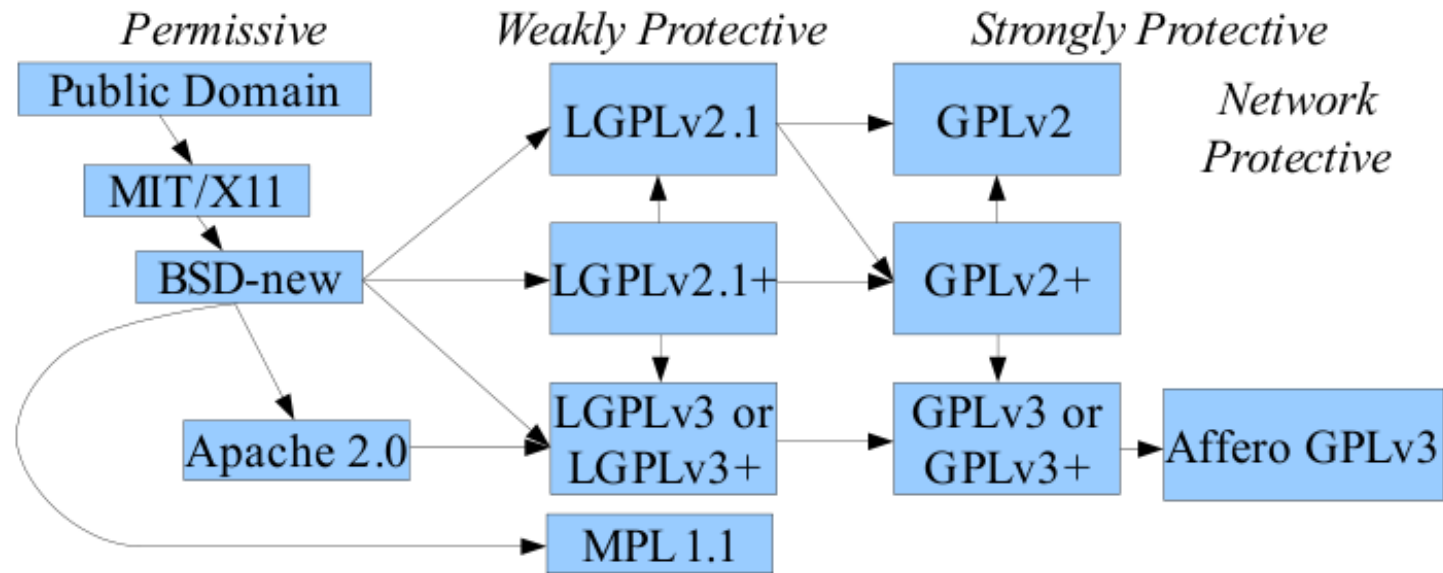
Permissive vs. Copyleft Licenses

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 derivates 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

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Source: https://www.dwheeler.com/essays/floss-license-slide.html
Author: David A. Wheeler,
Date: 27 September 2007
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RECAP QUIZ

4. How do you know a computer program is FOSS?

a) The computer program is licensed under a FOSS-license.

b) Wikipedia says so.

c) I can download the source code.

RECAP QUIZ

4. How do you know a computer program is FOSS?

a)   The computer program is licensed under a FOSS-license.

b)   Wikipedia says so.

c)   I can download the source code.

Competence Center in Digital Law

RECAP QUIZ

5. What obligations do you have when you run a computer program on your computer?

a) None, because I do not need a license to use it.

b) None, because I do not distribute it.

c) I have to use a free and open source software licensed program.

RECAP QUIZ

5. What obligations do you have when you run a computer program on your computer?

a)   None, because I do not need a license to use it.

b)   None, because I do not distribute it.

c)   I have to use a free and open source software licensed program.

RECAP QUIZ

 6. Weak vs. strong copyleft:

a) Weak copyleft only applies to software program, whereas strong copyleft applies to any modification and extended work incorporating the original software program.

b) Weak copyleft is compatible with other FOSS licenses, whereas strong copyleft is not compatible with permissive licenses.

c) Weak copyleft applies to the software program and modifications, whereas strong copyleft applies to software program, modifications, derivative works, compilations and collective works incorporating the original software program.
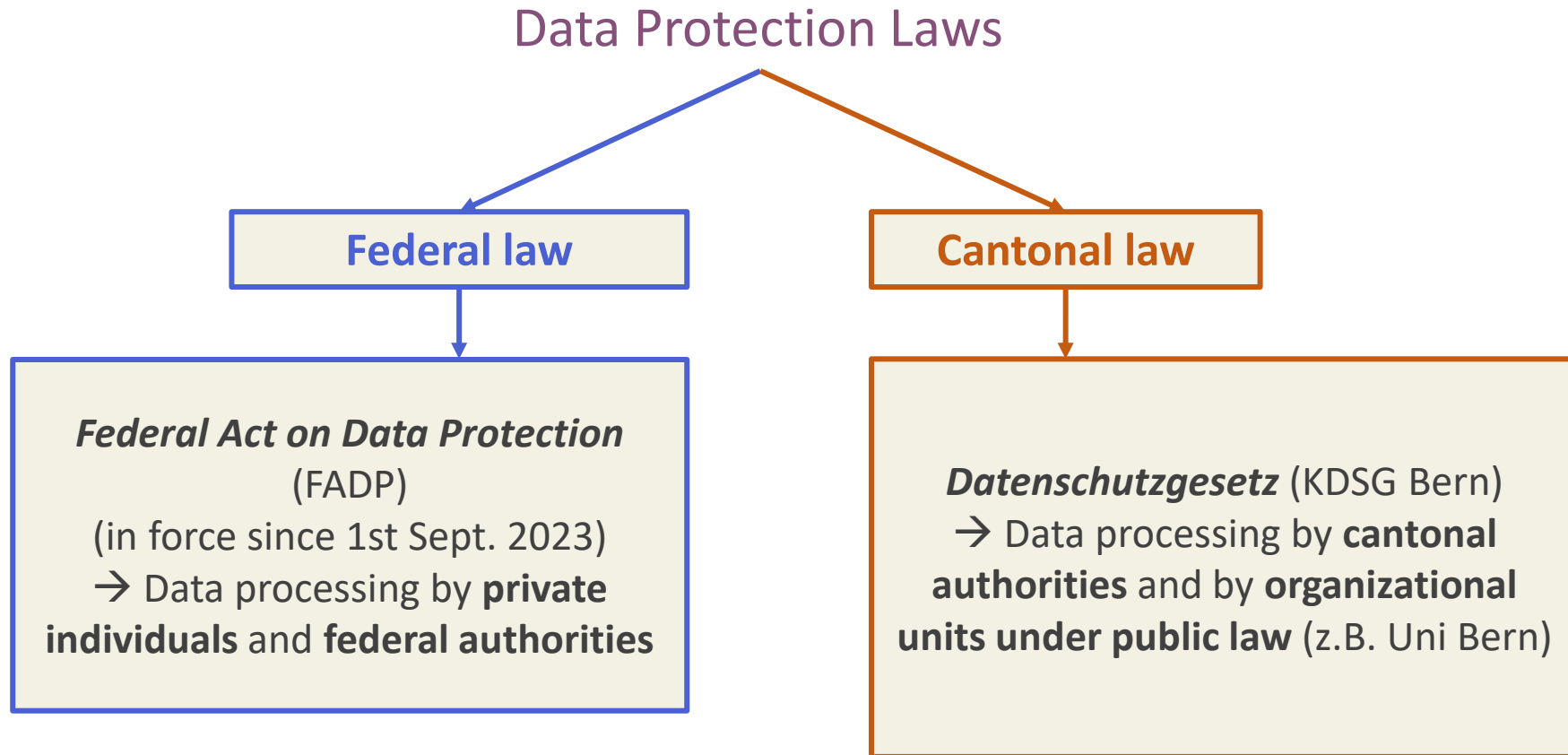
RECAP QUIZ

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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

Data Protection Laws

Federal law	Cantonal law
Federal Act on Data Protection (FADP) (in force since 1st Sept. 2023) → Data processing by **private individuals** and **federal authorities**	***Datenschutzgesetz*** (KDSG Bern) → Data processing by **cantonal authorities** and by **organizational units under public law** (z.B. Uni Bern)

Swiss legal acts

Specific data protection articles
(Special laws)

| Federal laws | Cantonal laws |

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

E.g. (Cantonal) *Police Act*

Personal data

Swiss legal acts

Bildquelle: https://thispersondoesnotexist.com/

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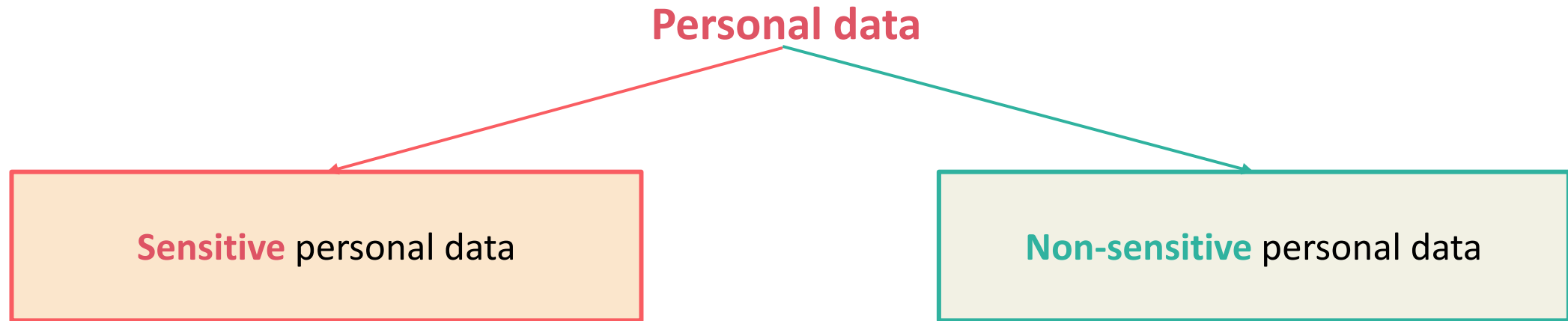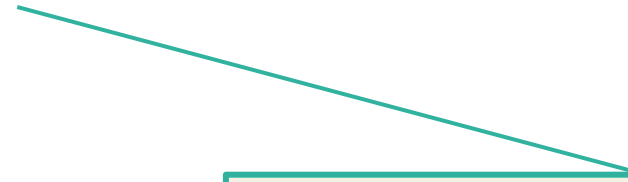- Appearance: height, skin colour, ect.
- AVS-Number
- …

Non-personal data
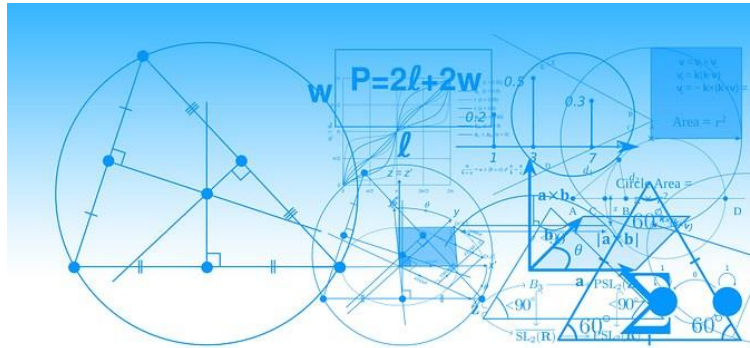
- Facts of nature
- Calculations
- Anonymised data (cf. pseudonymised data!)
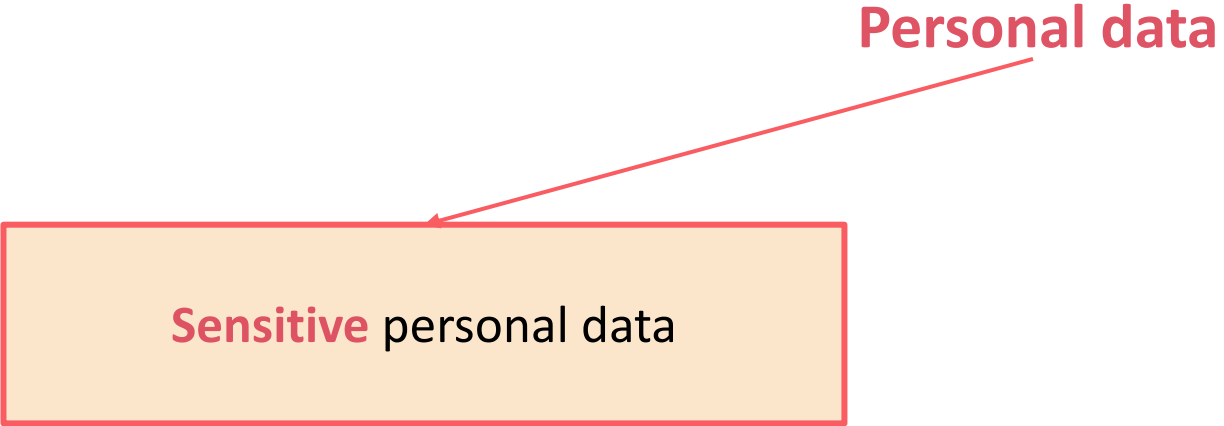
→ Data protection laws do NOT apply!

Personal data

Sensitive personal data		**Non-sensitive** personal data
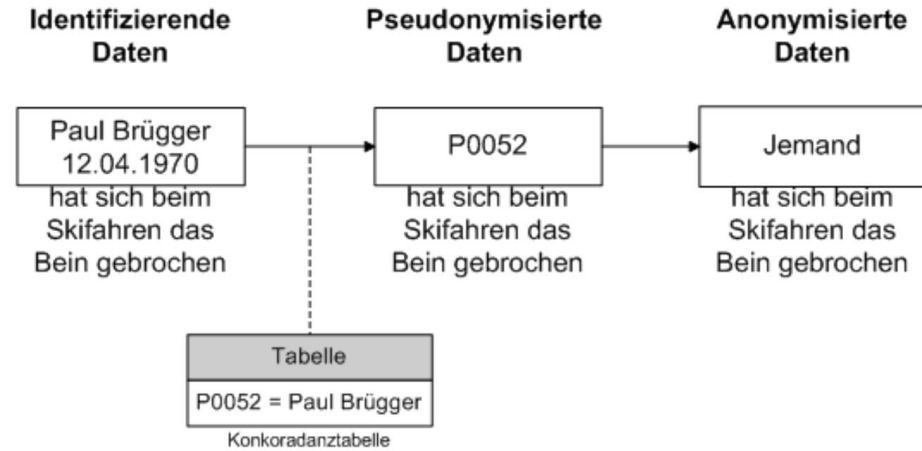
Personal data

Non-sensitive personal data

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

Competence Center in Digital Law

Personal data

Sensitive personal data

Information about:

o Religious, philosophical, political or trade union-related views or activities;

o Health, the private sphere or affiliation to a race or ethnicity;

o Administrative and criminal proceedings or sanctions;

o Social assistance measures;

o Genetic data;

o 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;

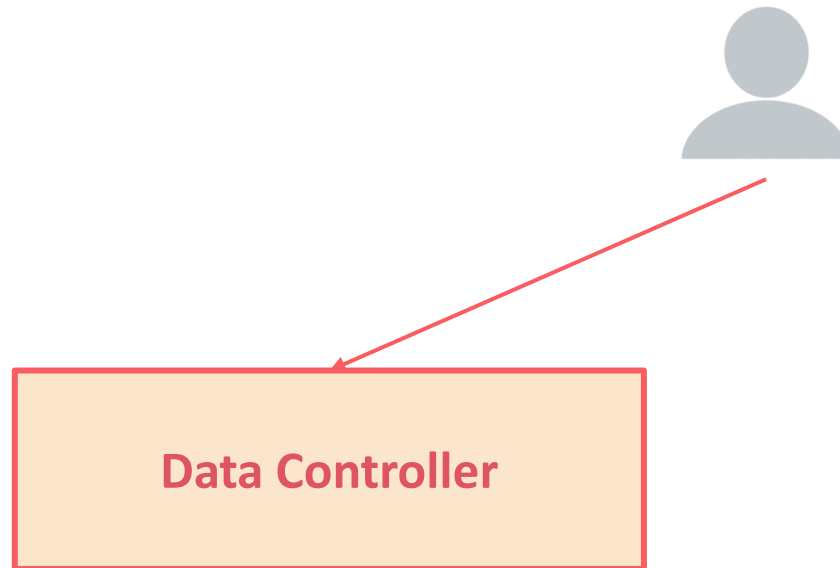➢ Provides for obligations to be imposed on all data processors

Data protection legislation

➢ The data must be protected by **organizational** and **security measures** that are

appropriate to the risk

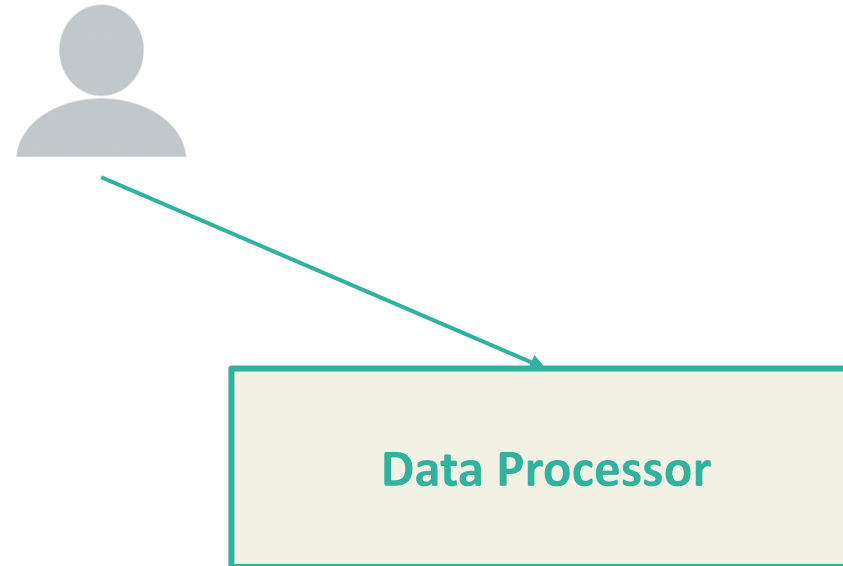➢ Protection goes beyond maintaining confidentiality

Roles

```
        Data Controller          Data Processor
```
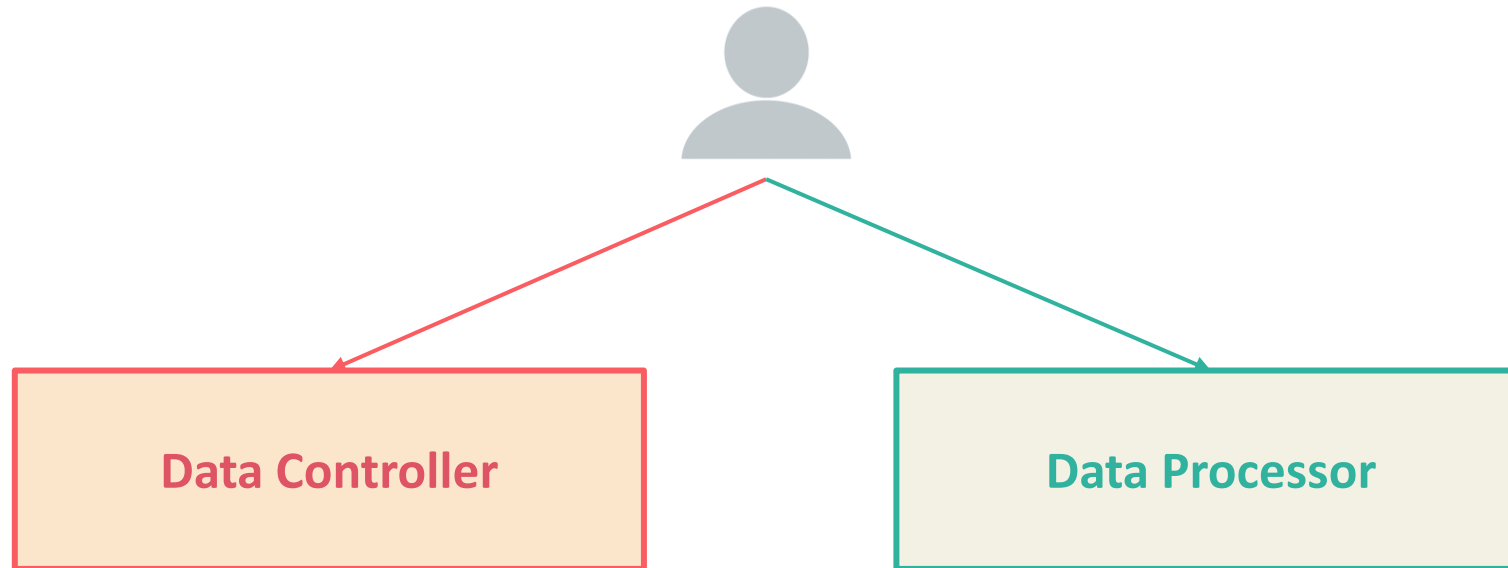
Roles

Data Controller

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

Roles

Data Processor

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.
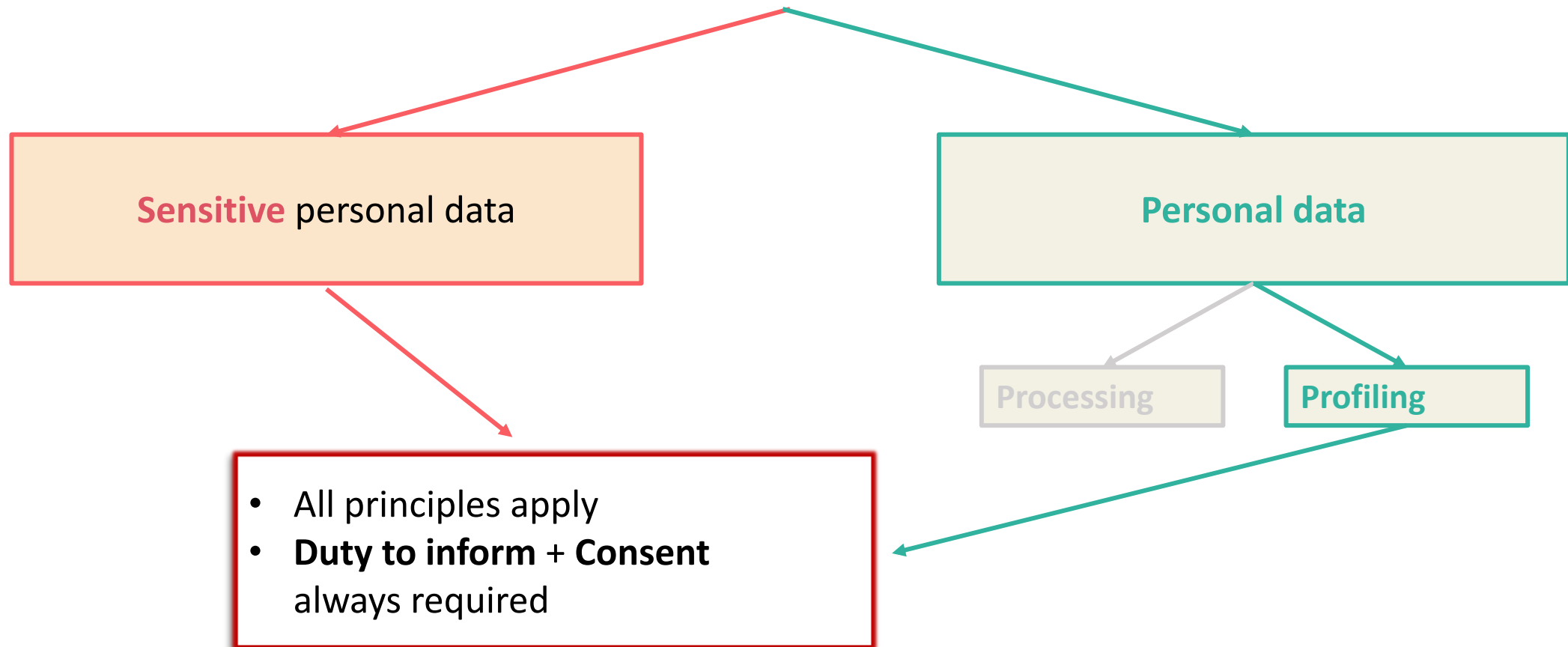
Principles

Personal data must be processed lawfully.

= Legitimate ground:
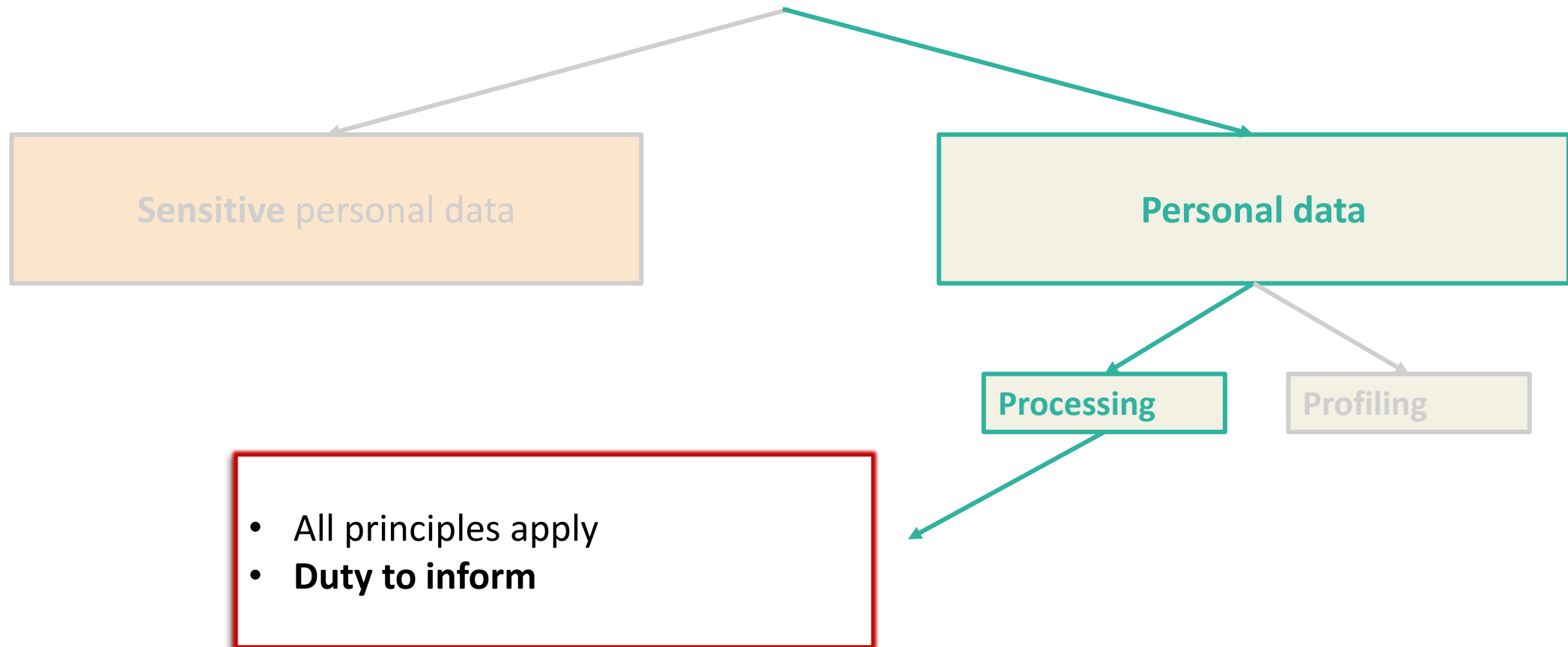
→ **Legal basis** (law)

→ **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

Sensitive personal data
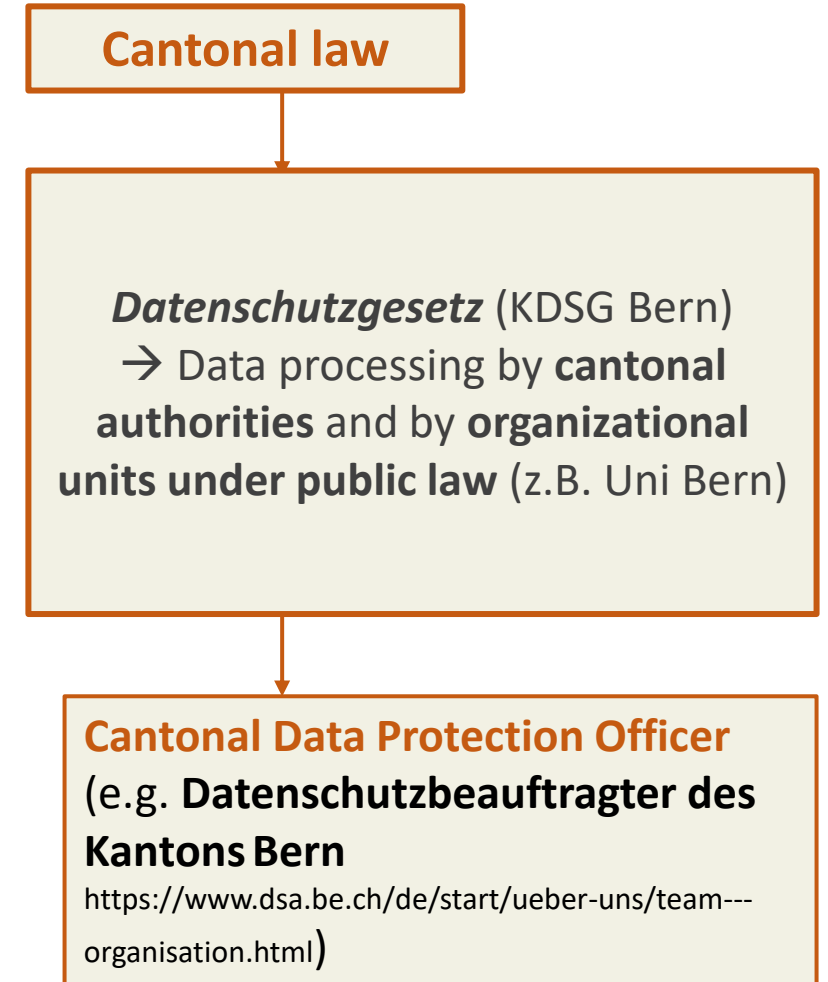
Personal data

Processing

Profiling

- All principles apply
- **Duty to inform** + **Consent**
  always required

Processing by private persons

Sensitive personal data

Personal data

Processing

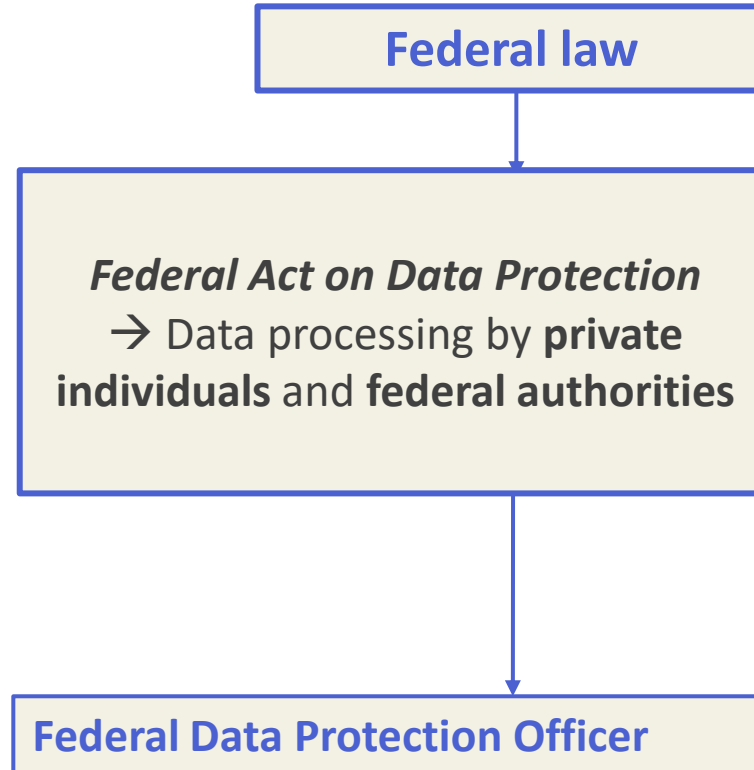Profiling

- All principles apply
- **Duty to inform**

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;

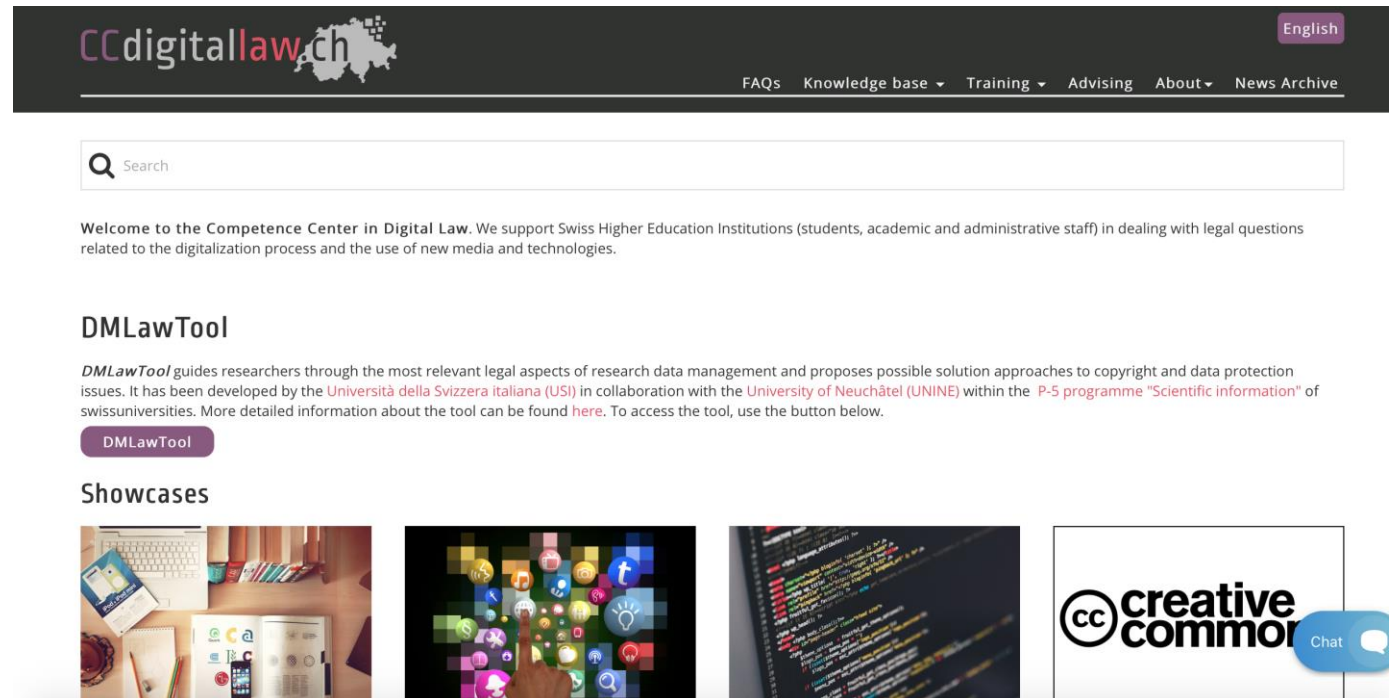- in the case of transfer abroad: the recipient country.

Competent authority

Who can I report a breach of my data to?

Federal law	Cantonal law
Federal Act on Data Protection → Data processing by **private individuals** and **federal authorities**	***Datenschutzgesetz*** (KDSG Bern) → Data processing by **cantonal authorities** and by **organizational units under public law** (z.B. Uni Bern)
Federal Data Protection Officer	**Cantonal Data Protection Officer** (e.g. **Datenschutzbeauftragter des Kantons Bern** https://www.dsa.be.ch/de/start/ueber-uns/team---organisation.html)

Thank you for your attention!

More information @ www.ccdigitallaw.ch

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