

MSE 2025

CM PRIVACY AND LAW

INTRODUCTION TO LAW 

Who is...

- ▶ responsible:

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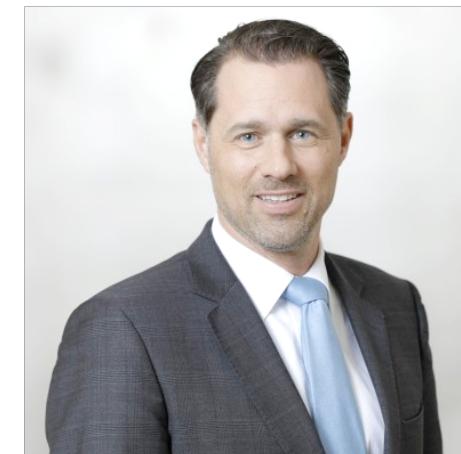
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Topics

- ▶ Introduction module
- ▶ Why law?
- ▶ Law under different perspectives
- ▶ Hierarchy of state, cantons & communes
- ▶ civil- & public law
- ▶ My Take Away...

Main Goals

- ▶ To enable you to recognise and classify legal issues in your work („watchdog“-function!)
- ▶ To enable you to formulate meaningful LLM-prompts and to evaluate them.

Focus of this MSE-module

- ▶ In the „engineering“- (tech) world many solutions contain IT. In many cases interactions with humans are essential and knowing the user and his habits are useful for the solution (& the business case). Thus it is elemental to know the regulations and limitations of such applications (e.g. data protection law).
- ▶ Thus we focus in many examples to „IT-law“ but not only! We try to give you a „legal map“ to navigate safely through a highly technicized/engineered world!

UNDERSTAND THE COMPLEXITY...



Why law*?

- ▶ Social framework/commitment (orientation saves energy).
All biological systems are **self-organizing**.
- ▶ „**Operation system**“ of a functional, predictable & fair society/economy. National & international!
- ▶ Control of power (democratic institutions & business)
- ▶ Legitimate public authorities and courts (democratic institutions)
- ▶ Preserve values (ethics)
- ▶ Social framework for integration
- ▶ Conflict management
- ▶ Clarifies duties
- ▶ Forces each to express his/her will carefully
- ▶ ...

* „law“ in that meaning also includes oral/written agreements!



Do big tech-companies set their own laws?

- ▶ Successful technology has a strong tendency to concentrate the economical power („the winner takes it all“)
- ▶ Examples of legislation to control this „power“:
GDPR/DSGVO (Personal Data Protection)
DMA (Digital Markets Act) to control the „Gatekeepers“
Unfair Competition rules and antitrust laws (fair business)
- ▶ Nevertheless: you have to keep an eye on your entrepreneurial freedom! Be careful when binding to a business-partner & technology!

Tech-law and politics...

- ▶ Wikipedia: **Politics**
- ▶ Do the politicians understand technology & its effects? We're in the 25th year of the 21th century... The development of the „**Postindustrial Society**“ has already been described by Alain Touraine 1969 and Daniel Bell 1973...
- ▶ (Tech-)Companies try to influence their marked-field positively. That's normal. But politics need to understand technology and its pro/cons.
- ▶ Is our political „SILO“-System still useful in a VUCA-world (**Volatility, Uncertainty, Complexity, Ambiguity**) to solve the problems? Do we need other political mechanisms? See **Audrey Tang (radical transparency)** who was until Mai 2024 Taiwans Digital Minister. What about Citizen Engagement Projects/Software (e.g. CitizenLab, PublicInput, Centralsquare etc.)?
- ▶ Are our public institutions „IT-fit“? Courts? Prosecution? Authorities?
- ▶ Example: Spielbankengesetz, BG über den Jugendschutz in den Bereichen Film und Videospiele, eID, revDSG, Strategie Digitale Schweiz (guidelines AI, 2020), Motion Dittli: Mehr Sicherheit bei den wichtigsten digitalen Daten der Schweiz, Motion Caroni/Schneeberger: Anpassung GeBüV for easier bookkeeping, Interpellation Stöckli: Booster for the Electronic Patient File (EPDG), Postulat Z'Graggen: Strategy Digital Sovereignty Switzerland and others ...
- ▶ Latest (12.02.2025): The Swiss Federal Council intends to ratify the [**Council of Europe AI-Convention**](#).

The importance of law in a technical world

- ▶ Law as framework/guideline of the allowed (= maximum) or the obligatory requirement (= minimum) of a system. In other words: **law/contracts** is a „restriction“ in the development of a technical solution! **Therefore part of the MVP - Minimum Viable Product!** (e.g. by not violating patent law or respecting the public building law or personal data protection law).
- ▶ Industry standards (e.g. ISO 12405-4:2018-07: Electrically propelled road vehicles, Test specification for LiPo-traction battery packs & systems) and „best practices“ complete the law, but such standards **never solve vital legal questions** (e.g. acceptance process, payment, liability, legal enforcement, which jurisdiction, burden of proof etc.)!
- ▶ Contracts (law) define **mostly** the **WHO & HOW** (process), the industry standards the **WHAT**.
- ▶ **Conclusion: In organisations tech-law related knowledge (tech-lawyers?) have to be close to the development (bottom), no more close to the CEO (top)! But in reality... YOU HAVE TO CLOSE THE GAP!**

Law as part of the Risk Management

- ▶ To handle risks it's reasonable to take technical („security by design“), organisational (compliance) & LEGAL measures (= instrument to enforce the success of a project).
- ▶ In technical projects legal check-up/support is necessary as early as possible! And then constantly! Otherwise your project is on risks!

Example (here: companywide collaborative riskmap)

Screenshot of a companywide collaborative risk map from Meistertask.com.

The risk map is organized into categories:

- Infrastruktur (4 risks):**
 - Ausreichend Raum (watch)
 - Physische Sicherheit (watch)
 - Zutritts-System (Schlüssel)
 - Produktion (+)
- Mitarbeitende (6 risks):**
 - Neue Führungskultur (KRITISCH!)
 - Fluktuation (design)
 - Qualifizierte Mitarbeiter (watch)
 - Flexible Arbeitszeiten/Home-Office
 - Employer-Branding
 - Moderne Arbeitsplätze (+)
- IT (4 risks):**
 - Sicherheit/Verfügbarkeit Cloud & SaaS (watch)
 - Schatten-IT (design)
 - Ausfall IT-Leiter (watch)
 - collaborative tools nutzen (watch)
- Finanzen (3 risks):**
 - Liquidität (watch)
 - Ausreichend Cash-Flow für Neuentwicklungen
 - AK-Erhöhung (+)
- Innovations-Pipeline (3 risks):**
 - Marktbeobachtung
 - Neue Produkte in 2 Jahren?
 - Neue Geschäftsmodelle in 4-5 Jahren? (+)
- Legal/Compliance (4 risks):**
 - DSGVO/GDPR (KRITISCH!)
 - Gesetzesänderungen frühzeitig erfassen (watch)
 - Arbeitszeit erfassung
 - best practices / ISO-Standards (+)
- Markt/Produkte/... (3 risks):**
 - Aktuelle technologische Entwicklungen nicht verpassen (KRITISCH!)
 - Innovationskraft erhalten
 - Online-Marketing volatil (+)
- Div. Stakeholders**

At the bottom right, there is a checkmark icon and the text "Keine Aufgaben" (No tasks) and "Drücken Sie + um eine neue Aufgabe zu erstellen" (Press + to create a new task).

Why privacy & personal data protection?

- ▶ Western cultural phenomena: If we understand persons/citizen as individuals with genuine rights of freedom - we have to protect them! In the hierarchy of a democracy we want to have the citizens „above” the government.
BUT: China has 2022 also established a (personal) data protection law - oriented on the GDPR! But with important exceptions for the government...
BUT: Strong signs that Elon Musk handed over many sensible Personal Data to his buddies from Palantir...
- ▶ Privacy and the „right to forget” is essential to develop personally and without constant social control!
- ▶ One of the main tasks of a (western) state is to protect his citizens. But how can the authorities protect their citizen from misusing personal data by private data-monopolists? (my prediction 2017 was: the pendulum will swing back!... And now- 2025 - did it?)
- ▶ Despite we „spread” largely our private data we are very sensible when they are misused. For companies and technologies: large risks of „scandalisation” and loosing reputation.
- ▶ Personal Data has a financial worth (we pay „free services” with our personal data). Who is entitled to use (t)his data? Our data is „sold” once but economically used several times! (prediction: that will change - sooner or later...).

Some (very) basics about law... CORRECT LEGAL ARGUMENTATION

$$X = f_{(\text{Art. XXX}) + (\text{evidence YYY})}$$

- ▶ a statement/claim („x“) has to be justified by
legal articles/arguments + the essential evidence

or

- ▶ based on **legal articles/arguments** + with the essential evidence you get to a conclusion.

Free hint...



When it becomes complicated...

PRODUCE PAPER!

Some basics about law... LAW UNDER DIFFERENT PERSPECTIVES

It's not just academic!

Different law has to be treated different!

(public law vs. private law)

Thus in the law we classify upon:

- ▶ **status** (constitution, act, regulations/by-law)
- ▶ **issuer** (federal-, cantonal- & communal law)
- ▶ **involved person** (civil law or public law)
- ▶ **source of law** (written law, common law, judicial tradition)

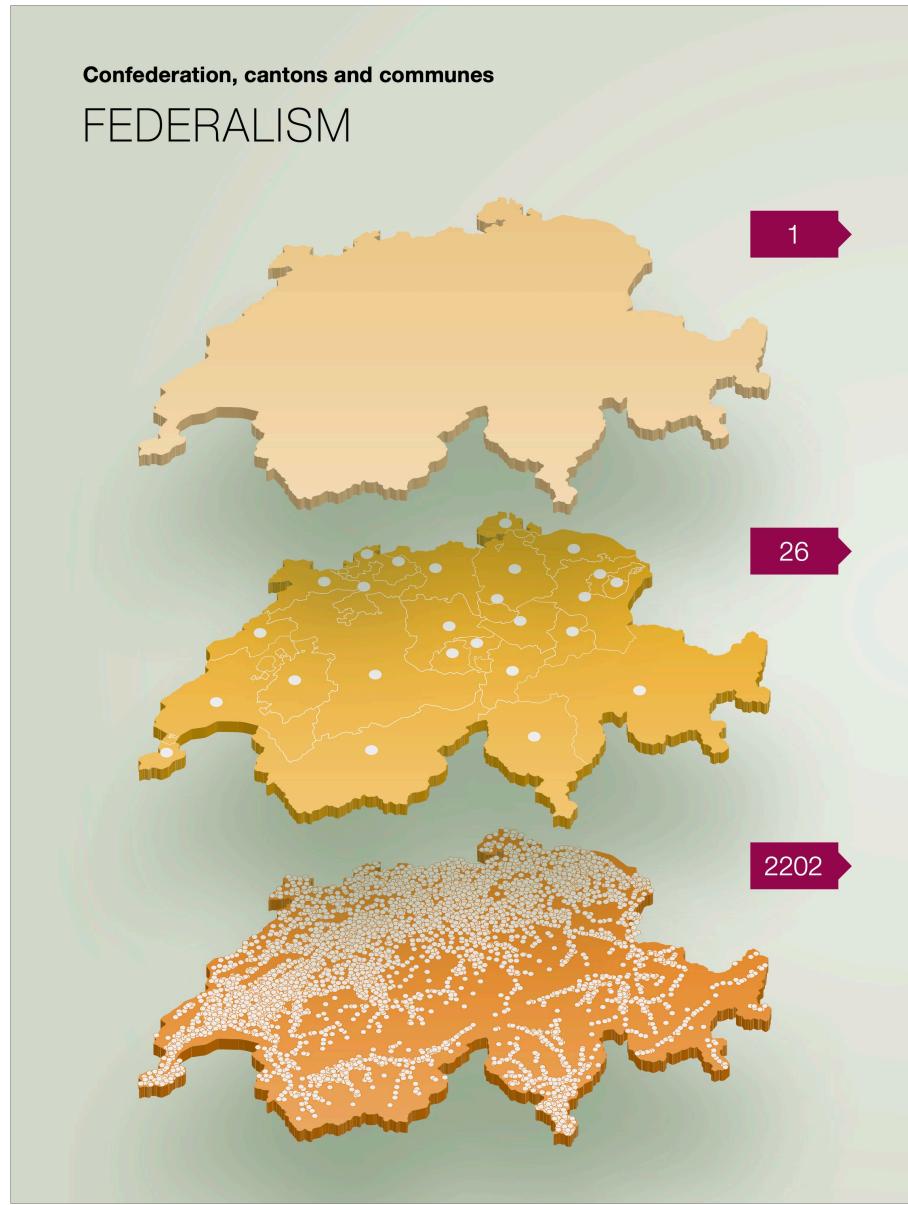
Some (very) basics about law... SEPARATION OF POWERS

at the federal, cantonal & communal levels, there are 3 state authorities:

- the LEGISLATIVE (people, parliament)
- the **EXECUTIVE** (BR, RR, authorities)
- the JUDICIARY (courts)

(limited) check and balance the power of each authority. **In reality the executive has large discretion** as long as nobody appeal against an order.

In the field of „private law“ (contracts) try to stay away as long as possible from the public law! (i.e. courts and executive authorities). Why? Go back two lines... Find consensual solutions with the other party! On the other hand - many members of the administrative are innovative and try to use their large discretion to implement new solutions! It's people business!



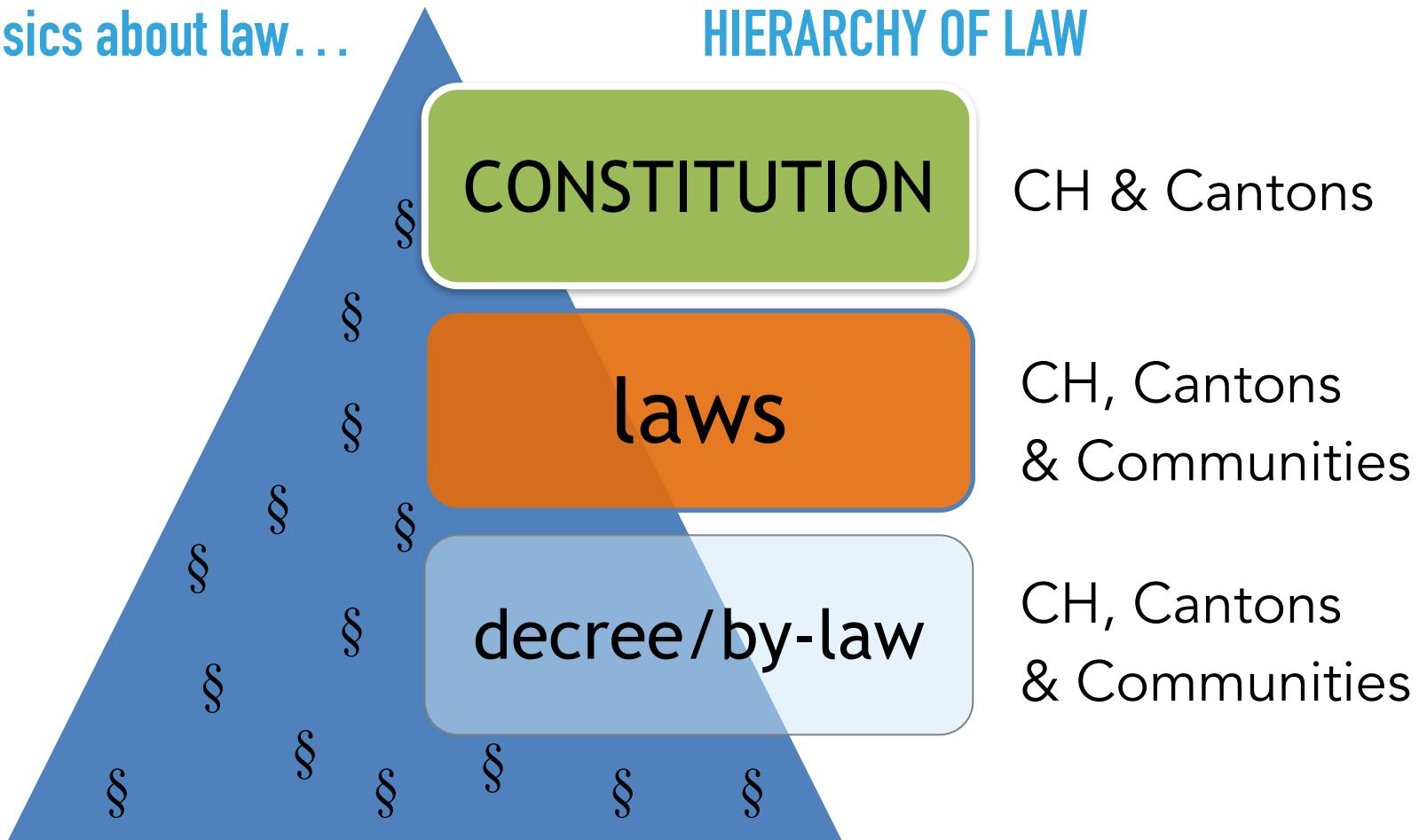
- One country
- 26 cantons
- 2202 communities
- 8.8 million experts 😊 (swiss citizen)



Some basics about law... SWISS CONFEDERATION / CANTONS / COMMUNES

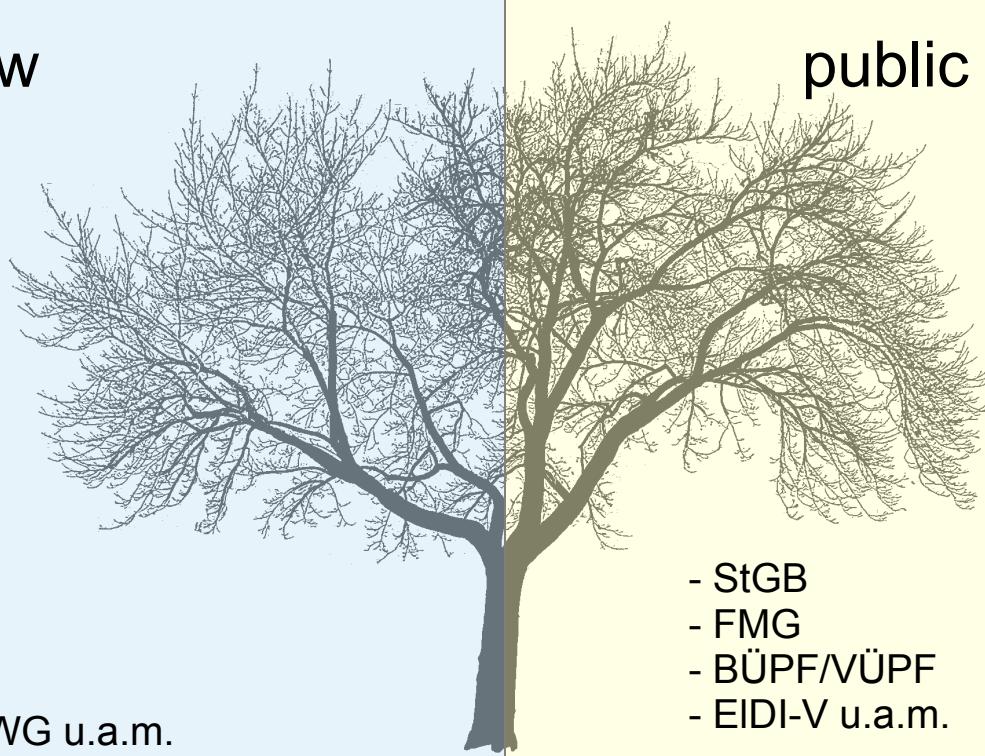
- ▶ „Das Schweizervolk und die Kantone... bilden die Schweizerische Eidgenossenschaft“ (Art. 1 BV) - **not vice-versa!**
- ▶ „Der Kanton arbeitet mit den Gemeinden, den anderen Kantonen, dem Bund und, in seinem Zuständigkeitsbereich, mit dem Ausland zusammen.“ (§ 4 Kantonsverfassung ZH). Cantons are in their power of legislation mostly superior to the Swiss Confederation!
- ▶ **Every public authority is only entitled to legislate and to act in a territory/legal field if it has an explicit constitutional legitimation! (= control of power)**

Some basics about law...



CIVIL- & PUBLIC LAW I

civil law



CIVIL- & PUBLIC LAW II

- ▶ **Civil Law** is (in general) mastered by the principle of freedom of coalition & freedom of contract.
- ▶ **Public Law** is mastered by the principle of legality (control of power).
- ▶ **This results into completely different jurisdiction (civil-/ criminal- or administrative court) with each different procedures & rights!**

ESSENTIALS CIVIL PROCEDURE PROCEEDINGS

- ▶ Before the **locally/substantially competent court**
- ▶ In civil proceedings, an **advance on court costs**, which depends on the amount in dispute, **must regularly be paid!**
- ▶ In civil proceedings, the plaintiff **must prove the alleged claim** - the court normally does not seek evidences! If don't have the evidences, you'll lose the case!
- ▶ **Whoever loses the civil case must pay the court costs as well as the party costs of the other side!**
- ▶ **Always consider: who wins the claim process, has not the money yet...**

Essentials in administrative procedures

- ▶ Orders must be issued by the correct authority in the correct procedure and with naming how to appeal against them. Otherwise the order is **VOID!**
- ▶ In principle, reconsideration/appeal against the order is always possible, if new facts emerge!
- ▶ Appeals against rulings can usually be lodged within 10/20/30 days.
- ▶ Administrative Courts do explore the case and „search” for evidences. But the parties are obliged to support the court.
- ▶ Court fees as in the civil procedure!
- ▶ Depending on the legal basis, the cantonal or federal supreme court is the highest instance. The Federal Supreme Court always has jurisdiction over violations of constitutional rights.

And finally: Switzerland isn't an island!

- ▶ We're part of a longtime (800+ years) European legal tradition. Therefore our Swiss law is influenced by **romain, french** and **german** traditions. We share the most legal principles!
- ▶ We have a long history in commercial relationship with other countries. (bi-/multinational contracts). Our courts are used to handle international cases/law.
- ▶ In many cases we „completely voluntary“ take over EU-law... In other cases not (protectionism).
- ▶ The **IPRG** (Gesetz über das internationale Privatrecht) is our general „gateway“ between swiss & foreign law. The IPRG rules, which law (swiss or foreign) is applicable and which (swiss or foreign) court is competent.
- ▶ Business partners can (in most cases) decide under which jurisdiction they want to handle their disputes and which court will be competent.

MY TAKE AWAY??



- ▶
- ▶
- ▶
- ▶
- ▶

TUTORIALS

- ▶ Please use the following cases to come into „legal thinking“. Try to answer the questions.

CASE 1

- ▶ As engineer you're responsible for the evaluation of a new heating system for your industrial plant.

Any legal requirements?



CASE 2

You developed an injection moulding machine that produces „tailor-made” plastic eye lenses. The process needs a sub-millimetre handling. To achieve that you use an optical camera. The producer of the camera developed for that specific machine an optical recognition software.

- ▶ Which main legal problems can you recognise?
Discussion.

CASE 3

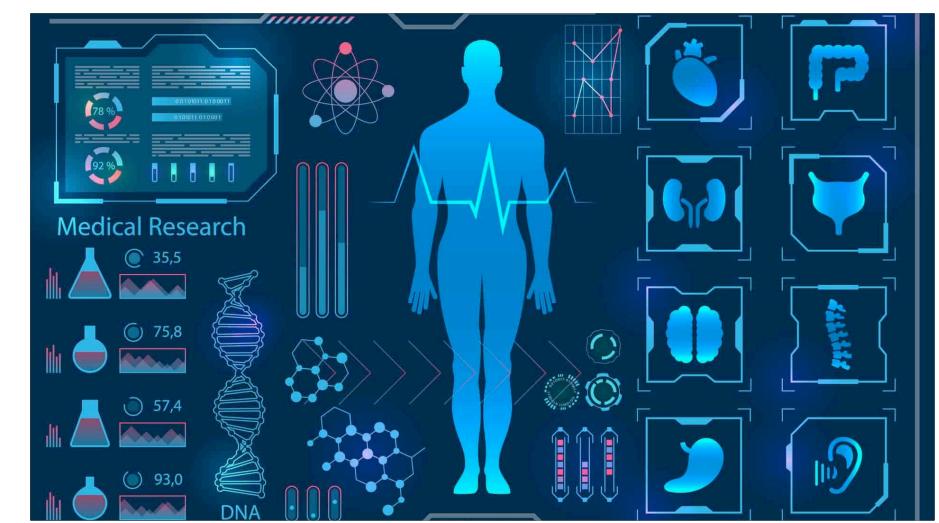
Google Maps shows the actual traffic situation. You plan to use this information to categorise areas that are noisier and therefore real estates have a low worth. You integrate this information into your platform and sell it online.

- ▶ Any legal questions?



CASE 4

- ▶ In your development and testing of a medical device you collect a lot of sensitive medical data. Accidentally you find out that your colleague uses this data to train his AI-algorithm.
- ▶ What do you think?



CASE 5

- ▶ You developed during your studies a system to analyse environmental sounds. The system is capable to recognise different sounds (car, voice, steps, machine noise etc.) and to estimate from which directions the sounds are coming. You want to patent your system and establish a business privately.
- ▶ Is that possible?

