

Legal aspects of additive manufacturing



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Agenda

I. IP law

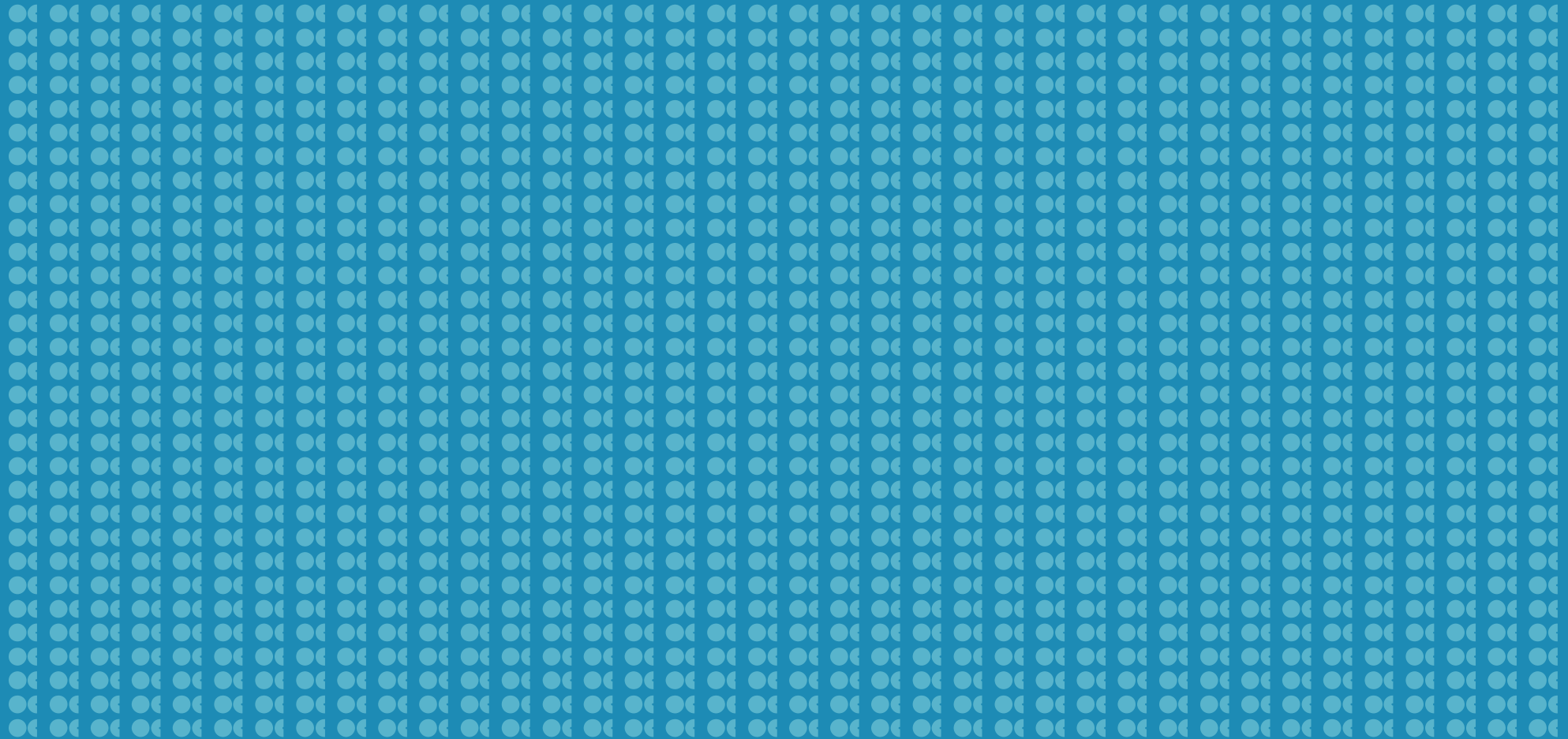
- Recommendations for avoiding IP infringements
- Possibilities of communication/reaction in case of legal action by third-parties
- Legal consequences

II. Product liability and warranty

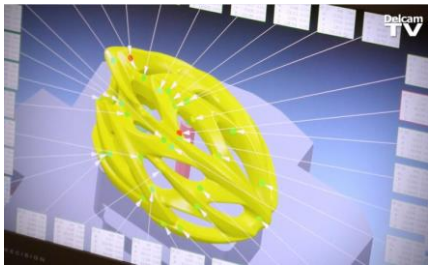
- Product and manufacturer concept
- Recommendations for the limitation of liability risks

III. Discussion / Questions

I. IP law: Avoiding patent infringements, reaction in case of legal action by third-parties, legal consequences



Protection of 3D-printing technology



- CAD-Data
- Material used
- Printer / Printing process
- Printed product
 - Product claim
 - Product by process claim
 - Process claim

CAD-Data

Protection is possible under

- Copyright law (as technical drawing; if necessary, even as software)
- Trademark law
- Design law
- Patent law* (CAD-Data = "means" pursuant to § 10 Patent Act)
- Trade secret



* For Utility models *mutatis mutandis*

Material used

Protection possible under

- Patent law
 - Product patent
 - Use claims



Printer / Printing process

Protection possible under

- Patent law
 - Device (appropriate printer)
 - Process (3D-printing process, e.g. laser sintering)



Protection of printed products

Products can enjoy protection under

- Copyright law (works)
- Trademark law (3D-trademark)
- Design law (design)
- Patent law (technical function or as direct products of the process)



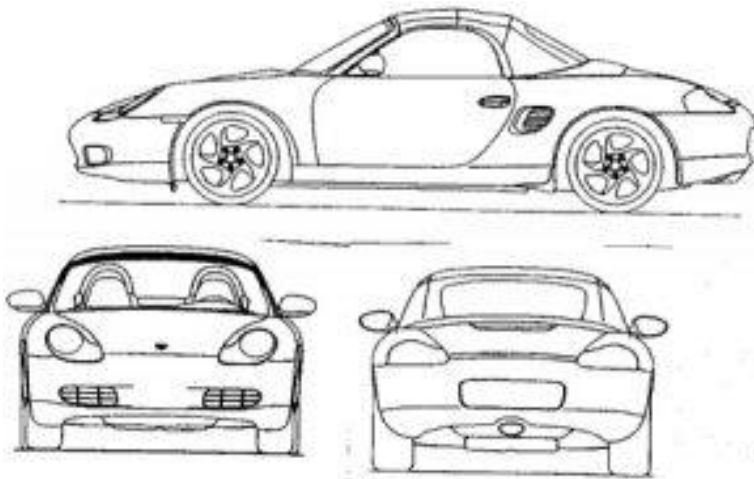
What does copyright law protect?



Calatrava bridge Bilbao

- Work as a personal intellectual creation
- Always required: concrete embodiment
- Always required: level of creativity
- Not required: registration or similar
- Through the 3D-scanner, CAD-data can be automatically created as a copyrighted work → it is not precluded that the print copies of the copyrighted works are created by non-authorised persons

Practical Example – 3D-trademark registration

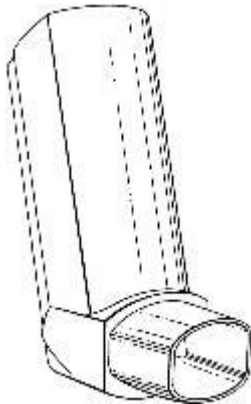


Federal Court (*BGH*) GRUR 2006, 679:

- The market only recognizes an indication of origin (i.e. a trademark) in a product form (here a car body) if it does not generally attribute the design to the effort to create an aesthetically appealing product. The latter, however, is the general case.
- There is also a risk of substantial restriction on freedom of design if the design would be registered as a trademark without further requirements. Everyone could then effortlessly create a large number of similar designs for the purpose of trademark application.

▶ Trademarks are only (!) registered due to its prominence.

Examples of registered designs

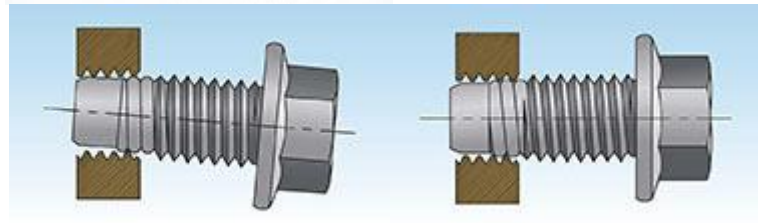


Everyday objects can also enjoy protection under design law – it does not have to be highly-priced design pieces!

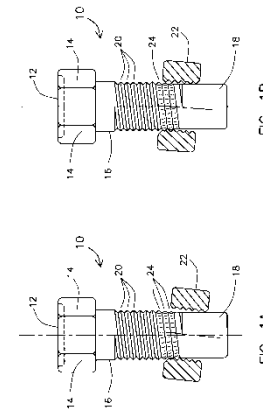


Protection of printed products

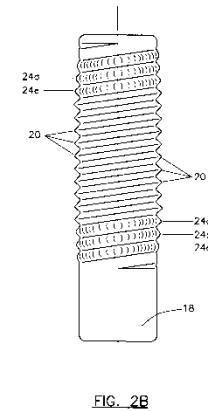
Screws with Mathread tip, Patent US5836731 A (advantage: no tilting)



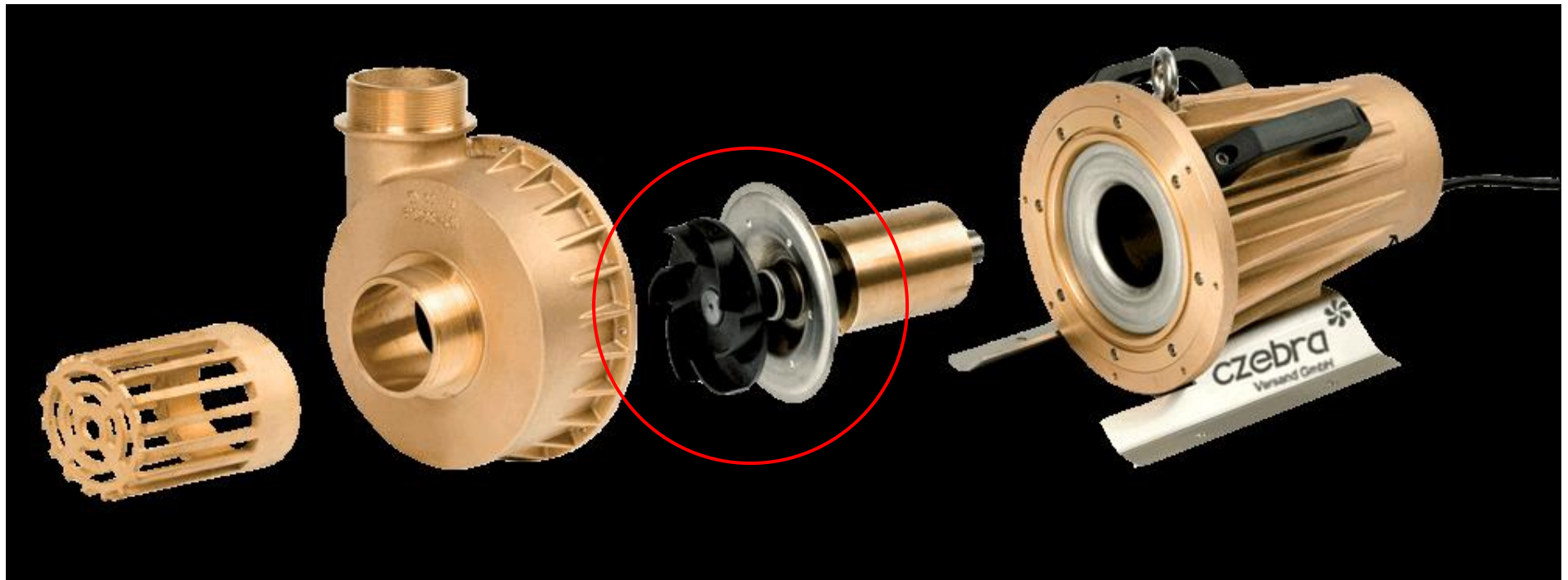
U.S. Patent Nov. 17, 1998 Sheet 1 of 7 5,836,731



U.S. Patent Nov. 17, 1998 Sheet 4 of 7 5,836,731



Protection of printed products – Individual components can also be protected (§ 10 PatG)



Protection of printed products

Caution: privileged status of the private user (e.g. § 11 Nr.1 PatG) is not in effect → manufacturer = commercial manufacturer

Manufacture of the product by third-parties (also "extended workbench") is equivalent to the manufacture - Vgl. *BGH*, GRUR 1990, 997 – Ethofumesate; *OLG Düsseldorf*, InstGE 7, 258 – Loom-furniture.



Legal consequences

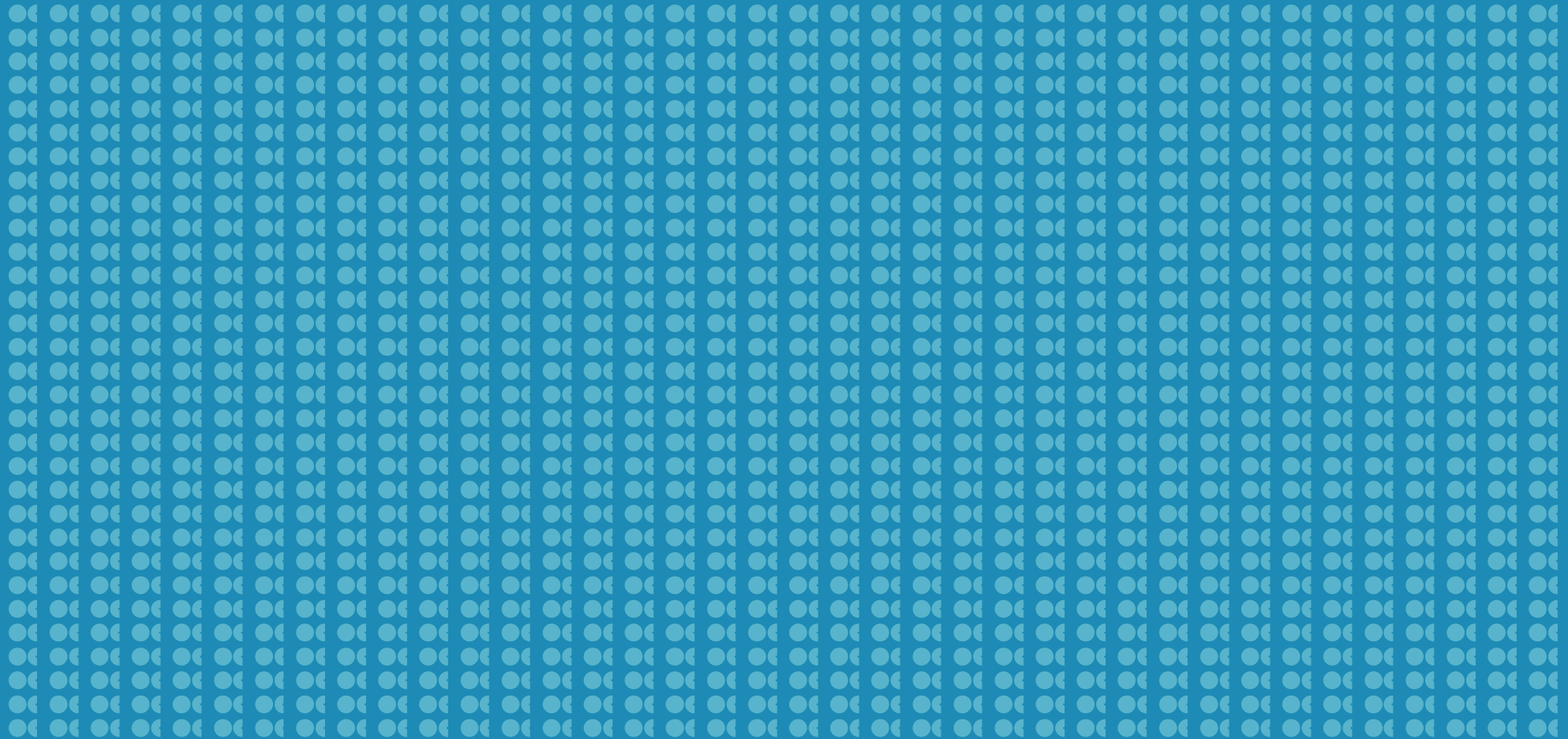
- Legal consequences of infringing third-party rights
 - Possible claims
 - **Injunction, damage claim, disclosure, recall and destruction**
 - Enforcement
 - Authorisation enquiry
 - Warning
 - Legal action
 - Reaction
 - Conduct towards the customer and/or supplier
-

Know-How Protection

- CAD-Data of the customer = trade secret?
- Technical protection measures
- Legal consequences of a violation
- Problem: Scope of NDAs / sharing CAD with other suppliers



II. Product liability and warranty



Product liability – Product Liability Act (*ProdHaftG*)

- Product (§ 2 ProdHaftG)
- Manufacturer (§ 4 ProdHaftG)
- Defect (§ 3 ProdHaftG)
- Rights infringement (§ 1 sec. 1 ProdHaftG)
- Scope of liability: physical and property damage (private use)

- **No-fault liability**

➡ high liability risk!

Product liability – manufacturer liability

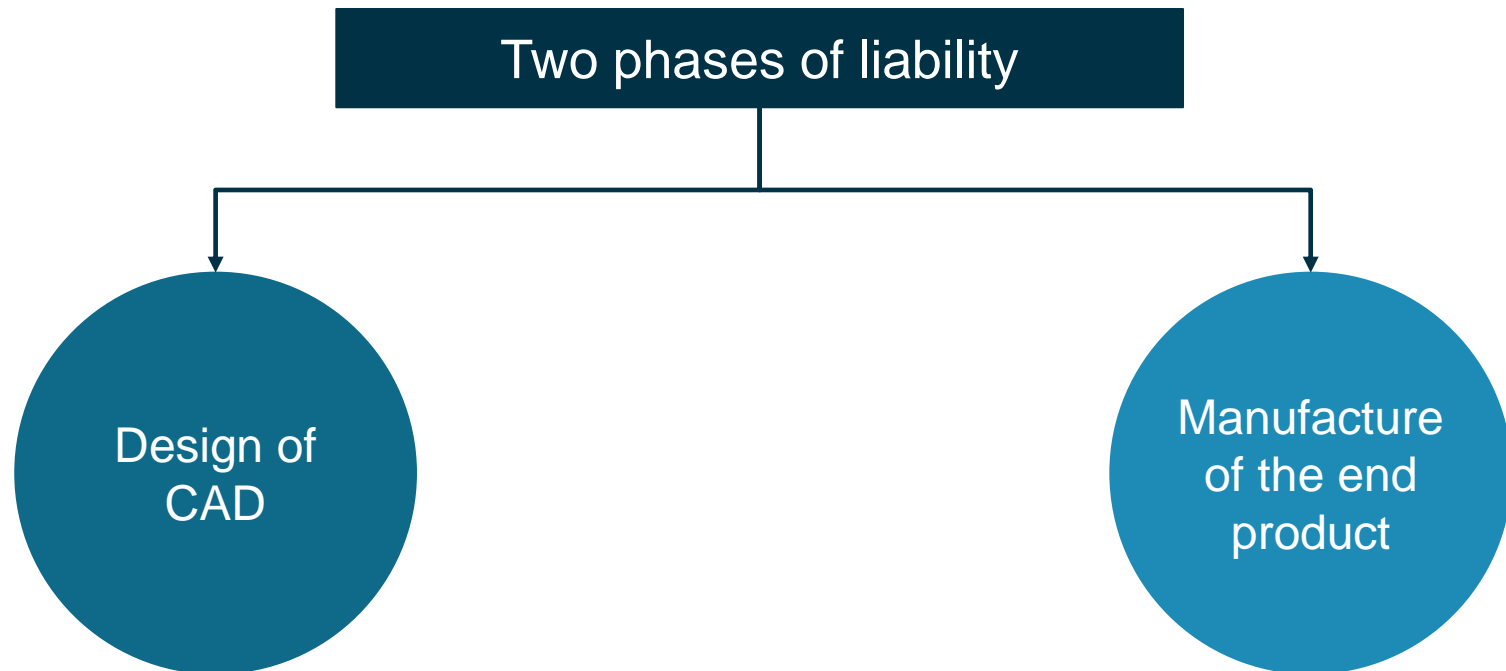
§ 823 Civil Code (*BGB*)

Significantly different from liability under the Product Liability Act

Requirement of representation

- Product monitoring obligation
- No limitation on liability
- Also B2B liability

Product liability

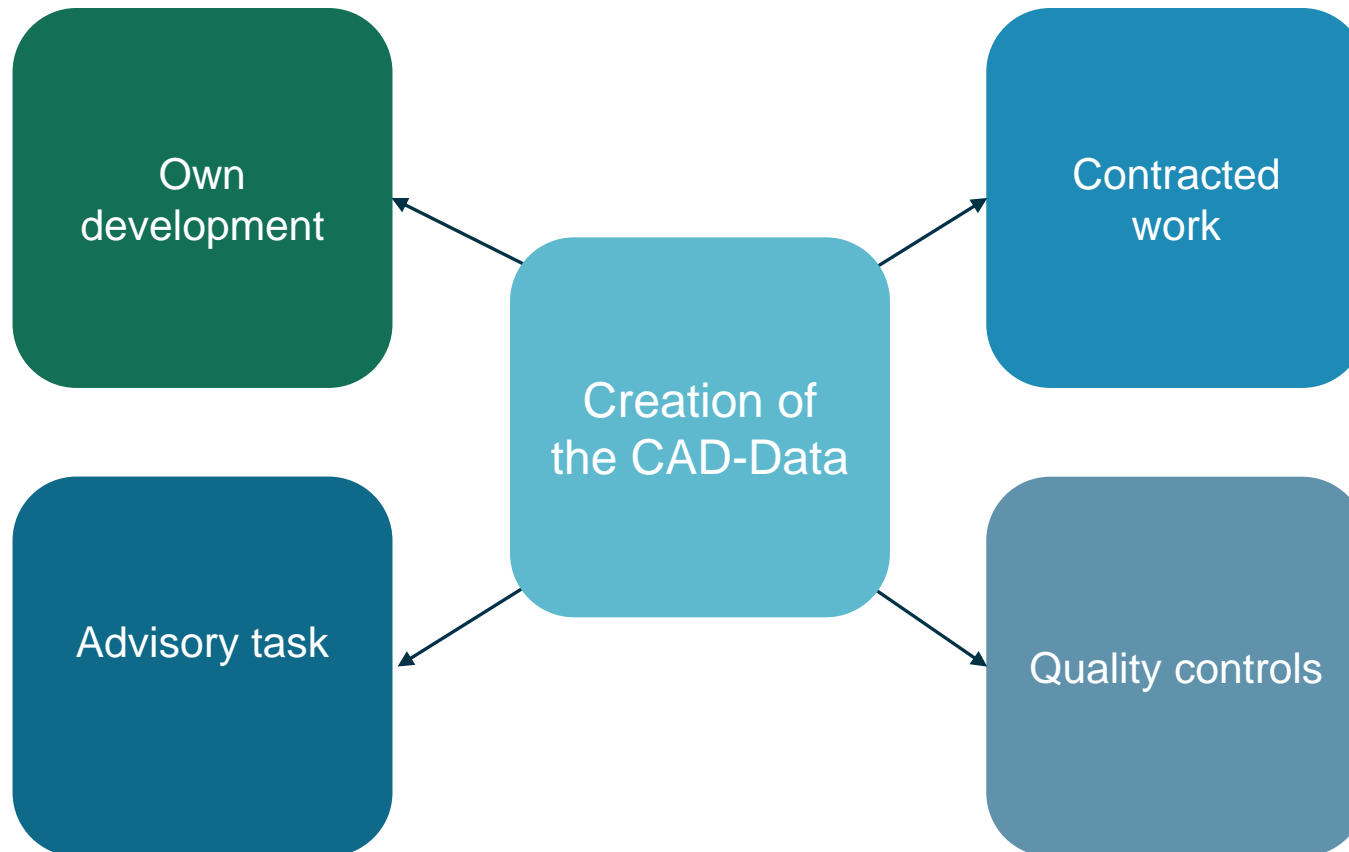


Multiple liability:

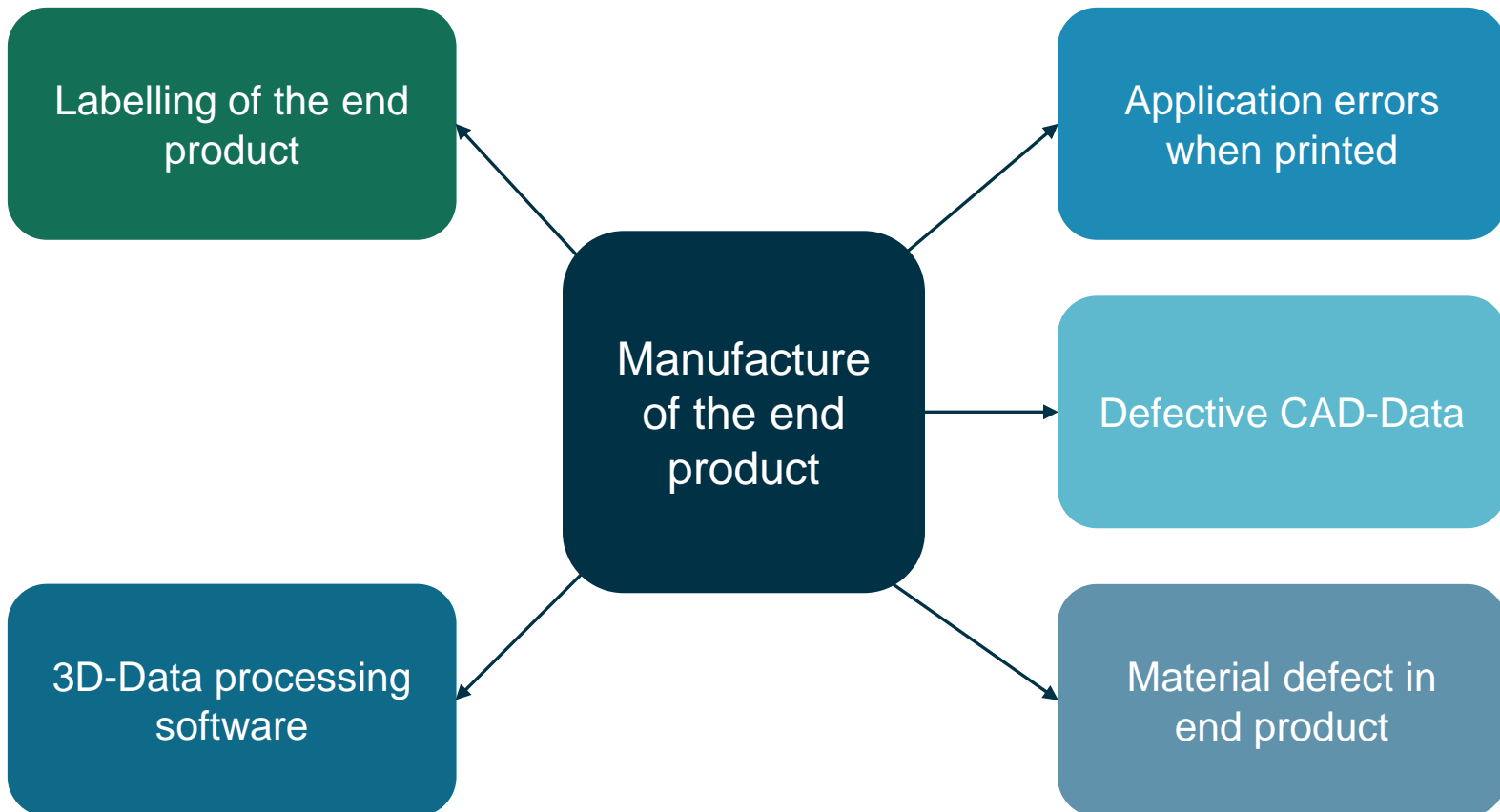
External relationship - total liability

Internal relationship - quality assurance agreement?

Possible liability risks – Creation of the CAD-Data



Possible liability risks – **Manufacture of the end product**



Warranty

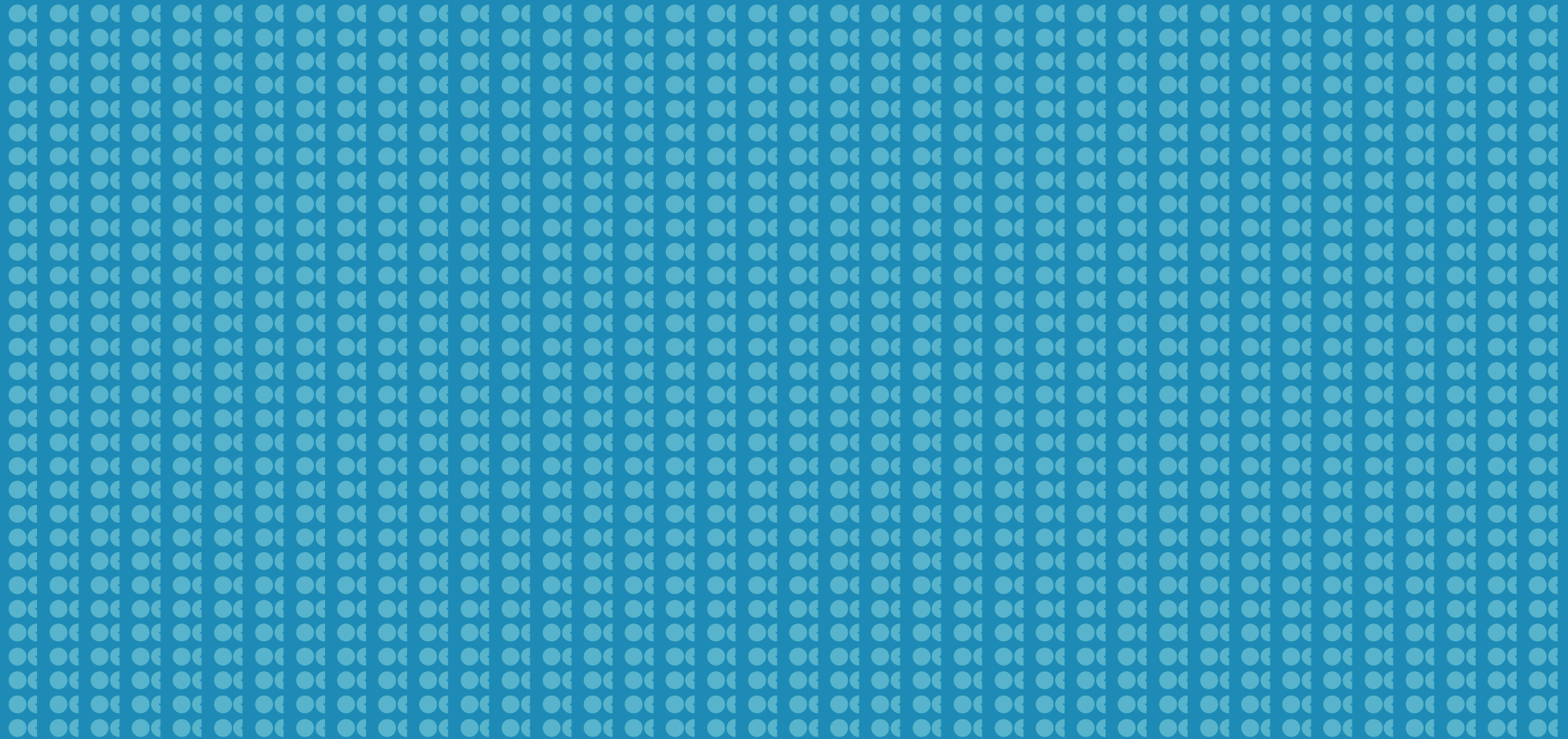
Legal basis: § 631 BGB



- Contractual waiver / Indemnification agreement



III. Discussion / Questions



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