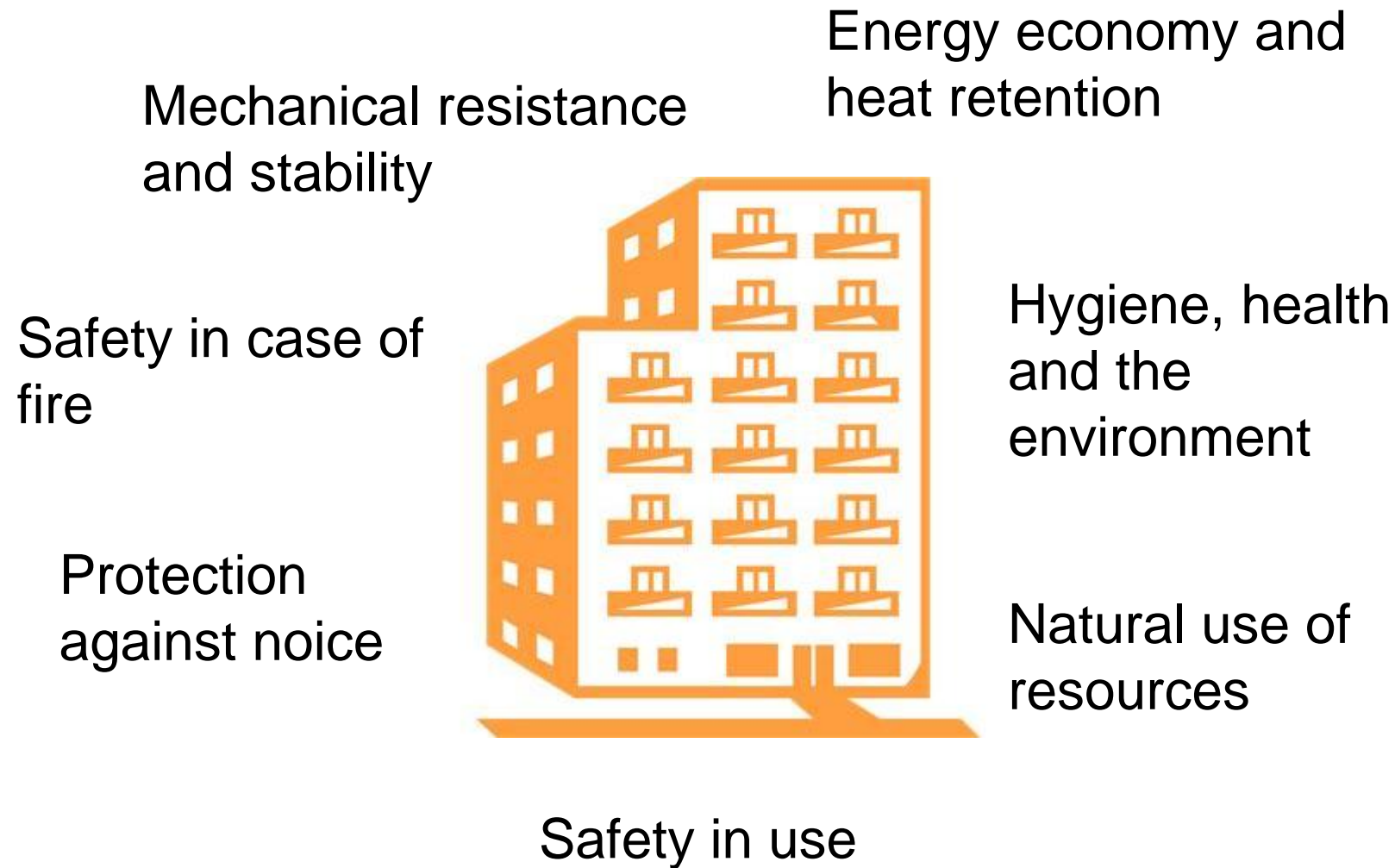


Certification et utilisation des produits de construction innovants en Allemagne et Europe

Dr.-Ing Doris Kirchner

Requirements concerning buildings



Legal bases

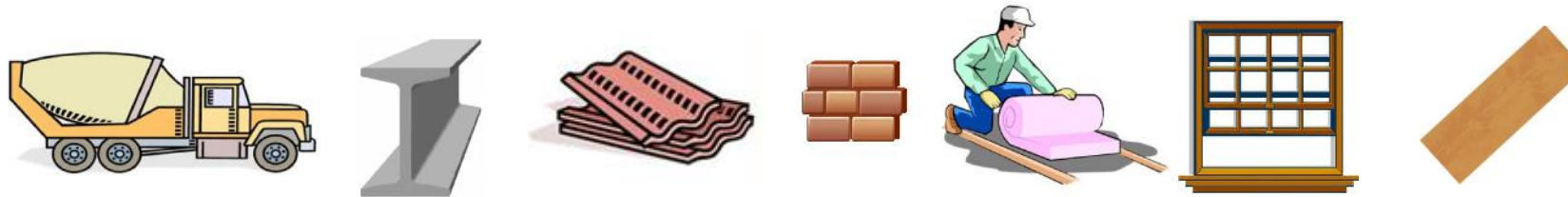
Legal base in Germany: Model building regulation:

§ 3 (1): Construction works shall be arranged, erected, modified and maintained such that public safety and order, in particular life, health and natural resources are not endangered.

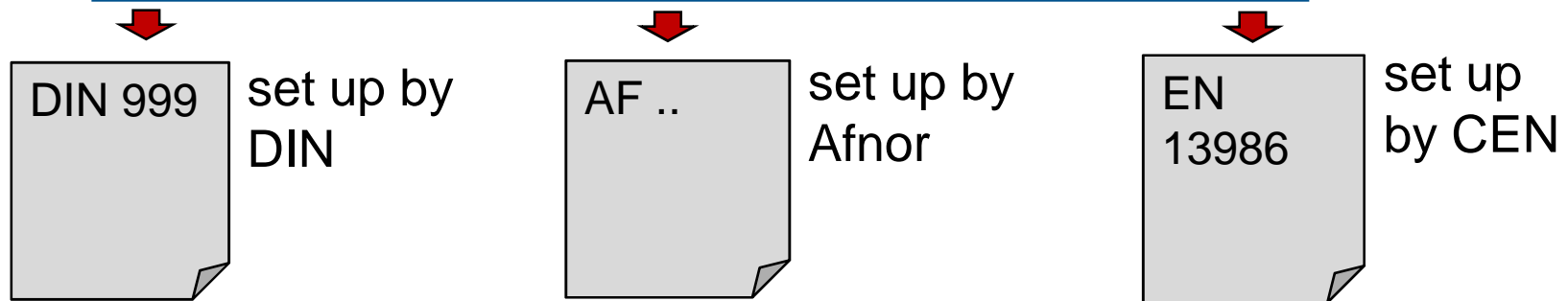
Legal base in Europe: Construction products regulation (CPR), follower of the Construction Product Directive (CPD):

Article 1: This Regulation lays down conditions for the placing or making available on the market of construction products by establishing harmonised rules on how to express the performance of construction products in relation to their essential characteristics and on the use of CE marking on those products.

Standardised construction products



Construction products are regulated.
They have to comply with a standard if exists.



Compliance has to be identified and confirmed by the producer or a third party body (testing body, inspection body, certification body)



Innovative construction products

What happens with innovative products which are not covered by a standard ???

Innovation is the subject of approvals and/or assessments. We distinguish between national and European approval / nowadays: assessments)

In Europe:

50 approval bodies, the so called Technical assessment bodies (TAB)

organized in the



In Germany:



How to get an approval?



Manufacturer has an idea for a new product

He applies for an approval and provides data

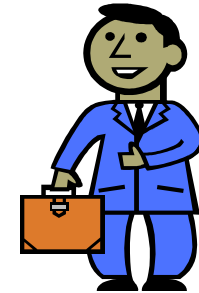
Approval body (AB) accepts the application and confirms it

AB sets up the testing program with regard to the use of the product

Manufacturer commissions a lab with testing his product and sends the results to AB

AB assesses the results

AB grants the technical approval



If necessary
consultation
of an expert
committee

If necessary
consultation
of an expert
committee

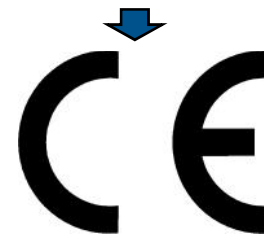
Innovative construction products

Construction products are regulated.
They have to comply with a approval or assessment if no standard exists.

National approval

European technical assessments (ETA)

Compliance has to be identified and confirmed by the producer or a third party body (testing body, inspection body, certification body)



Innovative construction products

Due to the increasing demand concerning the energy saving there are a lot of innovations in manufacturing bricks

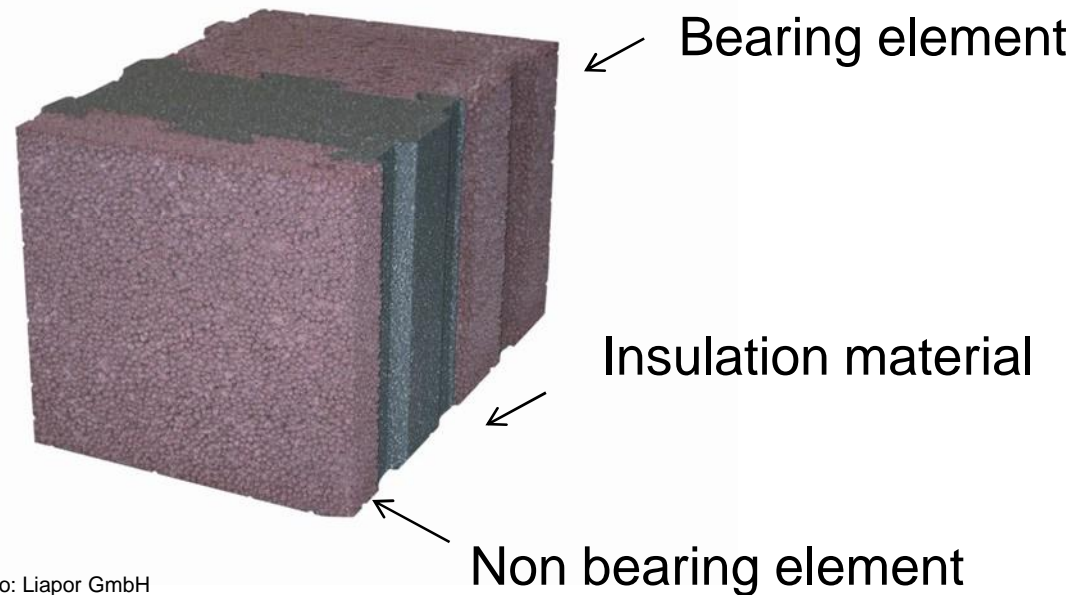


Foto: Liapor GmbH

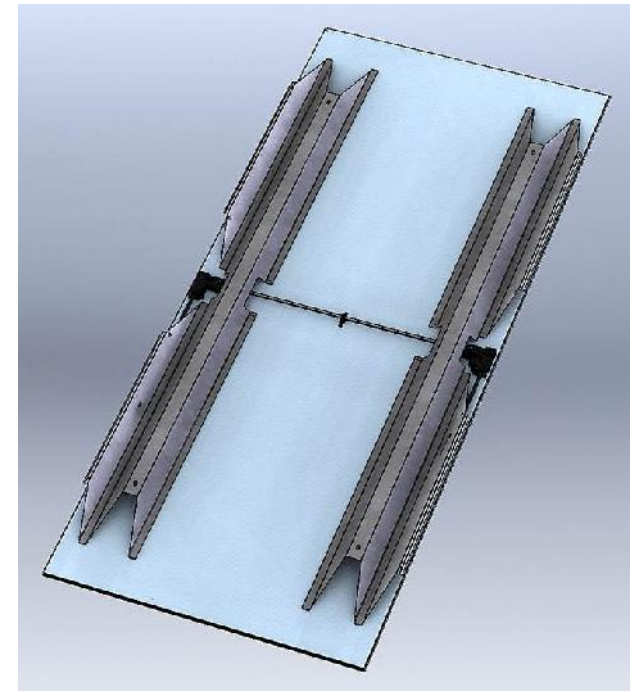
aerated [oder cellular] concrete / **lightweight concrete**

Innovative construction products

Glas constructions



Glass construction with integrative PV moduls



Backside of a thin film solar modules with adhered "Backrails"

Foto: AVANCIS

Innovative construction products

Bearing plastics: Glass fiberreinforced plastics



uses as pavings for footbridges or bridges for bikers



Fotos: Hacon Constructions GmbH

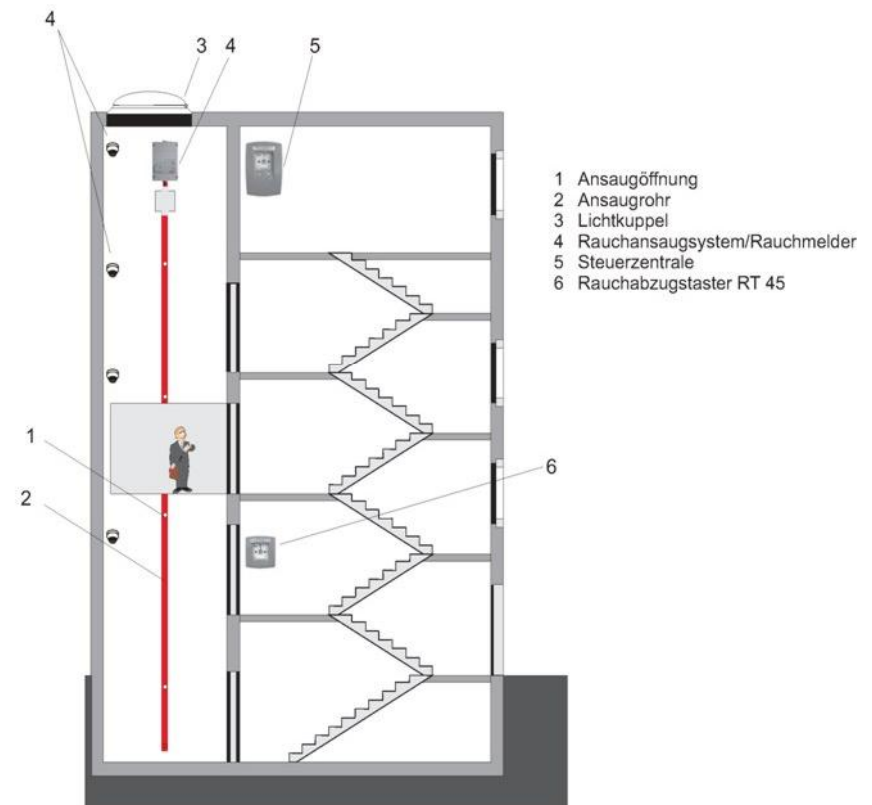
Innovative construction products

Fire protection: Lift smoke control systems.



Foto: Schüco International KG

Lockable smoke outlets support the energy saving.



Quelle: D+H Mechatronic, Z-78.12-210

Innovative construction products



Green roof systems

Typical construction of a green roof kit

- Vegetation layer
- Filter bed
- Drainage element
- Protective underlay



Fotos: ZinCo GmbH

Innovative testing and evaluation methods

Approvals containing an evaluation of health impacts



Source: Becker Sport- u. Freizeitanlagen GmbH



Source: Frank Kuebart, UL-eco, Köln

Many products used interiors are tested with regard to the emission of volatile substances into the indoor air.

If the concentration of volatile organic compounds in a test chamber is lower than a permitted limit value, DIBt grants the approval.

Sustainable buildings need sustainable products

Legal base: Basic requirement No 7 of the CPD

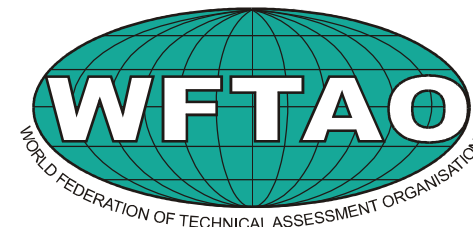
Reality: Private organisations and some TABs are engaged in issuing EPDs (Environmental product declarations)



Foto: Umweltbundesamt

Conclusion

- Innovative products have to conform to a national technical approval or a European Technical Assessment (ETA).
- For some years environmental and energy saving aspects have become more and more the driver for innovation.
- The Ü mark allows the use of the product in a building.
- The CE mark allows the free movement in the EEA but also declares the performance of the product.
- Finally, there is a world organisation for technical approval bodies. Tunisia is cordially invited to take part in this organisation.



Thank you very much
for your attention!



Dr.-Ing. Doris Kirchner
Head of Section Corporate Communications,
International Relations

DIBt Deutsches Institut für Bautechnik

Kolonnenstraße 30 B

D-10829 Berlin

Tel.: +49 30 78730-423

Fax: +49 30 78730-11423

E-Mail: dki@dibt.de

www.dibt.de