

World Sustainable Built Environment Conference 2017 Hong Kong
Transforming Our Built Environment through Innovation and Integration:
Putting Ideas into Action
5-7 June 2017

Sustainability Assessment of Buildings as Part of Green Public Procurement - an Introduction

Andreas Rietz (BBSR) & Thomas Lützkendorf (KIT)



German Session BMUB: **Andreas Rietz & Thomas Lützkendorf**



Questions

How can the instruments of green public procurement (**GPP**) and sustainable public procurement (**SPP**) contribute to the efforts towards **achieving sustainable development in the construction sector**?

What is the **role** of sustainability assessment systems for buildings?

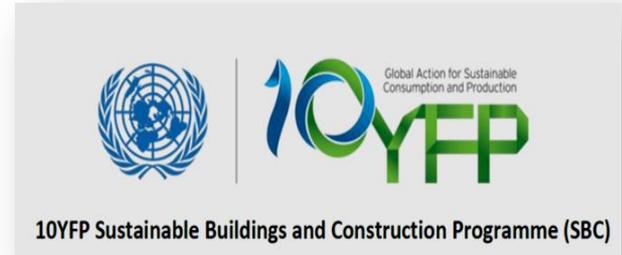
Are there **specific requirements** for such systems?

Key role of public authorities

*“There is a key role for **government at all levels to lead by example**”.*

*Public buildings should be **exemplars of sustainable building and catalytic agents** for the development of **resource efficient supply chains, technologies, skills and expertise.**”*

10YFP



Green public procurement (GPP) – a definition

*“Green Public Procurement (GPP) is a **process whereby public authorities seek to procure goods, services and works with a reduced environmental impact throughout their life cycle when compared to goods, services and works with the same primary function that would otherwise be procured.***

*GPP is a **voluntary instrument**, which means that Member States and public authorities can determine the extent to which they implement it.”*

http://ec.europa.eu/environment/gpp/pdf/GPP_Good_Practices_Brochure.pdf



Green public procurement (GPP) – the impact

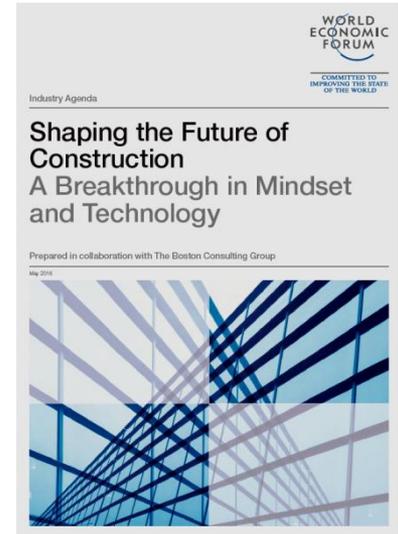
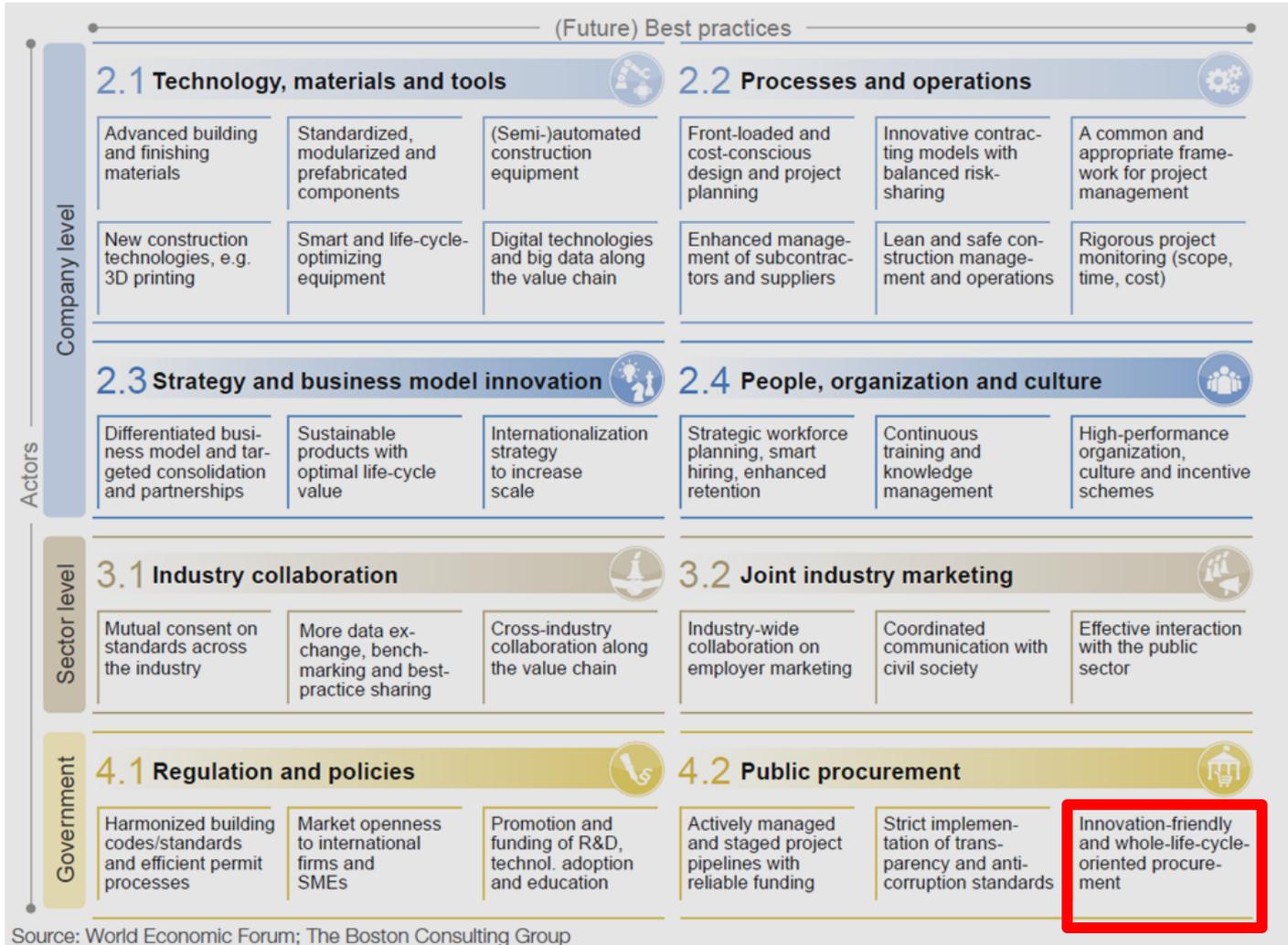
“Public authorities are major consumers in Europe, spending approximately 2 trillion Euros annually, equivalent to approximately 19% of the EU’s gross domestic product (2010).

By using their purchasing power to choose goods and services with lower impacts on the environment, they can make an important contribution to sustainable consumption and production.”



http://ec.europa.eu/environment/gpp/pdf/GPP_Good_Practices_Brochure.pdf

GPP – aspect in the industry transformation framework

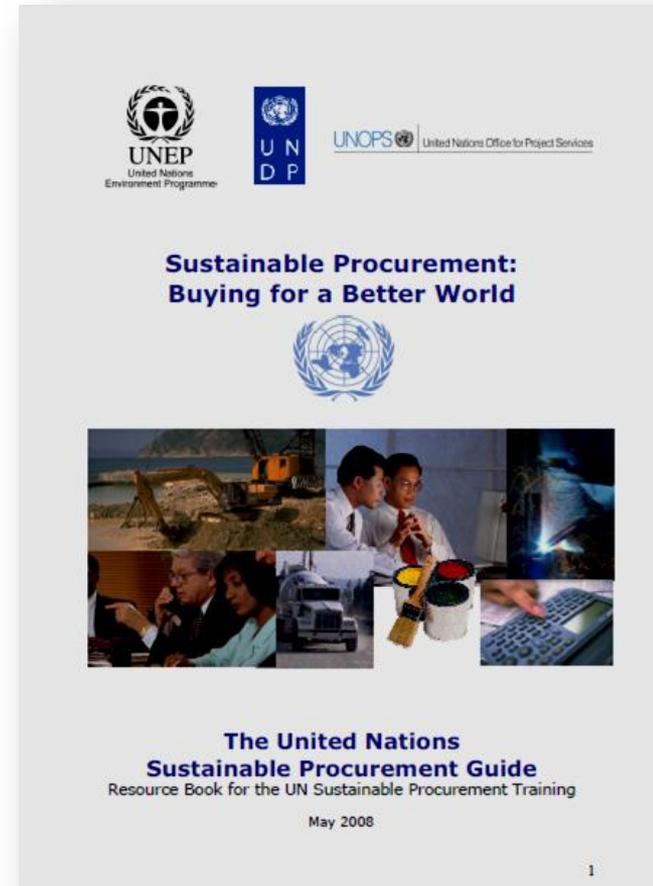


http://www3.weforum.org/docs/WEF_Shaping_the_Future_of_Construction_full_report_.pdf

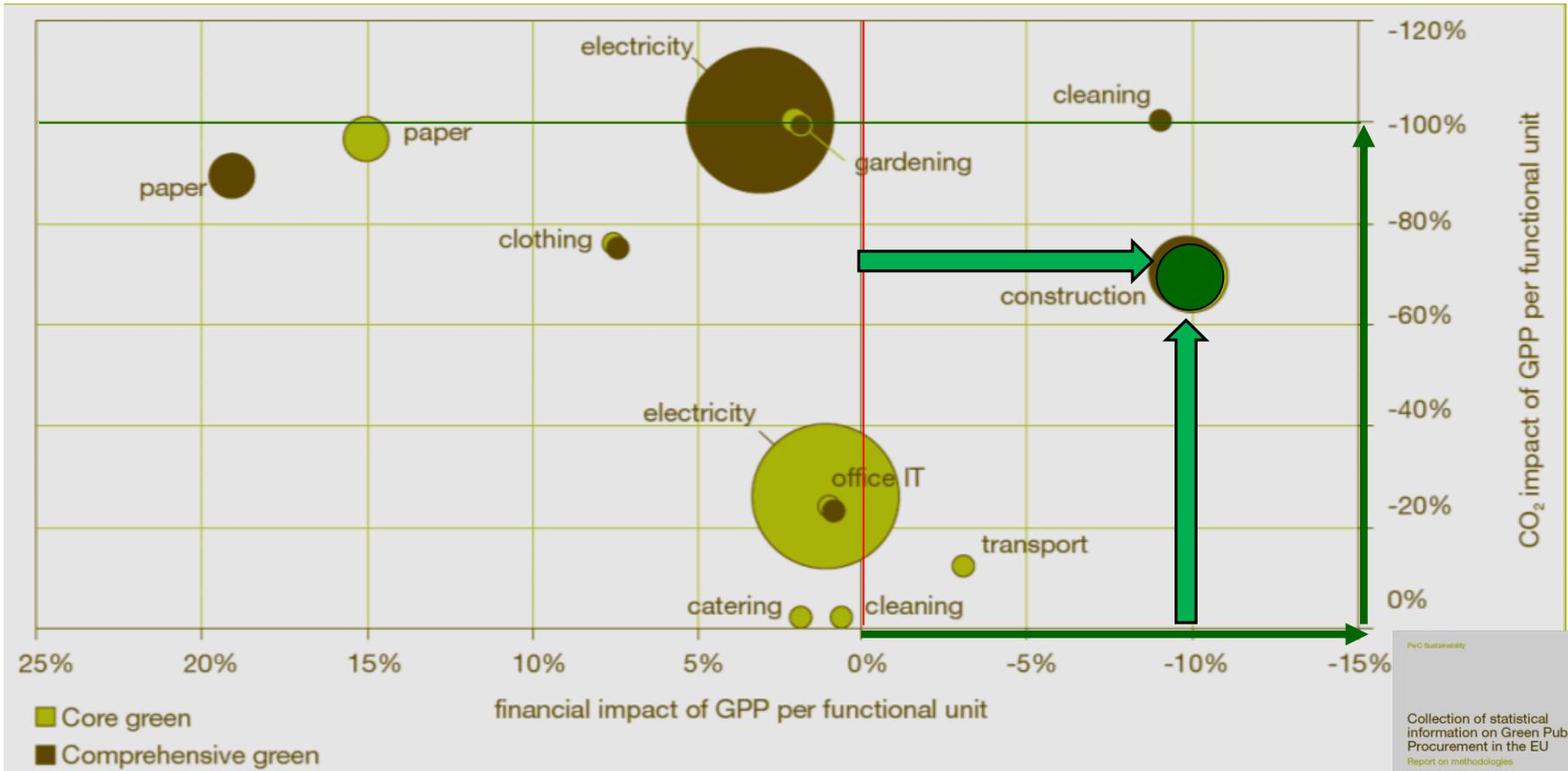
Sustainable public procurement

*“Sustainable Public Procurement (SPP) is a process by which public authorities seek to **achieve the appropriate balance between the three pillars of sustainable development - economic, social and environmental - when procuring goods, services or works at all stages of the project.** Many public authorities in the EU are implementing GPP as **part of a broader approach to sustainability** in their purchasing, which also addresses economic and social aspects.”*

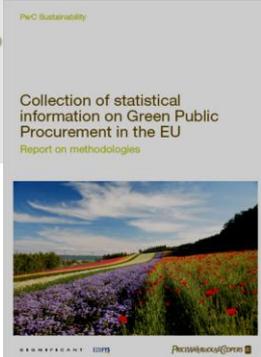
http://ec.europa.eu/environment/gpp/versus_en.htm



Possible impacts of GPP on GHG-emissions and LCC

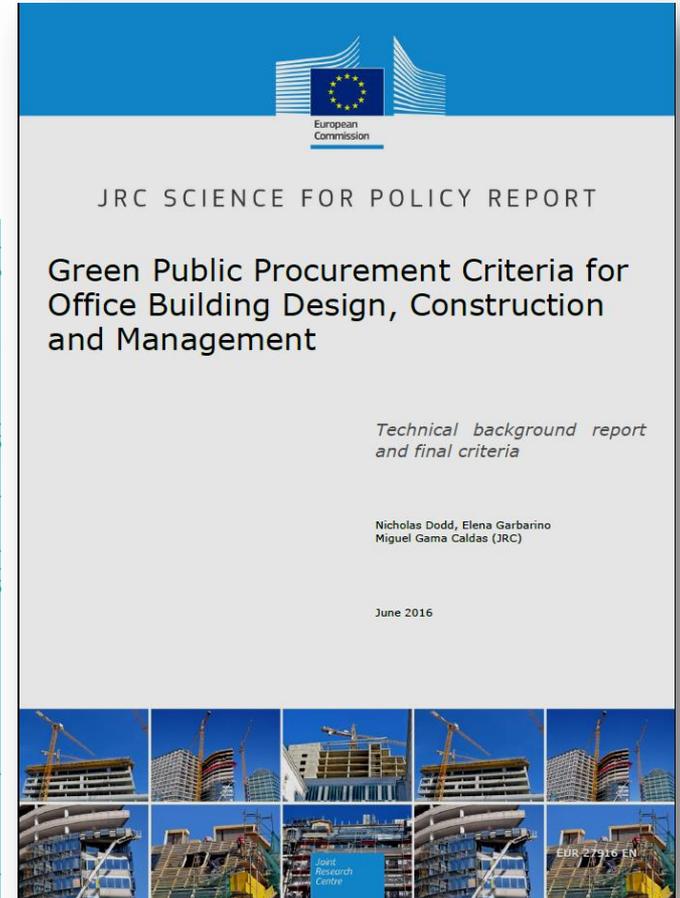


CO₂ impact and financial impact of GPP per functional unit, negative numbers imply lower CO₂-emissions or lower costs and positive numbers imply higher costs



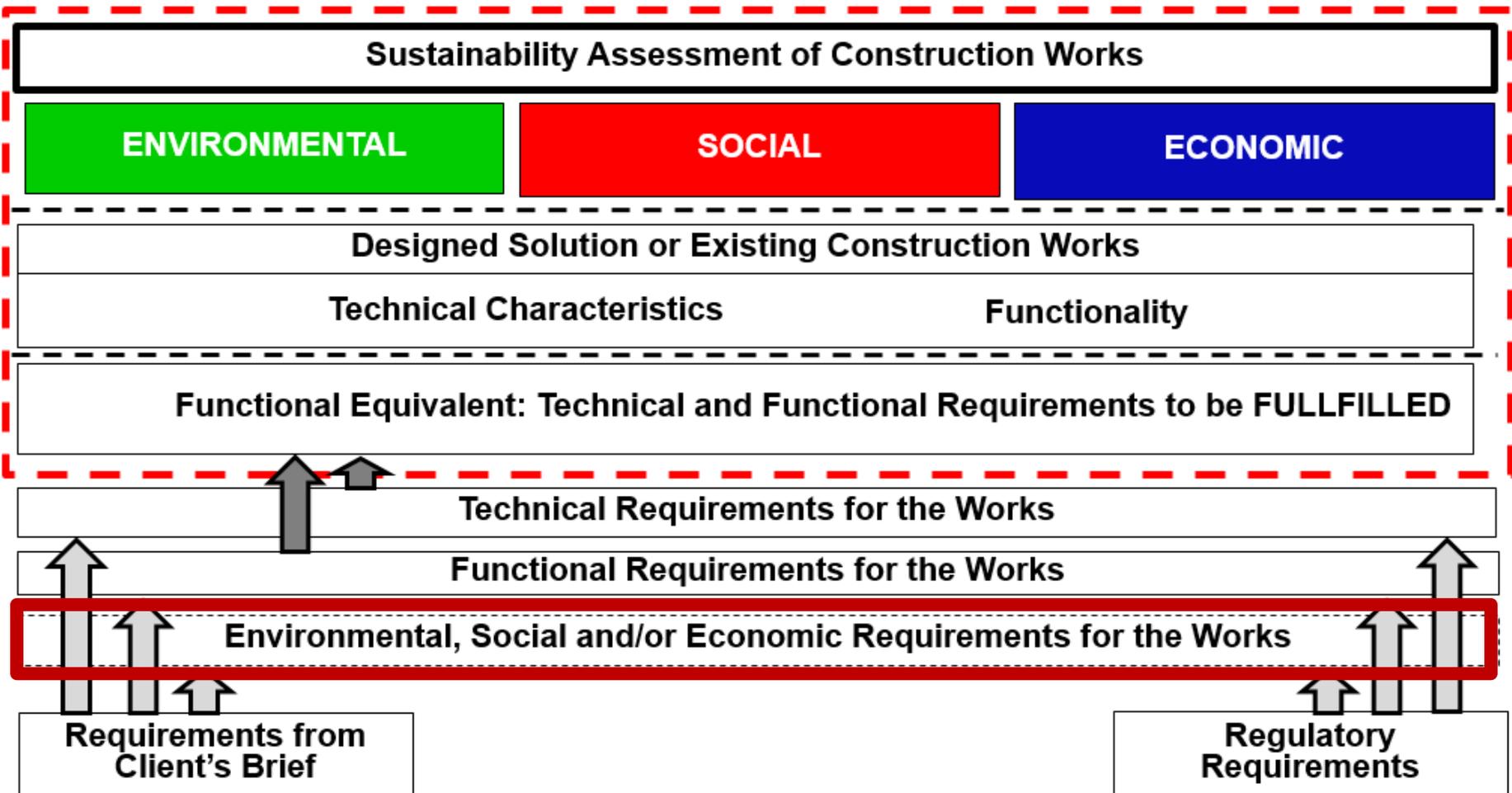
Available information on EU-level

http://ec.europa.eu/environment/gpp/pdf/Buying-Green-Handbook-3rd-Edition_n.pdf



http://ec.europa.eu/environment/gpp/bdfr/report_gpp_office_buildings.pdf

Integration of additional requirements (see EN 15643)



Requirements for the assessment systems

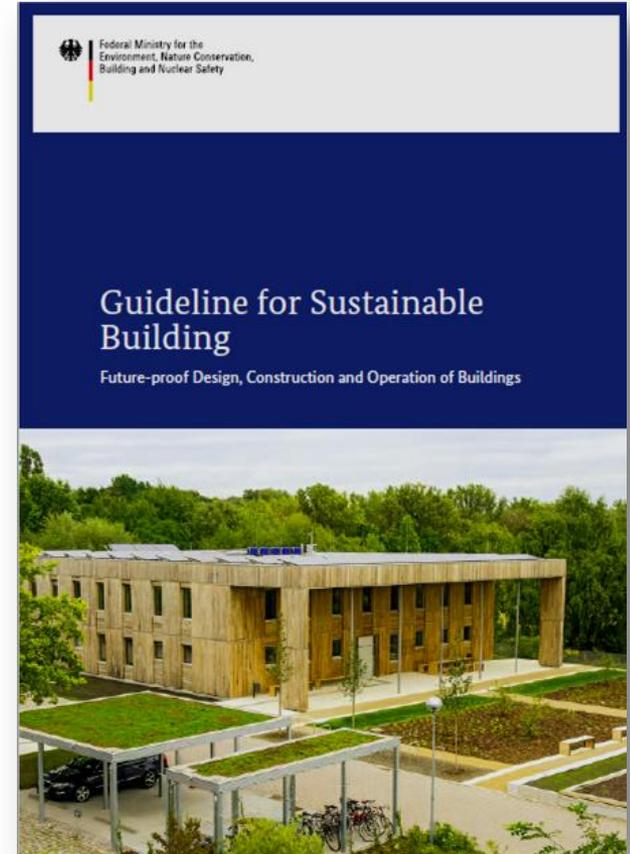
The following **requirements** are placed on **sustainability assessment systems** for buildings:

- Description of the functional equivalent
- Proof that certain functional requirements are fulfilled
- Proof that certain technical requirements are fulfilled
- Assessment of resource use
- Assessment of impacts on the environment
- Assessment of life cycle costs
- Assessment of safety and comfort

Situation in Germany

The Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) formulated with the **Guideline for Sustainable Building** essential requirements for federal buildings.

This provides an important **basis for the sustainable procurement of buildings**. Additionally, it forms the basis for a set of databases and tools required for sustainability assessment. All these have been produced with public funds and **are freely available** – see www.nachhaltigesbauen.de.



Role of assessment systems

The application of sustainability assessment systems for buildings **supports the following tasks:**

- Discussion and definition of objectives
- Checklist for relevant design tasks
- Ensuring the design quality
- Ensuring the quality of execution
- Proof of fulfillment of the defined objectives
- Signal of quality to third parties
- Object documentation

The “toolbox”

The following “**tools**” are available for supporting designers and decision makers, among others:

- Working aids for target setting
- Recommendations for design competitions
- Assessment system
- Databases with LCA data
- Information system on construction materials
- Information system on hazardous substances
- Information on service lives
- Aids for cost calculation

Questions for discussion

- a) What are your experiences with GPP and sustainability assessment in your country?
- b) From your point of view, do specific requirements for sustainability assessment systems used by public authorities arise?
- c) How the sharing of functions between the publicly managed assessment systems and private initiatives looks like in your countries?
- d) On what basis do you formulate your goals and benchmarks? Is “net-zero-emission” already a generally accepted goal and do you have related calculation and assessment rules?

World Sustainable Built Environment Conference 2017 Hong Kong
Transforming Our Built Environment through Innovation and Integration:
Putting Ideas into Action
5-7 June 2017

Thank you !

