„Paris Buildings: von internationalen Zielvorgaben bis zur lokalen Umsetzung“

Verwaltungsworkshop der Stadt Wien „Wir bauen Zukunft! Nachhaltigkeit, Ästhetik und Inklusion in Bau- und Stadtplanung“

Alexander Passer und Barbara Truger

21.04.22

Alexander Passer

- Full Professor for Sustainable Construction (2022-)
- Management Board Climate Change Center Austria (CCCA)
- Chair Sustainablilityboard Graz University of Technology
- Associate Professor für Sustainable Construction (2017-2021)
- Visiting Professor (ETH Zürich) (2014)
- Assistant Professor for Sustainable Construction (2010-2016)

Research focus

- Life Cycle Sustainability Assessment
- Building Information Modeling
- Life Cycle Assessment
- Building Sustainability Certification
- EPDs

https://graz.pure.elsevier.com/de/persons/alexander-passer

NEW EUROPEAN BAUHAUS

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#NewEuropeanBauhaus

Das Neue Europäische Bauhaus

"If the European Green Deal has a soul, then it is the New European Bauhaus which has led to an explosion of creativity across our Union."

Ursula Von der Leyen, President of the European Commission

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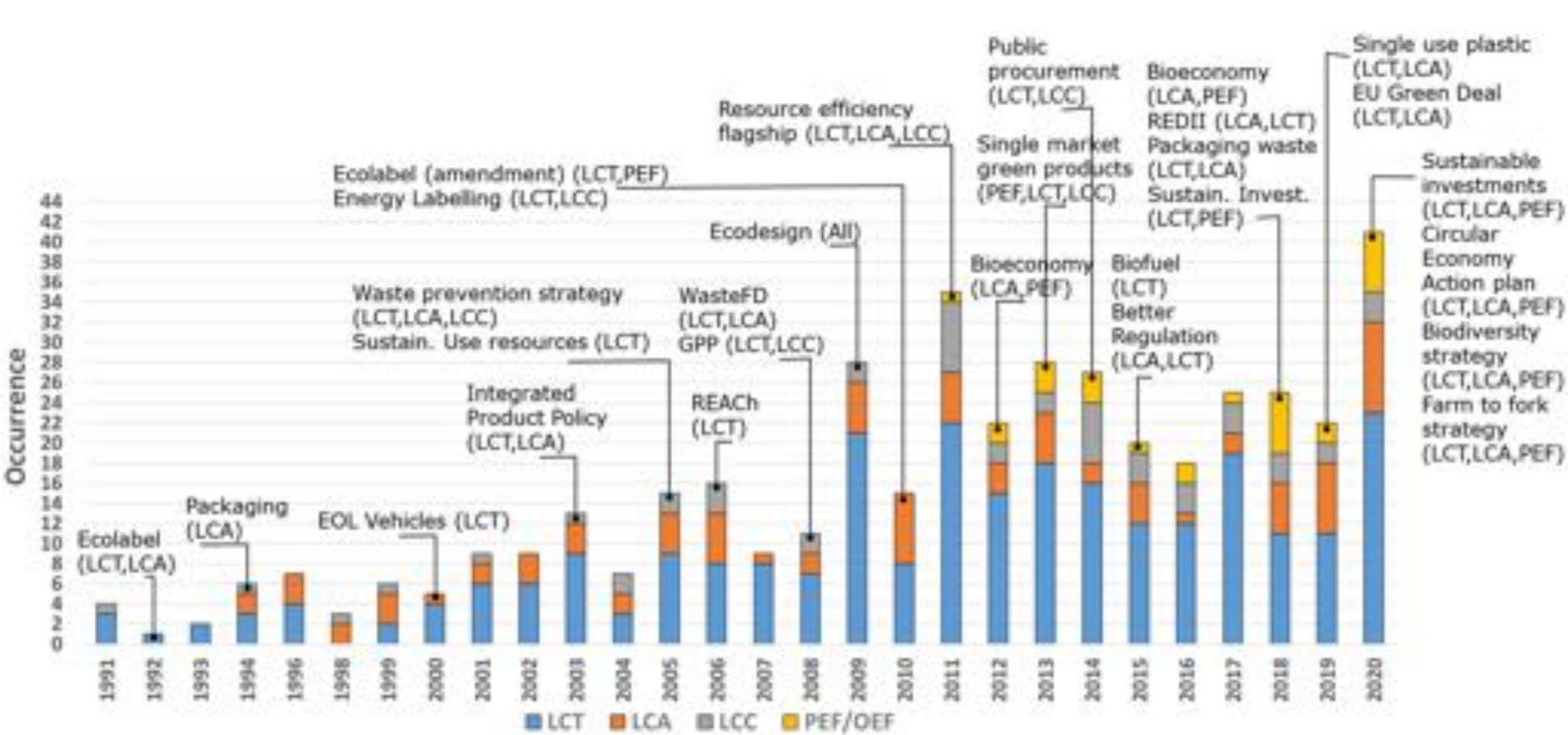
https://europa.eu/new-european-bauhaus/index_de

Source: Sala, S., Amadei, A.M., Beylot, A., Ardente, F., 2021. The evolution of life cycle assessment in European policies over three decades. Int. J. Life Cycle Assess. 26, 2295–2314. https://doi.org/10.1007/s11367-021-01893-2

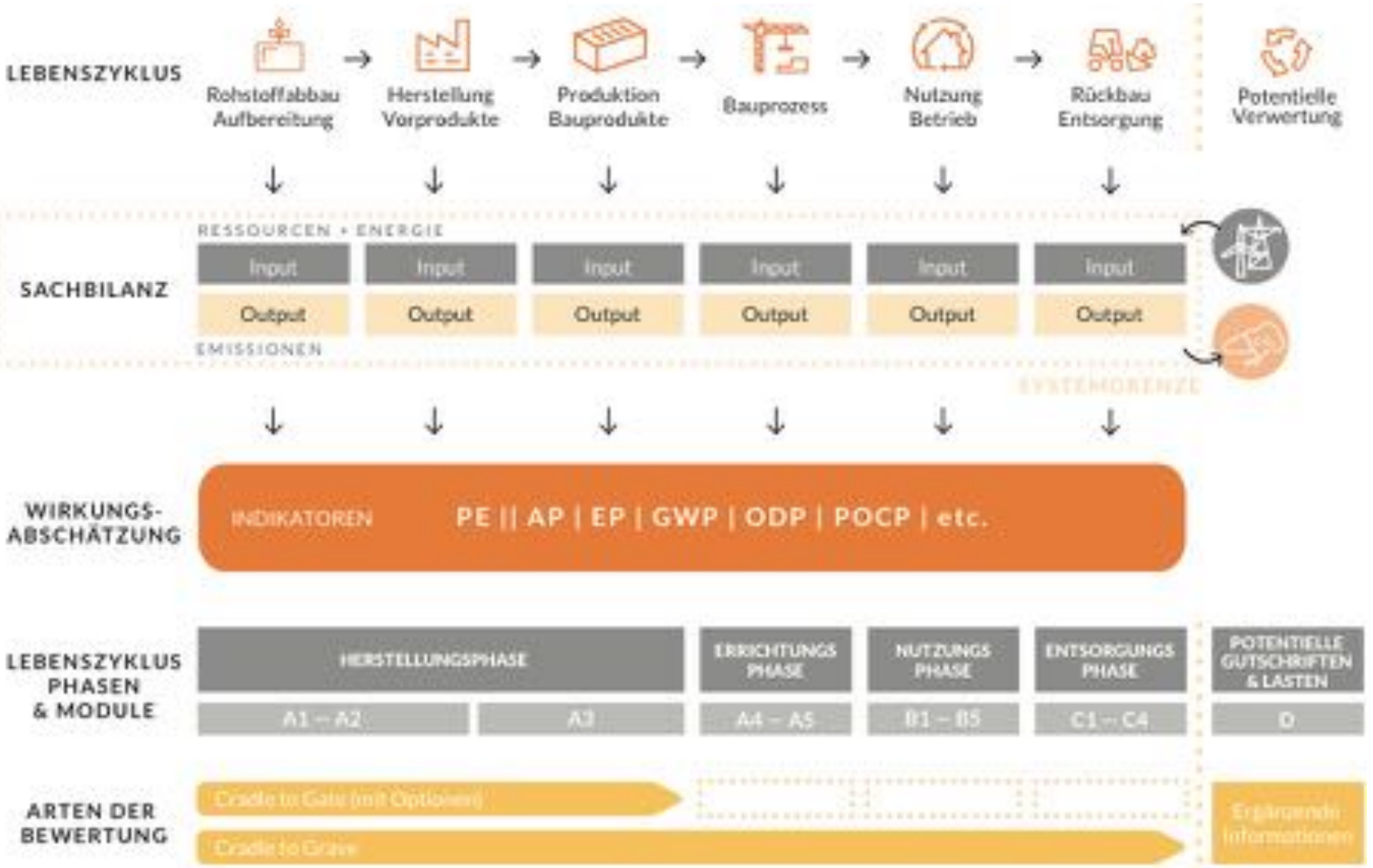
Fig. 6 An overview of the role of LCT, LCA, and PEF/OEF within the EU Green Deal and related policies initiatives



icies

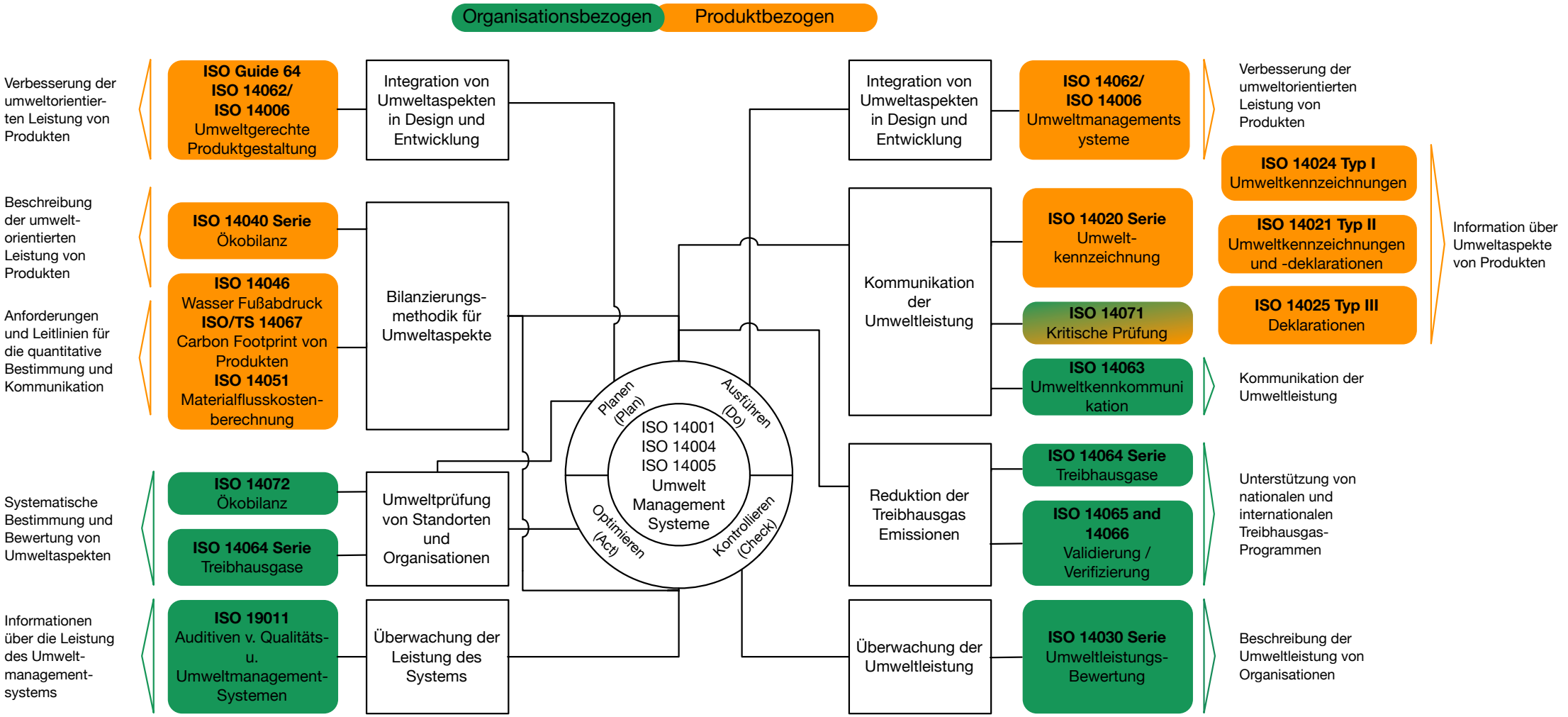
over three decades. Int. J. Life Cycle Assess. 26, 2295–2314. https://doi.org/10.1007/s11367-021-01893-2

Life Cycle Assessment (LCA) Methodology



Source: Passer, A. Habilitation thesis: To the operationalization of sustainable construction, TU Graz 2016

Umweltprodukt-Informationen und -deklarationen im Baubereich



Source: Passer, A. (2016). Umweltprodukt-Informationen und -deklarationen im Baubereich: Ein aktueller Überblick. *OIB Aktuell – Das Fachmagazin Für Baurecht Und Technik, Heft 2/2016, 2, 16–23.*

ANTEIL DER GEBÄUDE AN DEN GLOBALEN ENERGIEBEZOGENEN CO_2-EMISSIONEN

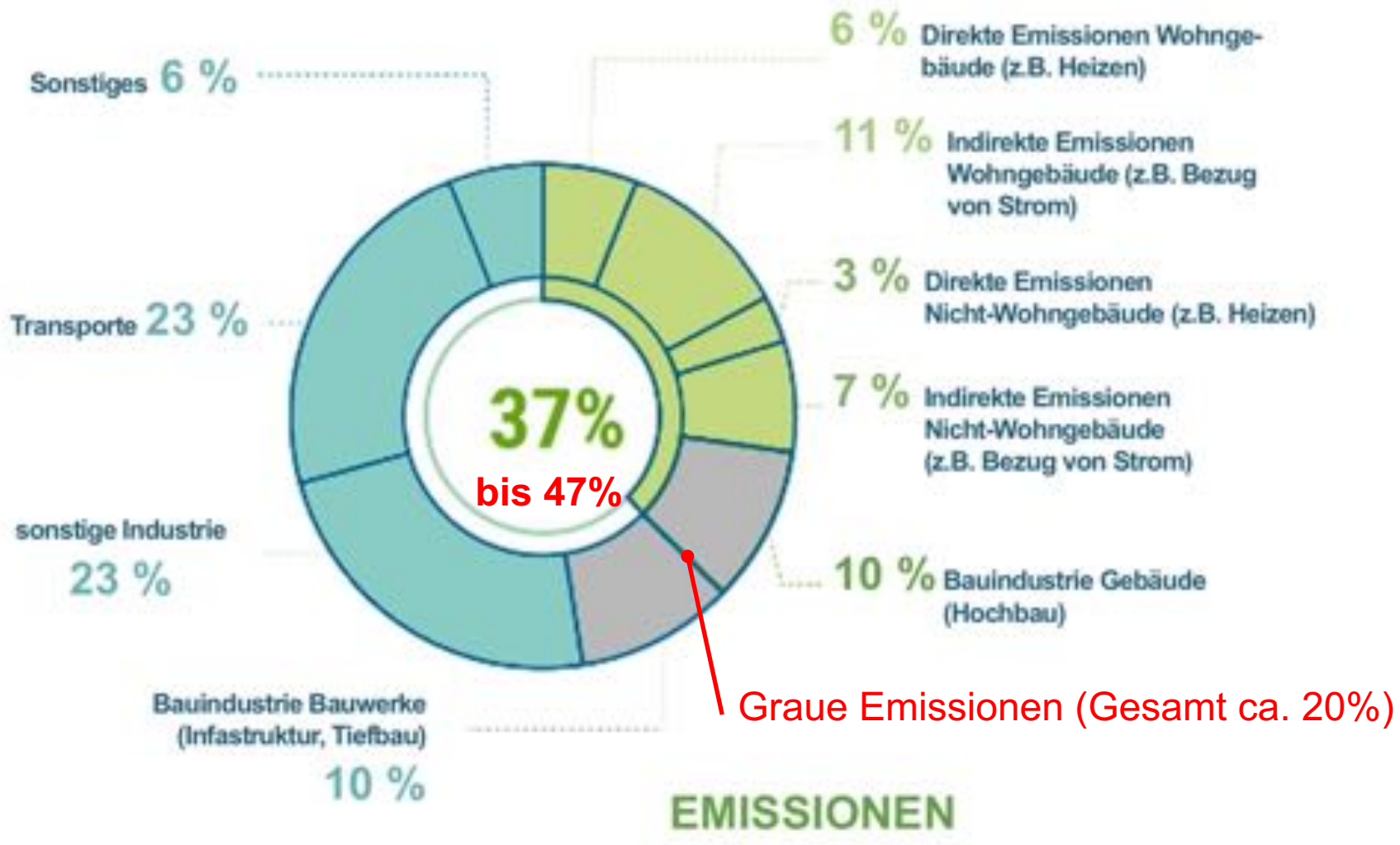
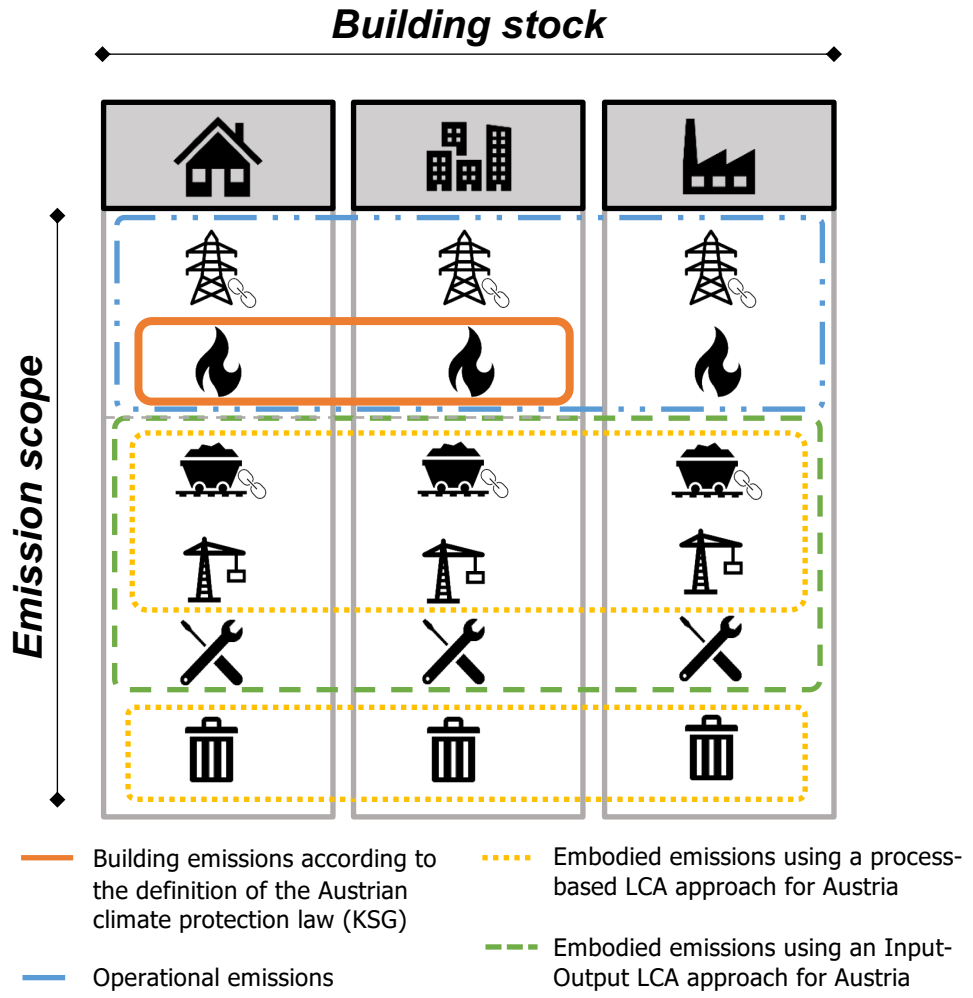


Abbildung: Anteil der Gebäude an den globalen energiebezogenen CO2-Emissionen, 2020.
Quelle: UNEP - United Nations Environment Programme. 2021 Global Status Report for Buildings and Construction: Towards a Zero-emission, Efficient and Resilient Buildings and Construction Sector. Nairobi: 2021. S. 15

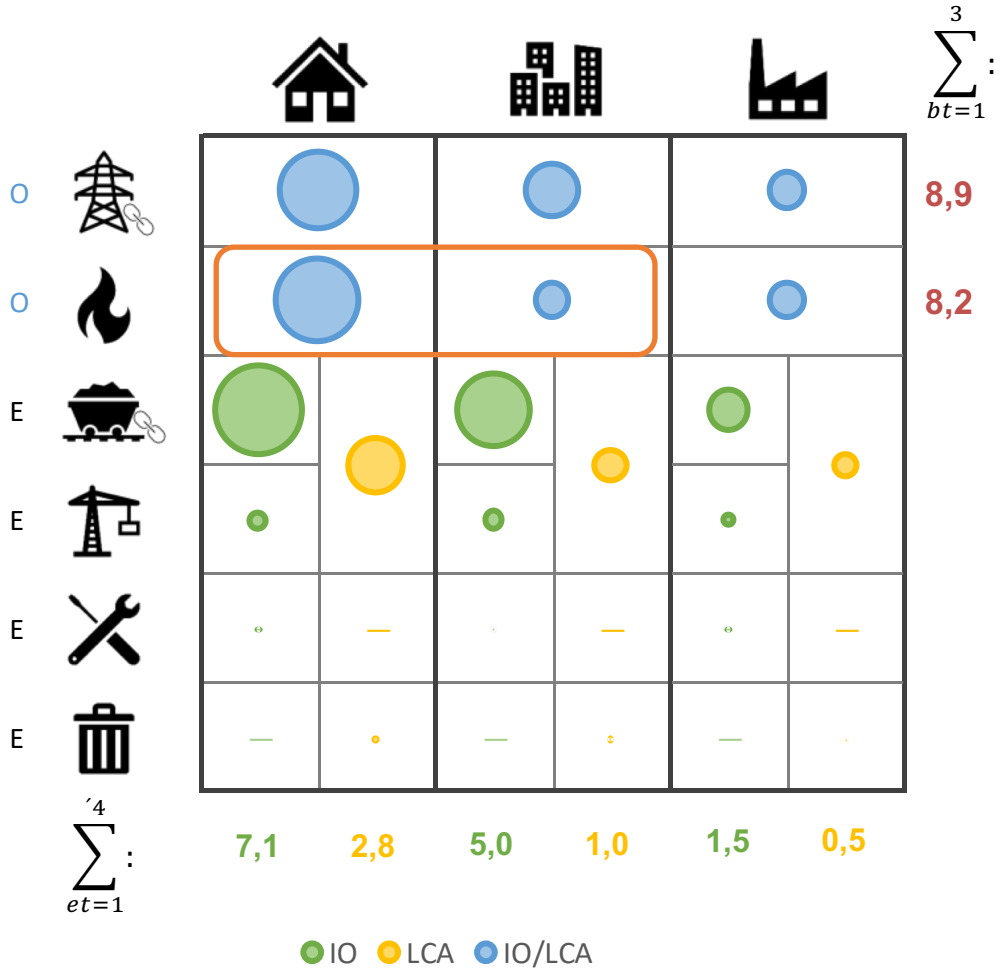
Results – field of action buildings

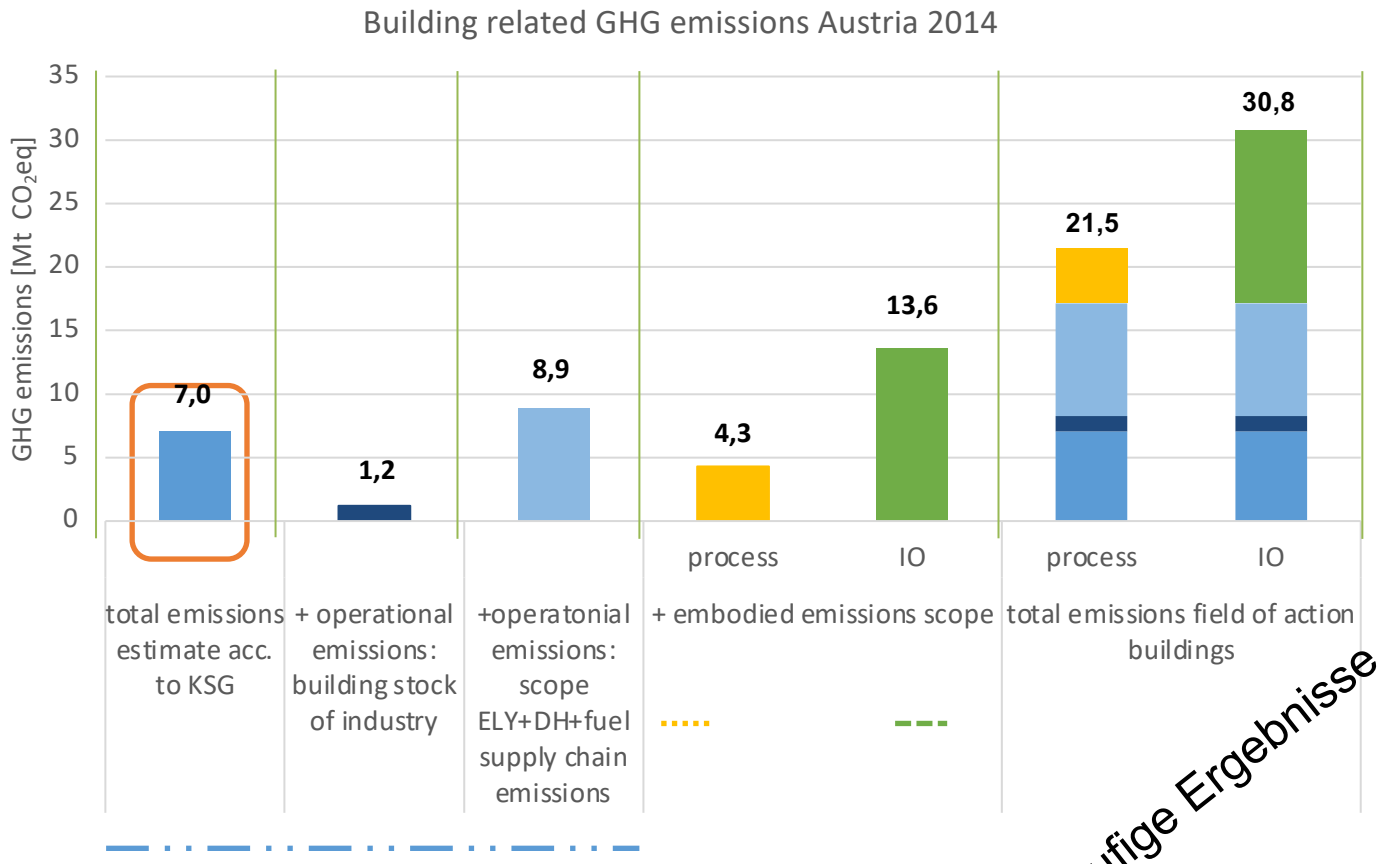
PARIS BUILDINGS

Transition of the procurement process towards Paris compatible public buildings



Results direct and indirect (embodied) emissions





Effizienz — *besser* — 

A+ → A++

Konsistenz — *anders* —  → 

Suffizienz — *weniger* —  → 

Darstellung: TU Graz

Effizienz — Super Dämmung

Neue tolle Heizung

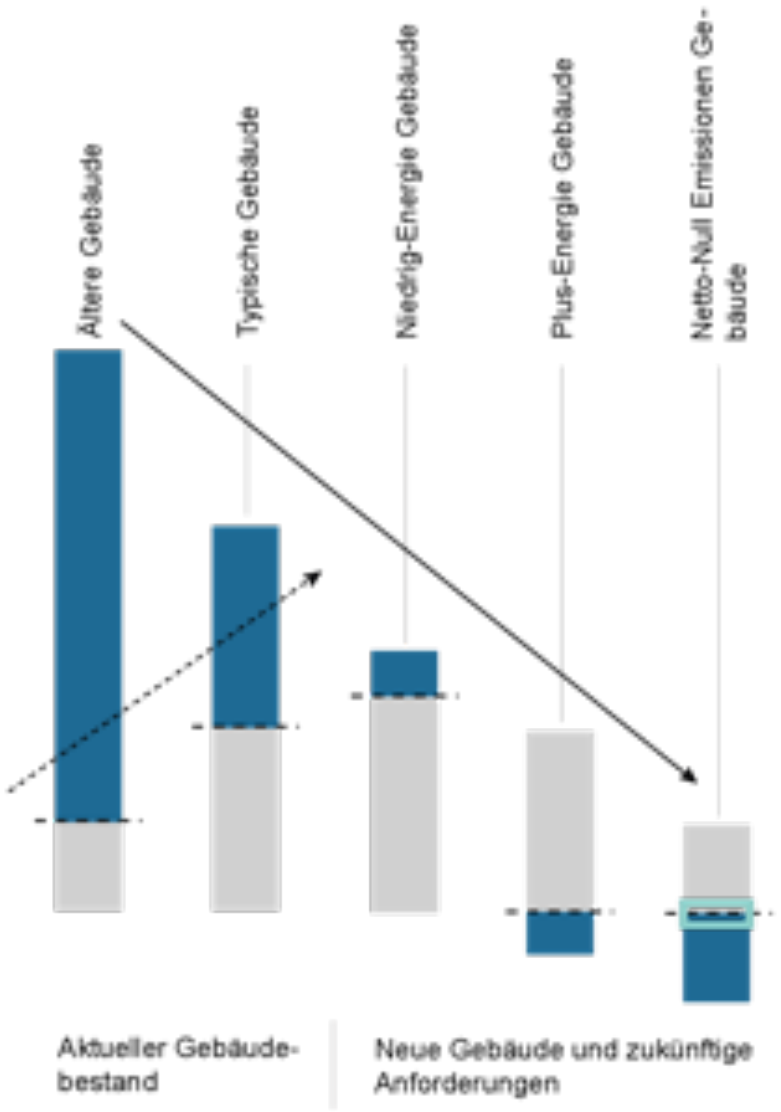
Konsistenz — Photovoltik und Solarthermie

Wärmepumpen

Suffizienz — Licht aus!

Heizung runter!

Darstellung: TU Graz



Ziel: Netto-Null-Emissionen

= Klimaneutral

betriebsbedingte Emissionen

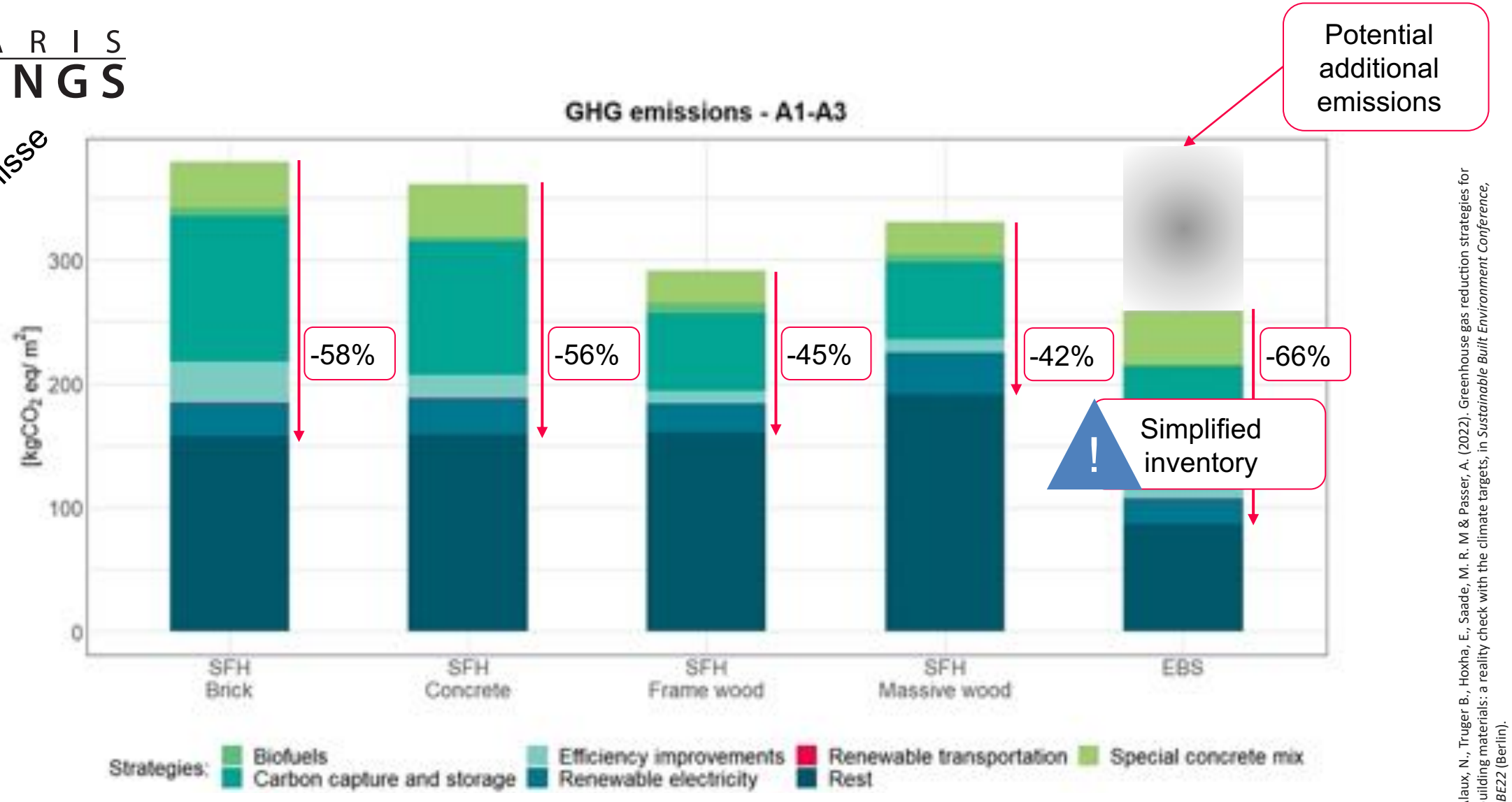
graue Emissionen

Quelle: Passer et al. (2017) IEA EBC 57 – Leitfaden für Hersteller von Bauprodukten. https://diglib.tugraz.at/iea- ebc-annex-57-leitfaden-fuer-hersteller-von-bauprodukten-2017, https://doi.org/10.3217/978-3-85125-520-1

Reduktionspotentiale von unterschiedlichen Technologien für graue Treibhausgasemissionen

PARIS BUILDINGS

Vorläufige Ergebnisse



Alaux, N., Truger B., Hoxha, E., Saade, M. R. M & Passer, A. (2022). Greenhouse gas reduction strategies for building materials: a reality check with the climate targets, in *Sustainable Built Environment Conference, SBE22* (Berlin).

IEA EBC Annex 72:

The Monte Verità Declaration

http://annex72.iea-ebc.org/

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