



Neue Herausforderungen für die Immobilienbranche durch die internationale Klimapolitik

Prof. Dr. Sven Bienert // CRREM – Carbon Risk Real Estate Monitor

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no. 785058

IMMOBILIEN und die INTERNATIONALE KLIMAPOLITIK

Die Antwort ist auf den ersten Blick trivial und simpel:

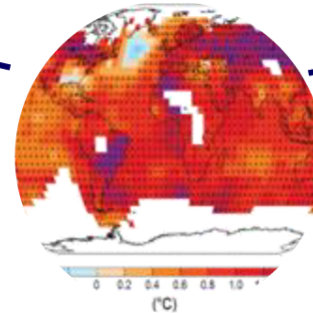
*Die Branche muss eben Energieeinsparung bewirken.
Dabei geht es regelmäßig um den laufenden Verbrauch.
(in Neubau und Bestand)*

Upside „Risk“

Positive impact



Climate change = Climate risk?



Downside „Risk“

Negative impact

Positive Willingness to pay for Energy Efficiency and Sustainability

1. Portfolio level

- diversification
- investment alternative with special risk-return profile
- Green Funds, SRI and RPI „en vogue“

Geiger, Cajias, Bienert (2013): The Asset Allocation of Sustainable Real Estate: A Chance for a Green Contribution?

2. Corporate level

- Sustainability as production factor
- Positive Impact on Yields, Tobin's Q, Asset Turnover and risk measures
- CSR-strategy

Ansari, Cajias, Bienert (2015): The Value contribution of Sustainability Reporting – an empirical evidence for real estate companies.

3. Property level

- Sustainability is impacting rents, vacancies and values
- Green Building certificates

Cajias, Fürst, Bienert (2016): Is energy efficiency priced in the German housing market? – Large sample evidence from Germany.

Intensive research with hedonic pricing (regression)

Increase of intensity and frequency of Extreme Weather Events

Direct and indirect costs of negative long-term changes in the climate system:

Impact of “creeping” climate changes like sea level rise or increased extreme weather events (drought, heat, bushfires, flood, storms...) on real estate markets

- *Bienert (2014): Extreme Weather Events and Property Values. Assessing New Investment Frameworks for the Decades Ahead.*
- *Hirsch, Braun, Bienert (2015): Assessment of Climatic Risks for Real Estate.*
- *Bienert (2016): Climate change implications for real estate portfolio allocation*

Limited Real estate research

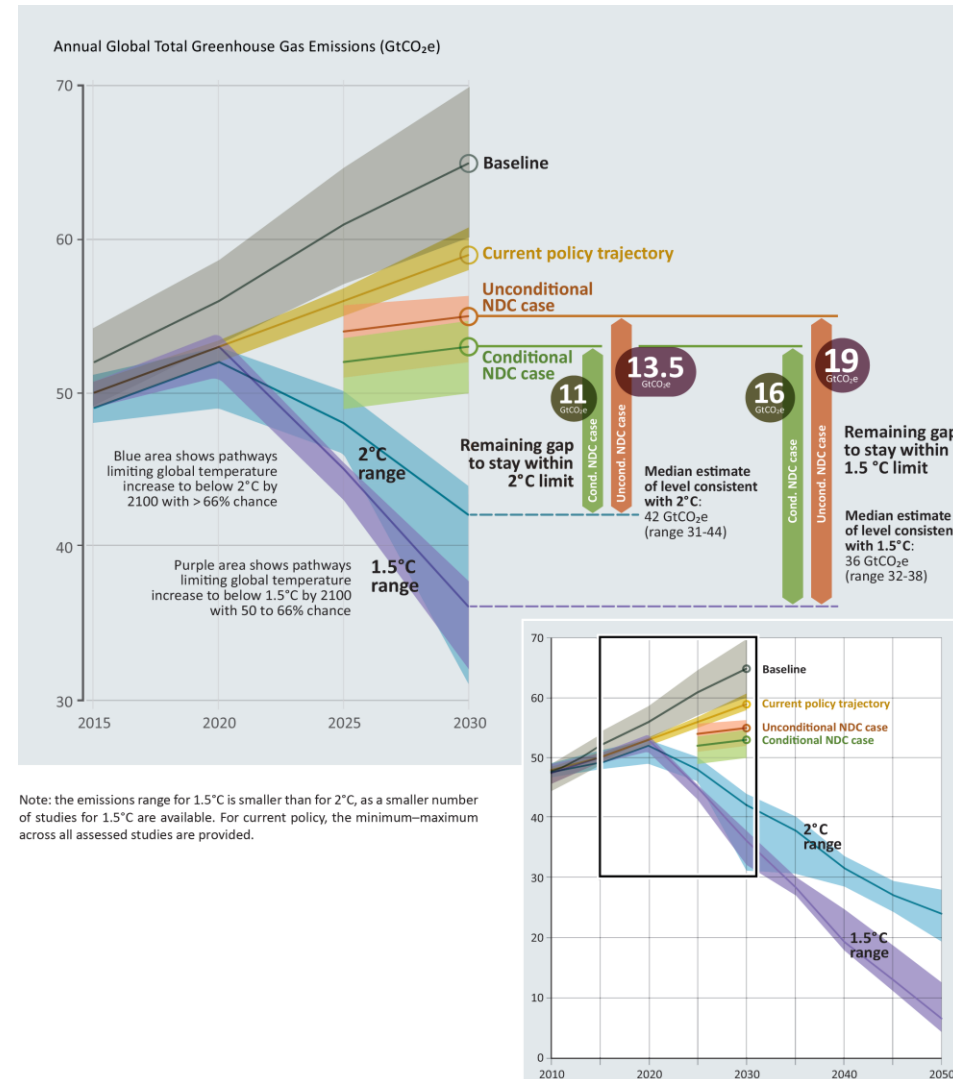
Stranded assets and portfolios

- Assets not meeting future regulatory requirements and future market expectations - loss of value + costs for retrofitting
- Not or insufficiently decarbonized real estate
- Real estate with high use costs and significant carbon footprint due to high energy use from non-renewable sources

CRREM

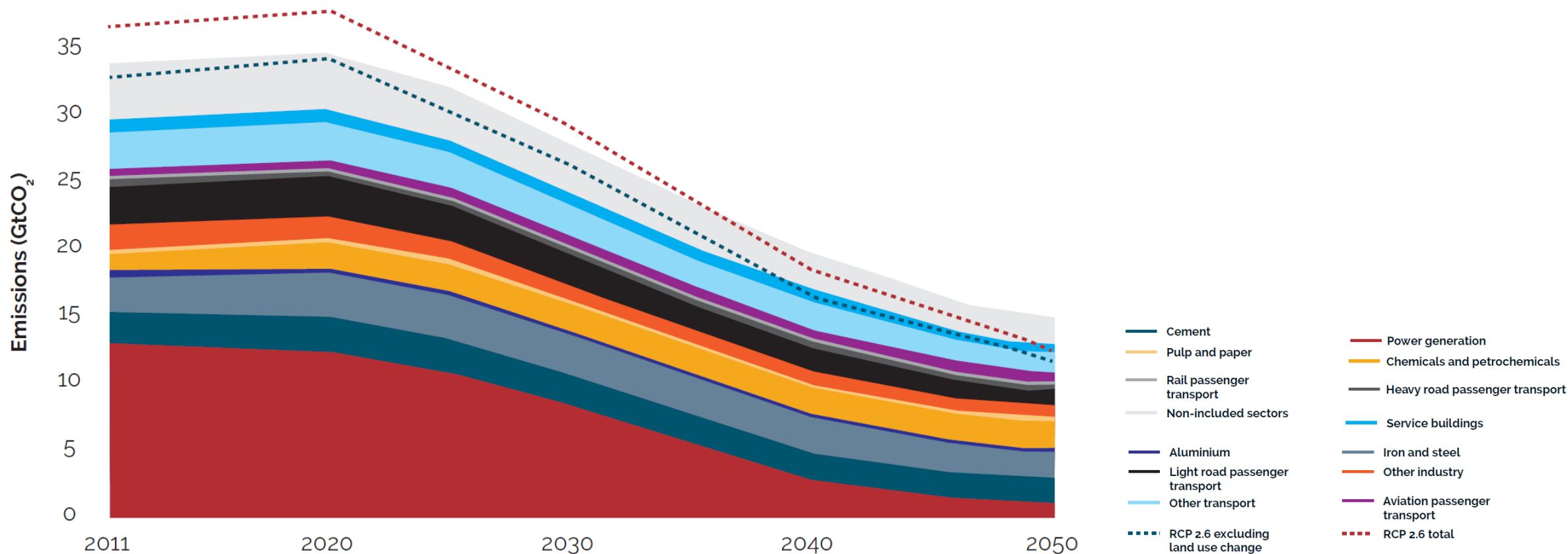
HERAUSFORDERUNGEN DURCH POLITIK SELBST?

Letztlich entscheidet die Ernsthaftigkeit der Klimapolitik und deren „Ambitionsniveau“ über die Intensität und teilweise auch Richtung der Risikobereiche



Source: UNEP, 2017

“Ist doch eh alles (vieles) nur freiwillig” ... Noch!



Source: SBT, 2015

**CARBON
PRIZING**

*Boundaries/
Aggregation auf Portf.*

*Planbarkeit/Verlässlichkeit
der Regulierung*

**REGULATED /
UNREGULATED**

*Investor/Tenant/
Auslastung*

**IMMOBILIEN
und die
INTERNATIONALE KLIMAPOLITIK**

*Veränderung der EF,
HDD/CDD, Preise etc.*

**SCOPE
1,2,3**

**Bei genauer Betrachtung bestehen/entstehen jedoch:
zahlreiche neue Anforderungen / Herausforderungen**

*Verantwortungsdauer
eines Vorstandes*

**EMBODIED
CARBON**

**CARBON
ACCOUNTING/
REPORTING**

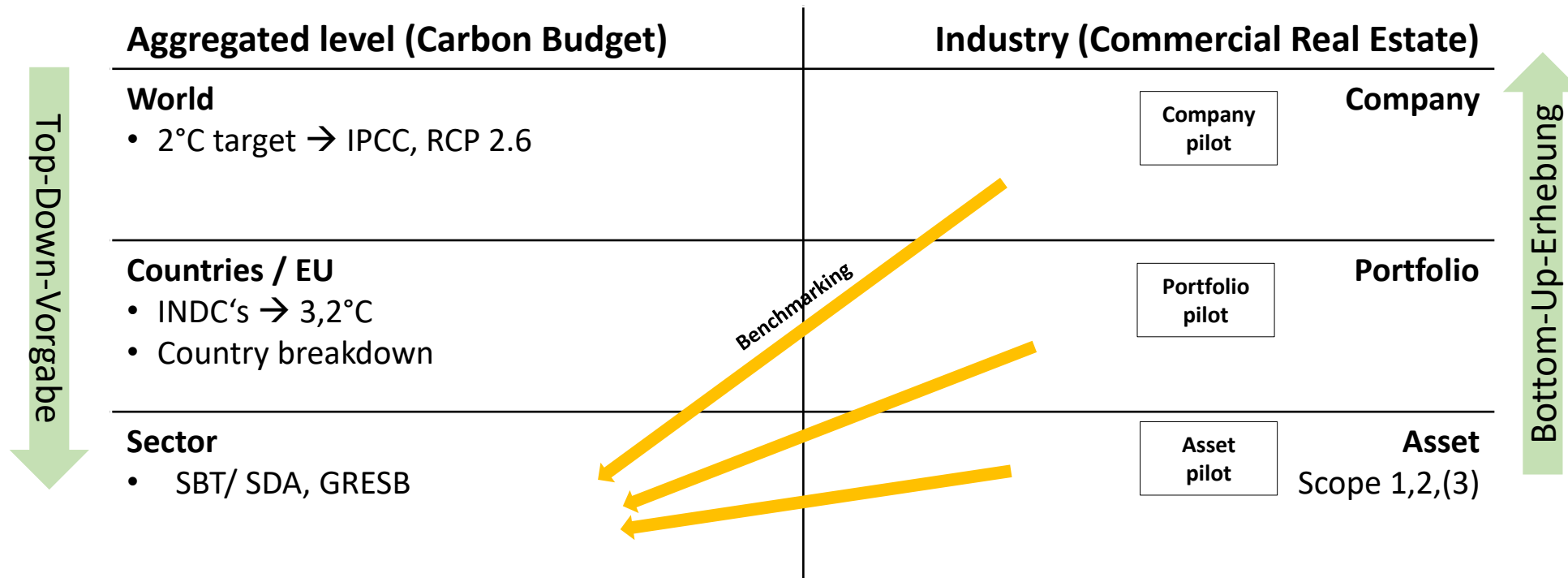
*Einsparung THG
durch Retrofit*

*Wirtschaftlichkeit/
Sowiesokosten*

*Strategische Optionen
(Sell, Hold, Retrofit – Timing)*

*Herleitung Carbon Budget
Downscaling*

Ansatz zur Systematisierung und Lösung der Herausforderungen



NEUE ARTEN VON RISIKO

CARBON RISK

STRANDING RISK

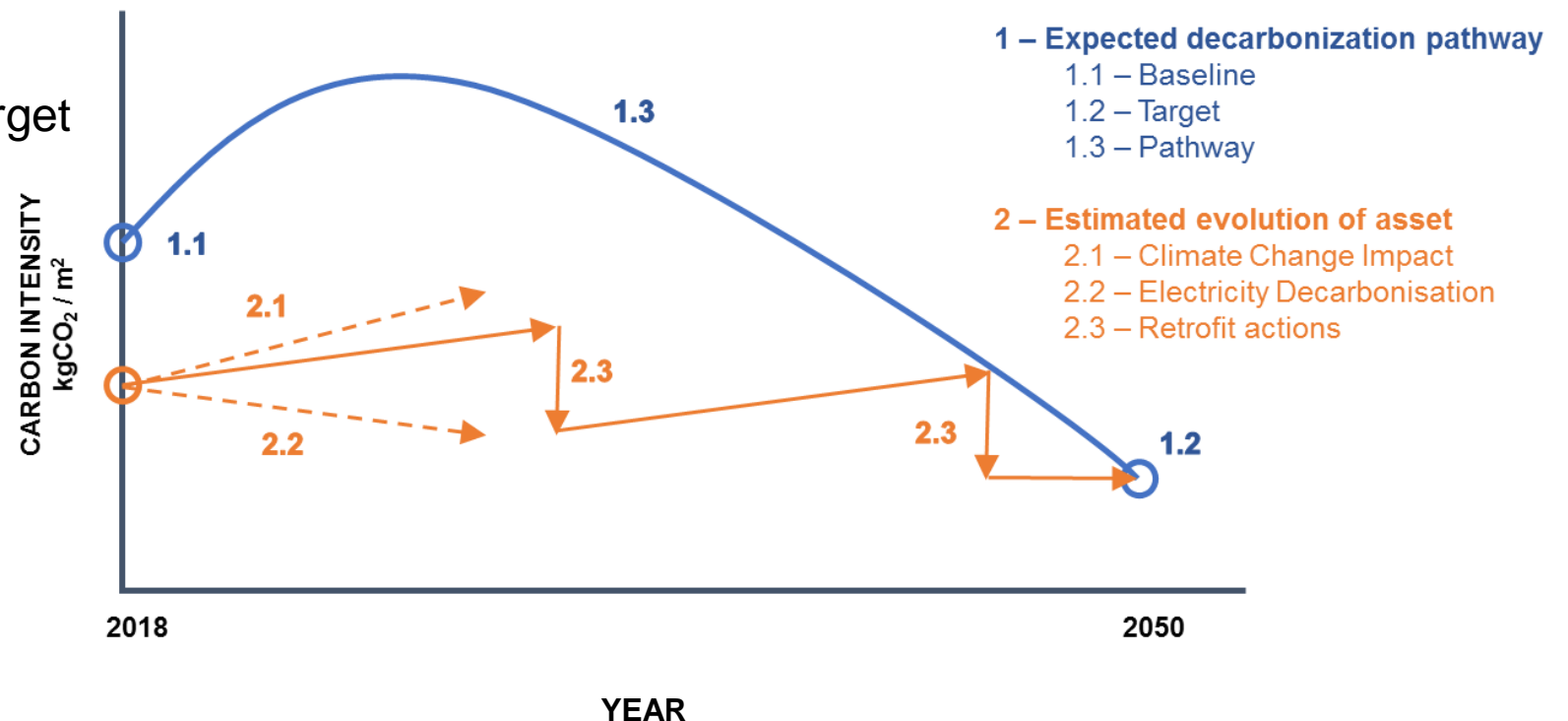
Assets and Portfolio: CRREM Tool

Selection of appropriate pathway and target

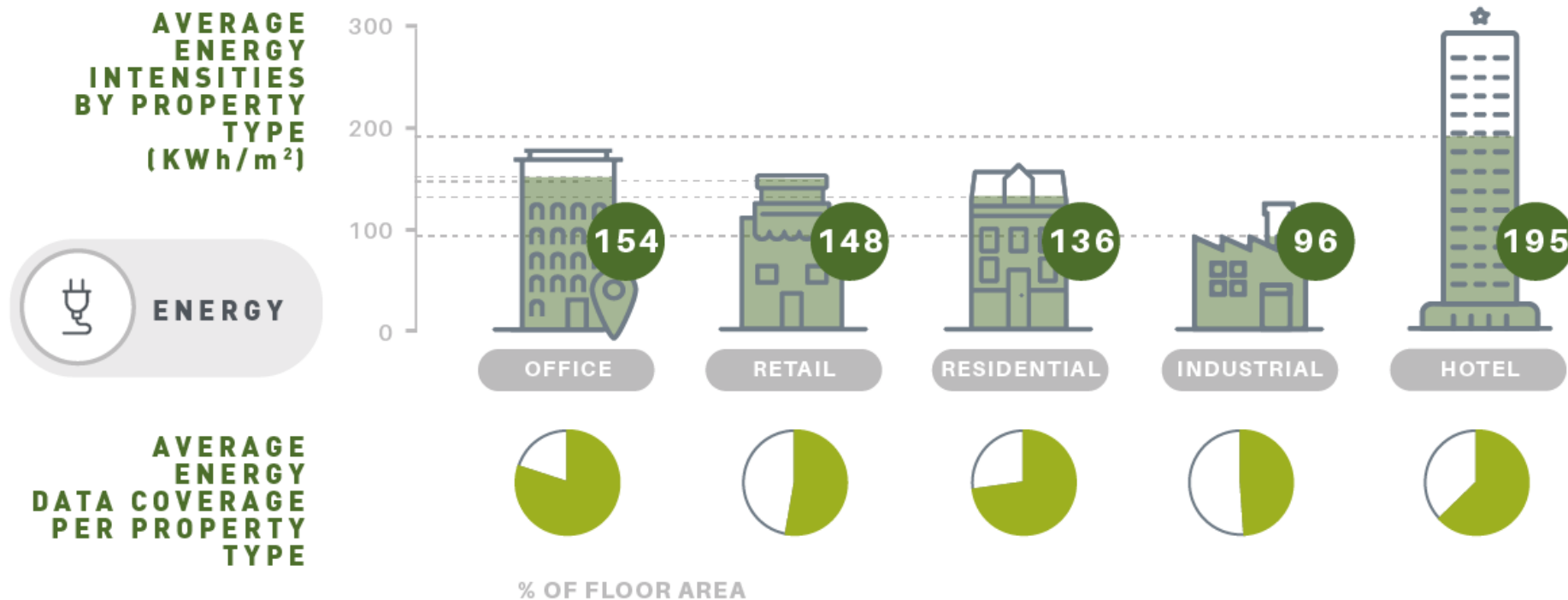
- Sector
- Country

Specific asset / Portfolio

- Baseline
- Impact of global warming
- Impact of decarbonisation
- Planned retrofit actions

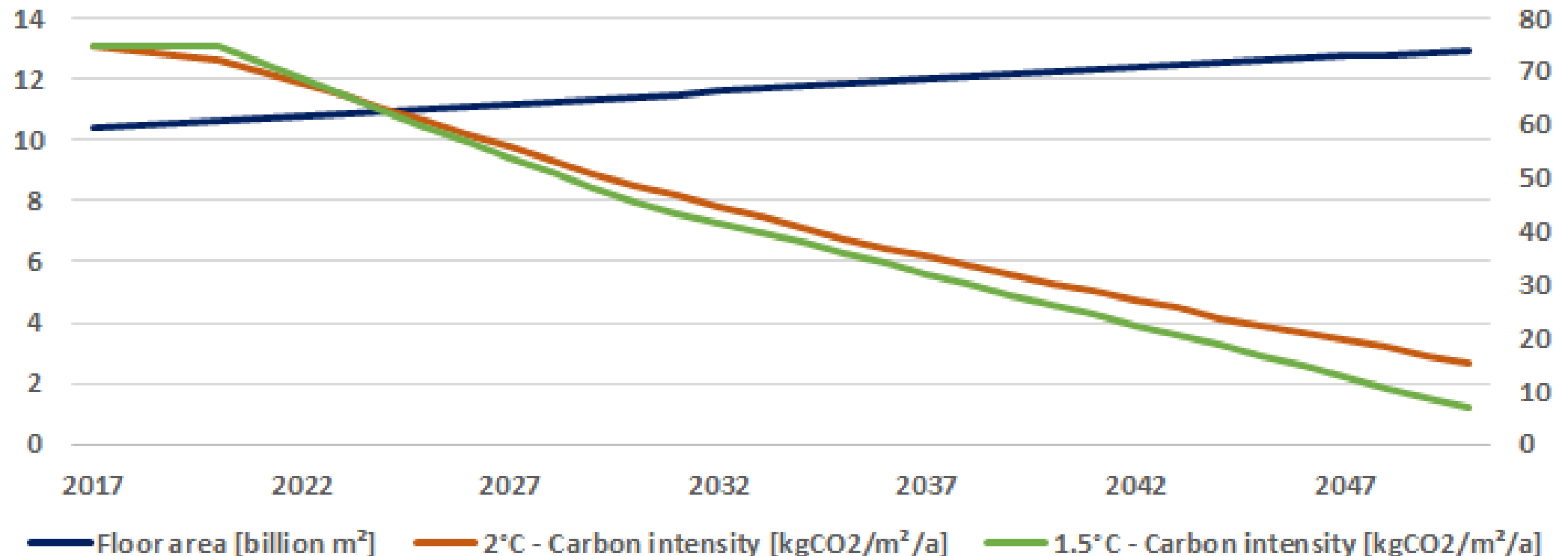


Klimaschutz braucht Transparenz: Viele Verbrauchsdaten werden nicht vom Eigentümer erfasst

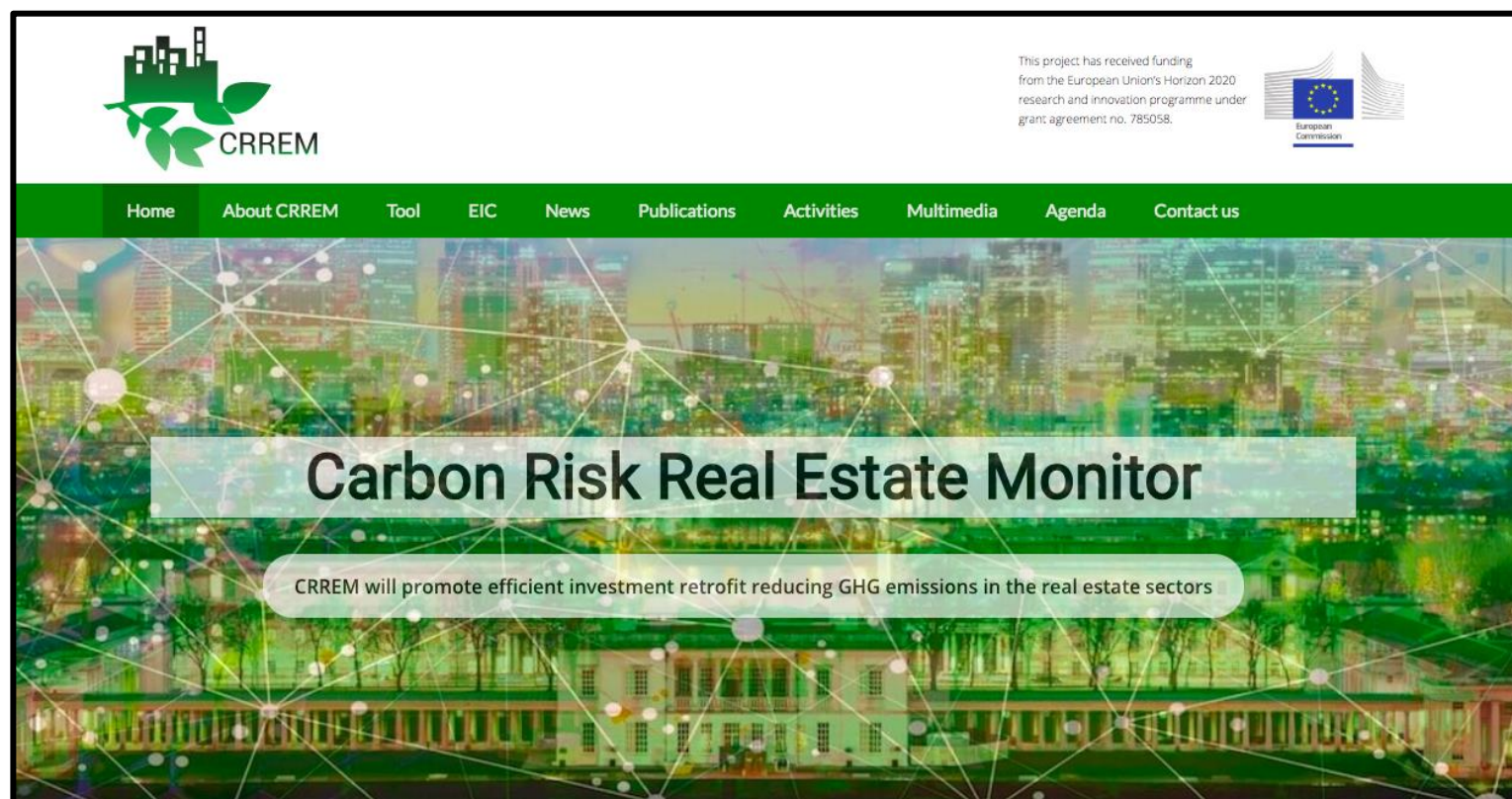


Emissionsminderungen, die aus wissenschaftlicher Sicht mit der Erreichung eines 2°C-Ziels vereinbar sind, gehen deutlich über aktuelle “KLIMAPOLITIK” (Regulierung) hinaus!

Decarbonisierung des EU Gewerbeimmobiliensektors



CRREM Website now accessible on www.crrem.eu



Q&A / Discussion