

SBE19 Graz: Reflections

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**Transition Towards
a Net Zero Carbon
Built Environment**



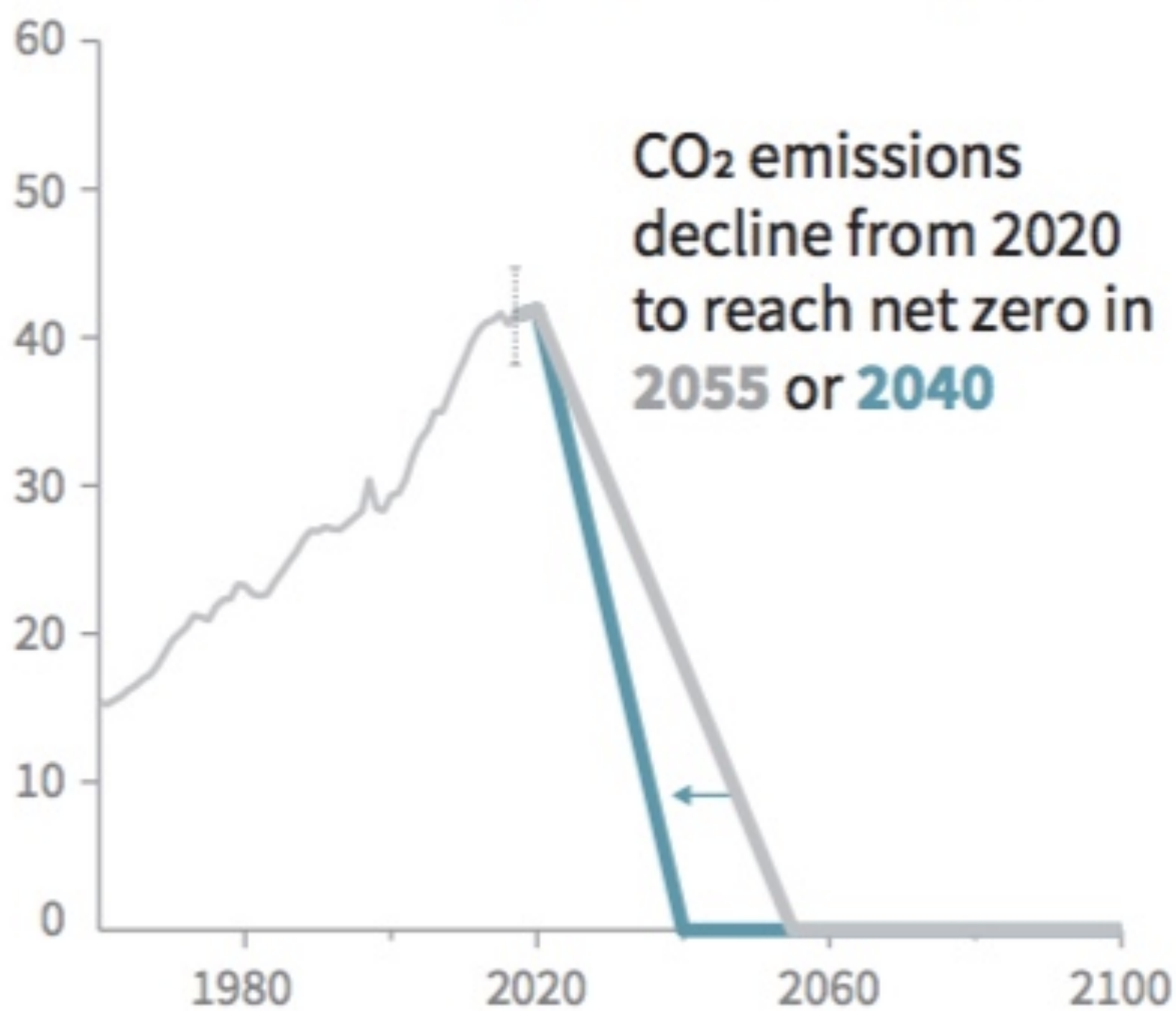
9 years





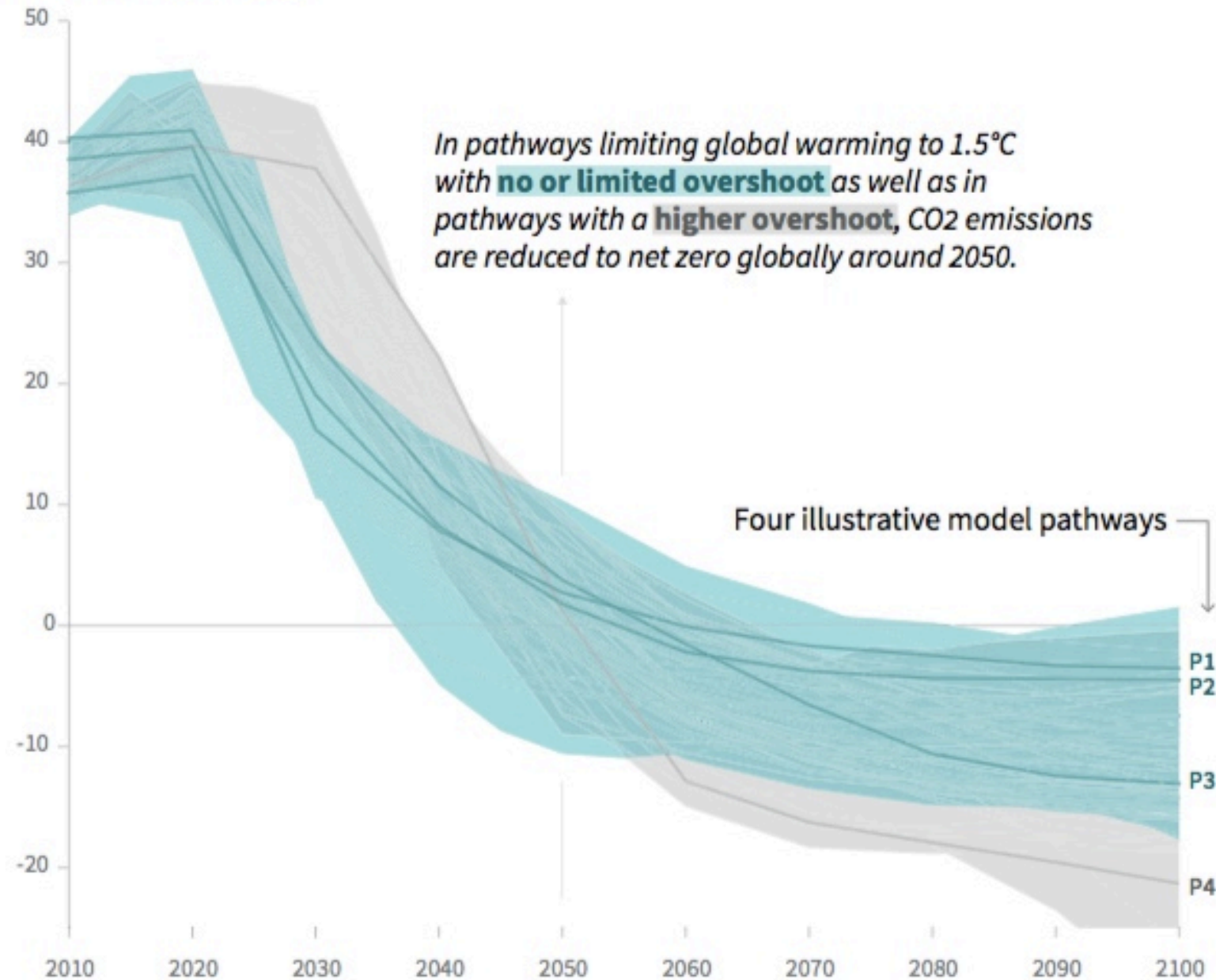
Transition Towards a Net Zero Carbon Built Environment

- An abrupt change in levels of energy / change in physical properties (physics)
- To move from one subject to another
- A passage from one theme to another (music)
- The immediate period in labour preceding child birth



Global total net CO₂ emissions

Billion tonnes of CO₂/yr



Important shifts

Multiple scales – buildings, n'hoods, cities & infrastr

Whole life impacts – resources & embodied emissions

Building stock retrofit

Energy / CO₂ -> wider set of SDGs

Rapid urbanisation (and shrinkage)

Important shifts (2)

Moving to implementation and practice

Engagement – policy, strategy and tactics

Mayors, planners, clients, financiers, designers, users....

GRAZ DECLARATION: CO2 metrics budgets & targets

Creating a shared / usable language to operationise...

Capabilities



Capabilities

- Technical solutions – often at building level
- Understanding and reducing risk
- Making the economic case
- Market drivers
- Reducing performance gaps
- Whole life carbon (embodied CO₂) (in progress)

Research community

- Provision of new knowledge, insights & validation
- Guidance & standards
- Increase policy literacy
- Increased involvement in policy
- Business model transformation
- Provide carbon metrics - targets for different scales

Societal transitions



- Envisioning
- Explaining values (leadership)
- Story telling - positive narrative
- Multiple perspectives (TD, BU, MO)
- Benefits

Policy engagement

- Stewardship and long-term thinking
- Winners and losers? Vested interests?
- Ease of acceptance, adoption & enforcement ?
- Political costs
- Risks and unanticipated consequences (outcomes?)
- Institutional delivery
- Capacity creation

Education & training





Graz Declaration

Principles, actions, research agenda

CFP: Carbon metrics f blgs & cities

www.buildingsandcities.org

WSBE 2020 Gothenburg

Roadmap for targets & actions