



Transformative Change for Sustainable Development

Nebojsa Nakicenovic

Deputy Director General

International Institute for Applied Systems Analysis

Professor Emeritus of Energy Economics

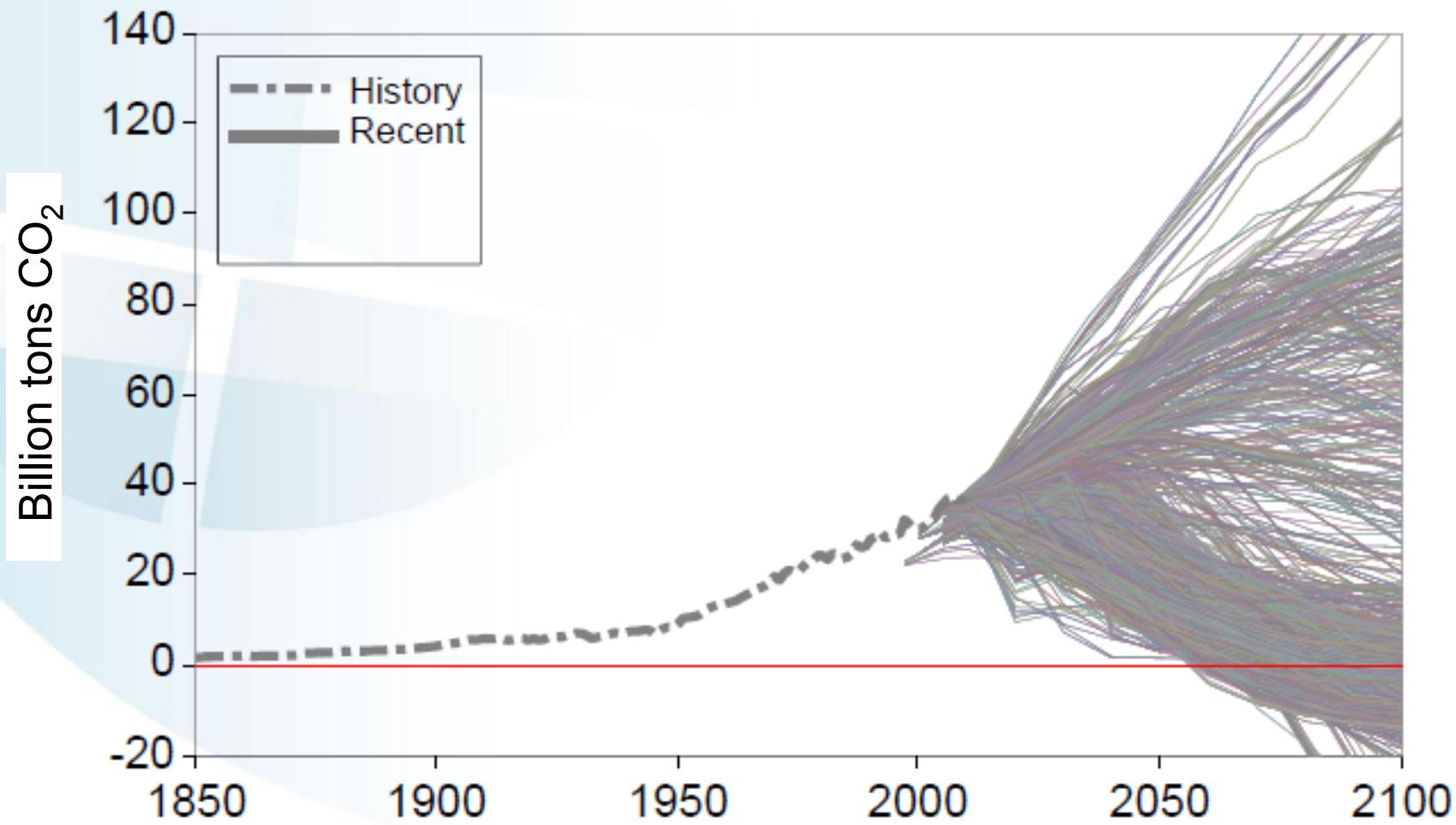
Vienna University of Technology

*High Level Political Forum on Sustainable Development
Session 20: Prospects for the future – projections, scenarios and new
and emerging issues, ECOSOC, New York – 20 July 2016*

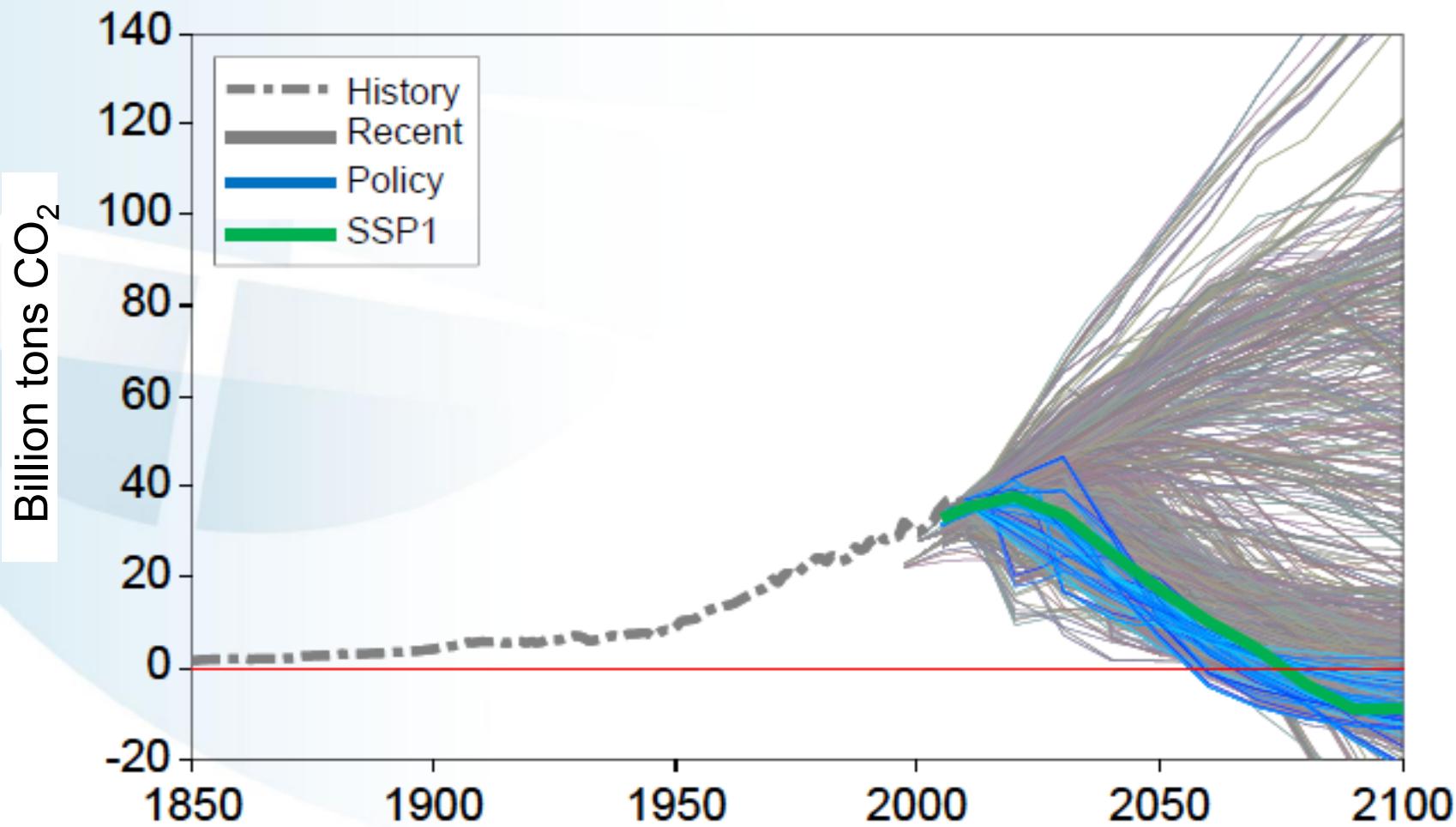


IIASA, International Institute for Applied Systems Analysis

Global Emissions CO₂



Global Emissions CO₂





SUSTAINABLE DEVELOPMENT GOALS

1 NO POVERTY



2 ZERO HUNGER



3 GOOD HEALTH AND WELL-BEING



4 QUALITY EDUCATION



5 GENDER EQUALITY



6 CLEAN WATER AND SANITATION



7 AFFORDABLE AND CLEAN ENERGY



8 DECENT WORK AND ECONOMIC GROWTH



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



10 REDUCED INEQUALITIES



11 SUSTAINABLE CITIES AND COMMUNITIES



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



13 CLIMATE ACTION



14 LIFE BELOW WATER



15 LIFE ON LAND



16 PEACE, JUSTICE AND STRONG INSTITUTIONS



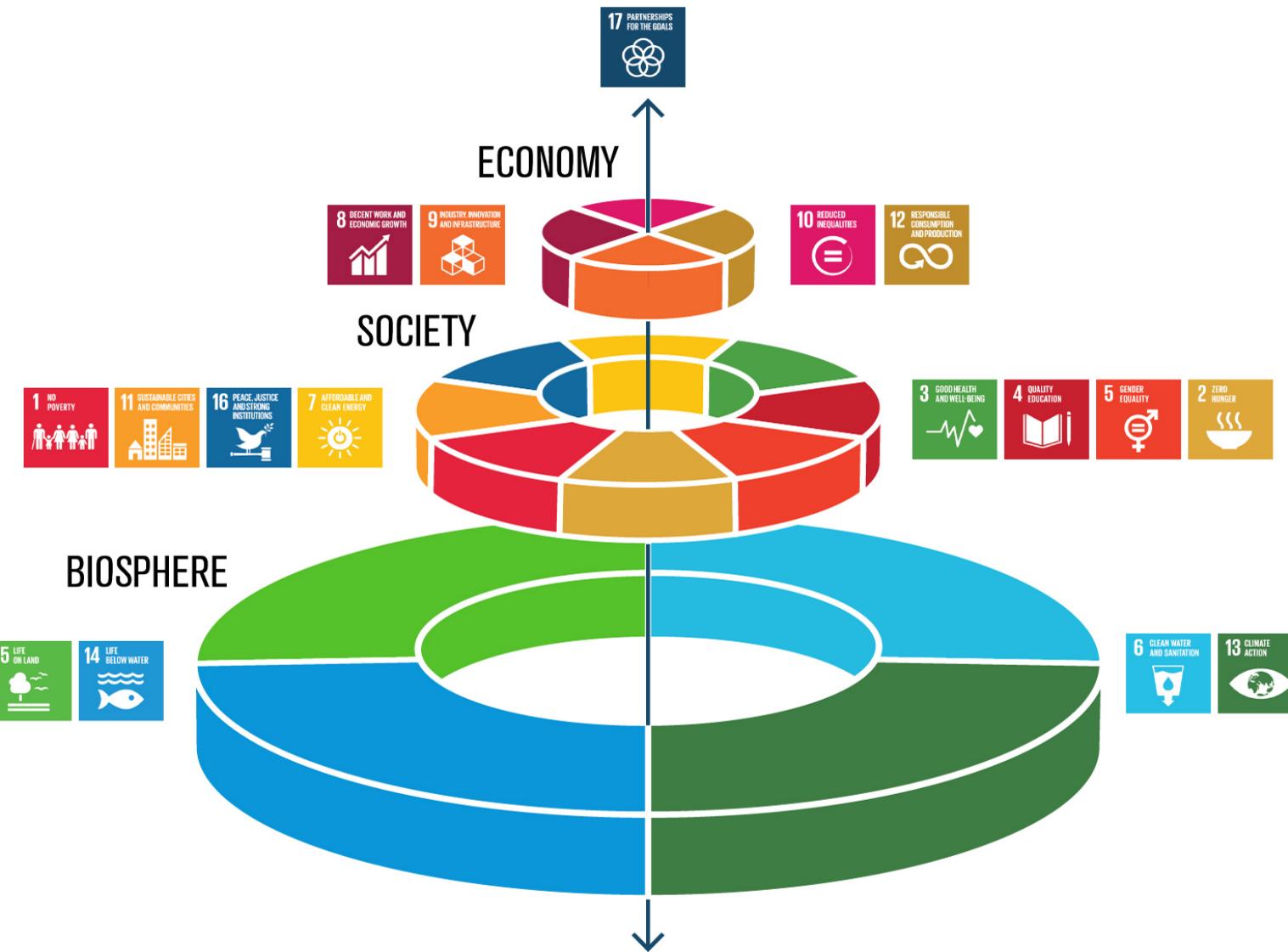
17 PARTNERSHIPS FOR THE GOALS



SUSTAINABLE
DEVELOPMENT
GOALS

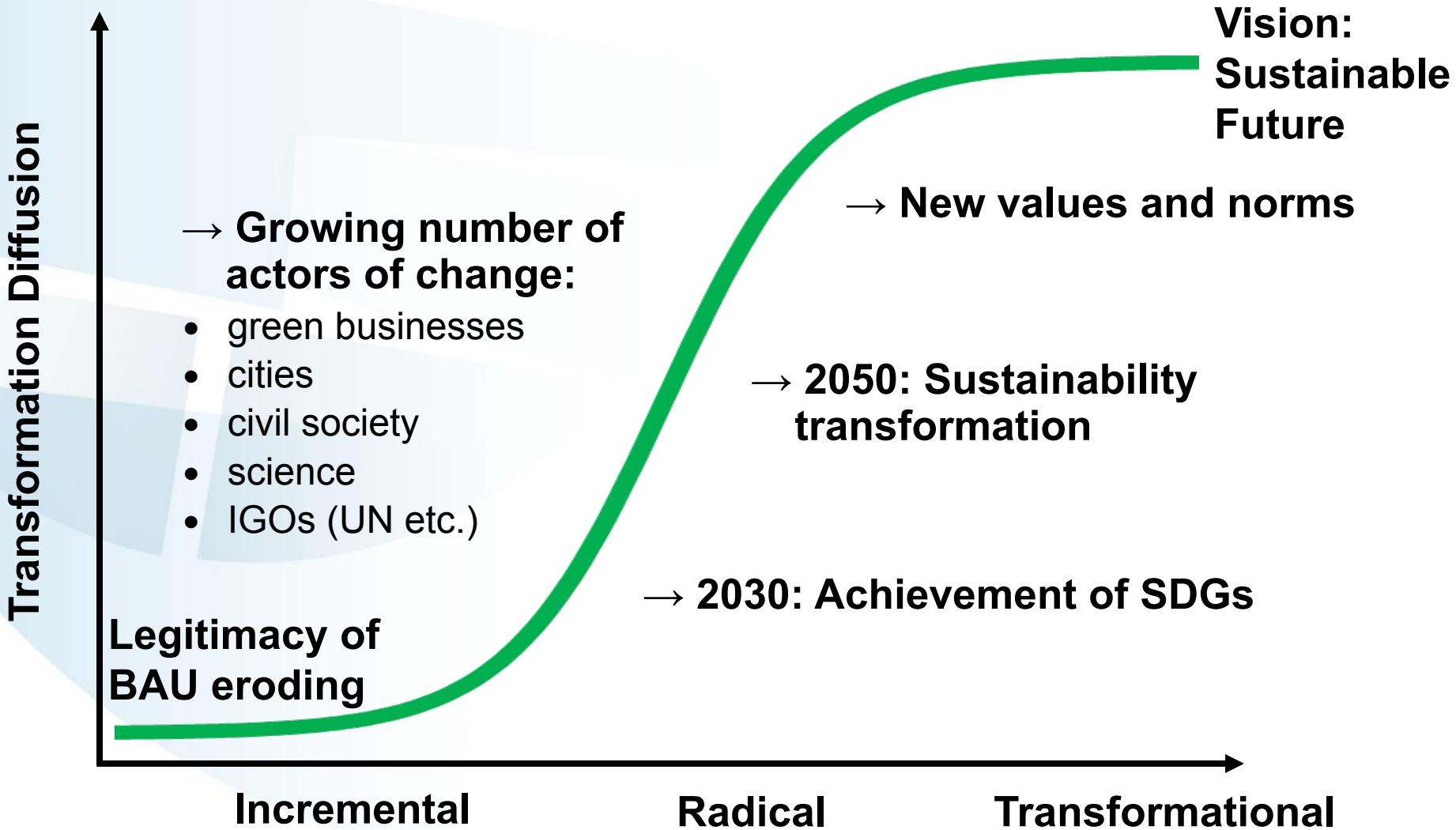


SUSTAINABLE DEVELOPMENT GOALS



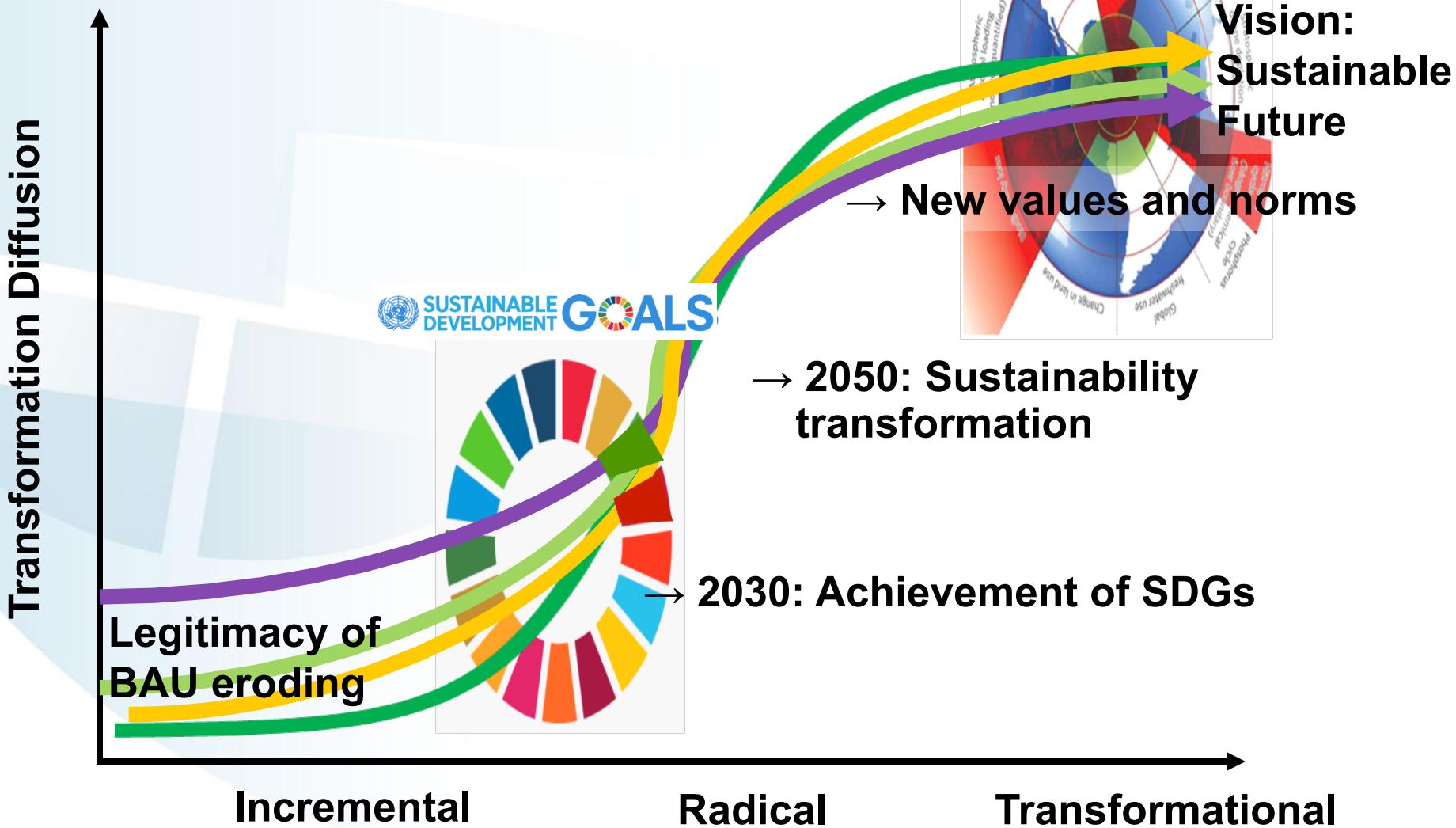
The World in 2050 (TWI2050)

“Doing More with Less” within Planetary Boundaries



The World in 2050 (TWI2050)

“Doing More with Less” within Planetary Boundaries



STI for Transformational Change

1850



1900



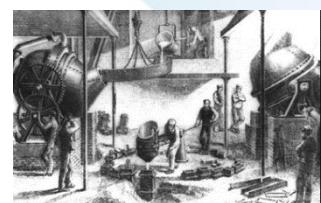
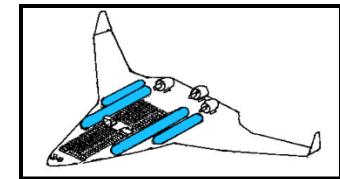
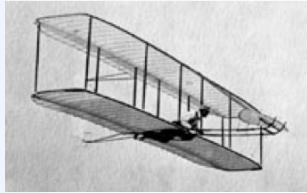
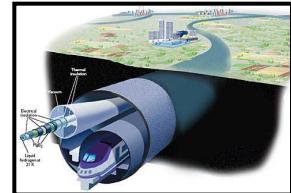
1950



2000



2050



Disruptive Change

Easter Parade on Fifth Avenue, New York, 13 years apart

1900: where's the car?



1913: where's the horse?



Images: L, National Archive, www.archives.gov/research/american-cities/Images/american-cities-101.jpg; R, shorpy.com/node/204.

Inspiration: Tona Seba's keynote lecture at AltCar, Santa Monica CA, 28 Oct 2014,
<http://tonaseba.com/layspot-on-tona-expo-100-electric-transportation-100-years-by-2030/>

The World in 2050 (TWI2050)

- ➔ How to achieve global development within a safe and just operating space
- ➔ “Safe space” of interaction among SDGs: sustainability narratives and integrated models e.g. SSP1, GEA, DDPP
- ➔ Multiple-benefits and tradeoffs of transformation toward sustainable futures



THANK YOU



naki@iiasa.ac.at

