CBS COPENHAGEN BUSINESS SCHOOL
HANDELSHØJSKOLEN

SUSTAINABLE URBANISATION

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PRESENTATION OVERVIEW

Happiness versa growth

Circular economy

The enertia of economic growth

Resource scarcity

The finality of resources

Eco-innovations: green-blue solutions and urban greening

The Social Innovation Community approach

The Sustainable Urbanisation – International Leadership Programme (SULP)

JEAN-CLAUDE JUNCKER

"Europe should be big on big things and small on small things"

SMART GROWTH

Growth that considers

Economy

Environment

Equity

CLIMATE CHANGE – A BIG THING!

The first decade of the 21st Century was the warmest even!

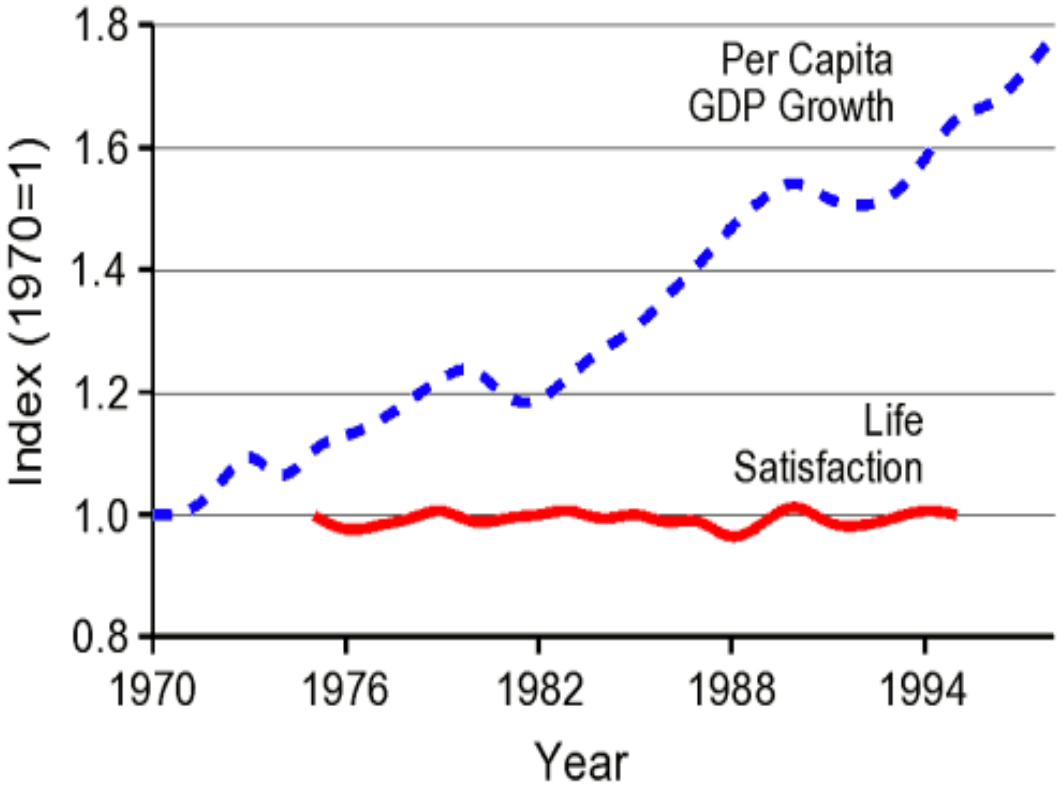
Climate is one of the biggest security issues of the 21st century:

Ex. 1: Climate related disasters: Copenhagen storm water outburst, Haiti, Fukushima 'triple disaster', Philippines, etc.

Ex 2: Earthquake and tsunami: Daiichi nuclear power plant - 243 billion euro in damage restoration

Ex. 3: Demographic climate migration: 25 mio. people from Africa to Europe within the next decade as a consequence of flooding and draught

HAPPINESS AND ECONOMIC GROWTH



Source: *Redefining prosperity: Resource productivity, economic growth and sustainable development*, SDC, 2003

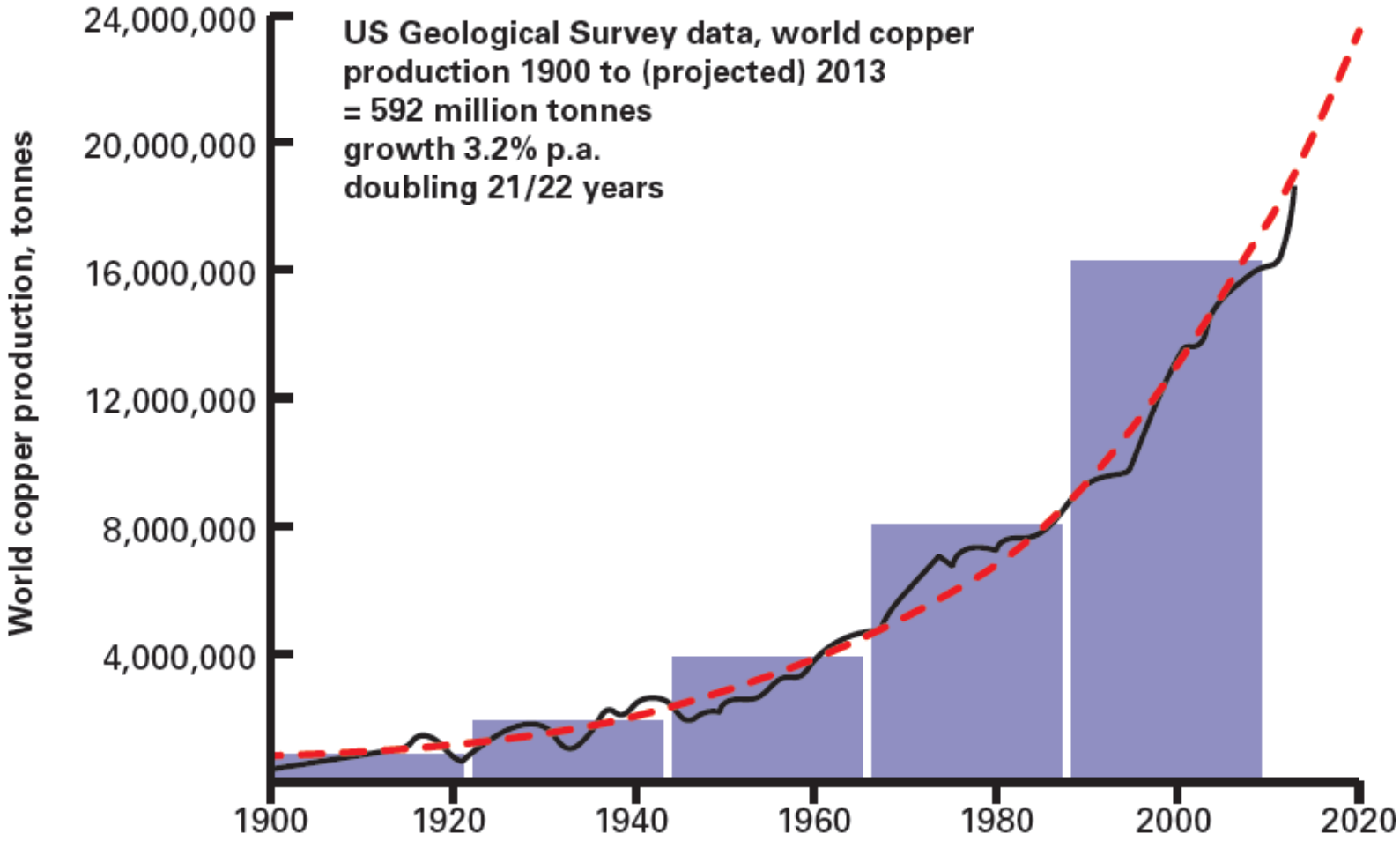
FROM A LINEAR TO A CIRCULAR ECONOMY

Circular economy is an industrial model that decouples revenues from material input (Source: McArthur, 'Towards the Circular Economy', 2014)

- Products are disassembled and reused
- Waste is eliminated or reduced
  - Linear economy: manufacturing for disposables and recycling have great energy losses and labour costs.
- Products are divided in consumable and durable
  - Consumables are regenerated
  - Durables are designed for reuse

Consumers become USERS with a continuous contract with businesses and the public sector.

GLOBAL COPPER LEVELS AND ECONOMIC GROWTH



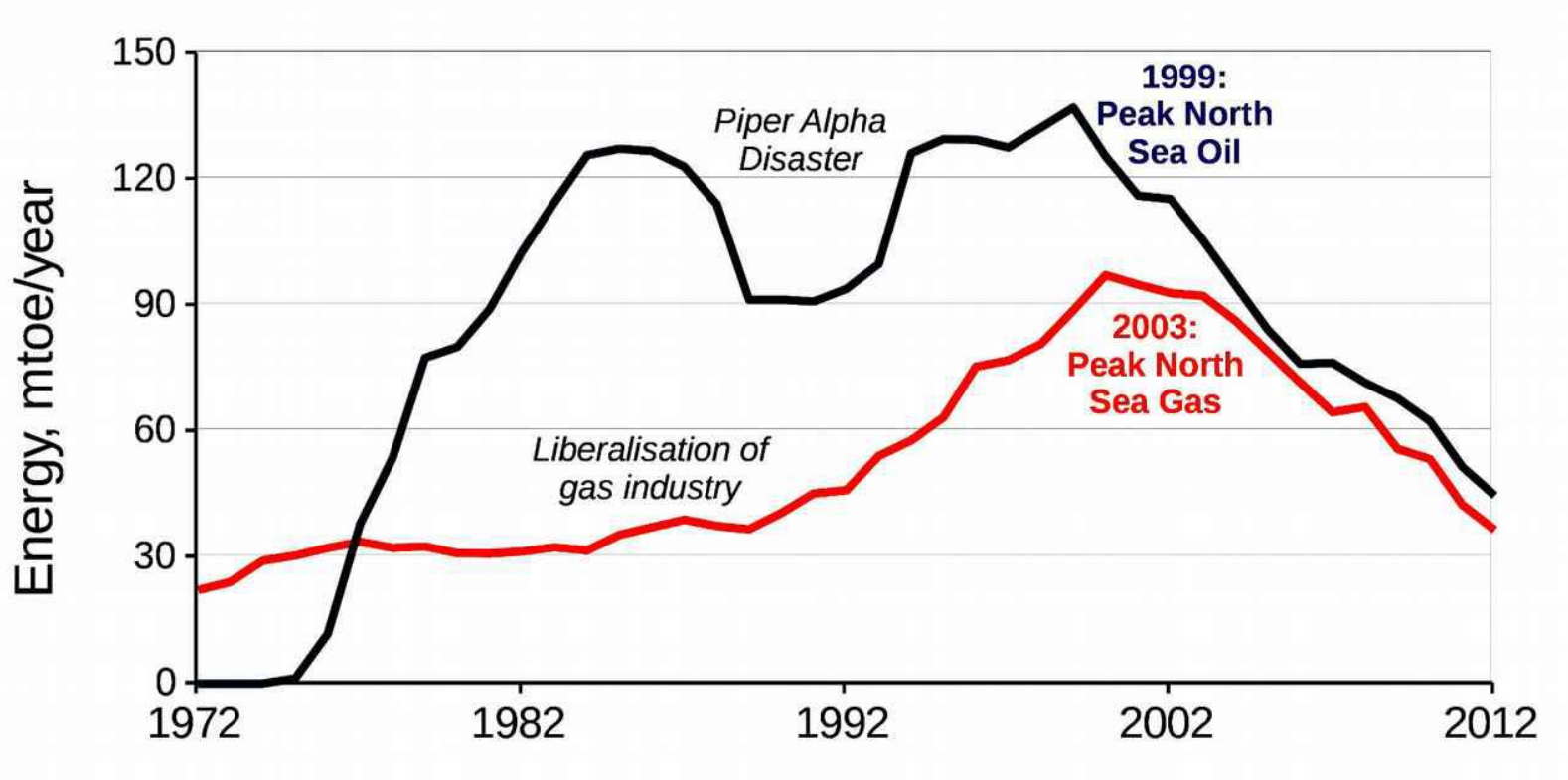
INERTIA OF ECONOMIC GROWTH

Exponential growth functions are everywhere in the economy. They are both created by growth and initiate further growth by our operations.

Additional strain

By end of this century, 85% of the World's population will live in cities leading to five billion new urban citizens.

FINALITY OF NATURAL RESOURCES



INFLATION ADJUSTED "REAL" OIL PRICES

50 years, from 1924 to 1973 – $13.81/bl.

Post-war boom, from 1949 and 1973 – $12.77/bl.

Post "First Oil Crisis", 1974 to 1998 – $42.58/bl

Recent, 2003 to 2012 – $77.96/bl

('Real oil prices', *Statistical Review of World Energy*, BP 2013)

CONFLICTING GOALS

Since early industrialisation, we follow a linear economy of ‘take-make-use-dispose’

Due to resource scarcity, there are increased resources prices and supply risks

Squeezed between increased resource prices, supply risks, markets in recessions and stagnation

- *Combined resource competition with market competition*

CONCLUSION

Our present economic difficulties will not go away, if we try to apply linear economic rules of take-make-use-dispose – developed in an era, where limits did not apply.

We are not proposing ‘de-industrialisation’. We propose a retooling of economics and commerce to work within ecological limits.

EXAMPLES OF ECO-INNOVATIONS

GREEN AND BLUE SOLUTIONS

ECO-INNOVATION IS 'INNOVATION THAT IMPROVES ENVIRONMENTAL PERFORMANCE'


BISHAN-ANG MO KIO PARK, SINGAPORE

BISHAN-ANG MO KIO PARK, SINGAPORE

AGGRESSION AND VIOLENCE IN THE INNER CITY: EFFECTS OF ENVIRONMENT VIA MENTAL FATIGUE

- Urban greening -> improved mental health -> people's ability to engage in reflective and effortful thought processing increases.
- One result is illustrated by neighbourhood social ties and support networks are stronger around greener neighbourhood spaces
- ROBERT TAYLOR HOMES – Chicago – sample 145 residents randomly assigned to inner-city social housing:

LAKE MICHIGAN AND PARKS OF LAKE SHORE DRIVE – CHICAGO

Within 3.2 km of the case study site…

'Cities should be designed with nature at every doorstep'

Kaplan (1985)

CURRENT RESEARCH INTO *HOW-TO* DO SUSTAINABLE URBANISATION

Social Innovation Communities

in Sustainable Cities

CITY STUDY CASES

Napoli, Italy – Cultural heritage restoration

Bucharest, Romania – Promoting green building standards

Platanias, Crete – Urban planning & tourism

Madrid, Spain – House eviction prevention

Goteborg, Sweden – Waste and recycling

Vienna, Austria – Urban mobility

RESEARCH QUESTIONS

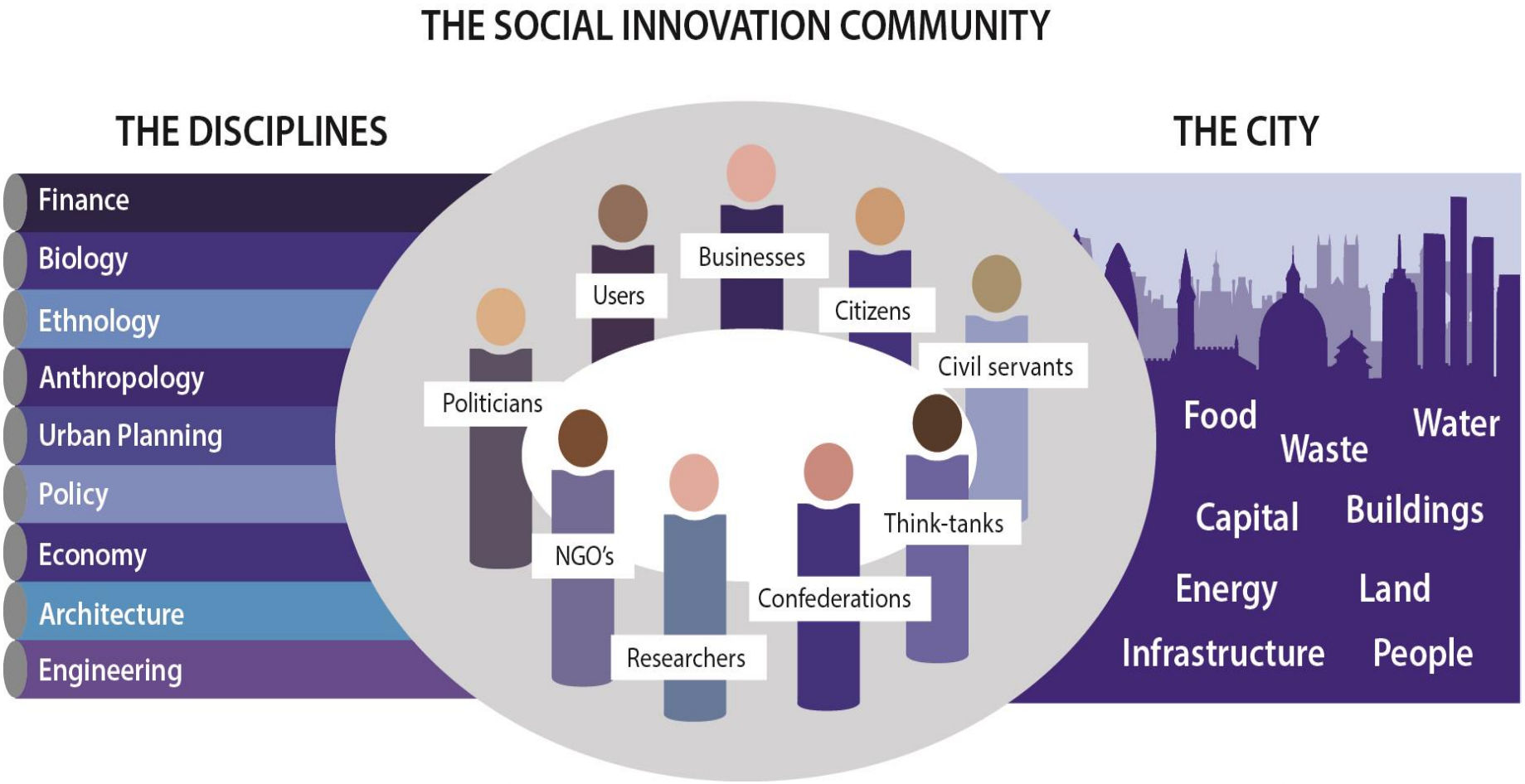
Main RQ: **How can sustainability serve as an engine for social innovation in cities?**

RQ1 How can Social Innovation Communities enhance our understanding of **sustainability-driven urban innovations**?

RQ2 How can Social Innovation Communities contribute to sustainability goals as a source for **equitable economic development** in cities?

RQ3 How can we replicate and up-scale Social Innovation Community **governance techniques**, in order to contribute to long-term economic development in cities?

THE SOCIAL INNOVATION COMMUNITY APPROACH



A SYSTEMIC MULTI-STAKEHOLDER APPROACH TO SUSTAINABLE URBANISATION

A systemic approach to innovation emphasizes the role of actors, networks and institutions; innovation systems are seen as knowledge or technology producing systems.

Firms are key actors that use knowledge and technologies to develop competitive products and services, and introduce them to the market.

Firms are connected through networks to other actors, the government, actors providing funding, and intermediaries that transfer knowledge and connect actors.

(Boons et al. 2012)

FOCUSING ON THE HUMAN ASPECT OF SOCIAL INNOVATION COMMUNITIES

My research shows that the critical success factors in partnerships, communities and other types of close collaboration are:

1. **Trust** – belief in the partner's expertise, reliability and intentionality
2. **Communication** – sharing of meaningful and timely information
3. **Collaboration** – the shared responsibility of the common activities in order to harvest benefits of idiosyncratic investments and relational rents.
4. **Commitment** – the desire to develop a stable relationship, the willingness to make short-term sacrifies to maintain the relationship and the confidence in the relationship. Loyalty and commitment go hand-in-hand.
5. **Interpersonal relations** – grown over time, - partners stand on the same historical, philosophical and strategic ground supported by common experiences, values, principals and hopes for the future.

International Leadership Programme

www.sustainableurbanisation.com

LOCAL CASES GLOBAL EXPERIENCE

CBS COPENHAGEN BUSINESS SCHOOL	**CBS** THEME: **SOCIETY**	*People, communities and sustainable urbanisation* **17-21 November, 2014 – Denmark**
TU Delft Delft University of Technology	**TU DELFT** THEME: **LIVING**	*Sustainability in the built environment* **16-20 February, 2015 – The Netherlands**
UNIVERSITY OF OXFORD · TSU OXFORD	**OXFORD UNIVERSITY** THEME: **MOBILITY**	*Sustainable urban transport* **20-24 April, 2015 – United Kingdom**
PEKING UNIVERSITY	**PEKING UNIVERSITY** THEME: **TECHNOLOGY**	*Management of environmental technology* **15-19 June, 2015 – China**
INSEAD The Business School for the World® · Social Innovation Centre	**INSEAD** THEME: **ECONOMY**	*The sustainable business model* **28 September – 2 October, 2015 – France**

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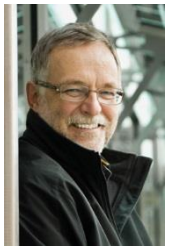

Nobel Prize Winner – Environment 2007
Professor John Robinson

Vice President Bookings Institute – The Metropolitan Policy Program
Bruce Katz

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