BMBF's Research Vision & the Rapid Planning Project

Rapid Planning Stakeholder Conference
Kigali/Rwanda
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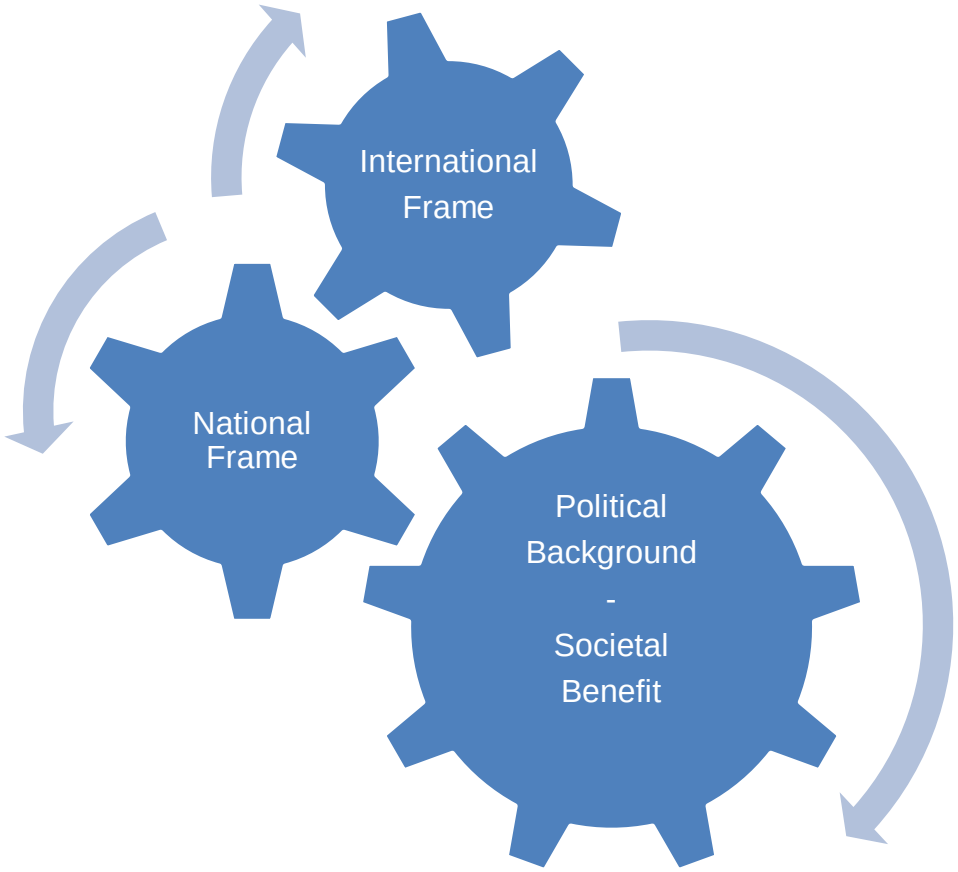
Dr. Andrea Koch-Kraft
andrea.koch-kraft@dlr.de

DLR Project Management Agency

Motivation for BMBF's Research Programmes



International Cornerstones:

On September 25th 2015, countries adopted a set of goals to **end poverty**, **protect the planet**, and **ensure prosperity for all** as part of a new sustainable development agenda. Each goal has specific targets to be achieved over the next 15 years.

For the goals to be reached, everyone needs to do their part: governments, the private sector, civil society and people like you.

Goal 11: Make cities inclusive, safe, resilient and sustainable

TARGETS

11.1
By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums

11.2
By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons

11.3
By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries

11.4
Strengthen efforts to protect and safeguard the world's cultural and natural heritage

11.5
By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations

11.6
By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management

11.7
By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities

11.a
Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning

11.b
By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and

adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels

11.c
Support least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilizing local materials

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Paris Agreement

COP21 closed on 12 December 2015 with the adoption of the first international climate agreement (concluded by 195 countries and applicable to all). The twelve-page text, made up of a preamble and 29 articles, provides for a limitation of the temperature rise to below 2°C and even to tend towards 1.5°C. It is flexible and takes into account the needs and capacities of each country. It is balanced as regards adaptation and mitigation, and durable, with a periodical ratcheting-up of ambitions.

International Cornerstones:

HABITAT III
QUITO - OCTOBER 2016
United Nations Conference on Housing and Sustainable Urban Development

127/ 175: We recognize that the implementation of the New Urban Agenda requires an enabling environment and a wide range of means of implementation including access to science, technology, and innovation and enhanced knowledge sharing on mutually agreed terms, capacity development, and mobilization of financial resources…

„Sustainable development meets the needs of the present without compromising the ability of future generations to meet their own needs."

Federal Government's/ BMBF's Cornerstones:

- "Research for Sustainable Development" framework programme:
  - City of the Future (2015 Focus)
  - energy transition
  - sustainable economic activity

Flagship Report: "Humanity on the move. Unlocking the transformative power of cities"

Federal Government's/ BMBF's Cornerstones:

RAPID PLANNING

Eine Initiative des Bundesministeriums für Bildung und Forschung

Wissenschaftsjahr 2015

Zukunftsstadt

FONA

Research for Sustainable Development

BMBF

Nationale Plattform Zukunftsstadt

WBGU

German Advisory Council on Global Change

WETTBEWERB

Zukunftsstadt

2030

Future Megacities

Megastädte von morgen

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Implementation of BMBF's International Urban Research (selected measures)

www.future-megacities.org

Goals and Budget

Climate change mitigation and adaptation measures for the establishment of energy- and climate-efficient structures

Total research budget:
approx. 50 Mio €
for 9 years (-> 2014)
for 34 German research institutions, in-kind contribution of foreign partners

www.future-megacities.org

Impact

Funding of 9 bilateral research projects & capacity building measures in 8 countries (5 Asia, 1 Latin America, 3 Africa), approx. 1000 research products

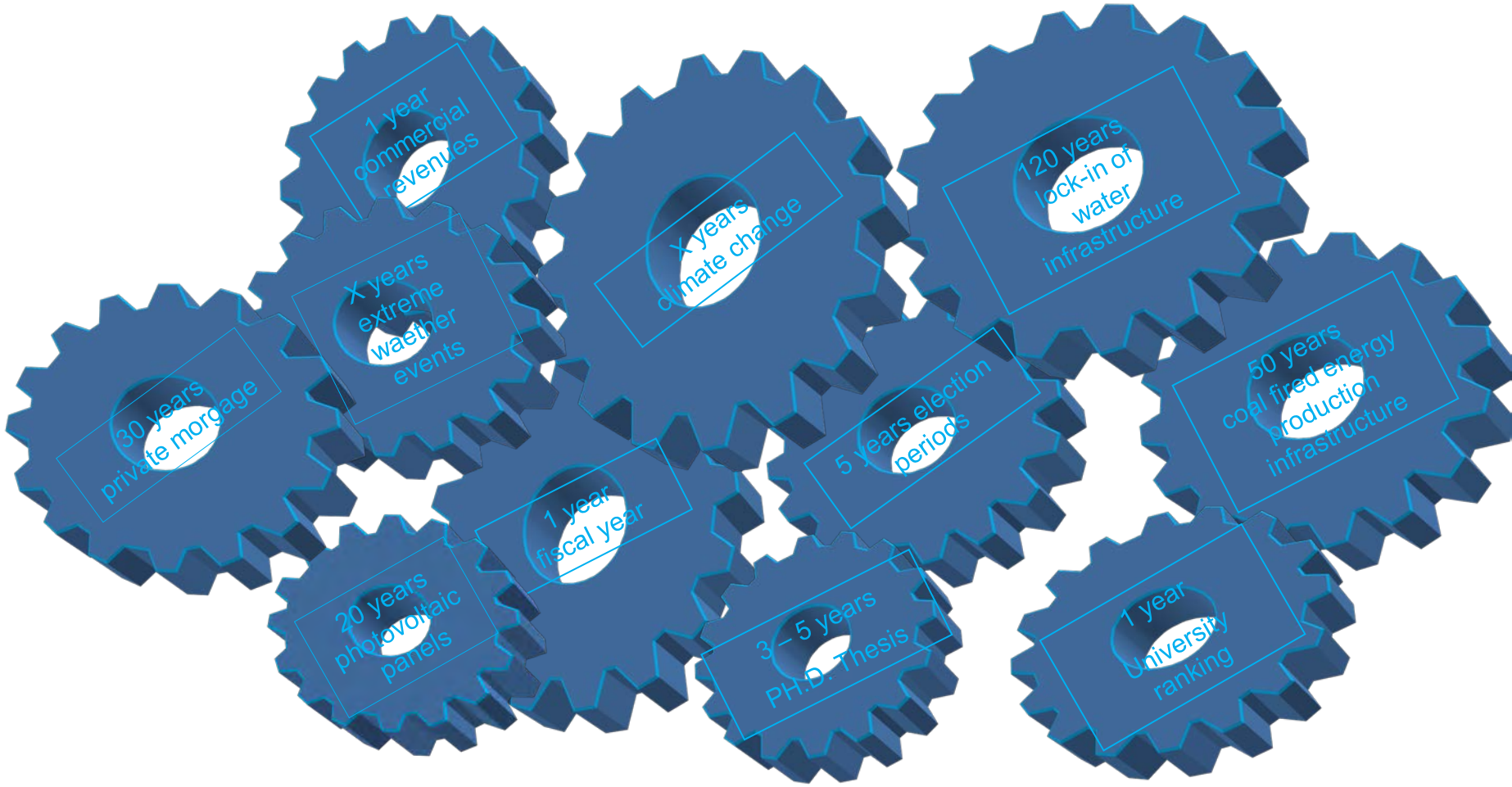
Implementation of BMBF's International Urban Research (selected measures)

Rapid Planning (2014 – 2019),
Sustainable infrastructure, environmental & resource management for highly dynamic metropolises; features the regions of Sub-Saharan, Africa, the Arab States, South East Asia and Europe

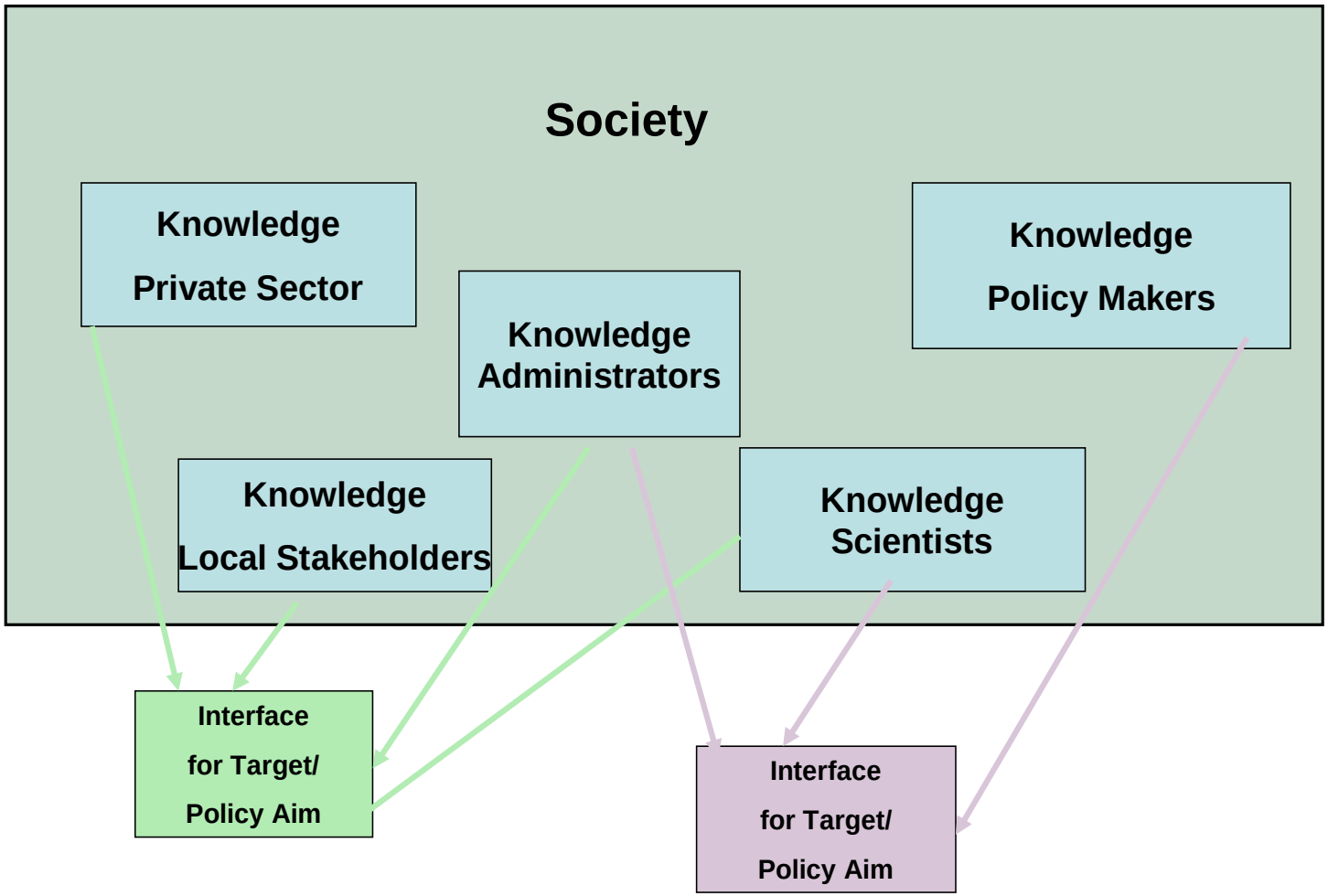
RAPID PLANNING

www.rapid-planning.net

City Action – Time Frames of Different Actors



Adapted from Koch-Kraft 2013:



Implementation-oriented science/sustainability science: Different forms of knowledge to be assembled individually and in relation to the policy- /implementation-oriented target being set by the research group
(Source: Peter Moll, Ute Zander 2006)

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Thank you very much for your attention

Our subjects

- » World of work
- » Education
- » Society
- » Environment
- » Health
- » Culture
- » Innovation
- » Technologies

DLR-PT, Berlin

Facts and figures

~1,000 employees, more than half of them researchers

3 locations: Bonn, Cologne, Berlin, **1** office in Brussels

~1 billion euros in funding and 9,500 projects annually

Our clients


DLR-PT, Cologne

- Federal ministries, state ministries, public authorities
- Foundations, associations, research organisations
- European Commission, foreign government bodies

Selection:

Bundesministerium für Arbeit und Soziales

Bundesministerium für Bildung und Forschung

Bundesministerium für Familie, Senioren, Frauen und Jugend

Bundesministerium für Gesundheit

Bundesministerium für Wirtschaft und Energie

EUROPÄISCHE UNION

Bundesamt für Naturschutz

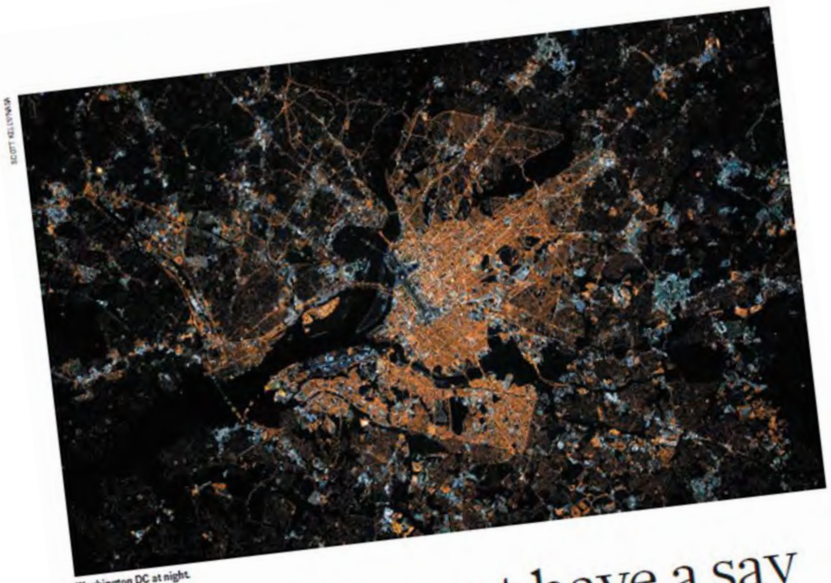
EURASIA FOUNDATION

Ministerium für Innovation, Wissenschaft und Forschung des Landes Nordrhein-Westfalen

BADEN-WÜRTTEMBERG STIFTUNG

Gemeinsamer Bundesausschuss

COMMENT



Washington DC at night.

Scientists must have a say in the future of cities

A United Nations conference seeks urban sustainability. But the agenda will fail without input from researchers, warn **Timon McPhearson** and colleagues.

More urban areas will be built in the next 30 years than ever before. Growing settlements will increase demand for infrastructure, food, energy, water and housing. Simply meeting the projected urban expansion will breach the warming limit set by the 2015 Paris climate agreement.

This week, the United Nations' third major global cities conference, Habitat III, convenes in Quito, Ecuador. Held every 20 years, this multilateral meeting will adopt a global framework for making cities more sustainable — the New Urban Agenda (NUA). Sadly, science was largely absent from the drafting process of the NUA. By contrast, expert evidence guided the Paris climate deal, the 2015 Sendai Framework for Disaster Risk Reduction and the UN's 2030 Agenda for Sustainable Development and its Sustainable Development Goals (SDGs).

One reason is that the scientific community was unprepared for Habitat III. The few scientists invited to participate accepted a consultative role, nested among other public voices. Then, in late July, negotiators dropped the proposed multistakeholder panel, which would have formally embedded scientists and other non-state representatives in the implementation process. European Union members and other rich countries were concerned that the panel would be expensive. The final draft of the NUA[1] brokered in New York last month failed to reverse this. It is thus necessary to argue the case once again for the importance of urban science and of establishing a science–policy interface for the NUA.

Urban research is disparate, marginalized and ill-prepared to interact effectively with global policy. The Habitat III agenda requires a global community of urban biophysical and social scientists to assess developments and help direct progress. To achieve the SDGs and the NUA, the global urban research community must come together to develop institutions, funding mechanisms and research agendas.

URBAN ACCELERATION

Rapid urbanization is one of the biggest social transformations in human history[2]. Cities are depleting resources and face new

Motivation for BMBF's Research Programme Future Megacities (2005-2014)

Identify a (Mega)Trend:


Nature / Vol 437/15 September 2005

NEWS FEATURE

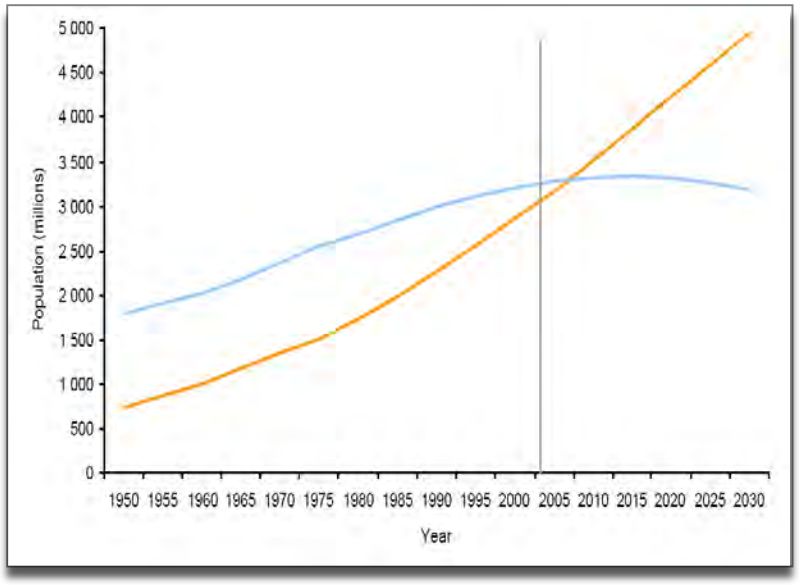
NATURE | Vol 437 | 15 September 2005

Megacity, mega mess...

The creaking infrastructure of Indonesia's capital is overwhelmed by people, vehicles and pollution. As urbanization gathers pace across the developing world, **Jessica Marshall** visits Jakarta to witness its stomach-churning consequences.

Source: Nature, Vol. 437/ 15 Sept 2005

Data: UN, OECD, International Studies



Urban and Rural Demographic Trends

Source: UN 2004