Werkzeuge für Raumplanung und Städtebau

Prof. Dr. Marc Angélil

ISB Institut für Städtebau
Professur für Architektur und Entwurf

NSL Netzwerk Stadt und Landschaft
Network City and Landscape

Los Angeles, USA population 2005: 17 mio / projected population 2015: 20 mio

São Paolo, Brazil population 2005: 18 mio / projected population 2015: 22 mio

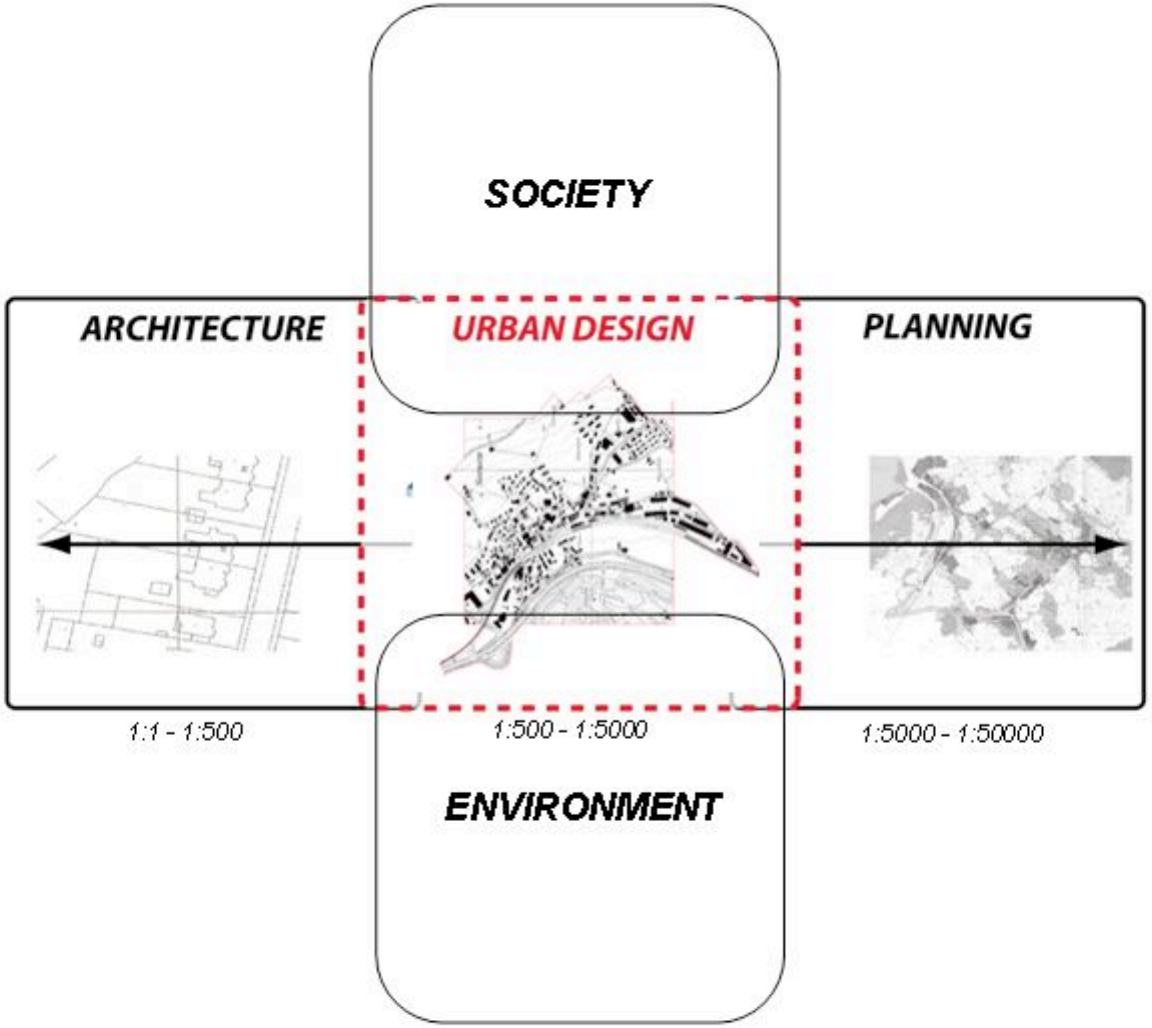
Addis Ababa, Ethiopia population 2005: 3.5 mio / projected population 2015: 5 mio

Singapore population 2005: 4.3 mio / projected population 2015: 4.8 mio

Switzerland population 2005: 7.5 mio / projected population 2015: 7.9 mio

Dynamische Instrumente
für die Peripherie:
Schlieren/ZH
INDIZIEN
MARC ANGELIL

WERKZEUGE URBANER MORPHOGENESE
Strategien zur Entwicklung zeitgenössischer urbaner Territorien
Marc Angélil, Michael Martin, Philippe Cabane, Lukas Koeng, Patrick Maisano, Martin Matter, Benjamin Theiler
Schweizerischer Nationalfonds
Nationales Forschungsprogramm 54
Nachhaltige Siedlungs- und Infrastrukturentwicklung
Professur für Architektur und Entwurf
Prof. Dr. Marc Angélil
D-ARCH, ETH Z, NSL Netzwerk Stadt und Landschaft
ETH
Eidgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich


SOCIETY
ARCHITECTURE
URBAN DESIGN
PLANNING
1:1 - 1:500
1:500 - 1:5000
1:5000 - 1:50000
ENVIRONMENT

SOZIALES GEFÜGE (öffentliche Hand, privater Sektor, Bevölkerung, Experten, etc.)

PROZESS

PLAN

MODELL

BILD

PROJEKT

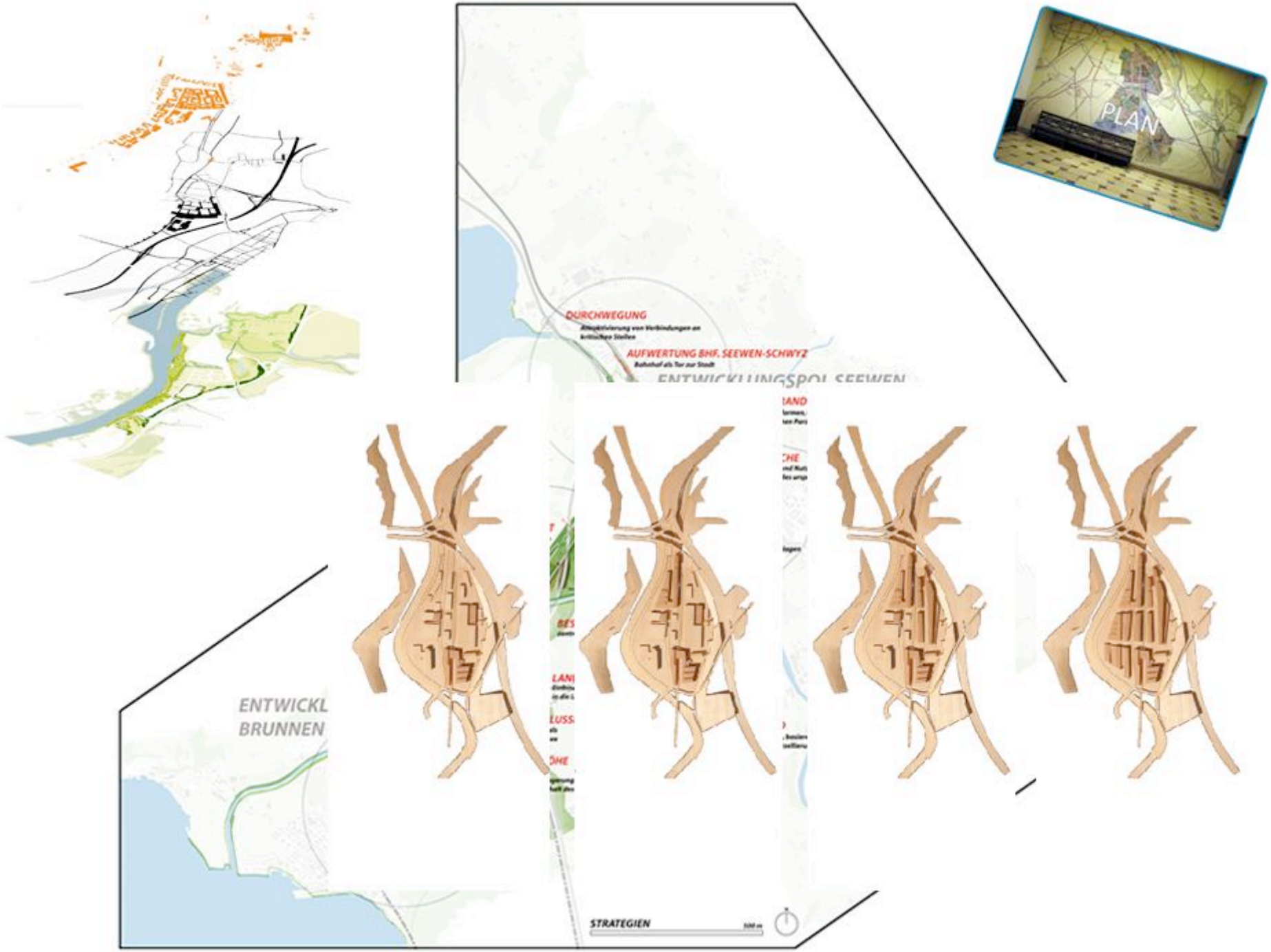
RÄUMLICHES GEFÜGE (gebaute Masse, Landschaften, Infrastrukturen, etc.)

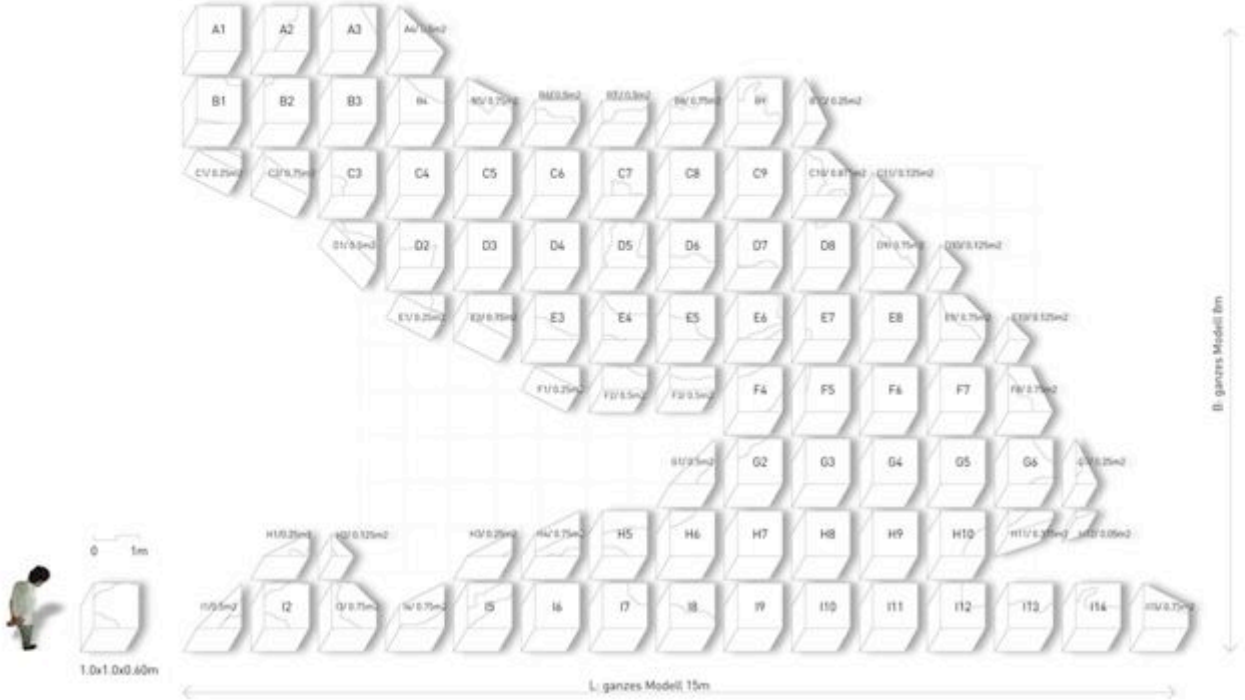
URBANE WERKZEUGE

MODELL

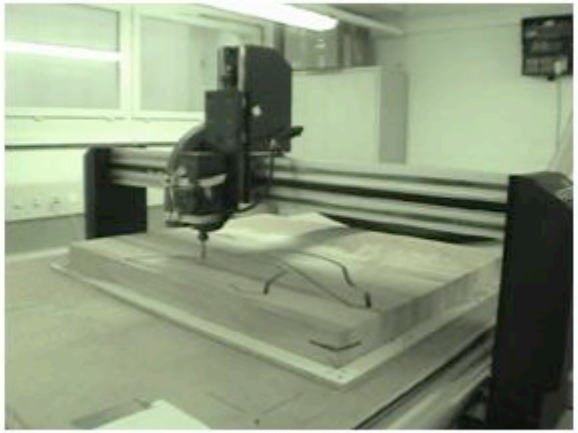
PROZESS

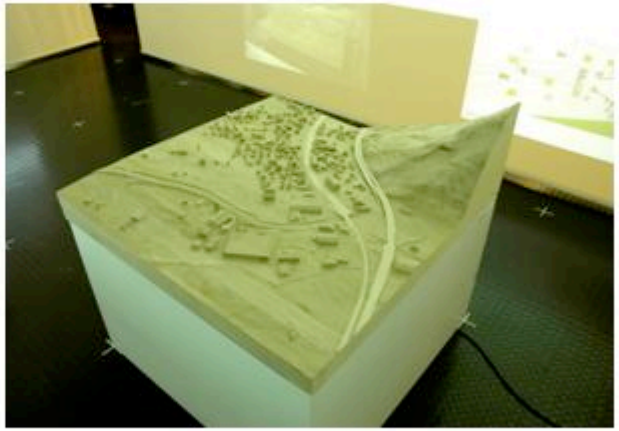
18%
9%
27'000
21%
10%
12%
25%
20%
28'000
27%
35%
25%
30%
52 m2

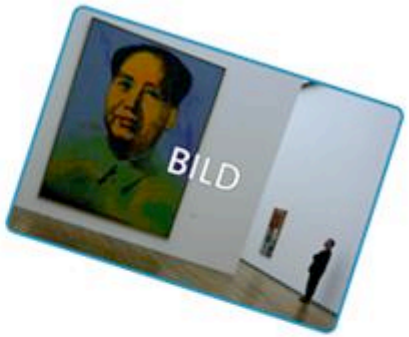

PLAN
DURCHWEGUNG
AUFWERTUNG BHF. SEEWEN-SCHWYZ
ENTWICKL
BRUNNEN
STRATEGIEN



	Format	Beschreibung, weitere Informationen
Digitales Oberflächenmodell	DOM-AV (xyz)	ASCII X, Y, Z
Digitales Geländemodell	DTM-AV (xyz)	ASCII X, Y, Z
Ausgedünntes digitales Geländemodell	DTL oder DTM-AV (light)	ASCII X, Y, Z
Digitales Geländemodell im 2m-Raster	DTG oder DTM-AV Grid 2m	ASCII X, Y, Z



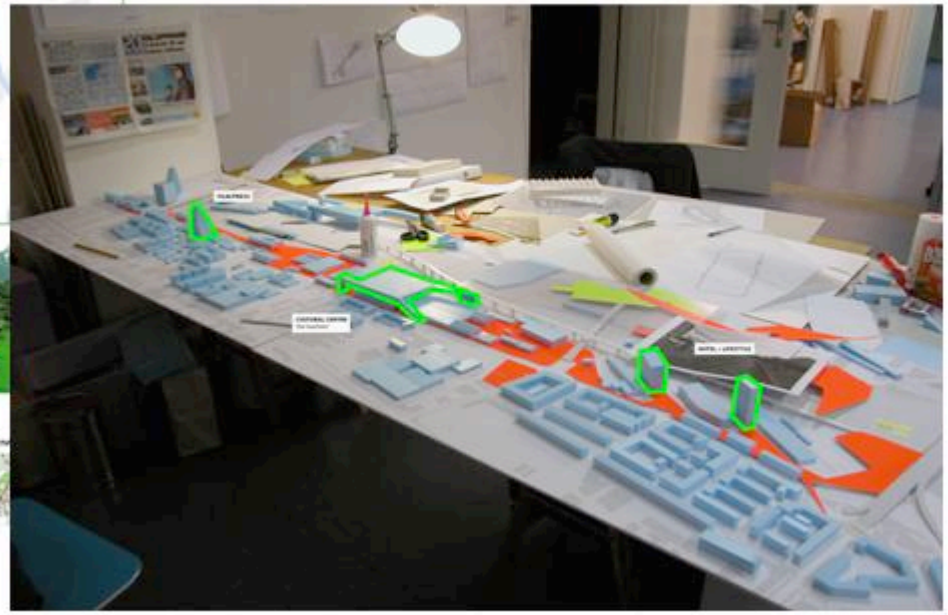




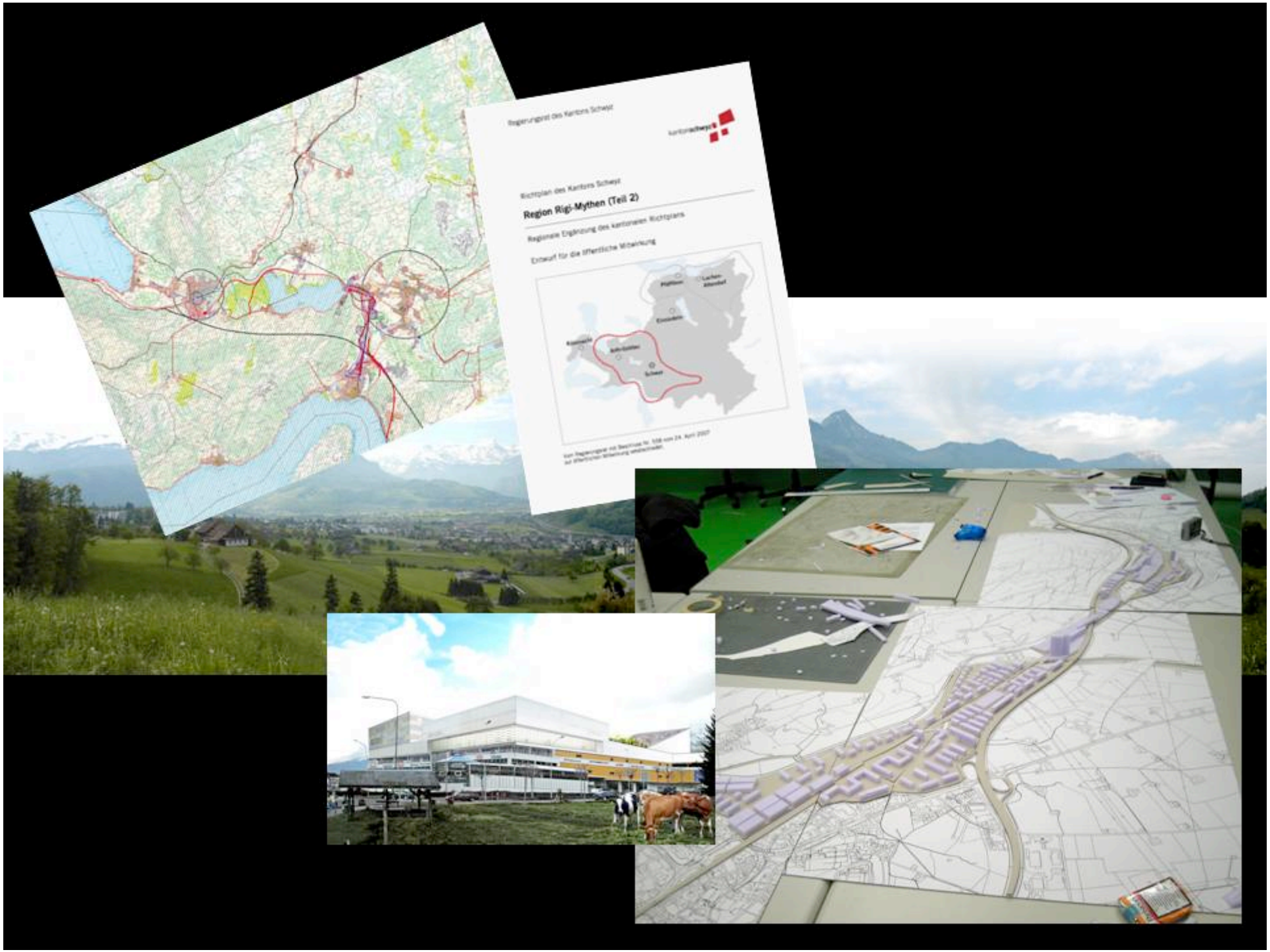
BILD

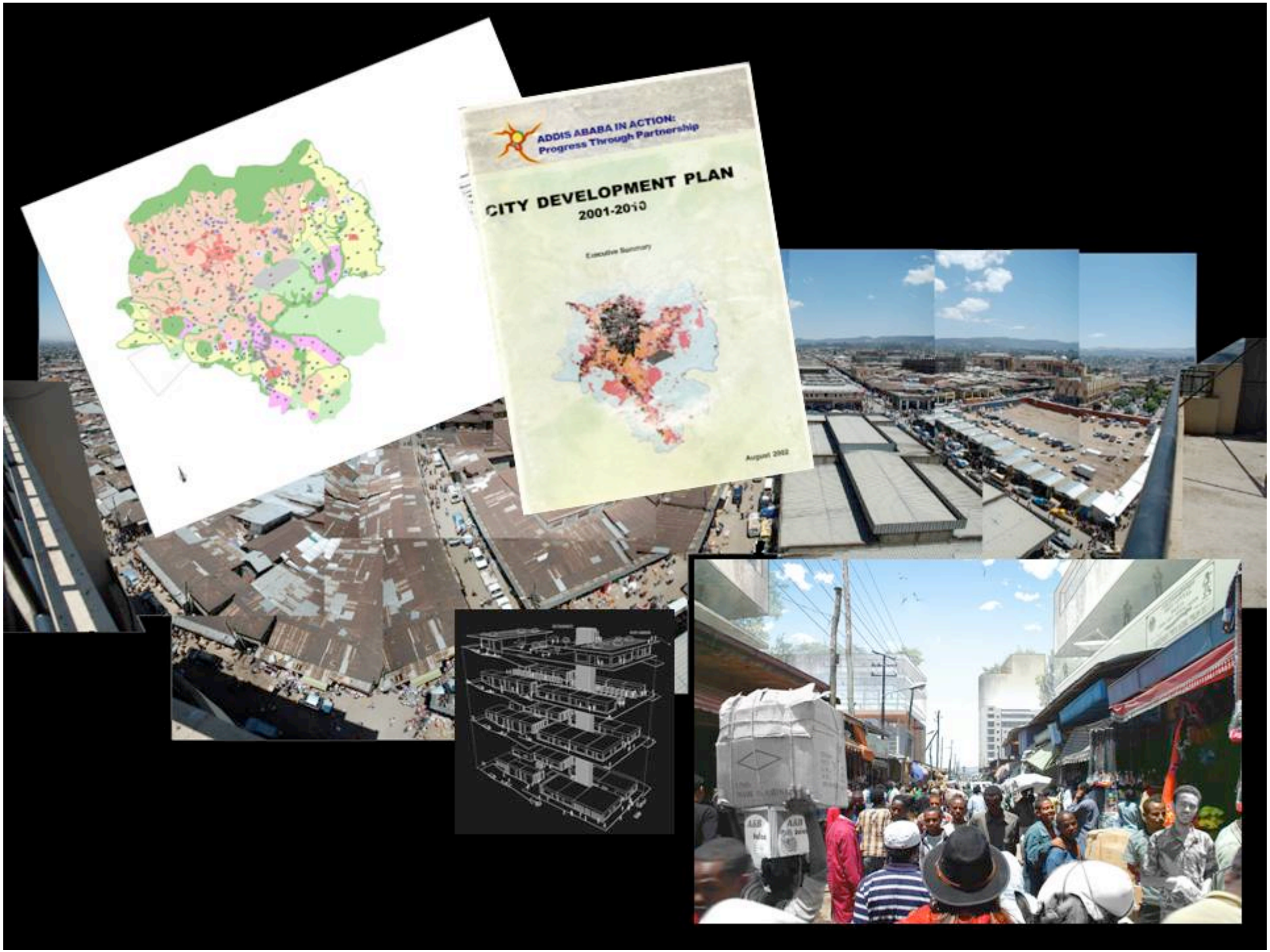
PROJEKT

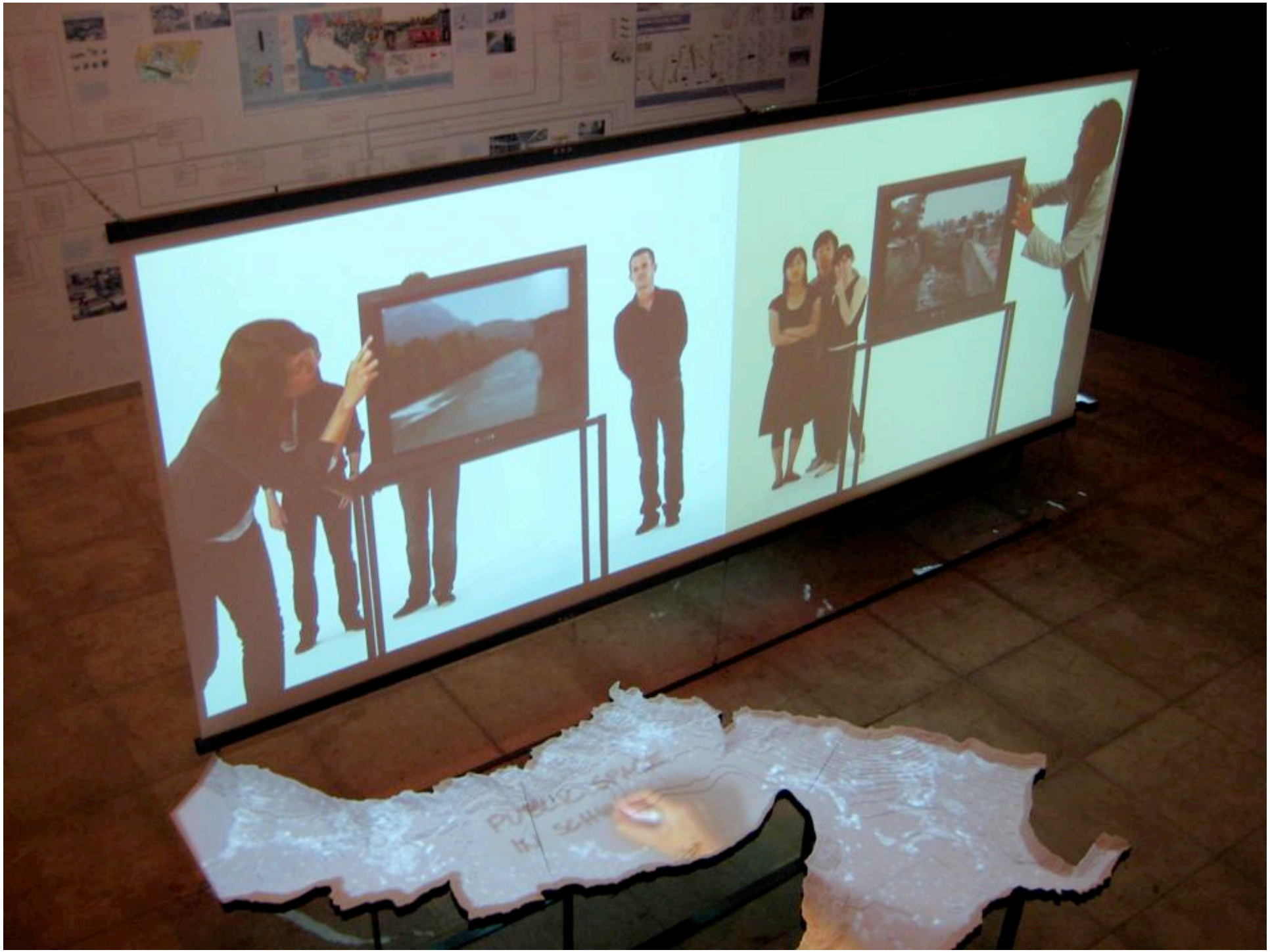
TEMPORARY LAKE
CONNECTIONS
ENHANCING CONNECTIONS FOR SLOW TRAFFIC
IN KEY LOCATIONS
UPGRADING STATION SEEWEN-SCHWYZ
TRAIN-STATION AS GATE
DENSIFICATION OF FORMER CONCRETE FACTORY
DEVELOPMENT
AREA SEEWEN
HORIZONTAL DENSIFICATION
LOW RISE DENSIFICATION AND RE-PROGRAMMING
PHASED TRANSFORMATION PRESERVING INITIAL CHARACTER
RETENTION BASIN
WATER CATCHMENT AREA AS ARTIFICIAL LANDSCAPE ELEMENT
OUTDOOR SPORT
EXTENSION OF EXISTING SPORT FACILITIES
LEISURE
LEISURE-/ SPORT-FACILITIES
HIGHWAY REST AREA
S-BAHN STOP
SPORT
BIOGAS PLANT
SUSTAINABLE EXTENSION
OF LOCAL AGRICULTURE
VISITORS CENTER
CENTRAL PARK
DEVELOPMENT
AREA BRUNNEN
ARTIFICIAL LANDSCAPING
INTEGRATION OF TRAFFIC INFRASTRUCTURES
INTO THE LANDSCAPE
UPGRADING RIVERBANKS
LINEAR PARKSCAPE CONNECTING THE LAKES
PERIURBAN BLOCK
INNOVATIVE HOUSING TYPES
BASED ON AGRICULTURAL PARCELLING
VERTICAL DENSIFICATION
HIGH RISE DENSIFICATION AND
RE-PROGRAMMING, PHASED TRANSFORMATION
PRESERVING INITIAL CHARACTER
UPGRADING STATION BRUNNEN
TRAIN-STATION AS GATE
METROPOLITAN PLAYGROUND

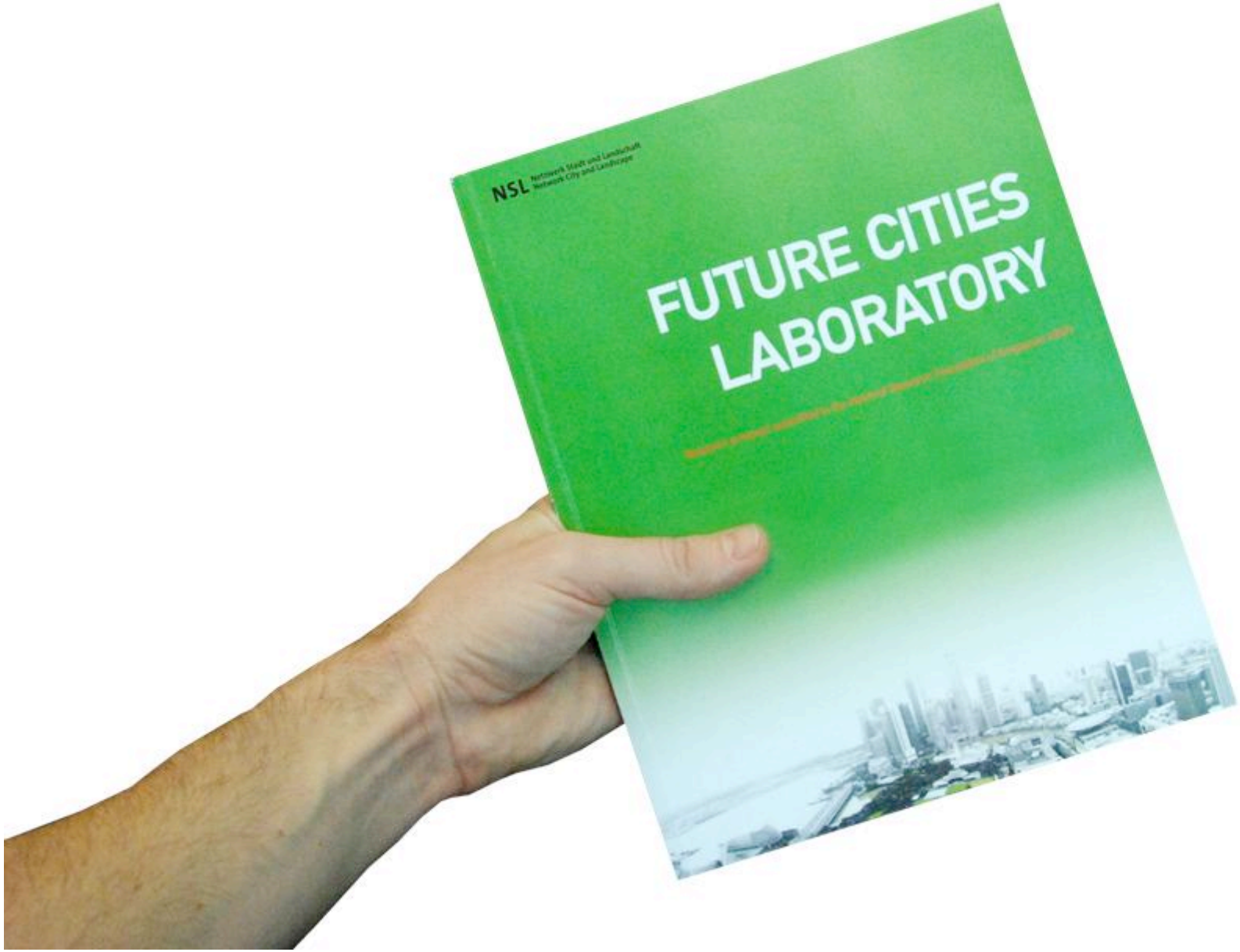


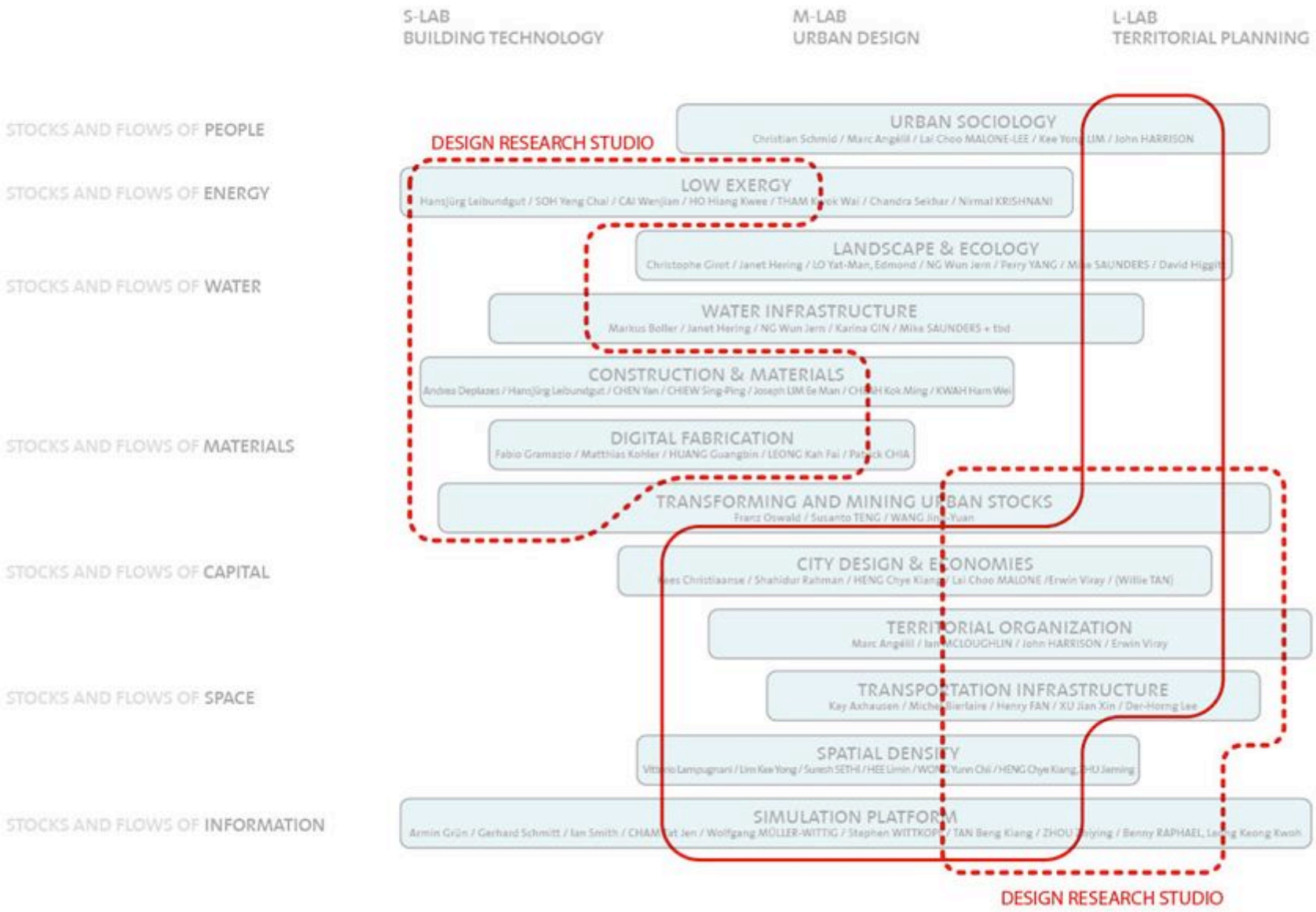
STÄDTEBAULICHE QUALITÄT ERHÖHEN
PROZESSE ENTWERFEN UND VISUALISIEREN
KOMPLEXITÄT ERFASSEN
TRANSPARENZ / KOMMUNIKATION FÖRDERN
KONFLIKTE AUFDECKEN
MÖGLICHKEITEN SCHAFFEN
KONSENS BILDEN


Regierungsrat des Kantons Schwyz
kantonschwyz
Richtplan des Kantons Schwyz
Region Rigi-Mythen (Teil 2)
Regionale Ergänzung des kantonalen Richtplans
Entwurf für die öffentliche Mitwirkung

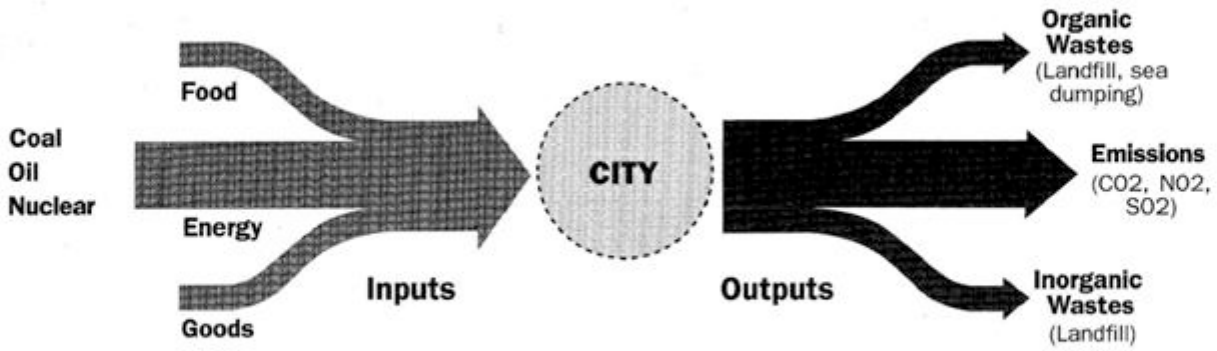

ADDIS ABABA IN ACTION:
Progress Through Partnership
CITY DEVELOPMENT PLAN
2001-2010
Executive Summary
August 2002



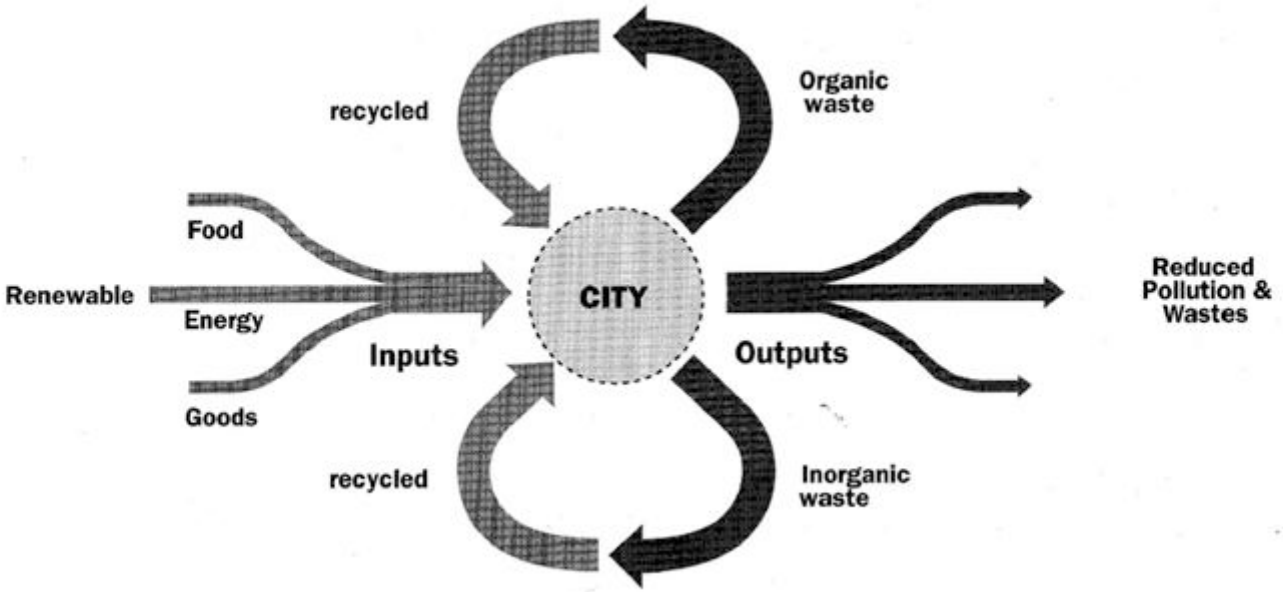

NSL
FUTURE CITIES
LABORATORY

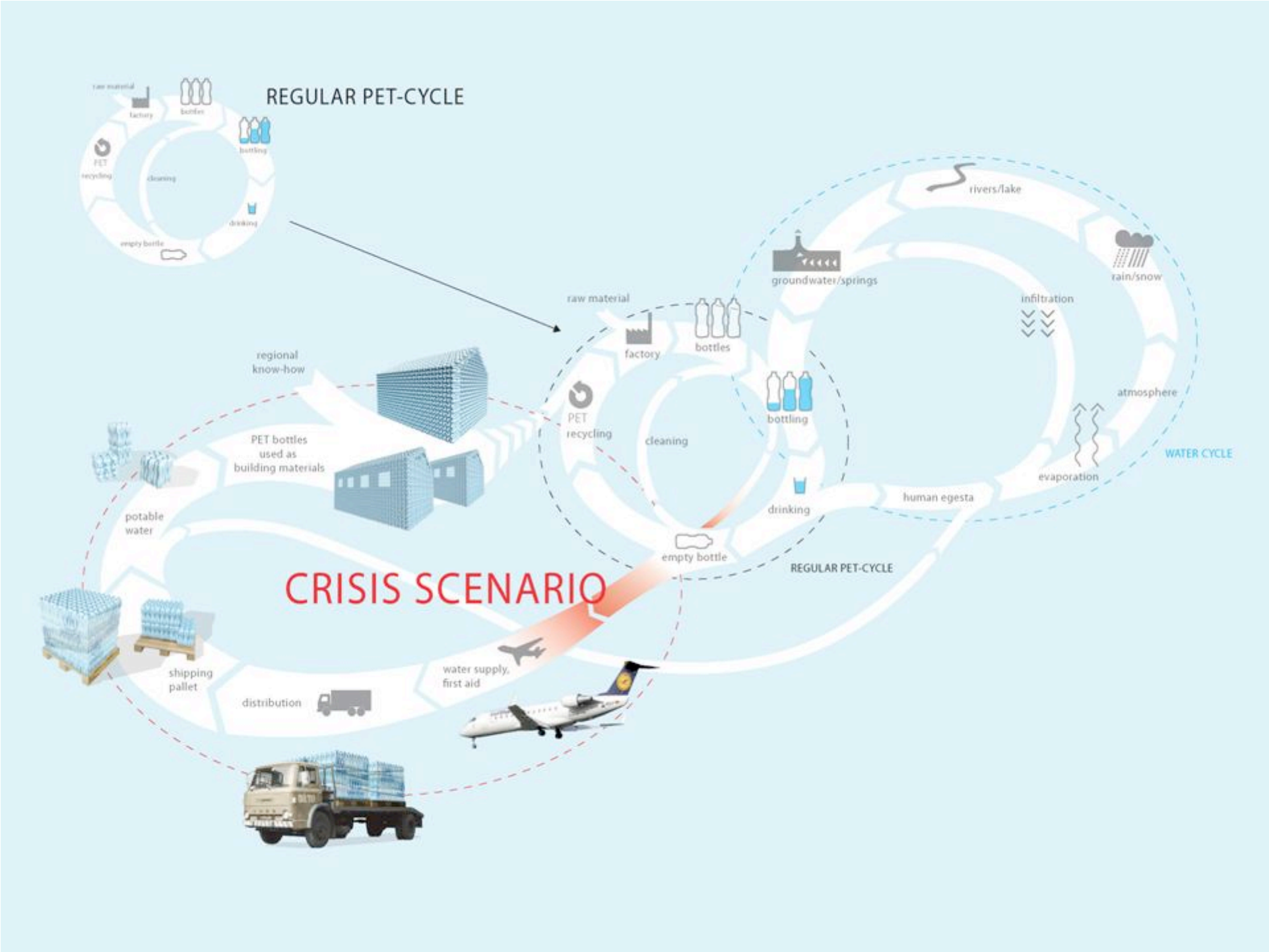

S-LAB
BUILDING TECHNOLOGY
M-LAB
URBAN DESIGN
L-LAB
TERRITORIAL PLANNING
STOCKS AND FLOWS OF PEOPLE
STOCKS AND FLOWS OF ENERGY
STOCKS AND FLOWS OF WATER
STOCKS AND FLOWS OF MATERIALS
STOCKS AND FLOWS OF CAPITAL
STOCKS AND FLOWS OF SPACE
STOCKS AND FLOWS OF INFORMATION
DESIGN RESEARCH STUDIO
URBAN SOCIOLOGY
Christian Schmid / Marc Angélil / Lai Choo MALONE-LEE / Kee Yoon LIM / John HARRISON
LOW EXERGY
Hansjürg Leibundgut / SOH Yeng Chai / CAI Wenjian / HO Hiang Kwee / THAM Kwok Wai / Chandra Sekhar / Nirmal KRISHNANI
LANDSCAPE & ECOLOGY
Christophe Girot / Janet Hering / LO Yat-Man, Edmond / NG Wun Jern / Perry YANG / Mike SAUNDERS / David Higgitt
WATER INFRASTRUCTURE
Markus Boller / Janet Hering / NG Wun Jern / Karina GIN / Mike SAUNDERS + tbd
CONSTRUCTION & MATERIALS
Andrea Deplazes / Hansjürg Leibundgut / CHEN Yan / CHIEW Sing-Ping / Joseph LIM Ee Man / CHEAH Kok Ming / KWAH Ham Wei
DIGITAL FABRICATION
Fabio Gramazio / Matthias Kohler / HUANG Guangbin / LEONG Kah Fai / Patrick CHIA
TRANSFORMING AND MINING URBAN STOCKS
Franz Oswald / Susanto TENG / WANG Jin-Yuan
CITY DESIGN & ECONOMIES
Kees Christiaanse / Shahidur Rahman / HENG Chye Kiang / Lai Choo MALONE /Erwin Viray / (Willie TAN)
TERRITORIAL ORGANIZATION
Marc Angélil / Ian MCLOUGHLIN / John HARRISON / Erwin Viray
TRANSPORTATION INFRASTRUCTURE
Kay Axhausen / Michel Bierlaire / Henry FAN / XU Jian Xin / Der-Horng Lee
SPATIAL DENSITY
Vittorio Lampugnani / Lim Kee Yong / Suresh SETHI / HEE Limin / WONG Yunn Chii / HENG Chye Kiang, ZHU Jianing
SIMULATION PLATFORM
Armin Grün / Gerhard Schmitt / Ian Smith / CHAM Tat Jen / Wolfgang MÜLLER-WITTIG / Stephen WITTKOPP / TAN Beng Kiang / ZHOU Jiaying / Benny RAPHAEL, Leong Keong Kwoh
DESIGN RESEARCH STUDIO

Linear metabolism cities consume and pollute at a high rate



Circular metabolism cities minimise new inputs and maximise recycling




REGULAR PET-CYCLE
raw material
factory
bottles
bottling
PET
recycling
cleaning
drinking
empty bottle
rivers/lake
groundwater/springs
rain/snow
infiltration
atmosphere
evaporation
WATER CYCLE
human egesta
regional
know-how
PET bottles
used as
building materials
potable
water
CRISIS SCENARIO
shipping
pallet
distribution
water supply,
first aid