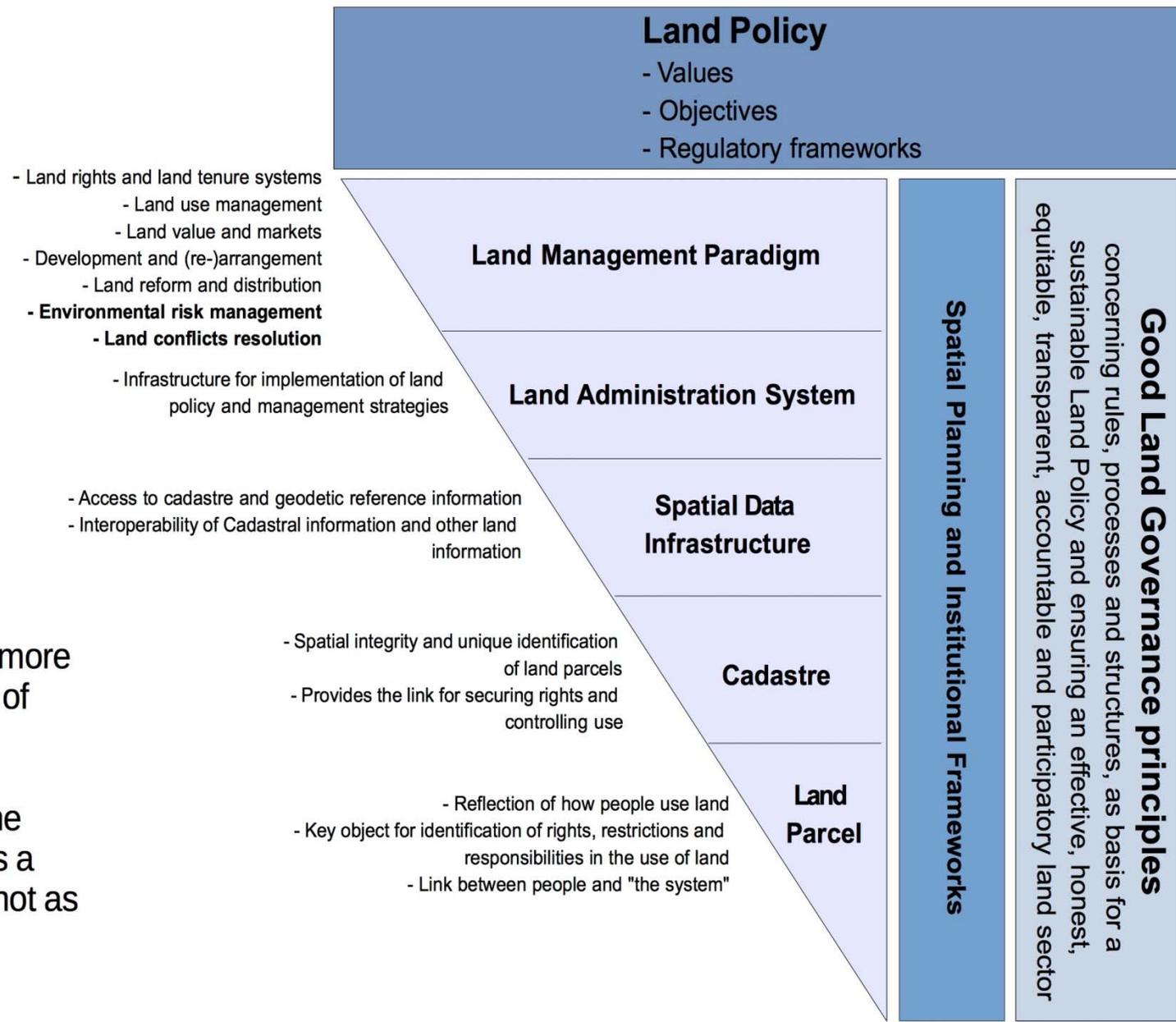


# **„Land“ as a legal, financial, economic and social object**

**Prof. Dr. habil. Fabian Thiel**

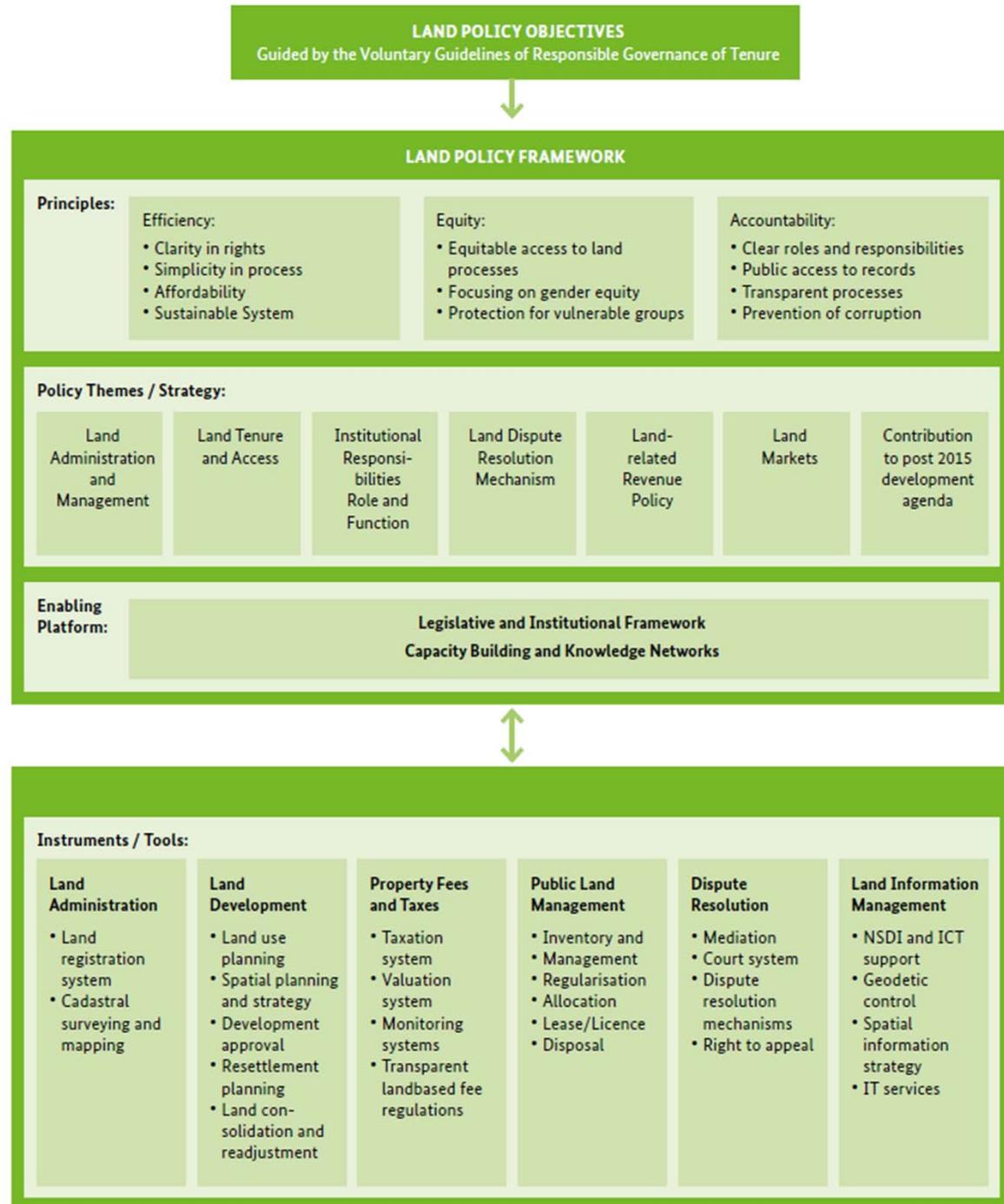
**Frankfurt University of Applied Sciences  
Urban Agglomerations  
Winter Term 2021**



The whole is more than the sum of the parts.  
 We need to understand the land sector as a system, and not as separated independent components

"Land in Society"

Good land governance goes far beyond good cadastral records!









Cubity  
(TU Darmstadt/  
Dietz Joppien)



Own picture, 2014



Source: Reuters 2015

# Content

1. Land Management and Land Policy
2. Contemporary challenges
3. Planners as “landowner’s best friends” (B. Davy)
4. Fathers of land management and land policy
5. Images of land and money
6. Some questions...

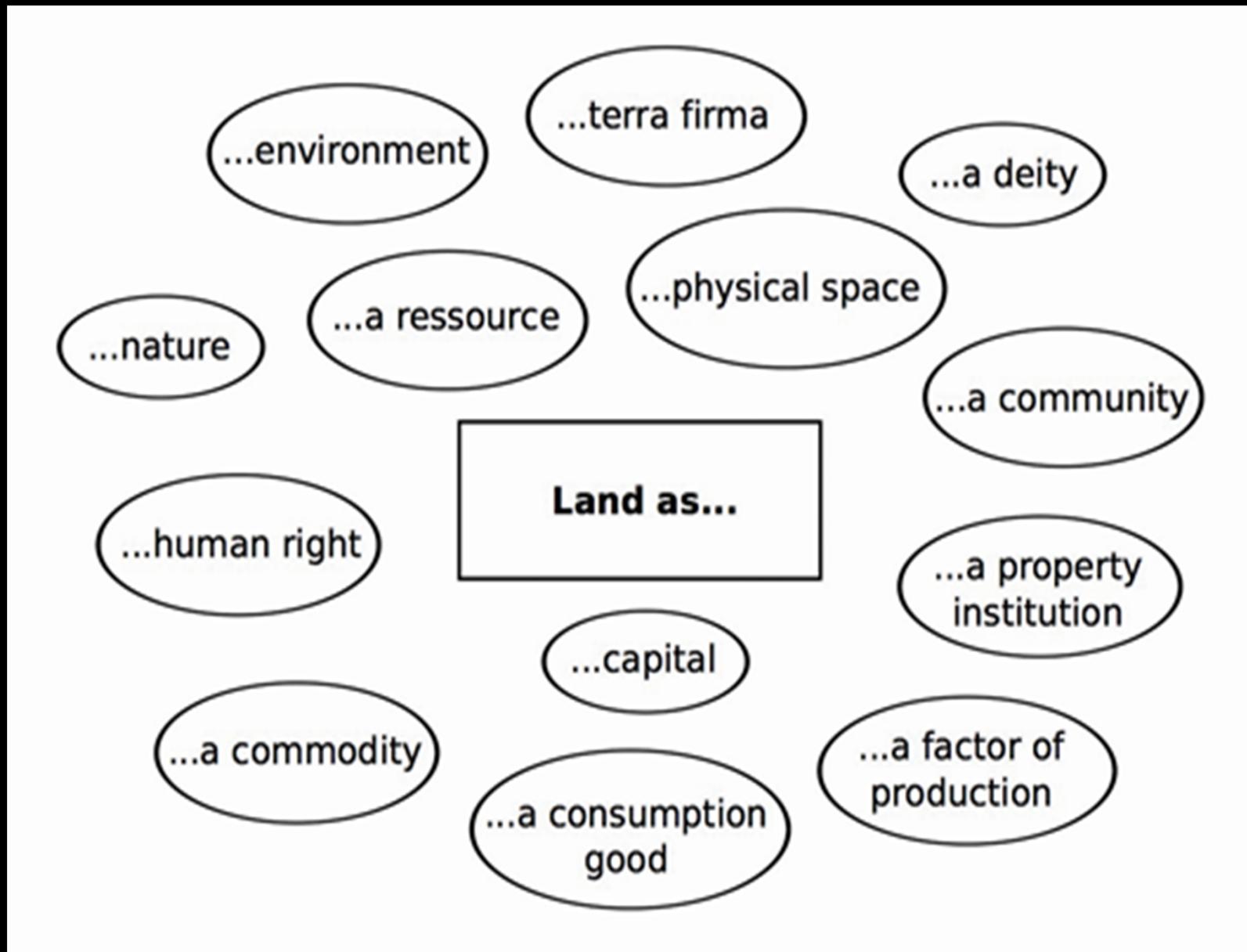


Figure: Sandra Lohr, 2014

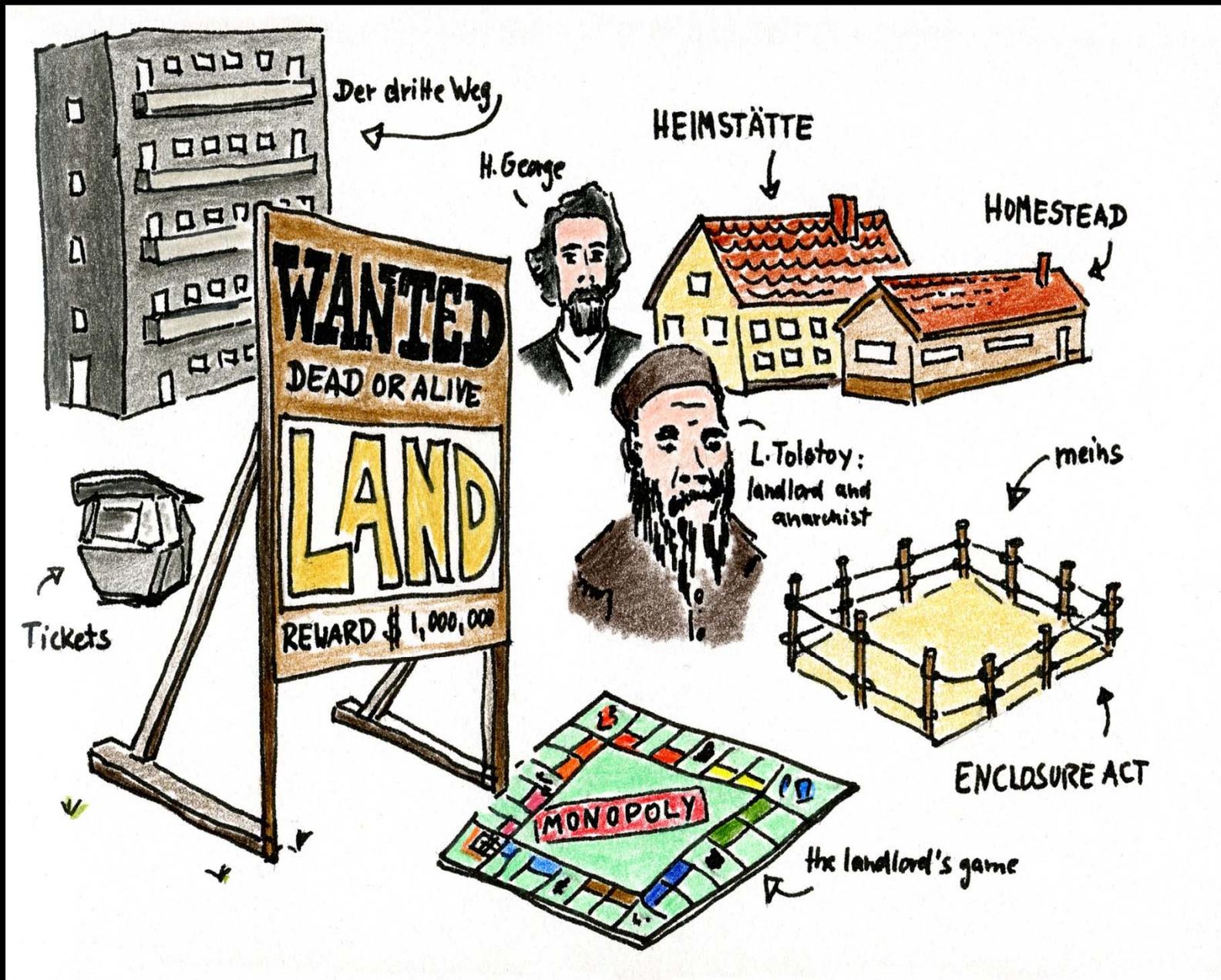
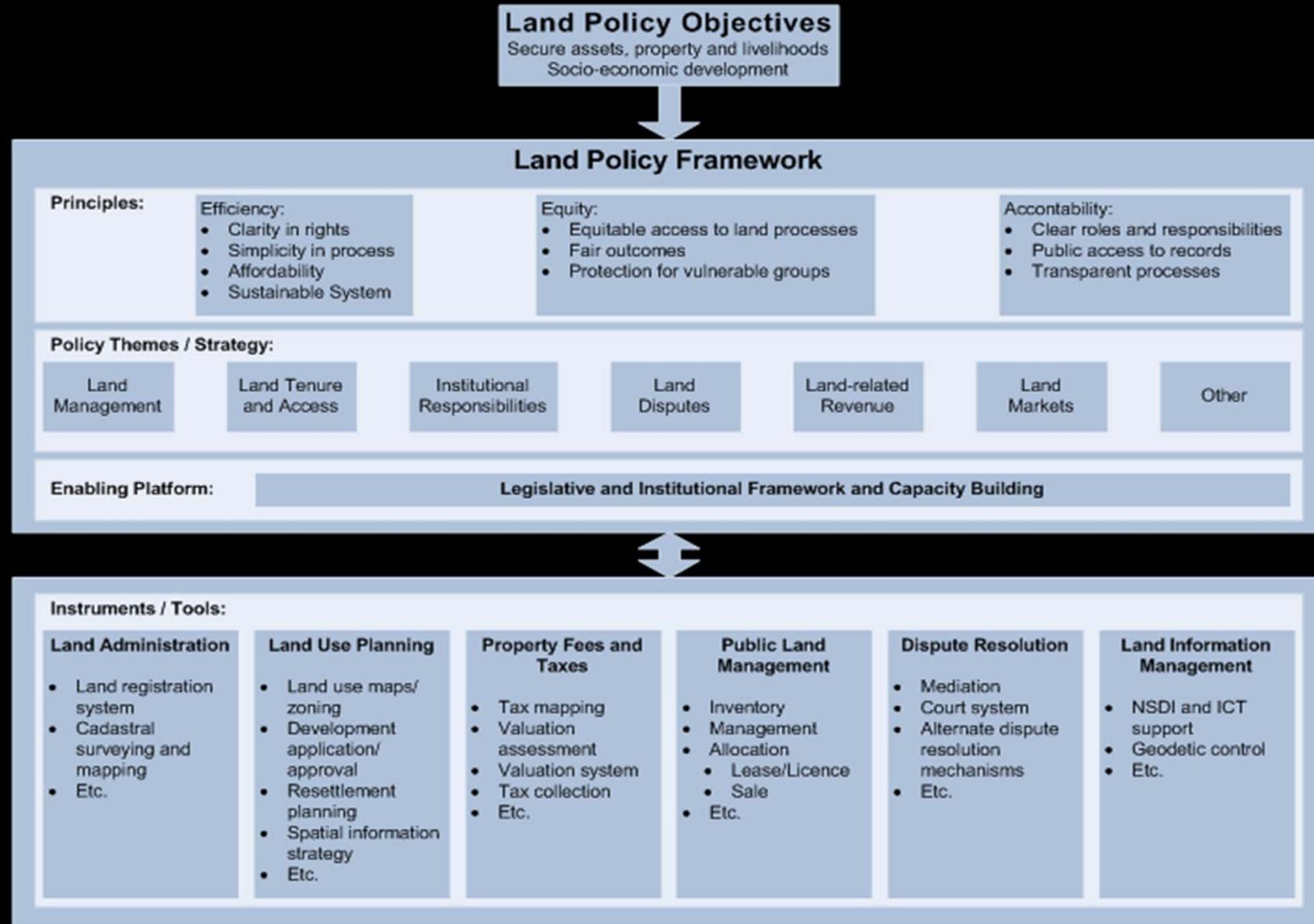
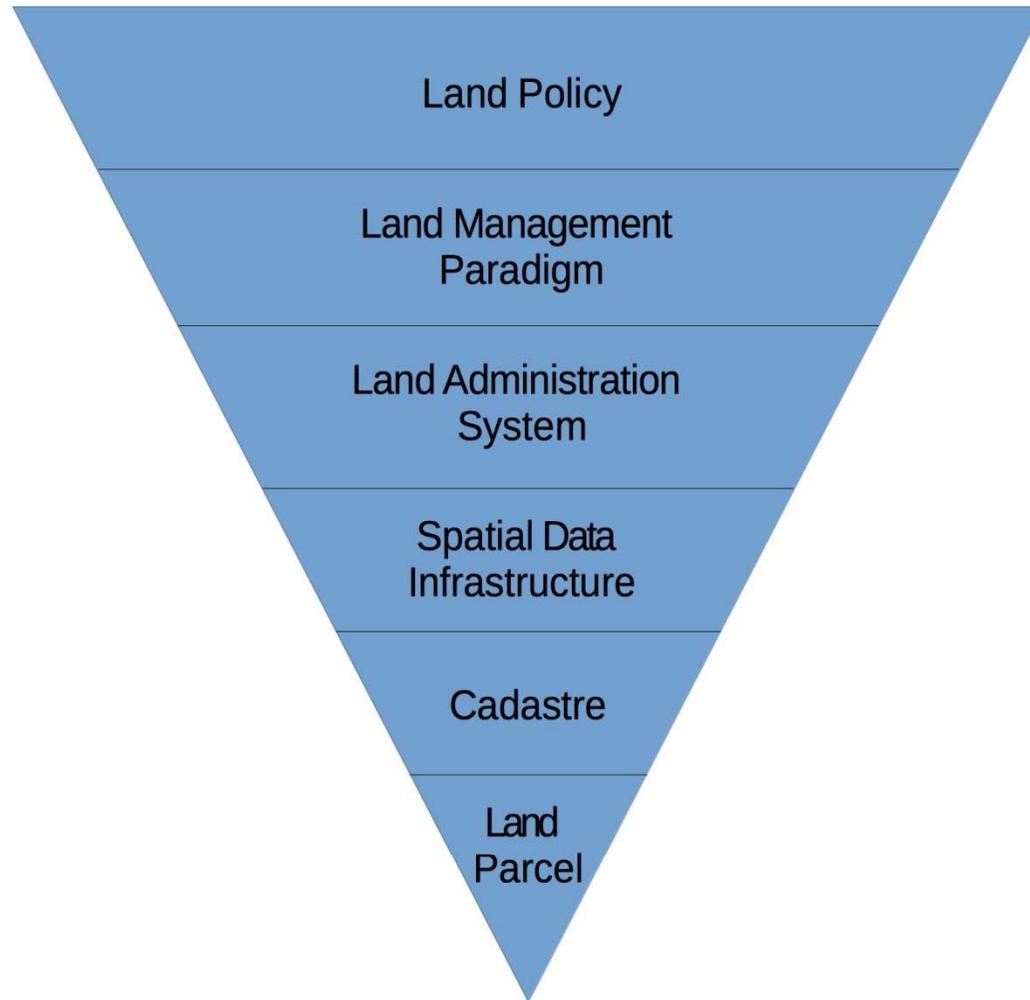


Figure.: Daniela Brahm

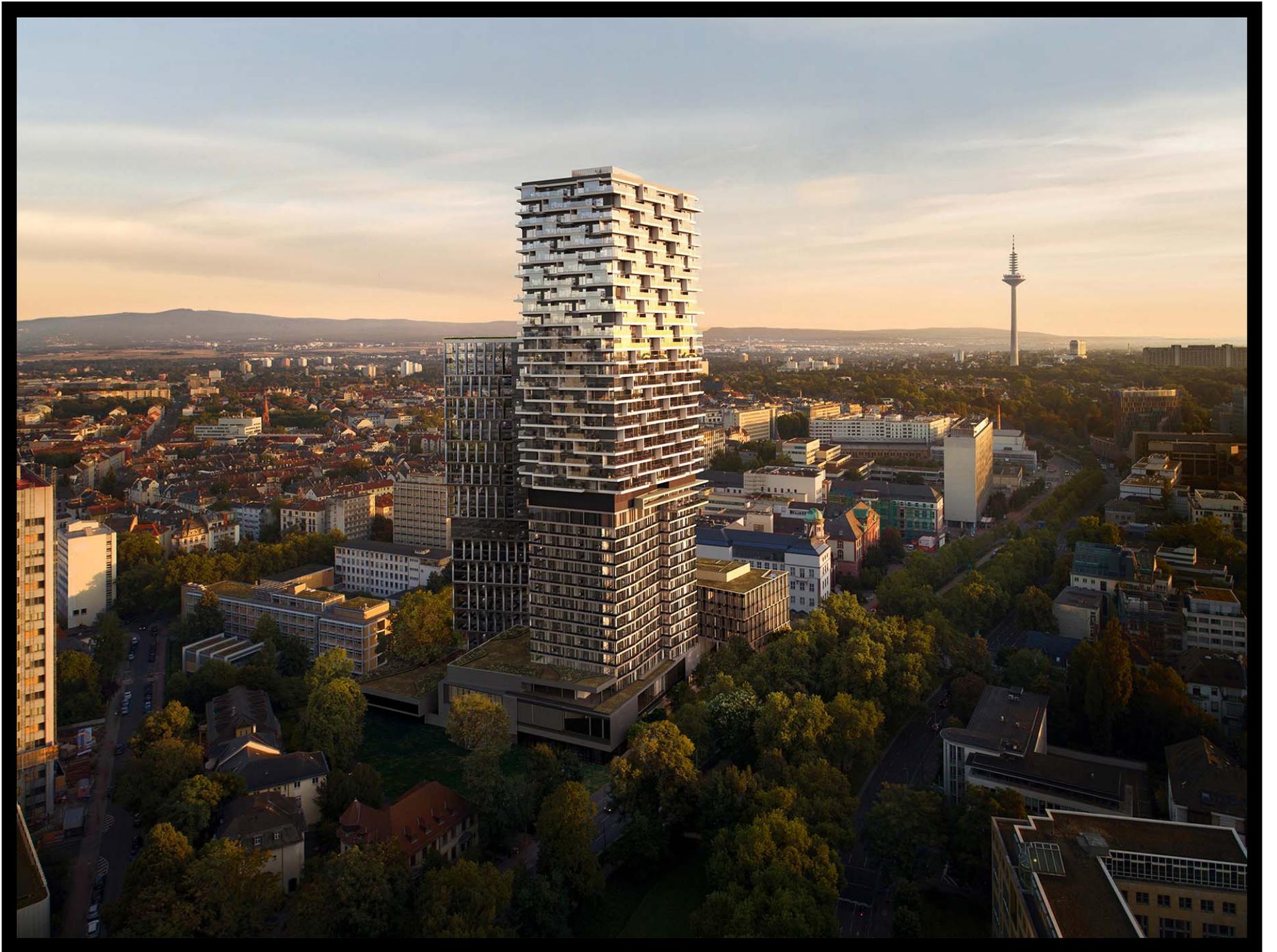
# Land policy and land management: The concept

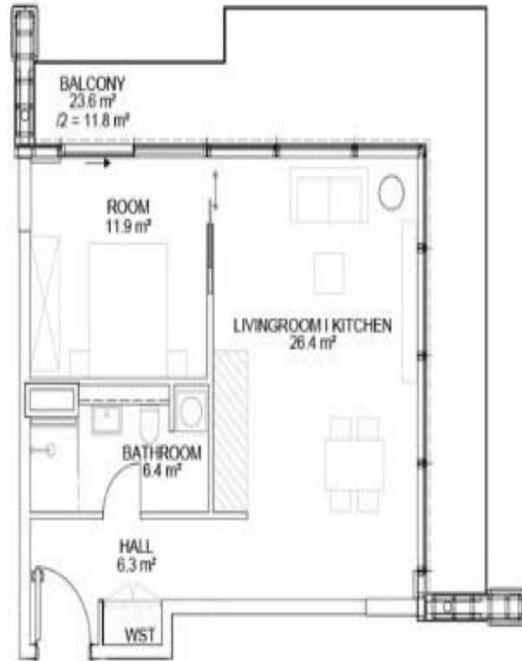




“Land in Society“

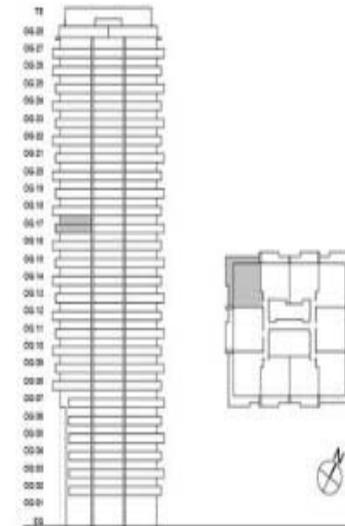




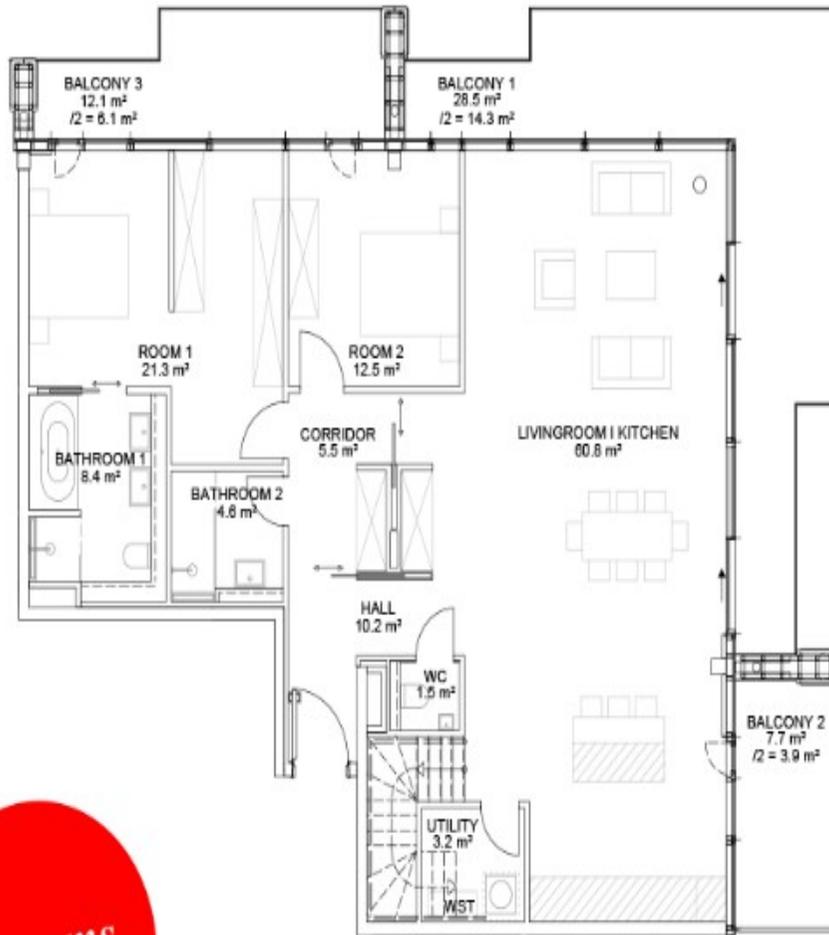


17th Floor - Apt. 095

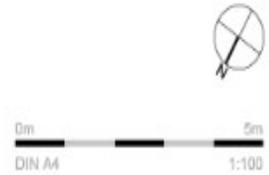
Living Room / Kitchen	26.4 m <sup>2</sup>
Room	11.9 m <sup>2</sup>
Bathroom	6.4 m <sup>2</sup>
Hall	6.3 m <sup>2</sup>
Balcony 50%	11.8 m <sup>2</sup>
	<b>62.8 m<sup>2</sup></b>



FURNITURE DISPLAYED IS ONLY PROVIDED AS SPATIAL REFERENCE. FURNITURE (I.E. CLOSETS, ELECTRICAL APPLIANCES) ARE NOT INCLUDED IN THE SERVICE.



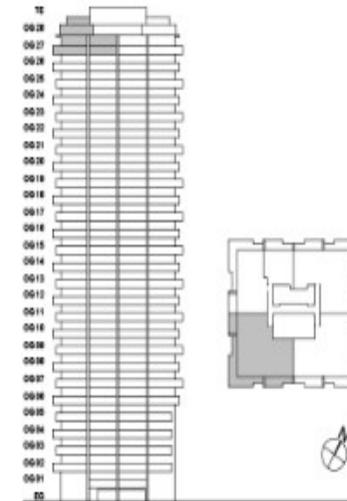
3 rooms



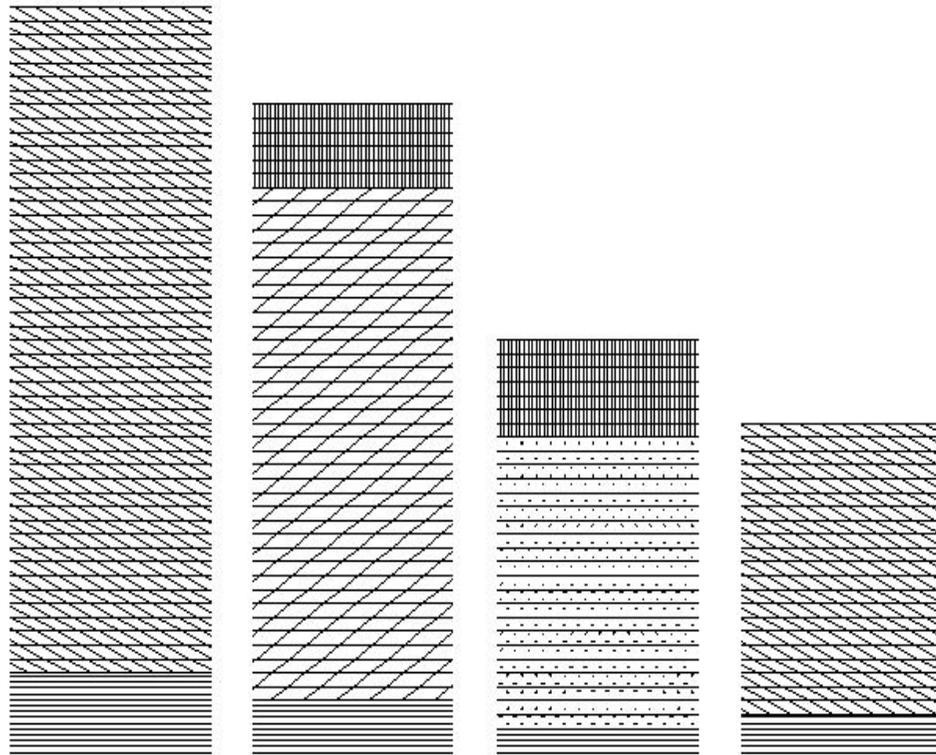
# EDEN

27th Floor - Apt. 003

Living Room / Kitchen	60.8 m <sup>2</sup>
Room 1	21.3 m <sup>2</sup>
Room 2	12.5 m <sup>2</sup>
Bathroom 1	8.4 m <sup>2</sup>
Bathroom 2	4.6 m <sup>2</sup>
WC	1.5 m <sup>2</sup>
Hall	10.2 m <sup>2</sup>
Corridor	5.5 m <sup>2</sup>
Utility	3.2 m <sup>2</sup>
Roof exit	11.9 m <sup>2</sup>
Balcony + Terrace 50%	57.4 m <sup>2</sup>
<hr/>	
	197.3 m <sup>2</sup>



FURNITURE DISPLAYED IS ONLY PROVIDED AS SPATIAL REFERENCE. FURNITURE (I.E. CLOSETS, ELECTRICAL APPLIANCES) ARE NOT INCLUDED IN THE SERVICE.



TOWER 1

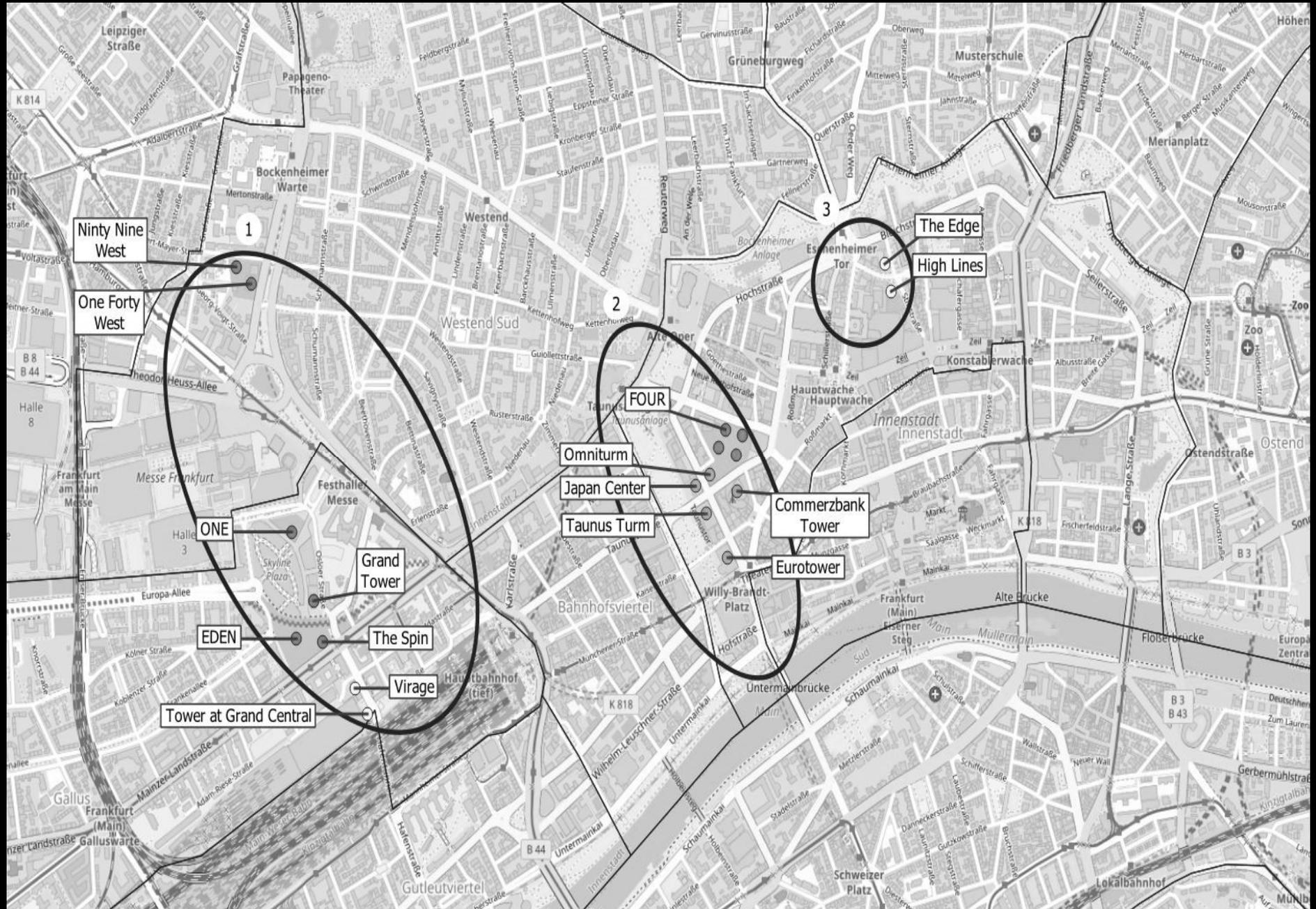
TOWER 2

TOWER 3

TOWER 4

OCCUPANCY

91 %	-	-	97 %	 Working Area
-	73 %	-	-	 Rented flats
-	-	71 %	-	 Condominium flats
-	21 %	27 %	-	 Serviced Apartments Hyatt House (T2), Hotel Kimpton (T3)
9 %	6 %	2 %	3 %	 Retail, gastronomy, kindergarten, fitness, spa, health centre
228 m	173 m	120 m	100 m	Height
55	48	31	25	Levels



Ninty Nine West

One Forty West

1

2

3

The Edge

High Lines

FOUR

Omniurum

Japan Center

Taunus Turm

Commerzbank Tower

Eurotower

ONE

Grand Tower

EDEN

The Spin

Virage

Tower at Grand Central

B 44

B 3 B 43

K 814

B 8 B 44

K 818

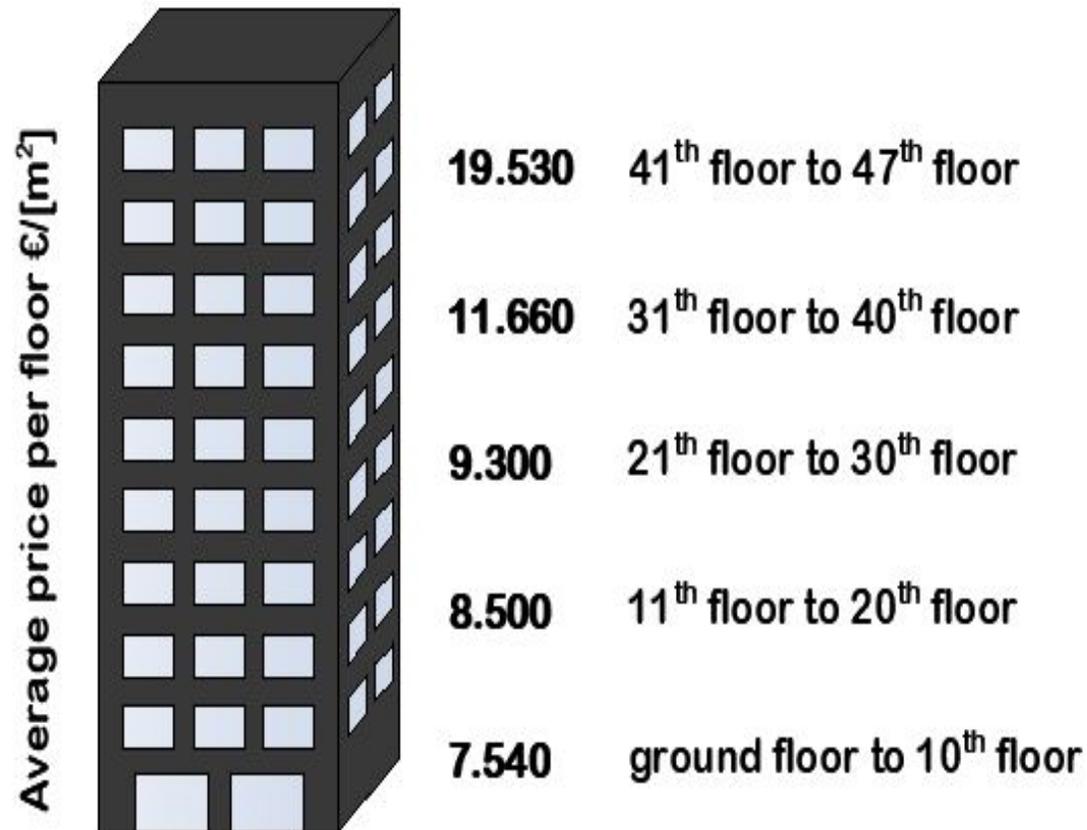
B 3 B 43

B 3 B 43

## Condominiums

### High rise residential building - average price per floor

suitable sale contracts 2018/2019, condominium, year of construction >2000, >15 floors, 100% sample



## Prices

High-rise developments in Frankfurt lead to prices of:

9.400 € /m<sup>2</sup> in CBD regions

Range in condominium high rise buildings: 7.540 EUR/m<sup>2</sup>  
(Ground floor – 10<sup>th</sup> floor)

8.500 EUR/m<sup>2</sup> (11<sup>th</sup> – 20<sup>th</sup> floor)

9.300 EUR/m<sup>2</sup> (21<sup>th</sup> floor – 30<sup>th</sup> floor)

11.660 EUR/m<sup>2</sup> (31<sup>th</sup> – 40<sup>th</sup> floor)

19.530 – 22.500 EUR/m<sup>2</sup> (Above 41<sup>th</sup> – 47<sup>th</sup> floor)

## Leading questions (1)

- What is decisive for “good address generation” by high rise condominiums?
- What standards – urban planning, architectural, design, use-specific, eco-logical - should future high-rise projects meet?
- - Are the legal constructions of the “Condominium Law” (WEG [Condominium Act]) appropriate, *enforceable* and manageable for hundreds of condominiums owned by hundreds of landowners within one single building?

## Leading questions (2)

- Which compensations (integration of schools, day-care centres, sports facilities, etc.) could be made to balance urban 'tensions'?
- Can residential skyscrapers meet the demand for living space of the local, mid-income population, and if so, to what extent? Which price segments can be served? Is it possible to create inexpensive living space in high-rise buildings? Which yields are to be calculated? Effect on the land value... etc.

# The „Hidden land banks“

Alfred Marshall 1893: Producer's Surplus



[www.mcdonalds-regensburg.de](http://www.mcdonalds-regensburg.de)



[www.independent.co.uk](http://www.independent.co.uk)



[www.vogue.in](http://www.vogue.in)



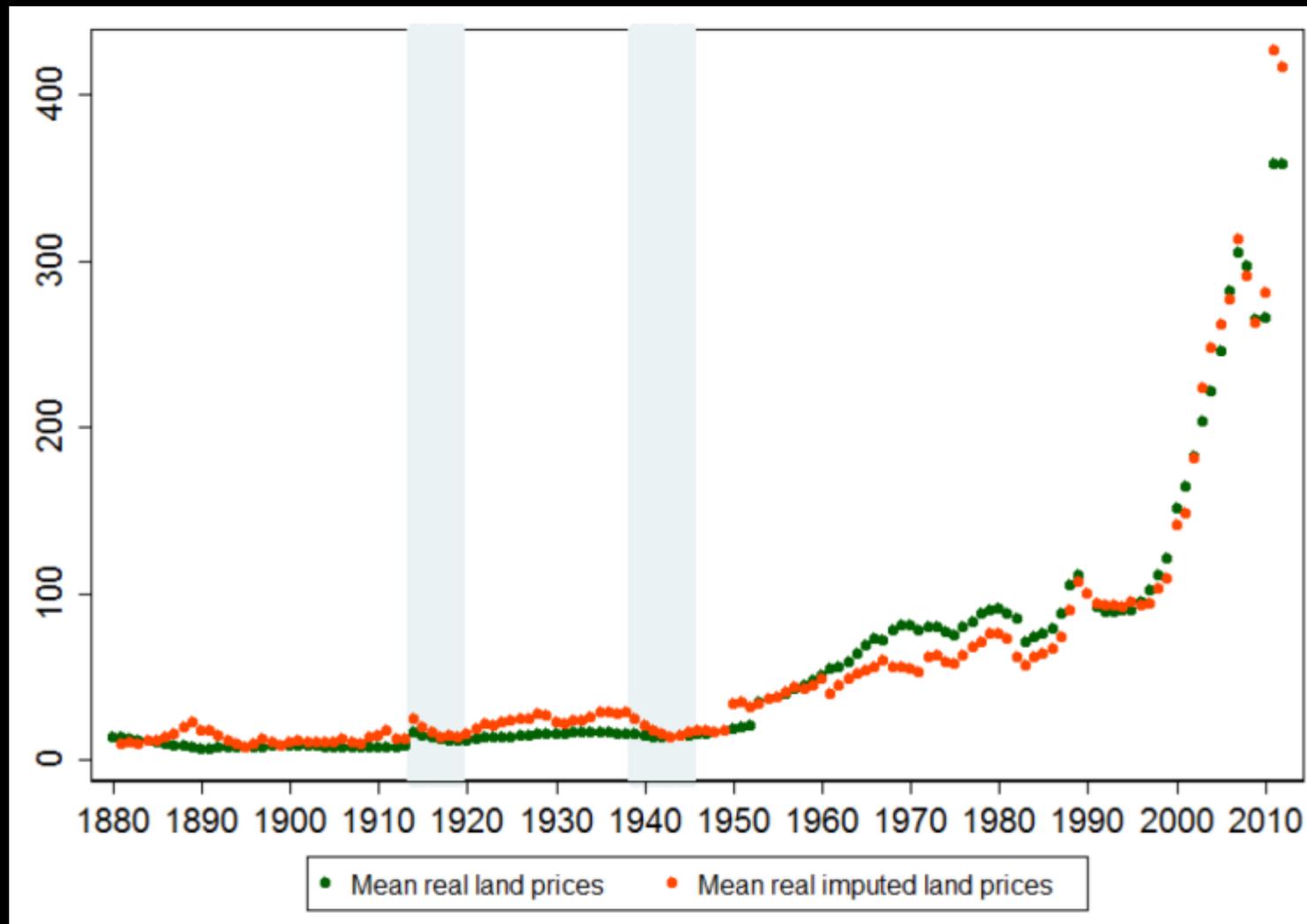


Agriculture land: 0,01-3,50 €/m<sup>2</sup>



Building land: 5.000-7.000 €/m<sup>2</sup>  
(FSR: 1,6; location: Starnberg)

80% of increase of living cost is based on the rise of the land values itself!



Notes: Index, 1990=100. The years of the two world wars are shown with shading. Countries included are AUS, BEL, CHE, GBR.

Source: Knoll et al. 2014

# Development of land values and rents

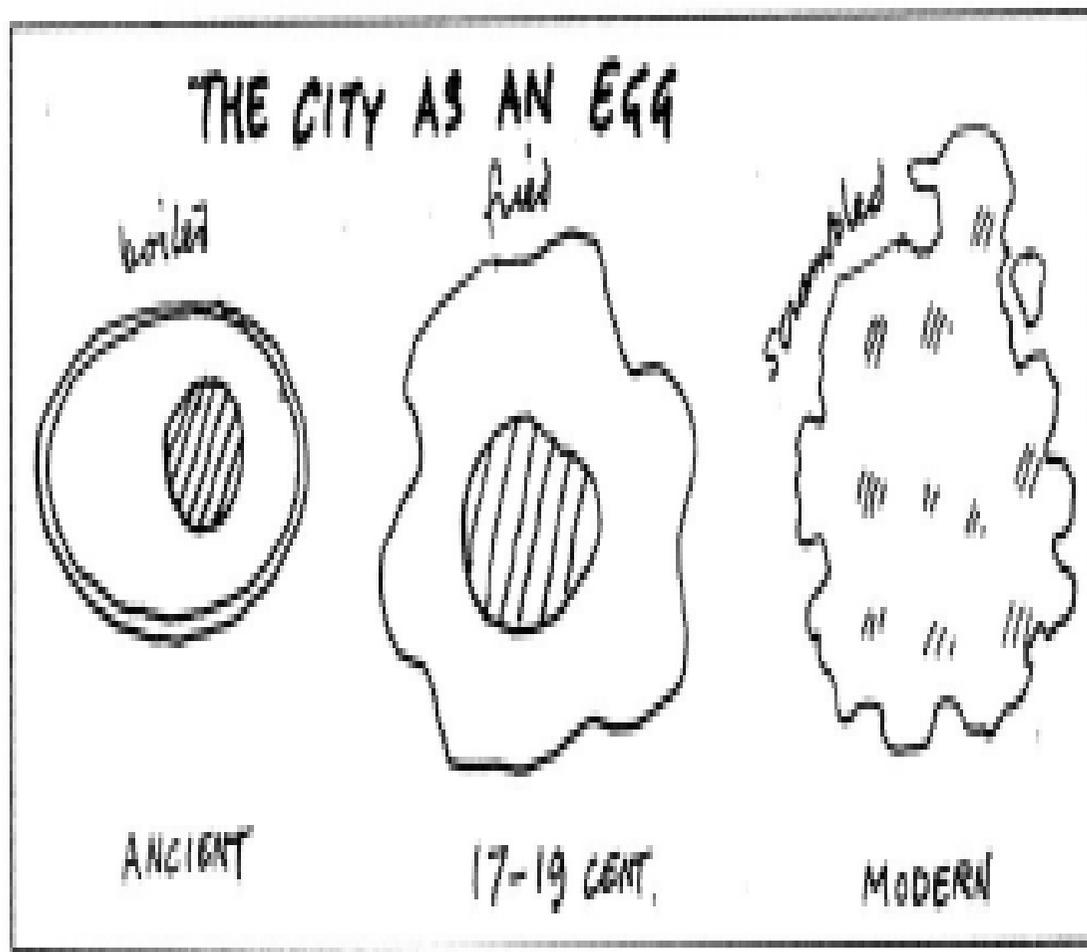


Developers Profit

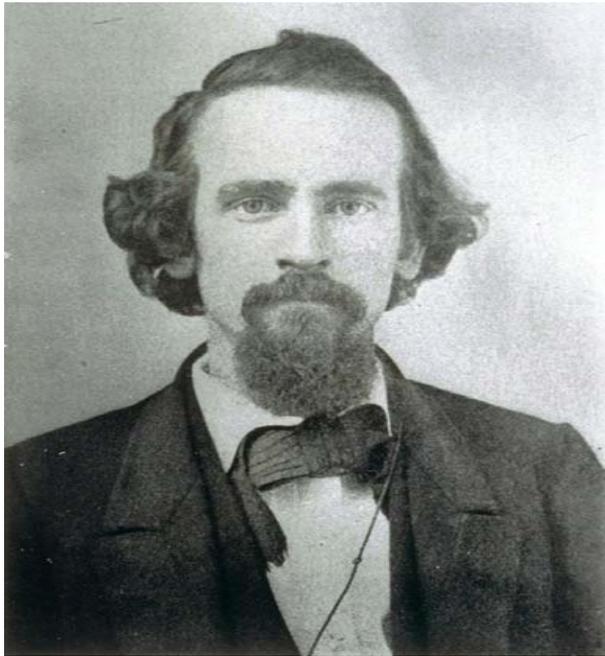


Partly „skimmed-off“ by the municipality; „unearned“ profit?

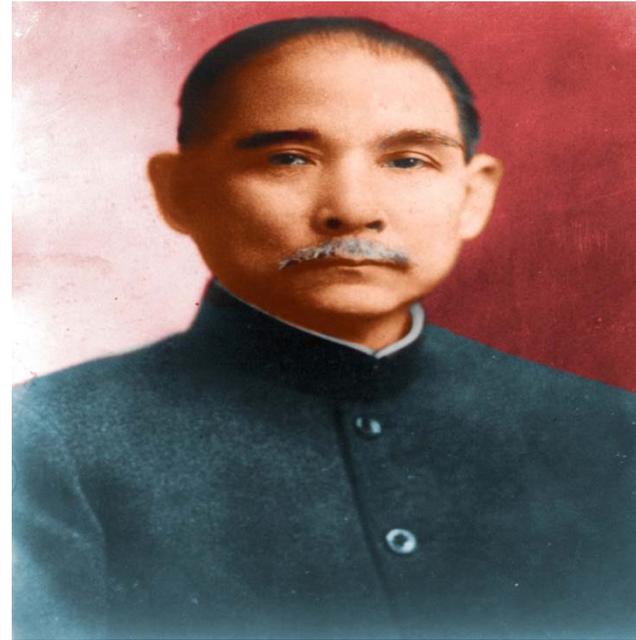
"The City as an Egg" metaphor diagram  
Cedric Price, Architect, 1934-2003



## Land property and its fathers: The Reformer



**Henry George (1839-1897)**

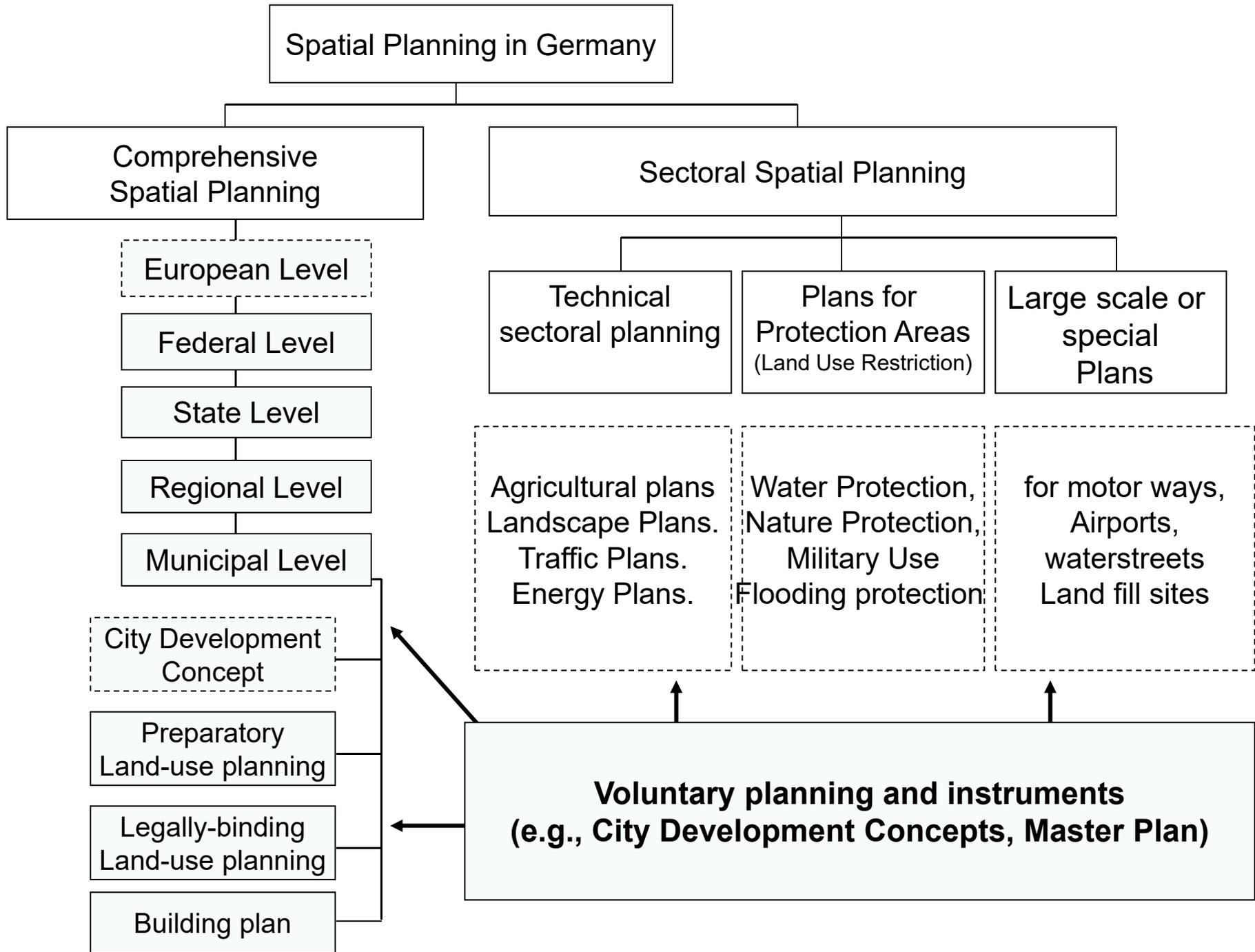


**Sun Yat-sen (1866-1925)**

„[i]t is not necessary to confiscate land; *it is only necessary to confiscate rent.*” (qf George: Progress and Poverty, 1879)

- LULU” – Locally unwanted land use
- “NIMBY” – Not in my backyard!
- “NAMBY” – Not all in my backyard!
- “NIABY” – Not in anybody’s backyard!
- “BANANA” – Build absolutely nothing anywhere near anyone!
- “NOPE” – Not on planet earth!
- “NIMTOO” – Not in my terms of office!
- “YIMBY” – Yes in my backyard!
- “YIMBY-FAP” – Yes in my backyard – for a price

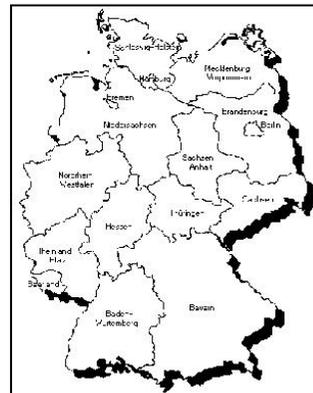




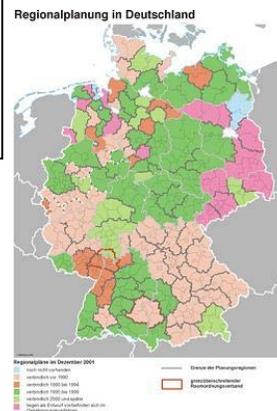
# Spatial and Land Use Planning in Germany



Federal Republic of Germany



16 Federal States

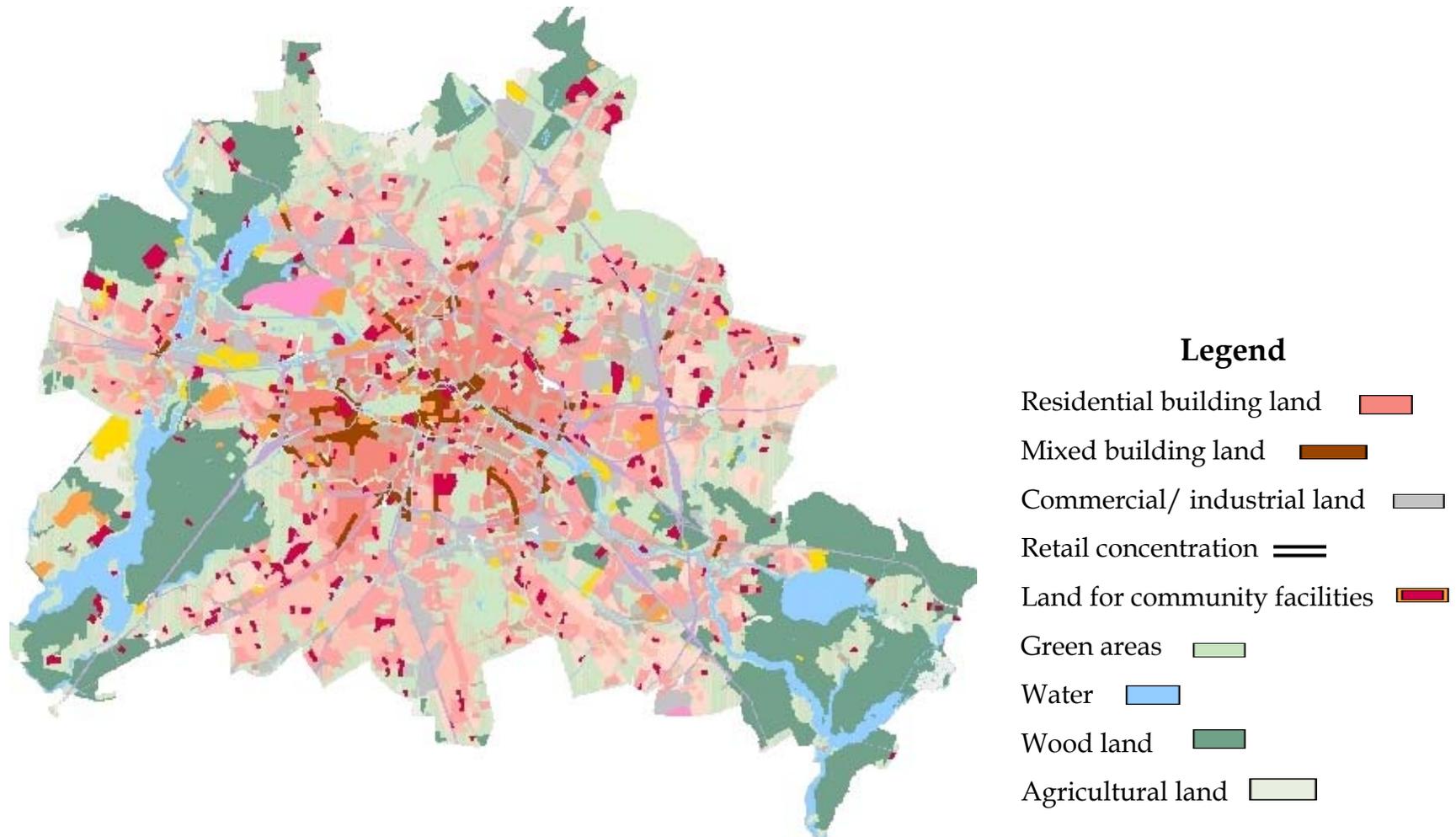


115 Regions



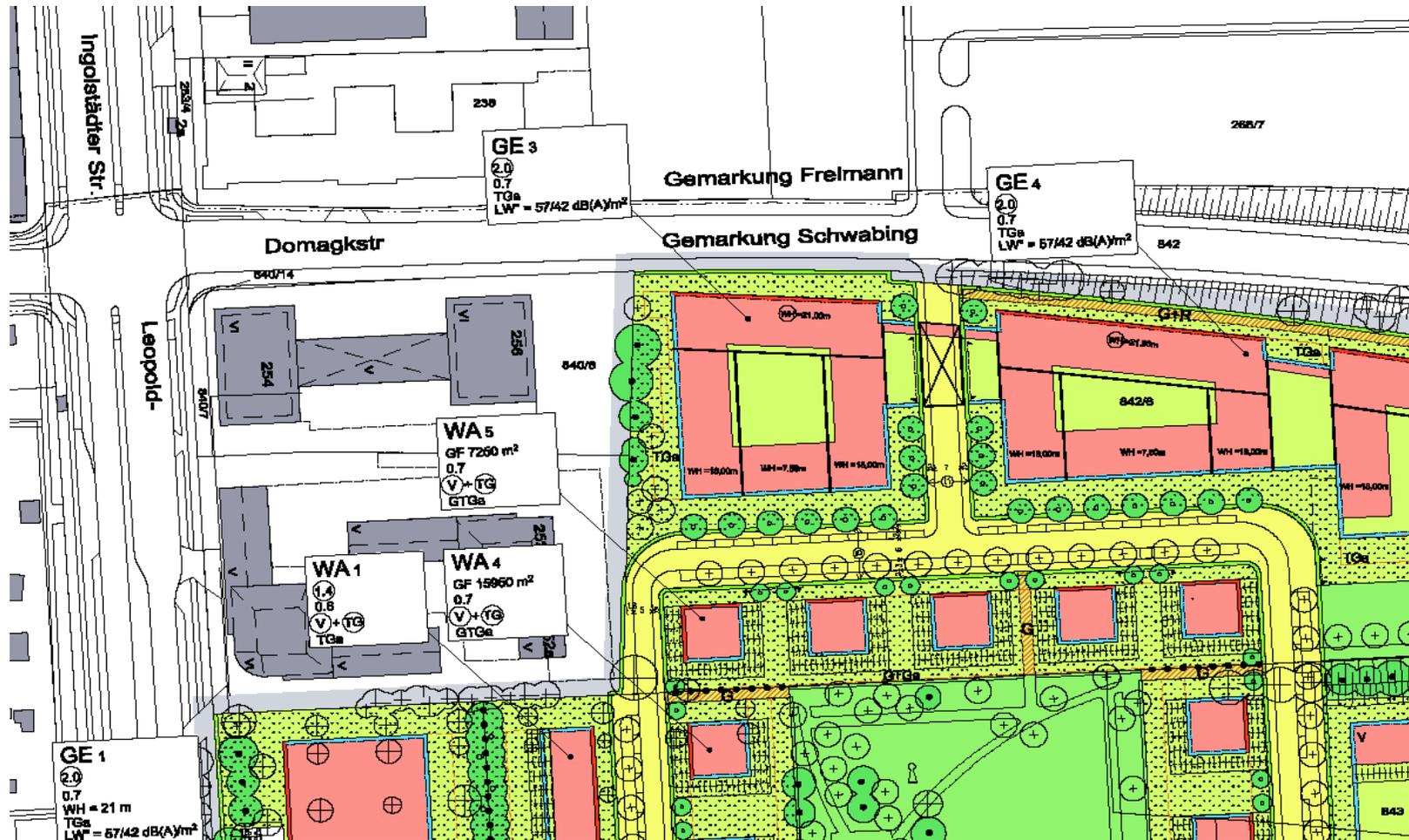
13.422 Municipalities

# Preparatory land use plan of Berlin (1994, updated)



Source: Senate Department of Urban Development and Environment  
2012, modified

# Legally binding land use plan of Munich



# Confusing Terminology!

„The problem of terminology goes well beyond the definition of spatial planning. The literal translation of the names of planning institutions and instruments from one language to another can lead to ambiguity and misunderstanding. Even some of the most basic terms can have quite different connotations in different countries and regions.

For example, a „**region**“ can mean an area of territory with a population of five million (as in the German *Länder* and the standard regions in the UK) or an area with a population of less than 500.000 (as in Denmark, Ireland and Finland).

Even the word „**plan**“ can mean in one country an instrument which provides policy guidance and in another an instrument which effectively gives consent for building to proceed.“

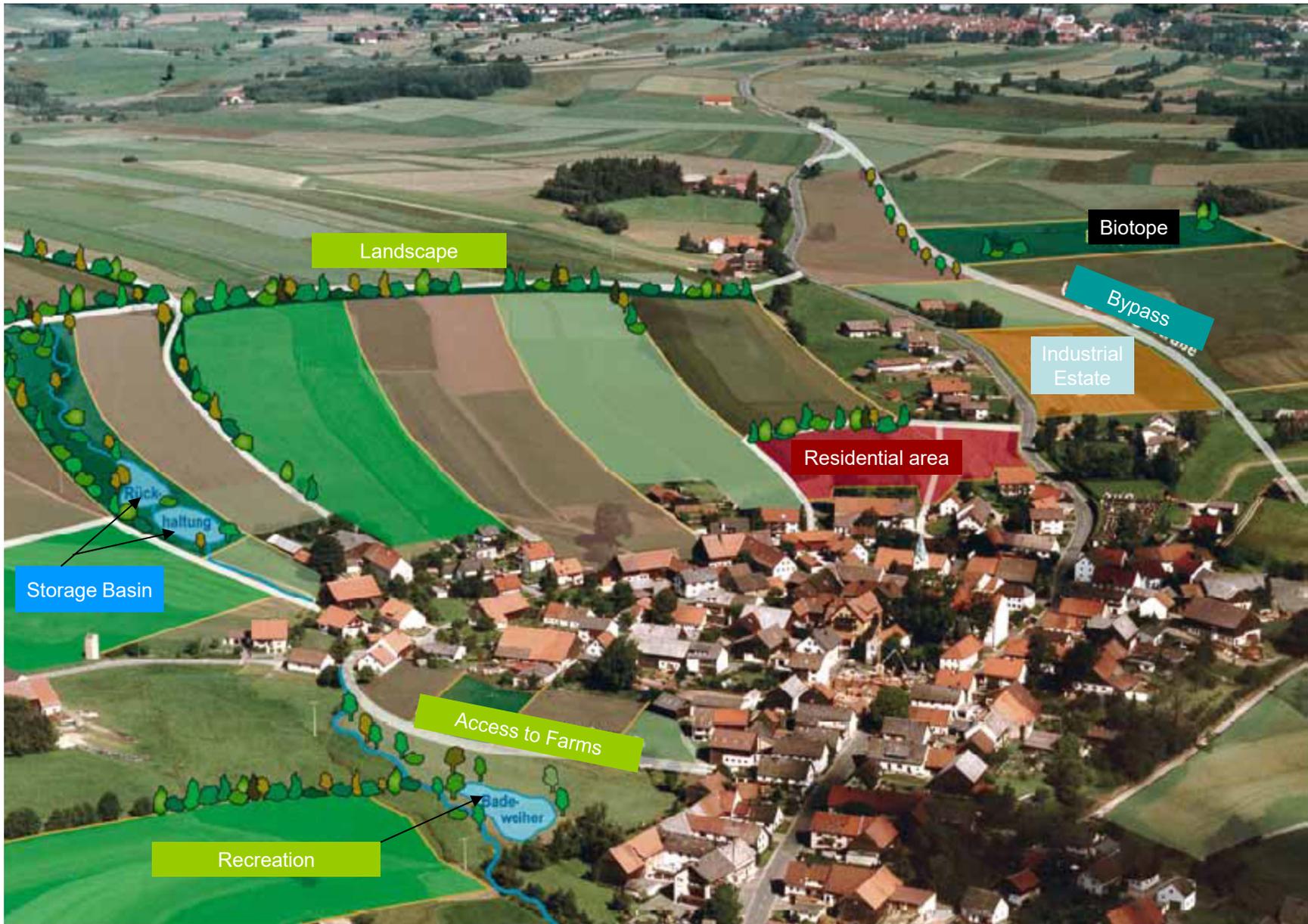
Source: EU Commission: The EU Compendium of spatial planning systems and policies, 1997

# Federal Building Code („Baugesetzbuch“, BauGB)

## Objectives of planning

### Instruments of land use control

- Land use planning safeguards (e.g., development freeze, pre-emption law)
- Control of land use for designated purposes
- Compensation of landowners
- Land re-allocation – adjustment of plot boundaries
- Expropriation (taking) of land designated for public purposes
- Development of local public infrastructure (landowners may be charged with **up to 90%** of the infrastructure costs)
- Special urban planning provisions (urban redevelopment)
- Real estate assessment and appraisal





# „Land readjustment“



# The Valuation Methods

**Cost Method:** the value is estimated as the current cost of reproducing or replacing the improvements (including an appropriate entrepreneurial incentive or profit) minus the loss in value from depreciation plus the land value.

**Direct Comparison Method:** the value is indicated by recent sales of comparable properties in the market.

**Income Method:** the value is indicated by a property's earning power (cash flow), based on the capitalization of income.

**Development Method (Residual Method):** the value is calculated as the site value (lat. residuum) minus redevelopment costs and the developer's profit

## „100 years of zoning“ ...

- social zoning
- exclusionary zoning
- form-based zoning  
(see Colin Rowe, Aldo Rossi et al.)  
in Denver, Milwaukee, Miami
- „zoning for sale“
- „rent-seeking zoning“



New York City's 1916 Zoning Ordinance

*„We shape our buildings, and afterwards our buildings shape us“ (Winston Churchill)*

## Form-based zoning

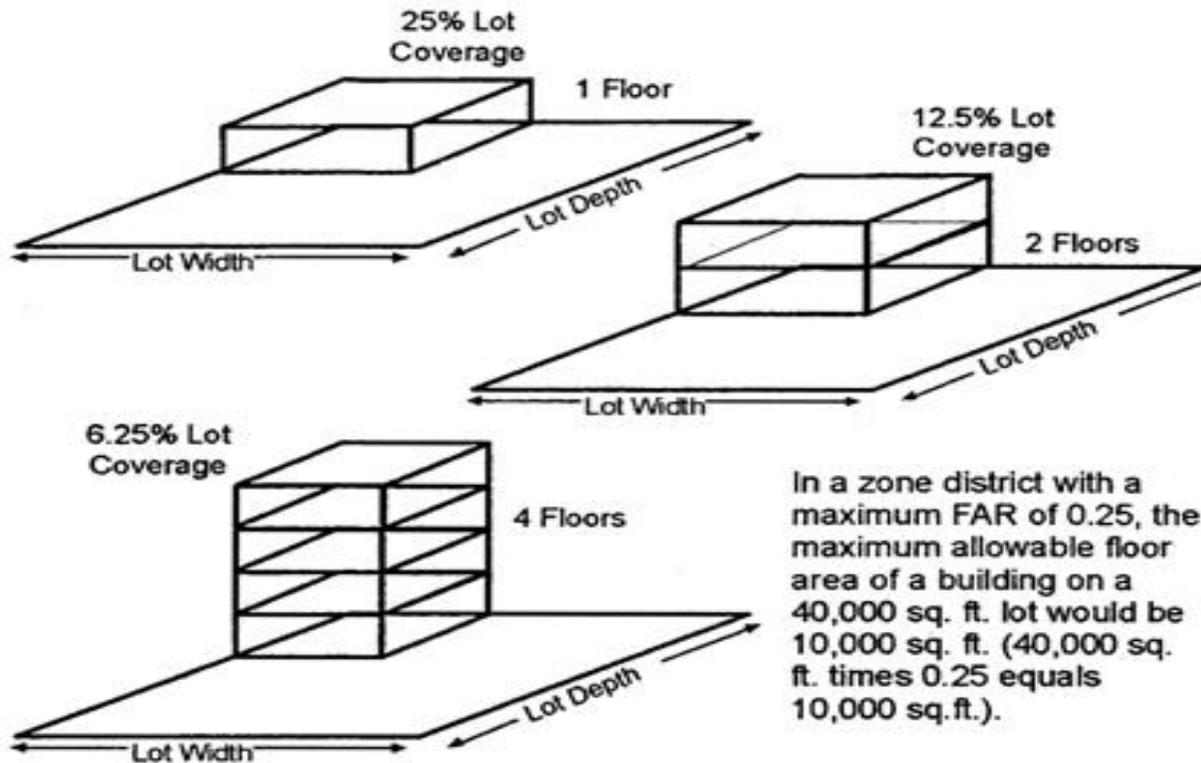


Aldo Rossi (1931-1997); Berlin, Charlottenstrasse





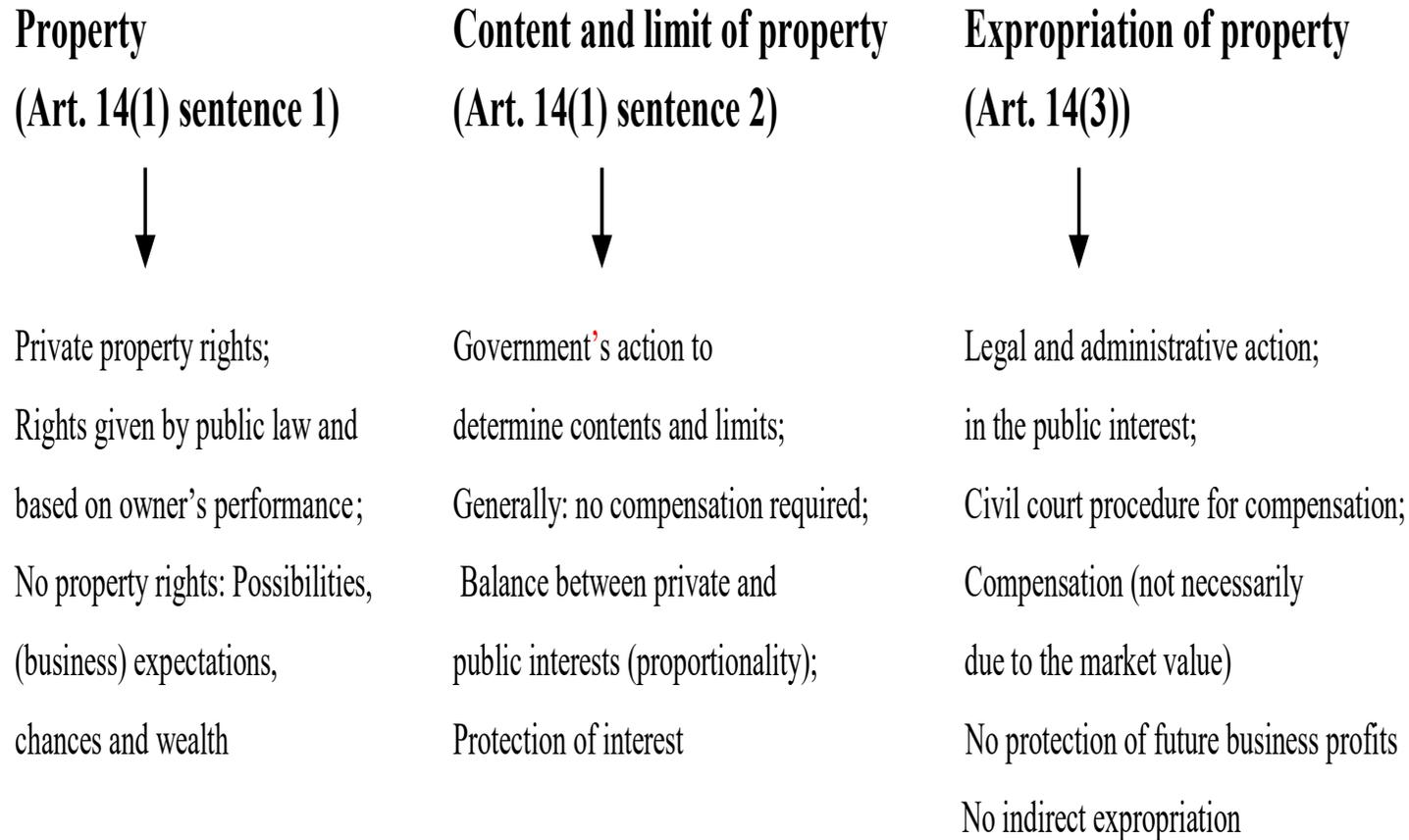
### Possible Building Configurations for 0.25 FAR



NOTE: Variations may occur if upper floors are stepped back from ground level lot coverage.

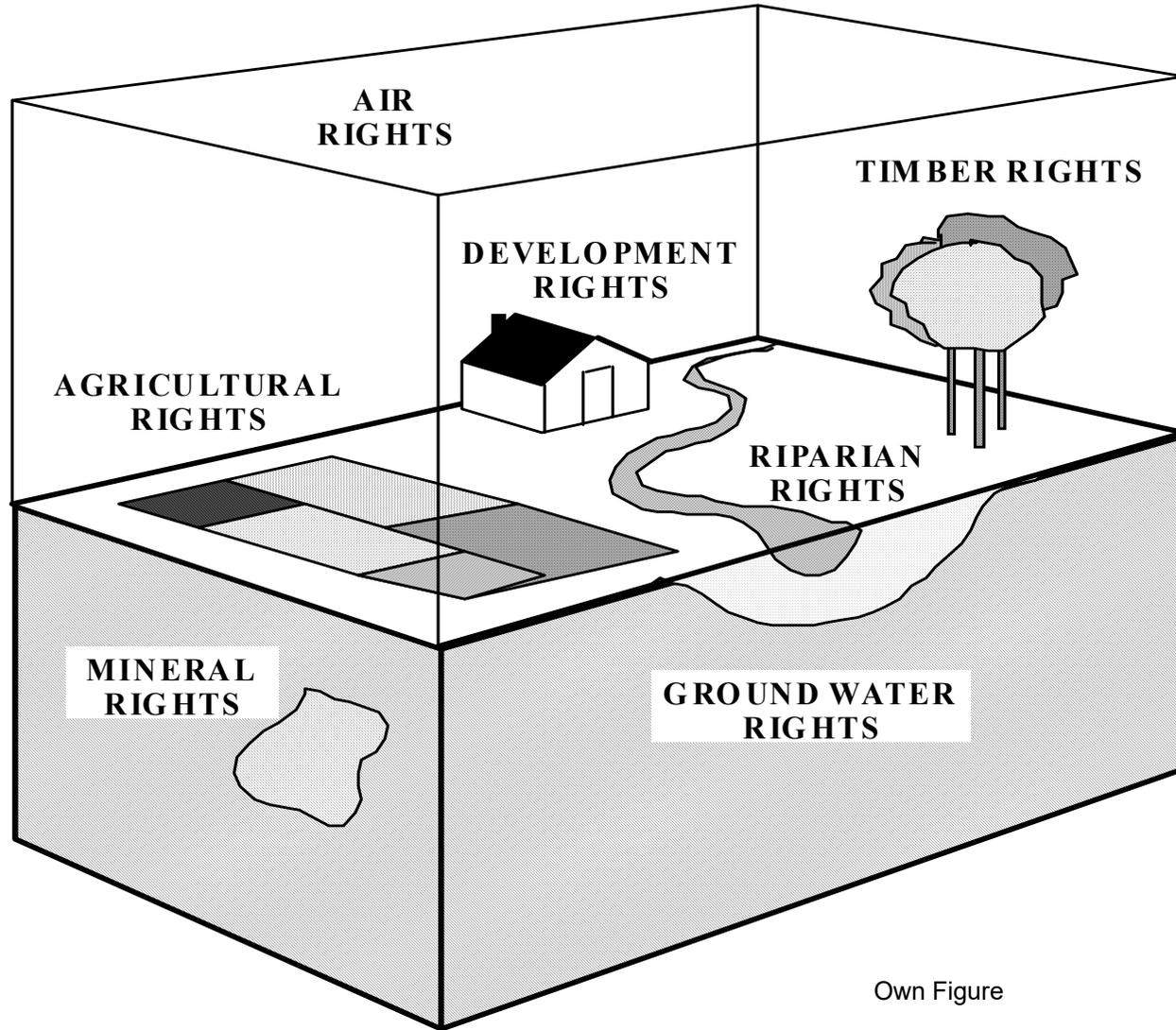
$$\text{Floor Area Ratio (FAR)} = \frac{\text{Gross Building Area (All Floors)}}{\text{Lot Area}}$$

## Meaning of “property” according to Article 14 German Basic Law



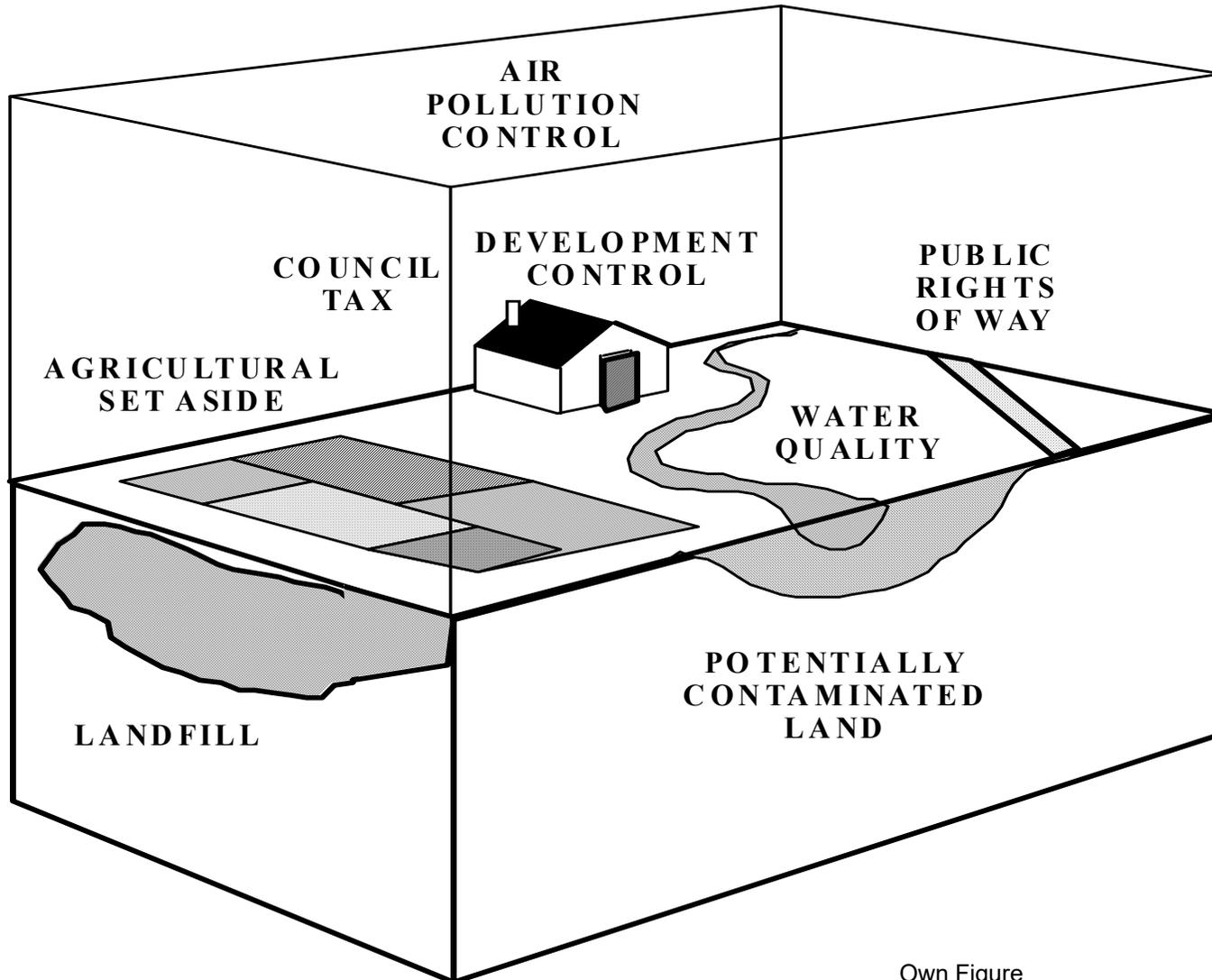
**Figure 2:** The construction of property according to Article 14 German Basic Law

# Property Rights



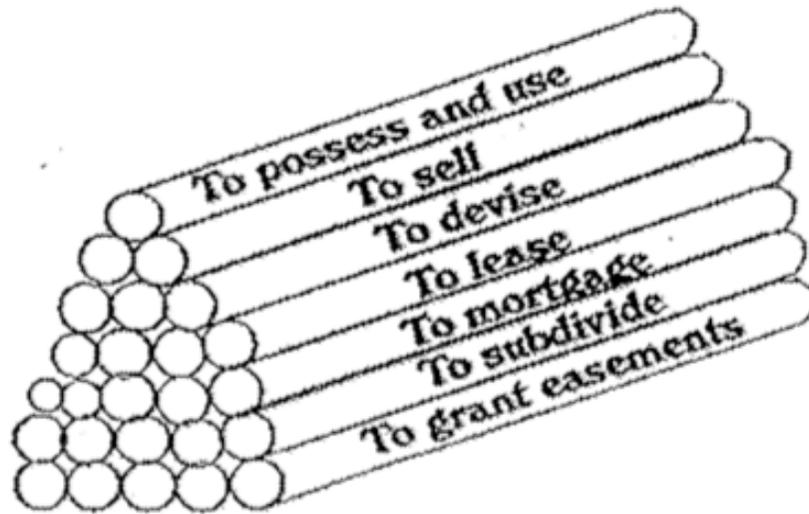
Own Figure

# Land Use Controls



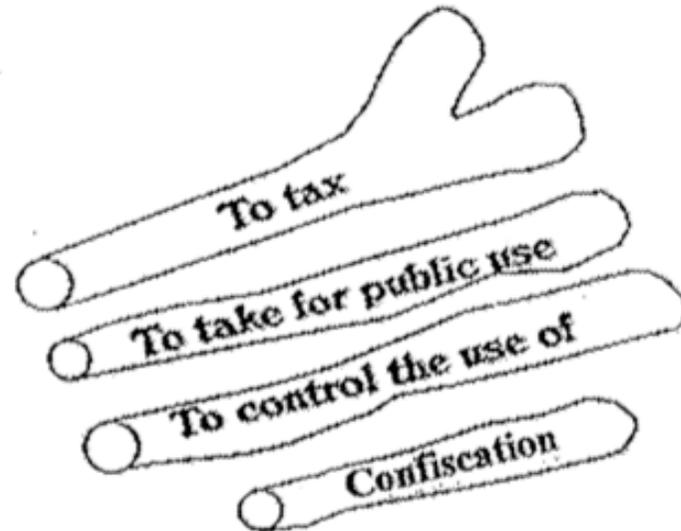
Own Figure

## The bundle of rights in property



**Separable rights of ownership**

## Rights reserved to the state

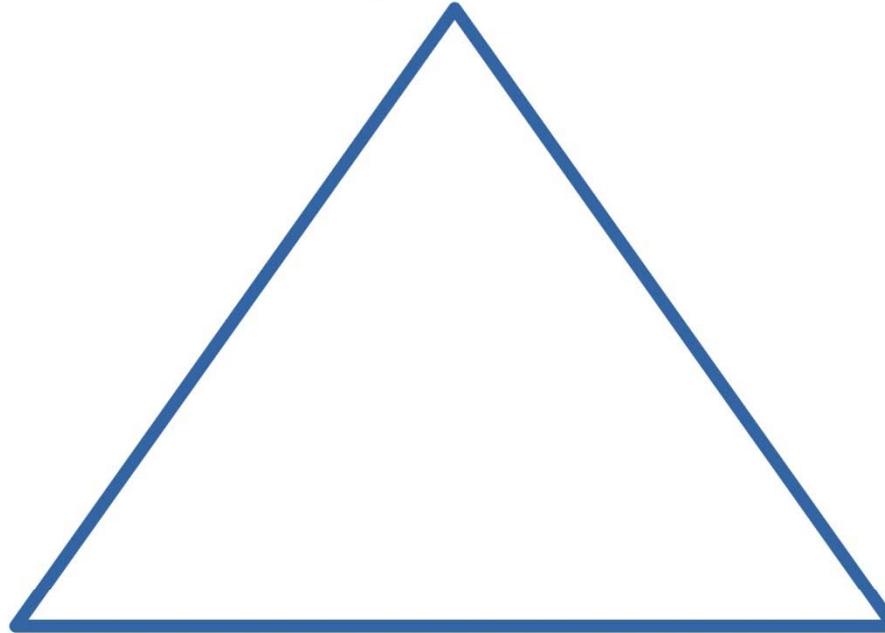


## Interests in Land

Land administration systems are the basis for conceptualizing rights, restrictions and responsibilities related to people, policies and places

### Rights:

Registration and security of tenure positions



**Responsibilities:**  
Social, ethical commitment to environmental sustainability and good husbandry

**Restrictions:**  
Planning and control of land use and land development



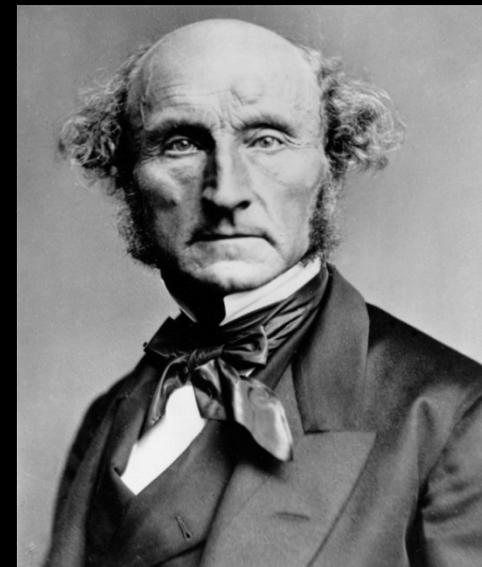
The fathers of land policy:  
The classics



Adam Smith (1723-1790)

„But it is some hardship to be born into the world and to find all nature’s gifts previously engrossed, and no place left for the newcomer.“

(J. S. Mill: Principles of Political Economy, 1848)

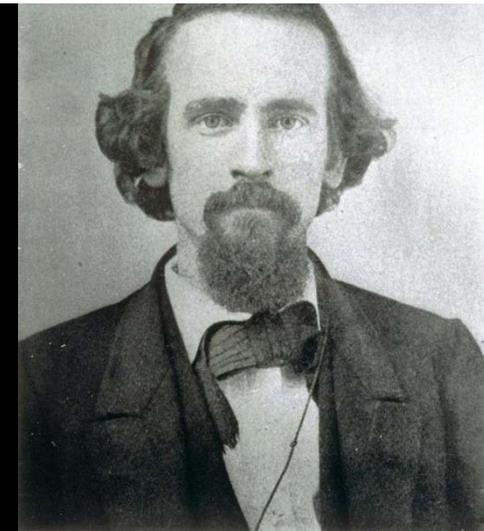


John Stuart Mill (1806-1873)

The fathers of land policy:  
The reformer

„[i]t is not necessary to confiscate  
land; it is only necessary to  
confiscate rent.”

(qf George: Progress and Poverty, 1879)



Henry George (1839-1897)

„A collective property of land (...) are not  
only two acts of justice, they are acts of  
essential interest for a nation that wishes to  
live.“

(L. Walras: Etudes d´economie sociale, Paris 1896)



Leon Walras (1834-1910)

# Land property and its fathers: The Classics - “Control over possession and space”



Il retourne à l'état de nature.  
Voyez la Note 13, p. 155.

## DISCOURS

SUR L'ORIGINE ET LES FONDEMENTS  
DE L'INEGALITE PARMÍ LES HOMMES.

Par JEAN JACQUES ROUSSEAU

CITOTEN DE GENÈVE.

Non in depravatis, sed in his quæ bene secundum  
naturam se habent, considerandum est quid sit na-  
turale. ARISTOT. Politic. L. 2.

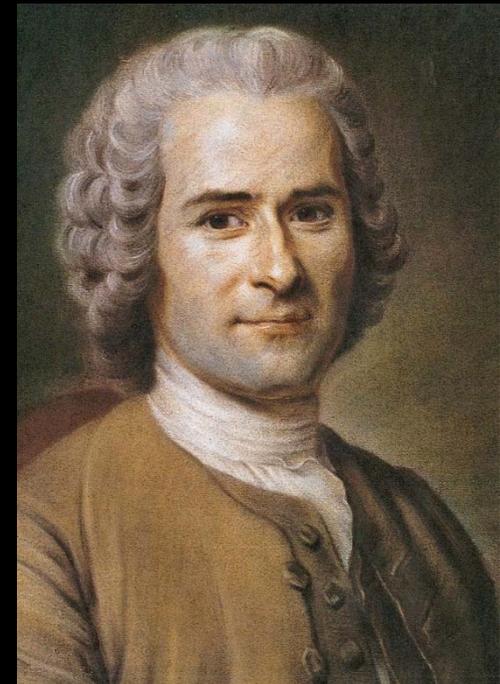


A AMSTERDAM,

Chez MARC MICHEL REY.

M D C C L V.

160R  
6917



Jean-Jacques Rousseau

## Land property and its fathers: The Modernists



**Maurice Allais (1911-2010)**



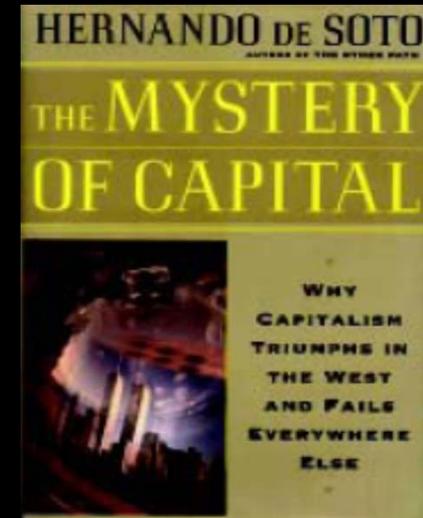
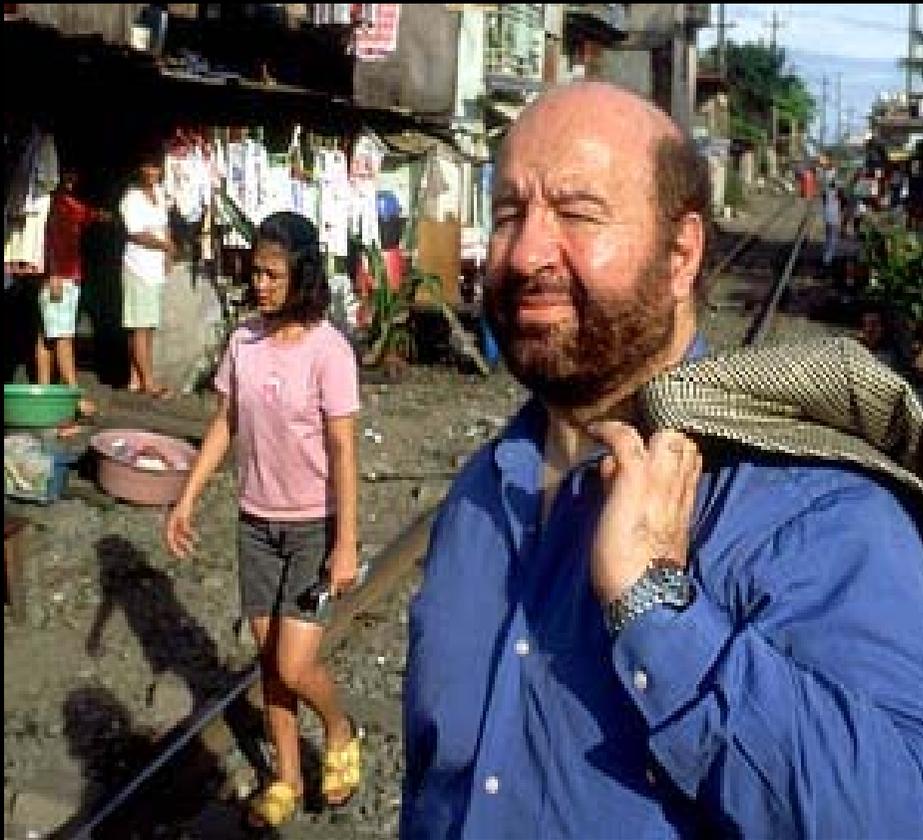
**Joseph E. Stiglitz (1943-)**

„ Land does not disappear when it is taxed. Henry George, a great progressive of the late nineteenth century, argued, partly on this basis, for a *land tax*. (...) That is why it also makes sense (...) to tax *natural resource rents* at as close at 100% as possible“

(qf Stiglitz: Principles and Guidelines for Deficit Reduction, 2010).

”Civilised living in market economies is not simply due to greater prosperity but to the order that formalised property rights bring.”

*Hernando de Soto - 1993*





---

  
**Secure  
Owners**

  
**Citizens with  
mortgages**

  
**Citizens find it  
easier to deal  
with land**

  
**Less land  
disputes**



Tax

i

Inventory  
of existing  
situation



Land  
transaction  
controls

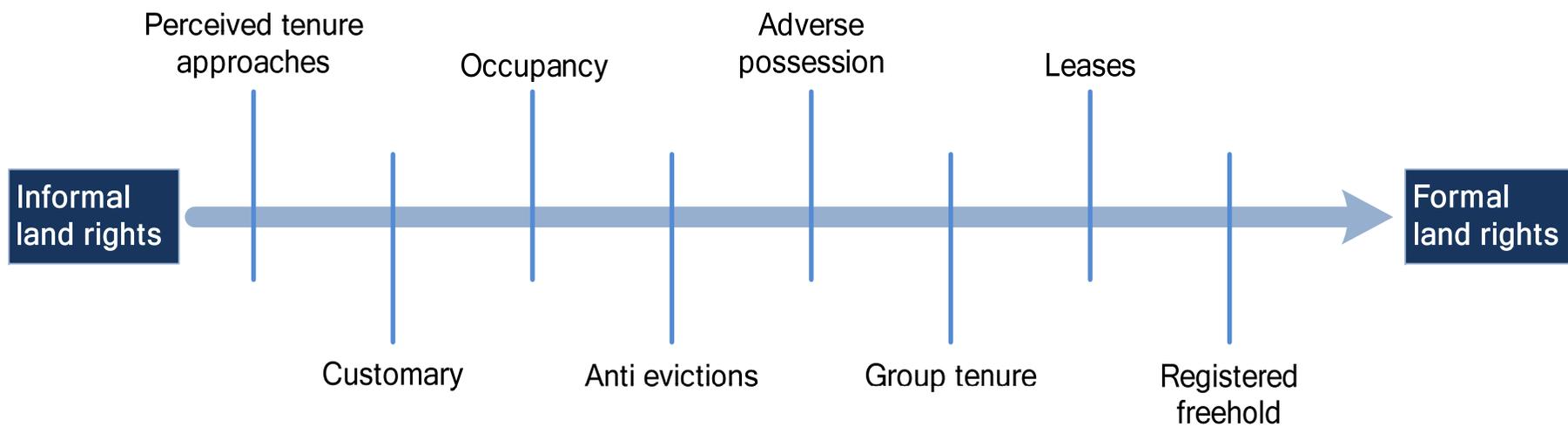
T

A tool for  
use across  
government



Base  
register

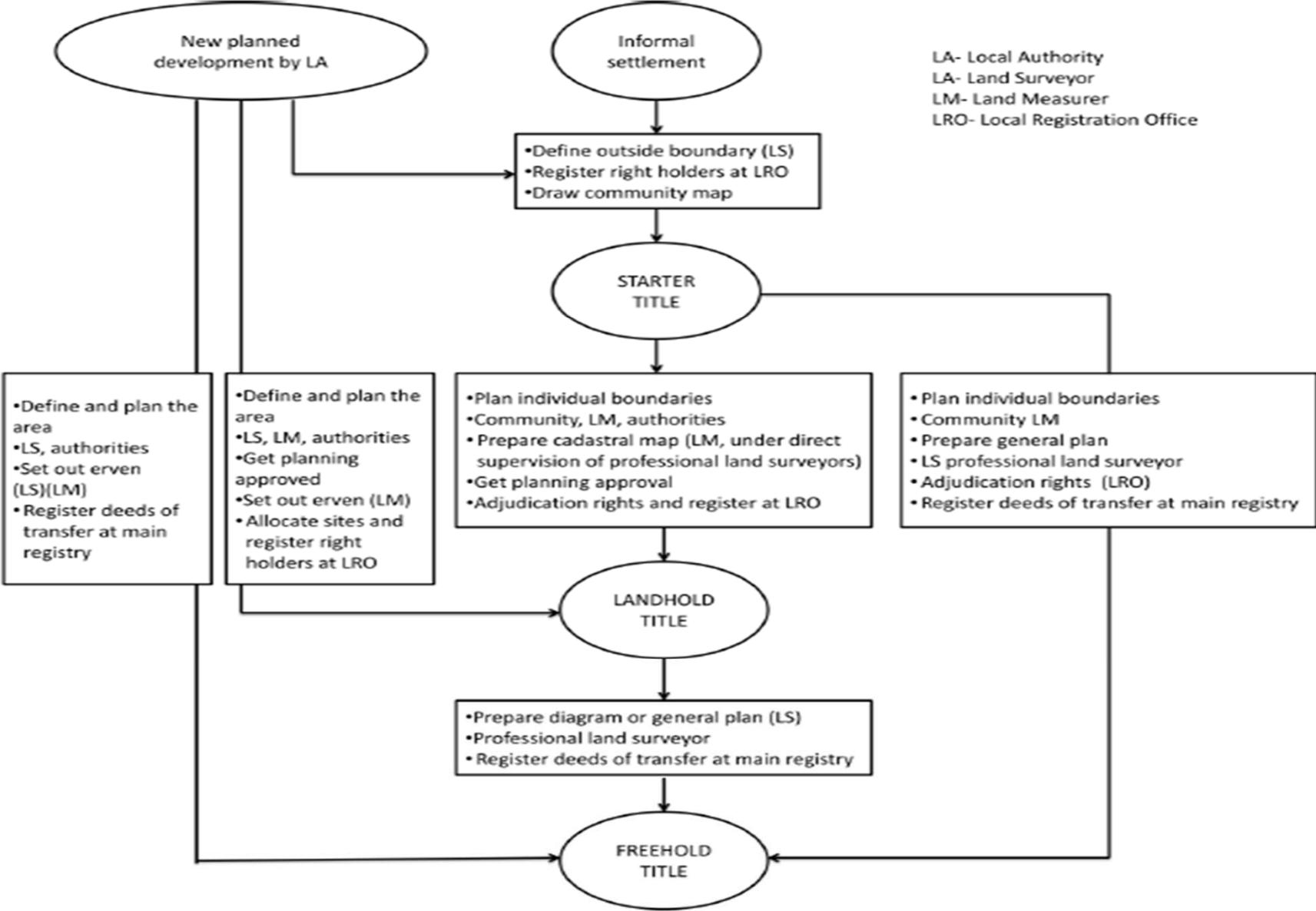
# The continuum of land rights



Source: UN-Habitat, Global Land Tool Network (GLTN), 2008

---

# Example Namibia: Flexible Land Tenure System

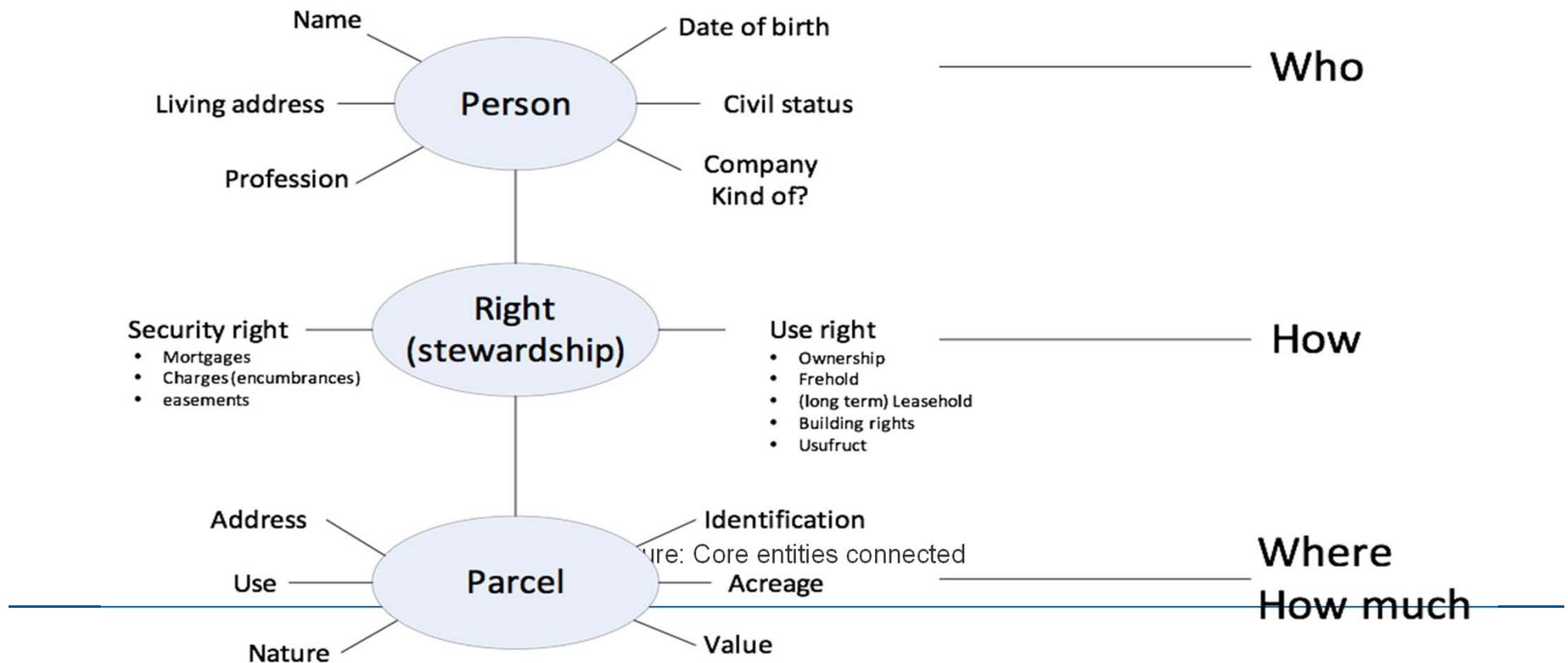


(Source: MLR)

# Land Registration, Cadastre, and the Law

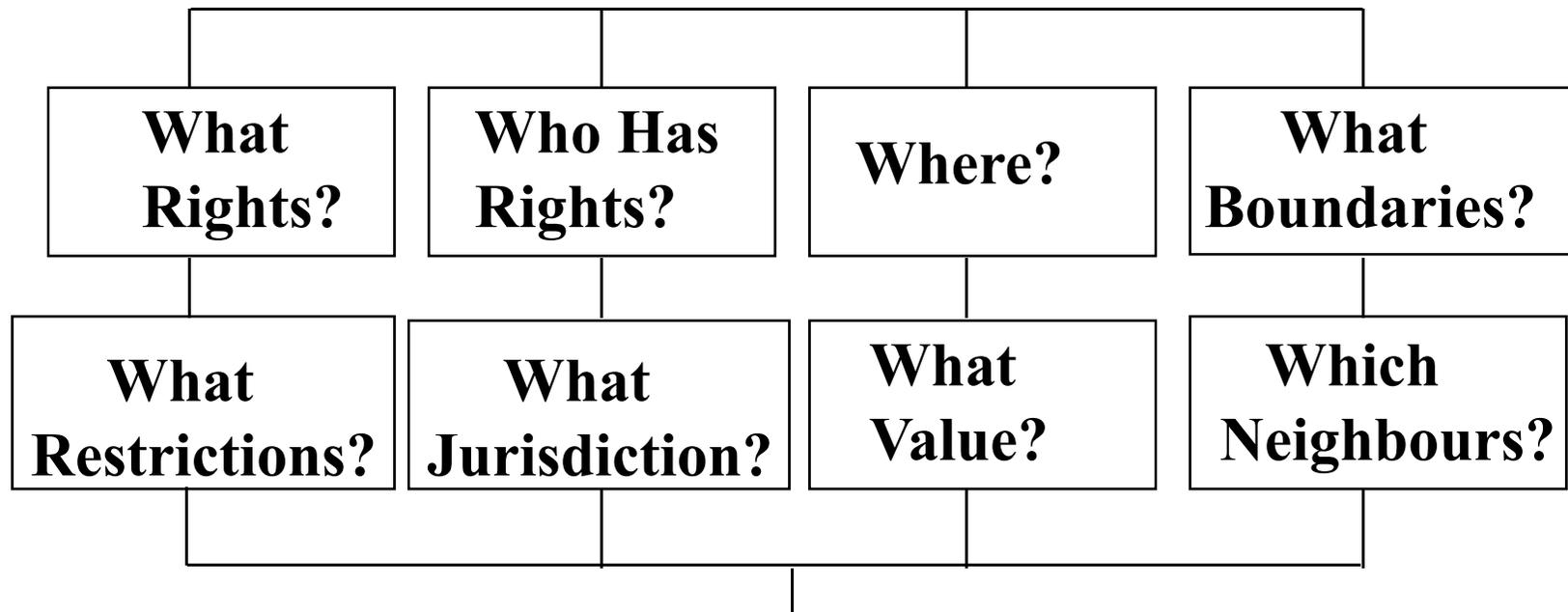
Land registration gives an answer to the question “who” and “how and cadastre It gives an answer to the questions “where” and “how much”. (Henssen and Williamson 1990, p. 20.).

## Contents and relation Land Registration-Cadastre (Land Recording)

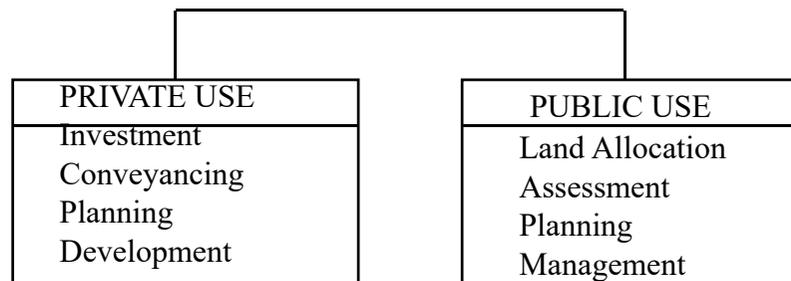


# Land Tenure Information

There is need to determine:



In order to support:



# Clear records??

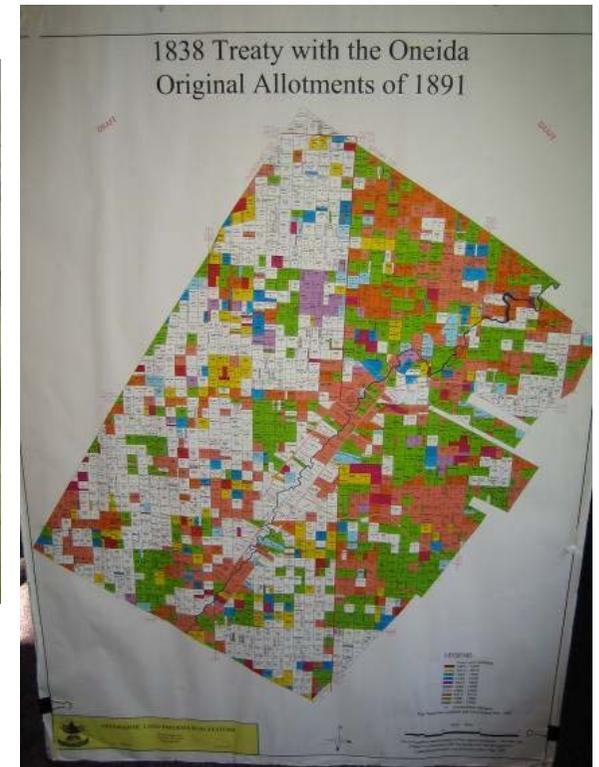


Photo credits: Lemmen, C.

# Clear records



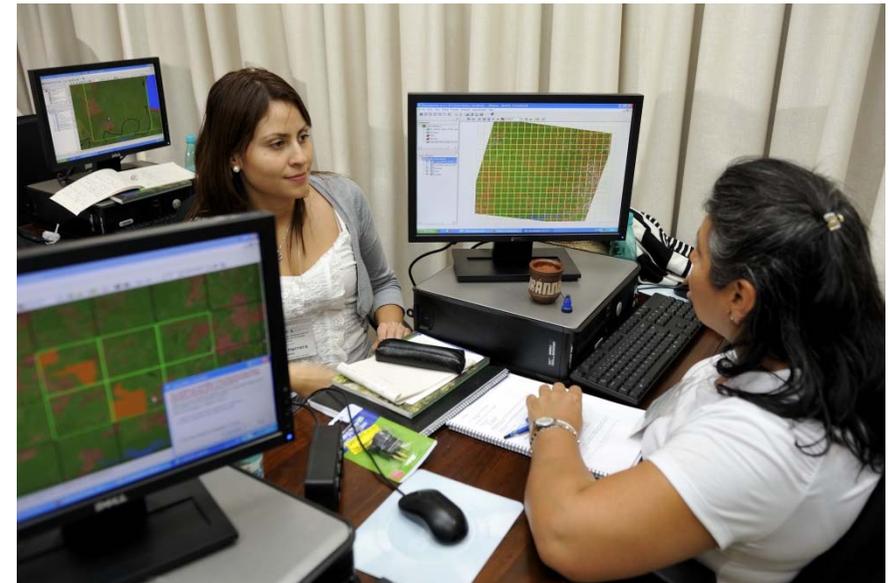
GeoPortal Bayern, Landesamt für Vermessung und Geoinformation



Rwanda. Photo credits: Lemmen, C.



Laos. Photo credits: GIZ, Khankeo Oupravanh



Brazil. Photo credits: GIZ, Florian Kopp



## Current Innovations - UAV



Figure 2: Selection of UAV systems used at the Institute of Geodesy and Photogrammetry (ETH Zurich) for mapping projects.

## Globaler Status zu Landtiteln

World wide, there are around 6 billion land units (parcels)

30 % are recognized and registered

30 % are recognized, but not registered

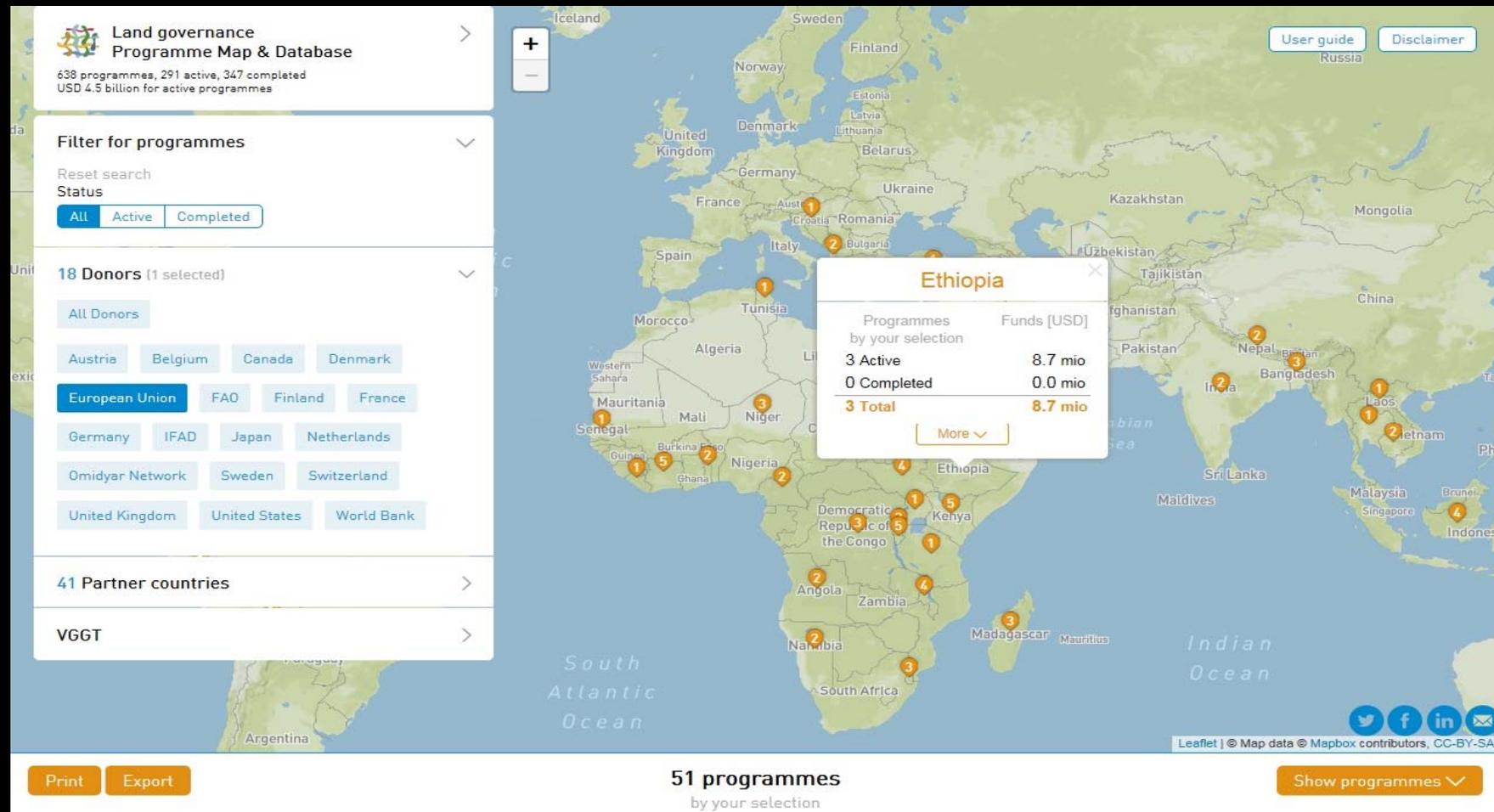
40 % are informal (or illegal) with no recognition

Total: Private property 30 %, Public 50 %, common property 20 %

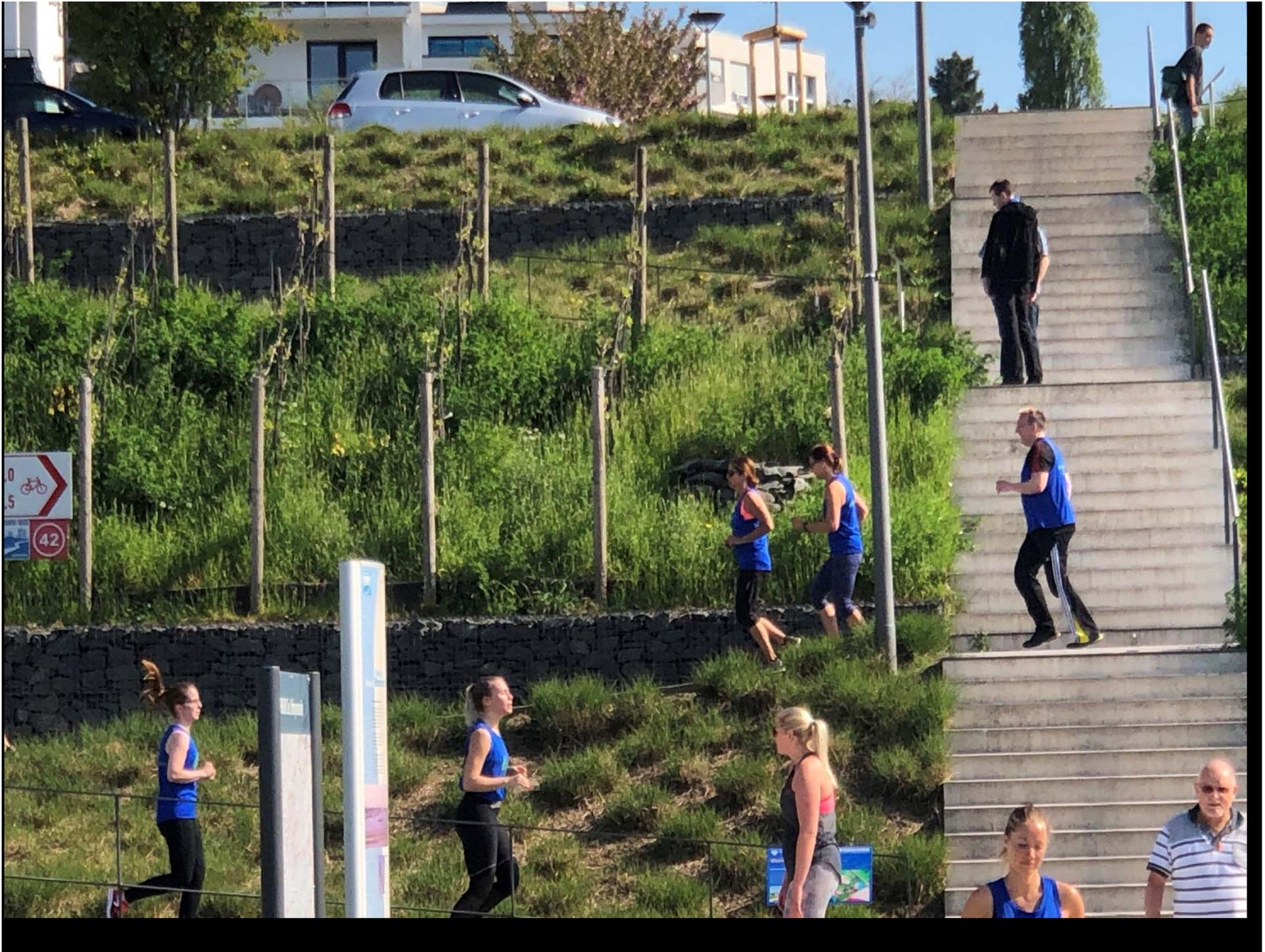
2013: 1,2 billion people live in slums

2020: up to 2 billion will live in slums

# Global Donor Working Group on Land (GDWGL)



Quelle: <https://landgov.donorplatform.org/>



# „Edge City“



„Edge City“ (vgl. Robert Fishman 1991); „Edgeless City“ (Lang 2003)

Aerial Fotos: Alex S. MacLean

THE REVERSE „value staircase“



Before



After

example: Eisenhüttenstadt, Brandenburg

„Demography...?“



Own figure

Copyrighted Material

# property valuation

*the five methods*



THIRD EDITION

douglas scarrett and sylvia osborn

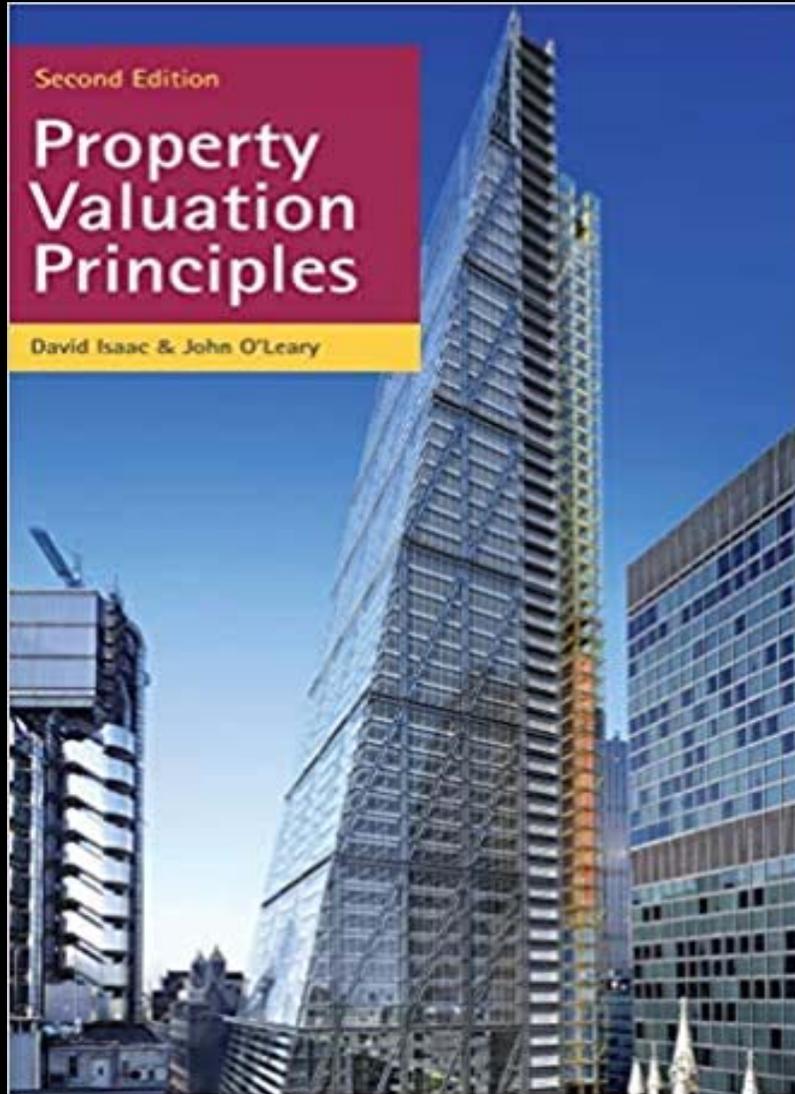
Copyrighted Material



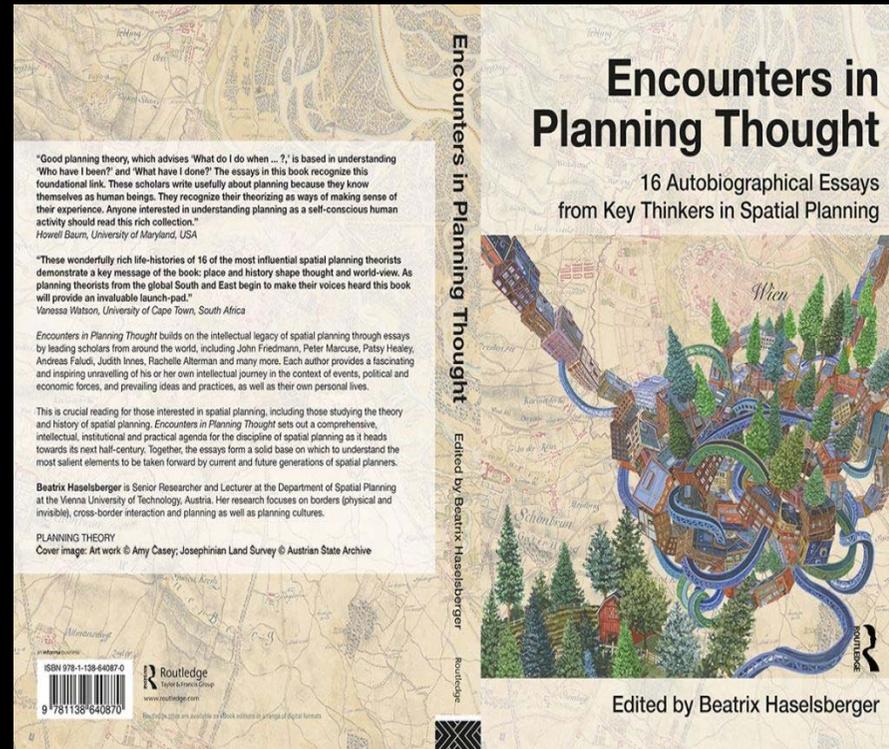
Second Edition

# Property Valuation Principles

David Isaac & John O'Leary



# Finally: ... The world of planners



- „In a world where the majority of humanity lives in cities – the hubs of economies, cultures and political decisions – we have a profession of the future“ (Rachelle Alterman)
- „Places matter: Creativity, Culture, Planning and the land rent“ (Klaus Kunzmann)
- „Development projects really matter („spot zoning“), and granting exceptions to plans was the rule in the U.S“ (Andreas Faludi)

## Assignment 1:

- Would planning be easier if there were no private land ownership?
- Describe the land management system in your country/region/town: planning scheme, system of property, land administration;
- Choose an interesting case study