

FIG

FIG WORKING WEEK 2017

Helsinki Finland

29 May - 2 June 2017

Presented at the FIG Working Week 2017,  
May 29 - June 2, 2017 in Helsinki, Finland

FIG Task Force Real Estate Market Studies

## Well-functioning Real Estate Markets – Criteria and Examples (9076)

Prof. Dr.-Ing. Winrich Voß  
Land and Real Estate Management  
Geodetic Institute Leibniz University Hannover

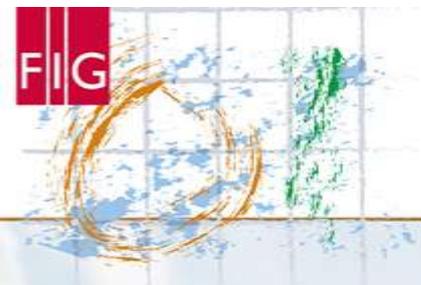
Surveying the world of tomorrow -  
From digitalisation to augmented reality

Organised by



Platinum Sponsors:





# FIG WORKING WEEK 2017

Surveying the world of tomorrow -

Helsinki Finland 29 May - 2 June 2017

From digitalisation to augmented reality

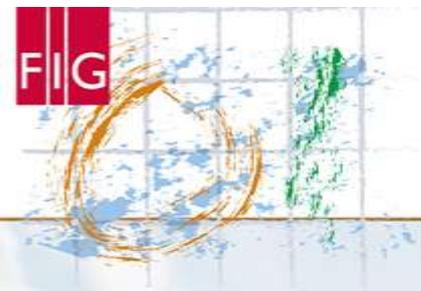
## Motivation / Content

- Task force topic: Reals estate market studies  
(describing, learning from each other, collect consistent experiences)
- Well-functioning markets? What is good, what is it not? (Highest prices?)  
For whom? which perspective? (public wealth?)
- Relevant indicators  
(affordable housing, reliable financing system, land consumption ?)
- Examples  
(ownership rate, overburdened households, planning gain)



Platinum Sponsors:





# FIG WORKING WEEK 2017

Surveying the world of tomorrow -

Helsinki Finland 29 May - 2 June 2017

From digitalisation to augmented reality

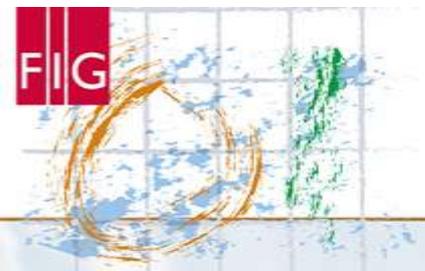
## Importance of real estate markets

- Real estate market is of enormous importance in **economy and society**
  - Relevant for the stability of the **financing system**
  - Big part of **private wealth** is held here (commercial and residential property)
  - Requirement of a "place to live" (social part, neighborhood)
  - Structure and **design of towns** and villages as cultural good (state/ region)
  - **Ecological situation** is more and more important for property markets
- Well-functioning real estate market provides many advantages (private and public)



Platinum Sponsors:





# FIG WORKING WEEK 2017

Surveying the world of tomorrow -

Helsinki Finland 29 May - 2 June 2017

From digitalisation to augmented reality

## International Property Markets Scorecard methodology

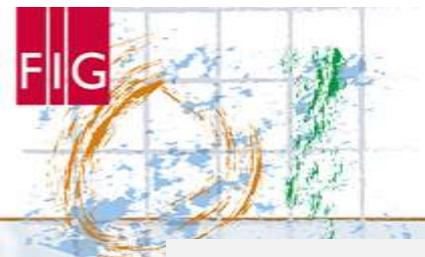


Center for International Private Enterprise (CIPE)

International Real Property Foundation (IRPF)

Platinum Sponsors:





## Property Market Scorecard System (CIPE / IRPF):

Aim: objectively measuring the effectiveness of property markets

Focus: International property markets.  
Connection of property market and overall economic development  
Property market risk assessment

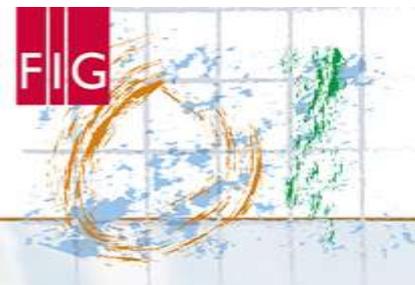
3 levels of aggregation:

- 6 core elements (1. level)
- 3 lead indicators each (2. level)
- 3 measurable sub-indicators each (3. level)

Evaluation at 3. level (54 sub-indicators)

### **Core Elements of Property Markets**

1. Property Rights
2. Access to Credit
3. Effective Governance
4. Rational Dispute Resolution
5. Financial Transparency
6. Appropriate Regulation



# FIG WORKING WEEK 2017

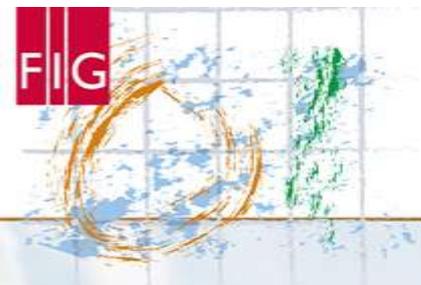
Surveying the world of tomorrow -

Helsinki Finland 29 May - 2 June 2017

From digitalisation to augmented reality

## Core element Map of property rights





# FIG WORKING WEEK 2017

Surveying the world of tomorrow -

Helsinki Finland 29 May - 2 June 2017

From digitalisation to augmented reality

**How to describe a countries real estate market ?**

**Which indicators are most important ?**

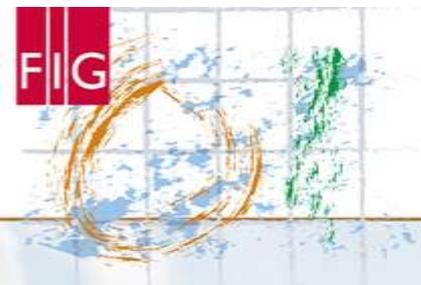
**When is the market well-functioning - with accepted results?  
(satisfying, smoothly, ...)**

**When is a market not functioning – with unsatisfying results?**



Platinum Sponsors:





# FIG WORKING WEEK 2017

Surveying the world of tomorrow -

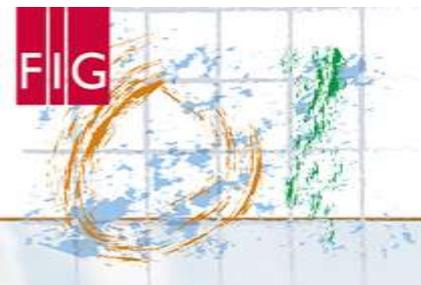
Helsinki Finland 29 May - 2 June 2017

From digitalisation to augmented reality

**Result of a well-functioning real estate market system?**

**Result of a very strong property right?**





# FIG WORKING WEEK 2017

Surveying the world of tomorrow -

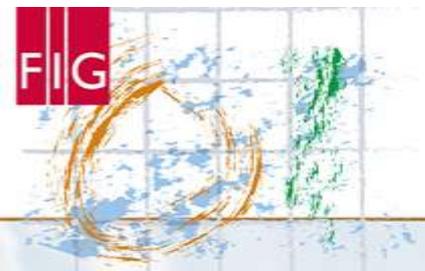
Helsinki Finland 29 May - 2 June 2017

From digitalisation to augmented reality

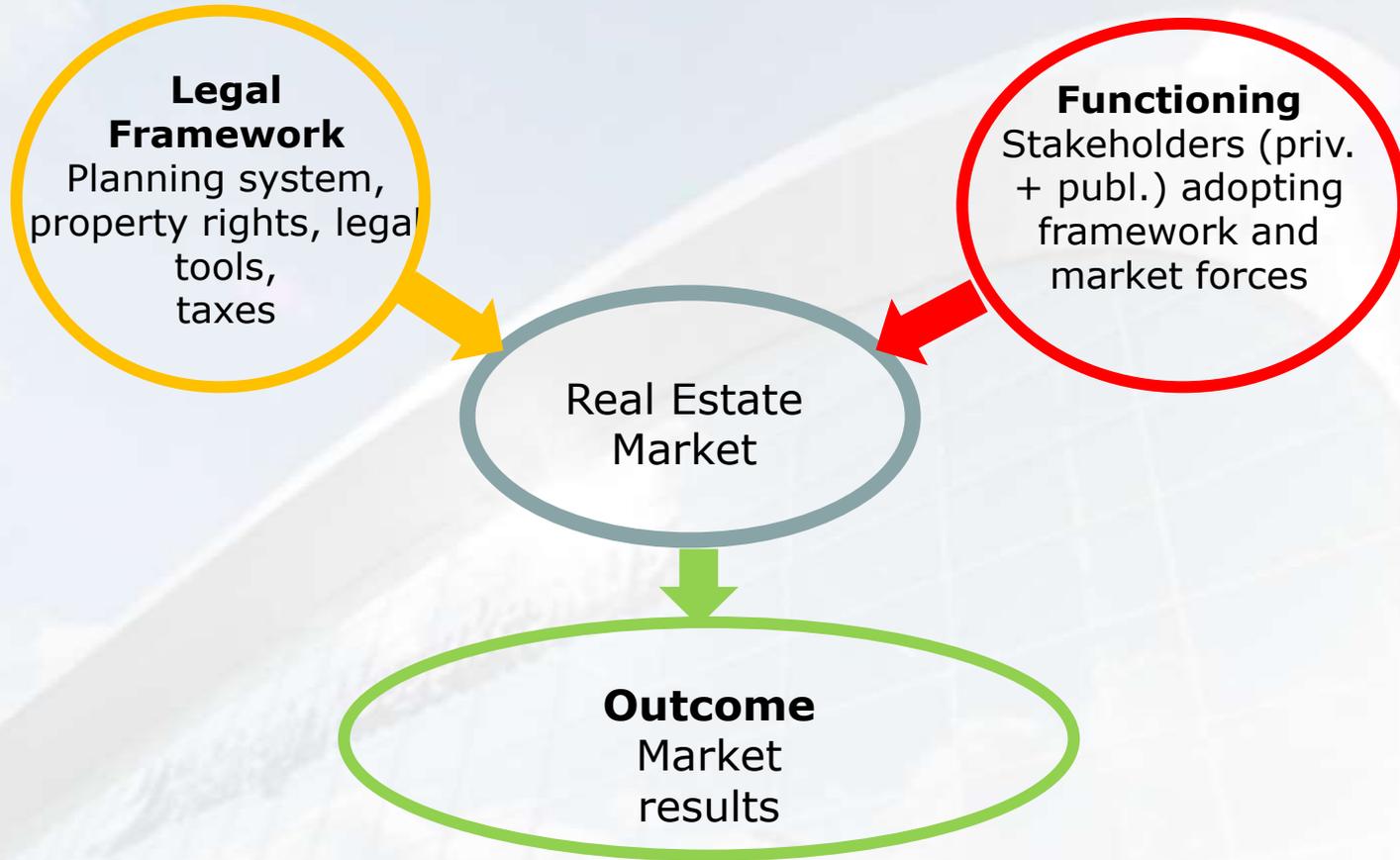
**No town – No village ! Urban sprawl – inefficient land consumption**

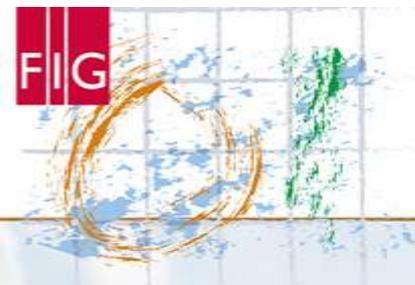


Abb. 2. Wie ist der Zersiedelungsgrad dieser Landschaft zu messen? Blick vom Säli-Schlössli bei Olten auf Aarburg/Rothrist. (Foto: Klaus Ewald, 1999)



## Structure to analyse market functioning at operative level



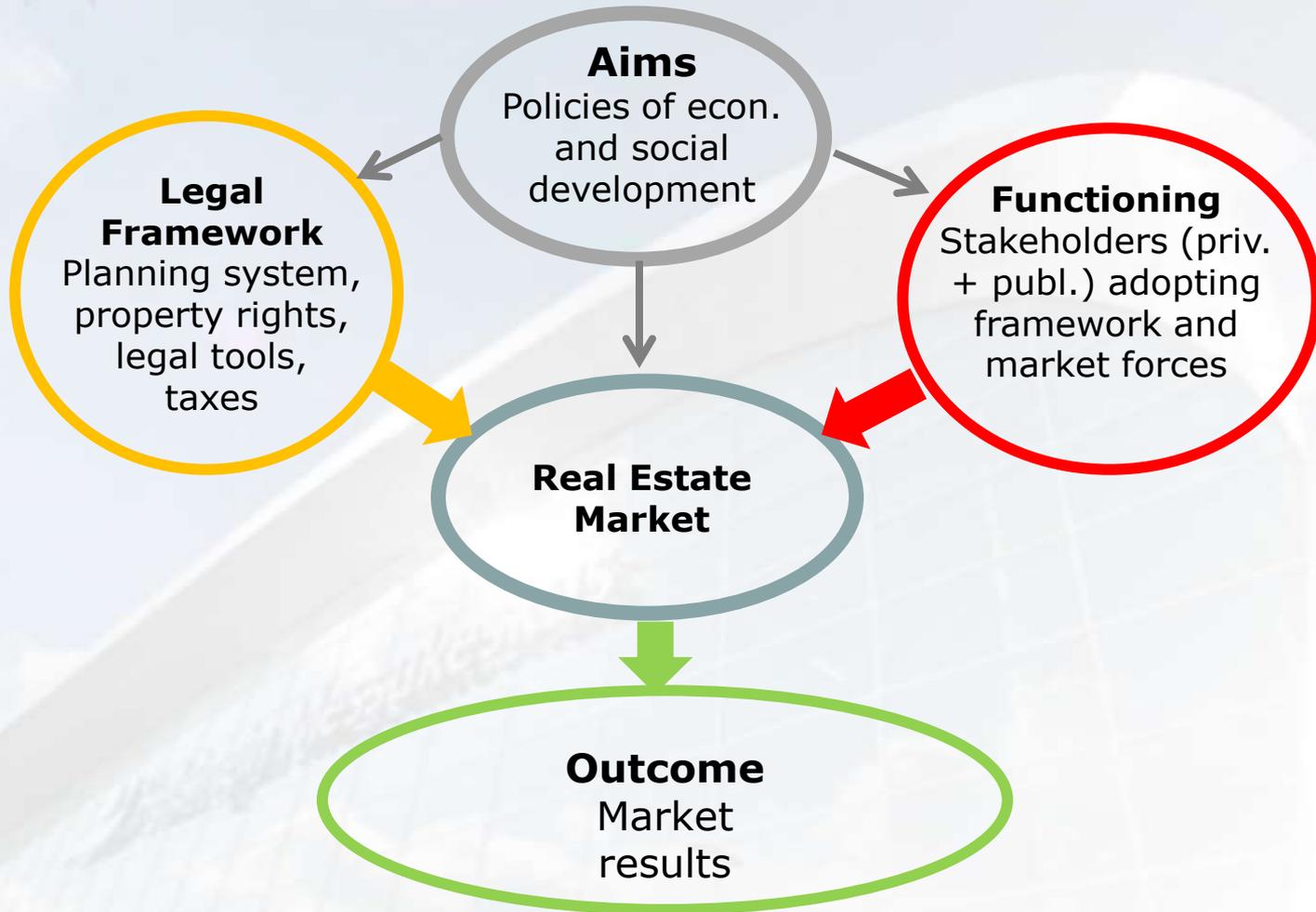


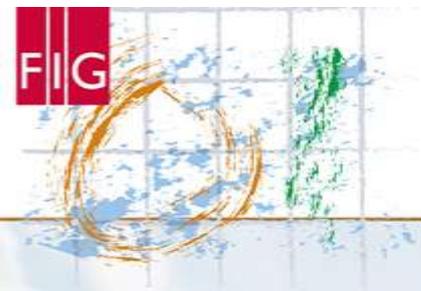
# FIG WORKING WEEK 2017

Surveying the world of tomorrow -

Helsinki Finland 29 May - 2 June 2017

From digitalisation to augmented reality





# FIG WORKING WEEK 2017

Surveying the world of tomorrow -

Helsinki Finland 29 May - 2 June 2017

From digitalisation to augmented reality

## Aims of land policies

... different aims in different parts of the world

... are necessary to evaluate if a market runs out of functioning

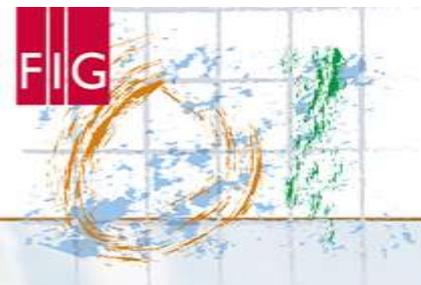
Some are common, some are special in some countries

- Provision of housing: ratio available flats to number of households
- Price level and change of prices: in relation to disposable income
- Tenure structure: increase ownership rate
- Reduce land consumption (to reuse brownfields before developing new greenfields)
- Sufficient supply, especially in affordable housing



Platinum Sponsors:





# FIG WORKING WEEK 2017

Surveying the world of tomorrow -

Helsinki Finland 29 May - 2 June 2017

From digitalisation to augmented reality

## Indicator: Ownership rate

- Important outcome of a country's real estate market system !
- Evaluation?: High ownership rate indicates a well-functioning market system?
- Ownership rates are very different (40 – 95 % in OECD-countries)



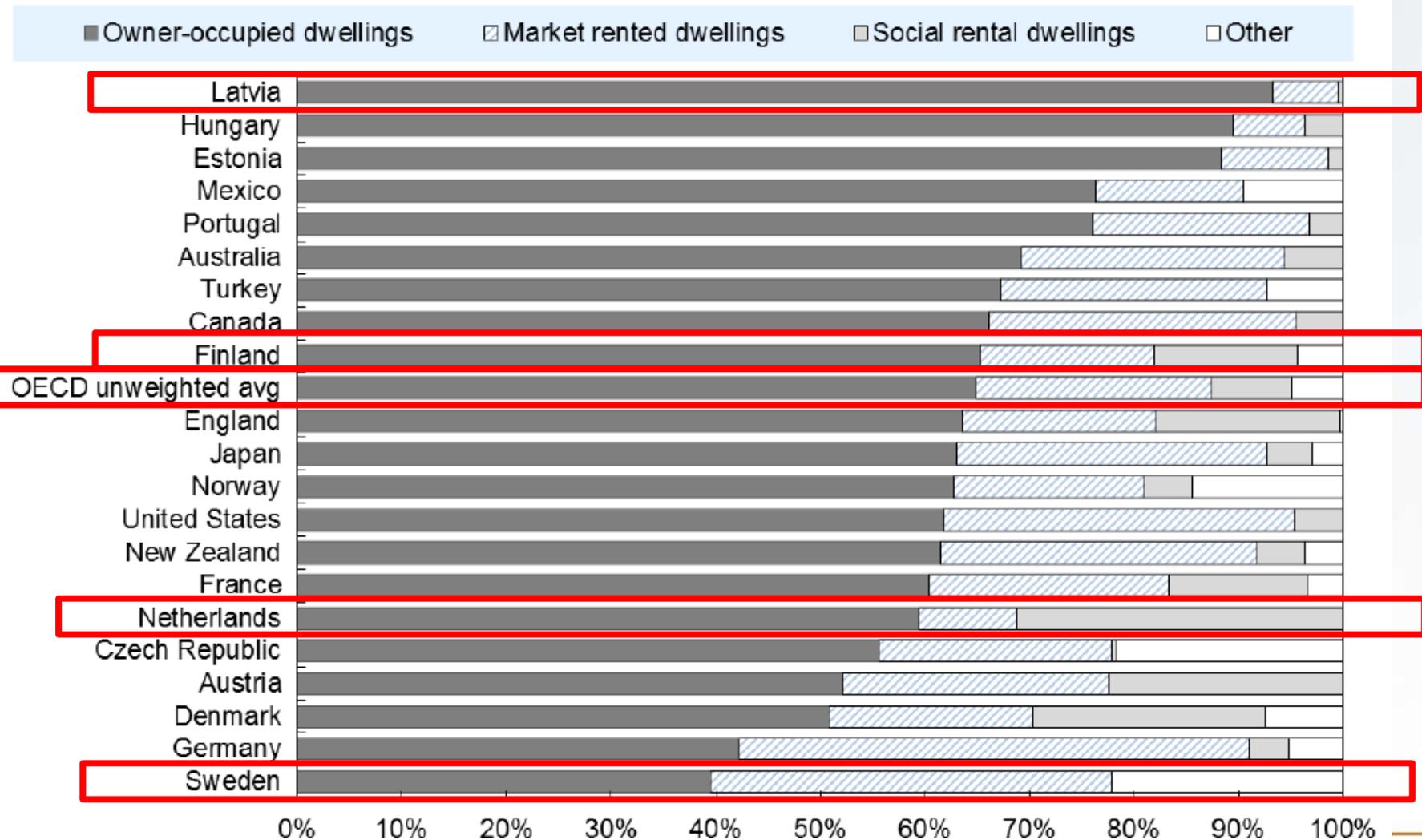
Platinum Sponsors:



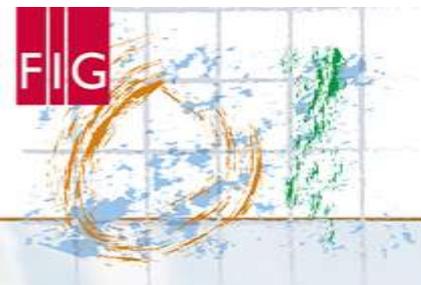
# FIG WORKING WEEK 2017

Surveying the world of tomorrow -

Helsinki Finland 29 May - 2 June 2017



Source: OECD Social, Employment and Migration Working Papers No. 176 – Policies to promote access to good-quality affordable housing in OECD countries



# FIG WORKING WEEK 2017

Surveying the world of tomorrow -

Helsinki Finland 29 May - 2 June 2017

From digitalisation to augmented reality

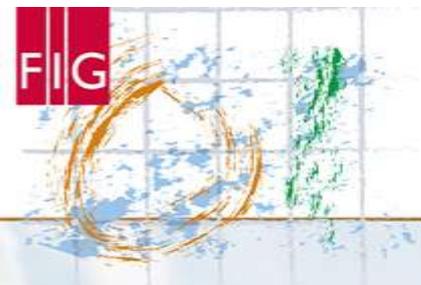
## Indicator: Ownership rate

- Evaluation has to include market for rental dwellings.
- 2 sub-markets with different mechanisms are responsible (enough supply, meeting different demands)
- **Relevant indicator:** Ownership rate + rental dwellings (number of flats, rent level, ...)
- Example Germany: Land policy aim: raising ownership rate (no real success)
- Obstacles: high prices, financing system requires equity ratio, keep job mobility



Platinum Sponsors:





# FIG WORKING WEEK 2017

Surveying the world of tomorrow -

Helsinki Finland 29 May - 2 June 2017

From digitalisation to augmented reality

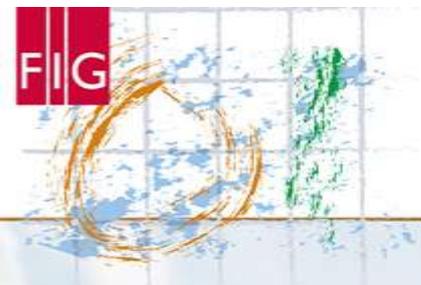
## Indicator: Land consumption rate

- In many countries important outcome of planning and real estate market system !
- Different aspects: Ecological: Protecting landscape against urban sprawl  
Economical: Using infrastructure efficiently, retaining agricultural land
- Evaluation: Land consumption rate under 30 ha per day (Germany)  
Preventing urban sprawl (Switzerland),  
Preventing reduction of agricultural land (China)



Platinum Sponsors:





# FIG WORKING WEEK 2017

Surveying the world of tomorrow -

Helsinki Finland 29 May - 2 June 2017

From digitalisation to augmented reality

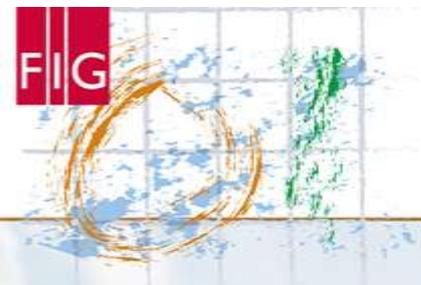
## Example Switzerland:

- Permanent increase in population
- Scarceness of settlement areas (40% mountainous regions)
- → Prevalence of urban sprawl
- Action:
  - Changing the legal framework
  - Improve planning law



Abb. 2. Wie ist der Zersiedelungsgrad dieser Landschaft zu messen? Blick vom Säli-Schlössli bei Olten auf Aarburg/Rothrist. (Foto: Klaus Ewald, 1999)

Quelle: Eidg. Forschungsanstalt für Wald, Schnee und Landschaft WSL, Zürich



# FIG WORKING WEEK 2017

Surveying the world of tomorrow -

Helsinki Finland 29 May - 2 June 2017

From digitalisation to augmented reality

## Revision of Swiss Town and Country Planning Act (RPG) (Revision 15. Juni 2012, Referendum 03. März 2013)

- 1. Local development plans** (municipalities)
  - New settlement areas restricted to needs of next 15 years
  - If more, revision of plan within next 5 years
  - Re-zoning may cause compensation
- 2. Planning gain tax** (20 % of gain in land value by new zoning)
- 3. Improving availability of land for housing (new tools)**
  - Replotting procedure
  - Timeframe for house building

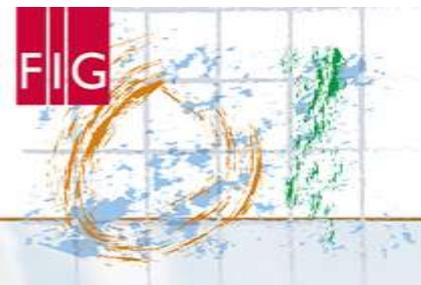
**Other countries:** Preventing urban sprawl not aim of land policy !



Winrich Voss (8447)

Platinum Sponsors:





# FIG WORKING WEEK 2017

Surveying the world of tomorrow -

Helsinki Finland 29 May - 2 June 2017

From digitalisation to augmented reality

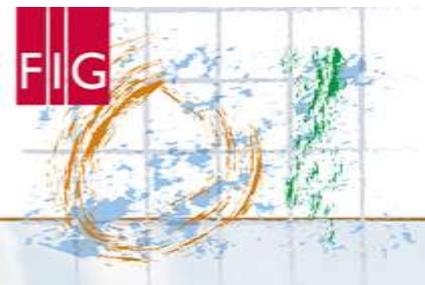
## Indicator: Affordable housing

- **Enough supply** in affordable housing → big challenge for real estate market systems
- Separated market dominated by state institutions?
- Modern market economies are looking for public-private-partnership solutions
- Evaluation: **Overburdened households** and share of housing costs



Platinum Sponsors:





# FIG WORKING WEEK 2017

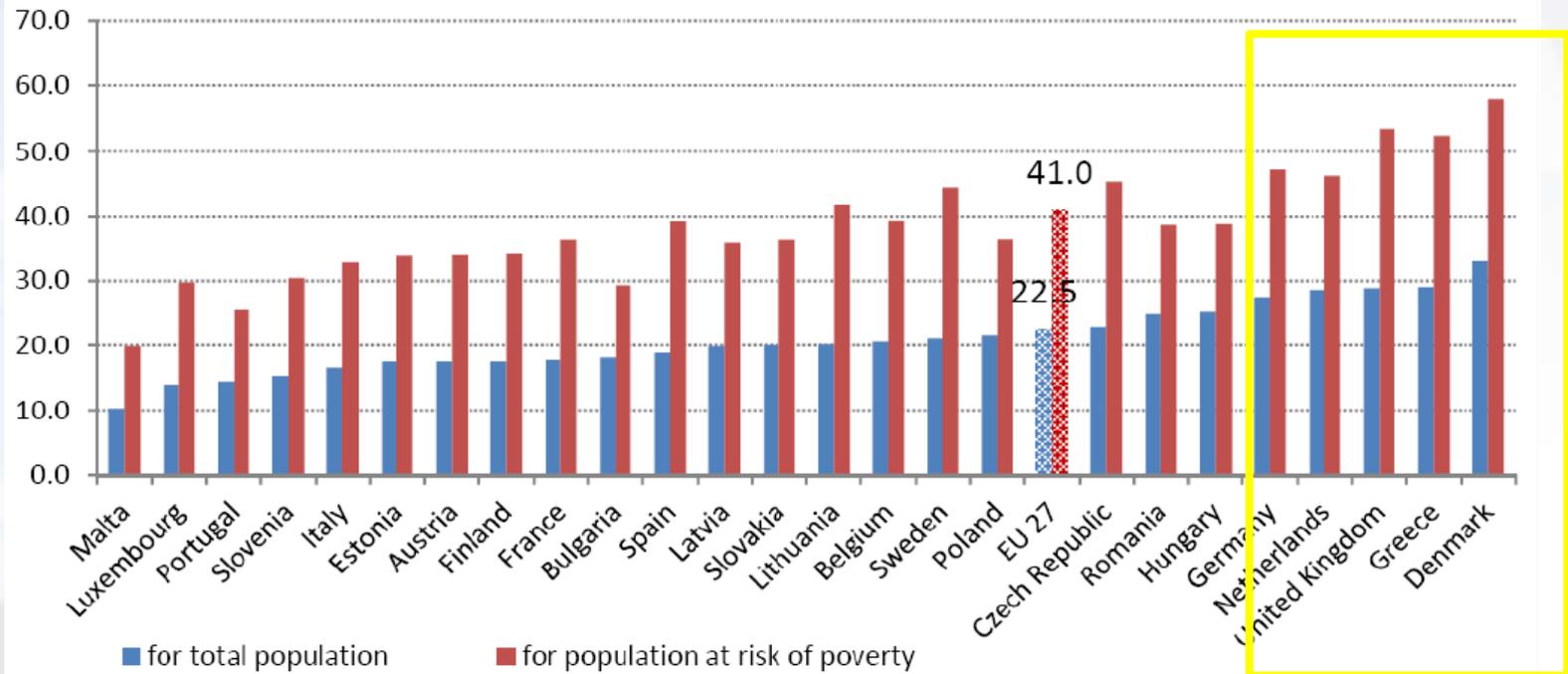
Surveying the world of tomorrow -

Helsinki Finland 29 May - 2 June 2017

From digitalisation to augmented reality

## House cost burden (EU 2010)

Fig. 4: Share of housing costs as a percentage of disposable income in the EU 27 by poverty status (2010)



Source: Pettini, A. 2012: CECODHAS Housing Europe: Housing Europe Review 2012, p. 3

“Population at risk of poverty”: Income below 60% of median national income



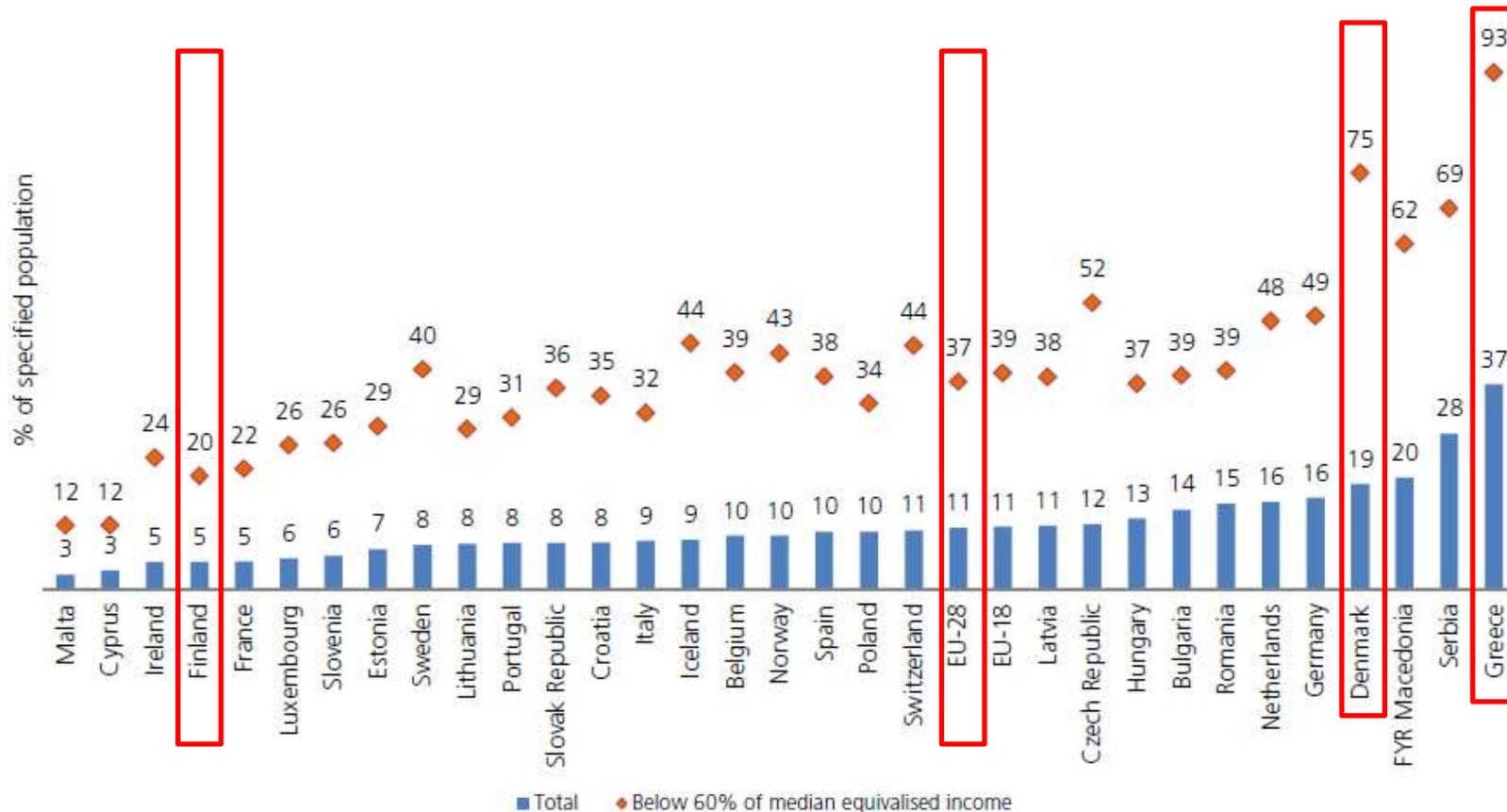


# FIG WORKING WEEK 2017

Surveying the world of tomorrow -

Helsinki Finland 29 May - 2 June 2017

Figure 3.5: Housing cost overburden rate by poverty status in selected CEB member countries, 2013



Source: CEB graph based on EUROSTAT data updated on 12 February 2015, extracted on 16 February 2015 (ilc\_lvho07a).  
Note: Data for "the former Yugoslav Republic of Macedonia" is for 2012.

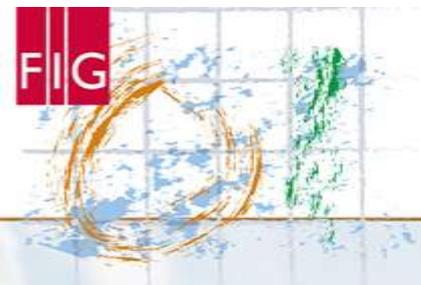
Source: UNECE (2014): Survey on Land Administration Systems, p. 22

<http://www.unece.org/fileadmin/DAM/hlm/documents/Publications/survey.land.admin.systems.pdf>



Platinum Sponsors:





# FIG WORKING WEEK 2017

Surveying the world of tomorrow -

Helsinki Finland 29 May - 2 June 2017

From digitalisation to augmented reality

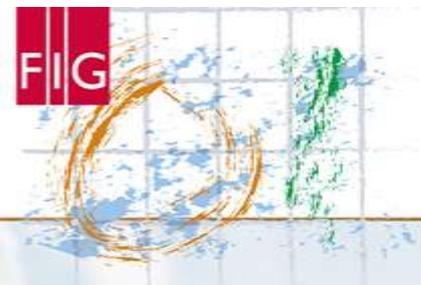
## Indicator: Planning gain tools

- Are limitations of planning gain necessary **as correctives** in the market system?
- They are used in many countries in very different models
  - New development areas (Switzerland)
  - Public monitoring of rents (Switzerland)
  - Betterment levy (UK)
  - Property tax (Taiwan)
  - Planning gain tools in administrative procedures (Germany: land reallocation, urban renewal)
  - PPP in urban development contracts (Germany)



Platinum Sponsors:





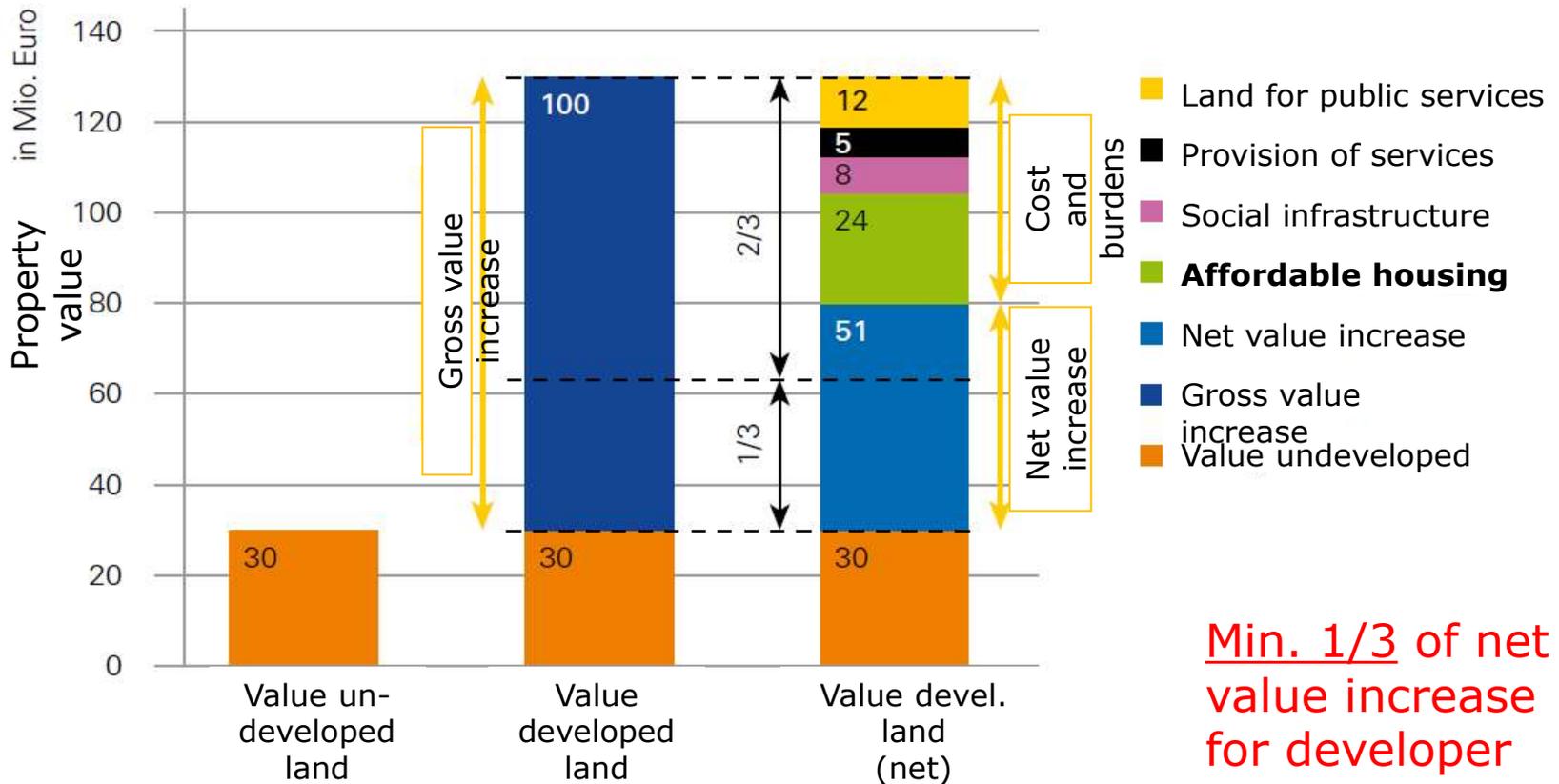
# FIG WORKING WEEK 2017

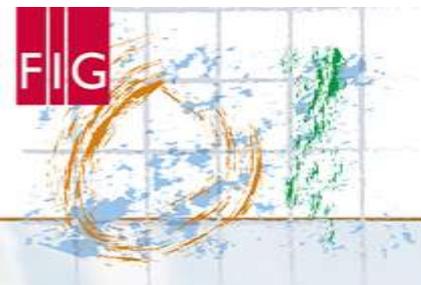
Surveying the world of tomorrow -

Helsinki Finland 29 May - 2 June 2017

From digitalisation to augmented reality

## Economic impact of the Munich Land Strategy





# FIG WORKING WEEK 2017

Surveying the world of tomorrow -

Helsinki Finland 29 May - 2 June 2017

From digitalisation to augmented reality

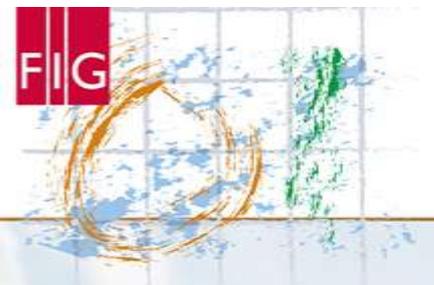
## Elements of a well-functioning real estate market

- Some key requirements / preconditions
  - Secured **property rights**
  - Sophisticated system of **land use designation** / planning system
  - Fair and efficient land and **property tax system**
  - Reliable **property financing system**
  
  - **Monitoring systems** of land and property market outcomes
  - Significance of property market in **governance and administrative structures**
  - Significance of **education and professional skills** in land and property aspects



Platinum Sponsors:





# FIG WORKING WEEK 2017

Surveying the world of tomorrow -

Helsinki Finland 29 May - 2 June 2017

From digitalisation to augmented reality

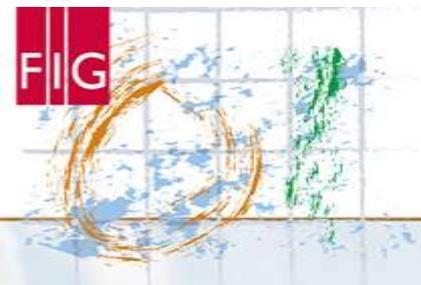
## Conclusions

- **Aims of land policy** are important for the "well-functioning" of a market and should be included in evaluations of REMS.
- Some aims are generally accepted, some are specific in different countries.
- Real estate market systems tend to **scarceness of supply** and hence **raising prices**.
- **Important indicators** for well-functioning markets are:
  - Supply and demand ratio: Enough and differentiated supply (incl. rental housing)
  - Income to property price-/ rent-ratio: Sustainable relation to income level
  - Overburdened households
  - Planning gain options
  - Efficient land use / land consumption



Platinum Sponsors:





# FIG WORKING WEEK 2017

Surveying the world of tomorrow -

Helsinki Finland 29 May - 2 June 2017

From digitalisation to augmented reality

## Thank you for your attention!

### CONTACT

Prof. Dr.-Ing. Winrich Voß  
Land and Real Estate Management  
Geodetic Institute  
Leibniz University Hannover  
GERMANY  
Email: [voss@gih.uni-hannover.de](mailto:voss@gih.uni-hannover.de)

Nienburger Straße 1  
D-30167 Hannover  
Tel. +49-511-762-19927  
Fax +49-511-762-19929

Internet: [www.gih.uni-hannover.de](http://www.gih.uni-hannover.de)



Platinum Sponsors:

