

URBAN PLANNING UNDER FINANCIAL RESTRICTIONS: an urban planning model

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Matthias Thoma, Ernst Basler + Partner, Zurich

Great places ...



... with a heavy burden

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- 1 Why worrying about public finance in planning?
- 2 Effects of urban planning on public finance
- 3 Urban Development Model (UDM)
- 4 Conclusions

Content

1 Why worrying about public finance in planning?

2 Effects of urban planning on public finance

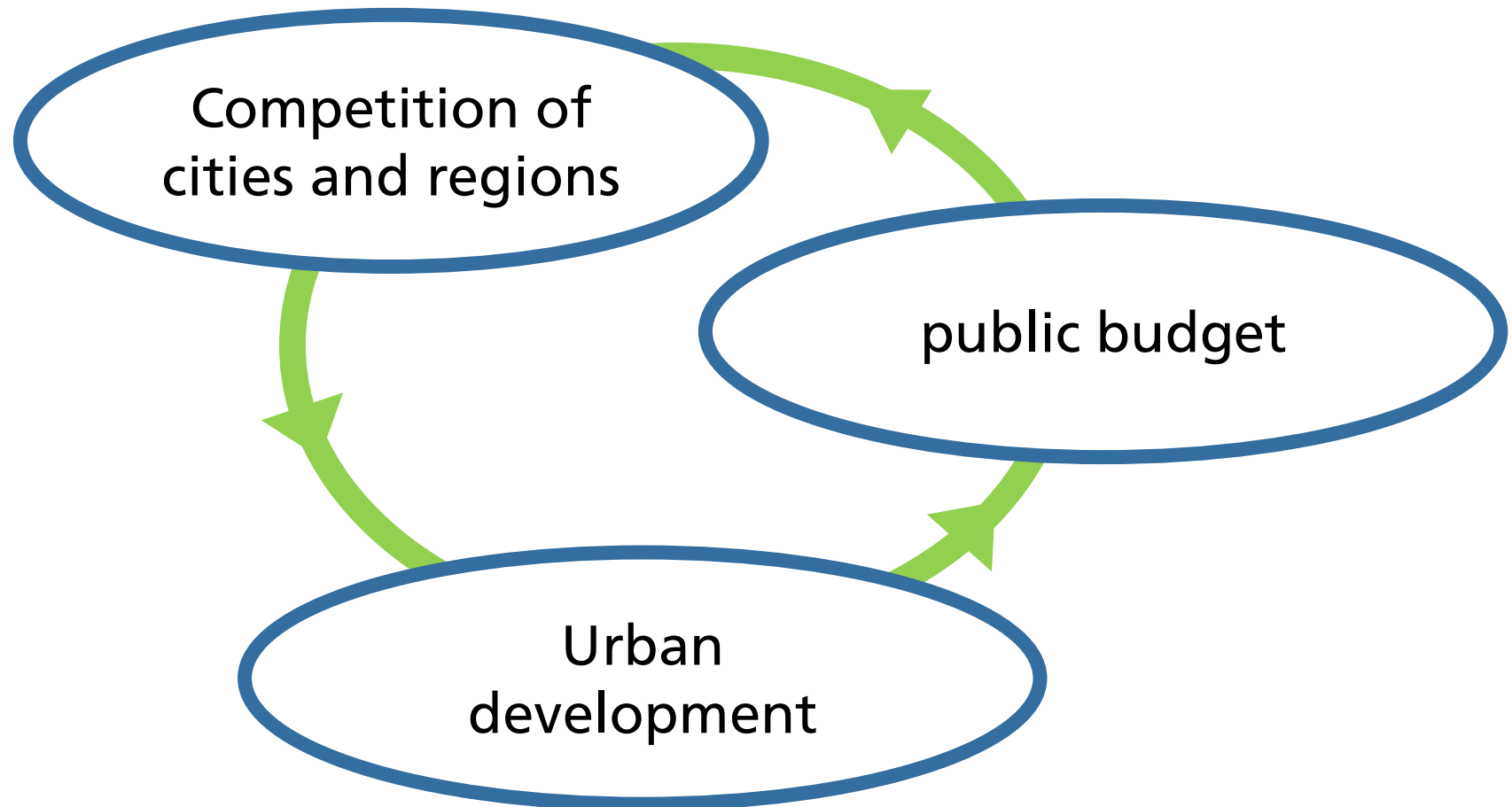
3 Urban Development Model (UDM)

4 Conclusions

Why worrying?



Relationship



Why worrying about public finance in urban planning?

- Strong territorial competition at regional and global level (taxes, “soft factors”, infrastructure...)
 - local budgets under pressure
 - high investment costs in growing urban regions
 - high maintenance expenses for built infrastructure
- ⇒ Urban planning is one way local governments can influence their revenues and expenses in the long run
- ⇒ Financial “health” is a pre-condition for a sustainable city

Need for evidence-based planning

Settlement development does not have a positive effect on public budgets in every case
⇒ evidence-based planning!



Content

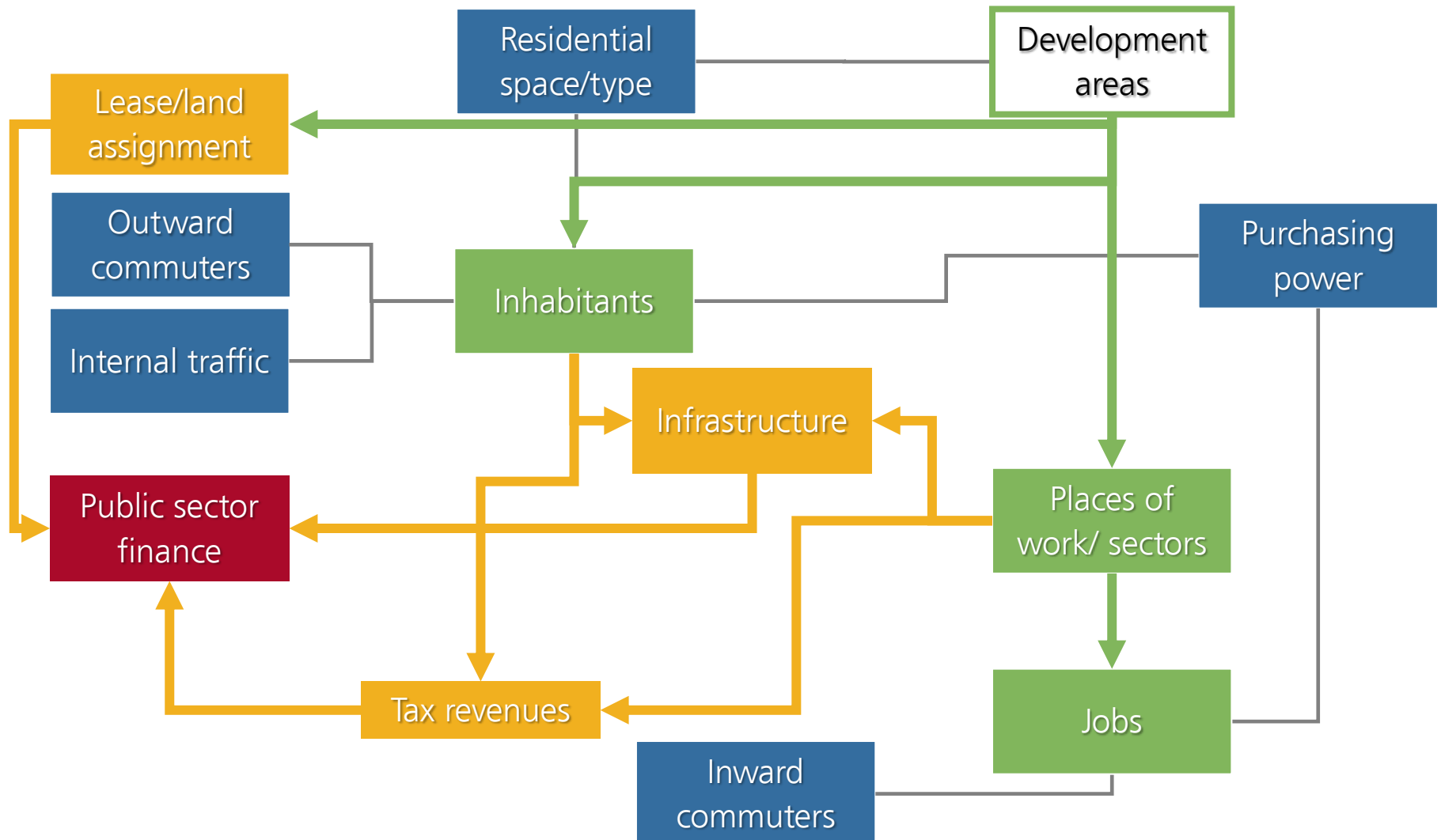
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Effects of urban planning on municipal finance

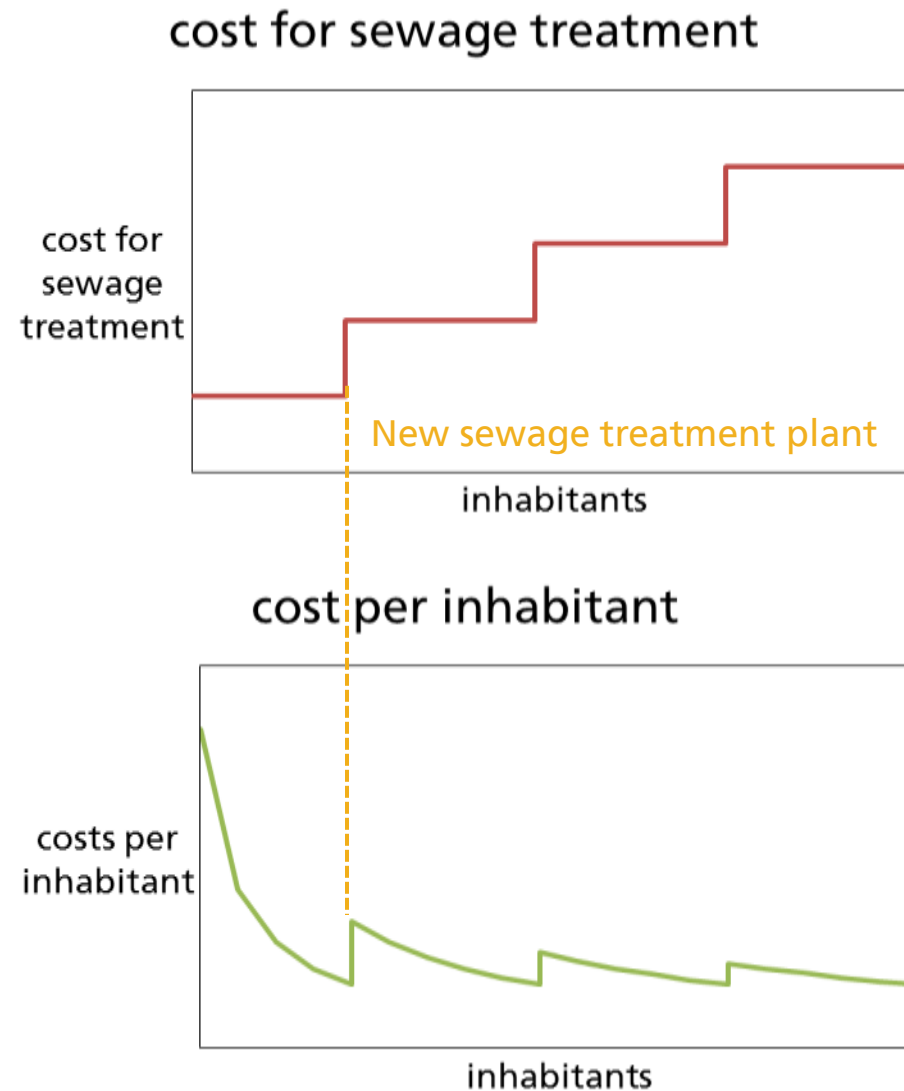


Return and expenses for municipalities related to urban development

	Expenses	Return
one time	<ul style="list-style-type: none"> Social infrastructure (schools, hospitals) Technical infrastructure (roads, sewage, public transport) 	<ul style="list-style-type: none"> Property sale Property gains tax Assignments of land-use rights (one-time)
On-going	<ul style="list-style-type: none"> Administration Education Maintenance of technical and social infrastructure 	<ul style="list-style-type: none"> Income tax Property tax Assignments of land-use rights (on-going)

Step costs

- cost that does not change steadily, but rather at discrete points
- Typical for infrastructure such as schools, sewage treatment works, etc.



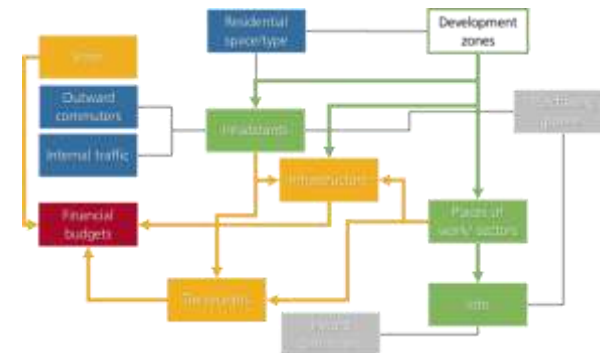
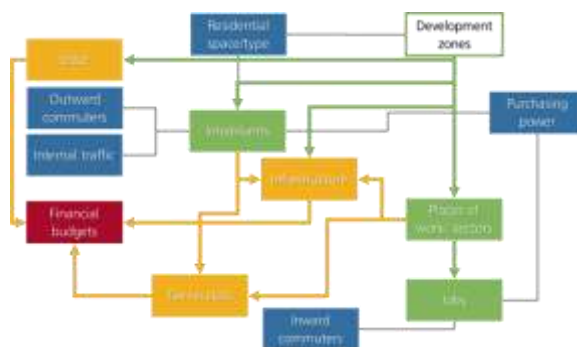
Regional Economy vs. Municipal Budget

Regional economy

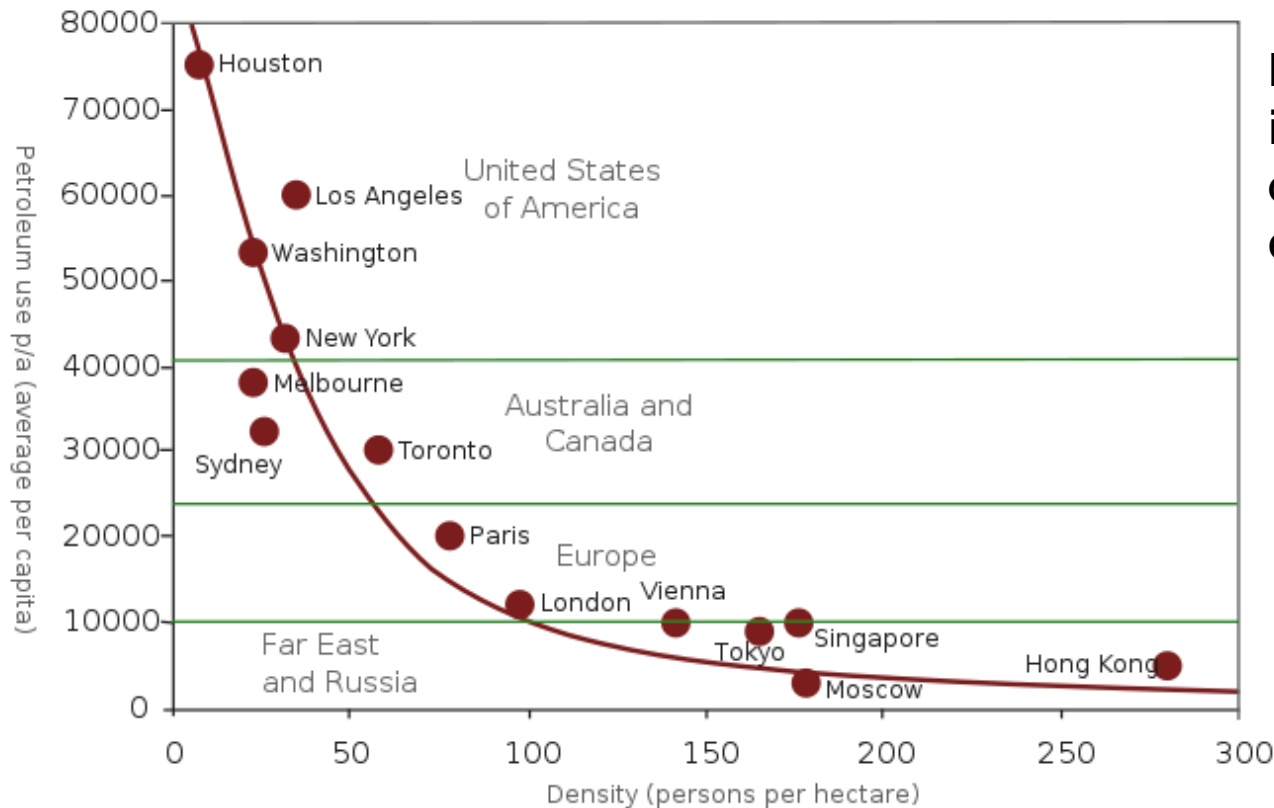
- All induced expenses and returns by development zones
- Includes external effects
- Induced added value/ indirect added value

Municipal budget

- Expenses and returns relevant for municipal budget
- No external effects
- No indirect added value



Effect of density on public finance



Density has an impact on investment costs, operating & follow-up expenses

Annual petroleum use per capita adjusted to US MJ (1980)
 After Andrew Wright Associates, small section taken from 'Towards an Urban Renaissance',
 Urban Task Force Partnership, 1999, © DETR, 1999

Content

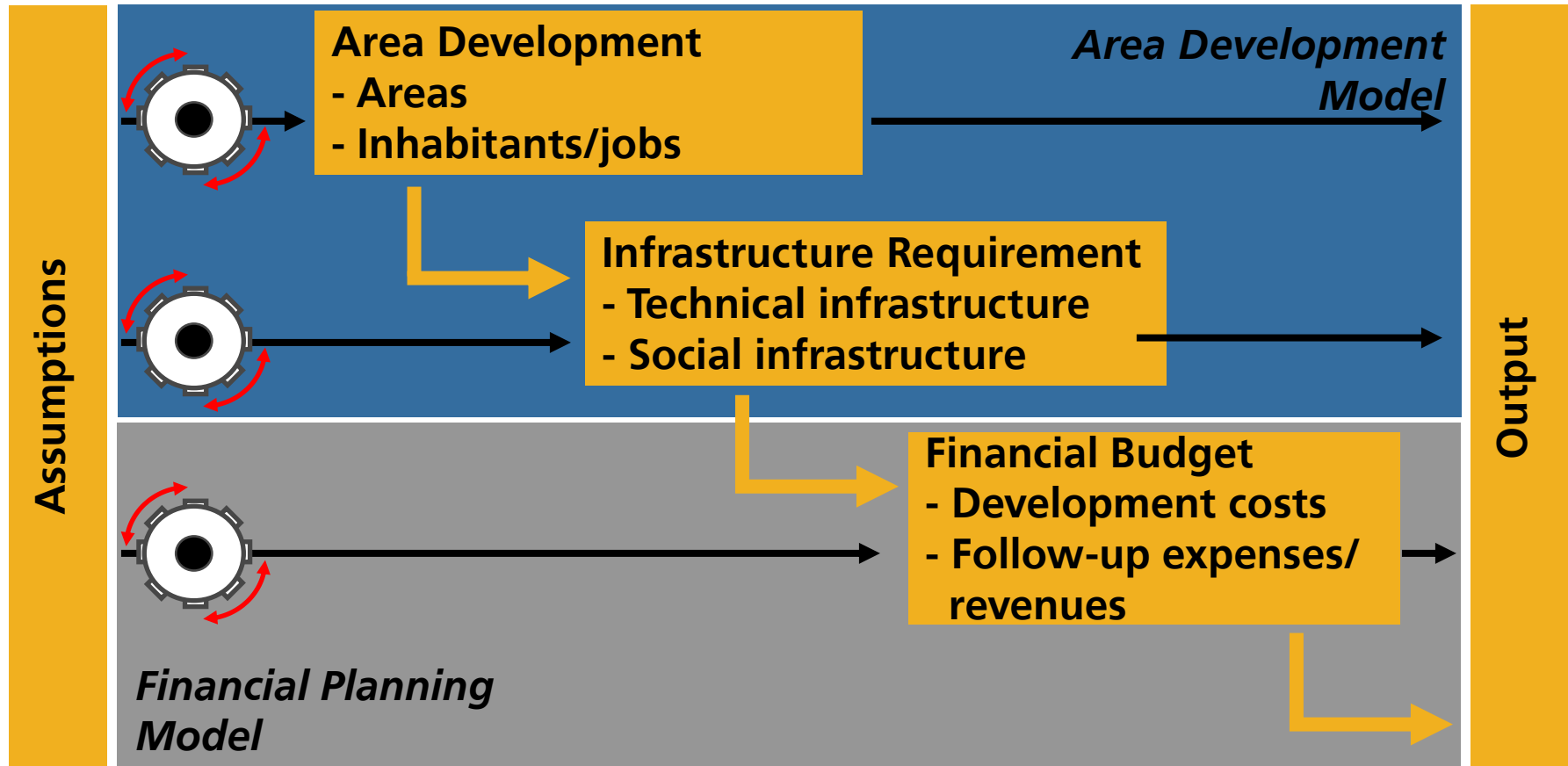
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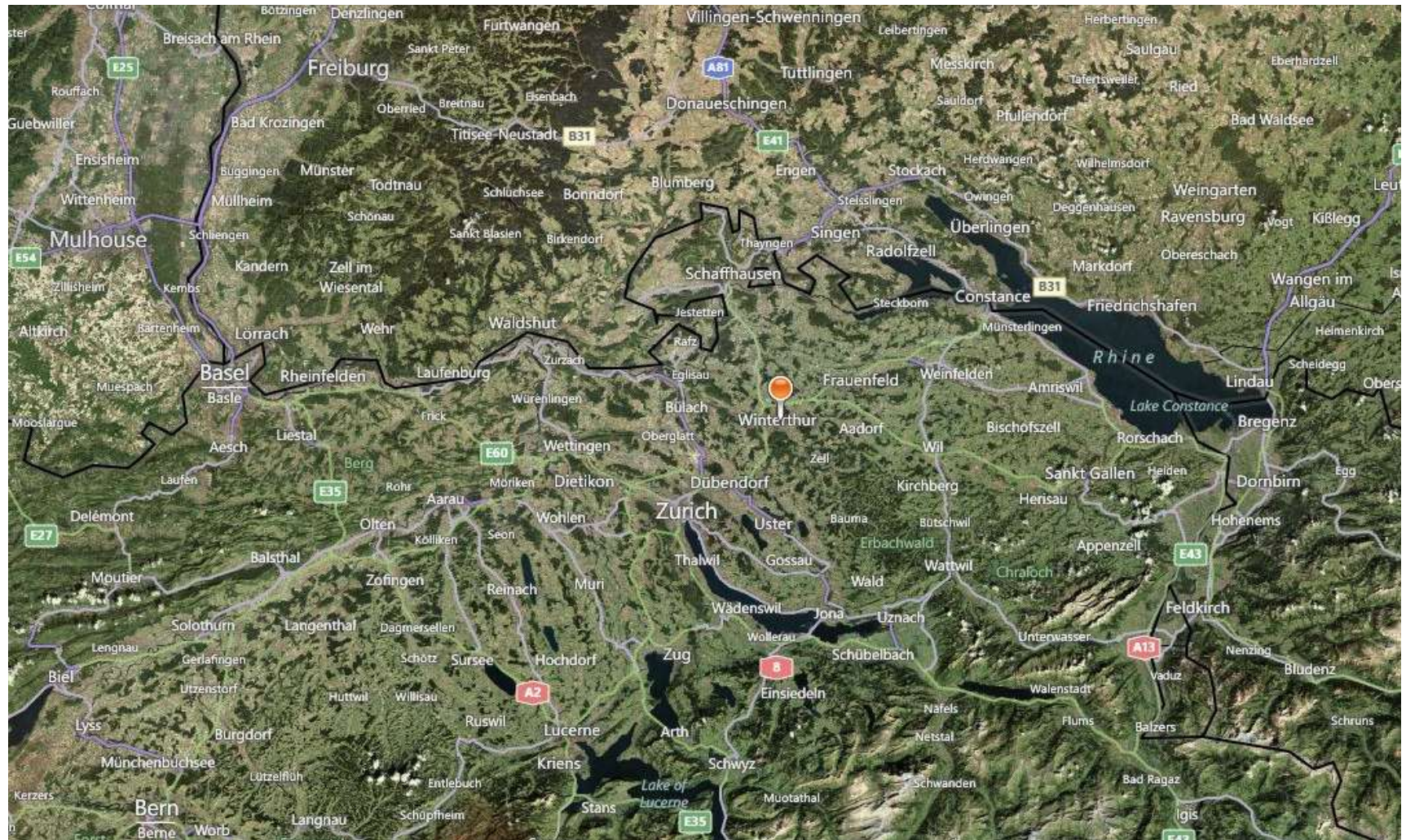
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The Urban Development Model (UDM)



Example of Winterthur (2011)

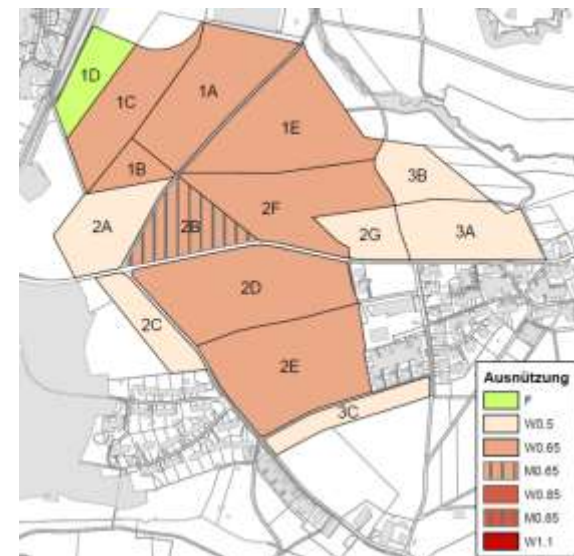
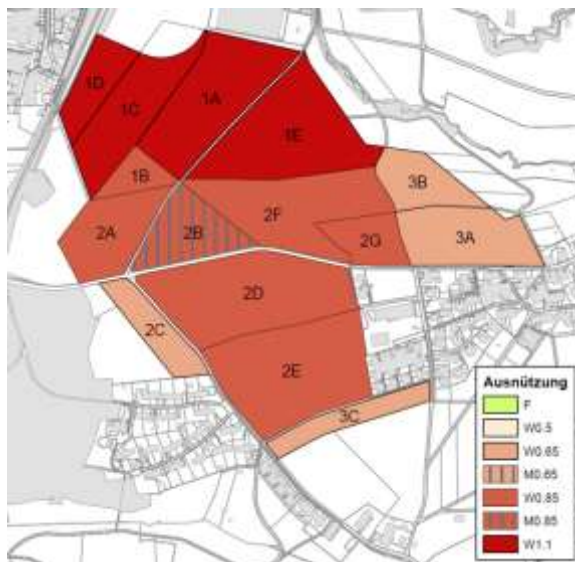


Area



Questions of the city

- Which part of the area shall be developed first?
- How does density influence the financial impact?
- At which size need for a new school?
- Is the development financially desirable?



Investment costs

- trolley bus
- ca. 1.5 km new roads (inclusive sewage)
- school building

One time return

- Property sale
- Property gains tax



Follow up expenses

- Administration
- School
- Social expenses
- Maintenance of roads
- Public transport

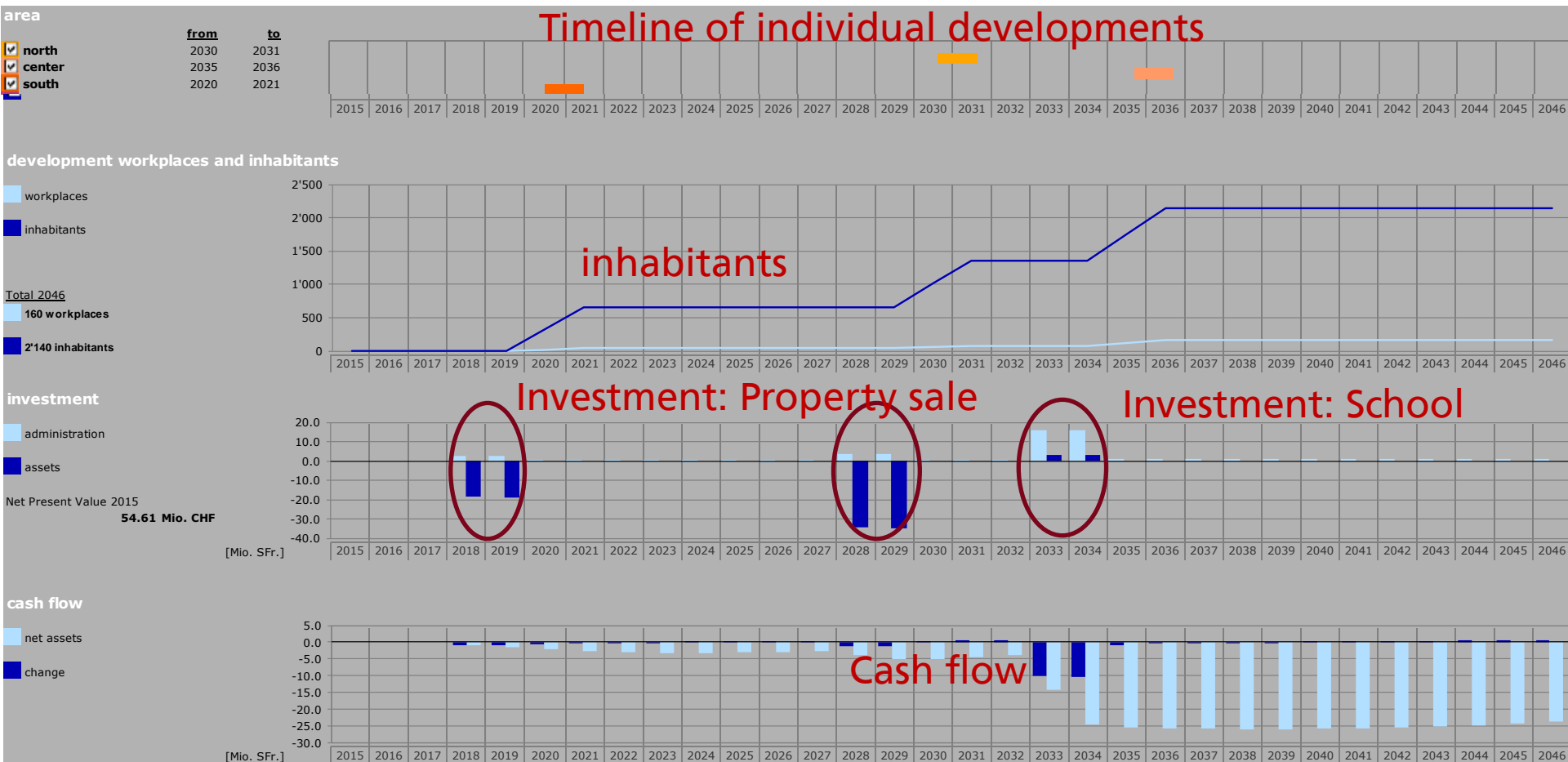


Follow up return

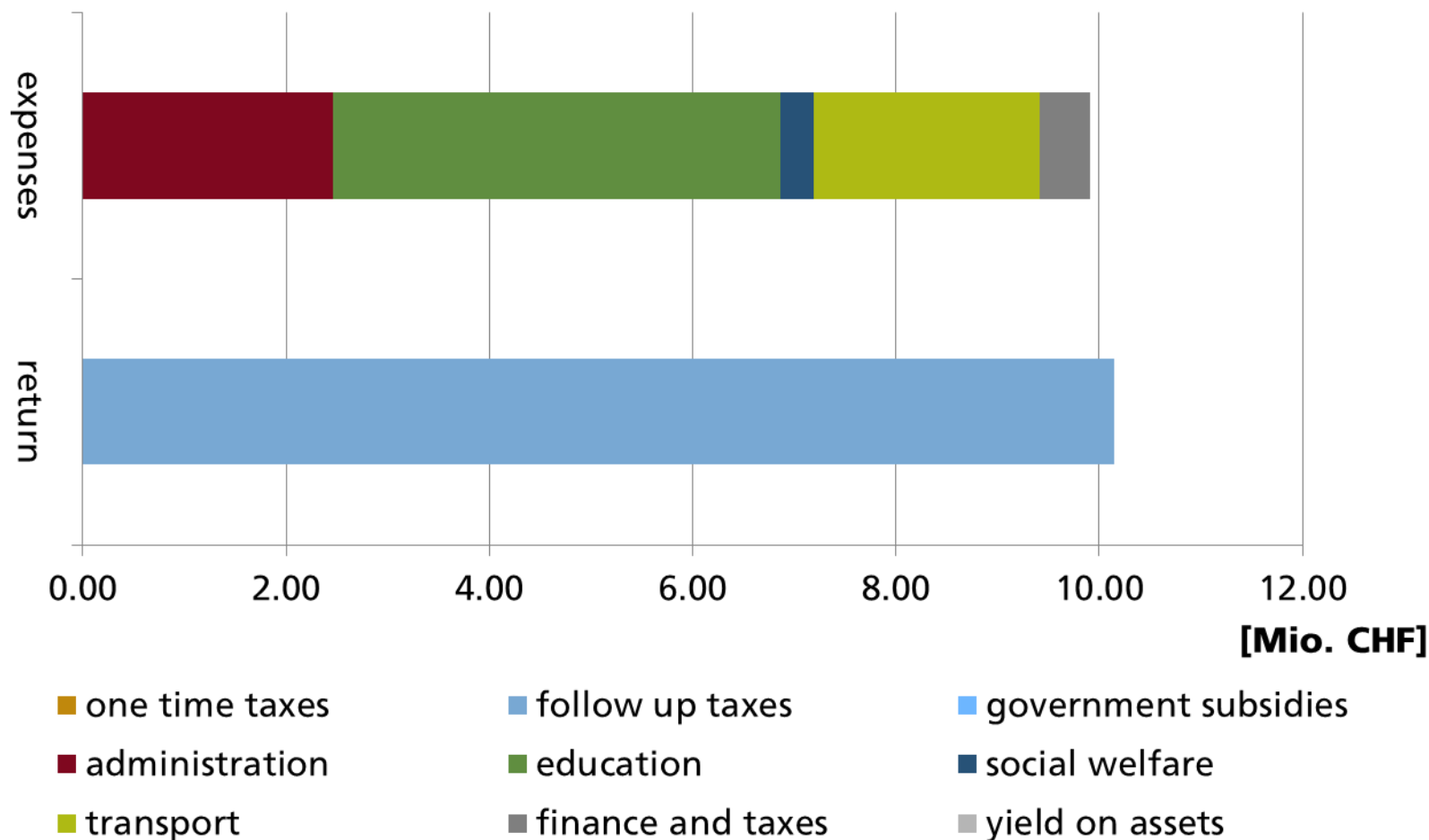
- Income tax
- Property tax
- Tax on profit (firms)
- Interest on leased property (assignment of land-use-right)



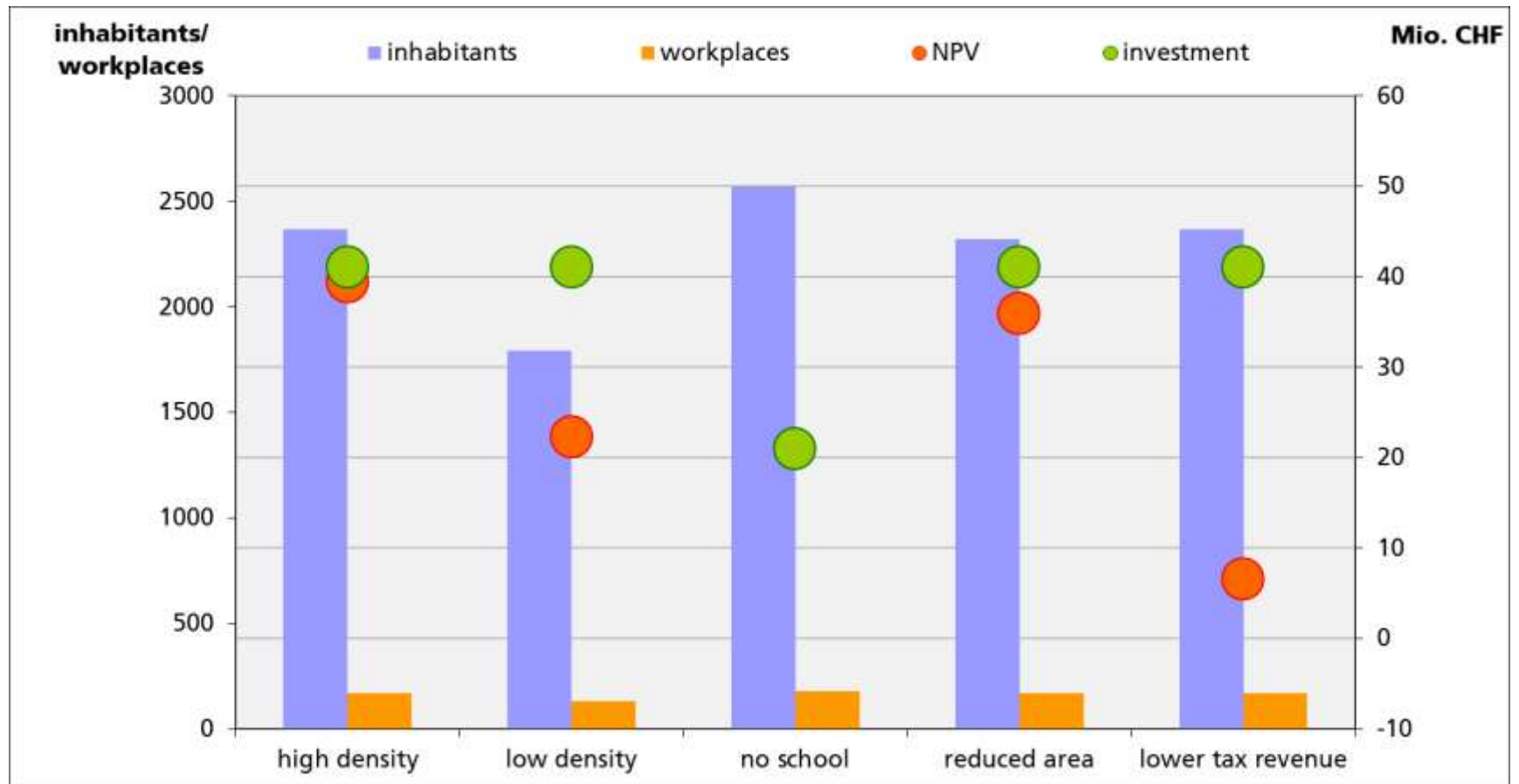
Development



Return and expenses (2040)



Scenarios



Process

Facts

Desired urban development: Area, densities, infrastructure

Scenarios

Parameters and effects: Define the key parameters

Evaluation in dialogue

Involvement of experts in administration: Finance, building, transport, urban design and planning ...

Decision

Support of decisions in urban planning: Transparent and comprehensible

Crucial issues for applying the model

scenarios

the development should not be specified in fixed values but in certain spread of values ⇒ relative comparison between different scenarios

sensitivities

the key drivers in the model become apparent by calculating different sensitivities – the city's possibilities for exerting influence can be demonstrated in this way

periodic application

repeated application over the years allows to adjust the model to the actual development

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Lessons learnt

1. Growth is not in every case positive for municipal finance
2. Exhaust potential of given infrastructure, mind step costs
3. No "low-cost"-strategy - High urban qualities can be positive for public finance (reduced vacancy, higher tax earnings)
4. think in scenarios
5. active role of city government required
6. financial "health" is a pre-condition of a sustainable city; however, sustainable urban development consists of more aspects (public space, green areas, architectural quality, urban design etc)

Thank you for your attention!

