

# SoftGIS: web-based mapping surveys for collaborative Impact Assessment

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## SoftGIS in a nutshell:



- A Public Participation Geographic Information system (PPGIS) for land-use planning, typically in early comprehensive planning
- Mapping surveys: interactive Bing or Google maps with customized questionnaires, drag-and-drop markers, and pop-up text boxes to comment locations
- Used for mapping “place values” – values/views (environmental, cultural, social) which lay residents have about places
- “Soft” = residents’ knowledge and views about places. Complements quantitative and other “hard” expert GIS data
- Data results are queriable and compatible with professional GIS

## SoftGIS can be used to:

- Assess impacts – EIA, SEA, SIA
- Collect baseline data: e.g. survey ecosystem services
- Identify attractive development locations, including alternatives
- Localise compensation
- Follow-up

## Methodology

Case-studies: 3 SoftGIS tools used in Finnish and Swedish municipal planning

- Interviews: planners and softGIS developers
- Literature review: scientific and land-use policy literature
- Participant observation: professional seminars on theme of digital public engagement

Question: How can softGIS support collaborative planning?

## Literature

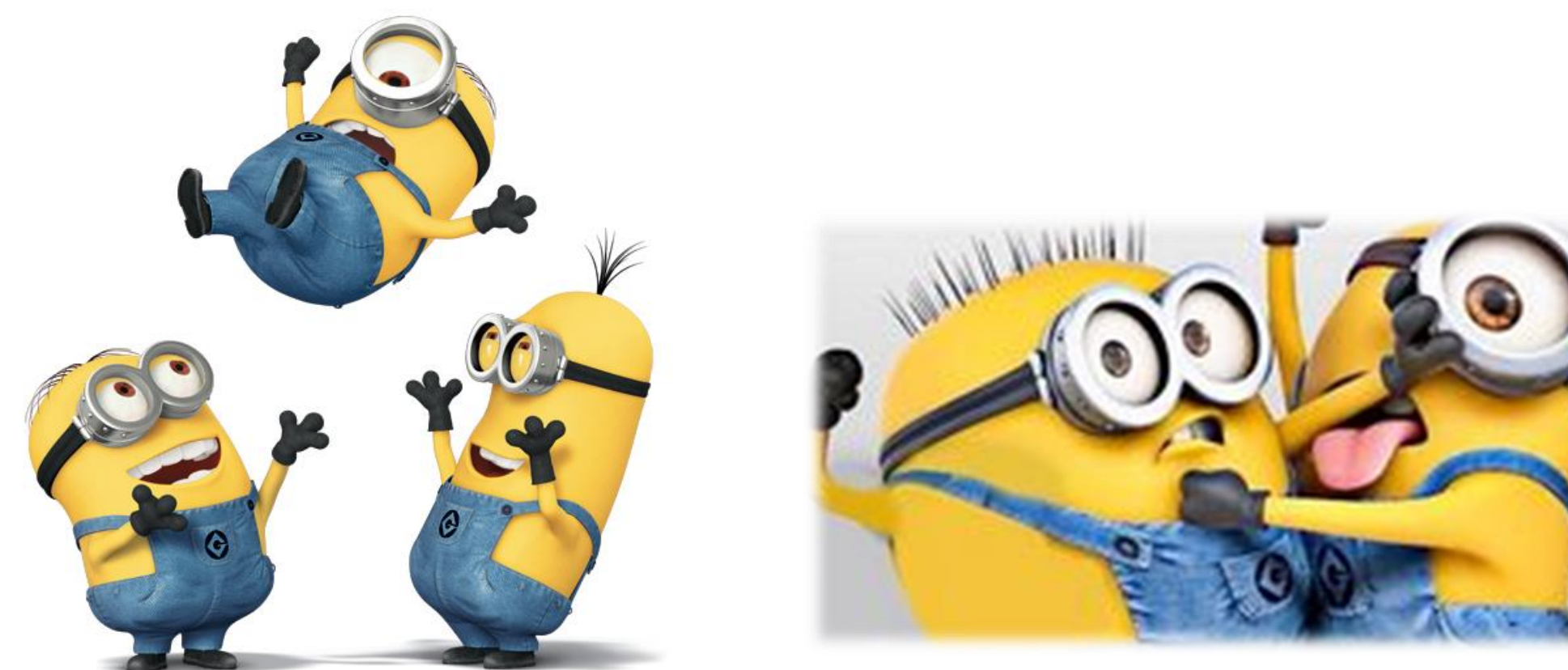
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Eräranta, S., Kahila-Tani, M., Nummi-Sund, P., 2015. Web-

based public participation in urban planning competitions. *Int. J. E-Plan. Res. IJEPR* 4.

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## Opportunities & Challenges



- Affordable
- Customisable
- Can save time and hassle
- Tried-and-tested
- Reaches more social groups than traditional consultation
- Decision support
- Maps tensions in place values early in the planning
- Difficult to map spatial relations
- Misuse or poor communication kills the tool
- Requires political support
- People can get tired of surveys
- Planners may already know
- Can make obvious competing interests

## Example: excerpts of a survey response

Context: municipal surveying of green infrastructure in Sollentuna, Stockholm



### 1. What are the place's qualities?

“Pleasant park, nice places to sit... Good meeting place, winter activities, sports, allotments... Investment that benefits many residents”

### 2. Tell more about why you like it...

“The area around Edsvik will be developed into one of the most attractive in Stockholm. Continue with the work!”

### 3. Say more about how Sollentuna's green areas can be improved...

“...The park is in a central location. Make it more accessible from the town center.”

## Conclusions

- SoftGIS is meant to be combined with other methods, both digital and physical
- Be clear about the context and purpose of participation: Why, who to involve, how, and for whom?
- Continuous follow-up is vital, especially about how survey inputs serve planning
- Helps to build trust and dialogue
- It can be difficult to stimulate citizen interest in planning
- Does not fit all kinds of spatial cognition/ people
- Long-term education about spatial thinking can improve collaborative planning

## Further research

- More longitudinal research
- Measure the costs and benefits of public participation methods in general
- How to systematically link participation tools (e.g. softGIS, charettes, working groups) with professional tools (e.g. CAAD, 3-D virtual city models, GIS) through geo-referencing
- How to connect all inputs of public participation to one big map

## Further information:

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## Some softGIS suppliers:

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- Spacescape, Sweden
- Projektet Medborgardialog at SKL, Sweden
- Commonplace, UK

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