

Mapping your money

Integrating financial assessment in GeoDesign



The significance of mapping your money

GeoDesign

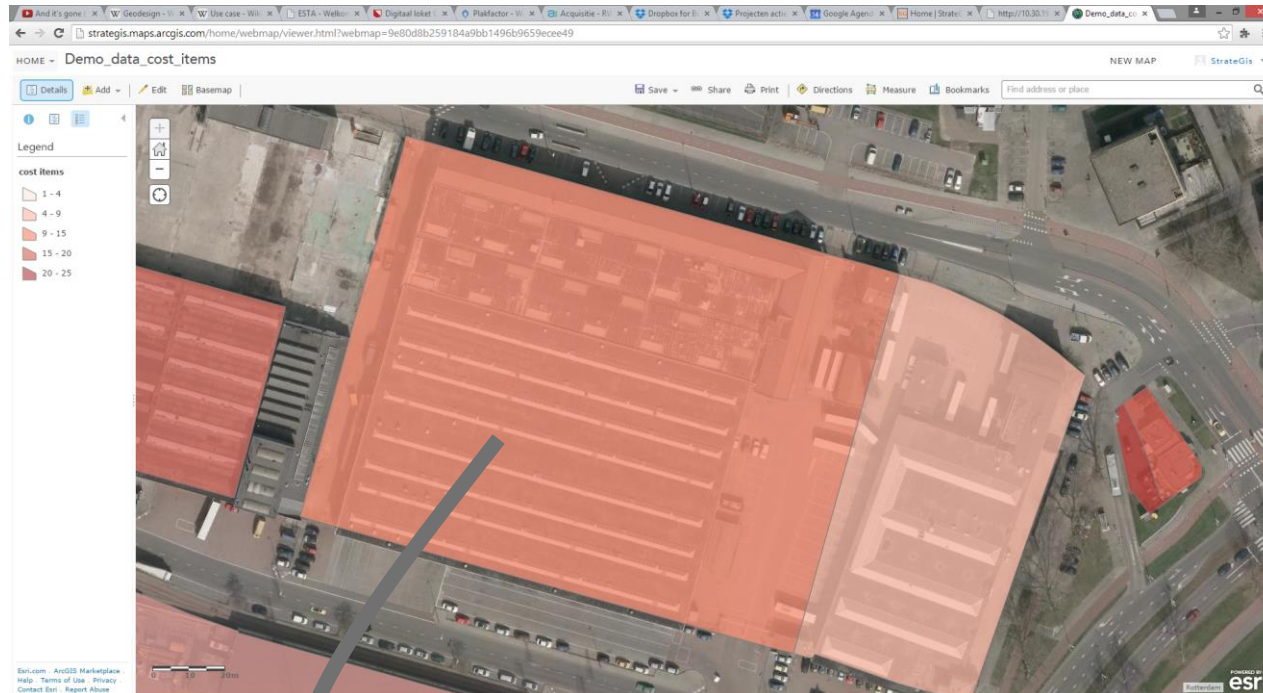
GeoDesign is a design and planning method which tightly couples the creative design process with simulation impact simulations informed by geographic contexts

M.Flaxman, 2010 GeoDesign Summit

The most important decision making criterion?

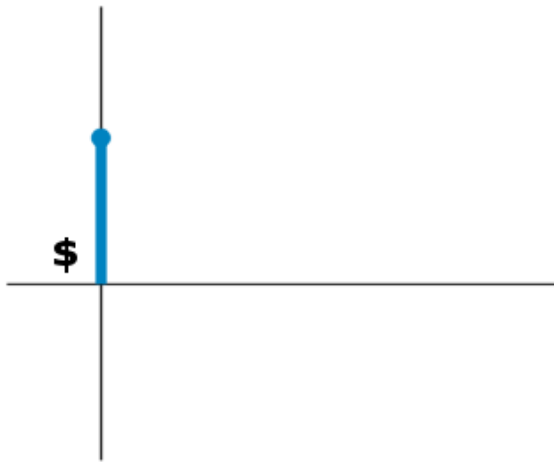


Typical financial modelling in GIS / design software

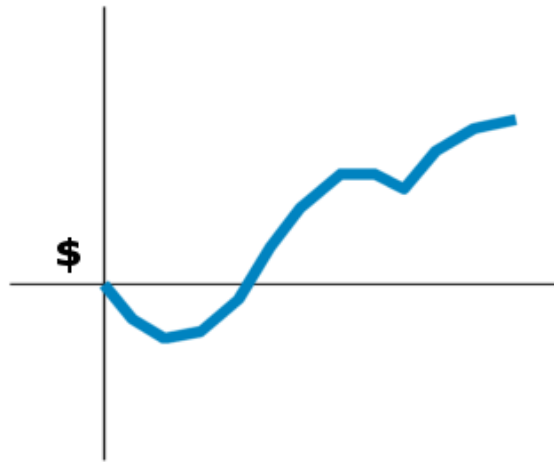


15.000 m2 x \$ 100 = \$ 1.500.000

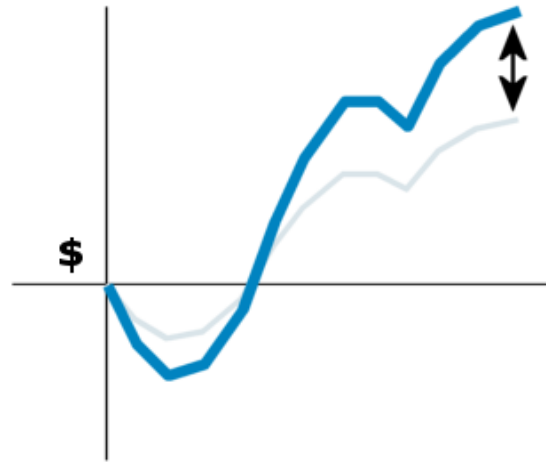
Time is money...



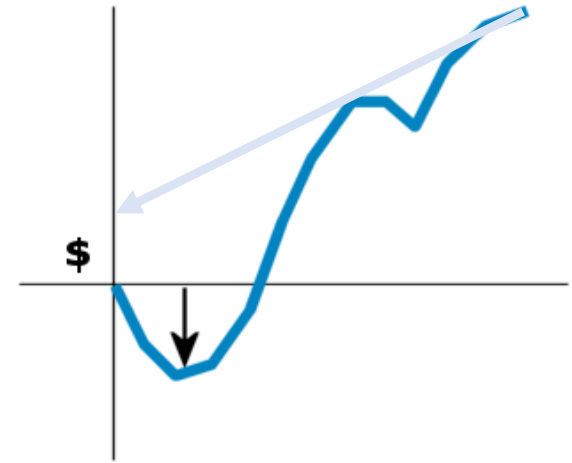
Current Practice



> 10 Year



**Interest &
Price increases**



**Required loans
Discounting**

Current practice

GeoDesign teams



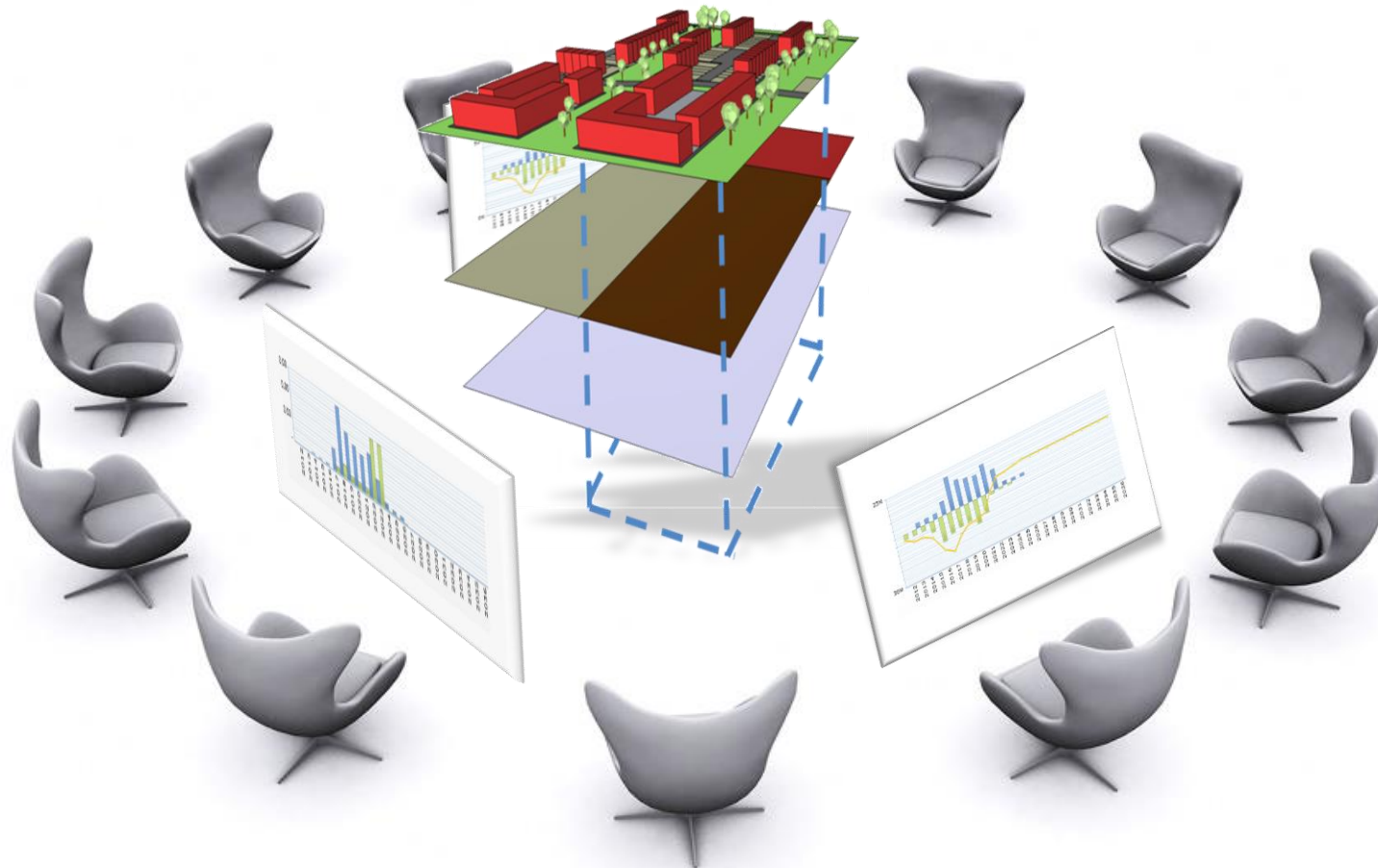
Brick wall



Financial assessment

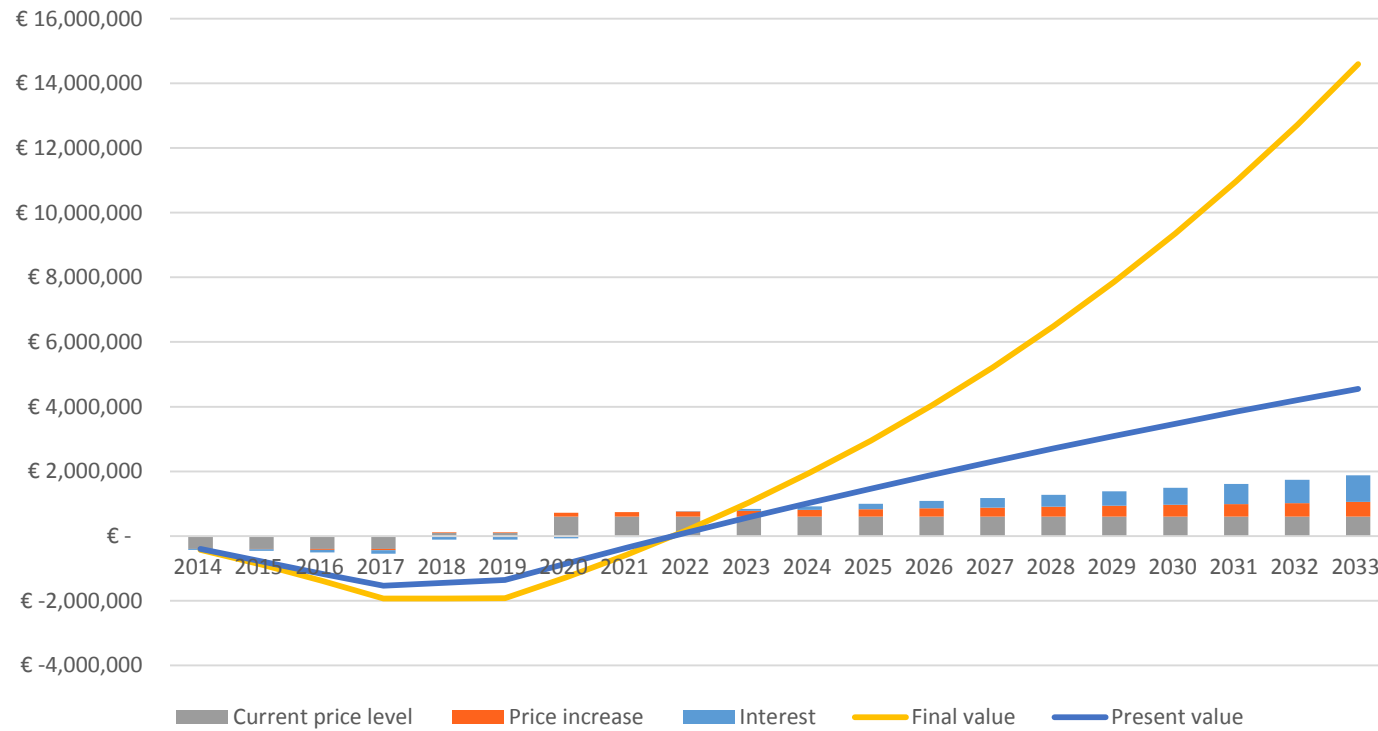


Our proposal: showing how the cash flows



Bringing back the future to the present

Discounted cash flow

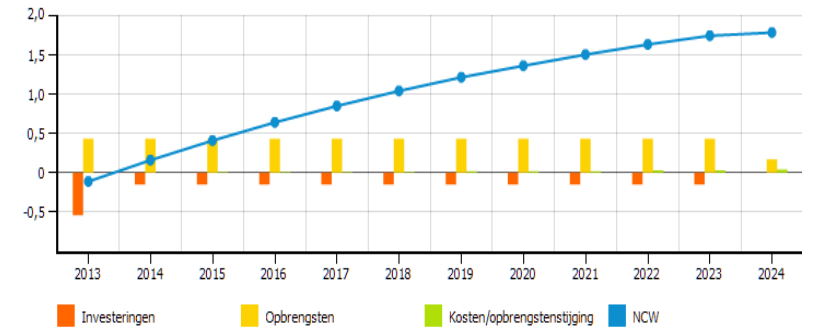
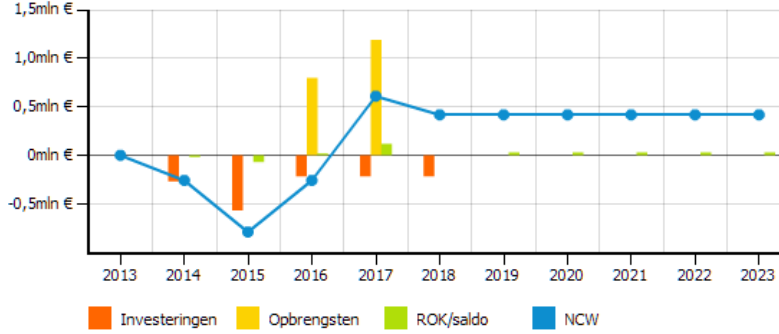
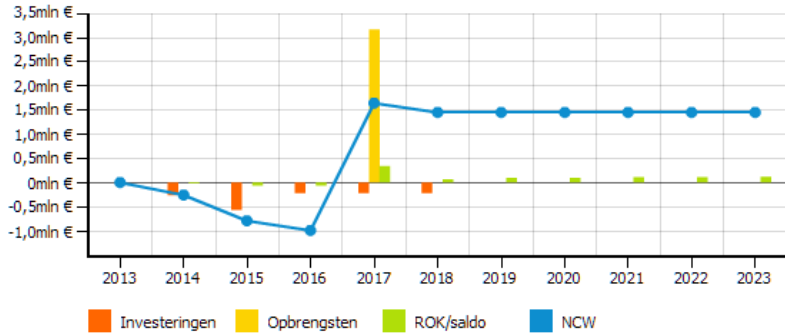
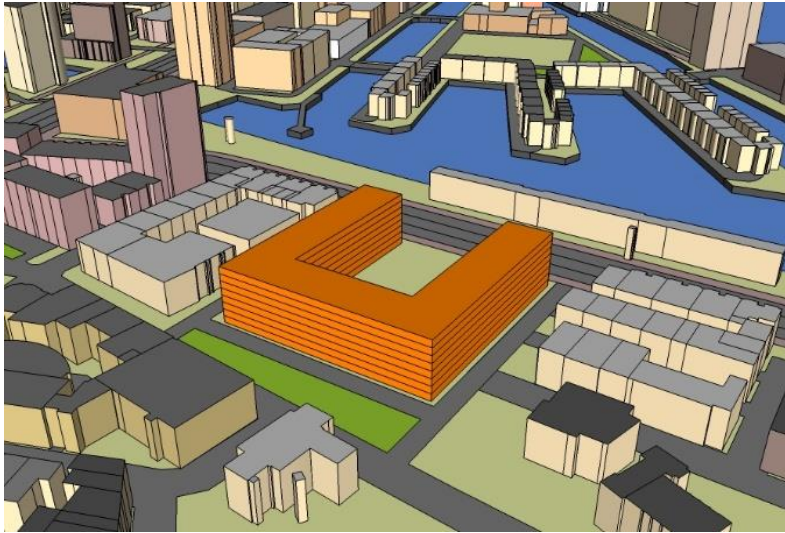




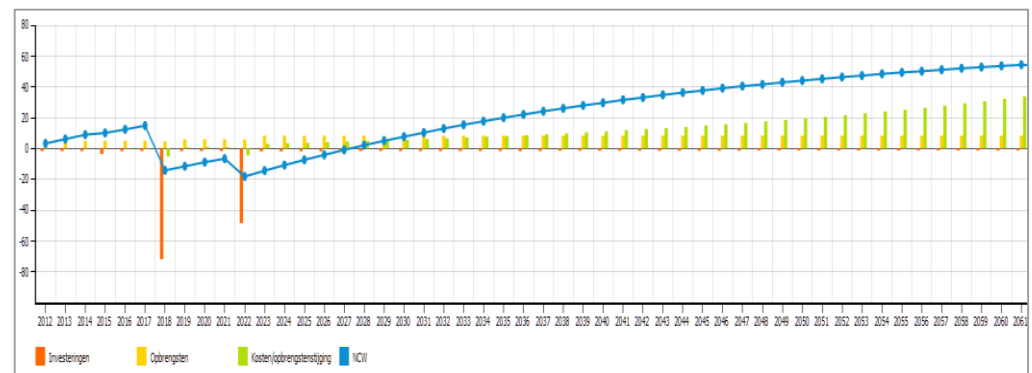
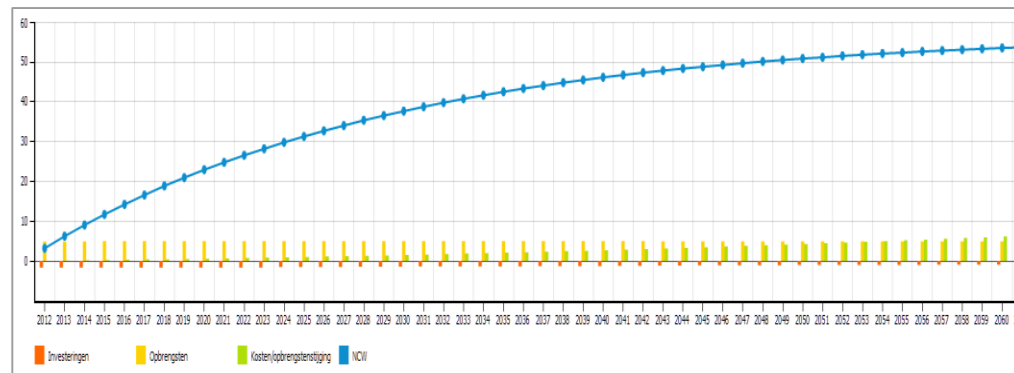
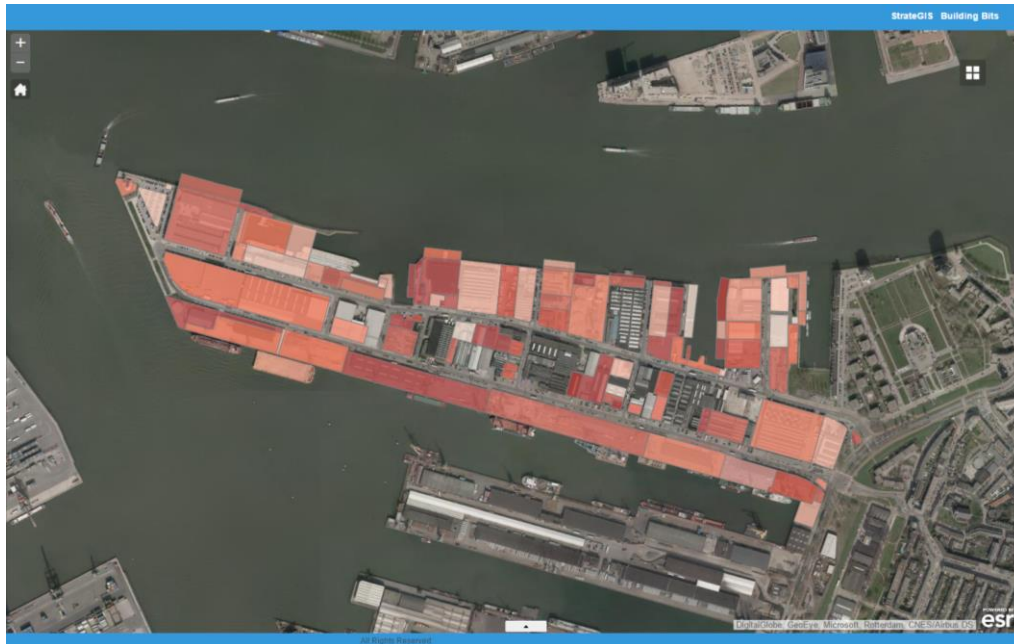
Example applications

- Land lease portfolio
- Land development
- Real estate development
-almost every problem with a geographic context

Real estate development



Landlease (Port of Rotterdam)





GeoDesign & financial assessment

Financial aspects are important in Geodesign processes. Most financial assessments however are detached from the operational design, resulting in conversion issues and a time lag between design choice and assessment. To overcome this, [StrateGis](#), [Building Bits](#) and [ESRI NL](#) have developed a fully configurable financial tool for the ArcGIS platform, based on the Discounted Cash Flow method. It provides Geodesign teams with direct feedback on the financial impacts of design choices, enabling a more integrated Geodesign approach.

[Click here for a demonstration version of the financial tool](#)

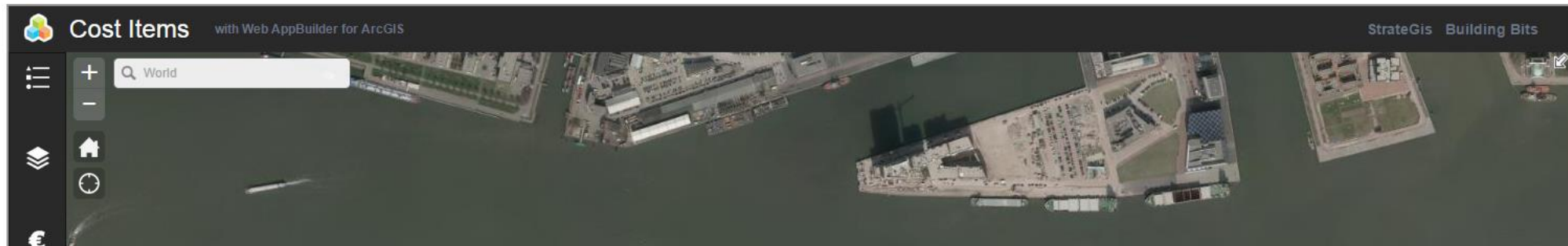
Interested?

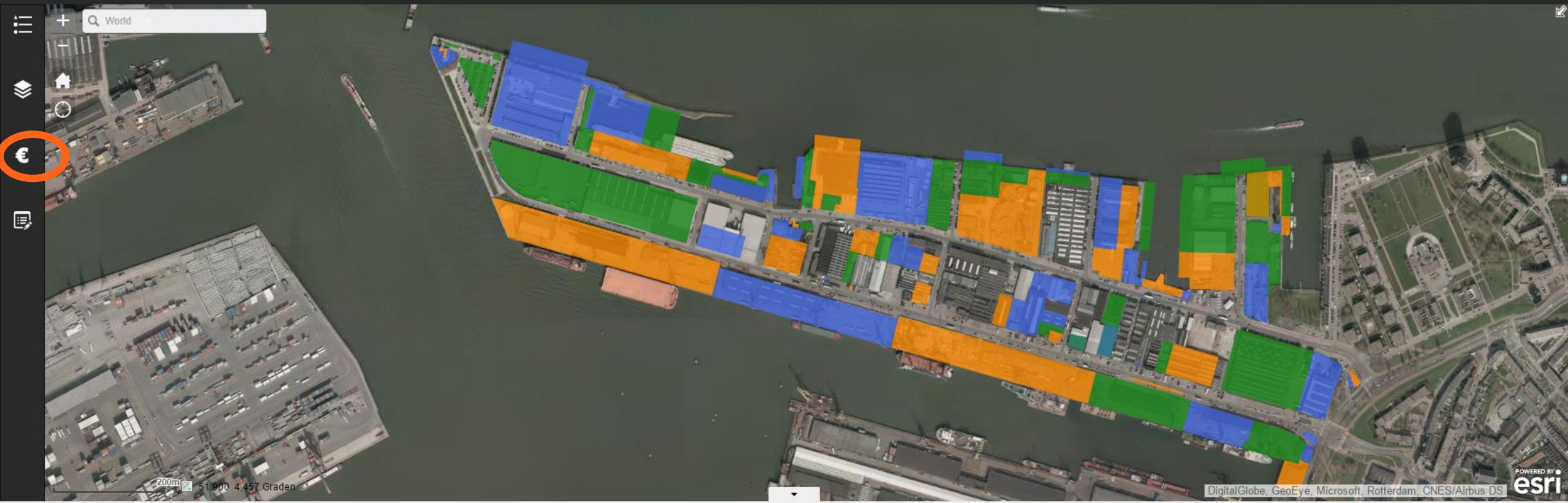
We are looking for partners to further develop our financial tools within the ArcGIS platform. Mail us if you are interested: [Robin Seijdel](#) or [Anne Dullemond](#).

More information:

- [Powerpoint Presentation for GeoDesign 2015 lightning talk](#)
- [Abstract for Geodesign 2015 summit](#)
- [English website of StrateGis](#)

Preview of the financial assessment tool





Opties Zoomen naar Selectie wissen Vernieuwen

Demo data

xtureid	name	cost or benefit	owner	head category	sub category	sub sub	tag 1	tag 2	tag 3	type amount	periodicity	period	unit type	annual price	units	start year	end year	periodic amount
00/6/382	Plot_12	Benefit	Private	Landlease	Option	Not temporary	Average	Not vacant	Harbour related	Amount per unit	Periodic	1	0	0,02	6.731	2.014	2.065	24
00/6/308	Plot_34	Benefit	Port	Land rent	Option	Not temporary	Average	Not vacant	Harbour related	Amount per unit	Periodic	1	0	0,02	7.491	2.018	2.036	10
00/6/317	Plot_36	Benefit	Private	Landlease	Option	Not temporary	Average	Not vacant	Harbour related	Amount per unit	Periodic	1	0	0,02	519	2.018	2.072	4
00/6/321	Plot_37	Benefit	Port	Landlease	Option	Not temporary	Average	Not vacant	Harbour related	Amount per unit	Periodic	1	0	0,02	1.016	2.015	2.045	22
00/6/333	Plot_39	Benefit	Private	Landlease	Option	Not temporary	Average	Not vacant	Harbour related	Amount per unit	Periodic	1	0	0,02	3.219	2.017	2.031	19
00/6/375	Plot_40	Benefit	Port	Landlease	Option	Not temporary	Average	Not vacant	Harbour related	Amount per unit	Periodic	1	0	0,02	3.986	2.016	2.061	19
00/6/306	Plot_42	Benefit	Private	Landlease	Option	Not temporary	Average	Not vacant	Harbour related	Amount per unit	Periodic	1	0	0,02	5.711	2.016	2.058	3
00/6/307	Plot_44	Benefit	Municipality	Landlease	Option	Not temporary	Average	Not vacant	Harbour related	Total amount	One time	1	0	0,02	1.700	2.018	2.062	15

1 - 25 van 210 resultaten

☰ ☰ € 🗨

Calculations

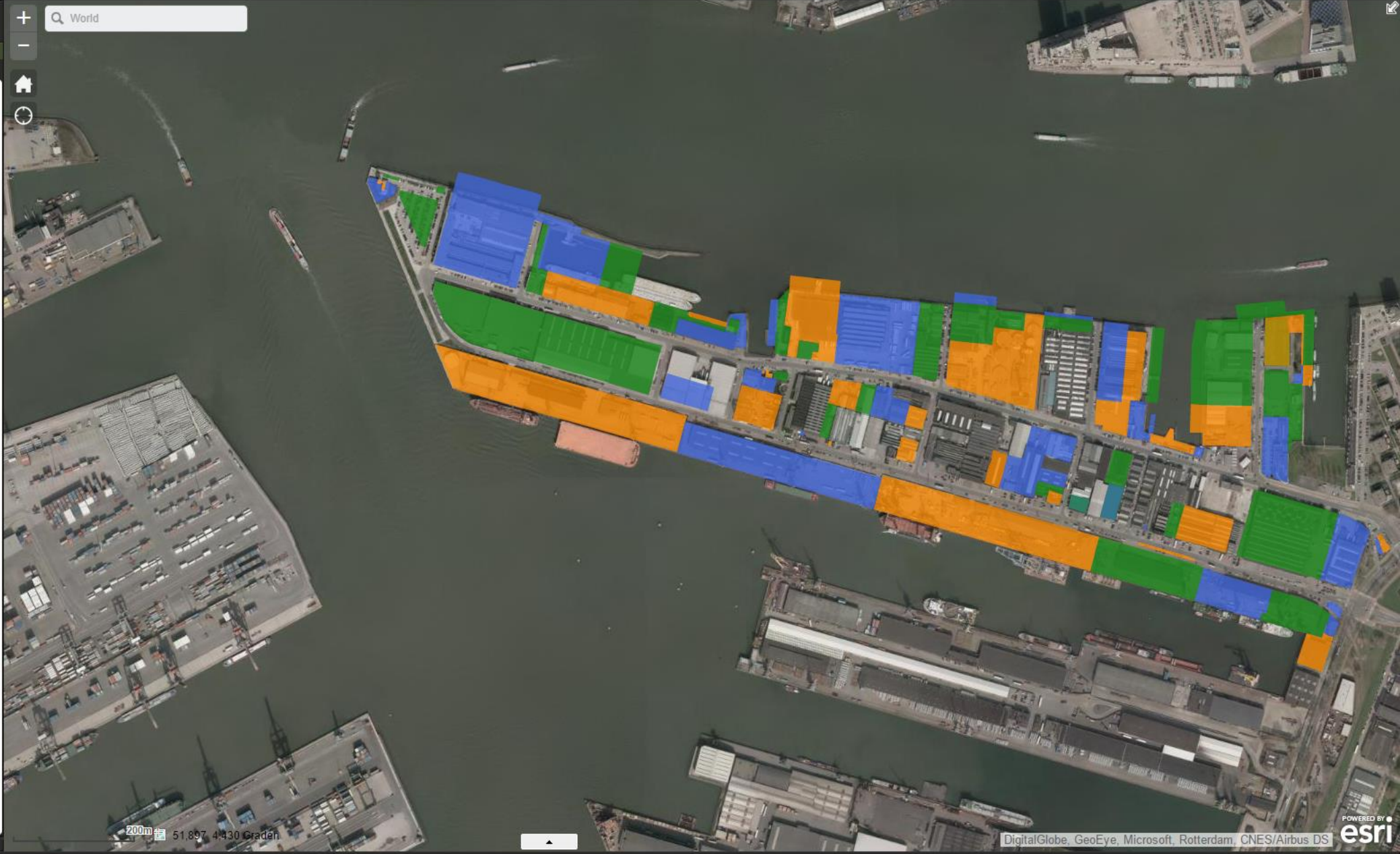
← QUERY'S Opties [TOEPASSEN](#)

- Ruimtelijke filter gebruiken om objecten te beperken
 - Alleen objecten die het huidige kaartextent aanraken
 - Alleen objecten die een door de gebruiker gedefinieerd gebied aanraken

● / \ / \ ▲ ■
● ○ ◀ ✖ [Wissen](#)
Polygoon

Resultaat als operationele laag toevoegen
Als deze optie aangevinkt is, worden de resultaten op de kaart gehandhaafd totdat op de knop "Resultaten wissen" wordt geklikt.

[Resultaten wissen](#)



200m 51.897, 4.430 Gradan

☰ ☰ € 🗨

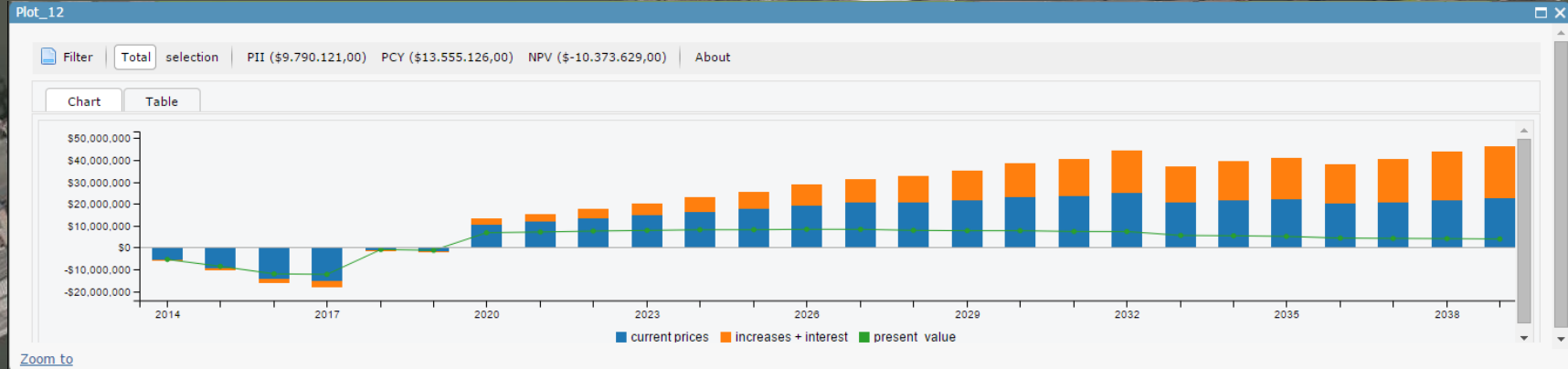
Calculations

< OPTIES Resultaten

Aantal gevonden objecten: 210

- Z100/6/382
Cost or Benefit: Benefit
Owner: Private
- Z100/6/308
Cost or Benefit: Benefit
Owner: Port
- Z100/6/317
Cost or Benefit: Benefit
Owner: Private
- Z100/6/321
Cost or Benefit: Benefit
Owner: Port
- Z100/6/333
Cost or Benefit: Benefit
Owner: Private
- Z100/6/375
Cost or Benefit: Benefit
Owner: Port
- Z100/6/306
Cost or Benefit: Benefit
Owner: Private
- Z100/6/307
Cost or Benefit: Benefit
Owner: Municipality

Resultaten wissen



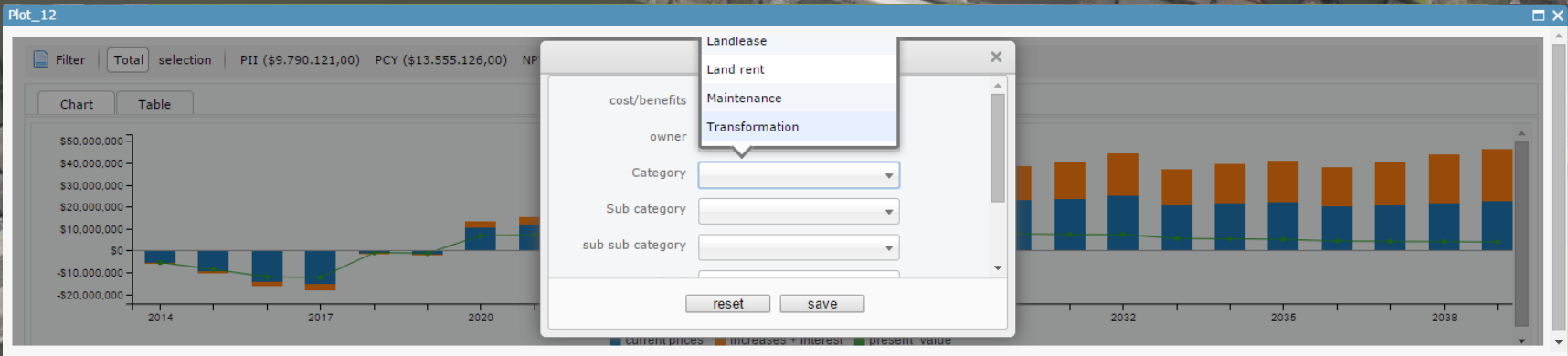
☰ ☰ € 🗨

Calculations

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- Z100/6/375
Cost or Benefit: Benefit
Owner: Port
- Z100/6/306
Cost or Benefit: Benefit
Owner: Private
- Z100/6/307
Cost or Benefit: Benefit
Owner: Municipality



Resultaten wissen

Zoom to

51,900 4,434 Graden

Conclusions

- Coupling of design with financial simulation = successful
- Interface is fast and easy to operate, financial knowledge is still needed to interpret results
- Further development is needed:
 - Templates
 - Configurability
 - Implementation in other ArcGIS components



Discussion

Current status

- Further development with partners:
 - Port of Rotterdam
 - Amsterdam International Airport

We are looking for:

- Comment and suggestions
- Partners
- Pilots / launching customers

Interested? Go to www.mappingyourmoney.com