

„Geonis for industrial plants“ - Intelligent Solutions“ Analysis – Definition - Configuration



Challenges for the Industry



Geo Information Management

consolidate
tailor
migrate

e.g.
Blmsch
SüwVkan
WHG
ISO
PAS55

Compliant

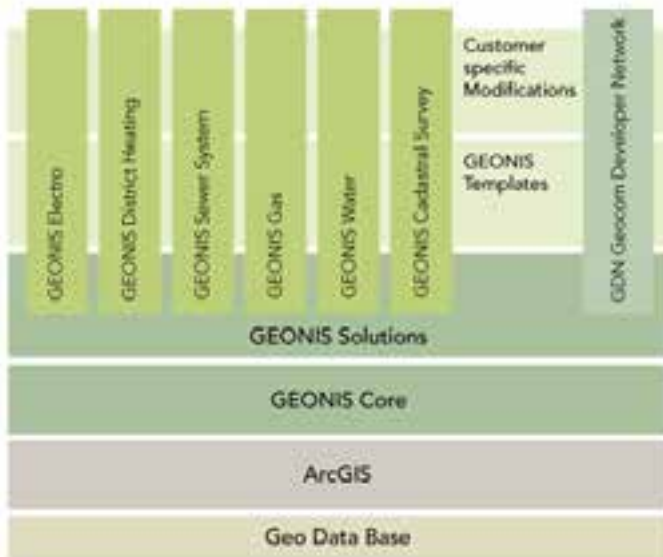
Economical

Industry Information Management Solution



geocom

Royal HaskoningDHV
Enhancing Society Together



Geonis: Solutions and Templates



Developing Solutions

What is expected?

- Easy to develop, and easy to use
- In a short time to develop
- Stable in the behavior and robust in handling
- Reuseable and transferable

Example: Template for Pavement

Potential user

Airports, companies who have to respect rules and laws according to groundwater

Analysis

Content, funktions, Data

Modeling

E-R Model – DB Design – Physical Model

Configuration

Basic configuration – detailed configuration

Use the application.....

Pavement Example: Analyzing

Pavement analyzing

Damage documentation



Pavement

Kind of pavement

Date of production and installation

Responsible company

Material

Size

Thickness

Stability

Inclination

Wear identification)

Duration of use

Crack (type, -length and depth)

Wear (origin, results)

Deposits by type

Washouts and deformations with reason (described)

Redevelopment

Date of maintenance (with kind of inspection)

Date of redevelopment (with description)

Information about earlier maintenance

Costs for maintenance and redevelopment

Documentation

(Reports, photodocumentation, results)

Pavement: brainstorming.....some entities

Platte

Material

Reparatur

Belag

Fuge

Wartung

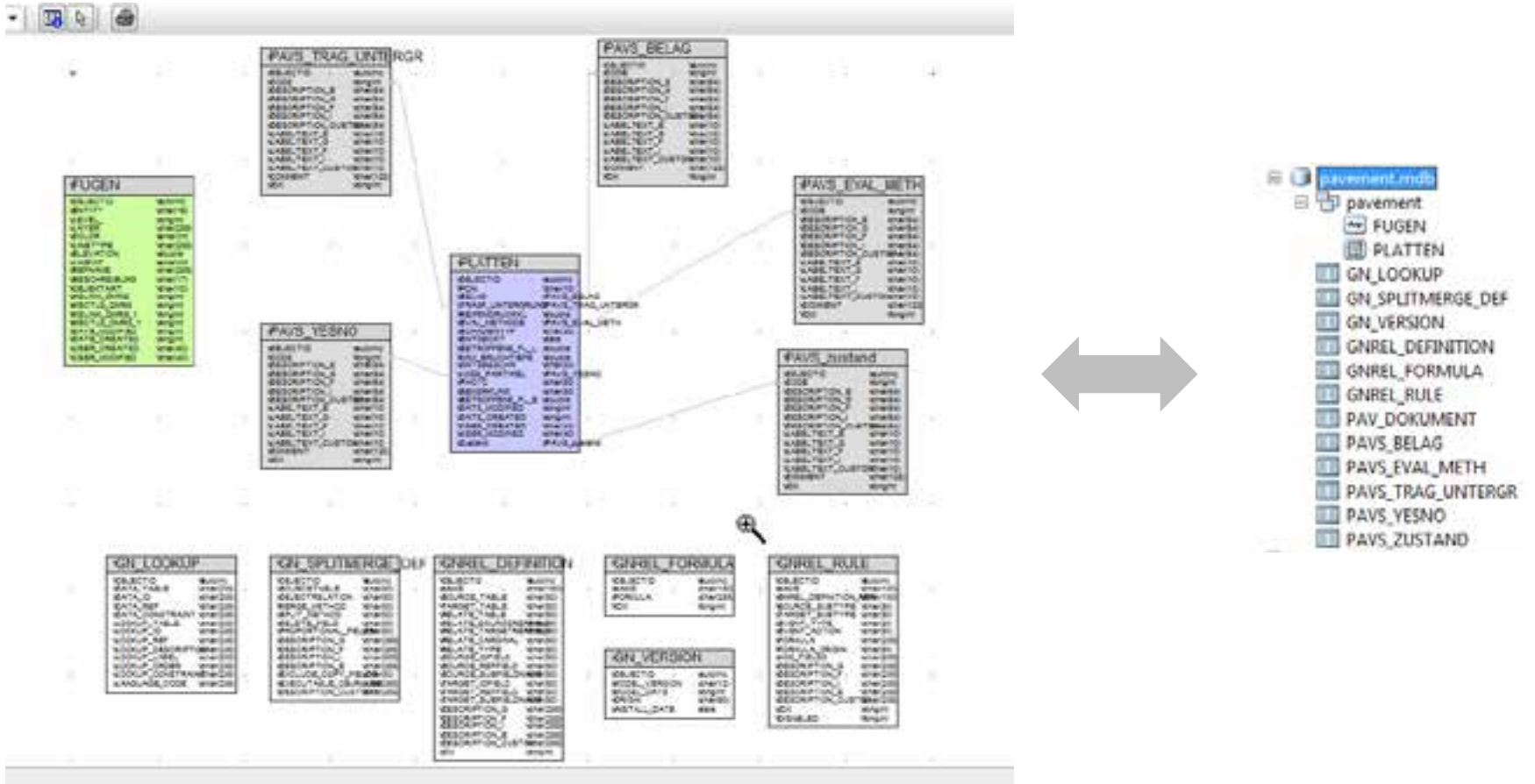
Schaden

Messmethode

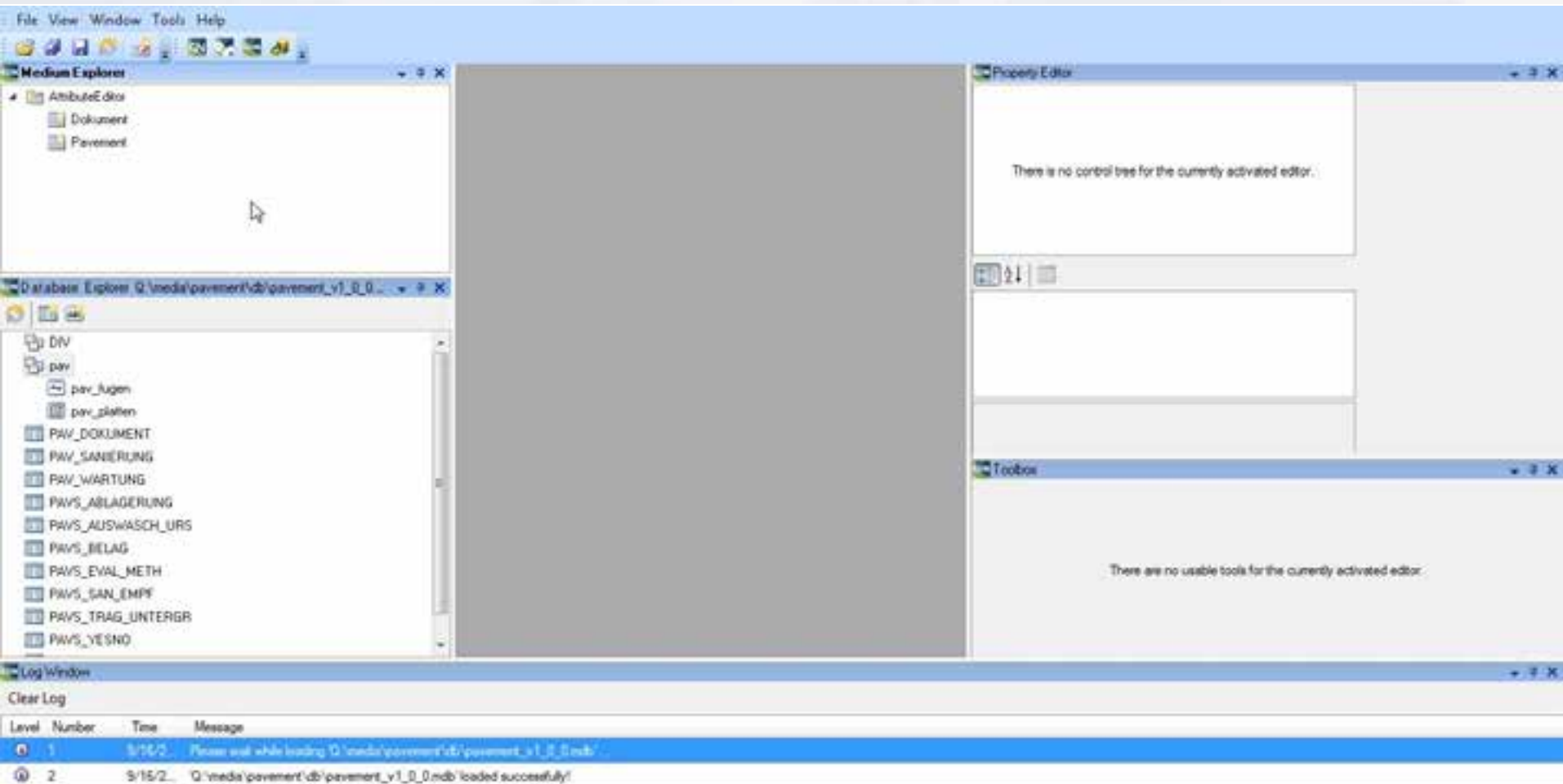
Dokument

Zustand

Pavement example: Modeling



Pavement example: Configuring



Pavement example: Configuring

The screenshot displays a software application interface for configuring a pavement form. The main window, titled "Pavement (Form)", contains several input fields and dropdown menus for defining pavement parameters:

- OBJECTID:
- PCN:
- Belagtyp: Tragfähigkeit (Untergrund):
- Referenzdruckklasse: Evaluierung (Methode):
- Zustand:

Below these fields is a section titled "Schaden" (Damage) with a blue border, containing the following fields:

- Schadentyp: entdeckt am:
- betr. Fläche (Länge cm): betr. Fläche (Breite cm):
- Max. Bruch/Tiefte:
- Loose Partikel:

The Property Editor on the right shows a tree view of the form's properties:

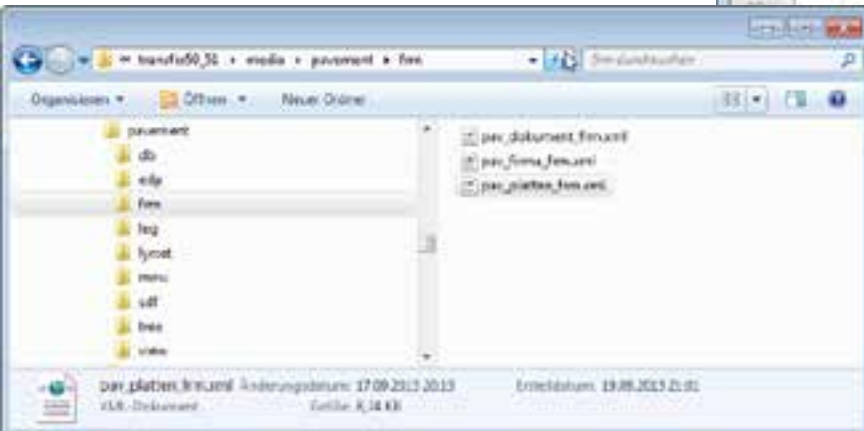
- Section - Schaden
 - Edt - Schadentyp
 - Field - schadentyp
 - Edt - entdeckt am
 - Field - entdeckt
 - Edt - betr. Fläche (Länge cm)
 - Dataformat - 0.00
 - Field - betroffene_f_l
- 02 Visual/Layout
 - Indent: 0
 - Title: Schaden

The Log Window at the bottom shows the following messages:

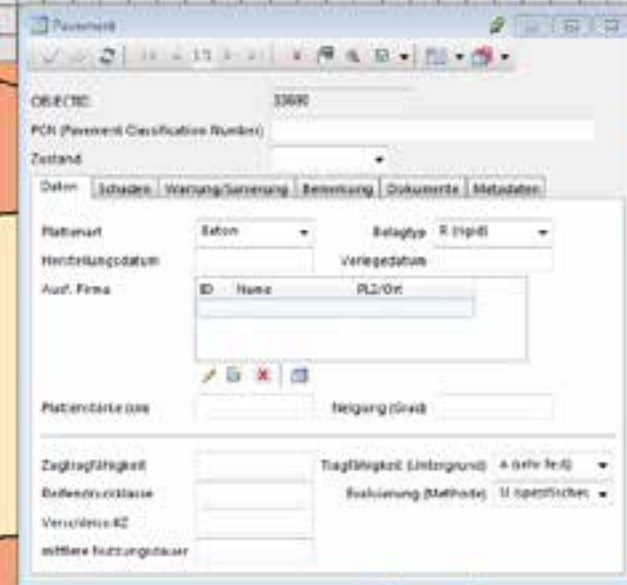
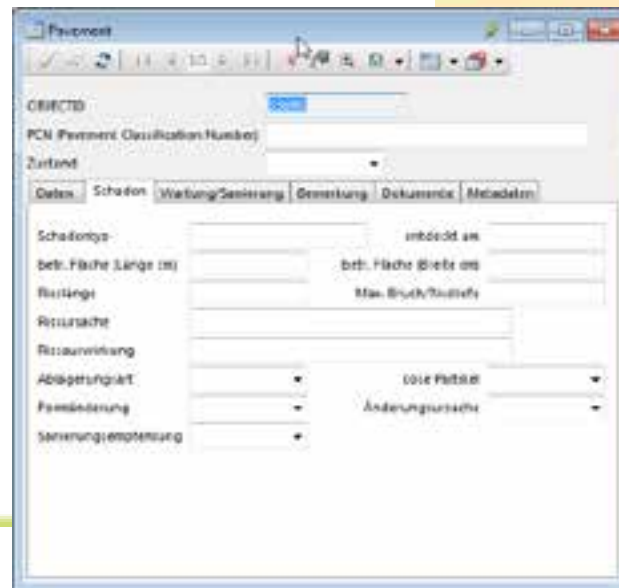
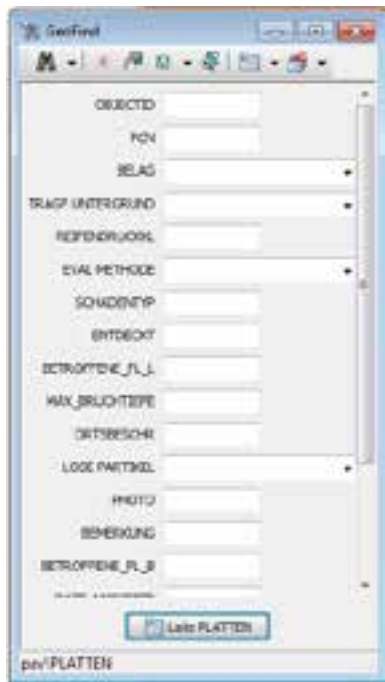
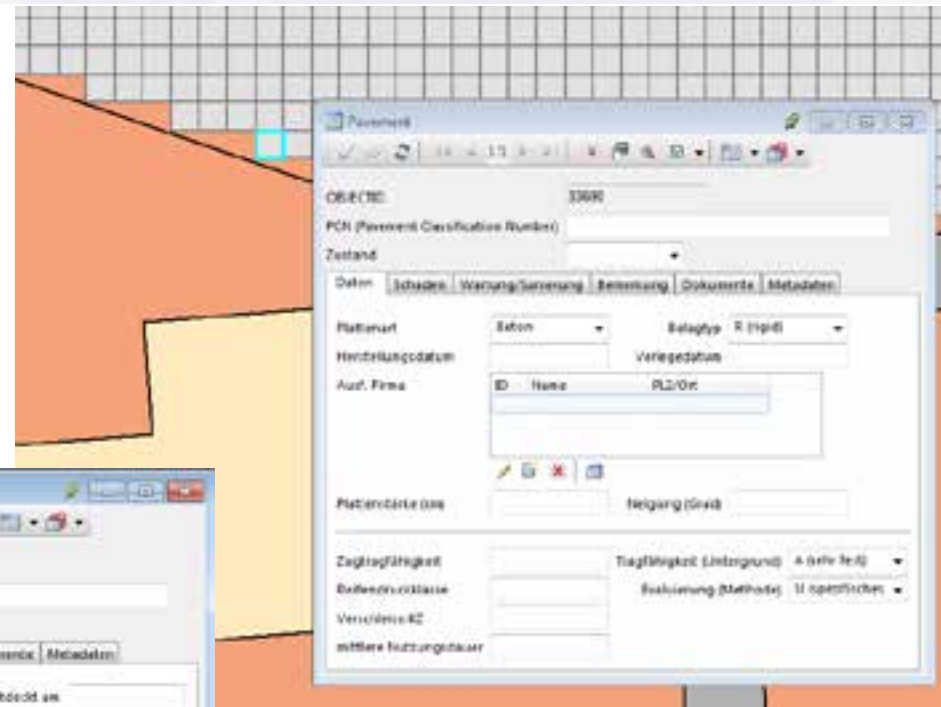
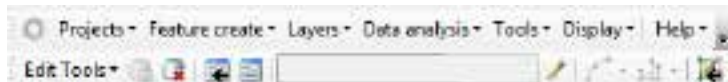
Level	Number	Time	Message
1	1	9/16/0...	Please wait while loading 'D:\media\pavement\db\pavement_v1_0_0.mdb'
2	2	9/16/2...	'D:\media\pavement\db\pavement_v1_0_0.mdb' loaded successfully!

Pavement example : Detailed configuration

```
<?xml version="1.0" encoding="utf-8" standalone="yes" />
<!-- xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xsi:baseNs="" -->
<table title="Pavement" xname="platten" table="pav_platten" key_field="objectId" min_row_radius="0">
  <group>
    <edit title="OBJECTID" readonly="true" width="100">
      <field>objectId</field>
    </edit>
    <edit title="PCN (Pavement Classification Number)" datatype="STRING">
      <field>pcn</field>
    </edit>
    <checkbox title="Zustand" width="100" filter="idx is not null" order_field="idx">
      <field>zustand</field>
      <lookup_table>pav_zustand</lookup_table>
      <lookup_key>code</lookup_key>
      <lookup_desc>description_gc</lookup_desc>
    </checkbox>
  </group>
  <section title="Daten" name="daten">
    <checkbox title="Plattenart" width="100" filter="idx is not null" order_field="idx">
      <field>platte_art</field>
      <lookup_table>pav_platte_art</lookup_table>
      <lookup_key>code</lookup_key>
      <lookup_desc>description_gc</lookup_desc>
    </checkbox>
    <checkbox title="Belagtyp" width="100" left="200" filter="idx is not null" order_field="idx">
      <field>belag</field>
      <lookup_table>pav_belag</lookup_table>
      <lookup_key>code</lookup_key>
      <lookup_desc>description_gc</lookup_desc>
    </checkbox>
    <edit title="Baugelingsdatum" datatype="DATE" width="100">
      <field>baustell_datum</field>
    </edit>
    <edit title="Verlegetdatum" datatype="DATE" width="100" left="200">
      <field>verlege_datum</field>
    </edit>
    <relationship title="Ansf. Firma" width="179" row_count="1">
      <relation_name>pav_platten_firma</relation_name>
      <relation_key>objectId</relation_key>
      <relation_foreign_key>objectId</relation_foreign_key>
    </relationship>
  </section>
</table>
```



Pavement example: Result



Another Solution

Asset Information Management Solution

Our guiding principles

- integral across expertises
- integral across organisational units
- integral across locations
- tailored for your workflow
- scalable
- configurable
- fit for purpose
- future proof



Why manage your assets?



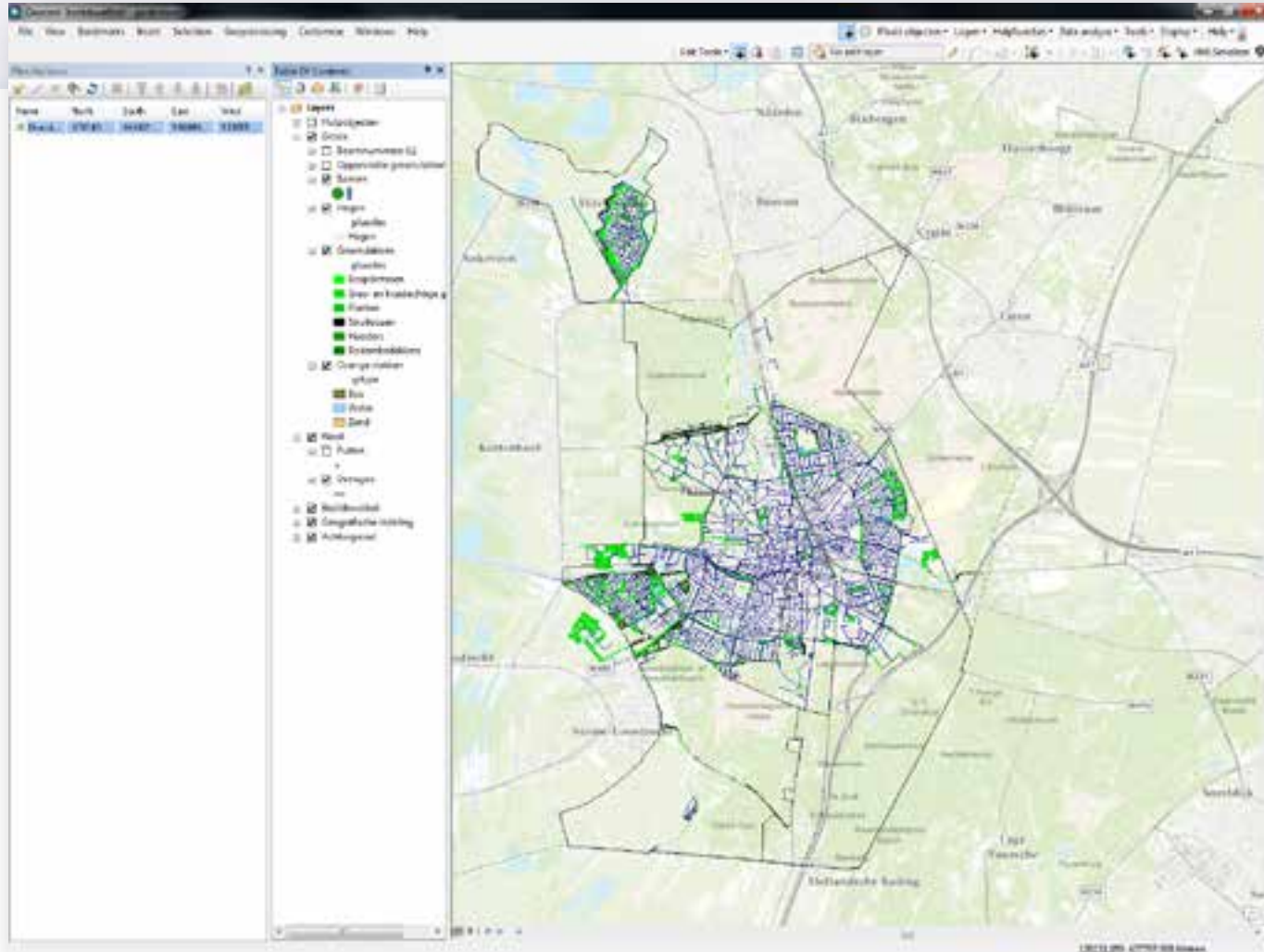
Asset management is the set of coordinated activities to realize value from assets

- What is “value”?
- Depends on:
 - objectives of company
 - nature and purpose of company
 - needs and expectations of relevant stakeholders

sustainability **legal compliance** **strategic objectives** **risk mitigation**
service quality **life cycle management**
financial performance **corporate responsibility**

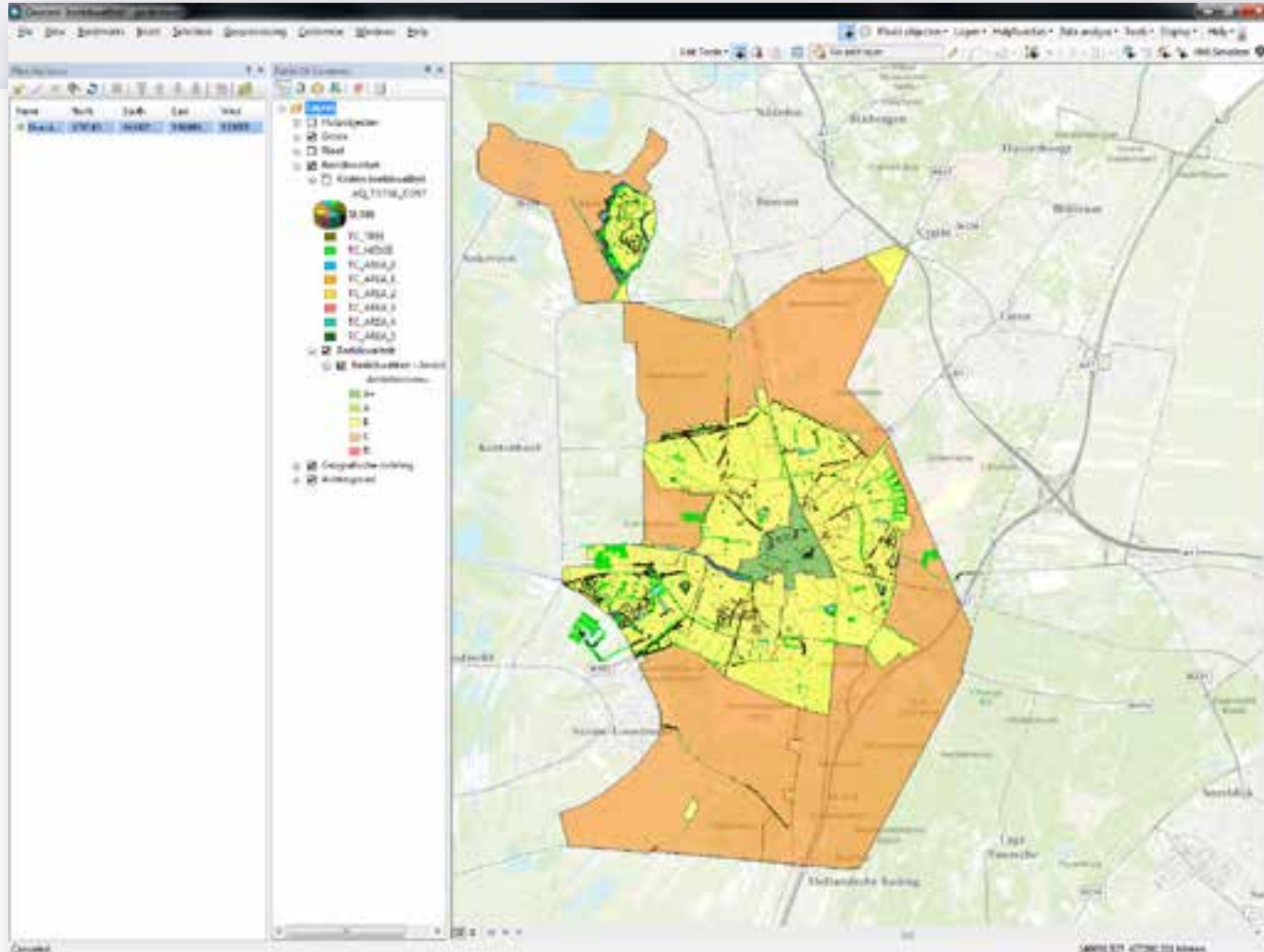
Other examples

Mapping of entire area



Other examples

Desired level of quality



Other examples

Costs per area or per discipline

The image shows two overlapping screenshots of a software application window titled 'Beeldkwaliteit'. The window displays project details and cost breakdowns.

Top Screenshot (Left):

- OBJECTID: 55
- Omschrijving: Wijk 01 Centrum
- Ambitieniveau: A+ (zeer goed)
- Budget: 2500000.00
- Buttons: Wijzig budget
- Summary tabs: Samenvatting, Groen, Metadata
- Cost breakdown:

Kosten	Kosten
onderhoud [€]	vervanging [€]
Groen 80589.15	12090.50

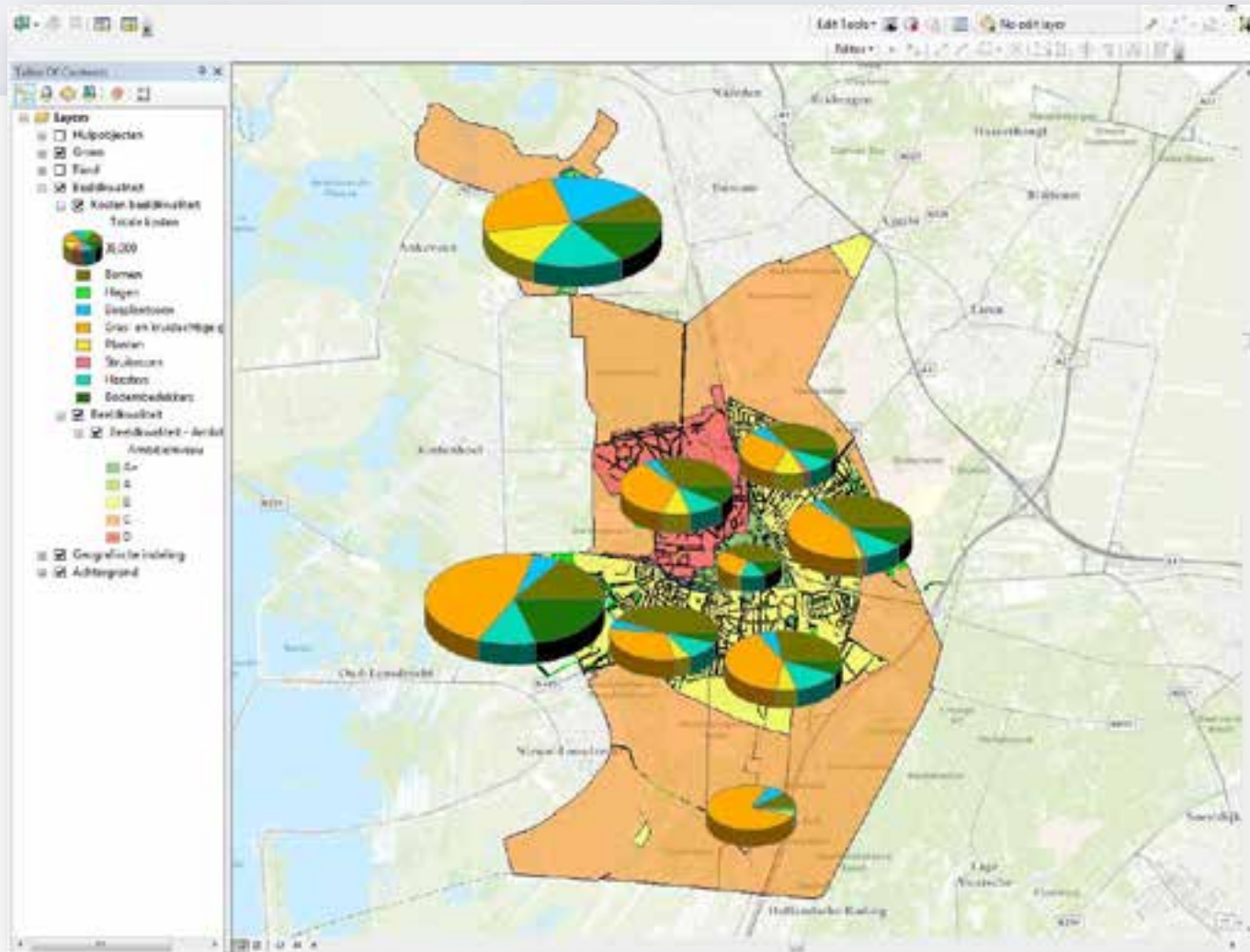
Bottom Screenshot (Right):

- OBJECTID: 1
- Omschrijving: Wijk 01 Centrum
- Ambitieniveau: A+ (zeer goed)
- Budget: 2500000.00
- Total costs: 2483347.97
- Resulting budget: 16652.03
- Buttons: Wijzig budget, Herbereken kosten, Ververs objecten
- Summary tabs: Samenvatting, Groen, Metadata
- Table with columns: Hoeveelheid, Kosten onderhoud [€], Kosten vervanging [€], Kosten totaal [€], and Wijzig kentallen.

	Hoeveelheid	Kosten onderhoud [€]	Kosten vervanging [€]	Kosten totaal [€]	Wijzig kentallen
Bomen [st]	1185	31964.55	7110.00	39074.55	↕
Hagen [m]	0.00	0.00	0.00	0.00	↕
Bosplantsoen [m ²]	542.01	595.45	81.30	676.76	↕
Gras/kruid [m ²]	19089.15	18854.36	1431.69	20286.04	↕
Planten [m ²]	226.86	3189.36	499.10	3688.46	↕
Struikrozen [m ²]	0.00	0.00	0.00	0.00	↕
Heesters [m ²]	3019.92	13873.20	1509.86	15383.16	↕
Bodembedekkers [m ²]	2430.76	12112.23	1458.46	13570.69	↕

Other examples

Geographical reporting



Other examples

Tabular reporting

Beeldkwaliteit: kosten per gebied



Test by Kaushal Sharma

Print date: 18.09.2013

Omschrijving	Ambitieniveau	Onderhoudskosten	Vervangingskosten	Totale kosten
Wijk 02 Noordwest	B (voldoende)	€ 274.546,02	€ 52.216,18	€ 326.762,20
Wijk 01 Centrum	A+ (zeer goed)	€ 80.589,15	€ 12.090,50	€ 92.679,65
Wijk 03 Zuidwest	B (voldoende)	€ 472.116,68	€ 75.233,70	€ 547.350,38
Wijk 04 Zuid	B (voldoende)	€ 191.578,99	€ 38.399,54	€ 229.978,53
Wijk 05 Zuidoost	B (voldoende)	€ 219.787,94	€ 39.829,92	€ 259.617,86
Wijk 06 Oost	B (voldoende)	€ 242.298,72	€ 44.702,98	€ 287.001,70
Wijk 07 Noordoost	D (voldoende)	€ 158.910,15	€ 31.750,53	€ 190.660,67
Wijk 08 Hilversumse Meent	D (voldoende)	€ 329.406,76	€ 59.170,11	€ 388.576,87
Wijk 09 Landelijk gebied	C (matig)	€ 137.901,64	€ 22.722,47	€ 160.624,11
		€ 2.107.224,05	€ 376.123,92	€ 2.483.347,97

Other examples

Exploring scenarios

OBJECTID: 58
Omschrijving: Wijk 05 Zuidoost
Ambitieniveau: A+ (zeer goed)

Budget: 2500000.00
Totale kosten: 2577381.48
Resultierend budget: 77381.48

Samenvatting: Groen Metadata

Kosten	Kosten	Kosten
onderhoud [€]	vervanging [€]	totaal [€]
Groen 313821.45	39829.92	353651.37




OBJECTID: 58
Omschrijving: Wijk 05 Zuidoost
Ambitieniveau: B (voldoende)

Budget: 2500000.00
Totale kosten: 2483347.97
Resultierend budget: 16657.03

Samenvatting: Groen Metadata

Kosten	Kosten	Kosten
onderhoud [€]	vervanging [€]	totaal [€]
Groen 219787.94	39829.92	259617.86



Buttons: **Wijzig budget**, **Herbereken kosten**, **Ververs objecten**

Esri Deutschland Group GmbH



Esri Deutschland GmbH Kranzberg

Niederlassung Bonn

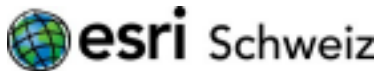
Niederlassung Hannover

Niederlassung Köln

Niederlassung Leipzig

Niederlassung Münster

Niederlassung Wiesbaden



Esri Schweiz AG Zürich



Esri Suisse SA Nyon



con terra GmbH Münster



Geocom Informatik GmbH Kranzberg

Niederlassung Hamburg

Niederlassung Köln

Geocom Informatik AG Burgdorf

Niederlassung Zürich

Kontakt:

Karl-Heinz Freckmann

Geocom Informatik GmbH

Konrad-Adenauer-Ufer 41-45

50668 Köln

Telefon +49 89 207 005 4500

k.freckmann@geocom-informatik.de

geocom-informatik.de

Royal HaskoningDHV

Our leading professionals apply their expertise around the globe in the areas of:

- Aviation
- Buildings
- Industry, Energy & Mining
- Infrastructure
- Maritime & Waterways
- Planning & Strategy
- Rivers, Deltas & Coasts
- Transport & Asset Management
- Water Technology

Andreas Hoogeveen
Royal HaskoningDHV
Laan 1914 no 35
3818 EX Amersfoort
The Netherlands
+31-6-51366034
andreas.hoogeveen@rhdhv.com



A global player

(100 offices across 35 countries)

www.royalhaskoningdhv.com