

# **EuroFM 2013: BiM&FM**

**„Paradoxically, the best way for a group to be smart is for each person in it to think and act as independently as possible“**

**James Surowiecki, Wisdom of Crowds, 2004**

# **New paradigm...BIM?**

**„BIM** (Building Information Modeling) **is a**  
**methode of**  
**interdisciplinary collaboration**  
**based on a n-dimensional,**  
**virtual image of the construction,**  
**with the purpose of**  
**performace prediction, to**  
**simulate, evaluate and**  
**optimize relevant**  
**ecomomic and ecological impacts**  
(Quality, Cost, Time, Enviroment, Live Cycle) **while planning,**  
**construction and operation“**

**BIM BAM BOOM**

**BIM BAM BOOM**



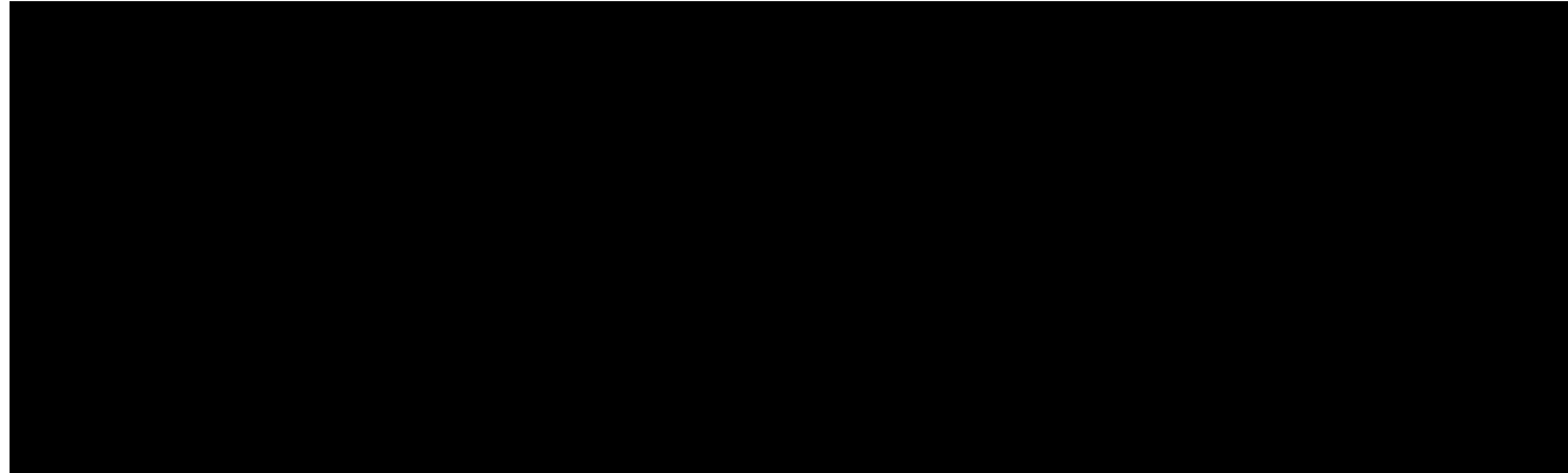
© Gartnert Inc.



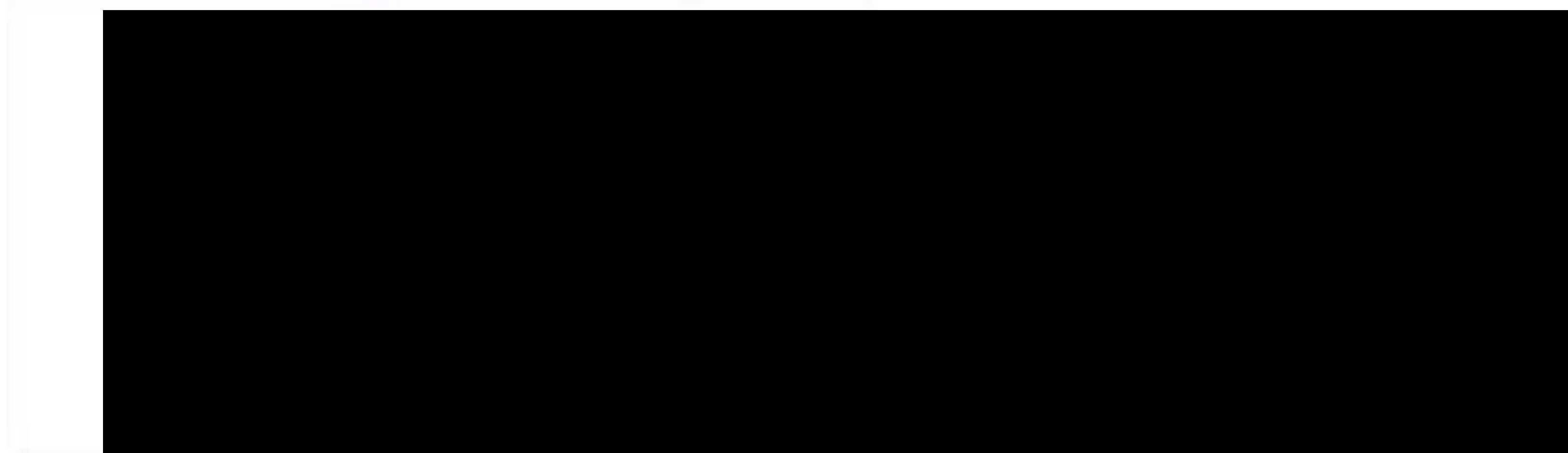
**„Linking“**



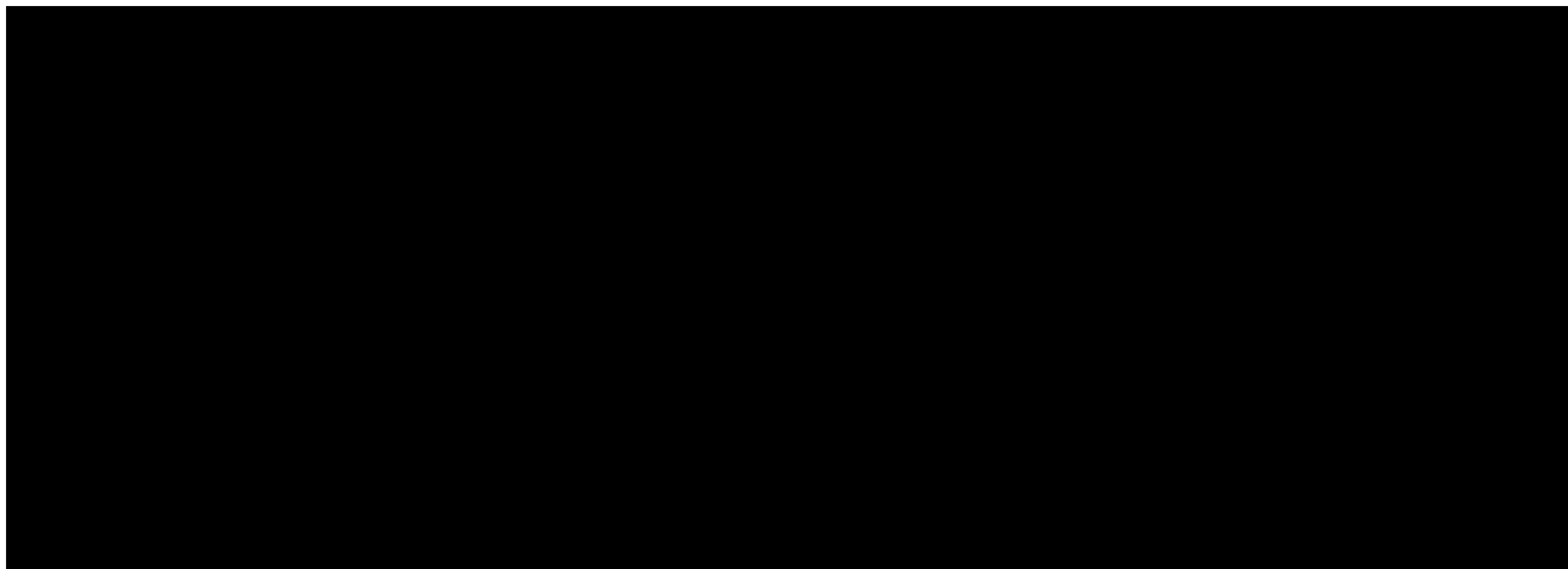
```
<a href="http://www.stone.com">Fire</a>
```



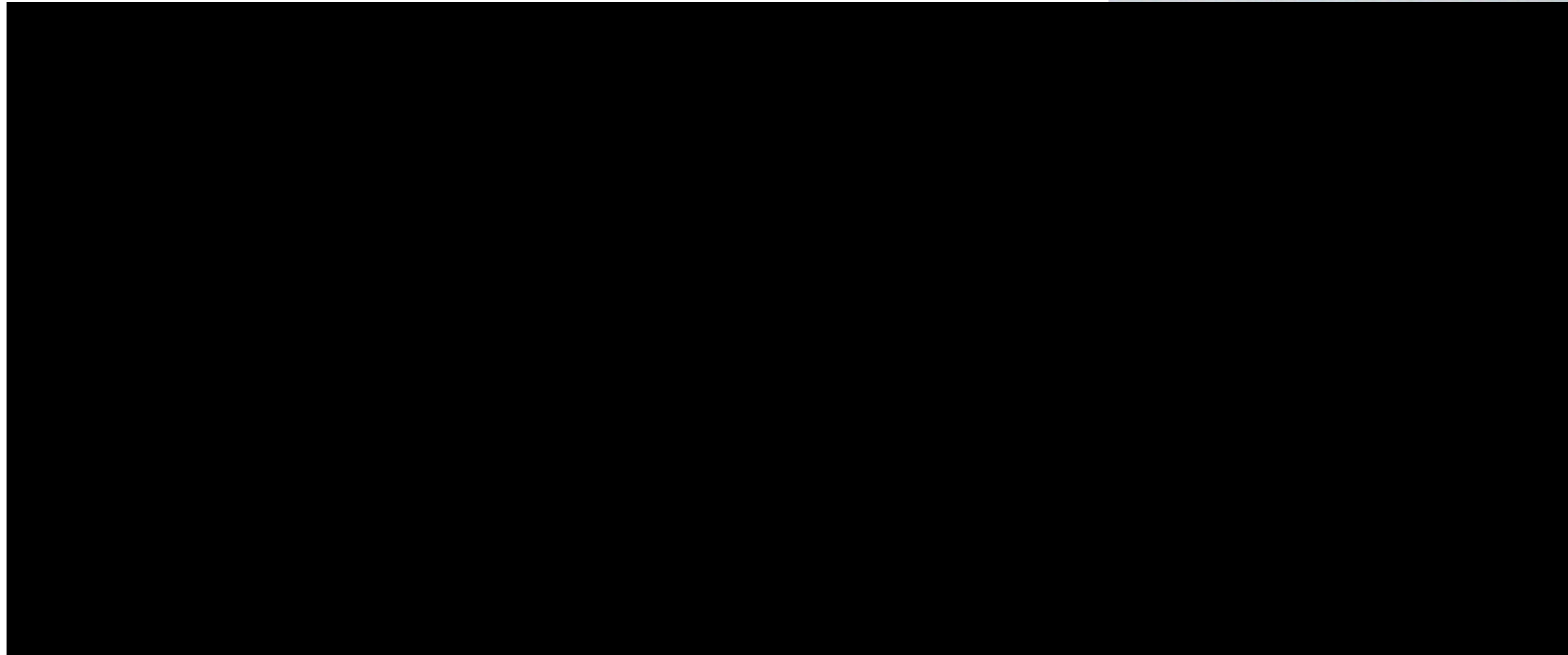
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<a href="http://www.apple.com">Space Travel</a>
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<a href="http://www.molecule.com">Lifespan</a>
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`<a href="http://www.comunication.com">Global Market</a>`



**„decode - encode“**

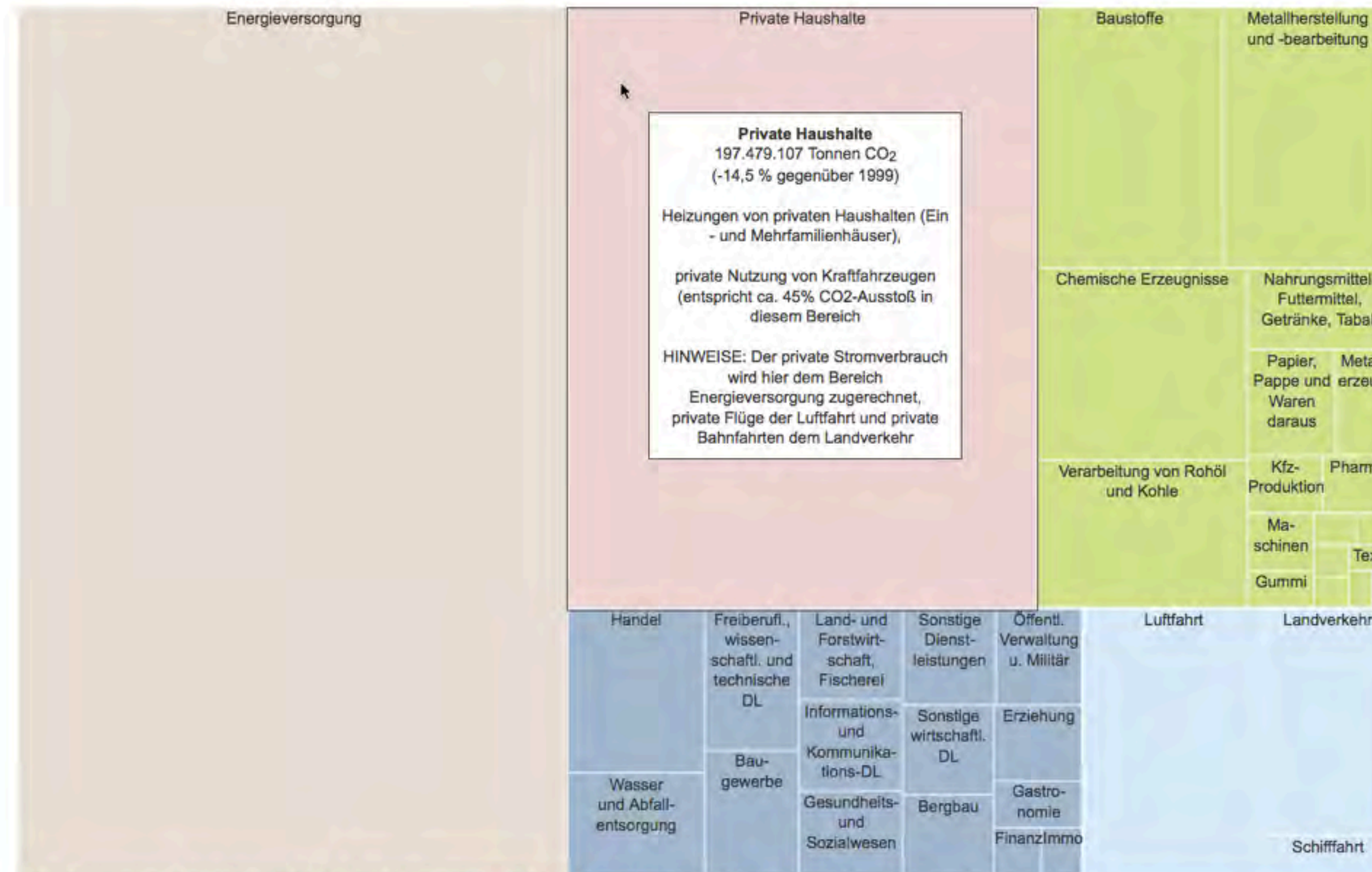
**15 kg carbon**  
**4 kg nitrogen**  
**1 kg chalk**  
**1/2 kg phosphor and sulfur**  
**200 g salt**  
**150 g potash und chlorine**  
**plus 15 other materials**  
**and 4 – 5 buckets of water**

**Bezüge sind alles.**

**Bezüge sind das Leben.**

Quote: J.W.v. Goethe

# CO<sub>2</sub>

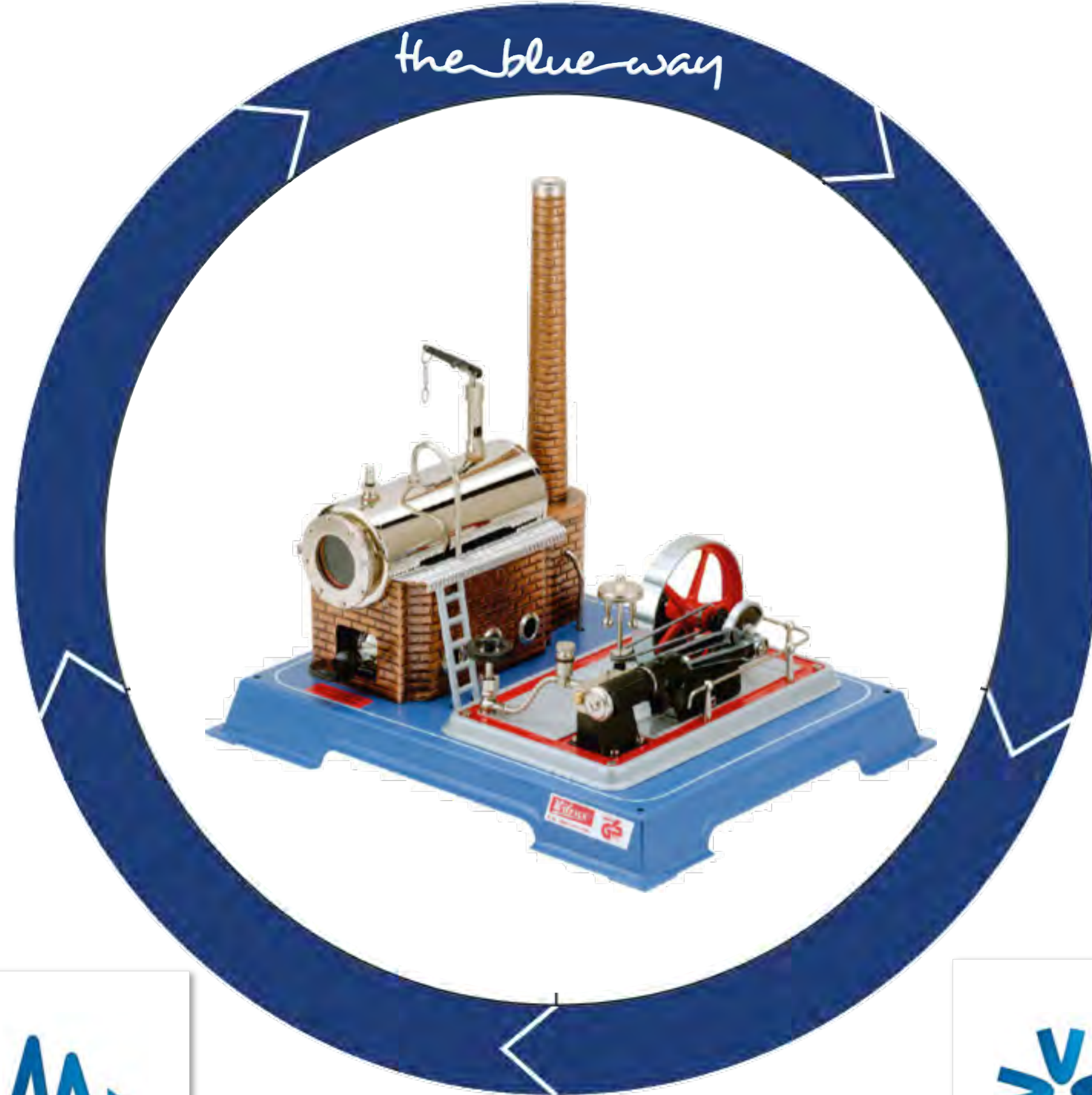


CO<sub>2</sub>-Emissionen in Deutschland 2009. Für Details und prozentuale Veränderungen zu 1999 bitte mit dem Mauszeiger über die Flächen fahren. Den kompletten Datensatz finden Sie in unserem öffentlichen [Google-Doc](#). Die Klassifikationen der einzelnen Wirtschaftszweige liefert das [Statistische Bundesamt](#).





Development Management



Infrastructure Consulting



Real Estate Consulting



Engineering

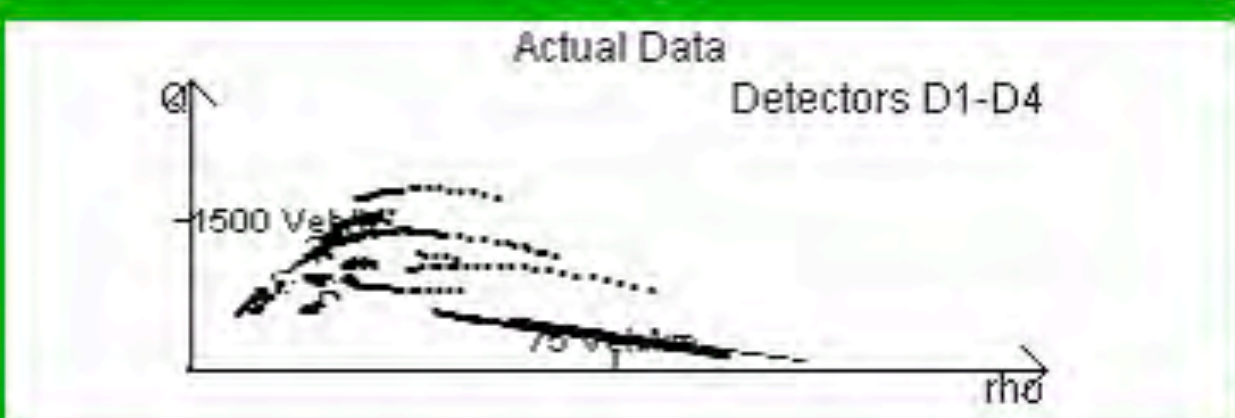
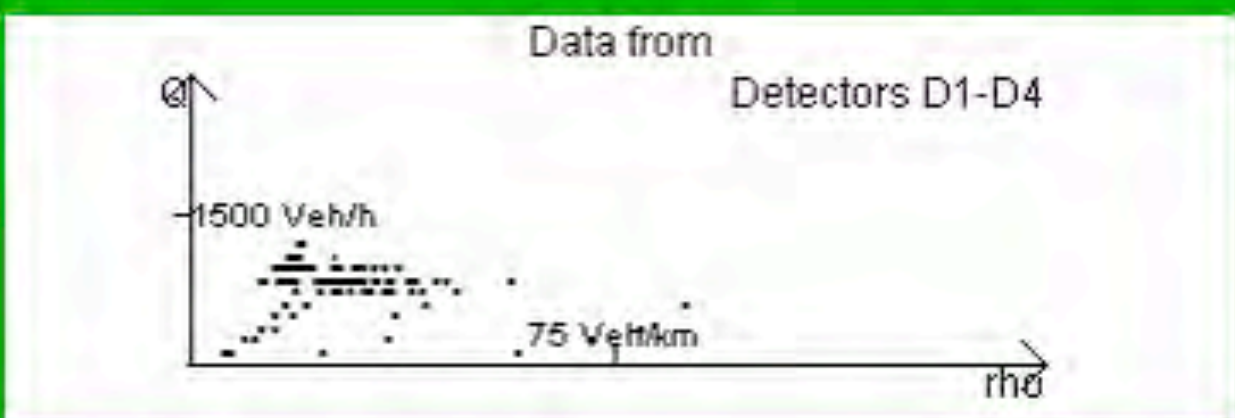
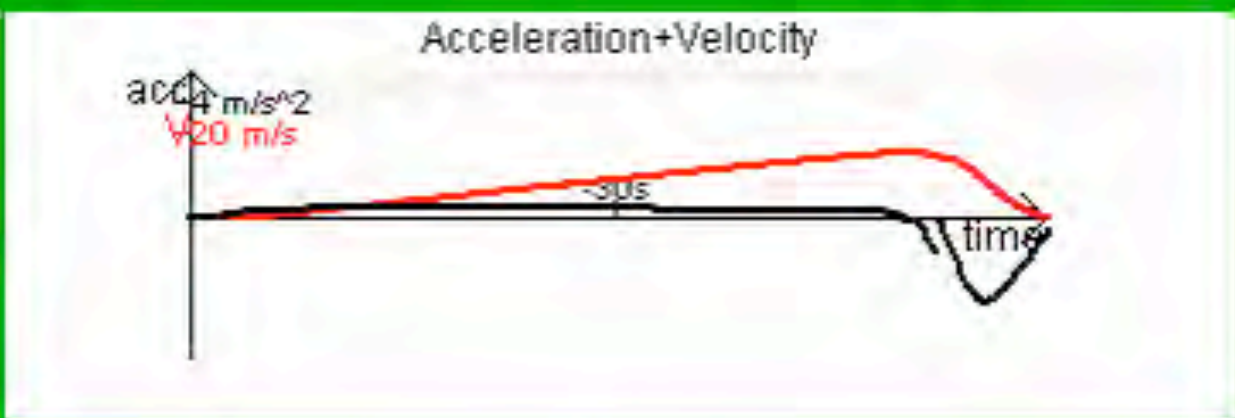
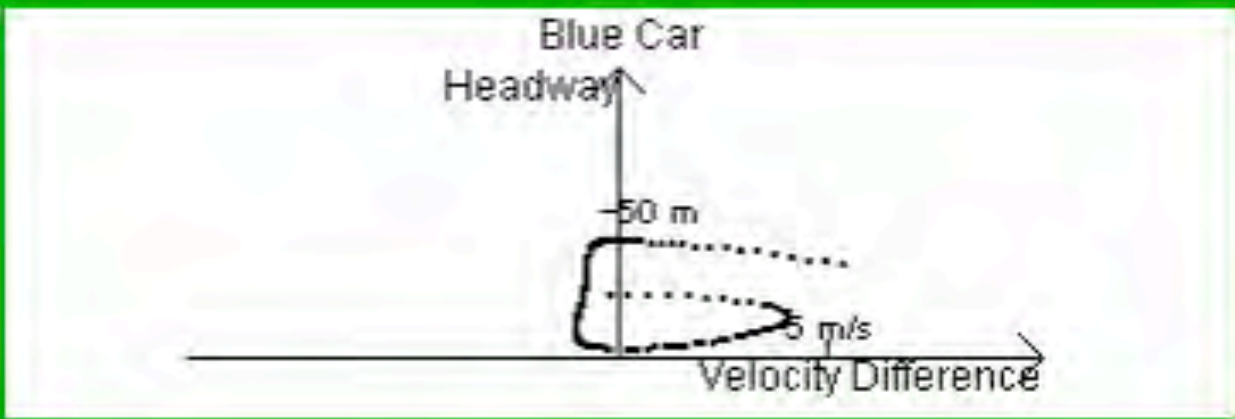
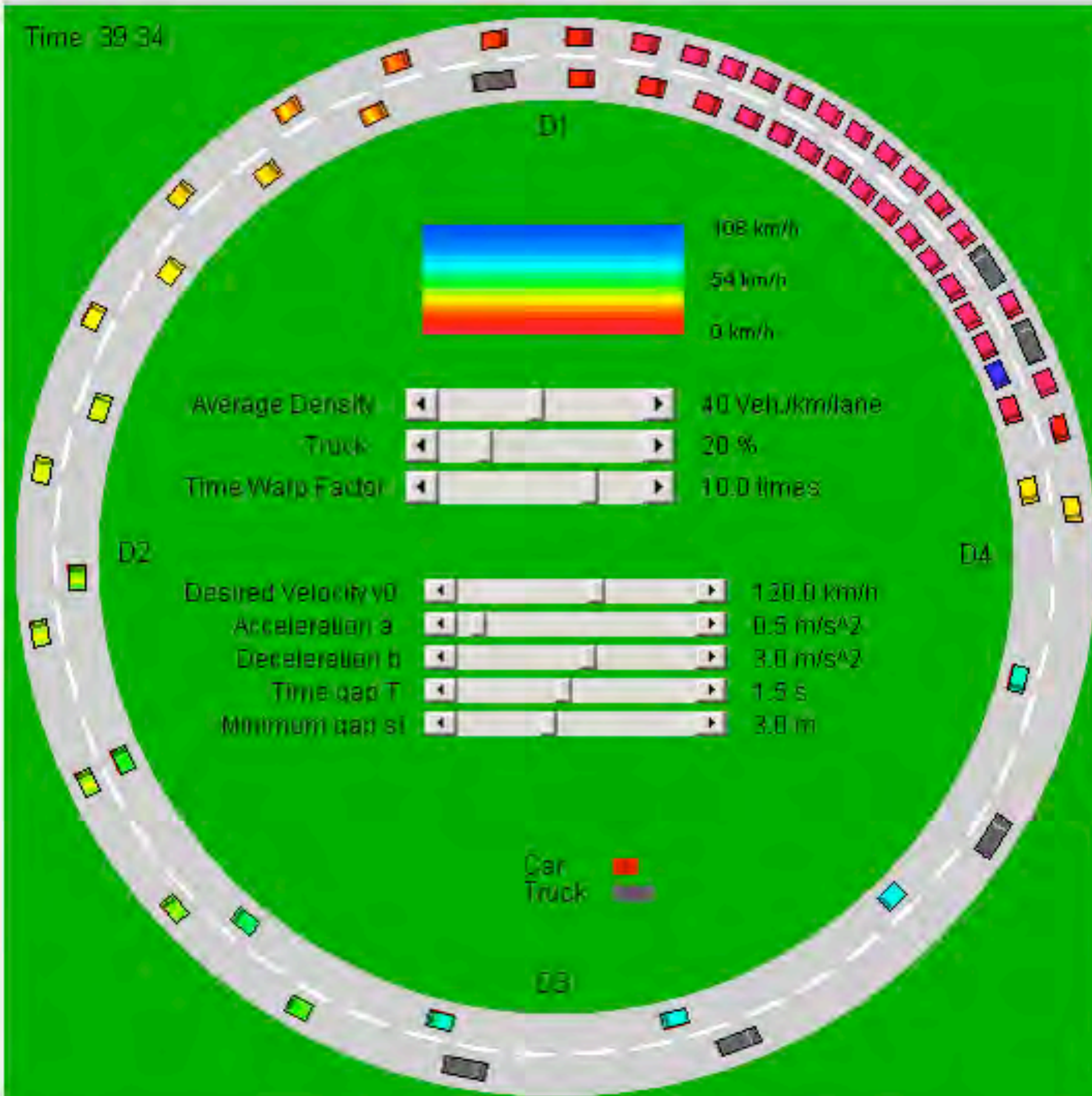


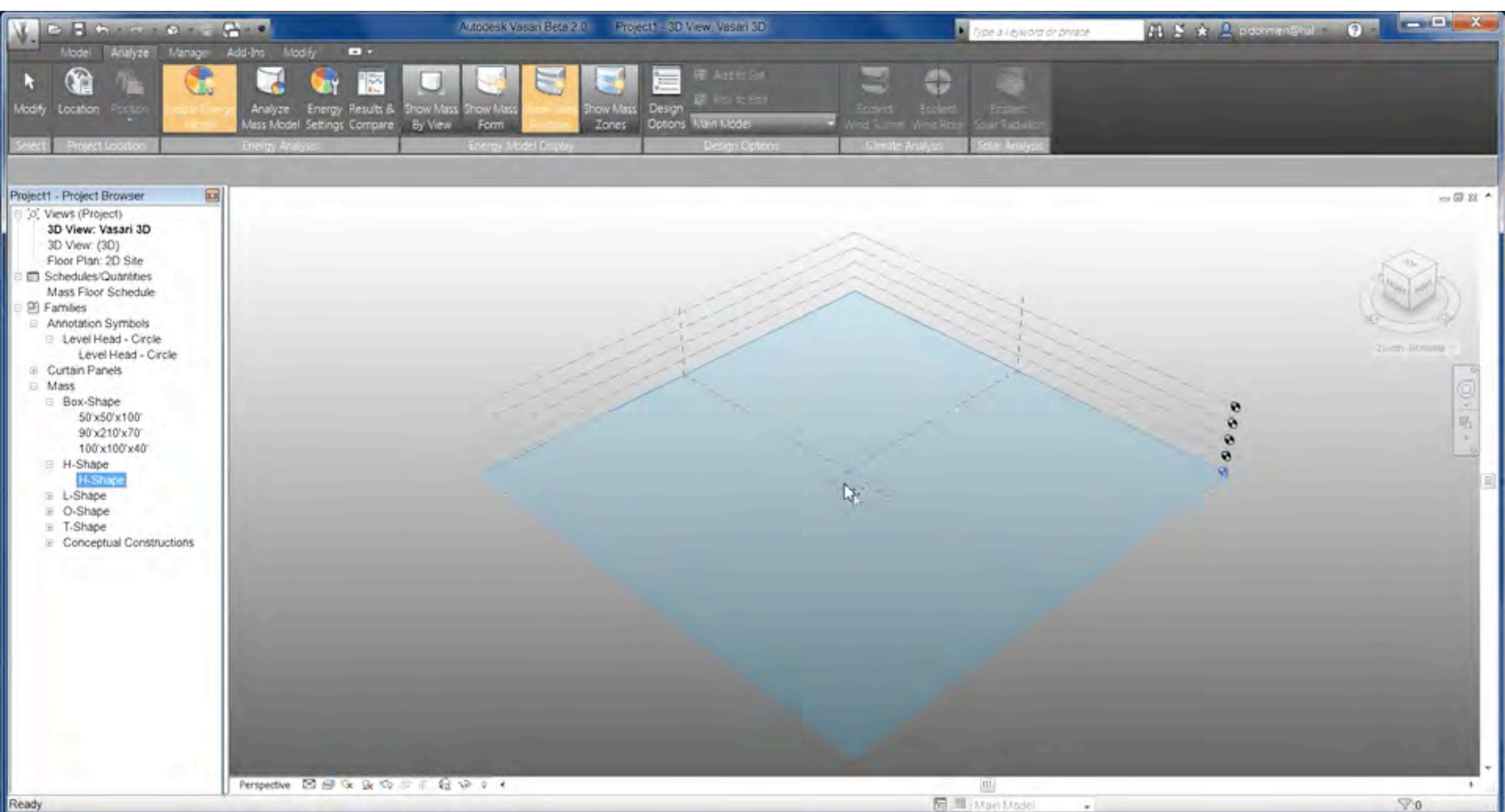
Projectmanagement

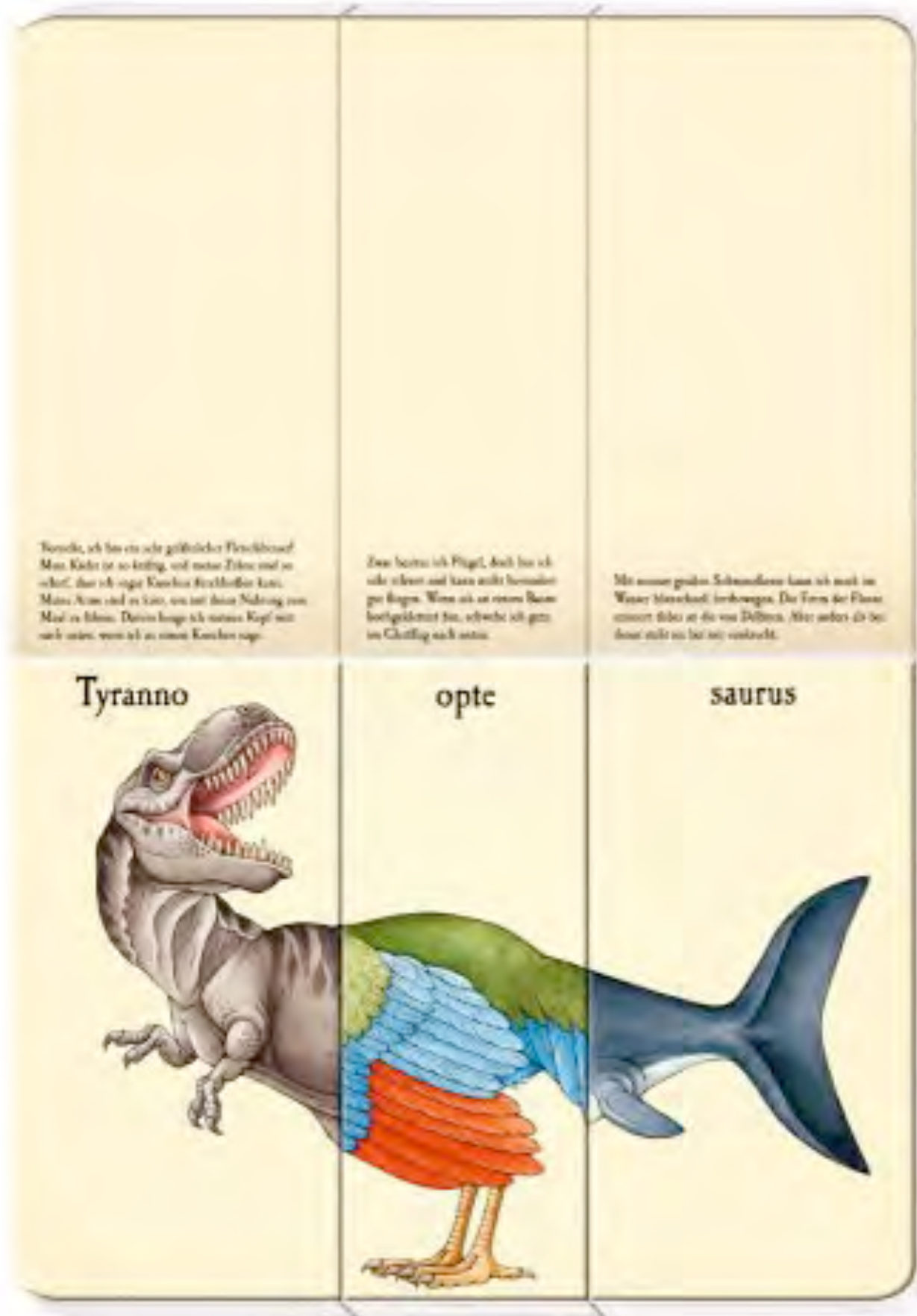
**Successful systems become complex**

Microsimulation of Road Traffic Flow

Start	Ring Road	Laneclosing	Traffic Lights
Stop	On-Ramp	Uphill Grade	Apply Perturbation!








### CORENET e-Submission System

CORENET e-Submission is a 24x7 e-service that facilitate the electronic submission and processing of building related applications and documents anytime, anywhere in a secured environment using internet as the delivery medium.



## Singapore BIM Guide

Building and Construction Authority  
5 Maxwell Road  
#15-00 Tower Block MND Complex  
Singapore 059110  
[www.bca.gov.sg](http://www.bca.gov.sg)



McGraw Hill Construction SmartMarket Report

### 建筑信息模型 Building Information Modeling

设计与施工的连接，生产与效率的提升  
Streamlining Design and Construction to Achieve Greater Industry Efficiency



Autodesk



### EU

GSA  
BIM Guide For Spatial  
Program Validation

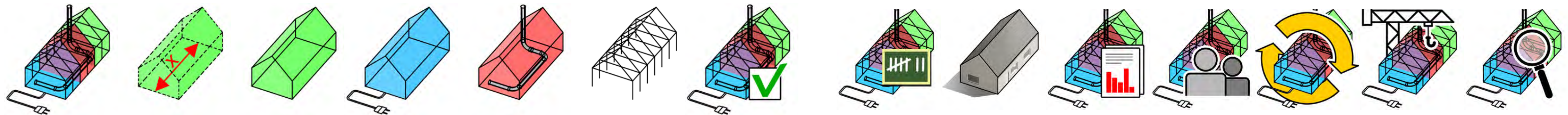
GSA BIM Guide Series 02  
[www.gsa.gov/bim](http://www.gsa.gov/bim)



# BIM International Analysis

Country	Strategy	Status
<ul style="list-style-type: none"> <li>Denmark </li> </ul>	<ul style="list-style-type: none"> <li>Public BiM Strategy</li> </ul>	<ul style="list-style-type: none"> <li>all public Buildings more than 4 Mio. € must be build with Bim since 2008</li> </ul>
<ul style="list-style-type: none"> <li>Netherland </li> </ul>	<ul style="list-style-type: none"> <li>Public BiM Strategie</li> </ul>	<ul style="list-style-type: none"> <li>Building Applications of PPP Projects must be delivered in BiM since November 2011</li> </ul>
<ul style="list-style-type: none"> <li>Finland </li> </ul>	<ul style="list-style-type: none"> <li>Cobim</li> </ul>	<ul style="list-style-type: none"> <li>BIM is required for all Projects (above a certain level) since 2007</li> </ul>
<ul style="list-style-type: none"> <li>Norway </li> </ul>	<ul style="list-style-type: none"> <li>Statsbygg Strategy</li> </ul>	<ul style="list-style-type: none"> <li>all Statsbygg Projects, not using BiM need a exception from rule</li> </ul>
<ul style="list-style-type: none"> <li>UK </li> </ul>	<ul style="list-style-type: none"> <li>GB wants to become leading BiM country</li> </ul>	<ul style="list-style-type: none"> <li>All public Projects &gt; 5 Mio. must be using BiM since 01.01.2012.</li> </ul>
<ul style="list-style-type: none"> <li>Germany </li> </ul>	<ul style="list-style-type: none"> <li>First German BiM Guidline in cooperation with US Army Corp</li> </ul>	<ul style="list-style-type: none"> <li>Guideline for US Militay Hospitals in Germany</li> </ul>

1. General BIM Requirements
2. Modeling of the Starting Situation
3. Architectural Design
4. MEP Design
5. Structural Design
6. Quality Assurance
7. Quantity Take-off



8. Use of Models for Visualization
9. Use of Models in MEP Analyses
10. Energy Analysis
11. Management of a BIM Project
12. Use of Models in Facility Management
13. Use of Models in Construction
14. Use of Models in Building Supervision

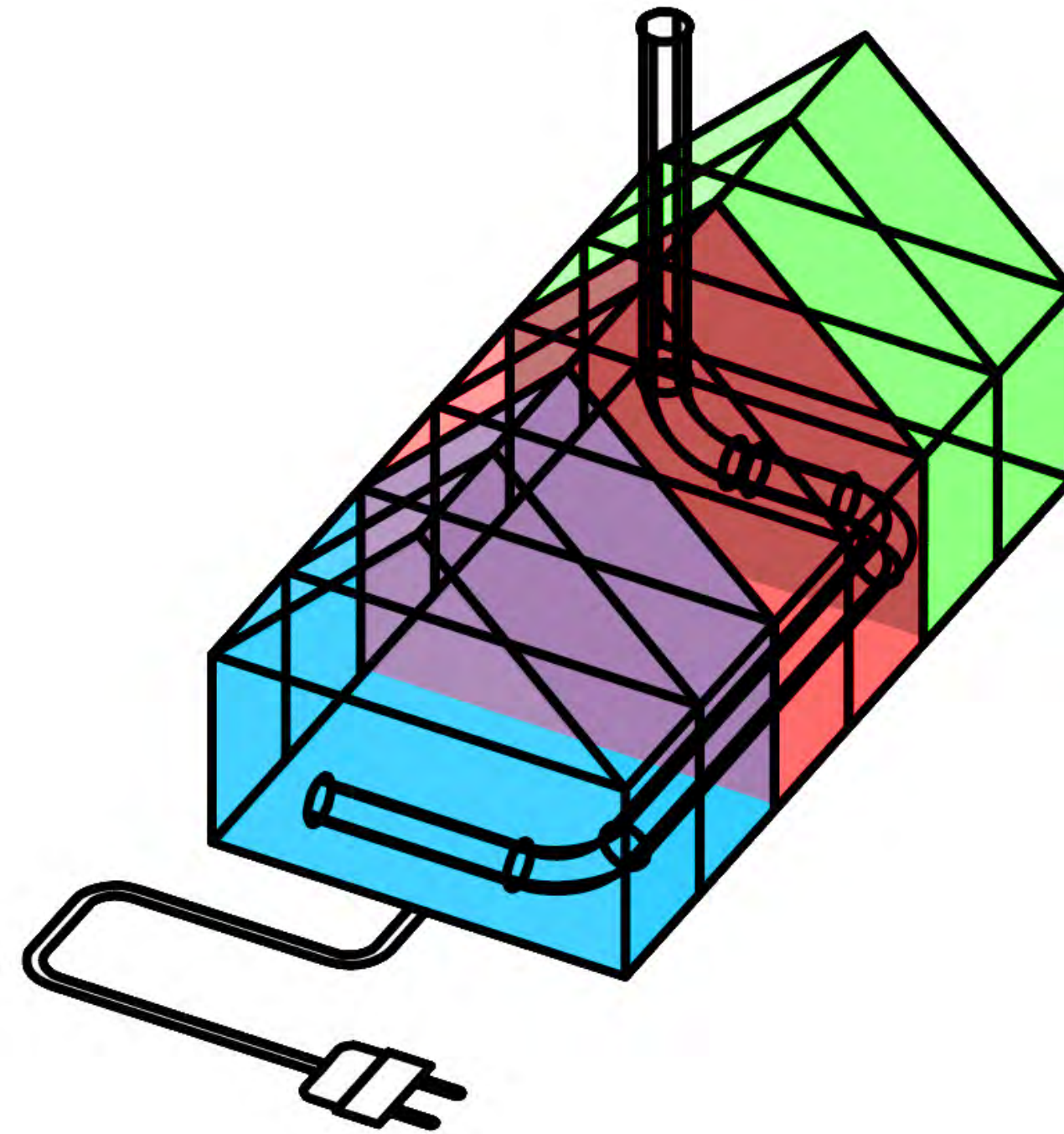


# COBIM

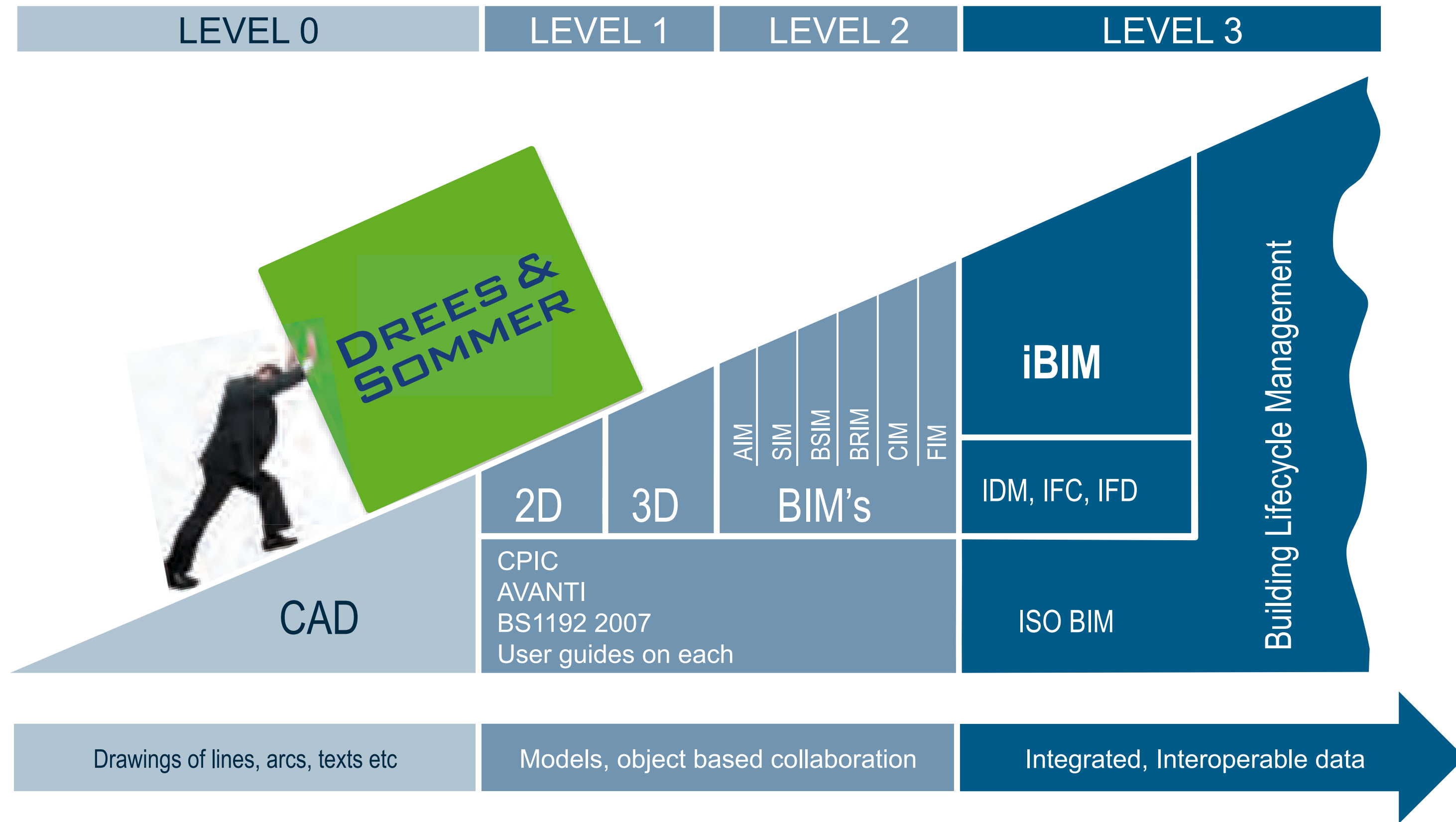
Common BIM Requirements  
2012

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v 1.0







**„New paradigm,...It's like new sex.  
There just isn't any such thing.“**

Quote: Warren Buffet



Thank You.