Generating Futures from Text
Scenario Planning using Text Mining

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Preparation → Development → Usage
The Scenario Planning Process
The Idea

Improve the preparatory Step

Desk Research

Literature Analysis

Identification of Driving Aspects

Text Mining

Preparare Data

Topic Modeling

Concept Mapping

### Top 10 phrases per topic

<table>
<thead>
<tr>
<th>Topic</th>
<th>Env. Aspects</th>
<th>IPR /energy</th>
<th>Energy efficiency</th>
<th>Futures research and ecology</th>
<th>Risks and Values</th>
<th>Food and Nutrition</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Island, water sector, photovoltaic, medium term, roadmap, science base, deployment, biodiversity, outlook period, outlook</td>
<td>innovation, patent, electricity, inventor, energy consumption, Sweden, energy, energy foresight project, growth, carbon dioxide emission</td>
<td>Megatrend, percent, energy efficiency, small scale renewable energy scheme, storyline, energy saving, scenario, energy efficiency improvement, rebound effect, decommissioning</td>
<td>Synthesis, future research, futurist, ecology, center, future research method, synthesis activity, delphi method, ecologist, scenario analysis</td>
<td>value of a statistical life, power plant fleet, child, hazard, habitat, risk reduction, risk change, value of a statistical life estimate, grazing marsh, adult</td>
<td>food system, food production, hunger, volatility, food producer, food price, hunger reduction, governance, food, food supply chain</td>
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</tbody>
</table>
The Outcome

- Reduced time and reading effort
- Summary and eased structuring of scenario field
- Quantitative base to built on further process
- Starting point for discussions

Scenario Preparation

<table>
<thead>
<tr>
<th>Step 1</th>
<th>Step 2</th>
<th>Step 3</th>
<th>Step 4</th>
<th>Step 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desk Research</td>
<td>Conduct Text Mining</td>
<td>Deduce influence areas</td>
<td>Identify Key Factors</td>
<td>Set Future Projections</td>
</tr>
</tbody>
</table>

- influence area 1
  - key factor 1
  - key factor 2
- influence area 2
  - key factor 4
  - key factor 5
- influence area 3
  - key factor 6
  - key factor 7
  - key factor 8
  - ...

quantitative

qualitative