Visualizations provide political decision makers with:

- dashboards for improved problem and solution finding,
- a clearer overview of the political decision-making process,
- the possibility to analyze the effects of their decisions, and
- access to additional information, such as economic, social, and ecological factors.

Thus, visual-interactive user interfaces lead decision makers to the required information. The visual analytics technologies in the background further support them in the process.

Visual analysis of social media content for policy making

Fraunhofer IGD develops technologies for the visual-interactive access to textual statements on specific policies gathered from the internet and other sources. This includes textual analysis, visual representations of topics discussed, arguments in favor of or against policies, and the underlying positive or negative sentiment of the statements. In addition, demographical information about the opinion stakeholders may be taken into account to extract a qualified picture of the public position on the policies under discussion.

FRAUNHOFER IGD: THE WORLD'S LEADING INSTITUTE FOR APPLIED RESEARCH IN VISUAL COMPUTING

Current visualization projects for policy modeling:

- FUPOL: Advanced Semantics Visualization
  www.fupol.de
- ePolicy: Visual support for political decision-making processes
  www.epolicy-project.eu
- NOMAD: Visually analyzing opinions from the internet
  www.nomad-project.eu
- EU Community: Visually supporting policy debates
  http://project.eucommunity.eu

CONTACT:

Dr. Jörn Kohlhammer
Head of Competence Center
"Information Visualization and Visual Analytics"

Fraunhofer Institute for Computer Graphics Research IGD
Fraunhoferstraße 5
64283 Darmstadt, Germany
Phone: +49 6151 155-646
Fax: +49 6151 155-139
joern.kohlhammer@igd.fraunhofer.de

www.igd.fraunhofer.de/IVA

V04-14-01

Fraunhofer
IGD

FRAUNHOFER INSTITUTE FOR
COMPUTER GRAPHICS RESEARCH

VISUALIZATION FOR POLICY MODELING

VISUALIZATION FOR POLICY MODELING

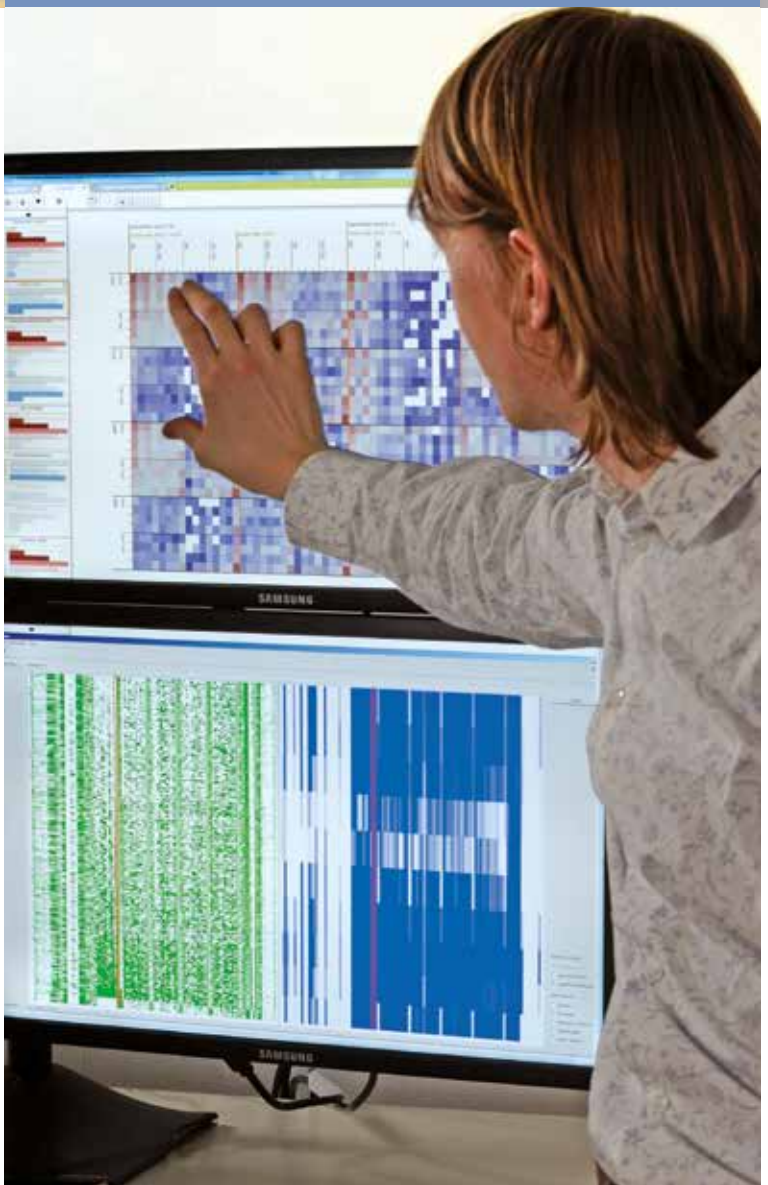
Political decision-making processes are often very complex and not always easy to comprehend. Fraunhofer IGD develops technologies to clearly and comprehensibly illustrate the information needed for complex decision making processes. They enable politicians and citizens to visually grasp the impacts of new policies and understand their relationships to other areas.

Fraunhofer IGD develops technologies to:

- visualize information associations and semantics
- assist in complex policy-making processes
- support the decision-making process with visual analytics
- visualize opinion analyses derived from web content.

Semantics visualization in policy modeling

Based on the SemaVis technology, Fraunhofer IGD is developing advanced visualization techniques providing access to various data bases and visual representations of statistical, legal, social, and semantic data. SemaVis provides a comprehensive and comprehensible way to understand the needs for new policies. It supports the search for solutions to policy



problems through information exploration. Politicians, citizens and companies can benefit from new advanced semantics visualizations as follows:

- Politicians can better understand the needs of citizens and companies,
- opinion leaders and relevant upcoming topics can be identified,
- forecasts of the impact of political measures can be improved, a more efficient implementation of governmental policies, and
- a transparent and more effective policy-making process can be provided by the appraisal of citizens' options.

Semantics visualization links various information channels such as statistical data, social networks, or rules and legal positions. Users are able to visually analyze the given data and retrieve the information that they require for their tasks.

Visual support for the political decision-making process

Political decision makers are often not IT experts. With the help of well-designed visualization software, they get an intuitive access to the information required for their decisions.