



Analysis of tools and models to conduct economic forecasts, simulations and sensitivity analyses

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« **Managing Risk in the Competitive Environment of
the Telecommunication Sector** »

**Geneva, Switzerland
28-29 October 2004**



Dynamic character of telecommunication sector environment



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Markets

- Fixed Telecommunications
- Mobile Telecommunications
- Internet
- Cable TV
- ...

Effects

- Microeconomic
- Macroeconomic
- Innovation dynamics
- Social
- Cultural
- ...

Processes

- Liberalization
- Regulation
- Digitalization
- Convergence
- Standardization
- Globalization
- ...

Sector Stakeholders

- Operators
- Regulators
- Policy Makers
- Groups of Interest
- Regional and International Organizations
- ...



Goals of the project



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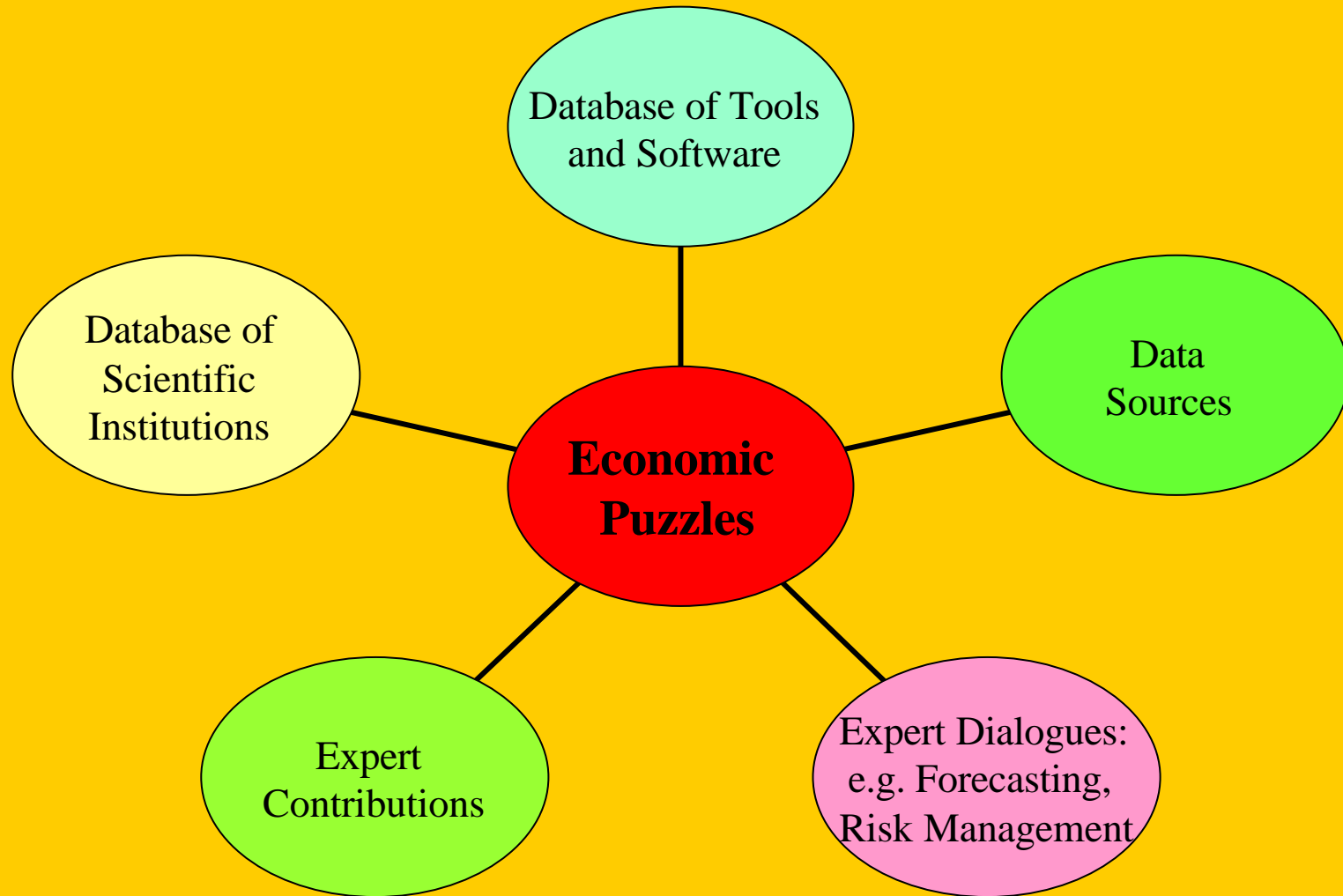
- **Analysis of tools and models to conduct economic forecasts, simulations and sensitivity analyses**
 - Review of methods and models being applied in telecommunication sector
 - Review of available tools supporting decision-making in telecommunication sector
 - Review of case studies on telecommunication sector
 - Development of tools and models to help decision-makers to conduct economic forecasts, simulations and sensitivity analysis



Components of the project



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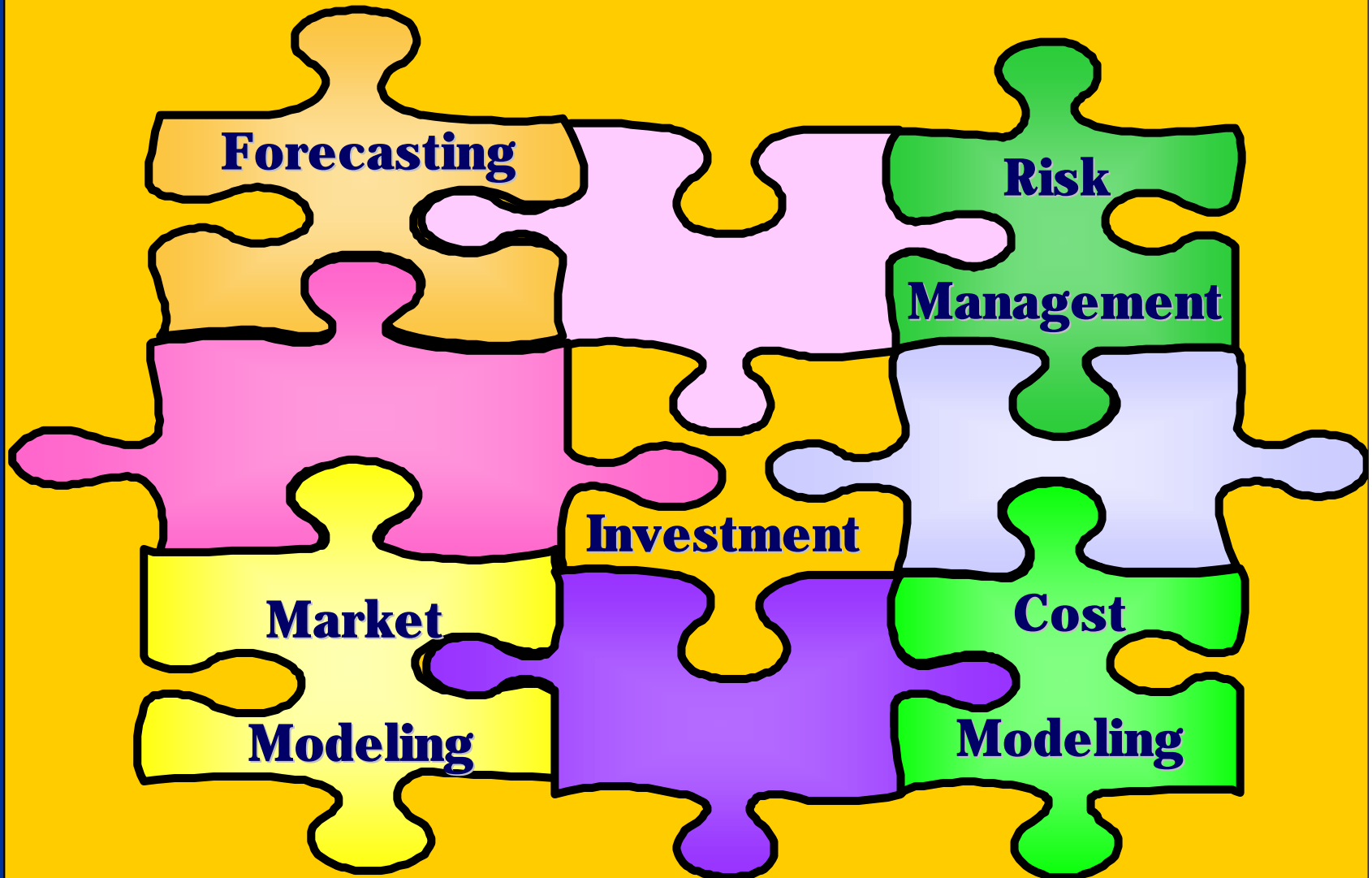




Focus of the project

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Tools and software



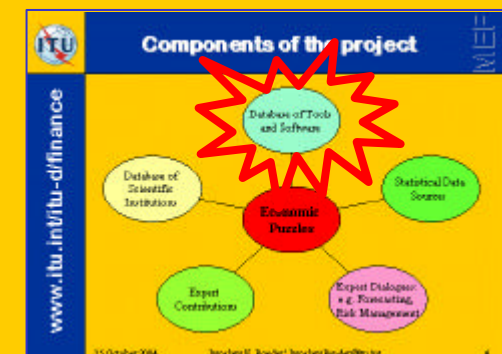
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Database of tools and software to conduct the economic research on telecommunications:

- Focus
 - Forecasting
 - Risk management
 - Market modeling
 - Investment
 - Cost modeling
 - Operation
- Software specialization
 - ICT specific
 - Telecommunication specific
 - Universal
- Software form (plug-in, compact)
- System and availability

28 October 2004

Until October 2004
about 100 tools has
been assembled

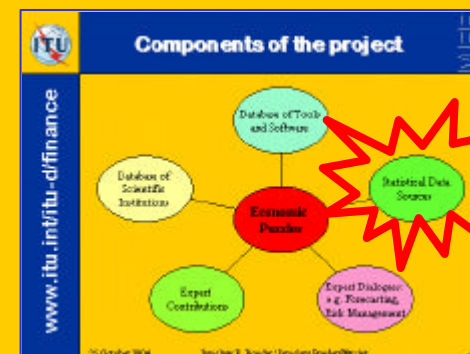




Data

Collection of official sources of data

- Global data sources
- Regional data sources
- National data sources
- National regulatory authorities and ministries of communications





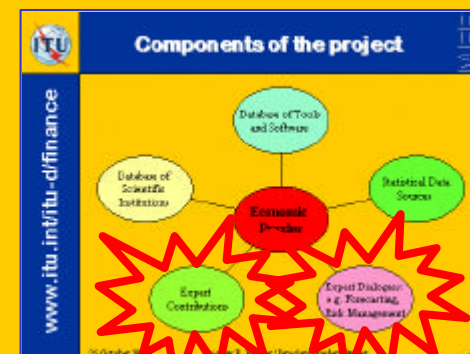
Expert dialogues



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- **Expert dialogues meetings**
 - Adjusting Forecasting Techniques to the Needs of Telecommunication Sector (25-26 October 2004, Geneva)
 - Risk Managing in the Competitive Environment of Telecommunication Sector (28-29 October 2004, Geneva)
- **Expert contributions**

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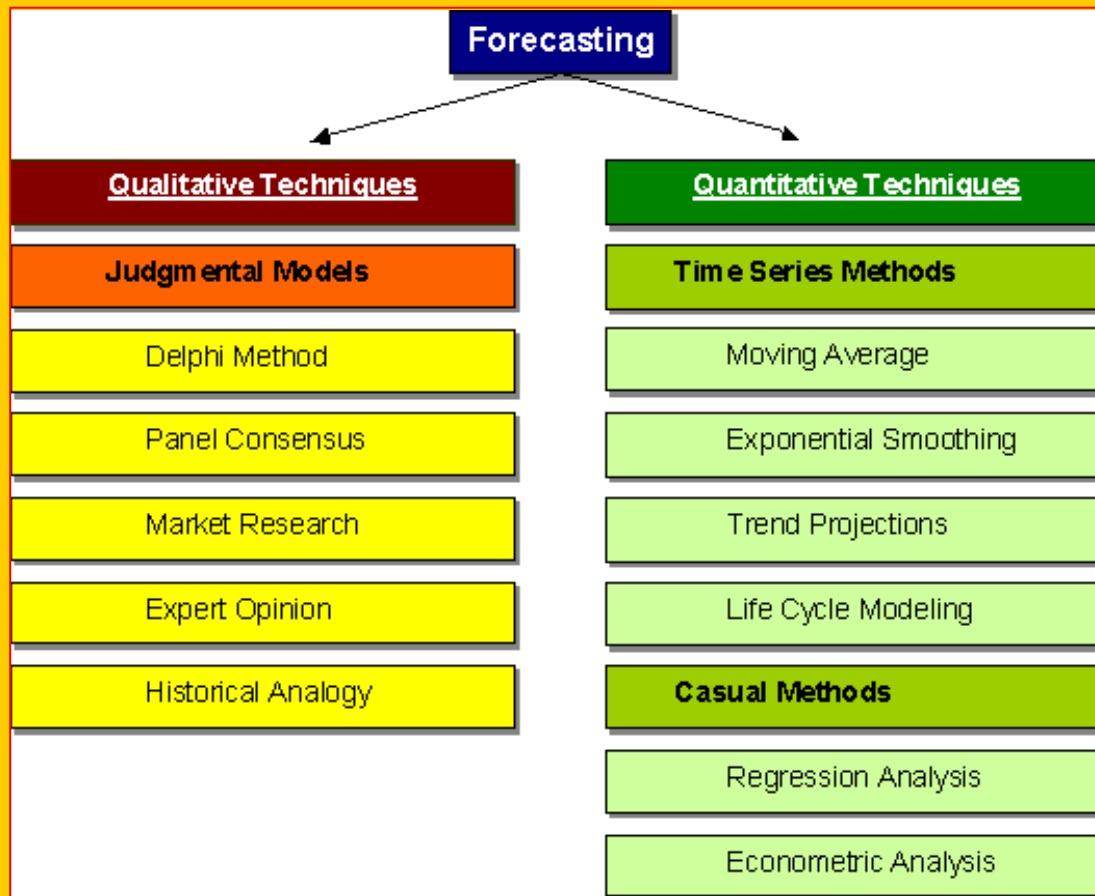


Expert dialogues meeting on forecasting (25-26 October 2004)



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Meeting organized in cooperation with International Institute of Forecasters



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Expert dialogues meeting on risk management (28-29 October 2004)



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- **Risk management**

- Review of risk factors

- **Commercial risks**

- *Project specific*
 - » Project concept and costs
 - » Supply
 - » Demand
 - » Commitments
 - » Contractor/operator commitment
- *Non Project-Specific*
 - » Currency/Interest Risk
 - » Inflation

- **Non-commercial risk**

- *Project-specific*
 - Regulatory
 - Expropriation
 - Obligations
- *Non project-specific*
 - Country risk
 - Political
 - Legal
 - Natural (e.g. earthquake)

- Approaches

- Monte Carlo simulation
- Real options
- Game theory

- Applications

- Techno-economic analysis
- Deployment of new technologies
- Price optimization
- Regulation
- Cost of capital
- investment projects



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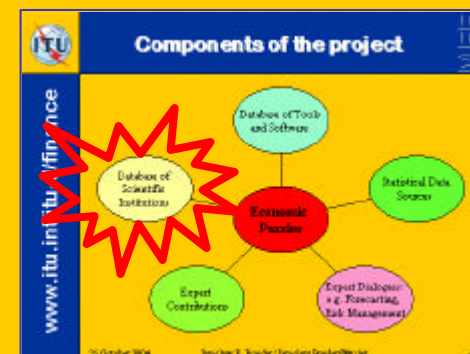
Scientific institutions



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- **Global database of scientific institutions focusing on telecommunications**
 - Until October 2004 more than 1100 institutions from more than 75 countries
 - Search criteria
 - Economics
 - Management
 - Regulation
 - Technology

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**Thank you very much for
your attention**



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