

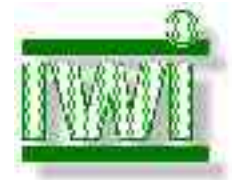
# RAfEG

## ***Evaluating E-Government – A Process-oriented Approach***

*(Ch. Seel, O. Thomas, B. Kaffai, T. Matheis)*

***IFIP Conference 2005, Poznan (Poland)***

**Institute for Information Systems (IWi) at DFKI**  
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## /// Motivation

- /// Why Business Process Modelling in E-Government?

- /// Controlling with Performance Indicators

## /// Foundation: ARIS HOBE

- /// Method in the RAFEG Project

- /// Case Scenario

- /// Conclusions and Future Work

- /// Need for Modern Information and Communication Technologies (ICT) in E-Government
  - /// Increase in efficiency
  - /// Cost-effectiveness
  - /// Increase in transparency
  - /// Transaction-oriented and seamless integration of all parties involved

- Consideration of **organizational** and **technical** aspects required
- Support of problem-description, -analysis, -design and -implementation necessary

## /// Use: Business Process Models

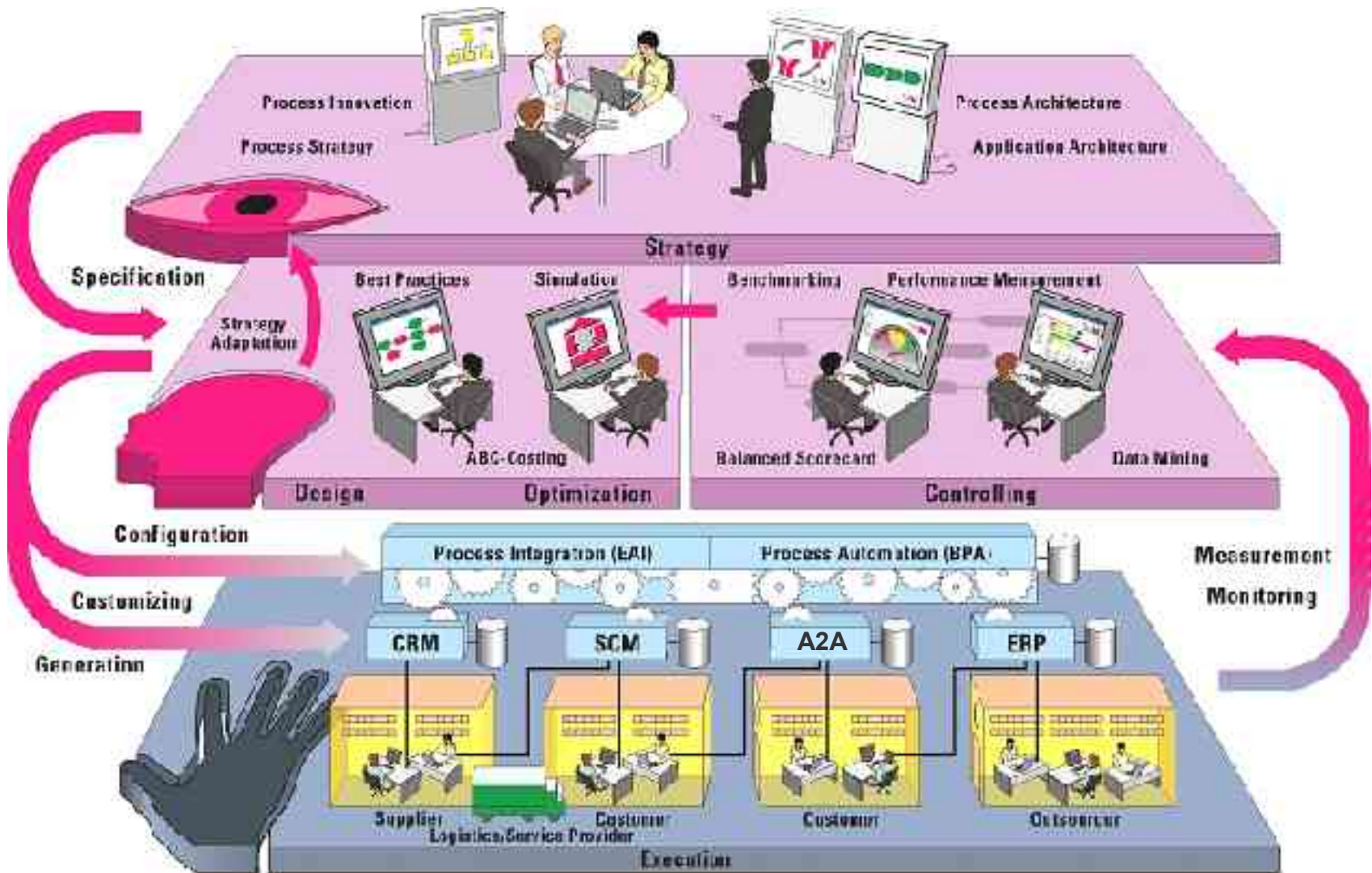
→ well proven and widely accepted instrument for merging technological and organizational aspects

- revision of process structures
- support of change management
- enabling technical customizing and implementation

## /// Integrate: Performance Indicators

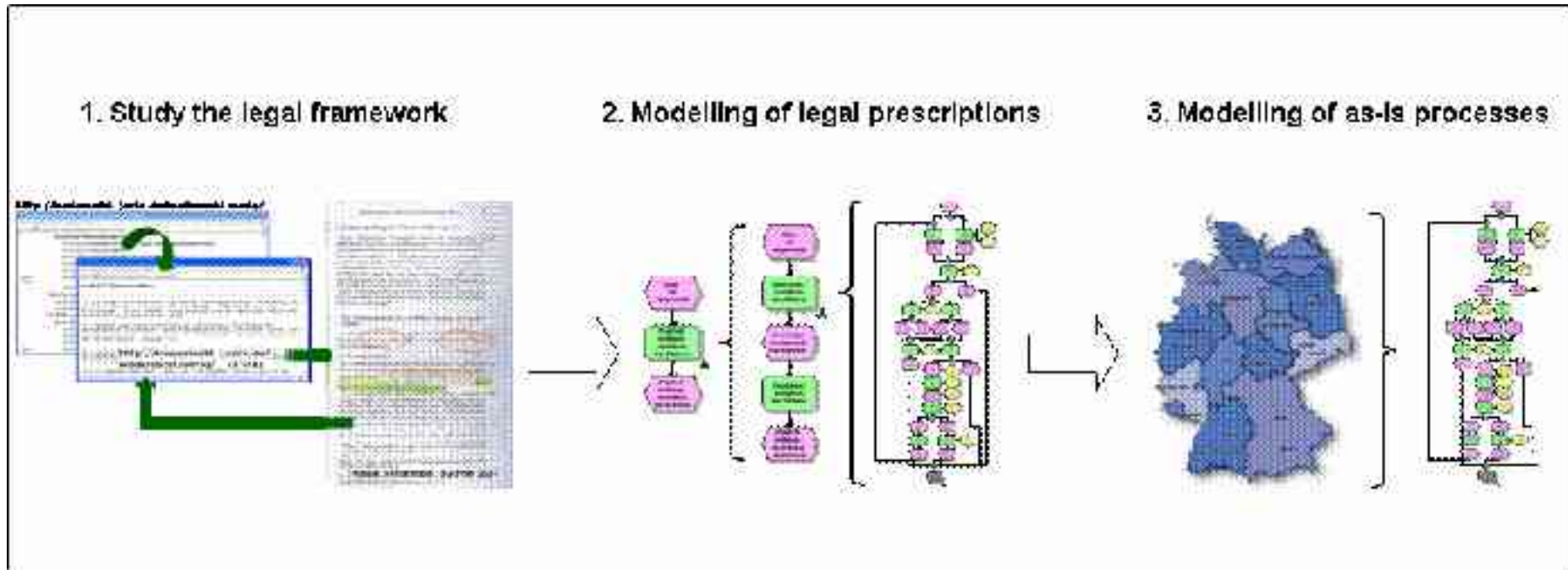
- /// e.g. control of process efficiency according to strategical goals
- /// e.g. benchmarking among various Public Administrations (PA)

# HOBE – Towards Business Engineering



Scheer (1996): ARIS – House of Business Engineering

# Design Level – Modelling the Administrative Processes



## Analysis of the legal framework

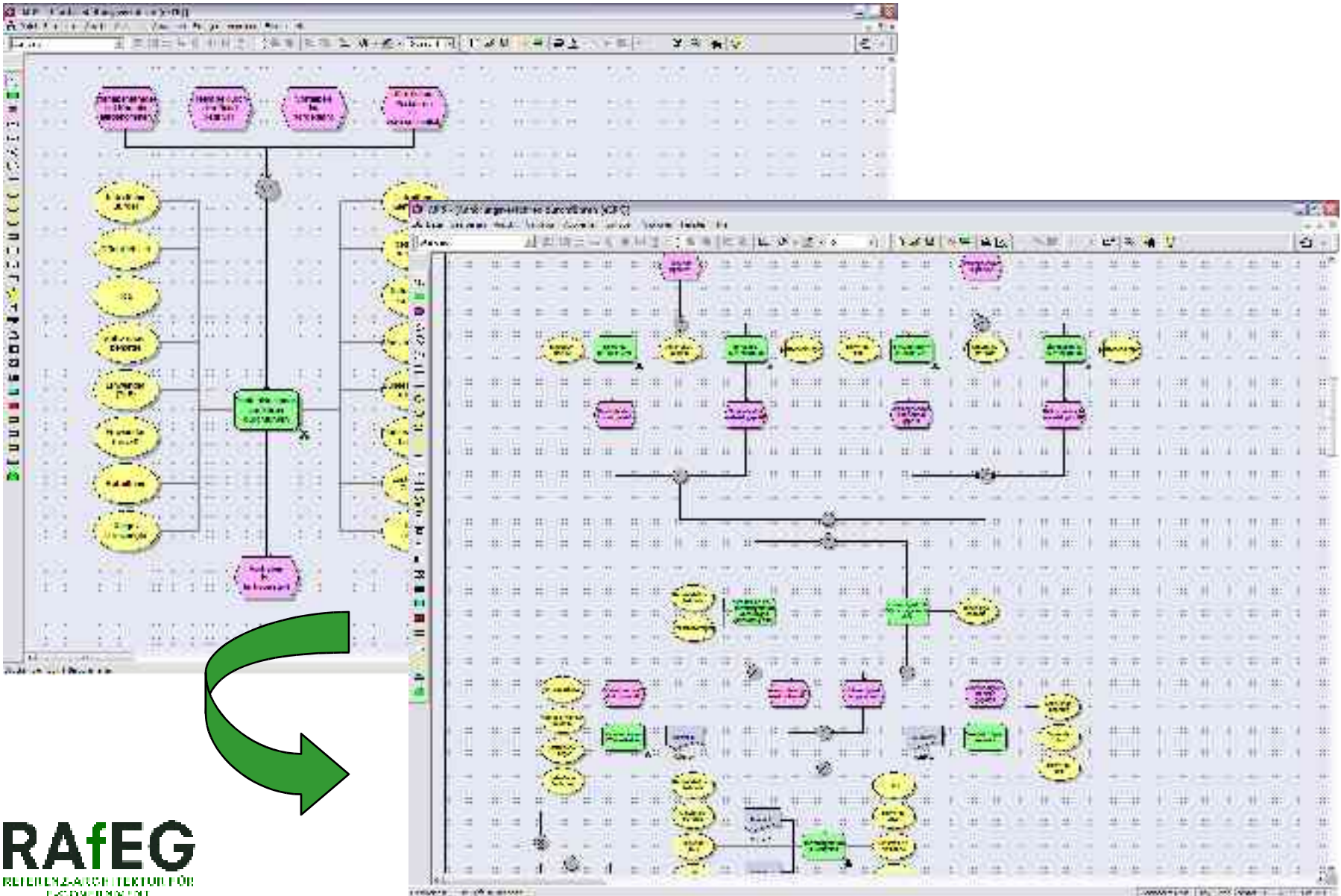
→ Get an overview of specific regulations affecting processes

## Development of initial, component-based process scenario

→ Serves as basis for real-life as-is evaluation

## „Real life“ evaluation and integration of collected data into the models

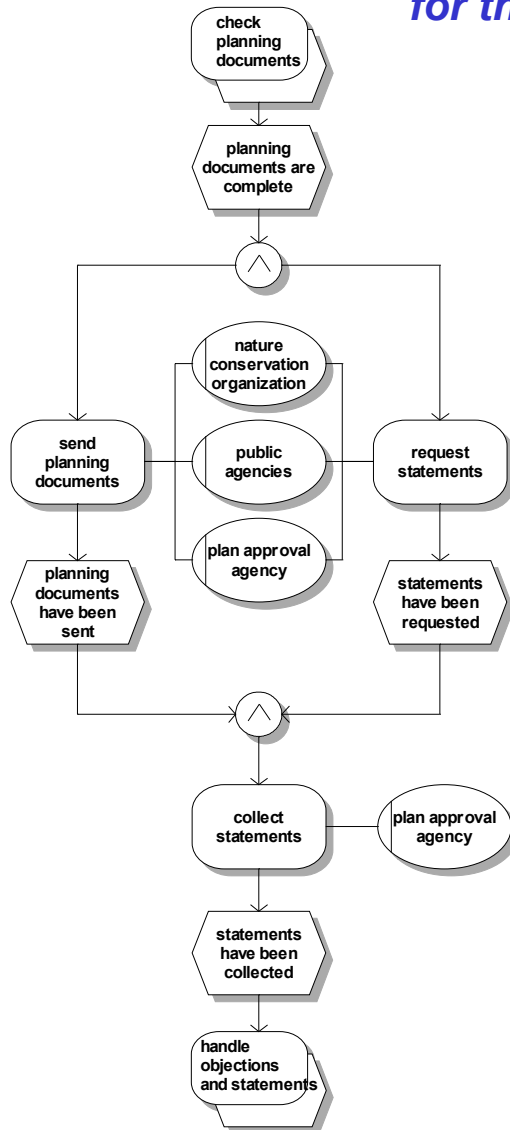
# Reference Model – „Plan Approval Procedure“



# Case Scenario – „Plan Approval Procedure“



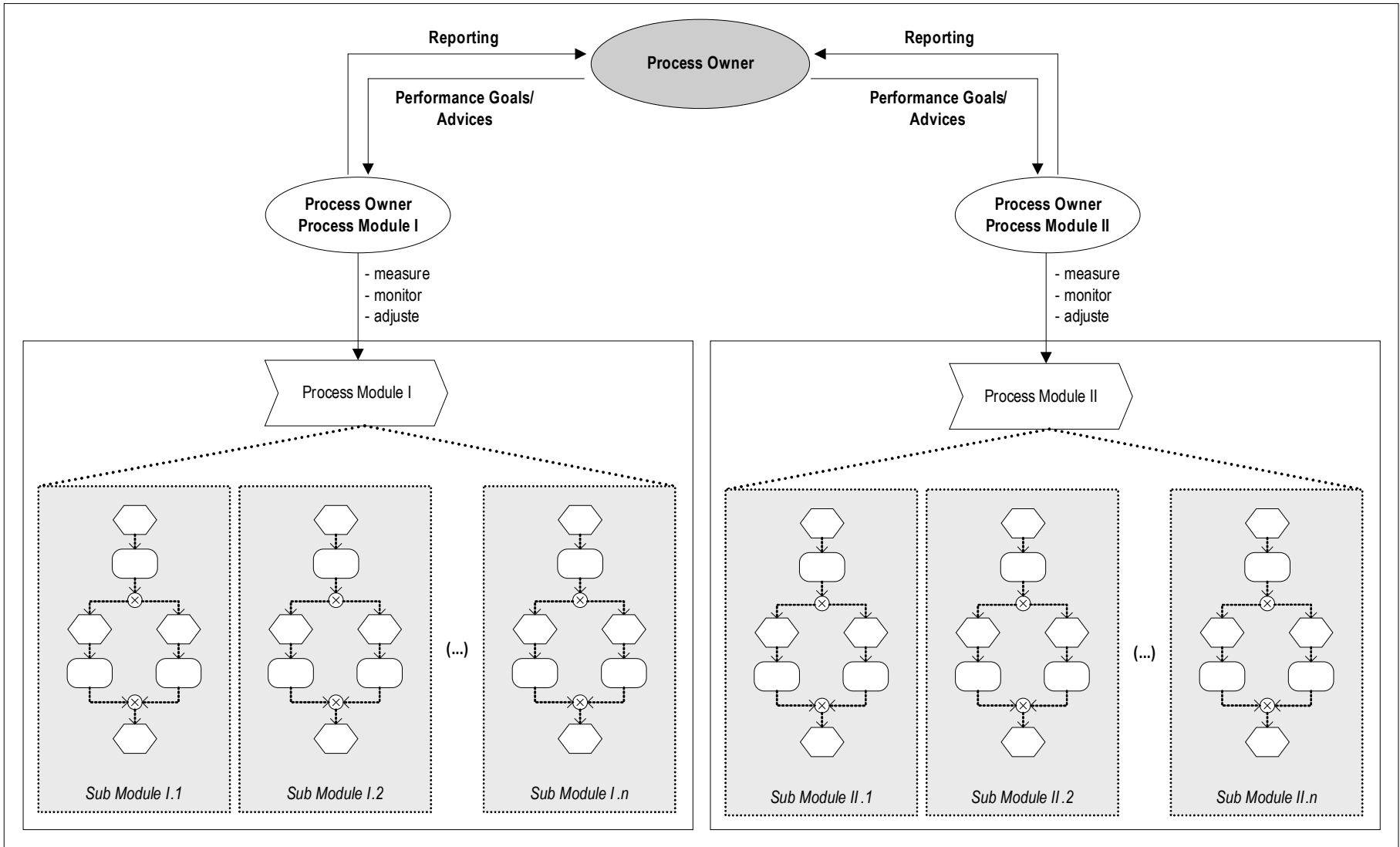
## Module „Gather Statements“ as an example for the development of the measurement scenario



- /// Stakeholders as e.g. nature conservation organizations + public agencies are invited to give their feedback based on planning documents
- /// Plan approval agency collects and stores the incoming statements as basis for subsequent negotiations on project modifications
- /// Collection and documentation of organization's declarations → module's outputs → input for the following module "handle objections and statements".



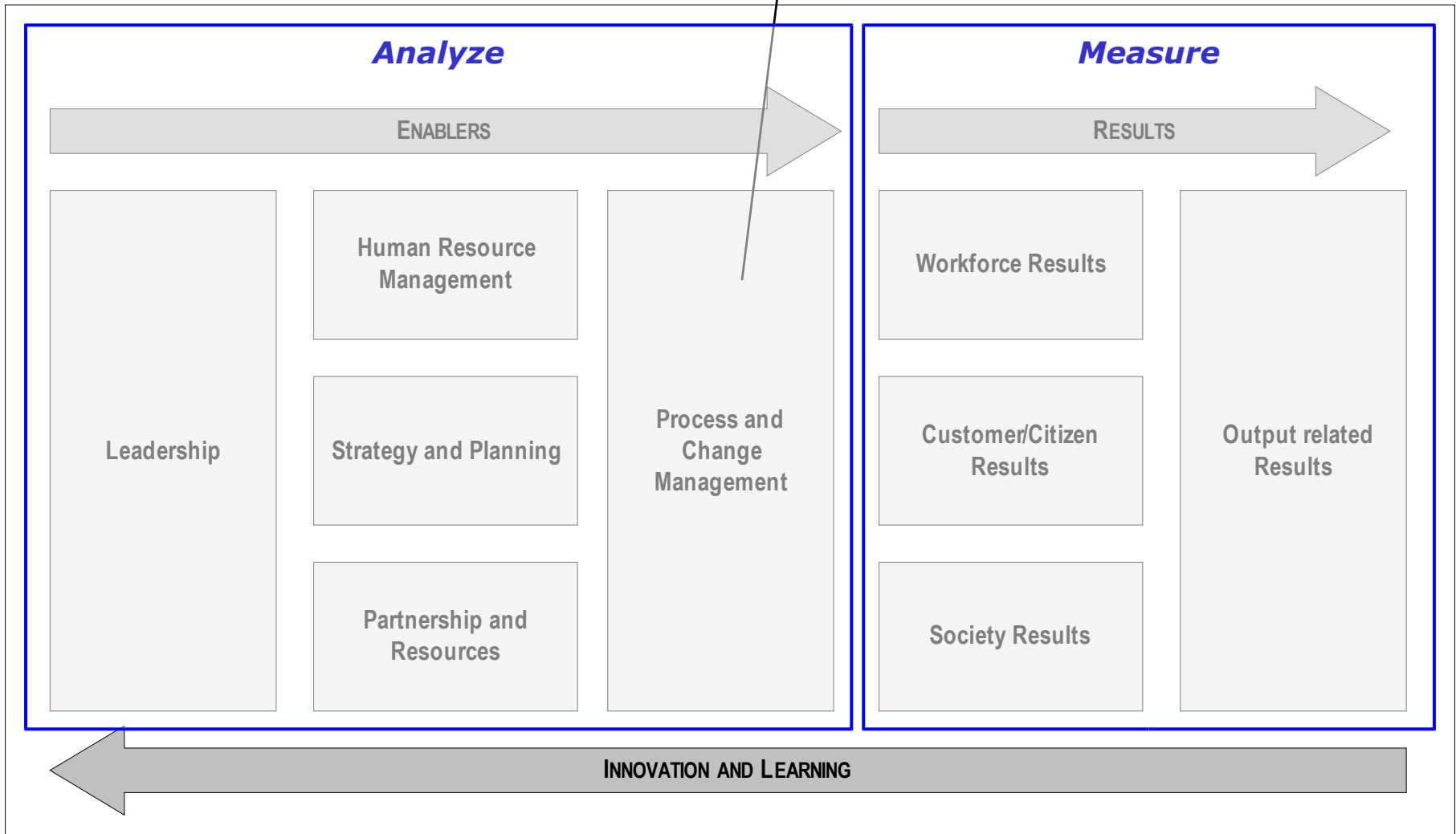
# Organizational structure of the PPM



# Controlling Level – Common Assessment Framework



dimensions / rating categories for quality evaluation



vgl. Deutsches CAF-Zentrum (2003): Common Assessment Framework (CAF) : Ein gemeinsames Europäisches Qualitätsbewertungssystem.

- /// Founded in 1996 by the German KGST, a public consulting agency for municipal administrations
- /// Initiation of 127 „benchmarking circles“ with participation of 651 municipal administrations
- /// IKO Net intends the set-up and implementation of „benchmarking circles“ as well as the development and improvement of performance measurement systems
- /// At the moment, 56 performance measurement systems dealing with 35 fields of activities are available
- /// Provision of inter-municipal benchmarks at the IKON-Database

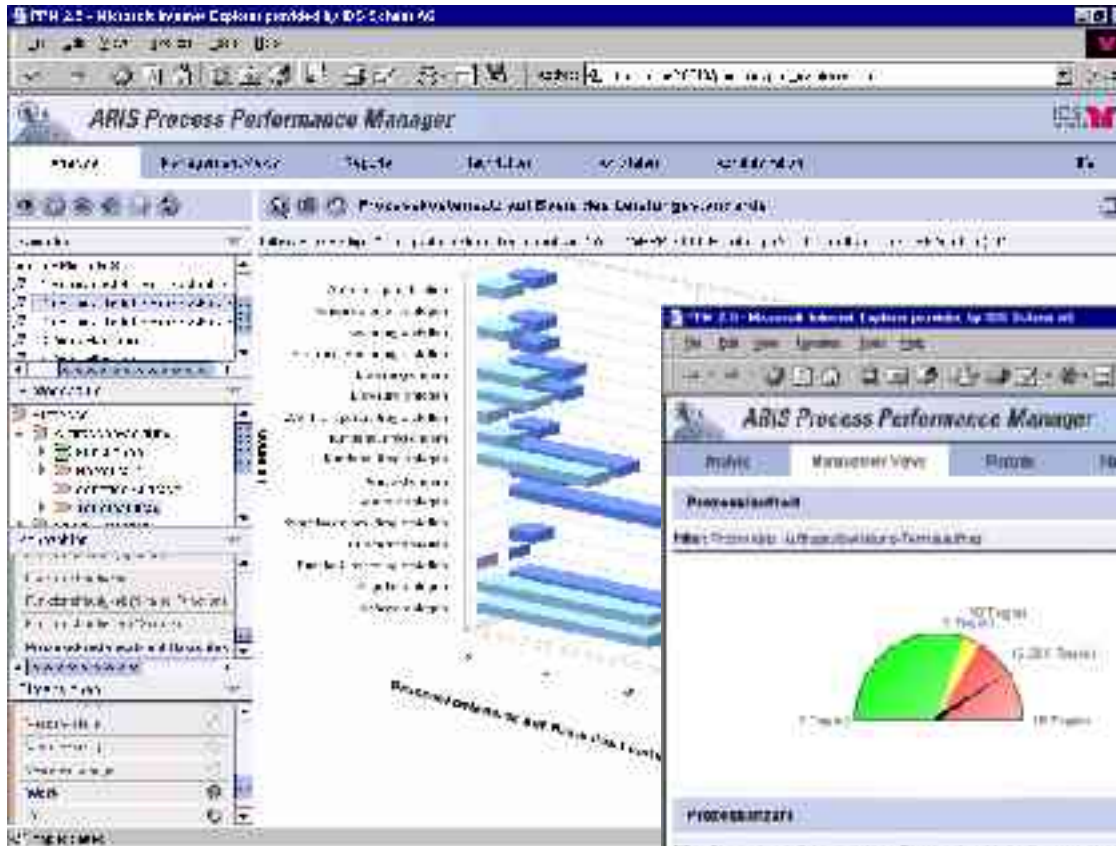
Rating Category	Evaluation Criteria	Addressed Targets
<b>Output related Results</b>	<ul style="list-style-type: none"> <li>▪ Cost effectiveness</li> <li>▪ Efficiency</li> <li>▪ Involvement of the internal stakeholders</li> <li>▪ Ability to satisfy the stakeholder's requirements</li> <li>▪ Budget fulfillment</li> <li>▪ Fulfillment of financial targets</li> <li>▪ Ability to satisfy the stakeholder's financial requirements</li> <li>▪ Effective use of resources</li> </ul>	<ul style="list-style-type: none"> <li>▪ Process costs</li> <li>▪ Cycle time</li> <li>▪ Process quality</li> <li>▪ Process quality</li> <li>▪ Process costs</li> <li>▪ Process costs, quality</li> <li>▪ Process quality</li> <li>▪ Process costs</li> </ul>
<b>Customer/Citizen Results</b>	<ul style="list-style-type: none"> <li>▪ Number of complaints</li> <li>▪ Cycle time of the complaint processing</li> <li>▪ Involvement of Stakeholders</li> <li>▪ Received and documented proposals</li> <li>▪ Customer Relationship Management</li> <li>▪ Number of returned files containing defects</li> </ul>	<ul style="list-style-type: none"> <li>▪ Process costs, quality</li> <li>▪ Cycle time</li> <li>▪ Cycle time</li> <li>▪ Process quality</li> <li>▪ Process quality</li> <li>▪ Process costs, quality</li> </ul>
<b>Workforce Results</b>	<ul style="list-style-type: none"> <li>▪ Number of sick leaves</li> <li>▪ Fluctuation rate</li> <li>▪ Productivity</li> </ul>	<ul style="list-style-type: none"> <li>▪ Cycle Time</li> <li>▪ Process quality</li> <li>▪ Cycle time; Process costs</li> </ul>
<b>Society Results</b>	<ul style="list-style-type: none"> <li>▪ Consideration of environmental aspects in decision processes</li> </ul>	<ul style="list-style-type: none"> <li>▪ Process quality</li> </ul>

# Case Scenario – Performance Indicators



Process Module	Output	Performance Indicator	Explanation	Unit	Measurement description		
					Measurement type (Data source)	Measurement frequency	Responsibility (Who)
		3.2.1 Total of sendouts	Number of planning documents sent to the residents	pcs.	Checksheet, system based	Per PA7, monthly	Dept. 4
		3.2.2 Number of defective units	Number of documents that contain a defect (initial defects or originating defective control unit) divided by the existing documents	pcs.	Checksheet	Per PA7, monthly	Unit 41
		3.2.3 Average cycle time	Period between the reception of the planning documents and their sendout compared to the total of sendouts	days	System based	Per PA8, monthly	Unit 41
		3.2.4 Number of corrections	Number of process cycles (re-work) that have to be performed to eliminate defects	pcs.	Checksheet, system based	Per PA7, monthly	Dept. 4
		3.2.5 Average correction time	Period between the approval of a control unit its elimination compared to the number of defective units	days/units	System based	Every 6 months; compared to all PA7	PA7
		3.2.6 Percentage of towers visited corr.	Process cost for towers, including staff and other resource cost compared to the total costs	%	System based	every 6 months; compared to all PA8	PA8
		3.2.7 Total access costs per unit	Costs per sent document	€	System based	Per PA7	Dept. 4
		3.2.8 Percentage of errors	Plan approval agency's errors caused by the control compared to the total errors	%	System based	Every 6 months; compared to all PA7	PA7

# Continuous Monitoring



## /// Development of

- /// Process Performance Indicators and
- /// Measurement Scenarios

➔ Performance Measurement for E-Government Processes

## /// RAFEG Project still in progress

- /// First as-is measurements realized in PA
- /// Prototype for the execution of the Plan Approval Procedure
- /// Professional tool for PPM



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# Backup

# Execution - Plan Approval Procedure

