Business Process Management -
the first step towards a successful E-Government

Prof. Dr. Dr. h.c. mult. August-Wilhelm Scheer
Institute for Information Systems (IWi) at DFKI, Saarbrücken
IDS Scheer AG
Agenda

- E-Government: from information to transaction
  - Learning from E-Business
  - Vision and Status Quo of E-Government

- Business Process Excellence for E-Government
  - Approach to process management
  - Business Process Design
  - Business Process Implementation
  - Business Process Controlling

- Benefits of process-oriented E-Government-Solutions
E-Government: from information to transaction
E-business and E-Government: Learning from industry

The trend of organization-wide collaboration in industry will also be transferred to the public sector.

1985
Functional Organization: “walls between departments”

1995
Process-oriented organization / business processes

1999
Process-specific networks: “walls between companies”

2000 onwards
Process-oriented Communities: “E-Business Engineering”
Current Topics in Public Sector

New Public Management
ERP-Standard Software
E-Government
Human Resources

Change Management
Business Process Management
Benchmarking / Best Practice
Public Private Partnership
Facility Management
Public sector institutions on their way to E-Government

![Diagram showing the evolution of process integration and service efficiency]

- **Interaction**
- **Communication**
- **Information**
- **Transaction**

Level of process integration

Efficiency and quality of services

- High
- Low

---

© Prof. Dr. Dr. h.c. mult. A.-W. Scheer

Business Process Management - the first step towards a successful E-Government
Survey on E-Government in Germany

- **Goal:** To verify the process orientation within German administrations on the federal as well on the state level.
- The field research aimed at the most important authorities on both levels:

![Diagram showing the field research structure]

- **Total amount:** 81
- **Return on the federal level:** 31 (48%)
- **Return on the state level:** 14 (88%)
E-Government: Goals

E-Government: Services offered via the Internet

- 61% up to 20% offered
- 17% up to 39% offered
- 11% up to 59% offered
- 6% up to 79% offered
- 6% at least 80% offered
- 0% the whole portfolio is offered

E-Government: Realization in Germany

Status Quo:

- Most E-Government-solutions are technology-driven, without the higher integration levels being realized, especially the level of transaction

- **But:** The main potential resources of improvement are located at the transaction level

E-Government: gap between vision and reality

Necessity to increase process integration of E-Government scenarios!!

Current Situation

Vision of E-Government

Efficiency and quality of services

Level of process integration

High

Low

High

Transaction

Interaction

Communication

Information
Vision of E-Government

High quality and efficiency of E-Government services demands consequent management of the relevant administrative processes.
There is a need for an E-Government framework combining strategy, processes and technology.
Business Process Excellence for E-Government
Business Process Management supports the whole life cycle of E-Government processes from process design and implementation to continuous improvement.
Business Process Excellence: ARIS
Formula one: optimized business processes
Example: staff administration at the educational sector

- **The scope:** administrative proceedings related to the administration of a school’s workforce (e.g. the handling of the teacher’s requests for relocation)

- **The challenge:** Coordination of the inter-organizational administrative processes spread on distributed locations:

```
- School
- Supervisory school authority
- Ministry for education, arts and sciences (MBKW)
```
Example: staff administration at the educational sector

The diagram illustrates the process of a staff administration proposal. The process involves several stages:

1. Proposal
   - Teacher
   - Time taken to process: 5-10 mins
   - Waiting and transporting time: 2 days

2. Comments
   - Head-teacher
   - Time taken to process: 30 mins
   - Waiting and transporting time: 1 week

3. Comments
   - Teachers' board
   - Time taken to process: 30 mins
   - Waiting and transporting time: 1 week

4. In-box
   - Mail room MBKW
   - Time taken to process: 1 min
   - Waiting and transporting time: 1 min

Total time taken to process: 70 mins
Waiting and transporting time: 14 days

Example: staff administration at the educational sector
Example: staff administration at the educational sector

- **Internal mail**
  - Mailroom MBKW

- **Comments**
  - Head of department

- **Comments**
  - Head of division

- **Start of the process**
  - Supervisor

**Time taken to process:** 35 mins
**Waiting and transporting time:** approx. 2 days
**In total:** 105 mins
**In total:** 16 days
Benefits of process re-engineering

**Current situation**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Processing Time</th>
<th>Waiting Time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10 mins</td>
<td>2 days</td>
</tr>
<tr>
<td></td>
<td>30 mins</td>
<td>1 week</td>
</tr>
<tr>
<td></td>
<td>30 mins</td>
<td>1 week</td>
</tr>
<tr>
<td></td>
<td>1 min</td>
<td>1 day</td>
</tr>
<tr>
<td></td>
<td>2 mins</td>
<td>2 days</td>
</tr>
<tr>
<td></td>
<td>30 mins</td>
<td>2 days</td>
</tr>
<tr>
<td></td>
<td>10 mins</td>
<td>1 week</td>
</tr>
<tr>
<td></td>
<td>2 mins</td>
<td></td>
</tr>
</tbody>
</table>

**E-Government scenario with optimised business processes**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Processing Time</th>
<th>Waiting Time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>30 mins</td>
<td>1 week</td>
</tr>
<tr>
<td></td>
<td>10 mins</td>
<td>5 days</td>
</tr>
</tbody>
</table>

**Results:**
- reduction of cycle times
- reduction of costs
- higher quality of information
Content of an ARIS Process

- **Information Carrier**
  - Customer inquiry
  - Open customer inquiry
  - Create customer offer

- **Data Objects**
  - Product data
  - Customer specific configuration

- **Knowledge Objects**
  - Language knowledge
  - Customer contracts

- **OLE Objects**
  - Offer to send
  - Need for follow-up

- **Organizational Unit**
  - Sales
  - Sales Manager: Mr. Eggerton

- **Application**
  - Siebel CRM

- **Event**
  - Customer inquiry to be created

- **Activity**
  - Configure product
  - Create customer offer

- **Rule**
  - Need for follow-up

- **Position**
  - Person

- **Data Objects**
  - Price list.doc
Business Process Analysis / Modelling Market

As of 4/01

Source: Gartner Research
Business Intelligence - Driving Skills and Telemetry data
Process Performance Management

ARIS Process Performance Manager

Prozesslaufzeit
4. Quartal 01
Filter: ProzessTyp: Auftragsabwicklung-Terminauftrag

Prozesslaufzeit
2001
Filter: ProzessTyp: Auftragsabwicklung-Terminauftrag...

Prozessanzahl
2001
Filter: ProzessTyp: Auftragsabwicklung-Terminauftrag, Verkaufsorganisation: Deutschland

Prozessanzahl
Jan 01

© Prof. Dr. Dr. h.c. mult. A.-W. Scheer
Benefits of a process-oriented E-Government-Approach
Benefits of a process-oriented E-Government Approach

Process Modelling as a sound basis for the successful implementation of E-Government solutions

Transparency of relevant administrative processes

Communication platform within E-Government Projects

Infinite optimization of E-Government Processes

Re-usability of results / knowledge database

© Prof. Dr. Dr. h.c. mult. A.-W. Scheer
Business Process Management - the first step towards a successful E-Government