Enterprise Governance of IT

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Agenda

- Enterprise Governance of IT
  - Enterprise Governance of IT practices
  - Enterprise Governance of IT as enabler for business / IT alignment
  - Enterprise Governance of IT as enabler for business value
  - KLM EGIT case


"Firms with superior IT governance have at least 20% higher profits...than firms with poor governance given the same strategic objectives."

( Louis Boyle, VP Gartner EXP, 2006)
IT governance definitions

IT governance is the organizational capacity exercised by the board, executive management and IT management to control the formulation and implementation of IT strategy and in this way ensuring the fusion of business and IT.
*(Van Grembergen, 2002)*

IT governance is the responsibility of the board of directors and executive management. It is an integral part of enterprise governance and consists of the leadership and organizational structures and processes that ensure that the organization’s IT sustains and extends the organization’s strategies and objectives.
*(IT Governance Institute, 2001)*
Enterprise governance of IT (EGIT) is an integral part of enterprise governance exercised by the Board overseeing the definition and implementation of processes, structures and relational mechanisms in the organisation enabling both business and IT people to execute their responsibilities in support of business/IT alignment and the creation of business value from IT-enabled business investments.

(Van Grembergen & De Haes, 2009)
• Enterprise Governance of IT

• Enterprise Governance of IT practices

• Enterprise Governance of IT as enabler for business / IT alignment

• Enterprise Governance of IT as enabler for business value

• KLM EGIT case
Implementation of EGIT in practice

Requires:

A holistic set of

- Governance Processes
- Structures
- Relational Mechanisms

at all 3 layers of the organization.
“a list of 33 EGIT practices based on delphi research”

<table>
<thead>
<tr>
<th>Index</th>
<th>IT Governance Practice</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1</td>
<td>IT strategy committee at level of board of directors</td>
<td>Committee at level of board of directors to ensure IT is a regular agenda item and reporting issue for the board of directors</td>
</tr>
<tr>
<td>S2</td>
<td>IT expertise at level of board of directors</td>
<td>Members of the board of directors have expertise and experience regarding the value and risk of IT</td>
</tr>
<tr>
<td>S3</td>
<td>(IT) audit committee at level of board of directors</td>
<td>Independent committee at level of board of directors overseeing (IT) assurance activities</td>
</tr>
<tr>
<td>S4</td>
<td>CIO on executive committee</td>
<td>CIO is a full member of the executive committee</td>
</tr>
<tr>
<td>S5</td>
<td>CIO (Chief Information Officer) reporting to CEO (Chief Executive Officer)</td>
<td>CIO has a direct reporting line to the CEO and/or COO (Chief Operating Officer)</td>
</tr>
<tr>
<td>S6</td>
<td>IT steering committee (IT investment evaluation / prioritization at executive management level)</td>
<td>Steering committee at executive or senior management level responsible for determining business priorities in IT investments</td>
</tr>
<tr>
<td>S7</td>
<td>IT governance function / officer</td>
<td>Function in the organization responsible for promoting, driving and managing IT governance processes</td>
</tr>
<tr>
<td>S8</td>
<td>Security / compliance / risk officer</td>
<td>Function responsible for security, compliance and/or risk, which possibly impacts IT</td>
</tr>
<tr>
<td>S9</td>
<td>IT project steering committee</td>
<td>Steering committee composed of business and IT people focusing on prioritizing and managing IT projects</td>
</tr>
<tr>
<td>S10</td>
<td>IT security steering committee</td>
<td>Steering committee composed of business and IT people focusing on IT-related risks and security issues</td>
</tr>
<tr>
<td>S11</td>
<td>Architecture steering committee</td>
<td>Committee composed of business and IT people providing architecture guidelines and advice on their requirements</td>
</tr>
<tr>
<td>S12</td>
<td>Integration of governance/alignment tasks in roles/responsibilities</td>
<td>Documented roles/responsibilities include governance/alignment tasks for business and IT people (cf. Weiss)</td>
</tr>
</tbody>
</table>

12 structures

| P1    | Strategic Information Systems planning | Process in outline and scope of IT strategy |
| P2    | IT performance measurement (e.g. IT balanced scorecard) | IT performance measurement in domains of: corporate reputation, user orientation, operational excellence and future orientation |
| P3    | Portfolio management (incl. business cases, information economics, ROI, payback) | Prioritization process for IT investments and projects in which business and IT is involved (incl. business cases) |
| P4    | Charge-back arrangements - total cost of ownership (e.g. activity based costing) | Methodology to charge back IT costs to business units, to enable an understanding of the total cost of ownership |
| P5    | Service level agreements | Formal agreements between business and IT about IT development projects and covering performance and control framework |
| P6    | IT governance framework: COBIT | Regular self-assessments or independent assurance activity on the governance and control over IT |
| P7    | IT governance assurance and self-assessment | Processes and methodologies to govern and manage IT projects |
| P8    | Project governance / management methodologies | Processes to control and report upon budgets of IT investments and projects |
| P9    | IT budget control and reporting | Processes to monitor the planned business benefits during and after implementation of the IT investments / projects |
| P10   | Benefits management and reporting | Framework for internal controls |

11 processes

| R1    | Education | IT staff working in the business units and business people working in IT |
| R2    | Coaches | Personally linking business and IT people close to each other |
| R3    | Coaching | Training business people about IT and IT people about business |
| R4    | Knowledge management (on IT governance) | Systems (intranet, …) to share and distribute knowledge about IT governance frameworks, responsibilities, tasks, etc. |
| R5    | Business/IT account management | Bridging the gap between business and IT by means of account managers who act as in-between |
| R6    | Executive / senior management role (e.g. CIO) / partners | Informal meetings, with no agenda, where business and IT senior management discuss general activities, directions, etc. (e.g. during informal lunches) |
| R7    | IT leadership | Ability of CIO or similar role to articulate a vision for IT’s role in the company and ensure that this vision is clearly understood by managers throughout the organization |
| R8    | Corporate internal communication addressing IT on a regular basis | Internal corporate communication regularly addresses general IT issues |
| R9    | Corporate IT governance awareness campaigns | Campaigns to explain to business and IT people the need for IT governance |
| R10   | IT assurance campaigns | Campaigns to explain to business and IT people the need for IT governance |
Perceived effectiveness of IT governance practices

**IT Steering Committee**
- CIO Reporting to the CEO
- CIO on Executive Committee
- IT Budget Control and Reporting
- Portfolio Management

**IT performance Management**
- Executive / senior management giving the good example
- Strategic information systems planning
- Informal meetings between business and IT executive/senior management
- Business/IT account management
- IT strategy committee at level of board of directors
- Service level agreements
- Corporate internal communication addressing IT on a regular basis

**IT Governance Framework COBIT**
- Charge back arrangements - total cost of ownership (e.g. activity based costing)
- Security / compliance / risk officer
- Knowledge management (on IT governance)
- Integration of governance/alignment tasks in roles & responsibilities
- (IT) audit committee at level of board of directors
- IT expertise at level of board of directors
- Architecture steering committee
- IT governance function / officer

**Benefits management and reporting**
- IT governance awareness campaigns
- IT security steering committee
- Cross-training
- Co-location
- IT governance assurance and self-assessment
- Job-rotation
- COSO / ERM

0 = not effective, 5 = very effective
Perceived ease of implementation of IT governance practices

0 = not easy to implement,
5 = very easy to implement
Key minimum baseline IT governance practices

IT governance practices that are highly effective but difficult to implement

IT governance practices that are highly effective and easy to implement

IT governance practices whose value is challenged

High

Ease of implementation

Low

Difficult to implement

Easy to implement

Effectiveness

- IT steering committee
- IT project steering committee
- Having the CIO reporting to the CEO
- Project management methodologies
- Portfolio management
- IT budget control and reporting
- IT leadership

Effectiveness

- IT strategy committee at level of board of directors
- IT expertise at level of board of directors
- IT steering committee at level of board of directors
- IT functions reporting to CEO (Chief Executive Officer) and/or COO (Chief Operating Officer)
- IT governance function / officer
- IT security steering committee
- Strategic information systems planning
- Service level agreements
- Corporate internal communication addressing IT on a regular basis
- IT governance awareness campaigns
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Luftman assessment of business/IT alignment maturity

• Validated instrument
• Used in many studies to assess business/IT alignment
• 6 attributes
  - Communications maturity
  - Competency/value measurements maturity
  - Governance maturity
  - Partnership maturity
  - Scope & architecture maturity
  - Skills maturity
Example questions
(partnership maturity)

**IT is perceived by the business as:**
1. A cost of doing business
2. Emerging as an asset
3. A fundamental enabler of future business activity
4. A fundamental driver of future business activity
5. A partner for the business that co-adapts/improvises in bringing value to the firm
6. N/A or don’t know

**The following statements are about the IT and business relationship and trust.**
1. There is a sense of conflict and mistrust between IT and the business.
2. The association is primarily an “arm’s length” transactional style of relationship.
3. IT is emerging as a valued service provider.
4. The association is primarily a long-term partnership style of relationship.
5. The association is a long-term partnership and valued service provider.
6. N/A or don’t know

**The following statements are about the cultural locus of power in making IT-based decisions. Our important IT decisions are made by:**
1. Top business management or IT management at the corporate level only
2. Top business or IT management at corporate level with emerging functional unit level influence
3. Top business management at corporate and functional unit levels, with emerging shared influence from IT management
4. Top management (business and IT) across the organization and emerging influence from our business partners/alliances.
5. Top management across the organization with equal influence from our business partners/alliances.
6. N/A or don’t know
The relationship between EGIT and business/IT alignment

Business/IT alignment maturity

Maturity of IT governance practices
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From enterprise governance of IT to business value

Enterprise governance of IT enables Business / IT alignment, which enables Business value from IT investments.
Why is alignment important to an organization’s success?

- Research from Chan and Bergeron: impact of alignment on business performance is higher than impact of business strategy or IT strategy

- Productivity paradox (Brynjolfson)
COBIT, VALIT and Business Value

COBIT and Val IT Processes

IT and Business Governance Practices

COBIT Processes measured by Processes implementation status

Val IT processes measured by Processes implementation status

IT Goals

Technical Capability measured by IT Goals achievement status

Operational Capability measured by IT Goals achievement status

IT related Business capability measured by IT goals achievement status

Business Goals

Business Outcome Measured by Business Goals achievement status
Implementation status COBIT and VALIT

- Operational oriented processes (AI and DS) are better implemented than planning (PO) monitoring (ME) processes.
- COBIT processes are better implemented than Val IT processes.
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• KLM EGIT case
• The airline company KLM was founded in 1919

• KLM currently employs over 33,000 people worldwide, and manages a fleet of about 200 aircraft.

• In 2004, KLM merged with Air France

• Air France - KLM is the world's largest airline group, transports the most passengers and is the world's second-largest cargo transporter. In 2009, Air France - KLM operated flights to 255 destinations in 115 countries on four continents.
• This case focuses on the KLM activities within the Air France-KLM group.

• 6 business units: Commercial, In-flight Services, Passengers Operations, Ground Services, Cargo, Engineering & Maintenance

• In 2009/2010, KLM IT employed close to 1,000 (internal and external) FTEs, with an IT budget of around 300 million euro.

• The mission of the IT department is to ‘create business value by delivering reliable IT services to the business processes, and innovative IT solutions to enable and support business changes’.
  - IT is a world class Information Services provider and will be able to deliver the best value to the company;
  - The IT cost-levels will be at a competitive industry level;
  - The IT architecture and infrastructure will enable the growth ambitions of Air France-KLM.
• In 2001:
  - discontent due to a lack of trust in what was perceived as a very costly and unresponsive IT department.
  - business climate that was increasingly challenging, and which became dramatically more so after the 9/11 terrorist attacks.

• After 9/11, KLM’s CEO seized the opportunity to make a structural break with the past, and re-examine and transform KLM’s business and IT governance. The Executive Vice-President (EVP) of the Operations Control Centre was appointed as new CIO. The newly appointed CIO received three clear priorities:
  - provide the reasons why, or why not, to outsource IT;
  - create a business/IT board to organize joint success; and
  - design simple governance principles to restore control enabling steering by the Executive Vice-Presidents (EVPs) and the CIO.

• In order to respond to these requirements, the CIO-Office was established
Collaborative Effort Project (1)

• Establishing a CIO Office consolidating already existing, loosely coupled and different functions
• First draft of governance principles and practices mainly driven by the CIO office
  - refined with the business parties and shared in the whole organisation through intranet
  - still challenged but each time in the end reconfirmed
• Establishing a business/IT board composed of the CEO, CIO and the business unit EVPs
  - meeting every two months
  - discussing and decide on IT strategic issues
Collaborative Effort Project (2)

- **Setting principles to simplify IT governance**
  - starting premise: business is in full control of IT demand and IT spend
  - a demand management function for each business domain
  - creation of portfolio management processes driven by business demand with an innovative approach to evaluation and selection
  - “the only way of working” between IT & Business

- **Defining guidelines for decisions on what and how to potentially outsource**
  - both IT operations and development should be mainly sourced outside
Governance principles and practices

1. For the business there should be no difference between working with an internal or external IT-provider.

2. Differentiate between WHAT and HOW (and WHY).

3. Improve the Demand-function by creating a Business Demand Office per business domain.

4. Improve the Supply function by creating an Innovation Organizer and a Service Manager per business domain.

5. Create monthly decision meetings of What and How (management and IT).

6. Focus on the cost that can be influenced in full and those that can be influenced in part: Split between Innovation and Continuity.

7. Each Innovation (investment) has one business owner to which all cost are charged.

8. Each Service (Continuity) has one business owner to which all cost are charged.

9. Top-down budget framework and simplified budget process.

10. Activity-Based Costing applied to process primary cost to product cost.
No difference in dealing with an internal or external IT provider

Guidelines for allocating work in-house for customized development or for standardized solutions (the Surfboard Principle)

- generic business processes with no competitive advantage will be supported by off-the-shelf applications
- business processes which have potential to create competitive advantage will be supported by in-house custom-built applications
Provide the reasons why to outsource

Stay on the Surfboard Principle
• Definition of a clear split between Demand and Supply
  - IT demand came in through 14 Information Management committees and informal channels
  - it could be that similar investment requests were initiated from different business lines
  - some of the Information Management groups also managed their separate development team
• Demand for investments and innovation now channelled via BUSINESS DEMAND OFFICERS of the 6 business domains
  - BDOs formally positioned in the business domain
  - BDOs close contact with their EVPs and a reporting line to the CIO
• INNOVATION ORGANIZERS are the dedicated counterpart or mirror role on the IT supply side responsible for all HOW-activities
#6: INNOVATION/CONTINUITY (1)

- Innovation cost is fully influenced by the business
  - includes all manpower and 3rd parties project costs to build new IT services and functional enhancements
  - BDOs register the innovation work on the basis of which the INNOVATION ORGANISER coordinates the development

- Continuity budget
  - includes IT services, desktops and data communication
  - managed by the EXPLOITATION MANAGER on the business side together with the BUSINESS SERVICE MANAGER (IT side)
Governance principles and practices

Mirror Roles between Business and IT
• Split between innovation (programme) portfolio and the continuity (service) portfolio is internally explained by the “bicycle”.

• Business/IT strategy drives the governance and the business cases

• Approved business cases are managed in the programme (innovation cycle) and become operational services deployed in the service (continuity) portfolio
Governance principles and practices

The Innovation-Continuity Bicycle
Demand management for the IT function
- infrastructure investments have traditionally been difficult to justify
- an IT BDO analyses future needs and capacity based on the incoming business cases of the businesses
- e.g. migration to virtualisation is motivated by lower business service costs
- e.g. for migration of operating systems a business case is built on risk avoidance and cost of future operational support
• Previous charging process was complex
  - IT perceived as a black box because too many technical cost components being charged to too many cost account centers

• Simplification: now 7 products with associated costs (2 for innovation and 5 for continuity) are charged to 12 business owners

• Transparency through a cost portal driven by activity based costing principles
PORTFOLIO/INVESTMENT

- **Ideas** captured by the BDOs are turned into initiatives with high-level business cases
- Approved **initiatives** become **programmes** for which full business cases are developed
- Use of a business case template is mandatory
- Decision thresholds for ideas, initiatives, programmes
  - 150K - : Business unit (BDO)
  - 500K - : Business Investment Committee (BIC)
  - 5000K - : Executive Committee (EC)
- Portfolio management optimization resulting in selected programmes
- Release of the funding for the programmes by the BDO, BIC or EC (gives the final authority and decision back to the business executives)
- Realisation: architecture, design, construction, user acceptance testing and implementation
Three approval steps:
1. Approval 1: Business ideas selection
2. Approval 2: Programme Go
3. Approval 3: Investment approval

Three decision thresholds:
- > 5M€: Business = 3, BIC = 2, EC = 1
- > 500 k€: Business = 3, BIC = 2, EC = 1
- > 150 k€: Business = 3, BIC = 2, EC = 1
PRIORITISATION

- Business drivers of the business units are captured by the CIO Office through interviews with business unit executives.
- Business drivers are ranked in terms of relative importance ranging from “extremely less” toward “extremely high”.
- For each investment proposal the contribution to each of the business drivers is determined ranging from “low” to “extreme”.
- Result: initial portfolio containing a ranked list of all investment proposals at business unit level.
- A “process” of informal discussions between the BDOs leads to the final portfolio.
- Business/IT board endorses the outcome of the portfolio process.
Definition of the Business Drivers for Passenger Operations
Reported Benefits

- lower IT continuity cost per business production unit;
  (total number of seats and cargo capacity multiplied by the total number of kilometers flown by the airline fleet)

- increased capacity for innovation
  (because of relative stable IT continuity budget)
More information

- **IT Alignment and Governance Research Institute**
  - www.antwerpmanagementschool.be/ITAG

- **Email**
  - wim.vangrembergen@ua.ac.be

- **Books & Publications**
  - Van Grembergen W., De Haes S., Enterprise Governance of IT: achieving strategic alignment and value, 360p., Springer, 2009
  - International Journal on IT/Business Alignment and Governance (IJITBAG)
    - www.igi-global.com/IJITBAG

- **Executive education**
  - Executive Master in IT Governance & Assurance
  - Executive Master in Enterprise IT Architecture