

IRM as a basis for long range planning and systems coordination

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Purpose: The intention is to describe an approach used at Philips Elektronikindustrier to combine the IRM-study with long range planning of Administration Development

Summary: Presentation and discussion of methods for systems coordination and planning of AD, based on an information- and system-structure study carried out in 1986. This study has been the basis for long range planning and development of databases and applications.

Contents:

1. Information and system structure study
 - background
 - methodology
 - implementation
 - results
2. Administration Development Plan
3. Project initialization and planning
4. Findings

BACKGROUND

* REQUIREMENTS FOR FLEXIBILITY

- knowledge of business objects and their relations
- knowledge of external factors and effects
- flexible information systems
- models and support for simulating and prognoses

* IRREGULAR AND BADLY COORDINATED ADMINISTRATION DEVELOPMENT

* TASK DISTRIBUTION AND SYSTEMS INTERFACE PROBLEMS

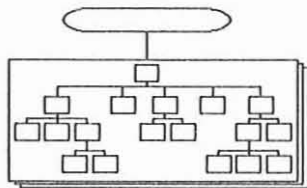
* INFORMATION AND SYSTEMS STRUCTURE

- lack of common concepts
- bad system structure ("bridges", "islands" etc)
- redundancy in information storage and processing
- difficulties to find stored info and to determine quality of information as well as responsible persons.

METHODOLOGY

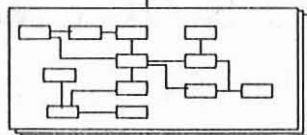
Flexibility
 Confusion of concepts Responsibility for data ?
 System data dictionary ? Quality of information ?
 Interfaceproblems
 What kind of systems do we need to develop ?

ENTERPRISE MODELLING



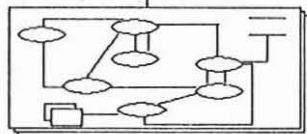
DECOMPOSITION DIAGRAMS

Business objects as subject areas, functions, goal, critical success factors, organization, data processing applications etc.



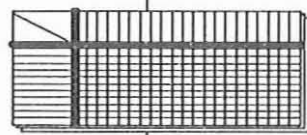
ENTITY – RELATIONSHIP MODELS

An overview map of the data needed to run the enterprise



DATA FLOW DIAGRAMS

Data flow between subject areas, functions

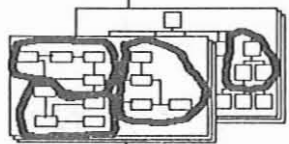


INFORMATION PROCESSING MATRICES

Matrices showing relations between data and business functions, data processing appl. etc.

ANALYSIS

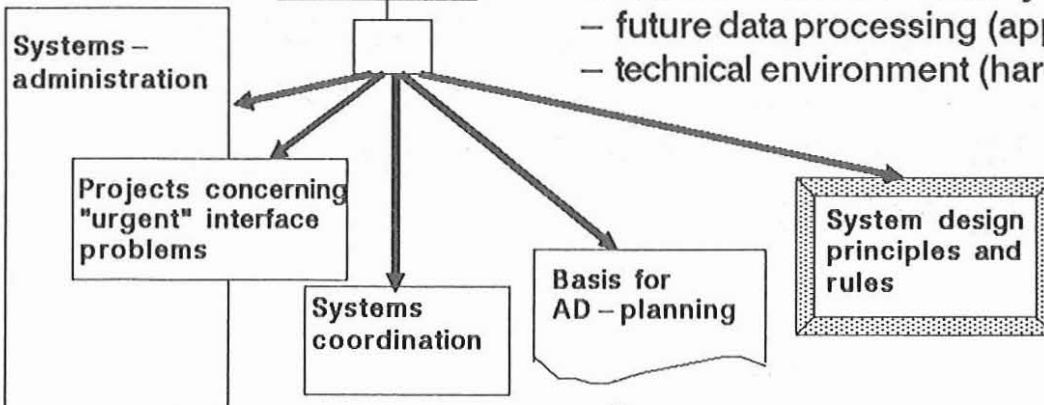
Analysis of information and system structure, DP applications etc.



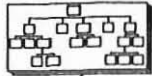
INFORMATION AND SYSTEM ARCHITECTURE

Description of changes and recommendations for measures needed for each system area

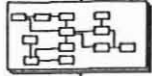
- future data processing (appl. and databases)
- technical environment (hardware, communic.)



ENTERPRISE MODELLING



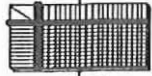
DECOMPOSITION
DIAGRAMS



ENTITY-RELATIONSHIP
MODELS



DATA FLOW DIAGRAMS



INFORMATION
PROCESSING MATRICES

ANALYSIS OF
THE ENTERPRISE

IMPLEMENTATION

■ **BASED UPON THE PRINCIPLES OF IRM, ie THE INFORMATION IS REGARDED AS A COMMON AND ESSENTIAL RESOURCE IN THE BUSINESS ACTIVITY.**

- **A DATA – DRIVEN DEVELOPMENT PLAN DERIVES FROM 2 PRINCIPLES:**
- **START ON A STABLE PLATFORM**
 - **THE INFORMATION REQUIREMENTS, PROCEDURES AND THE ORGANIZATION STRUCTURES CHANGE MORE OFTEN THAN THE DATA STRUCTURES OF THE THE ENTERPRISE**

IMPLEMENTATION

*** THIS WAS REALIZED AS A SEPARATE PROJECT DURING 5 MONTHS**

○ **Steeringgroup: AD – policyboard**

Project group: 2 pers.

○ **Reference group: 11 persons, top and middle management**

Representing all business areas and with a good knowledge of current business

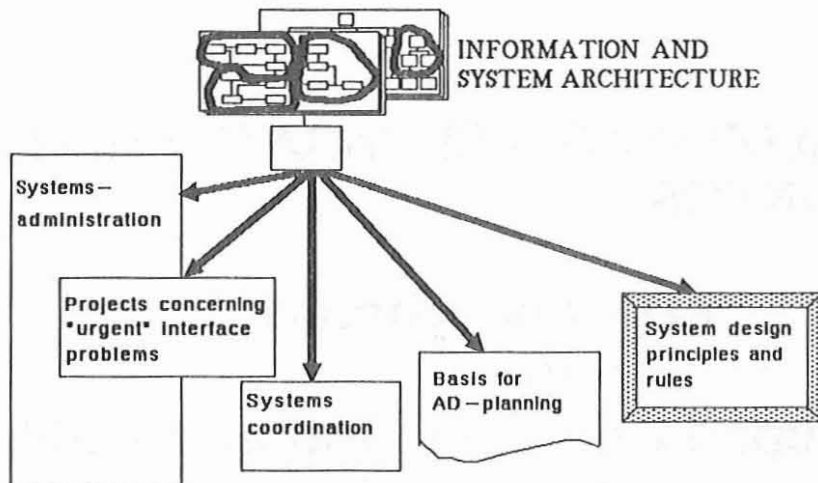
Working sessions completed and backed – up "at home"

○ *** FOCUSING ON "PRIMARY" AREAS SUCH AS MARKETING/SELLING, DEVELOPMENT, PRODUCTION, DISTRIBUTION, CUSTOMER SUPPORT AND THEN MANAGEMENT AND FINANCE**

*** ENTERPRISE MODELS (OVERVIEW)**

*** USING DRAWING – TOOL AND SINCE 1987 CASE – TOOL**

RESULTS



- * INCREASED KNOWLEDGE ABOUT BUSINESS OBJECTS AND THEIR RELATIONS
- * CASE – TOOL USED FOR DOCUMENTATION
- * BASIS FOR URGENT ACTIONS

Basis for
AD – planning

- * SYSTEM AREAS IN NEED OF NEW OR CHANGED DATA PROCESSING
 - PROJECT MANAGEMENT
 - MARKETING/SELLING ADMINISTRATION
 - TECHNICAL ADMINISTRATION
 - RESULT CONTROL

RESULTS

Systems coordination

- * **A FUNCTION FOR SYSTEMS COORDINATION**
 - — **INFORMATION AND SYSTEMS DICTIONARY, DESCRIPTIONS OF BUSINESS ACTIVITIES**
 - — **"REFEREE" FOR SOLVING DIFFERENT OPINIONS ABOUT INTERFACES BETWEEN THE PROJECTS AND THE SYSTEMS**
 - — **ACCOMPLISH ANALYSIS IN ORDER TO ACHIEVE MORE EFFECTIVE SYSTEMS INTEGRATION AND COORDINATION**
 - — **NEW SYSTEMS DEVELOPMENT MODEL**

RESULTS

Systems design principles and rules

* SYSTEMS DESIGN PRINCIPLES AND RULES

- DATA – DRIVEN DEVELOPMENT
- DEVELOPING AND CONSIDERING THE COMPLETE SYSTEM (data processing, personnel, organization and routines)
- DEVELOPMENT AND LIFE CYCLE TERMINATION FUNCTION BY FUNCTION AND STEP BY STEP
- EFFECTIVE AND HIGH QUALITY DEVELOPMENT, WITH PROTOTYPING AND QUALITY CONTROL AIMED AT "DOING THE RIGHT THING FROM THE START"
- APPLICATION DEVELOPMENT PRINCIPLES:
 - * ONLY 1 TERMINAL OR PC AT EACH DESK
 - * APPOINT FUNCTION RESPONSIBLE FOR DATA
 - * ACQUIRE DATA ONLY ONCE AND AS CLOSE TO SOURCE AS POSSIBLE

COMPANY GOALS

GENERAL :

PROFITABILITY

GROWTH VOLUME

PRODUCT - LIFE - CYCLES

ADMINISTRATIVE : LEAD - TIME

EFFICIENCY

ORGANIZATIONAL
STRUCTURES

APPLICATION AREAS

	DIVISION	
	<u>A</u>	<u>B</u>
* SYSTEM STRUCTURE	=	+ +
* MARKET ADMINISTRATION	+	+ +
* PROJECT MANAGEMENT	+ +	+
* PRODUCT MANAGEMENT	+ +	=
* MPS	=	+ +
* LOGISTICS	=	=
* ECONOMY	+	+ +
* PERSONNEL	=	=
* OFFICE AUTOMATION	+ +	+ +
* INTEGRATION OF TECHNICAL AND ADMINISTRATION DP	+	+ +

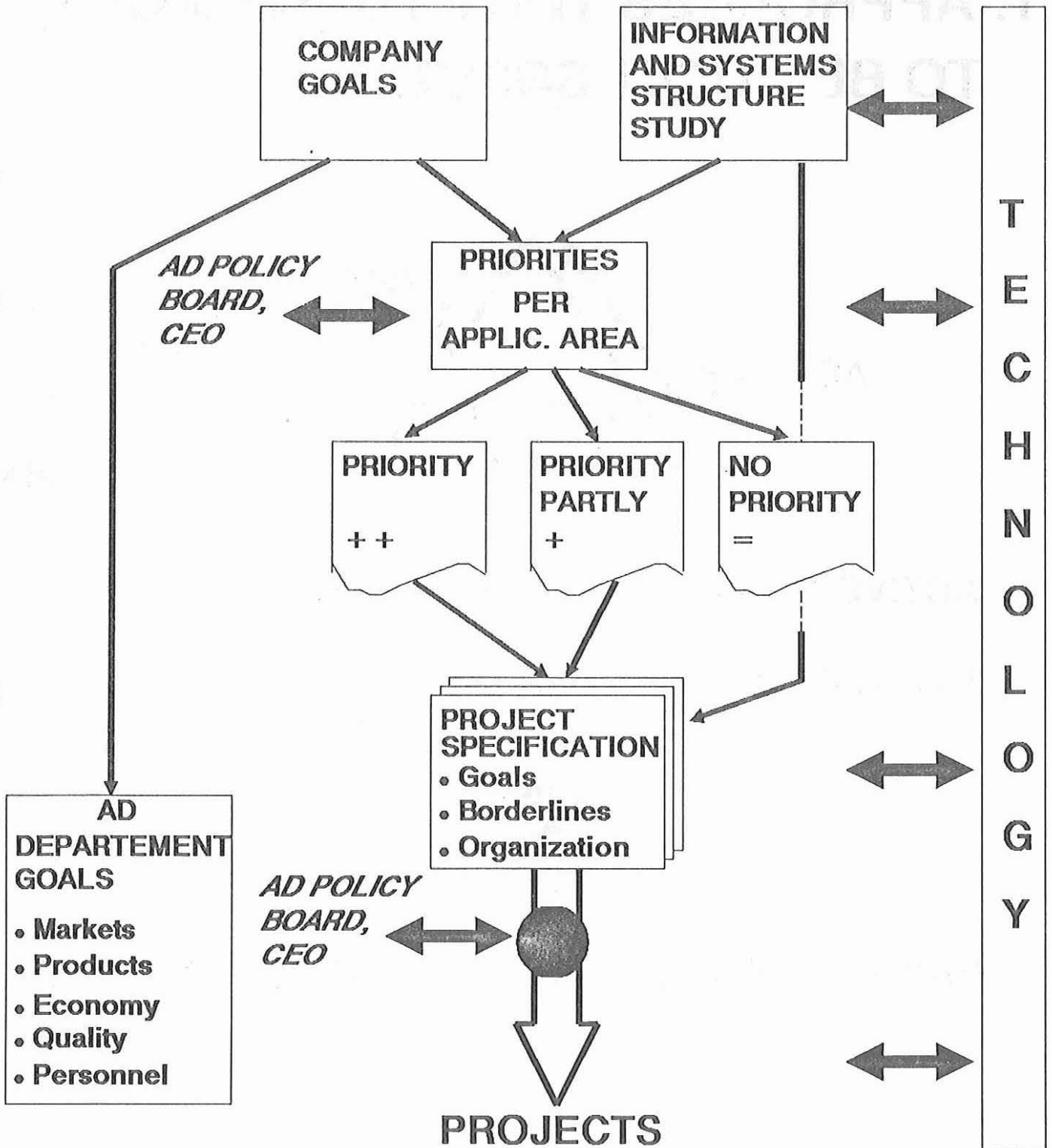
+ +: Priority

+ : Priority partly

= : No priority

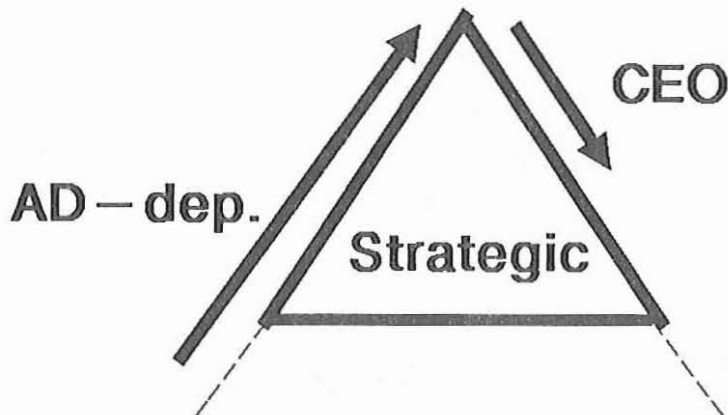
Project initialization and planning

PROCEDURE



FINDINGS

1. APPROACHES THAT TURNED OUT TO BE SUCCESSFUL



- ACTIVE AD – DEPARTEMENT ROLE
- BOTTOM UP AND TOP DOWN



- PAY – OFF CALCULATION AS AN ACTIVE TOOL

FINDINGS

2. RESULTS

- CONTINUOUS PLANNING IN THE BUDGET PROCESS ACCOMPLISHED
- FLEXIBILITY ACHIEVED
- DETAIL DISCUSSIONS VANISHED

3. FUTURE ?

- KEEP IT SIMPLE
- IS SYSTEMS COORDINATION NECESSARY ?