



PACIS 2005

The ninth Pacific Asia Conference on
Information Systems

Efficient ICT Project Management Practical System Approach

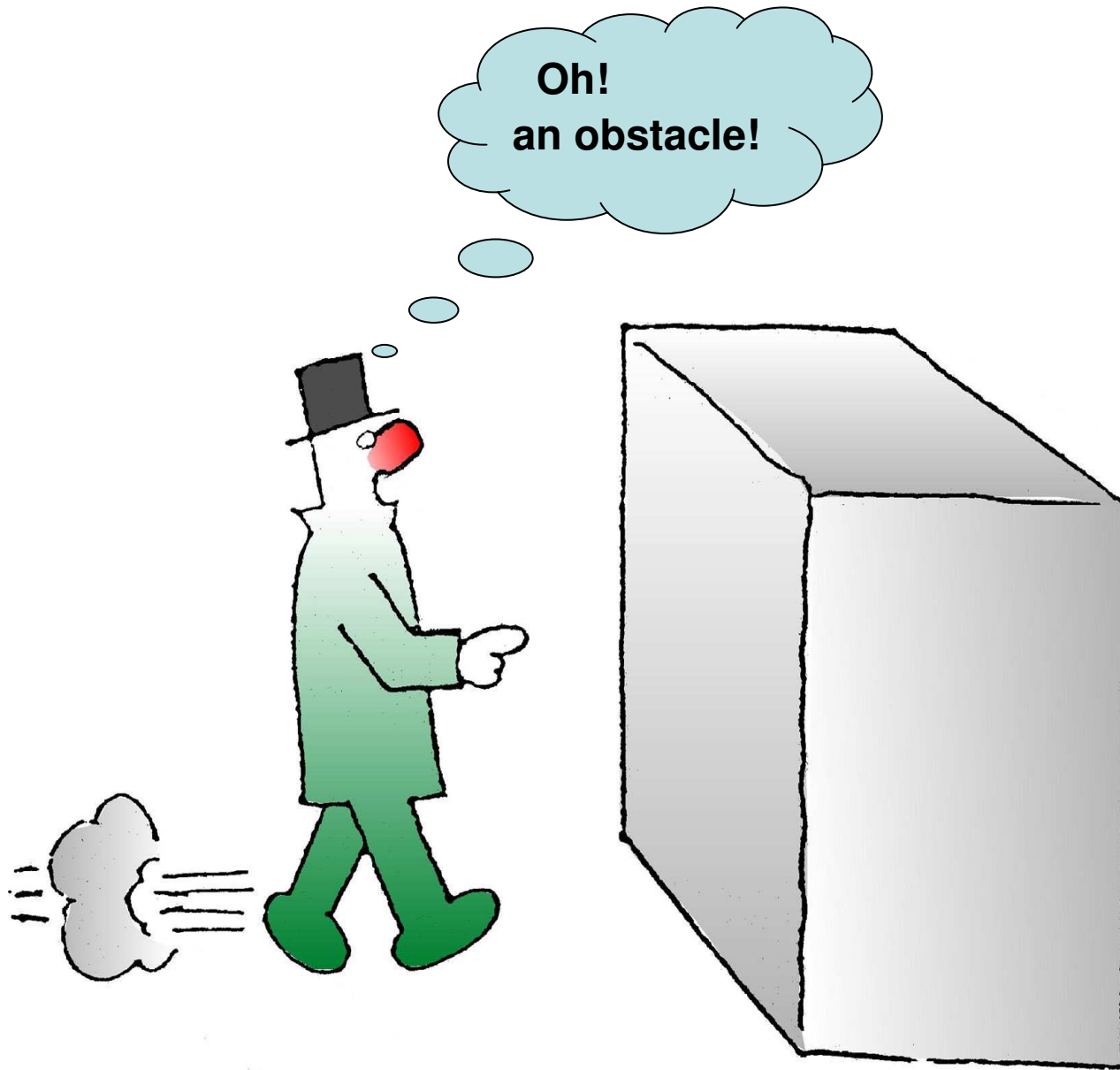
Prof. Dr. Bogdan Lent, EE



- **Introduction**
- **L-Timer™ Project Management Method**
- **Profile of your Project Manager**
- **Your Project Management Manual**
- **Conclusions**

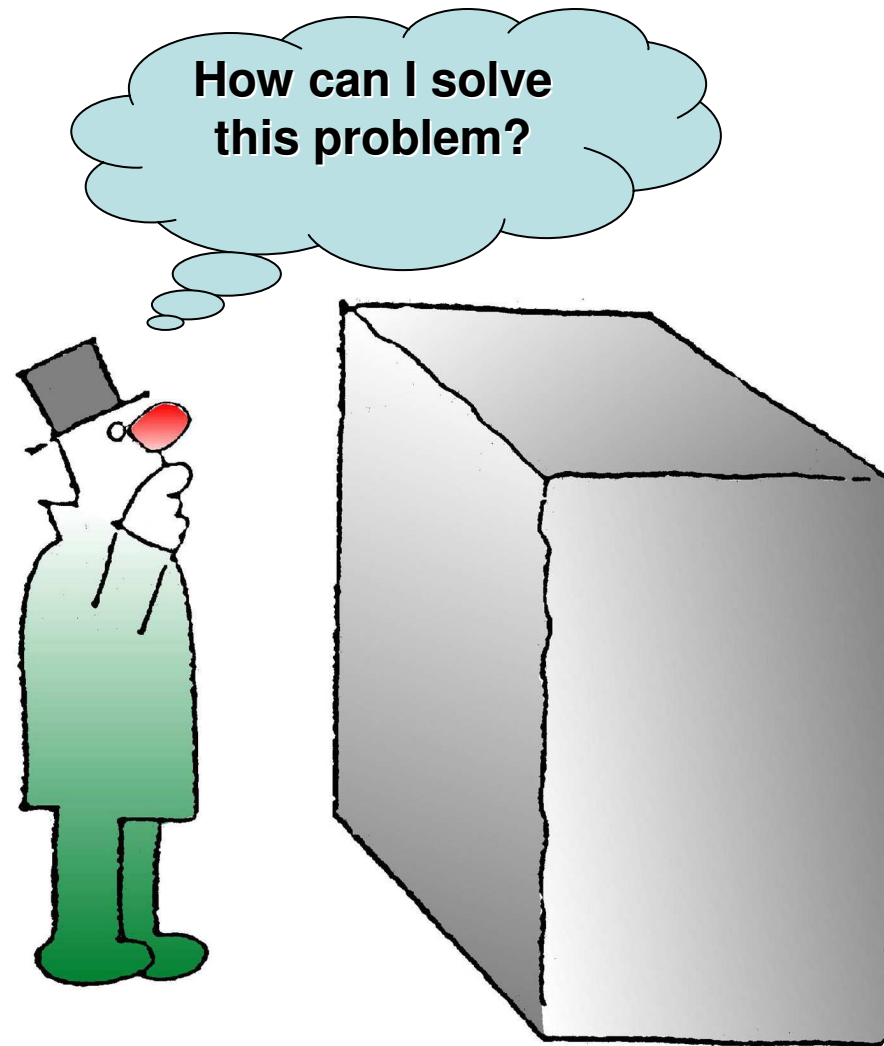


- **Introduction**

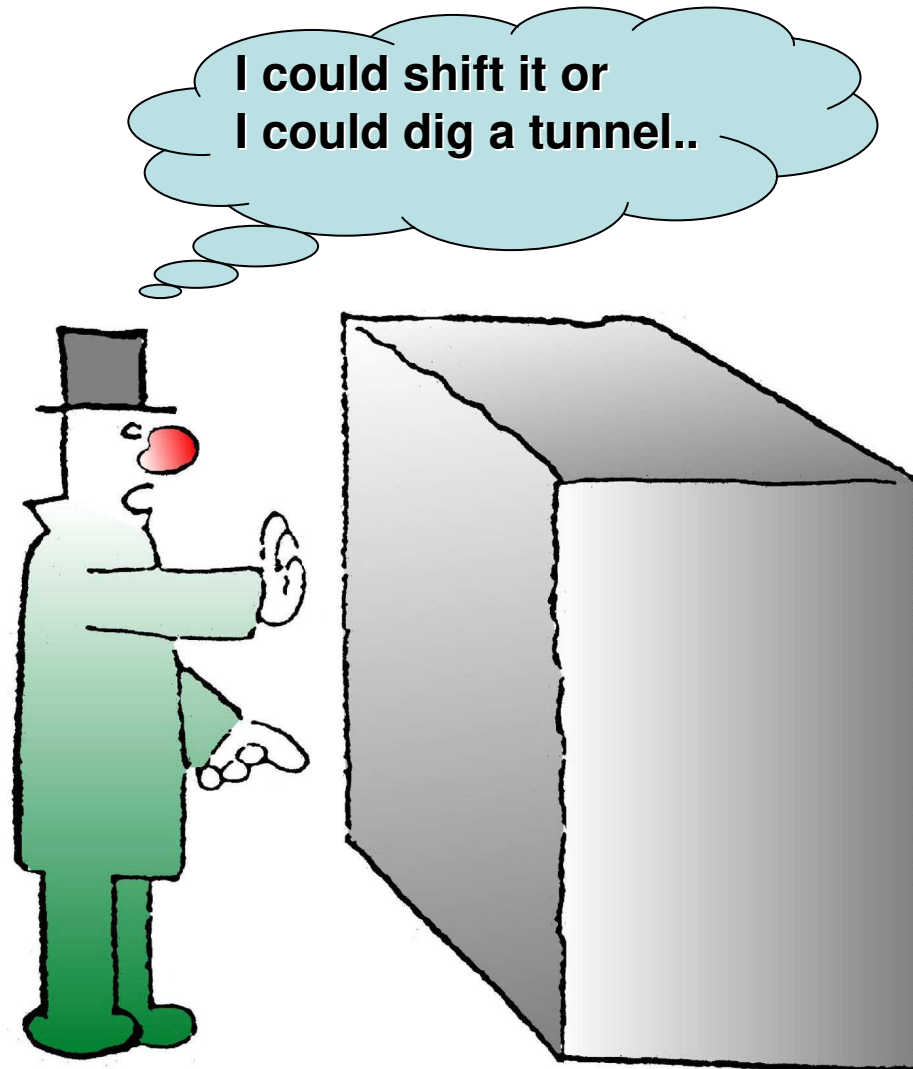


- Introduction

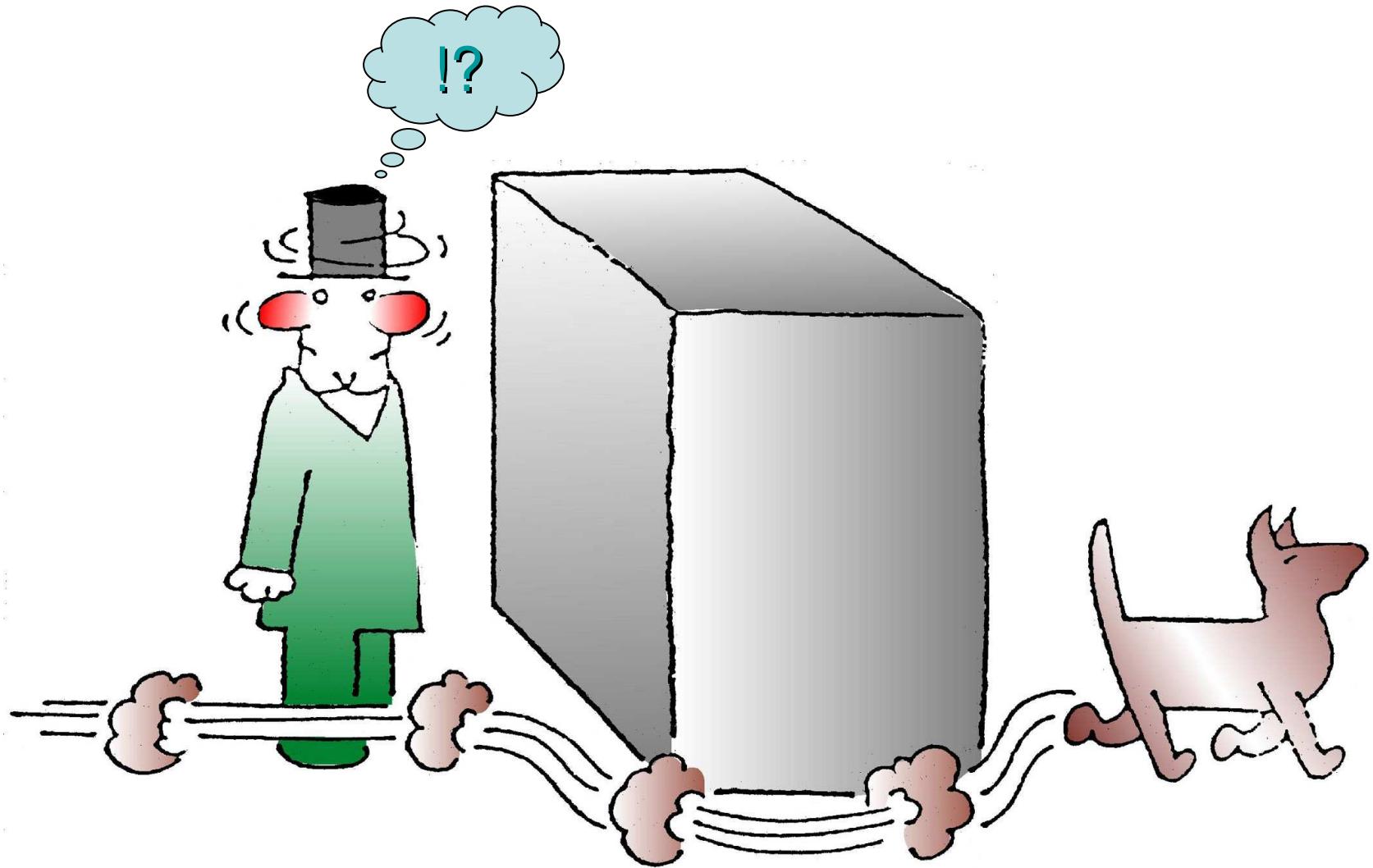
- Introduction



- Introduction

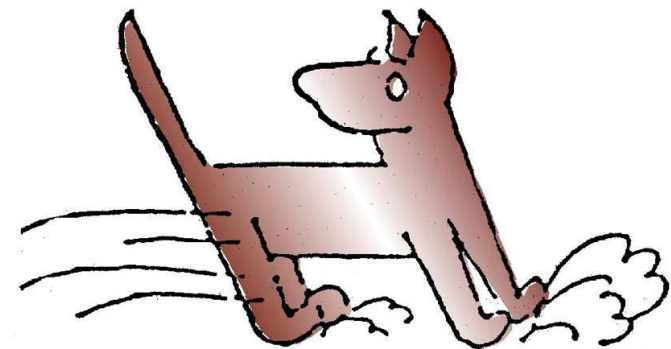
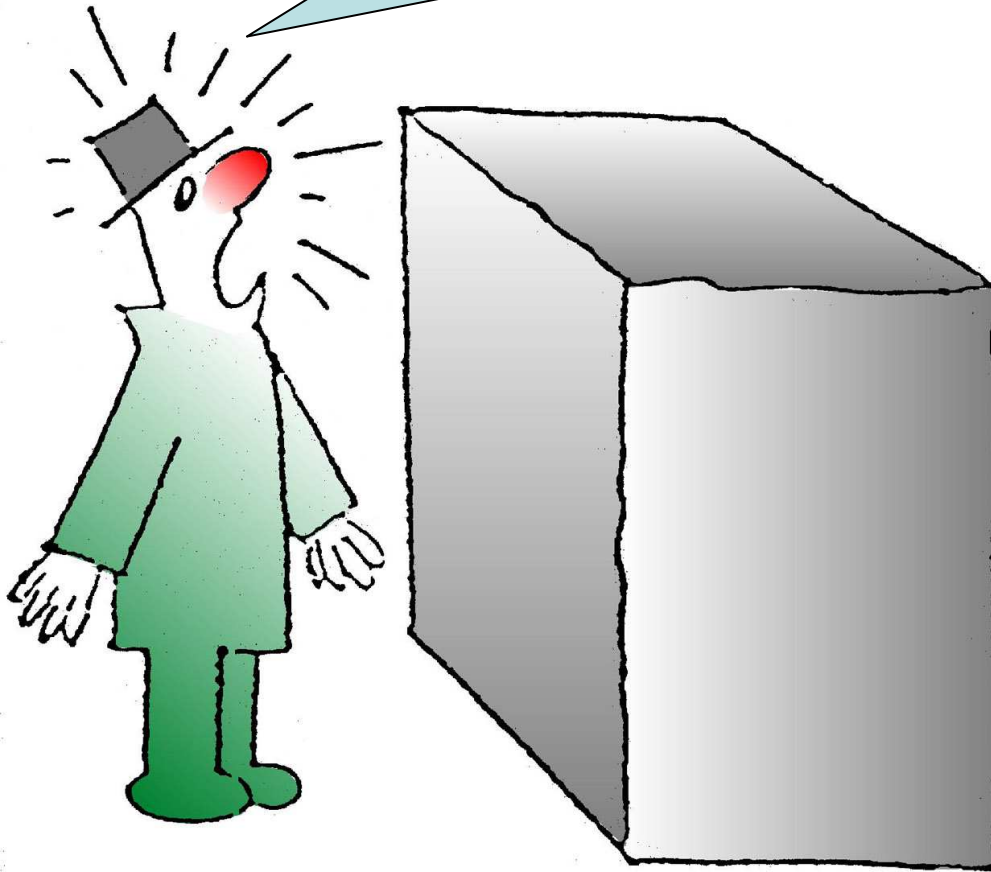


- Introduction

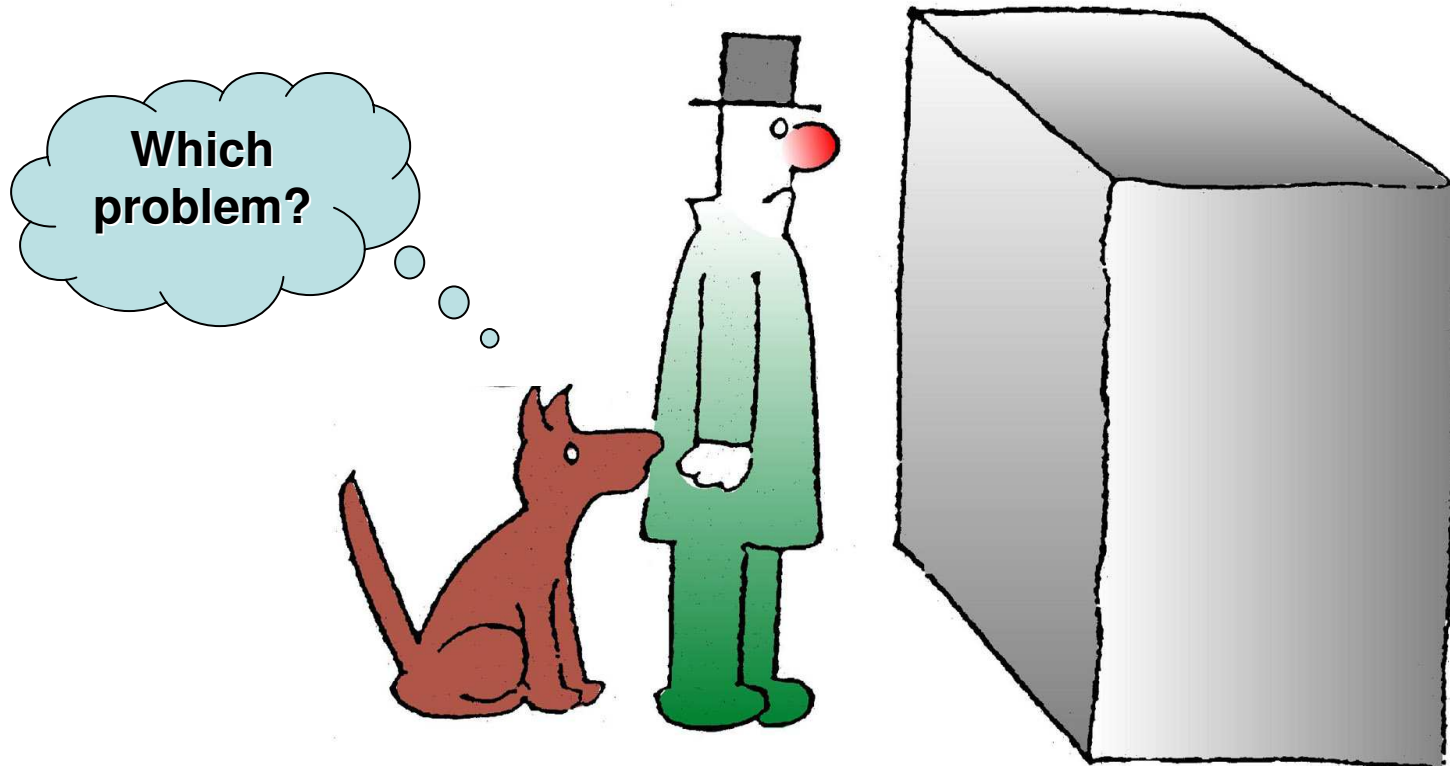


- Introduction

With workarounds, we don't solve our problems!



- Introduction



- Introduction

||| || |||

*&%^ 500 problems *#\$!@



project?



- Introduction

Project =

a set of activities, which is characterised by the uniqueness of its features (e.g. goals, constraints of time, finances, personnel, etc.), by its distinction from daily activities and by its temporary organisational structure.



- **Introduction**

Projects

general characteristics:

- **innovative**
- **usually involves different departments of a company**
- **interdisciplinary (many team members and specialists)**
- **great risk potential**
- **very costly in terms of time, money and resources**
- **strategic importance and time constraints**
- **different from daily business**



- Introduction

ICT-Projects

characteristics:

- flexibility in adaptation and changes
- „invisible“ features
- limited traceability
- short life-cycle
- special relationship producer-product-user



- Introduction

(ICT) Project Management =

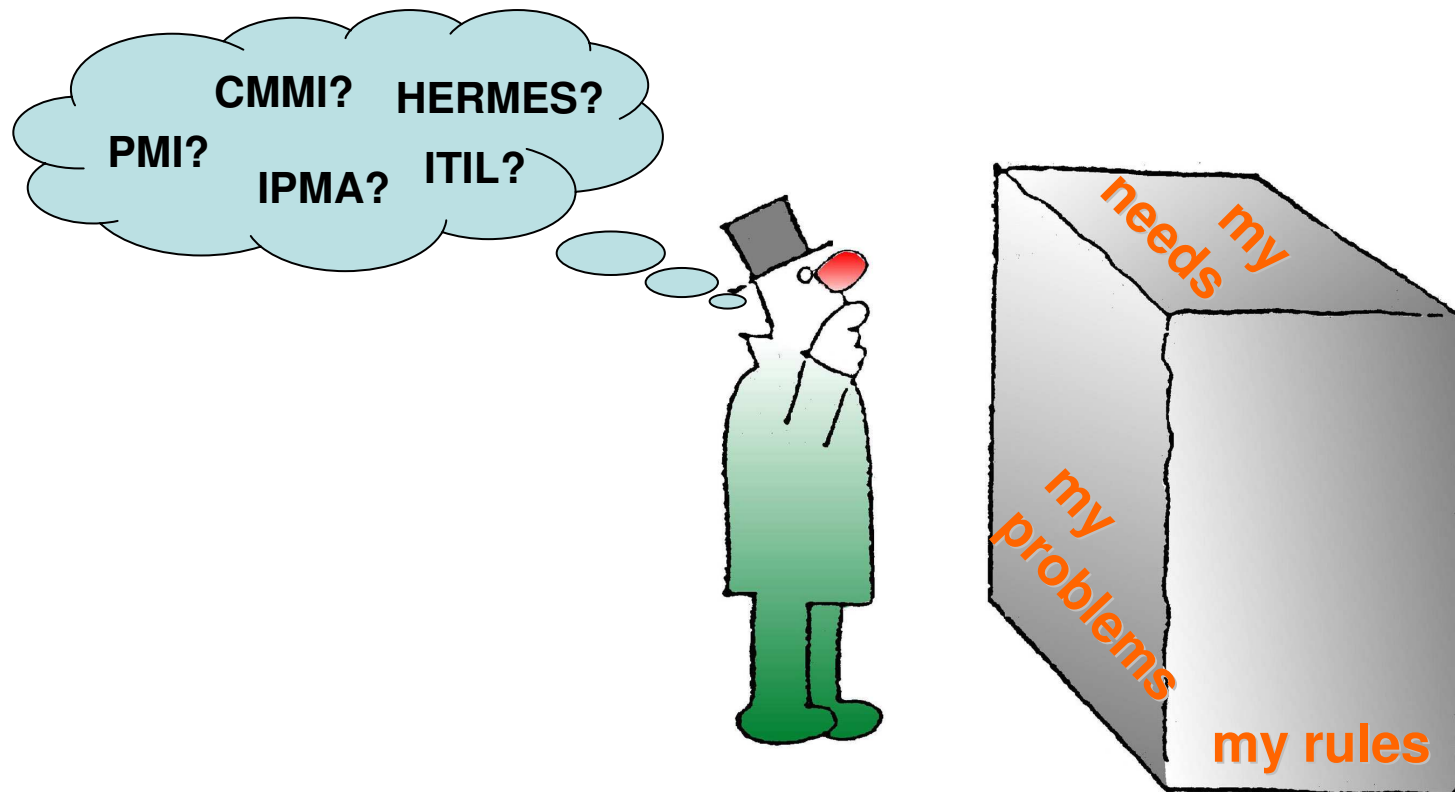
**coordinated and balanced execution
of all management processes,
steering of individual project activities
towards the overall project objectives.**



- Introduction
- **L-Timer™ Project Management Method**



What are the key success factors in ICT-Projects?





L-Timer™ Project Management Method

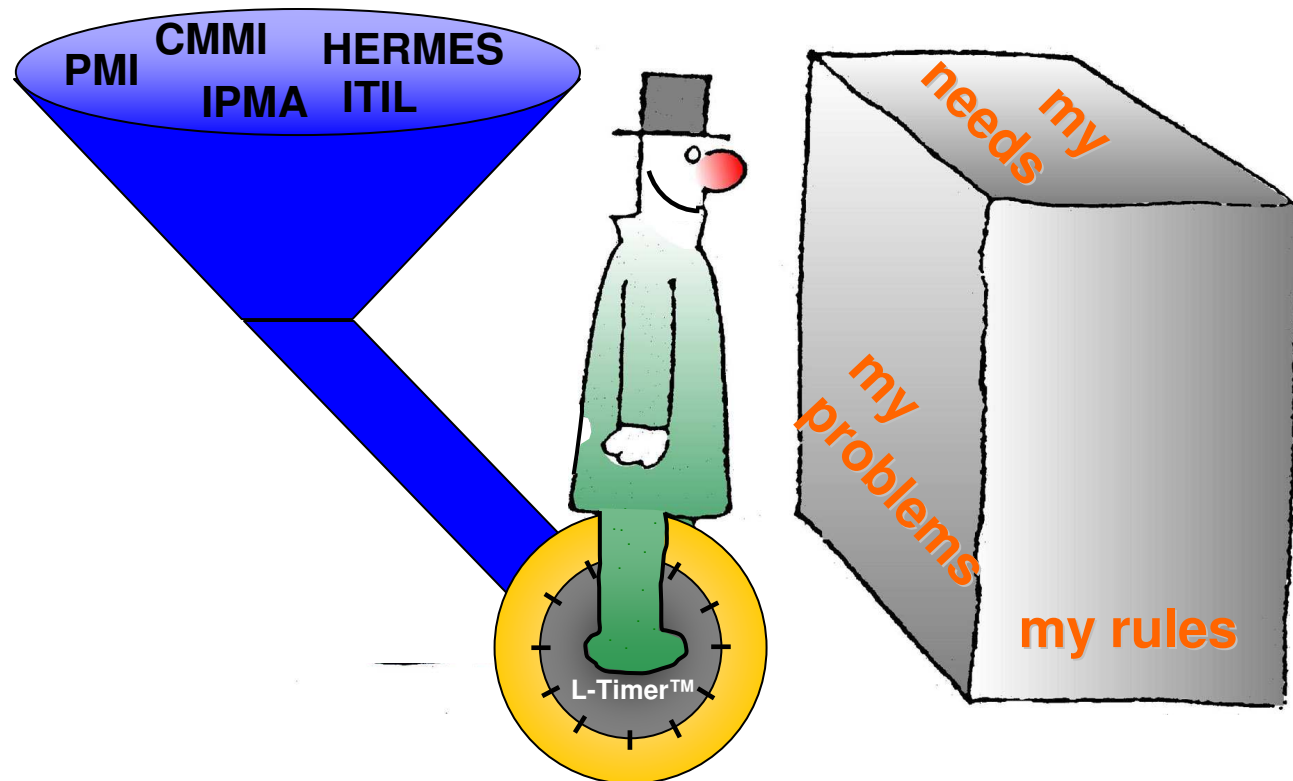
Project Management Method =

Rational, well founded, standard and general procedure which applies the basic principles, methods, technics and checklists to support the achievement of the project objectives.



L-Timer™ Project Management Method

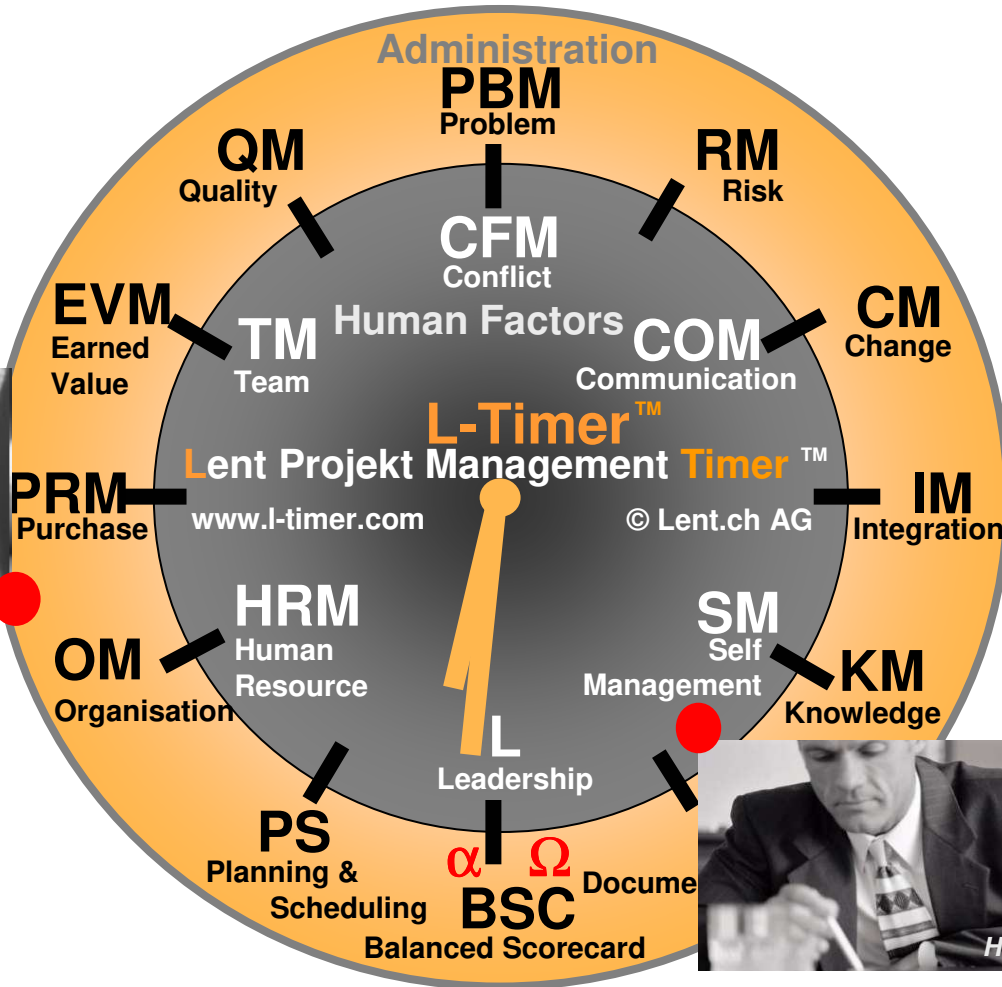
L-Timer™





L-Timer™ Project Management Method

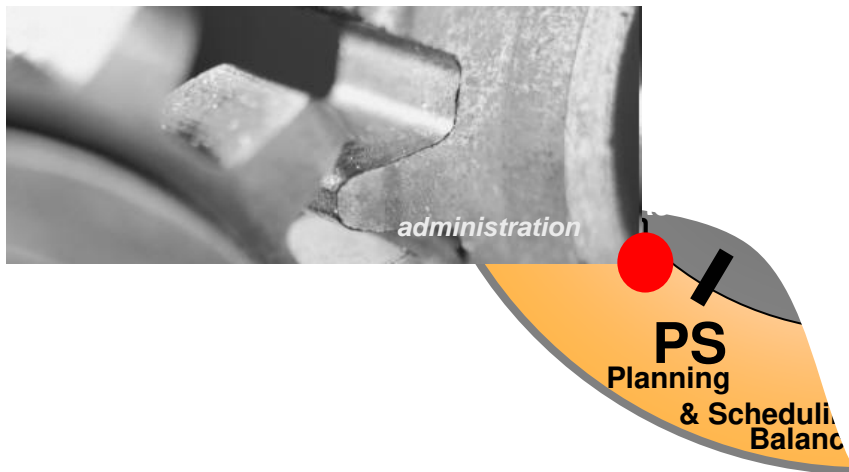
Processes



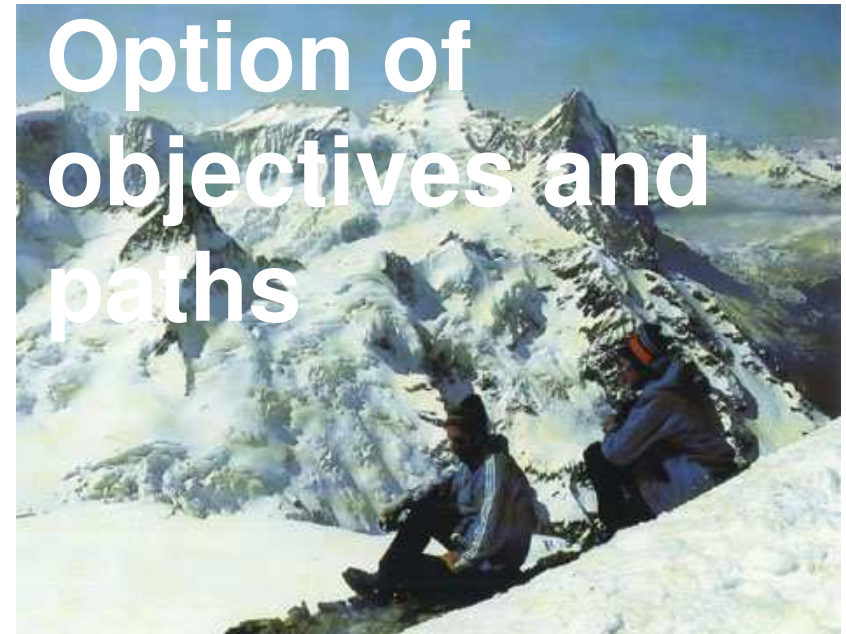
Human Factors



Process



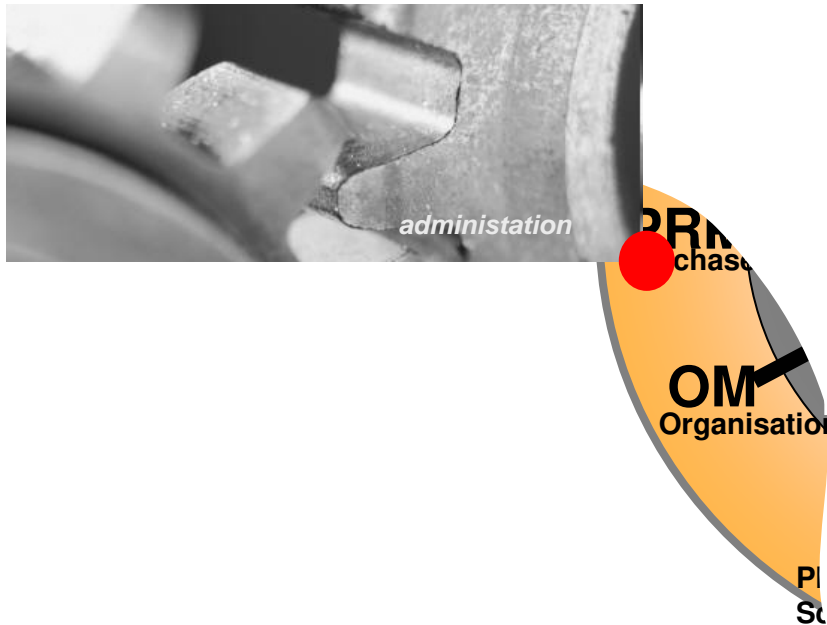
L-Timer™ Project Management Method
7:00 PS Planning & Scheduling



Where do I go (objectives)?
Do I have any other options?
Which option do I chose?



Process



L-Timer™ Project Management Method

8:00 OM

Organisation

Roles

Tasks

Competences

Field of responsibility

Required Skills

Who is responsible for what?

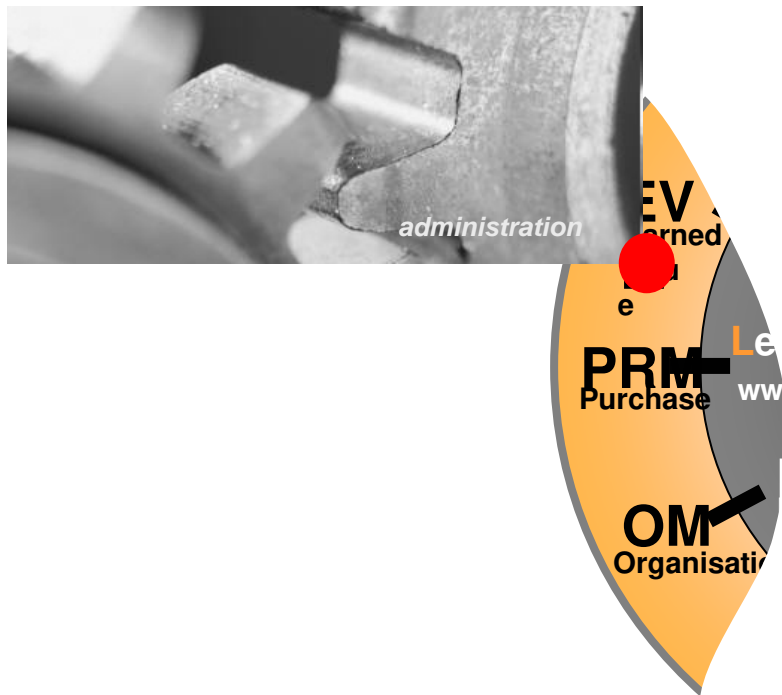
Who has the final decision?

Who is allowed to decide

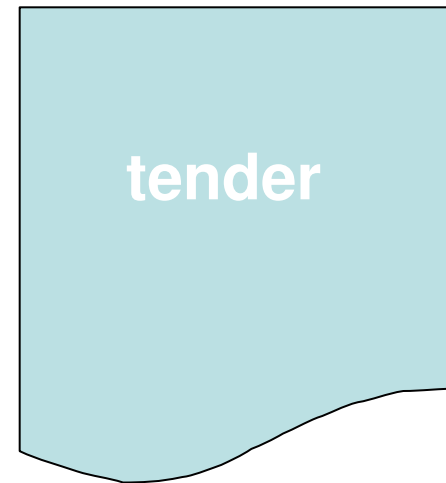
on whose competences?



Process



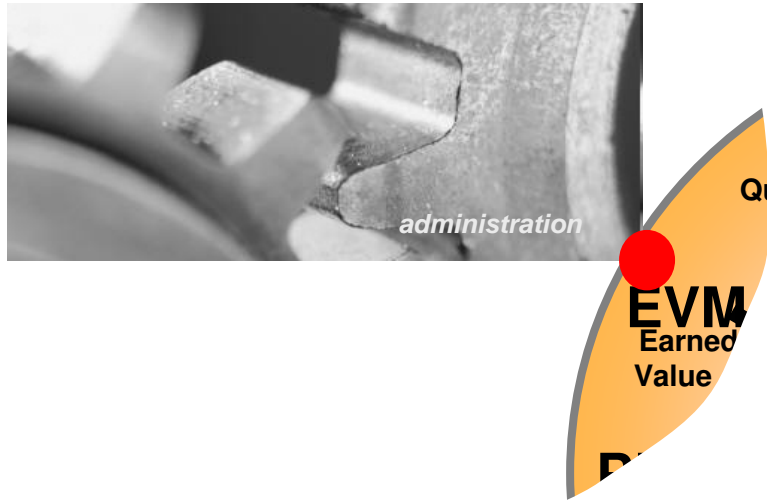
L-Timer™ Project Management Method
9:00 PRM Purchase Management



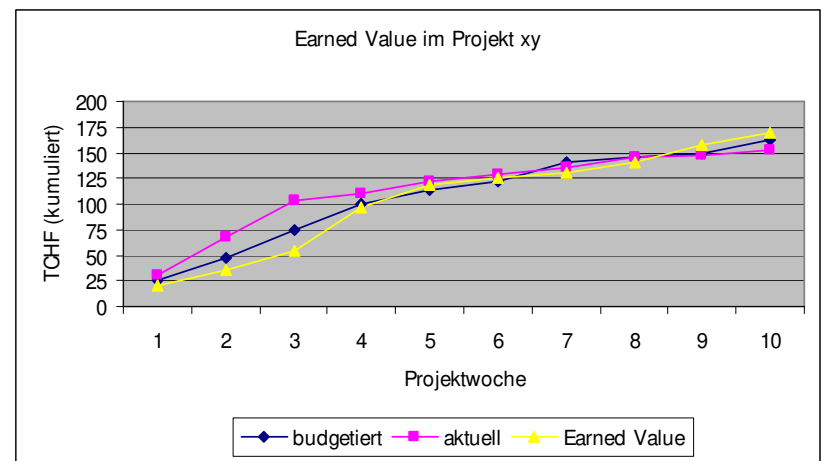
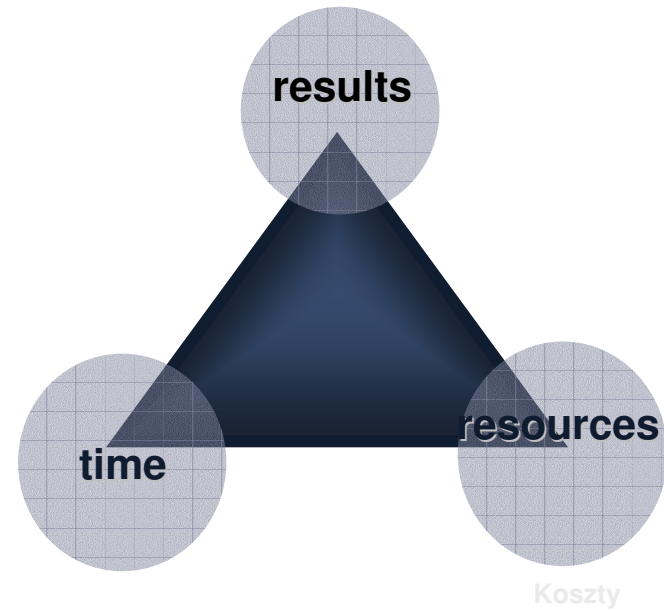
Which procurement procedure?
How shall we choose?
How we will manage contract?



Process



L-Timer™ Project Management Method 10:00 EVM Earned Value Management

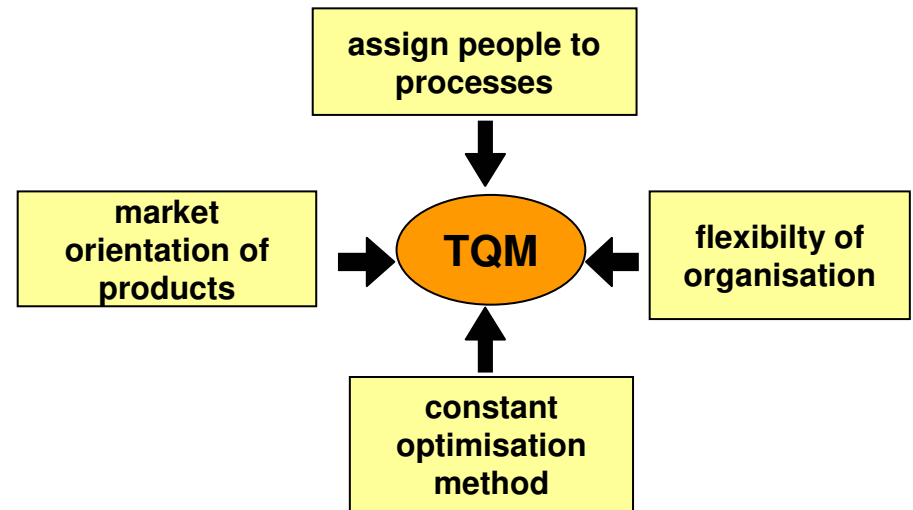




L-Timer™ Project Management Method

11:00 QM Quality Management

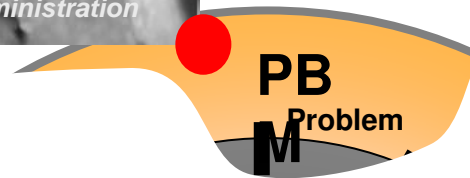
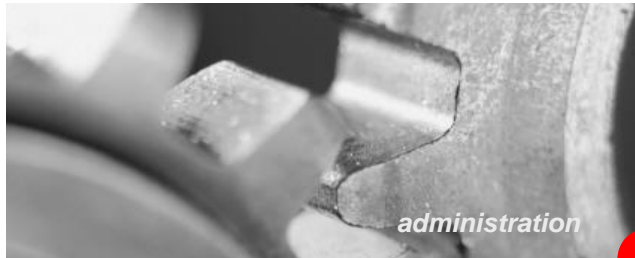
Process





L-Timer™ Project Management Method
12:00 PBM Problem Management

Process



- gathering of information
- finding a solution
- evaluation
- decision



L-Timer™ Project Management Method
13:00 RM Risk Management

Process



Would I take a risk if it concerned my own company?

What is the worst possible situation?

How dangerous is that situation? What would be its impact?



L-Timer™ Project Management Method
14:00 CM Change Management

Process



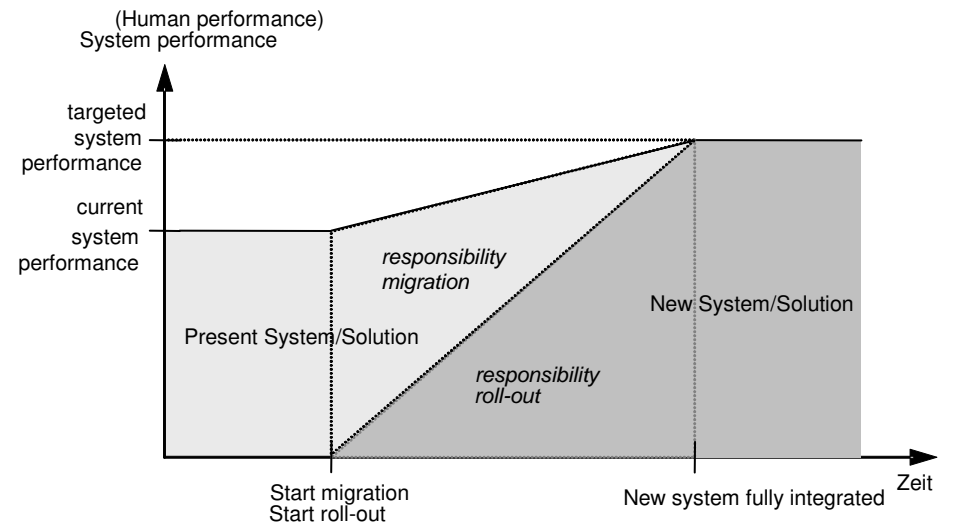
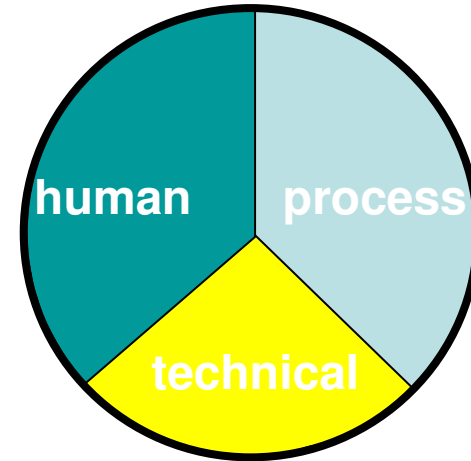
**Every project causes changes.
Every change can be absorbed.**



L-Timer™ Project Management Method

15:00 IM Integration Management

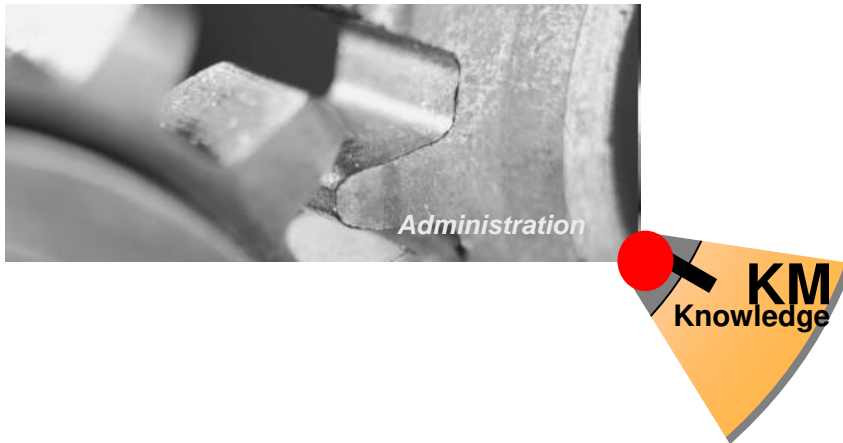
Process





L-Timer™ Project Management Method
16:00 KM Knowledge Management

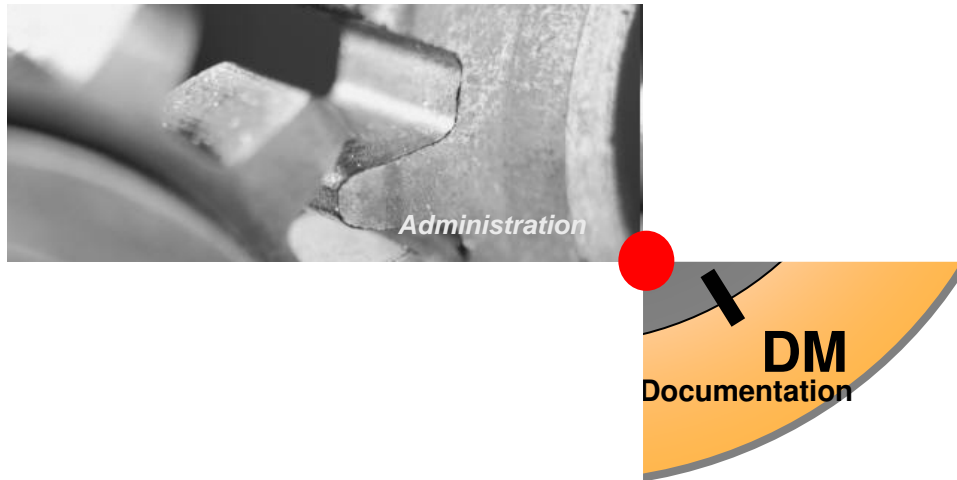
Process





L-Timer™ Project Management Method
17:00 DM Documentation Management

Process

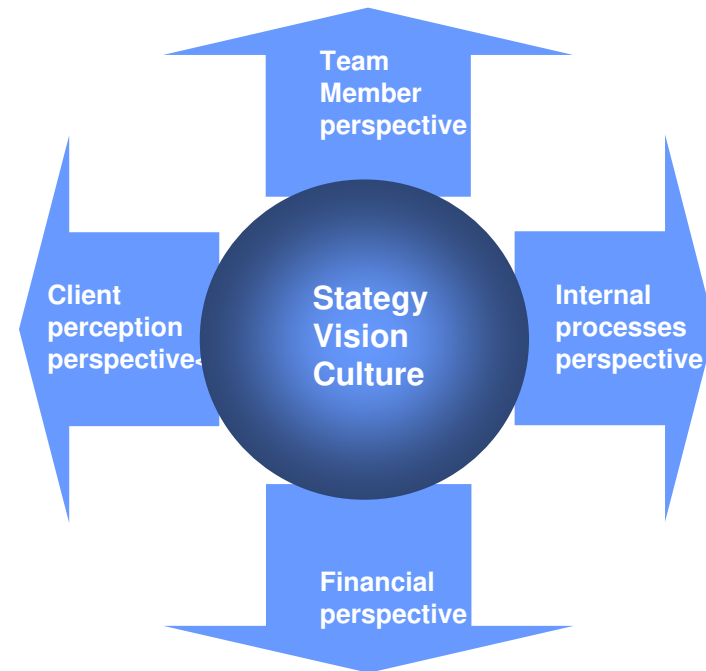
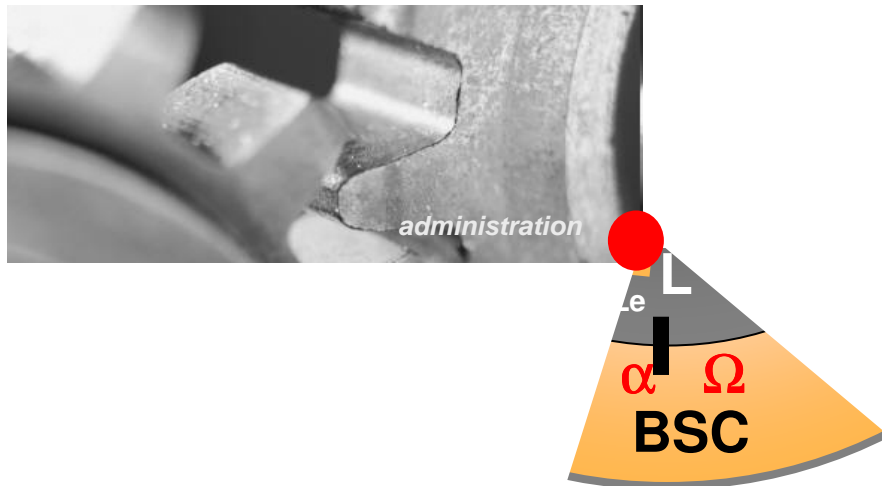


.... for users
.... for operations
.... for the archive



L-Timer™ Project Management Method
18:00 BSC Balanced Scorecard

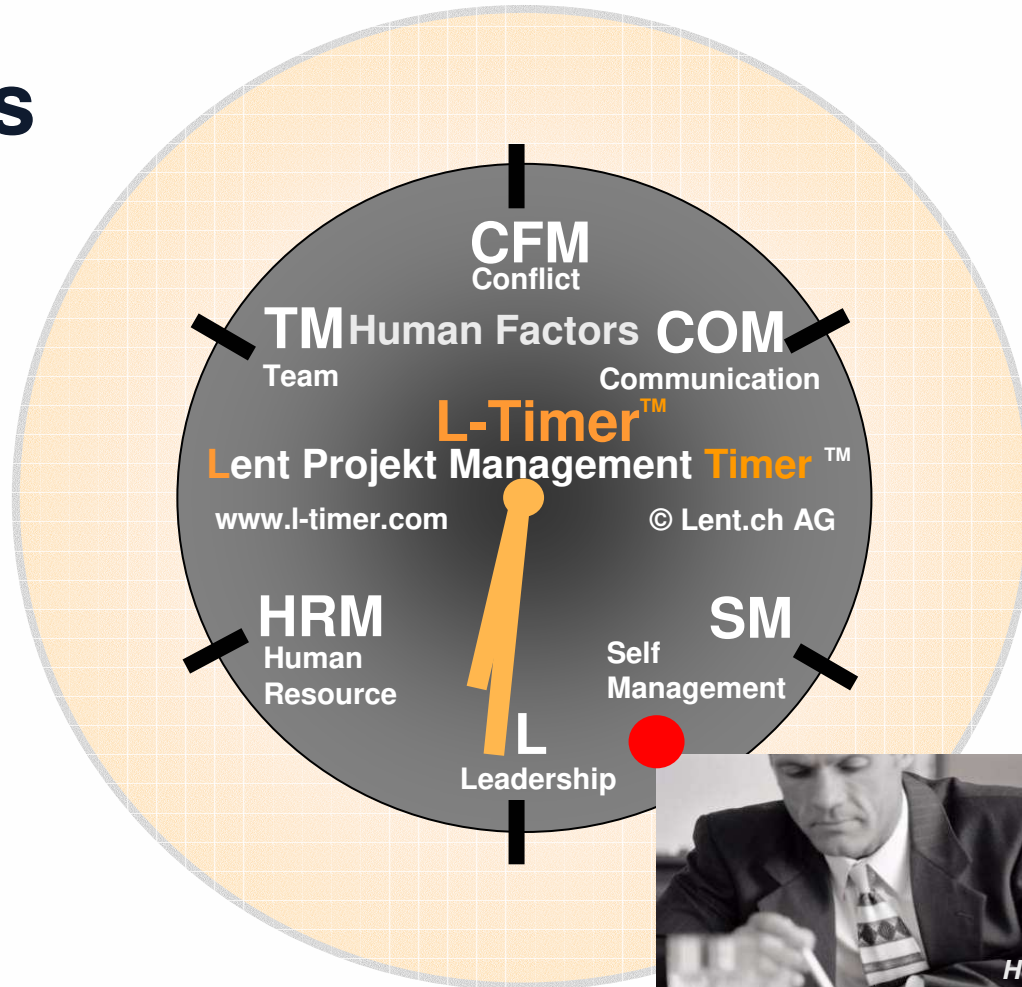
Process





L-Timer™ Project Management Method

Process

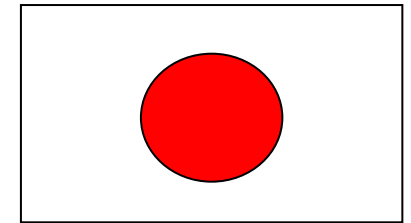
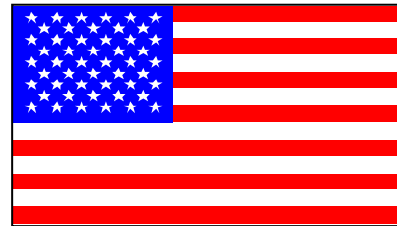


Human processes



L-Timer™ Project Management Method
20:00 HRM Human Resource Management

Process



time gains and time loss



Who do I need for the project?

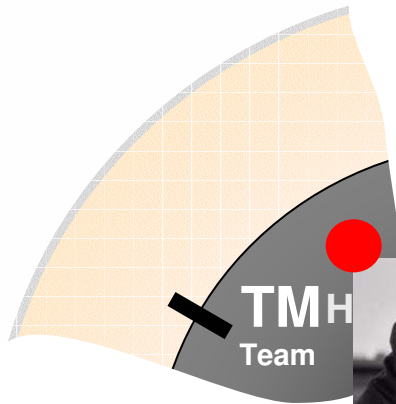
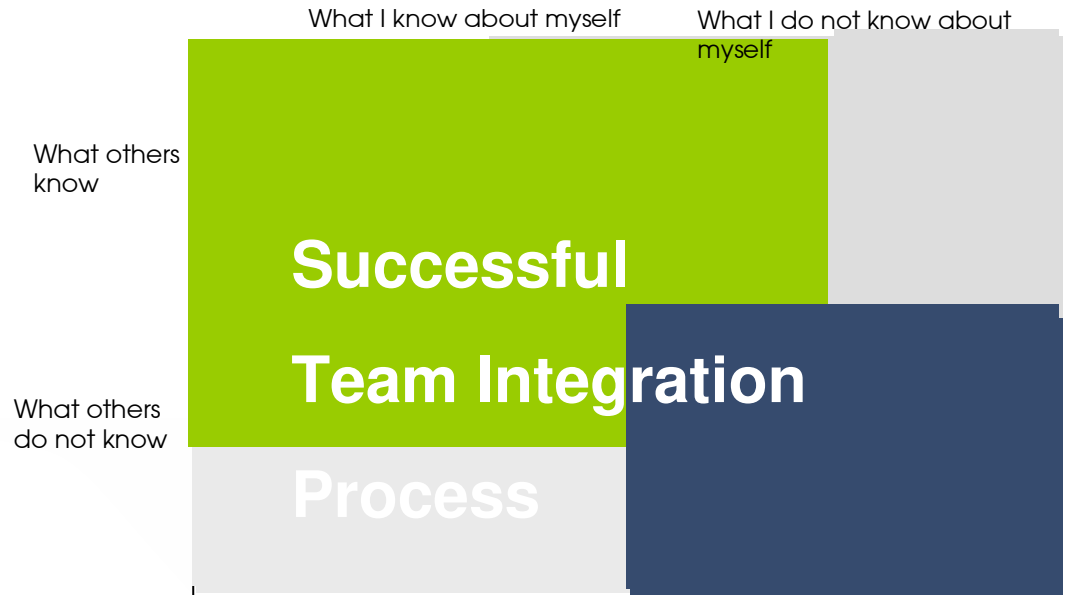
What needs does he have?



L-Timer™ Project Management Method

22:00 TM Team Management

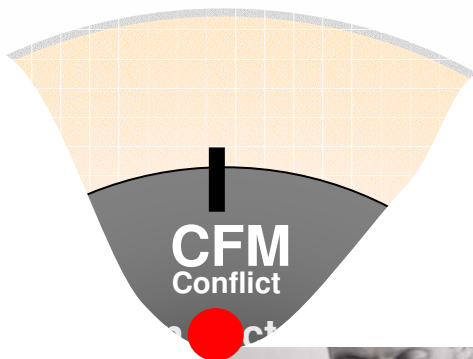
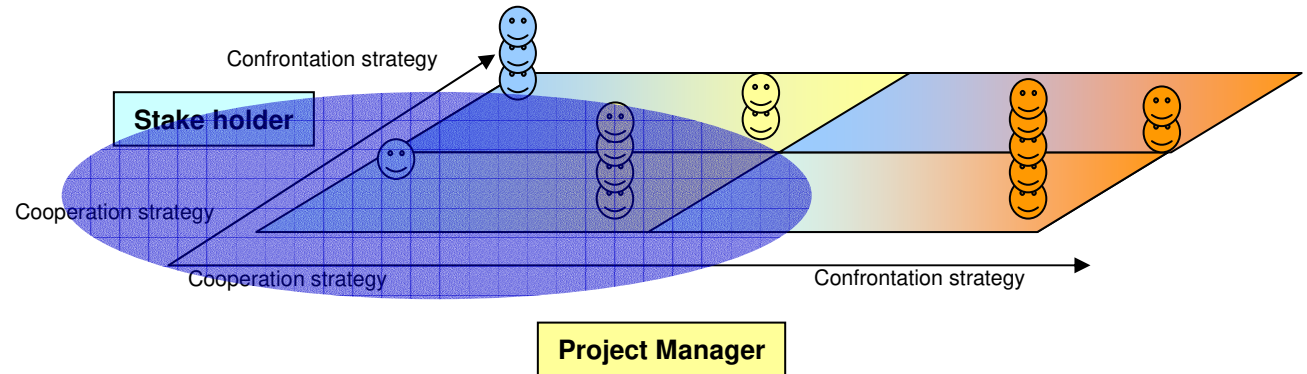
Process





L-Timer™ Project Management Method
0:00 CFM Conflict Management

Process



Maximize common results for own results

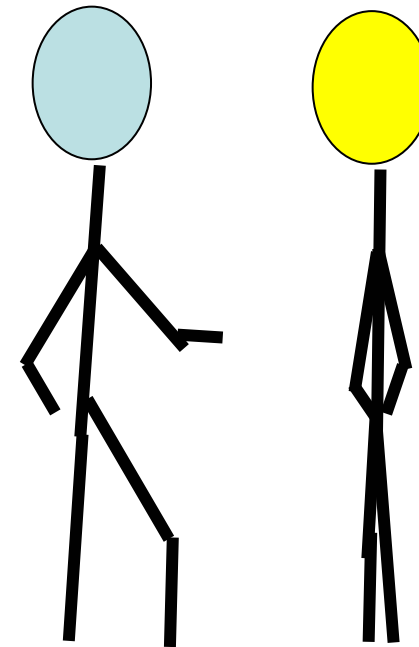


- **Conflict Management**
- **Detection and prevention**
- **Strategies**



L-Timer™ Project Management Method
2:00 COM Communication Management

Process

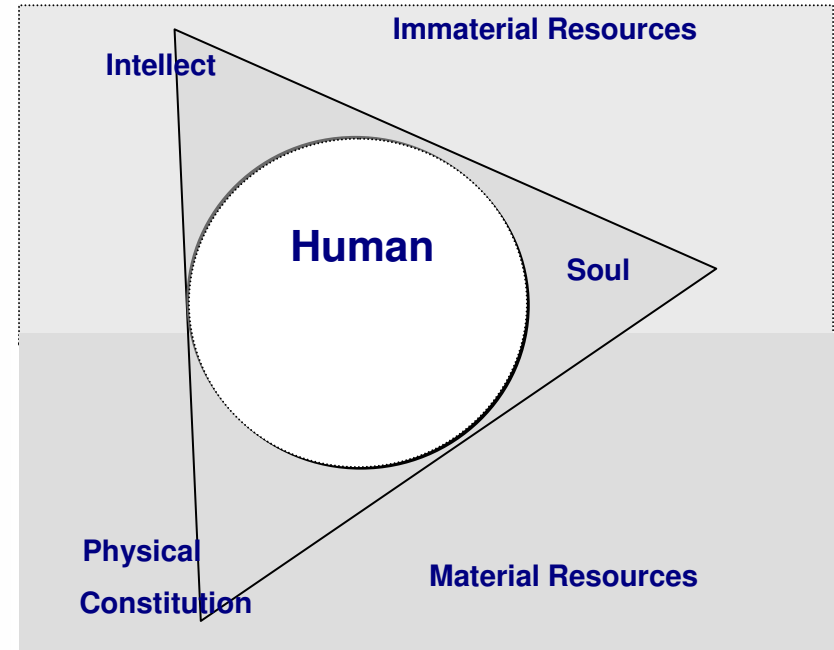
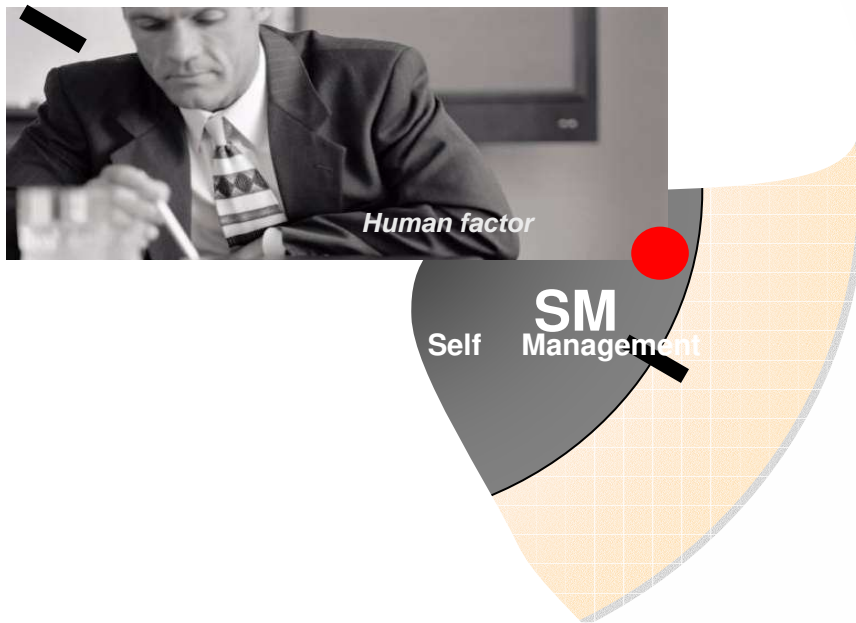


- **Rules of communication**
- **Transaction analysis**



L-Timer™ Project Management Method
4:00 SM Personality

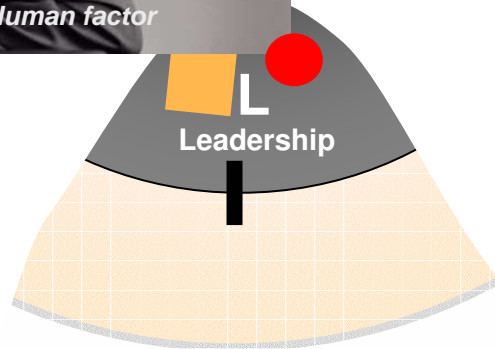
Process



- my strenghts and weaknesses
- emotional competence
- stability of personal resources



Process



L-Timer™ Project Management Method
6:00 L Leadership

speaking is

bronze

doing is

silver

catalysing is

gold

- Behaviour
- Management styles
- Leadership

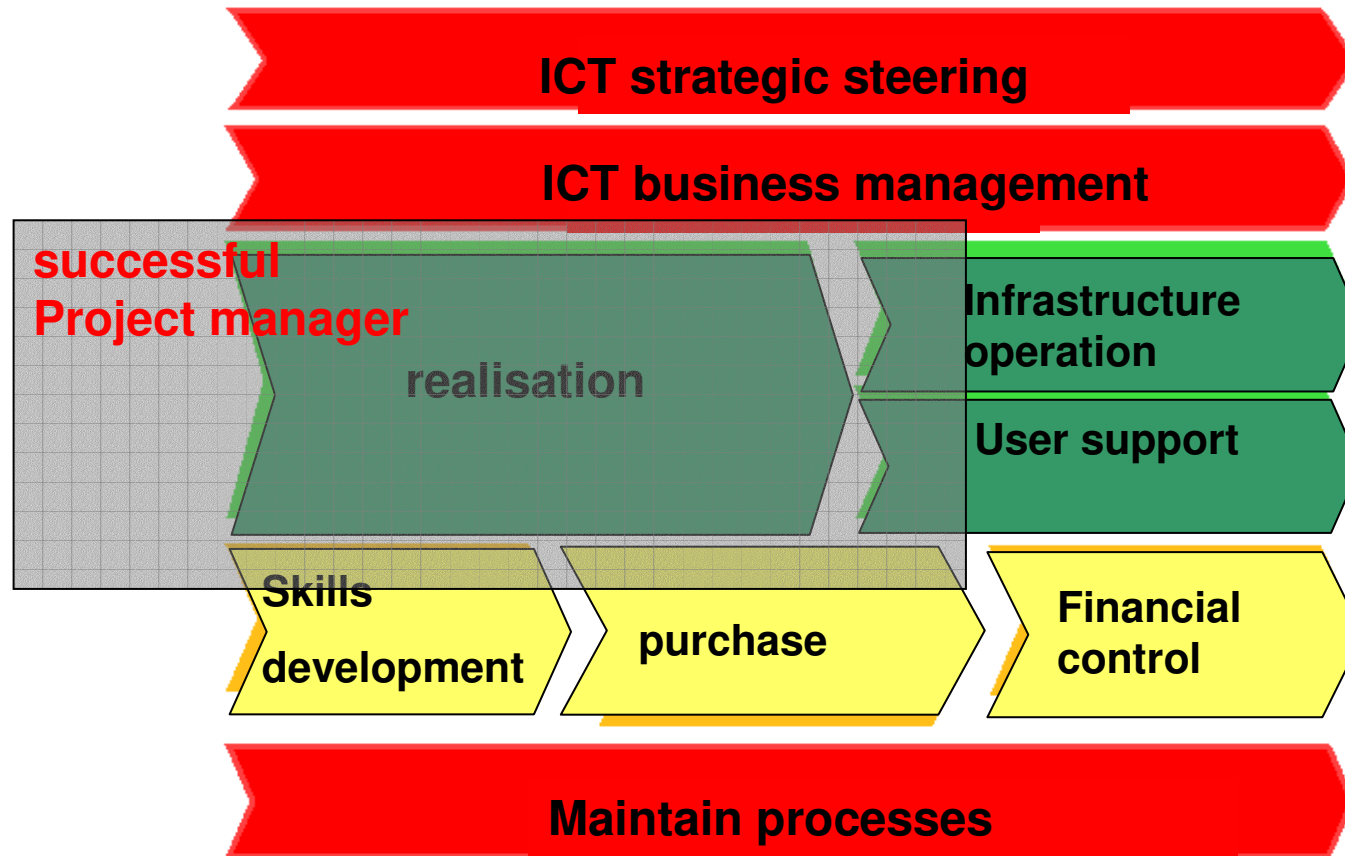


- Introduction
- L-Timer™ Project Management Method
- **Profile of your Project Manager**



Profile of Your Project Manager

ITC Processes in companies





Profile of Your Project Manager

Goals of the project manager:

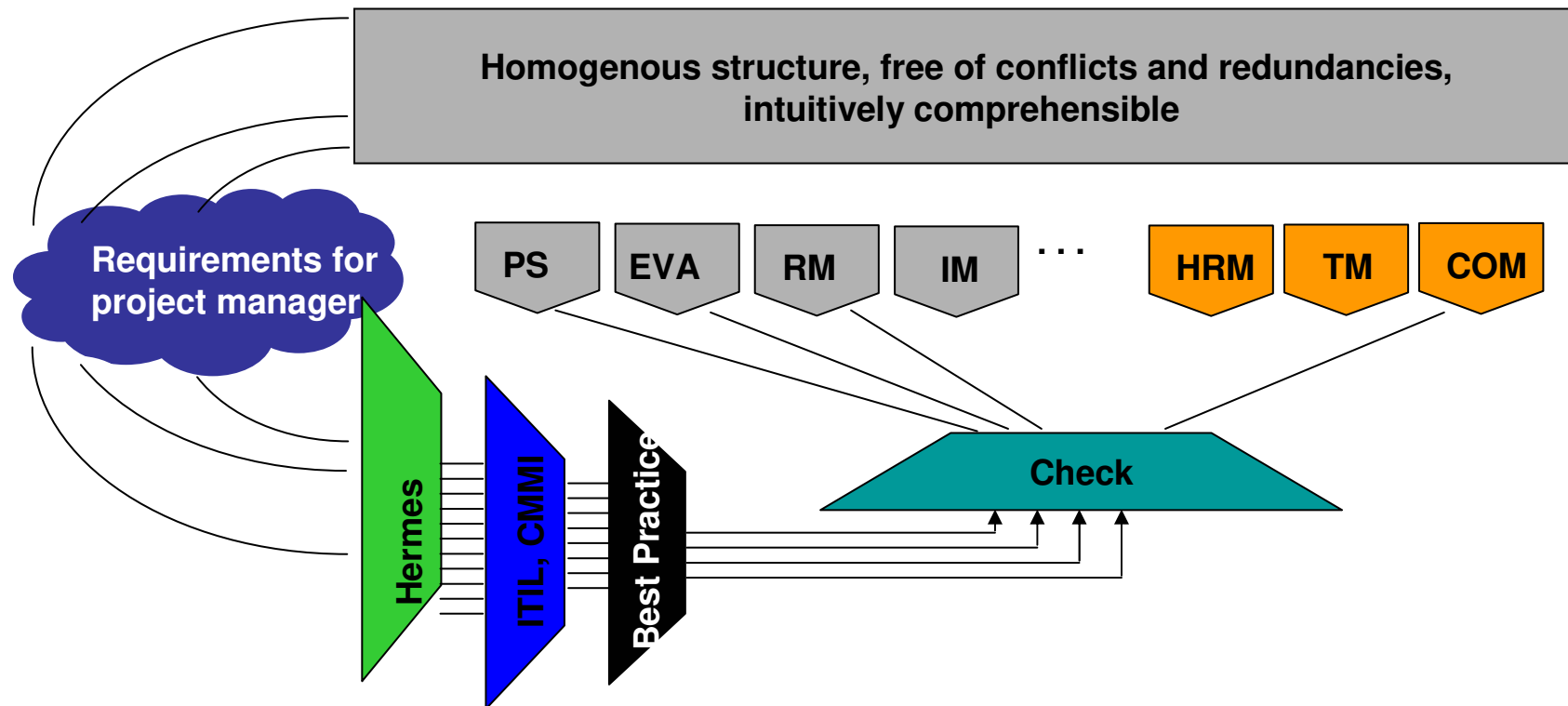
- ✓ **Cooperation when setting project objectives**
- ✓ **Ensure realisation of the project according to specified strategic objectives**
- ✓ **Ensure efficiency of the realisation**
- ✓ **Secure positive influence of the participation on the personal development of employees**



Profile of Your Project Manager

Approach

Record and structure expected results





Profile of Your Project Manager

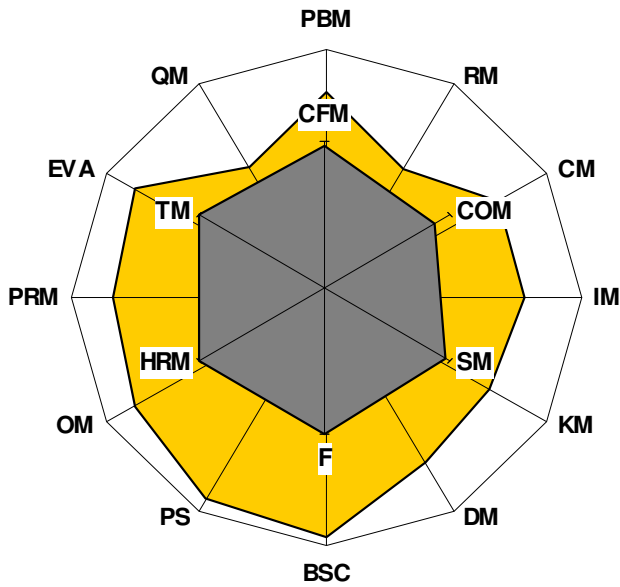
Process	Nr.	Skill	Weight	Target Definition		
				(0-10)	Assessment	
				B		
Activity:			Weight	Miller	Methods	
					Course	Assesment
set system objectives H 3.3.1	70	analyse the current system	1.69	10	current system description Analysis of weaknesses security analysis Situation analysis (H 3.3/4)	
	12	coarsly set system objectives (system goals, project desicions, goal agreement)	1.69	10	Description of system objectives H5.3.84 Requirements of objectives (L-Timer 7.21)	
	39	Consider corporate strategy in project and procedure objectives	1.69	10	Project objectives and corporate strategy (L-Timer 7.22)	
	11	seize system requirements	1.69	10	Requirements Engineering Process	
	5	describe result objectives	1.69	10	Description of System objectives H5.3.84 Requirements of objectives (L-Timer 7.21)	
develop solutions H 3.3.4	26	develop proposals for solution	1.69	10		
	42	asses proposals	1.69	10	Efficiency analysis (L-Timer 7.28)	
	43	Choose best proposal and document decision	1.69	10		



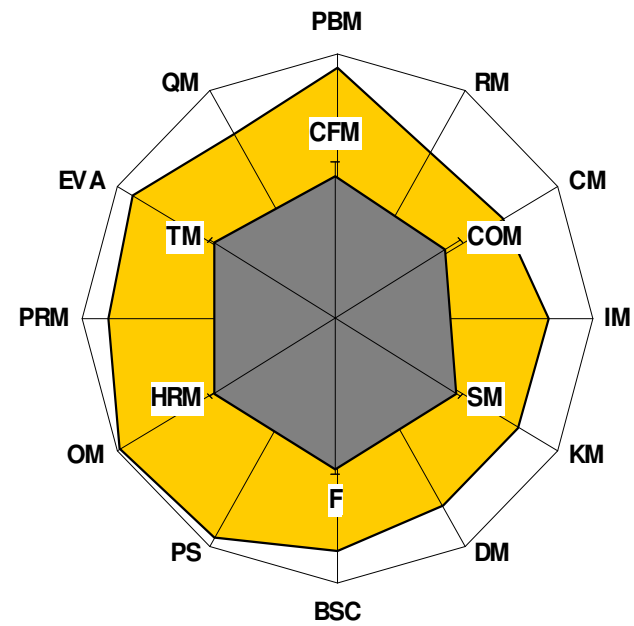
Profile of Your Project Manager

Profiles

Profile Level A



Profile Level B

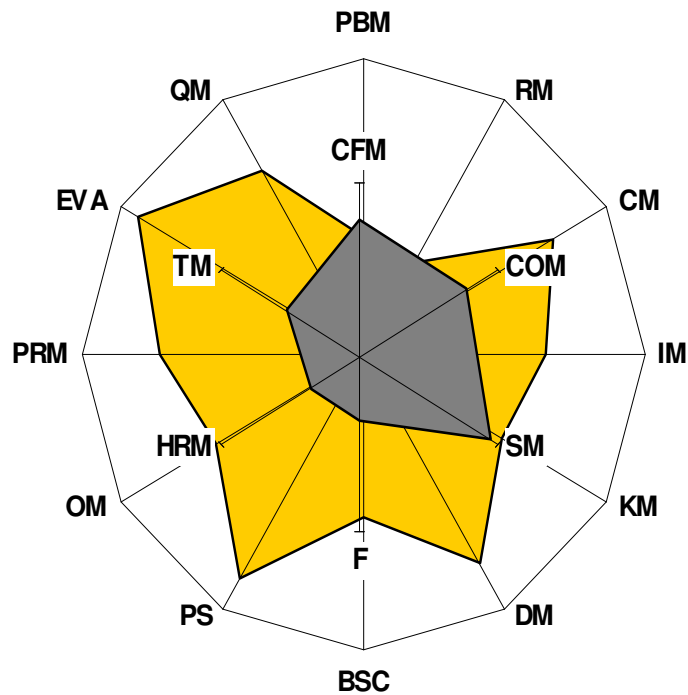




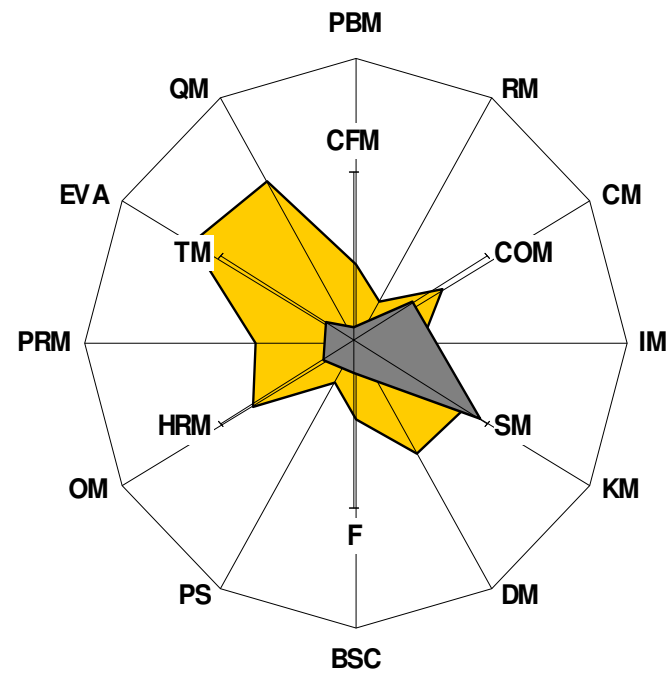
Profile of Your Project Manager

Profiles

Profile Level C



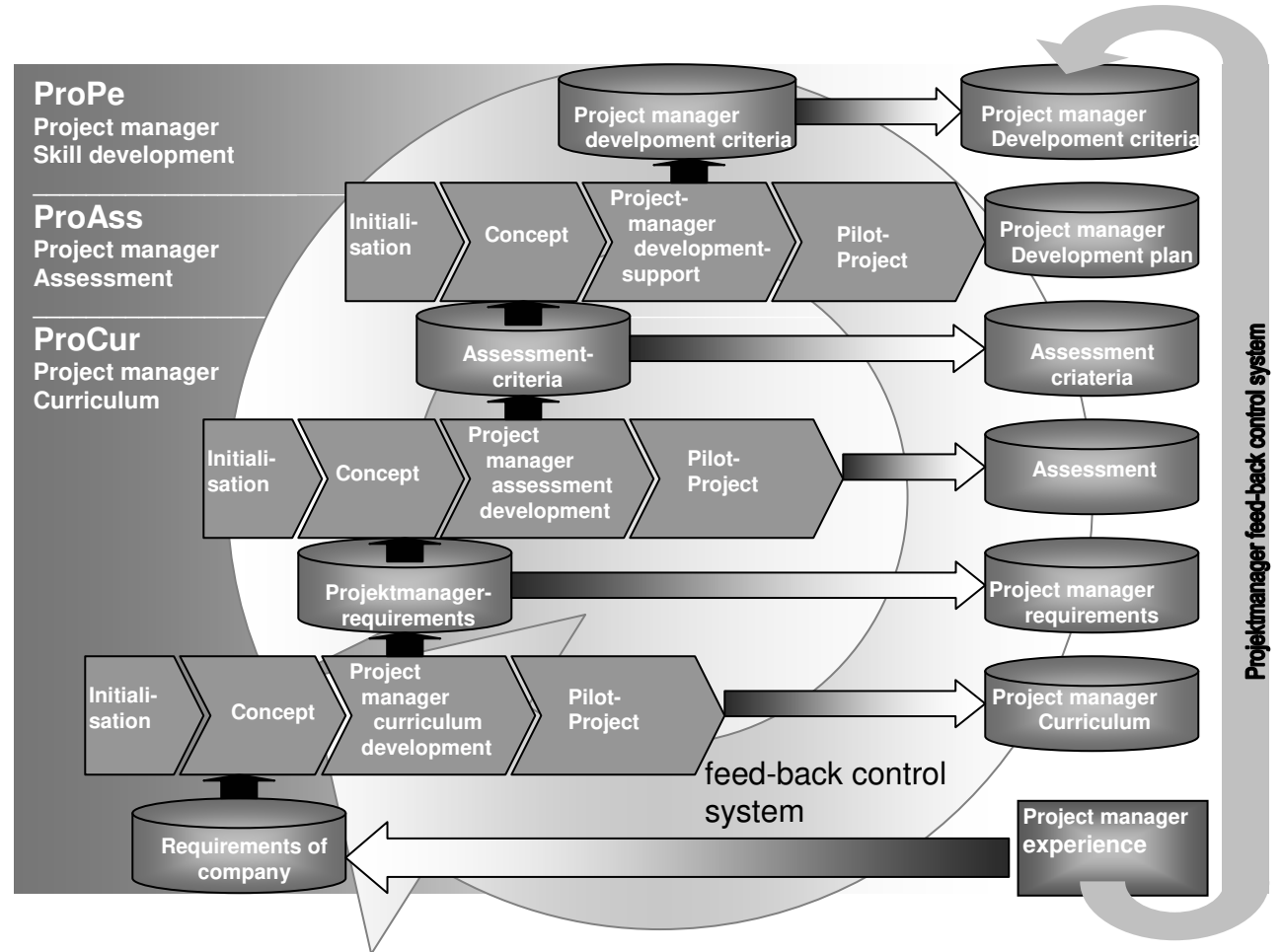
Profile Level D





Profile of Your Project Manager

Consistence





Profile of Your Project Manager

Curriculum Poland

- ✓ **90 hours one semester block course**
- ✓ **One Week Theory: all processes, lectures and laboratories**
- ✓ **One Week Practice: Tipps for project management, case study**



Profile of Your Project Manager

PROMESEAR

Project Management

for the European Union and South-East Asia Region

Common practice for IT project management curricula and research in higher education institutions in the European Union and Asia based on international standards and local key success factors

European Union:

Poland: Bydgoszcz (ATR)

Austria: Linz (JKU and SchuP)

Germany: Hagen (FUH)

South-East Asia:

Malaysia: Kuala Lumpur (MUST)

China: Shanghai (SJTU)

Thailand: Bangkok (i3t)

Laos: Vientiane (NUOL and STEA)



Profile of Your Project Manager

PROMESEAR

	Stream: Institutional & system development (WP3)			
		↓		↓
Management and coordination PROMESEAR		Stream: Curriculum (WP4)		Stream: Distance learning (WP5)
		Praxis assessment		
	Results verification	Results verification		Results verification
↓		↓		↓
Target groups				



Profile of Your Project Manager

PROMESEAR

Facts sheet

- 500 Man-months effort
- 24 months project time
- Main coordination and results verification at 7 one week workshops
- Workshops in the country of each participant (local factors)



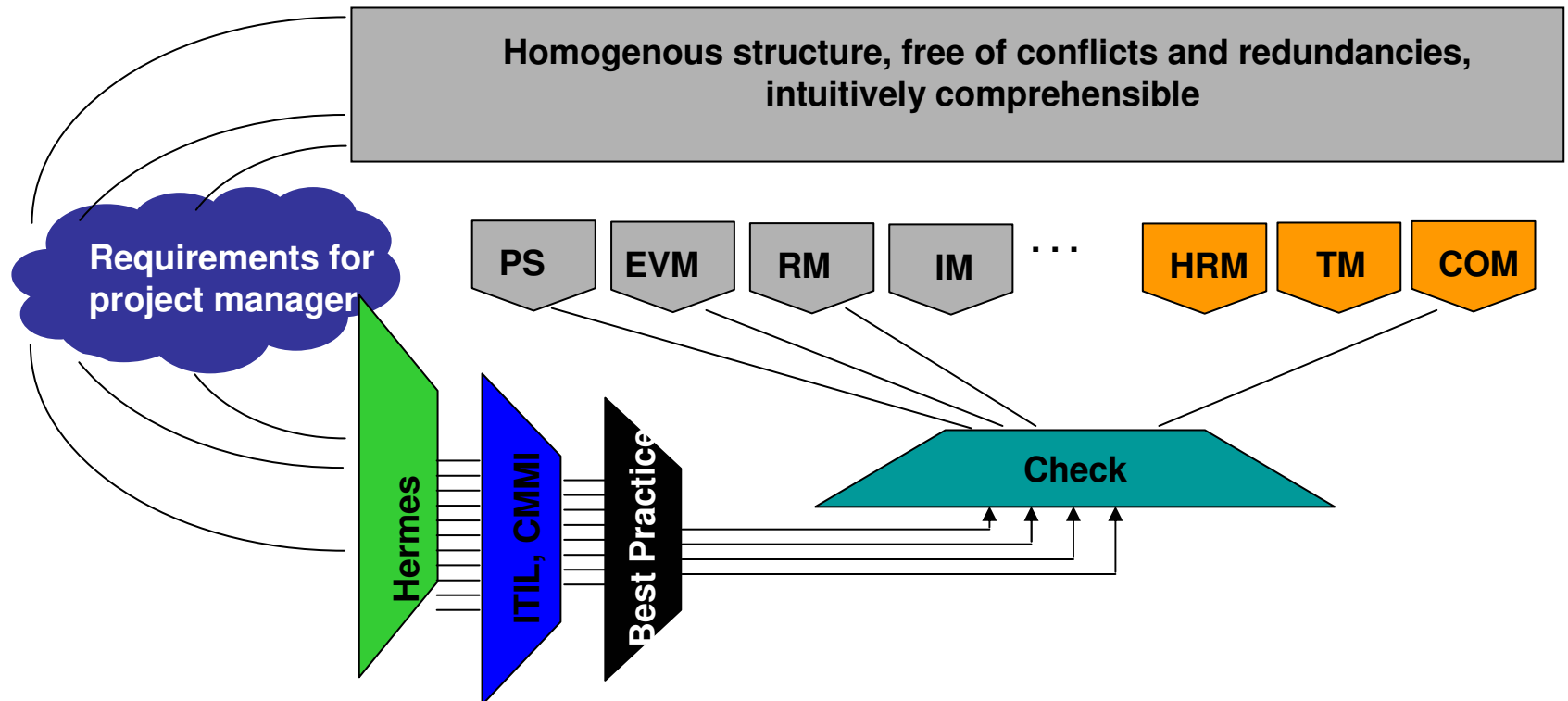
- Introduction
- L-Timer™ Project Management Method
- Profile of your Project Manager
- **Your Project Management Manual**



Your Project Management Manual

Method

Step 1: Record and structure expected results

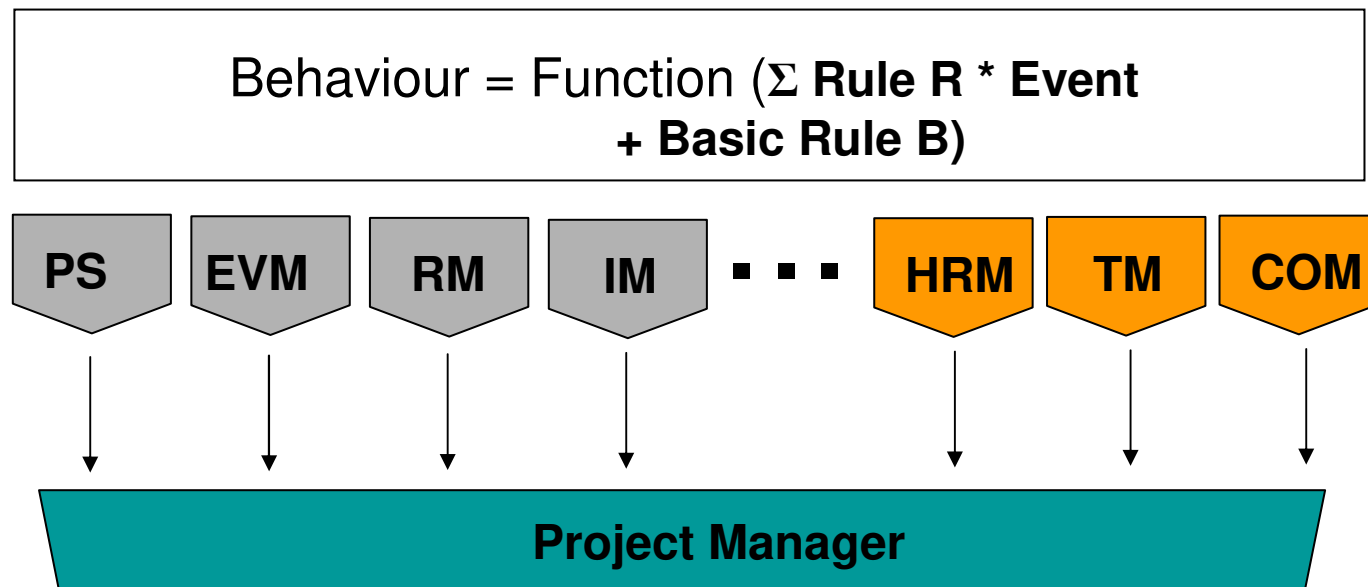




Your Project Management Manual

Method

Step 2: How should the project manager carry out the activities?

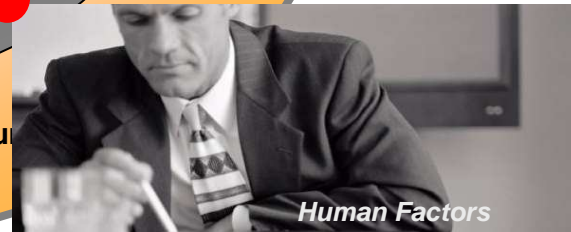
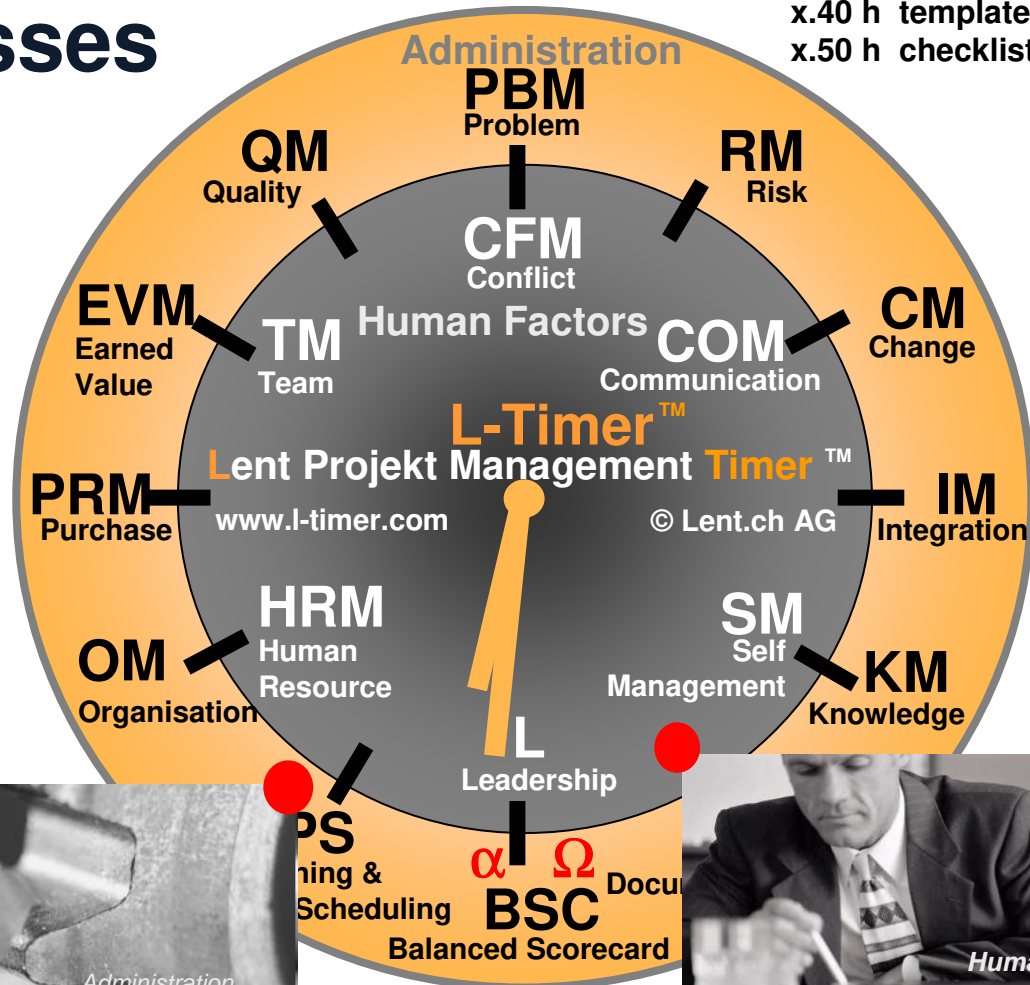




Your Project Management Manual

- x.00 h project management process
- x.10 h objectives of this management process
- x.20 h methods applied in this process
- x.30 h techniques and tools
- x.40 h templates of your enterprise
- x.50 h checklist of activities and expected results

Processes

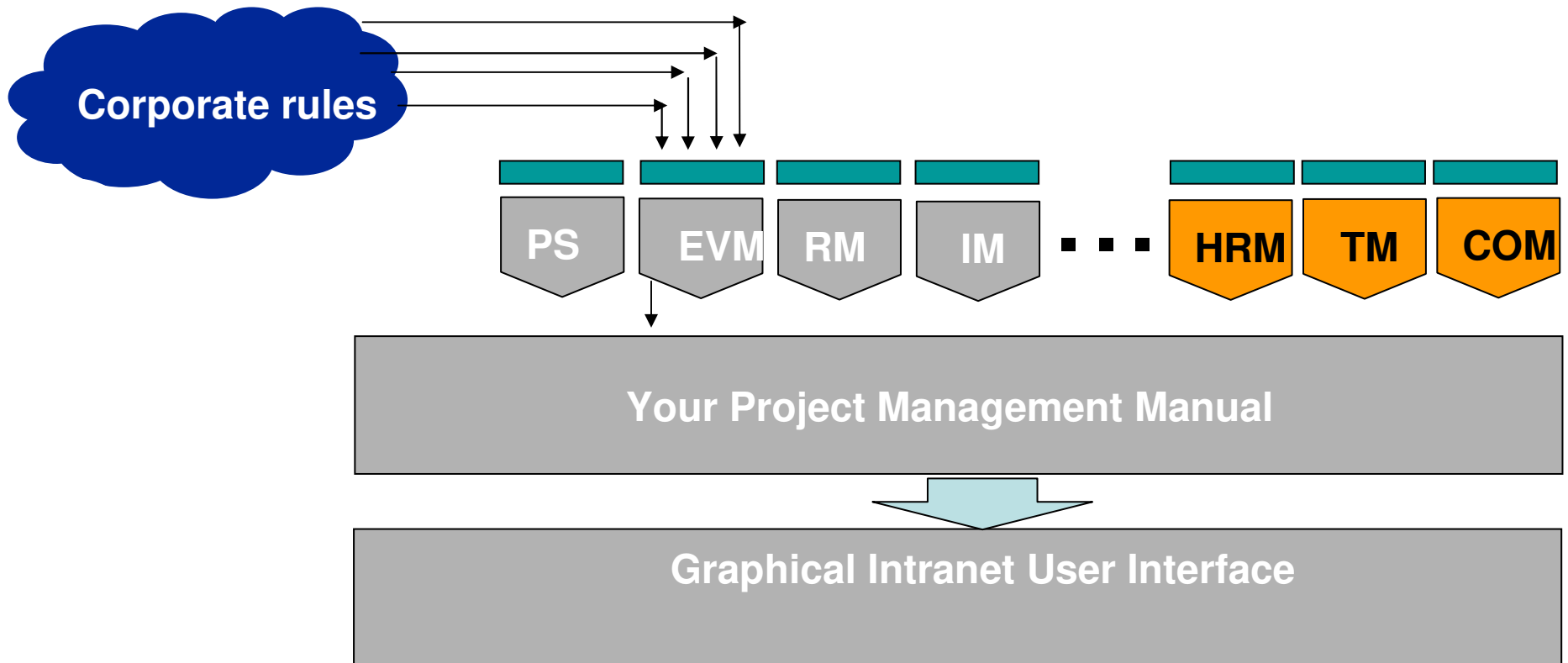




Your Project Management Manual

Method

Step 3: Search, decide on and use rules





Your Project Management Manual

Basic concept

Activity	Value	Role	methods	Techniqu.	templates	Check
formulate Project proposal?	1.449	10	R1	R5	G1	RZVM
develop project vision from project proposal	1.449	10		R2		RZVM
draft the coarse project plan	1.449	8		R3, G3		RZVM
write the project manual	1.449	2	G1	G2	G8	RZVM
define the project objectives	1.449	6		R1		RZVM
register the project	1.449	10		G1	R3	RZVM
structure the library of results	1.449	10	G1			RZVM

Contents

Project Manual

Event oriented
Always applicable

Σ Rules R
und Basic Rules G



Your Project Management Manual

Example 10.00 EVM rules

10:00 EVM

Nr.		activity	short description	process	methods	tools	Templates	Checklist
		EVM; Earned Value Management		Processes.ppt				
1		Create and maintain EVM-base	Master data for the company and the project, e.g. Project name, project structure	Processes.ppt				
1.1		Project data	Fixed data (e.g. Project name)	Processes.ppt				
	1	Maintain and modify project master data	Put together all data, fix reporting periods; adapt to up to date decisions during the project.	Processes.ppt		Calendar of reports	Project data	



Project Master Data Sheet

Name of the project:

...

short:...

1. Phases:

Phase	start	end		cost	
		planned	fact	planned	fact
Conception	15.02.04	10.05. 04	24.05. 04	125.000,00	130.000,00
Realisation	01.06.04	01.10. 04		206.640,00	
Sum				331.640,00	130.000,00



Project Master Data Sheet

2. Financial Structure

2.1. Overview

SBDP-number	PAR-number	SAP-number	ZI-numer	Remarks
-	7137 02	707 7137 02	-	

2.2. SAP-struktura

Phase	Work paket	Internal appl. SAP	Company ref. Number
Realisation	Realisation OC	707 7137 02 100	
	Real. FC	707 7137 02 201	
	Real. FC thirds	707 7137 02 211	
	Real		



Your Project Management Manual

Example 10.00 EVM rules

Project Master Data Sheet

Phase:	Realisation
---------------	-------------

	Sum previous periods									Period July						
	KW		KZ		KR		Total		estimate	KW		KZ		KR		
	is SAP	estimate PL	is SAP	estimate PL	is SAP	estimate PL	is SAP	estimate PL	Date finished	is SAP	estimate PL	is SAP	estimate PL	is SAP	estimate PL	is SAP
Ressource planning	33450	35.000	0	0	18540	17000	51990	52000	30.06.2004	0	0	0	0	0	0	0
System navigation in company	0	350	0	2000	0	0	0	2350	20.07.2004	1350	1350	2000	0	0	0	3350
Formation	7930	8000	0	0	0	0	7930	8000	20.11.2004	5330	6000	0	0	0	0	5330
Migration	16530	15000	0	0	0	0	16530	15000	20.10.2004	10000	10000	0	0	0	0	10000
Testphase RE1 and RE2	1050	1000	0	0	0	0	1050	1000	10.11.2004	0	1500	0	0	0	0	0
Correction	0	0	0	0	0	0	0	0	10.10.2004	0	0	0	0	0	0	0
End of phase RE1	0	0	0	0	0	0	0	0	31.10.2004	0	0	0	0	0	0	0
RE1 productivity	0	0	0	0	0	0	0	0	07.11.2004	0	0	0	0	0	0	0
migration RE2	0	0	0	0	0	0	0	0	30.11.2004	0	0	0	0	0	0	0
Correction finished	0	0	0	0	0	0	0	0	06.12.2004	0	0	0	0	0	0	0
Finish RE2	0	0	0	0	0	0	0	0	12.12.2004	0	0	0	0	0	0	0
Productivity RE2	0	0	0	0	0	0	0	0	15.12.2004	0	0	0	0	0	0	0
finishProject	0	0	0	0	0	0	0	0	18.12.2004	0	0	0	0	0	0	0
0									00.01.1900							
0									00.01.1900							



Your Project Management Manual
Example 10.00 EVM rules

Project Master Data Sheet

Phase: Realisation

PAR-Number: Approved credit \$ 206.640,00 acc. Investemnt planning
 Extra credit 0,00 Total internal activity: 181.640,00 acc. To credit request. Has to contain extra credit
 Total foreign activity: 20.000,00 acc. To credit request. Has to contain extra credit

services (external)

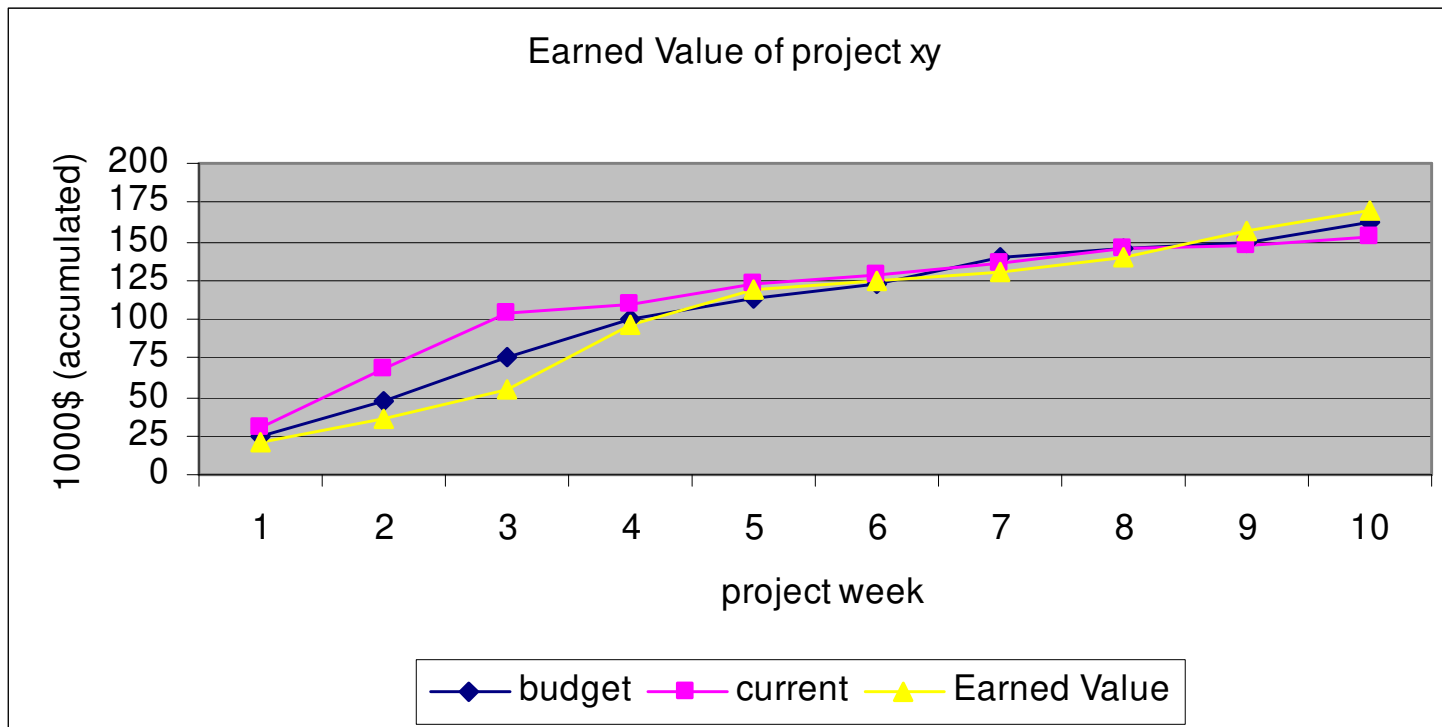
contract Nr	title	Valid from	Max. cost	expenses	Payment plan target		payment is		
		Valid until	target	target	month	amount	Date accounting	amount	
Total									0,00



Your Project Management Manual

Example 10.00 EVM rules

Project Master Data Sheet

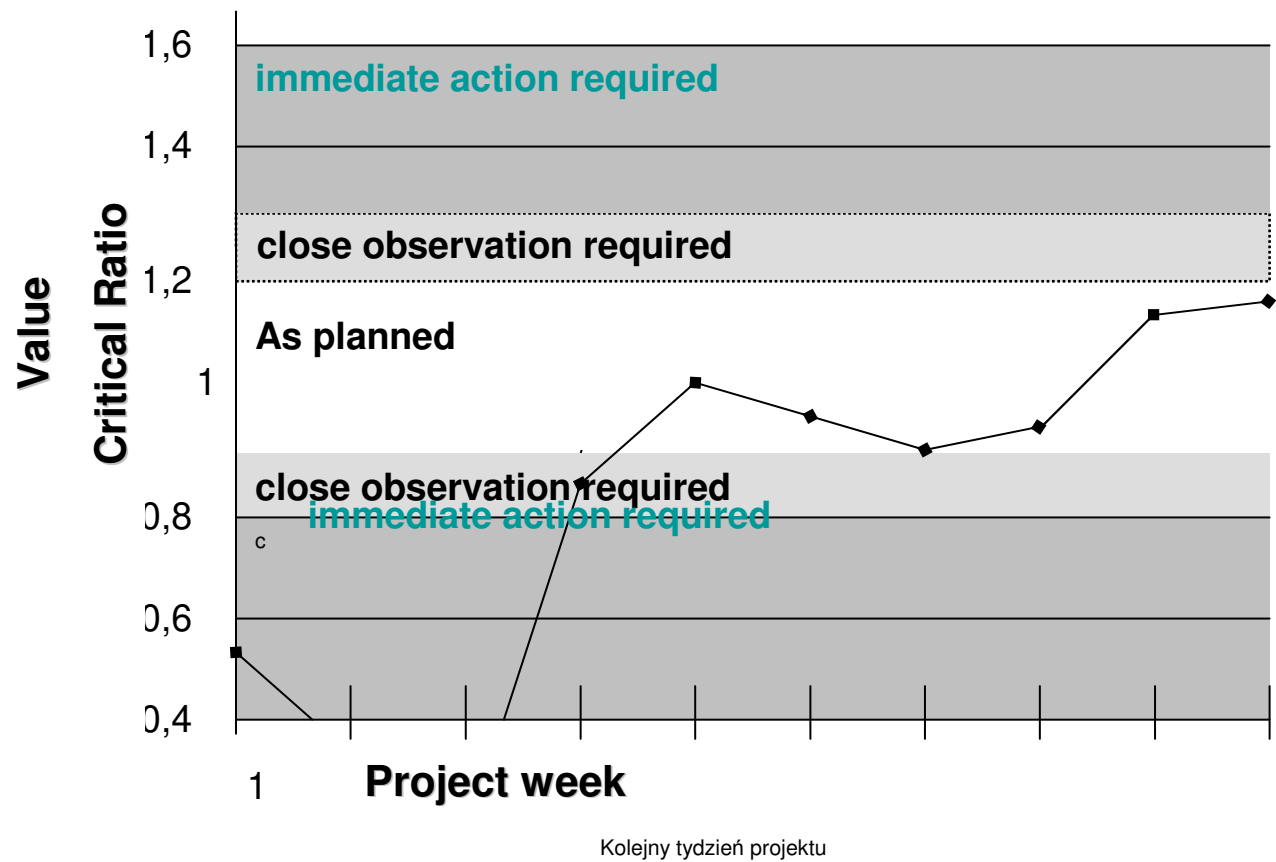




Your Project Management Manual

Example 10.00 EVM rules

Project Master Data Sheet



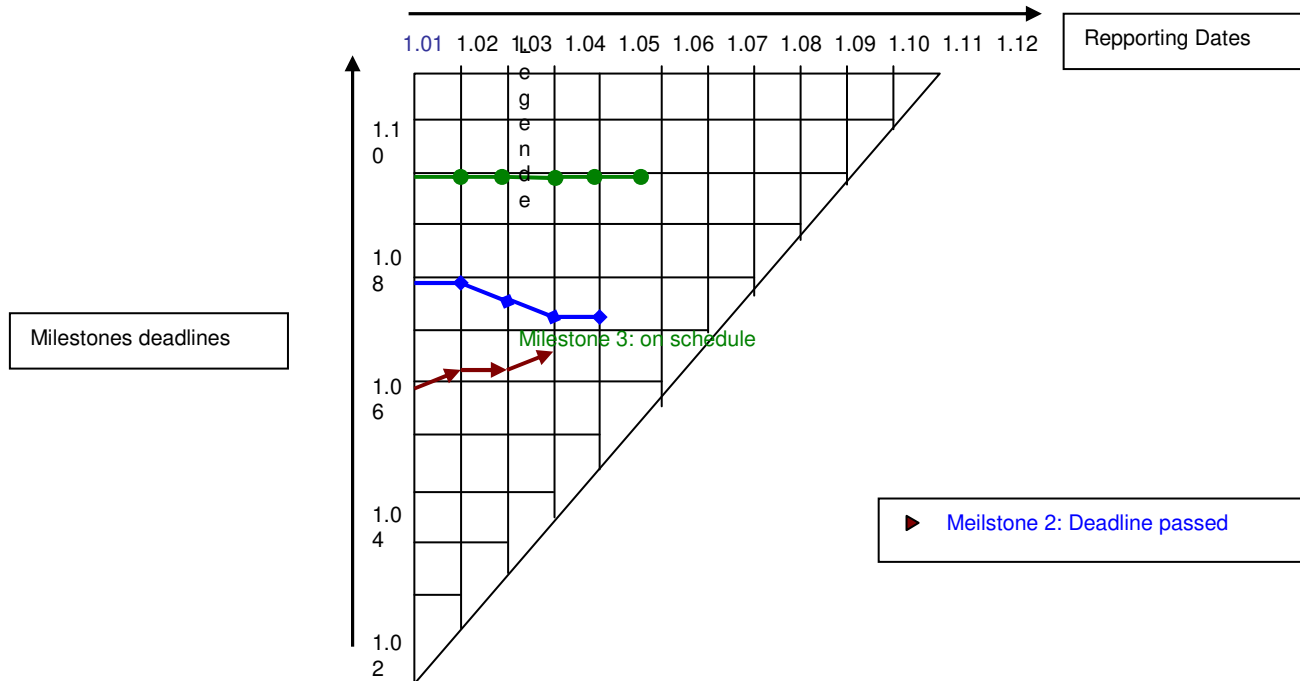


Your Project Management Manual

Example 10.00 EVM rules

Project Master Data Sheet

Milestones





Your Project Management Manual Example 10.00 EVM rules

User Interface

SBB CFF FFS Intranet

Informatik

Home Malibu
Suchen
Admin →
Kontakt

Malibu

10:00 Uhr
ETKM:
Ergebnis/Termin/Kosten

Sie steuern die Aktivitäten im Projekt entlang der Ergebnis/Termin/Kosten - Vorgaben des Zielverwirklichungsmanagements und unter Berücksichtigung von ausserplanmässigen Ereignissen.

Balanced Scorecard



Your Project Management Manual

Example 10.00 EVM rules

User Interface

The screenshot shows a web application interface for 'SBB CFF FFS Intranet'. At the top, there is a blue header with the text 'SBB CFF FFS Intranet' and a search bar. Below the header is a navigation menu with the following items: Home Malibu, Suchen, Admin, Kontakt, ZVM Zielverwirklichung, OM Organisation, BM Beschaffung, ETKM Ergeb. Term. Kost., QM Qualität, PBM Problem, RM Risiken, CM Änderungen, IM Integration, KM Knowledge, DM Dokumentation, BSC Balanced Scorecard, KOM Kommunikation, SM Ich, F Führung, HRM Human Ressource, TM Team, and KFM Konflikt. The main content area displays a large circular dashboard titled 'Malibu' with the SBB CFF FFS logo and website address 'www.sbb.ch'. The dashboard is divided into several segments, each representing a project management process: ZVM (Zielverwirklichung), OM (Organisation), HRM (Human Ressource), F (Führung), SM (Ich), DM (Dokumentation), BSC (Balanced Scorecard), KFM (Konflikt), KOM (Kommunikation), IM (Integration), KM (Knowledge), CM (Änderungen), RM (Risiken), PBM (Problem), and QM (Qualität). The dashboard also includes a central clock face and a red needle pointing to the 'F' segment.



Your Project Management Manual Example 10.00 EVM rules

User Interface

SBB CFF FFS Intranet
Information
Check
Technology
110100100
000100011
110110110

Informatik
?

Home Malibu

Suchen

Admin →

Kontakt

ETKM Ergebnis / Termin / Kosten

ETKM - Ergebnis/Termin/Kosten

10:00 Uhr: >>> [Prozess](#)

10:10 Uhr: ● [Ziel](#)

10:20 Uhr: 🛠 Methode
keine Regel

10:30 Uhr: 🛠 Techniken und Werkzeug

Microsoft Excel
 Microsoft Word

10:40 Uhr: 📄 Vorlage

10:41 [Reportingkalender](#)
 10:42 [Stammdatenblatt](#)
 10:43 [Projektbericht Intern](#)
 10:44 [Projekt und Kreditantrag](#)
 10:45 [Vergabeantrag](#)
 10:46 [Arbeitszeitrapport](#)
 10:47 [Projekt Bericht ETKM extern](#)
 10:48 [Projekt Bericht ETKM intern](#)

10:50 Uhr: Checklist



Your Project Management Manual

Example 10.00 EVM rules

User Interface

SBB CFF FFS Intranet
119 100 00
800 1000 11
101 101 11

Informatik
? [Organigramm] [Telefon] [Suche]

Home Malibu
Suchen
Admin →
Kontakt
ETKM Ergebnis / Termin / Kosten

ETKM planen durchführen und beurteilen

ETKM Durchführung

- Grundlagen bereinigen und aktualisieren
- periodisch erarbeiten, bewerten und bereitstellen
- Abweichungen bewerten
- Prognosen erstellen
- ETKM Bericht erstellen

periodisch erarbeiten, bewerten und bereitstellen

10:00 Uhr: >>> [Prozess](#)

10:10 Uhr: ● [Ziel](#)

10:20 Uhr: 🛠 Methode

keine Regel

10:30 Uhr: 🛠 Techniken und Werkzeug

📄 Microsoft Excel

10:40 Uhr: 📄 Vorlage

10:47:01 📄 [EVA-Tabelle](#)

10:50 Uhr: Checklist

Initialis.
Planen
Realis. CL
Einf. CL
Abschluss



Your Project Management Manual

Advantages of your project management manual

- Activities of a project manager are clearly defined
- The activities are systematised and coordinated
- Only activity related rules are considered
- Only defined rules apply
- If no rule is specified, the project manager is free to choose
- No unnecessary theory
- Clear contract between the company and the project manager

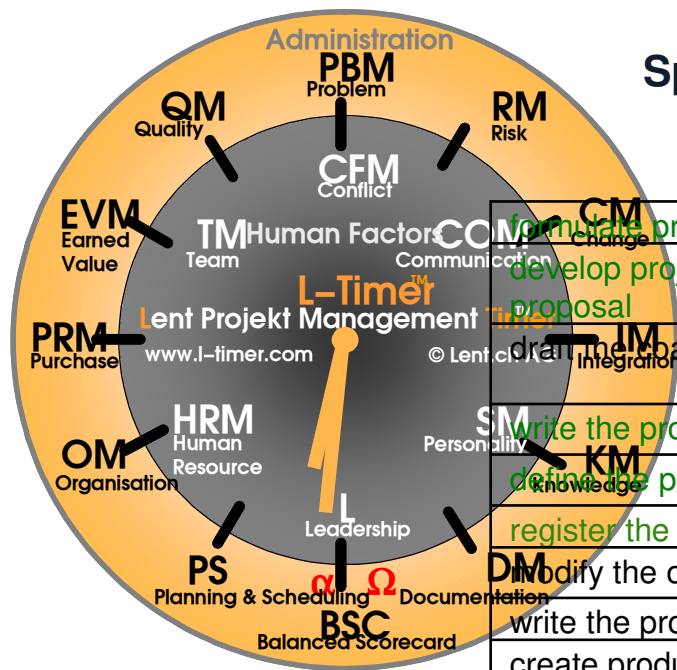


- Introduction
- L-Timer™ Project Management Method
- Profile of your Project Manager
- Your Project Management Manual
- **Conclusions**



Conclusions

General method of project assessment



Special needs of a company, PMI, CMMI, ITIL, IPMA,

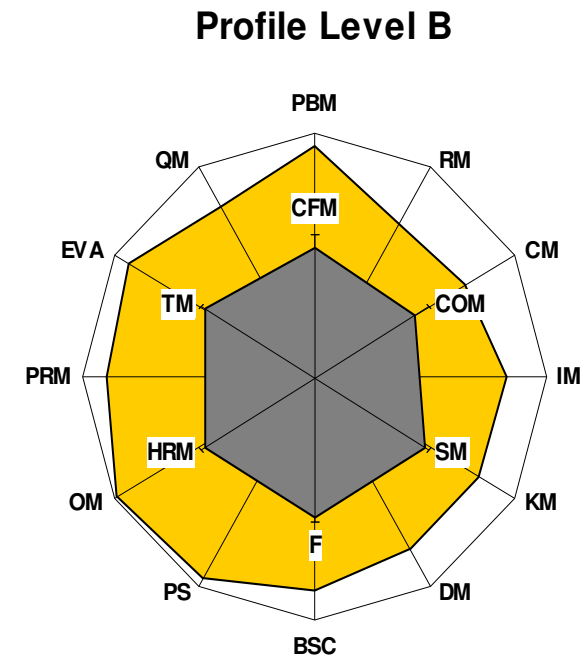
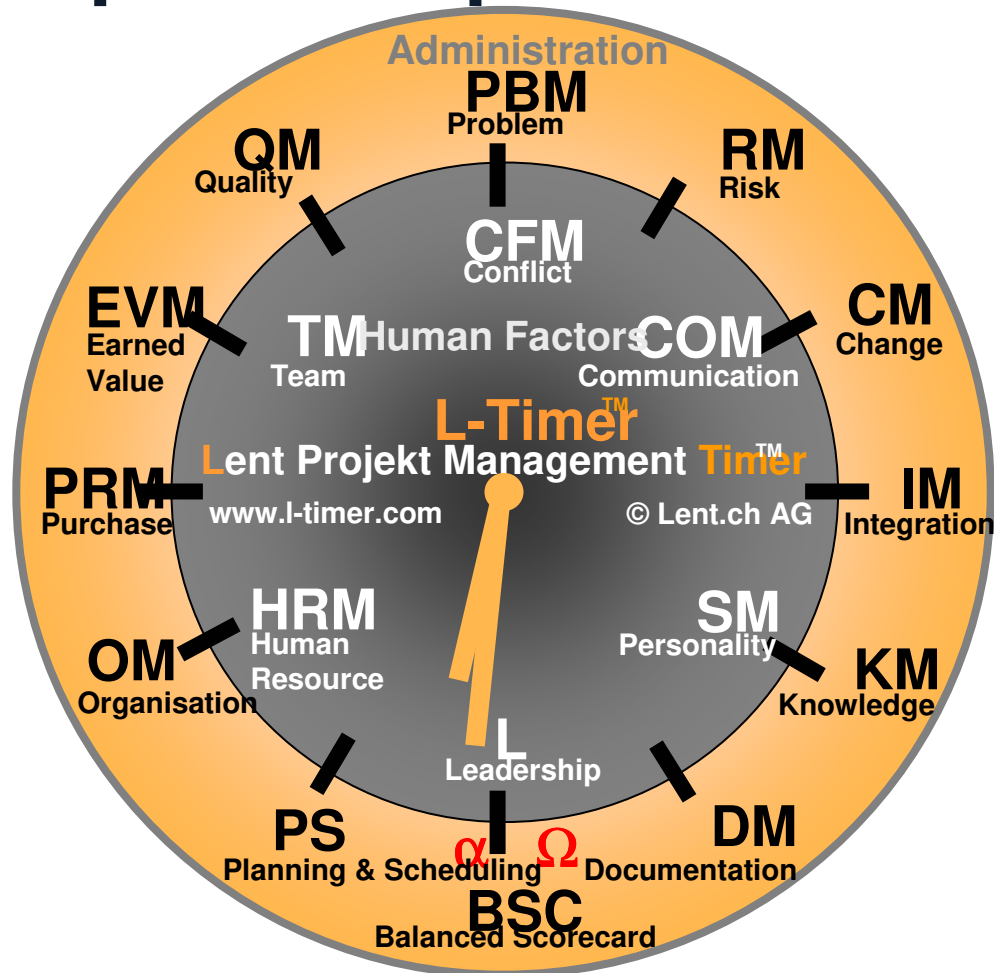


formulate project proposal	1.449	10	R1	R5	G1	RZVM
develop project vision from project proposal	1.449	10		R2		RZVM
draw the coarse project plan	1.449	8		R3, G3		RZVM
write the project manual	1.449	2	G1	G2	G8	RZVM
define project objectives	1.449	6		R1		RZVM
register the project	1.449	10		G1	R3	RZVM
modify the objectives with documentation	1.449	6				RZVM
write the product concept	1.449	6	R5			RZVM
create product breakdown structure	1.449	0	R6	R7		RZVM
structure the library of results	1.449	10	G1			RZVM



Conclusions

Special requirements of companies





Conclusions

Human factor bound into the system

- All related activities grouped and bound into L-Timer™
- Project Manager Profile derived from the needs related to the activities
- The required profile precisely supported by curriculum
- Personal development of the project staff promoted through the BSC project steering and individual matching assessment
- Target oriented interactive intranet Project Management Manual



Thank you
for your attention!