

IT QM Part1 Lecture 5

SIEMENS



Lectures at the University of Bratislava/Spring 2008

- 21.02.2008** **Lecture 1 Impact of Quality-From Quality Control to Quality Assurance**
- 28.02.2008** **Lecture 2 Organization Theories-Customer satisfaction-Quality Costs**
- 06.03.2008** **Lecture 3 Leadership-Quality Awards**
- 13.03.2008** **Lecture 4 Creativity-The long Way to CMMI level 4**
- 03.04.2008** **Lecture 5 System Engineering Method-Quality Related Procedures**
- 10.04.2008** **Lecture 6 Quality of SW products**
- 17.04.2008** **Lecture 7 Quality of SW organization**

- 28.02.2007** **Vorlesung 1 Bedeutung der Qualität, Qualitätsbegriff und Normen**
- 06.03.2007** **Vorlesung 2 Von der Qualitätsprüfung zur Qualitätssicherung**
- 14.03.2007** **Vorlesung 3 Meilenstein des Qualitätswesens-Arbeitsorganisation**
- 21.03.2007** **Vorlesung 4 Qualitätskosten-Führungsverhalten 1**
- 28.03.2007** **Vorlesung 5 Führungsverhalten 2- Q- Awards**

- 02.03.2007** **Vorlesung 1 Bedeutung der Qualität, Qualitätsbegriff und Normen**
- 07.03.2007** **Vorlesung 2 Von der Qualitätsprüfung zur Qualitätssicherung**
- 21.03.2007** **Vorlesung 3 Meilenstein des Qualitätswesens-Arbeitsorganisation**
- 23.03.2007** **Vorlesung 4 Qualitätskosten-Führungsverhalten 1**
- 30.03.2007** **Vorlesung 5 Führungsverhalten 2- Q-Awards**

- 04.03.2008** **Lecture 1 Impact of Quality-Quality Definition-Standards**
- 11.03.2008** **Lecture 2 From Quality Control to Quality Assurance**
- 01.04.2008** **Lecture 3 Organization Theories-Product Liability-Emphasis from Quality Control
to Prevention**
- 08.04.2008** **Lecture 4 Customer Satisfaction-Quality Costs**
- 15.04.2008** **Lecture 5 Team Work-Leadership Behavior-Deal with Changes-Kind of Influencing
Control-Conflict**
- 22.04.2008** **Lecture 6 Tasks &Responsibility of Leading Personnel-Audits-Quality Awards**
- 06.05.2008** **Lecture 7 Management Science-Creativity Techniques-Embedded Systems-FMEA**

- Team Work
- Leadership Behavior
- Deal with Changes
- Kinds of Influencing Control
- Conflict

- Impact of Quality
 - Quality wins
 - Quality deficiencies
- Standards
 - Quality definition
- Evolution from quality control to TQM
 - Shewhart, Deming, Juran, Feigenbaum, Nolan, Crosby, Ishikawa
- Evolution of organization theory
 - i.e. Taylorism, System Dynamics, System Thinking, Quality Assurance
- Product liability
- Customer satisfaction
 - Criteria, two-dimension queries, inquiry methods

- Quality costs
 - Failure prevention, appraisal, failure, conformity, quality related losses, barriers
- Leadership
 - Behavior, deal with changes, kinds of influencing control, conflict resolution, syndromes to overcome when introducing changes
- Audits
- Quality awards
- Creativity techniques
 - Mind Mapping, Progressive Abstraction, Morphological Box, Method 635, Synectics, Buzzword Analysis, Bionic, De Bono
- Embedded Systems
- FMEA-Failure Mode Effect Analysis

Basics for formation a team/1

From "I" to "we"/1

- **common understanding**

- all team members must have a clear understanding
 - About sense and purpose
 - And the right of existence of the team.

- **Rules**

- The team members compile (and decide) together rules
 - How they will go around with one another.

Basics for formation a team/2

- Meeting of decisions
 - a regulation must be provided
 - as decisions are made
 - By agreement,
 - majority decision.
 - ... Are there exceptions?
 - - if, under which conditions
- Communication:
 - Communication has very large value for a good team.
 - This value must be embodied,
 - be understood about the team members,
 - accepted
 - and this experience must be internalized.
 - Going around with different opinions and constructional feedback represent substantial elements for a developing team.

Basics for formation a team/3

- **Roles**

- The distribution of roles and the co-operation must be clear.

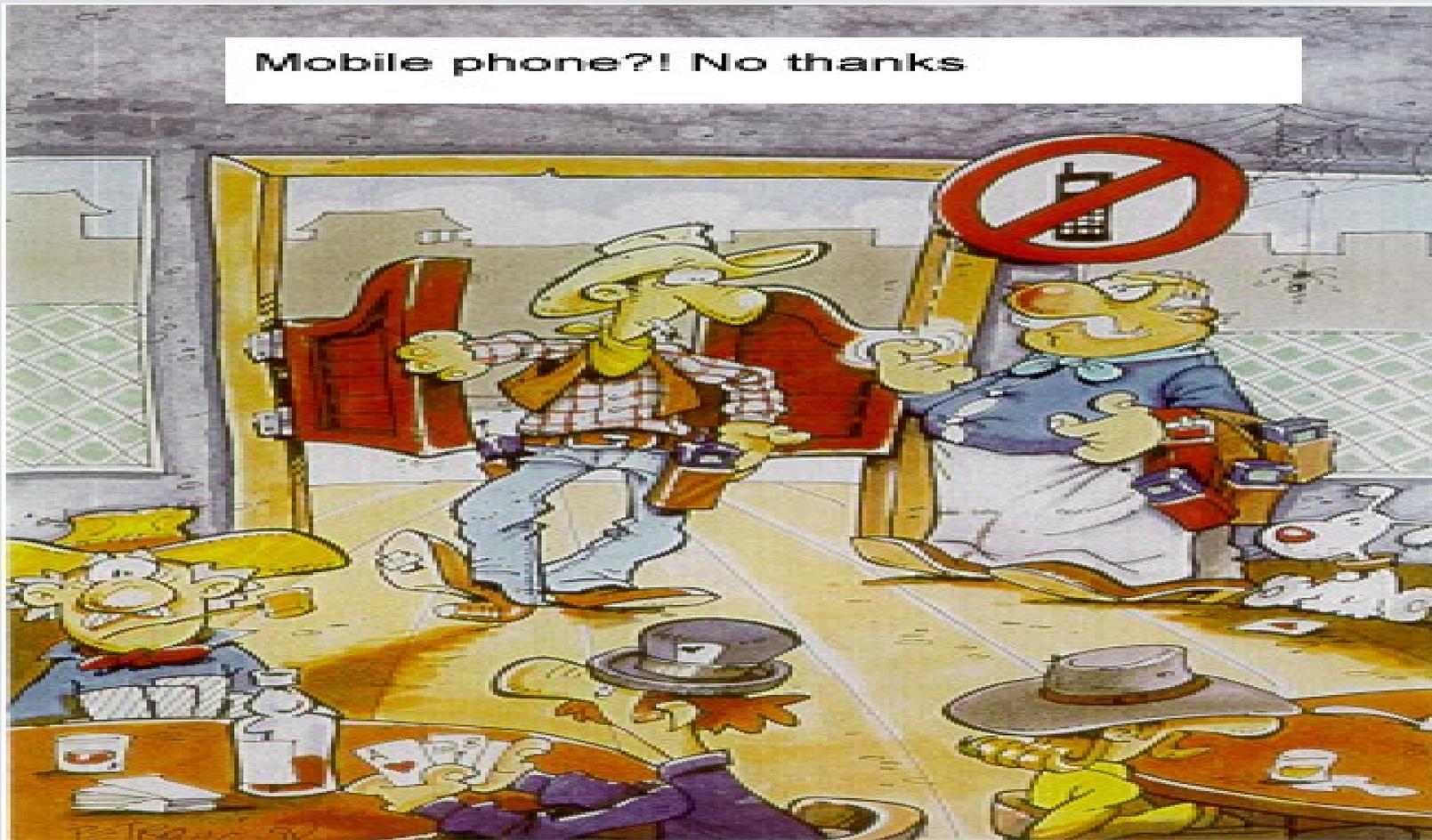
- **Values**

- Mutual appreciation and acceptance of all team members.

Teamwork/1

Moderators/1

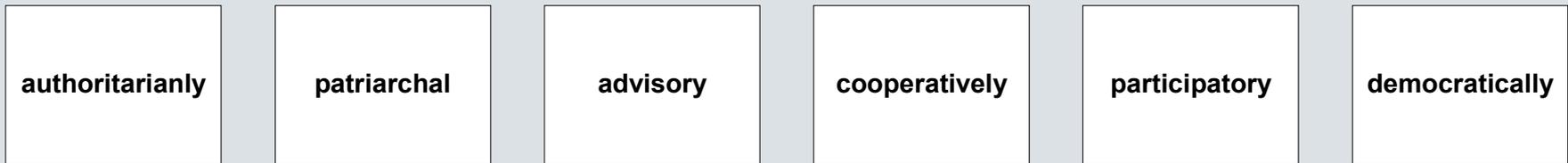
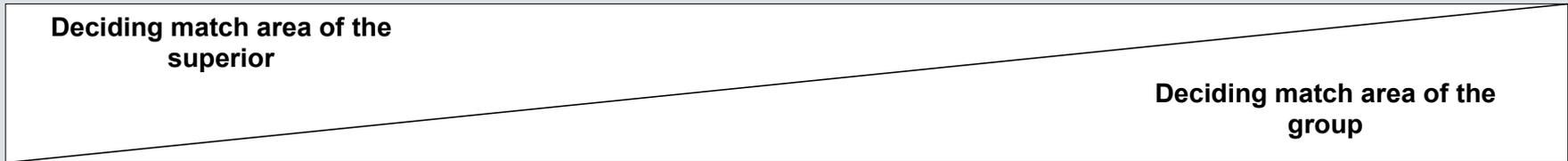
<p>Workshop-Objective</p> <p>Organizer</p> <p>Date</p>				
<p>Conception regulation</p>				
Name	Department Company	connected with the company since...	on.. i am mostly interested	in the circus in the gover- ment i would gladly be
			<p>query expectation for each day</p>	<p>also a little fun</p>
			<p>i wish that we agree on the end</p>	<p>in the spare time i make dearest</p>
			<p>I am looking forward because</p>	<p>my dream job would be</p>
			<p>career is for me</p>	<p>in the government i would prefer to be ministry of</p>
			<p>what should be absolutely out</p>	<p>for loosening for relaxation i recommend</p>
			<p>a dream result would be</p>	



- Trust the high-level personnel
 - woolen of group work
 - recognizing the use
- Qualification of the coworkers
 - technically
 - problem solution - planning tools
 - presentation techniques
- Openness in relation to improvement.

- Particularly with "woolen of group works" it shows up
 - that the guidance culture and the role understanding of the high-level personnel
 - coins/shapes completely substantially the scope of action of groups,
 - and thus is a substantial factor for use of teams in an enterprise.

Leadership behavior: substantial basic condition for Teamwork/3 Realizations/experiences/3



boss decides and arranges

Set forward decides, wants to convince before arrangement

Set forward decides, permits questions, in order to reach by answers acceptance

Set forward its group informs about its intended decision; Group has the possibility of expressing their opinion before superior makes final decision

Group develops suggestions; from the together found and accepted solutions the superior decides for from him favored

**Group decides, after the superior pointed the problem out before and specified the borders of the deciding match area
Set forward = co-ordinator inward and outside**

- Each human goes through some phases
 - if he is confronted with change.
 - All phases are always gone through
 - however the length of time for each phase is different from humans to humans
 - depends on the individual personality and the weight of the change (degree of the embarrassment).
- In the following we speak of high-level personnel
 - since the view is to support particularly for the later employment in the working life
 - in the private sector a good friend or an external coach could transfer this role.

Deal with changes/2 Old Identity

- The starting point of each change is the identity
 - which possesses each person.
-

- Factors, which describe/determine the identity:
 - Experiences
 - Family
 - Friend circle
 - Training
 - Job
 - Teammate role understanding
 - Function

Deal with changes/2

Shock/1

- The change releases the person stunned.
-

- By the shock the person concerned protects itself against still larger pain.
-

- This natural safety device does not help to break us by this change.

Deal with changes/3 Shock/2

- Example from the medicine:
- Persons involved in an accident stand under shock.

-
- The same behavior pattern sets in also at other changes
 - even if the signs may not be so clear.
 - If persons experience of serious changes in an enterprise e.g. rationalizations
 - symptoms as
 - sweaty hands
 - Ash grey faces
 - are not unlikely.

Deal with changes/4

Slandering/1

- In the 3th phase slandering of the change occurs.
 - As typical examples the following statements are considered
 - "nevertheless that may not be true",
 - "something like that is impossible "
 - ...
-

- In this phase the person concerned attains again the capacity to act back,
 - which was taken away during the shock.
- Now the person uses all the energy in order
 - to protect the "old" condition
 - to secure the old identity.

Deal with changes/5

Slandering/2

- not the rationality of the change
 - reliability of the source
 - logic of the change
- helps to jump over the denial phase
- on the contrary the denial intensity depends
 - on the one hand of the personality of the person concerned
 - and on the other hand on the weight of the embarrassment.
- **Is special a large challenge for high-level personnel:**
- all persons (coworkers) run through this phase
 - - i.e. resistance against change projects is not "maliciousness" of particulars
 - is valuable indicator for the high-level personnel to recognize where their coworkers straight stands.

- In phase 4 now insight into the inevitability of the change adjusts itself .
-

- The person concerned recognized that the denial does not help.
-

- The change will take place and is not to be stopped by personal resistance

- neither through keeping it not true
- nor looking away by active resistance.

- This phase is coined/shaped by 3 different behaviors:
 - Aggression:
 - some may react aggressively to the insight that they are powerless;
 - Others have decided over their fate
 - They don't put up with it
 - "with me not so".

 - Resignation: again others surrender their fate and are internally broken.

 - Depression: this to be "internally broken" can go up to the disease Depression.

- In the 5th phase the person accepts the upcoming change.
 - Head and belly come to terms with
 - contents of the change
 - the personal changes
 - the inevitability.

- In this phase the person finds the way back again to the used efficiency,
 - although it depends on the change
 - whether new abilities have to be developed,
 - in order to reach efficiency appropriate to the old identity.

Deal with changes/9

Try out/1

- The acceptance encourages
 - that the change occurs
 - partly already occurred (and/or is),
- now the time come,
 - to investigate the new field, which is opened by the change.
- Every time when new fields are to be occupied
 - There are some possibilities
 - and even best preparation cannot exclude an uncertainty in principle
 - Each new shapes/restructuring are accompanied by uncertainties and the uncertainty.

- Particularly in this phase the high-level personnel is demanded
 - to award courage for trying.
-

- Particularly good error culture must be present
 - Not to reach a focused goal may not be treated as discouraging killer.
-

- Otherwise the person slips again into the "insight phase"
 - in which the understanding (head) takes part
 - the feelings however are far away.

- Realizations, which are collected when trying out
 - are evaluated
 - and the use recognized by the person concerned.
- At the same time the person recognizes the new situation - also changes in the surrounding field are accordingly considered.
- The person developed new work techniques
 - applied these
 - developed independently new functions
 - included new colleagues into the work spectrum
 - and won self-assurance from the furnished achievements.

-
- That is the stage, in which a new identity is acquired
 - which corresponds to the phase before the change.

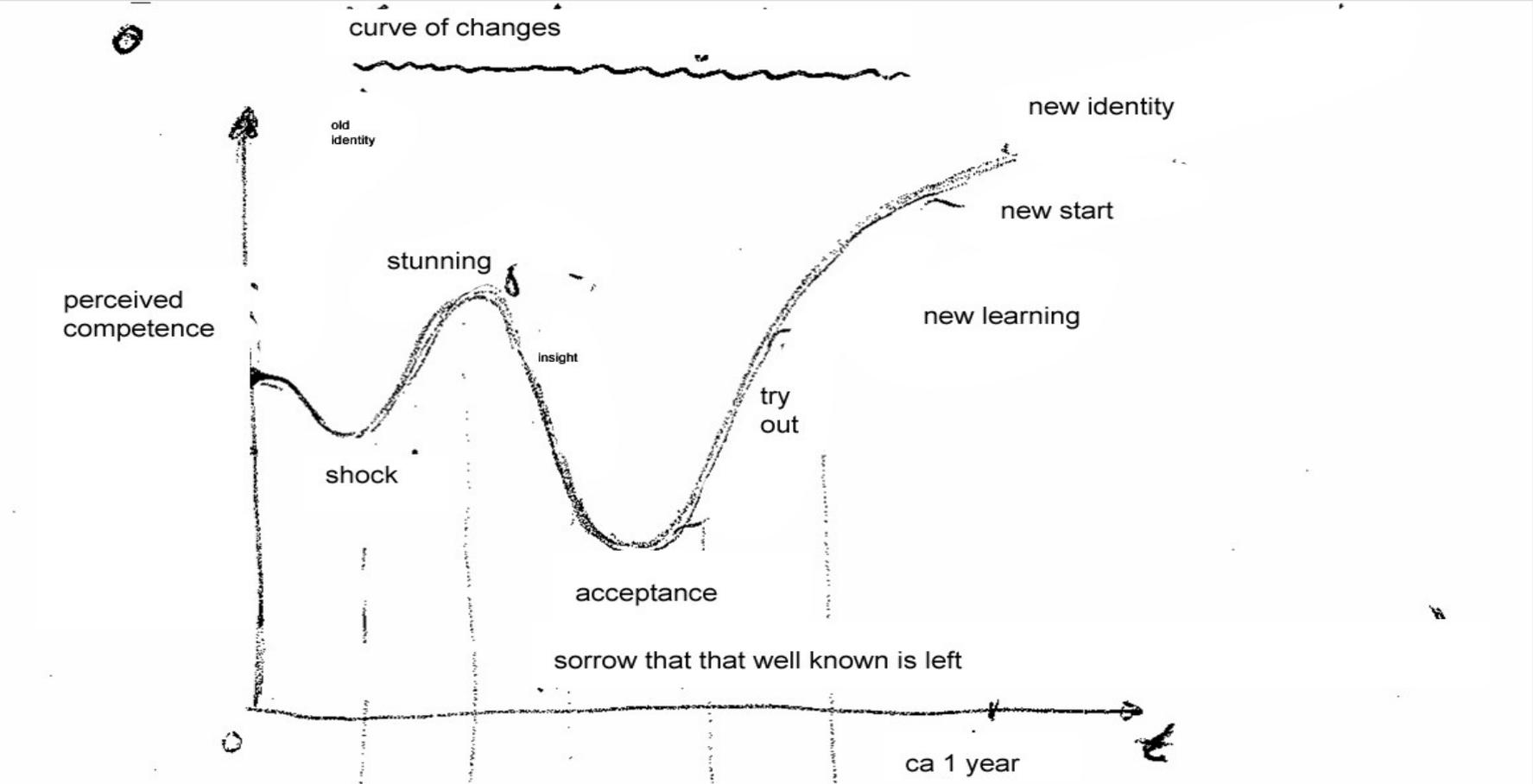
- The average duration of a change cycle is at 9 - 12 months.

• From this consideration it becomes clear that particularly with large, weighty change projects

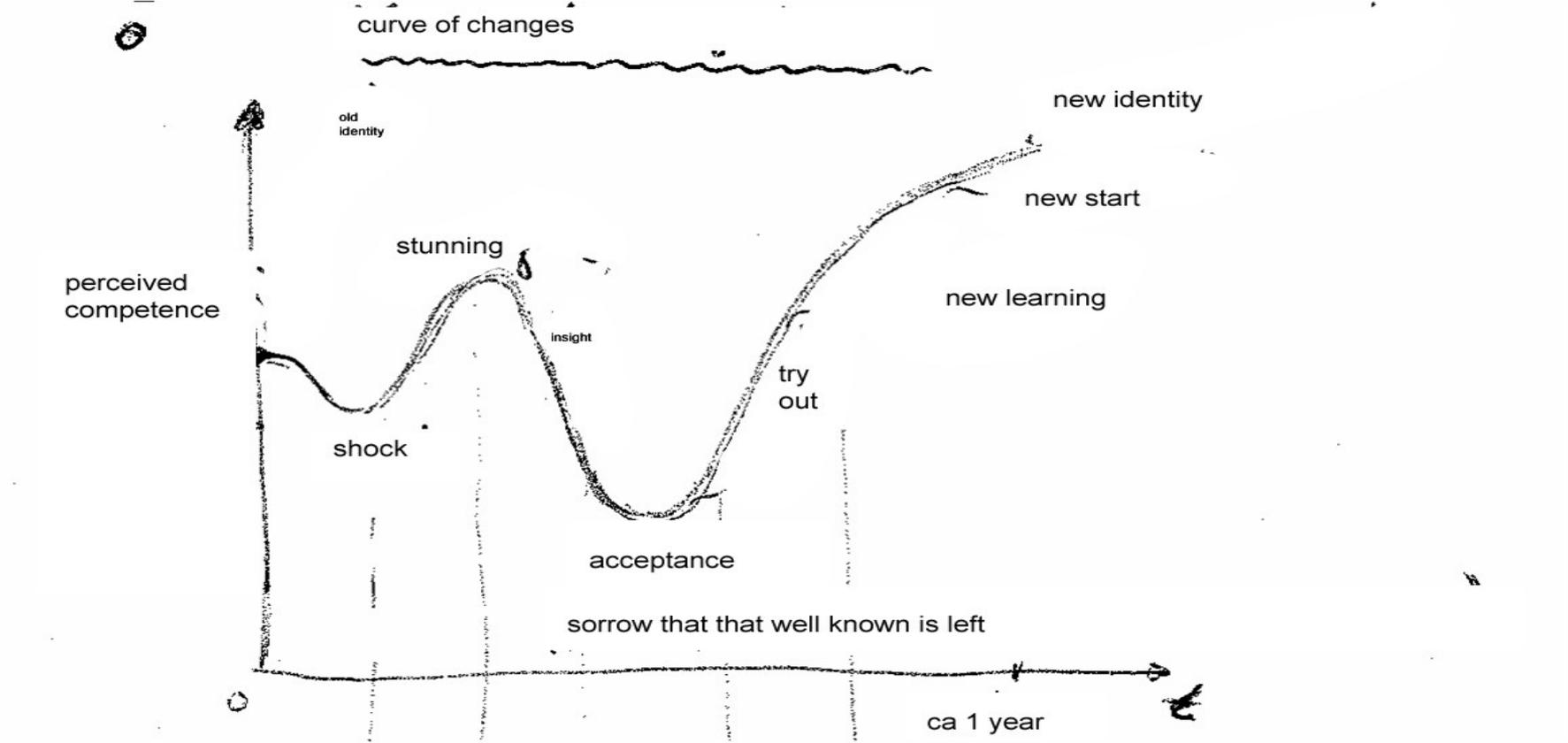
- process companions should be employed
 - giving both individual persons and teams support
 - in order to master differences between team members better and more surely
 - Induced by the change.

Deal with changes/13

Competence versus time



Deal with changes/14 Support of Management



- out of shock phase
- stick to this (don't support stunning)
- to be ready as partner in conversation
- first insight steps
- create general framework for own initiative

Deal with changes/15

Requirement on process accompanist

Anforderungsprofil Prozeßbegleiter										Z4C Ha 1.97									
	4	3	2	1	A	1	2	3	4		4	3	2	1	A	1	2	3	4
1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	11	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Bejahung unkritisch vertrauensvoll/ positiv eingestellt				Kritische Haltung misstrauisch vorsichtig/ läßt sich nichts vormachen						Menschliche Orientierung rührselig verständnisvoll/ hat Mitgefühl				Sachorientierung streng/ hat feste Haltung unbarmherzig				
2	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	12	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Selbstvertrauen überheblich selbstsicher/ steht zu sich				Selbstkritik selbstzweifelnd einsichtig/ kennt seine Grenzen						Kompromißorientierung nachgiebig partnerschaftlich/ gleicht Interessen ab				Durchsetzungskraft führungsstark/ setzt seinen Willen durch kompromißlos				
3	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	13	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Innenorientierung introvertiert bescheiden/ ruht in sich				Anerkennungsstreben außenorientiert/ sucht Zustimmung geltungsbedürftig						Gefühlsbetonung emotionsgeladen natürlich läßt sich vom Gefühl leiten				Verstandesbetonung vernünftig/ wird vom Verstand gesteuert verklemt				
4	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	14	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Stabilität übernimmt sich streb stabil/ hält viel aus				Wohlbefinden gesundheitsbetont/ achtet auf sich schwach						Beweglichkeit wechselhaft anpassungsfähig/ kann sich umstellen				Beständigkeit gradlinig/ bleibt sich treu stur				
5	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	15	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Leistungsbetonung unzufrieden ehrigtzig/anspruchsvoll gegenüber sich selbst				Zufriedenheit genügsam/ überfordert sich nicht leistungsfeindlich						Freiheitsbetonung haltlos unabhängig/ verwirklicht sich selbst				Integration fühnt sich verpflichtet bindungswillig unmündig				
6	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	16	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Ausgeglichenheit gleichgütig maßvoll/ steht über der Sache				Innere Beteiligung leidenschaftlich/ geht in der Sache auf fanatisch						Handlungsorientierung gedankenlos taktträchtig/ hat praktischen Sinn				Theorieorientierung überlegt macht sich Gedanken unpraktisch				
7	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	17	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Verantwortung selbstzufrieden gewissenhaft/ denkt an die Folgen				Unbeschwertheit unbekümmert/ lebt frei von Sorgen leichtfertig						Konkretes Denken begriffsstutzig anschaulich/ findet Beispiele				Abstraktes Denken begriffstark/ erkennt Gesetzmäßigkeiten realitätsfern				
8	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	18	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Zurückhaltung menschenscheu unaufdringlich/ ist gern allein				Kontaktfreude umgänglich/ geht auf Menschen zu distanzlos						Analytisches Denken haarspalterfein differenziert/ achtet auf Einzelheiten				Ganzheitliches Denken großzügig/ hat globale Orientierung oberflächlich				
9	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	19	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Ausdrucksstärke überspannt eindrucksvoll/ macht die Sache interessant				Nüchternheit themenbezogen/ kommt zum Kern der Sache farbig						Lineares Denken geläufig denkt folgerichtig/ behandelt eine nach dem anderen				Vernetztes Denken denkt komplex/ erfaßt alles auf einmal unlogisch				
10	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	20	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Unvoreingenommenheit meinungslos vorurteilsfrei/ beleuchtet alle Seiten				Meinungsfreude urteilsaktüchtig/ hat eigenen Standpunkt einseitig						Ideenreichtum versponnen erfindungsreich/ hat Phantasie				Ordnungssinn routiniert/ findet naheliegende Lösung einfallslos				

Kinds of influencing control/1 compulsion

- **Communication form:** Instruction, command
- **Organizational structure:** Classical hierarchy; openly and clearly
- **Relations form :** Open, stable asymmetry; Obedience expectation
- **Premise:** Sanction potential, monopoly of authority
- **Advantages:** time-saving ,possibility of ,abstraction both of relationship and person
- **Risk:** Renouncement of having the own opinion and taking over responsibility; Fear climate
- **meaningful:**if very simple requirements are present

Kinds of influencing control/2

Manipulation

- **Communication form:** Persuade, entice
- **Organizational structure:** Covers hierarchy, not transparent influences
- **Relations form:** Illusory partnership, knowledge around the readiness to be enticed, covers asymmetry conditions
- **Premise:** Obligation not possible, expenditure for covering up
- **Advantages:** Conflict avoidance
- **Risk:** Disappointment-susceptibly, loss at reliability – distrust
- **Meaningful :**if Obligation does not work, however lacking of maturity of all involved ones.

Kinds of influencing control/3

Motivation

- **Communication form:** Mutual agreement process, dialogue, conviction
- **Organizational structure:** Dominance of horizontal cross-linking
- **Relations form:** Stable, mutual, accepted symmetry - consent orient ness
- **Premise:** Acceptance of the underlying problem; mutual dependency
- **Advantages:** Use of all resources, high identification, self motivation
- **Risk:** Time-intensively, conflictful, irreversibly
- **Meaningful:** if high dependence on partners

Conflict: Frequently accompanies changes/1

Conflict resolutions/1

- Escape
- Fight
- Subjecting
- Delegation
- Compromise
- Consent - new solution

Conflict: Frequently accompanies changes/2 Conflict resolutions/2

- **Escape**

- **Advantage:** no expenditure

- **Disadvantage:** in principle no change of the initial position

- **Fight**

- **Advantage:** clear clarifying

- **Disadvantage:** Risk of the loss

Conflict: Frequently accompanies changes/3 Conflict resolutions/3

- **Subjecting**

- **Advantage:** no expenditure, clearly
 - **Disadvantage:** loss of the own point of view
-

- **Delegation**

- **Advantage:** oneself not involved
- **Disadvantage:** the delegated ones could recognize the course and place themselves against the proceeding

Conflict: Frequently accompanies changes/4 Conflict resolutions/4

- **Compromise**

- **Advantage:** everyone has little benefit of it
 - **Disadvantage:** no satisfying solution (putrid compromise)
-

- **Consent - new solution**

- **Advantage:** new solution born
- **Disadvantage:** higher expenditure – presupposes reciprocal readiness

Conflict: Frequently accompanies changes/5

Check list for the analysis of conflictful situations/1

- When did this conflict begin?
- How was the situation before?
- Which significant phases are there in the conflict?

-
- What were previous approaches?
 - Why did these fail?
 - Are there brought in samples?
 - Which conflict resolution form prevails at present?

Conflict: Frequently accompanies changes/6

Check list for the analysis of conflictful situations/2

- Which person/function/roles are directly and/or indirectly involved?
- Which interests are in the play?
- Which are endangered by the conflict?
- To what extent is the conflict connected with the tasks and responsibilities of the involved ones?

-
- By which attitude the involved ones contribute to the maintenance of the conflict?
 - Which pro and cons arise for the involved ones from it?
 - What excites me at the behavior of the involved ones?
 - What probably annoys different ones?
 - Which relations dynamics are developed?

Conflict: Frequently accompanies changes/7

Check list for the analysis of conflictful situations/3

- Who has which profit of the conflict?
 - Who pays which price?
-

- What would have to be done, in order to intensify the conflict?
- What would have to be done, in order to calm down the conflict?

**Thank you
for your attention!**



Primäre Flächenfarbe:

R 255
G 255
B 255

Sekundäre Flächenfarben:

R 215 G 225 B 225	R 170 G 190 B 195	R 130 G 160 B 165
R 220 G 225 B 230	R 185 G 195 B 205	R 145 G 155 B 165

Akzentfarben:

R 255 G 210 B 078	R 245 G 128 B 039	R 229 G 025 B 055	R 000 G 133 B 062	R 000 G 084 B 159	R 000 G 000 B 000
R 255 G 221 B 122	R 248 G 160 B 093	R 236 G 083 B 105	R 064 G 164 B 110	R 064 G 127 B 183	R 064 G 064 B 064
R 255 G 232 B 166	R 250 G 191 B 147	R 242 G 140 B 155	R 127 G 194 B 158	R 127 G 169 B 207	R 127 G 127 B 127
R 255 G 244 B 211	R 252 G 223 B 201	R 248 G 197 B 205	R 191 G 224 B 207	R 191 G 212 B 231	R 191 G 191 B 191
R 255 G 250 B 237	R 254 G 242 B 233	R 252 G 232 B 235	R 229 G 243 B 235	R 229 G 238 B 245	R 229 G 229 B 229