European Network of Enterprise for Health

Business Meeting

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Promoting good mental health at work in times of crisis

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Agenda

1. **Psychosocial costs of economical crisis**

2. **Risk factors and resources (EN DIN 614-2)**
   Strain consequences of Stress (ISO EN DIN 10 075)

3. **Beyond JDC and ERI?**
   workers control, injustice, SOS
   transformational leadership

4. **Job Demand- Resource Model (JDR) and an appropriate approaches of diagnostic and evaluation methods**
   - **objective**
   - **subjective**

5. **Resource development in times of crisis**
   Cost- Benefit Analysis

1. Psychosocial costs of economical crisis

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Downward performance spiral in crisis

Pfeffer, 1998 Human Equation

2. Risk factors and resources (EN DIN 614-2)
Strain consequences of Stress (ISO EN DIN 10 075)

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Psychosocial Risk Factors at Work

Stressors by task organisation	Stressors by social situation at workplace
- Role ambiguity - Overload - Time pressure - Fuzzy goals - Work interruptions - regulation overload (high complexity and variability) - Illegitimate tasks	- Conflicts with superiors and colleagues - Injustice behaviour - Social isolation and exclusion - Emotional dissonance - Gratification crisis - Dysfunctional social support

From Pathogentic to Salutogenetic Approach:

Content of psychological publications in Psychological Abstracts Since 1887:

Anger	**8.072**	**Pleasure**	**851**
Anxiety	**57.800**	**Happiness**	**2.958**
Depression	**70.856**	**Satisfaction**	**5.701**

Relationship: 14 : 1

Myers (2000)

Predictors of High Productivity & Benefit

Human Resource Management (HR)	**18 %**
Research & Development (RD)	**6 %**
Quality Measures (QM)	**1 %**
Technique renewal	**1 %**

West (2004) Aston School Birmingham
N = 47 English Enterprises

Features of Well-Designed Work Tasks According to EN DIN 614-2

- Work tasks as complete and purpuseful work units

- Task recognisable as important contribution to overall result

- Permit to use skills, abilities and activities

- Amount of freedom and independence

- Sufficient feedback

- skills and abilities

-

- Nether underload nor overload for operators

- Abesence of repetitive tasks

- Absence of social isolation, instead: social networks and cooperation at work

3. Beyond JDC and ERI?

workers control, injustice, SOS
transformational leadership

Methodolocial Approach

- **objective**
- **subjective**

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Job Demand- Control Model (JDC)

(Karasek, 1979, Karasek & Theorell, 1990)

- **Two dimensions: Job Demands & control (decision latitudes)**

- **Job strain caused by the combination of high demands and low job control**

- **Considerable support for the strain hypothesis**

- **But support for buffer hypothesis (control can moderate negative effects of high demands on well being) is less consistent**

➔ **This model has dominated the empirical research on job stress and health over the past 20 years**

But: complexity of working organization extremely reduced
Interaction effects between JD x C seldom realized

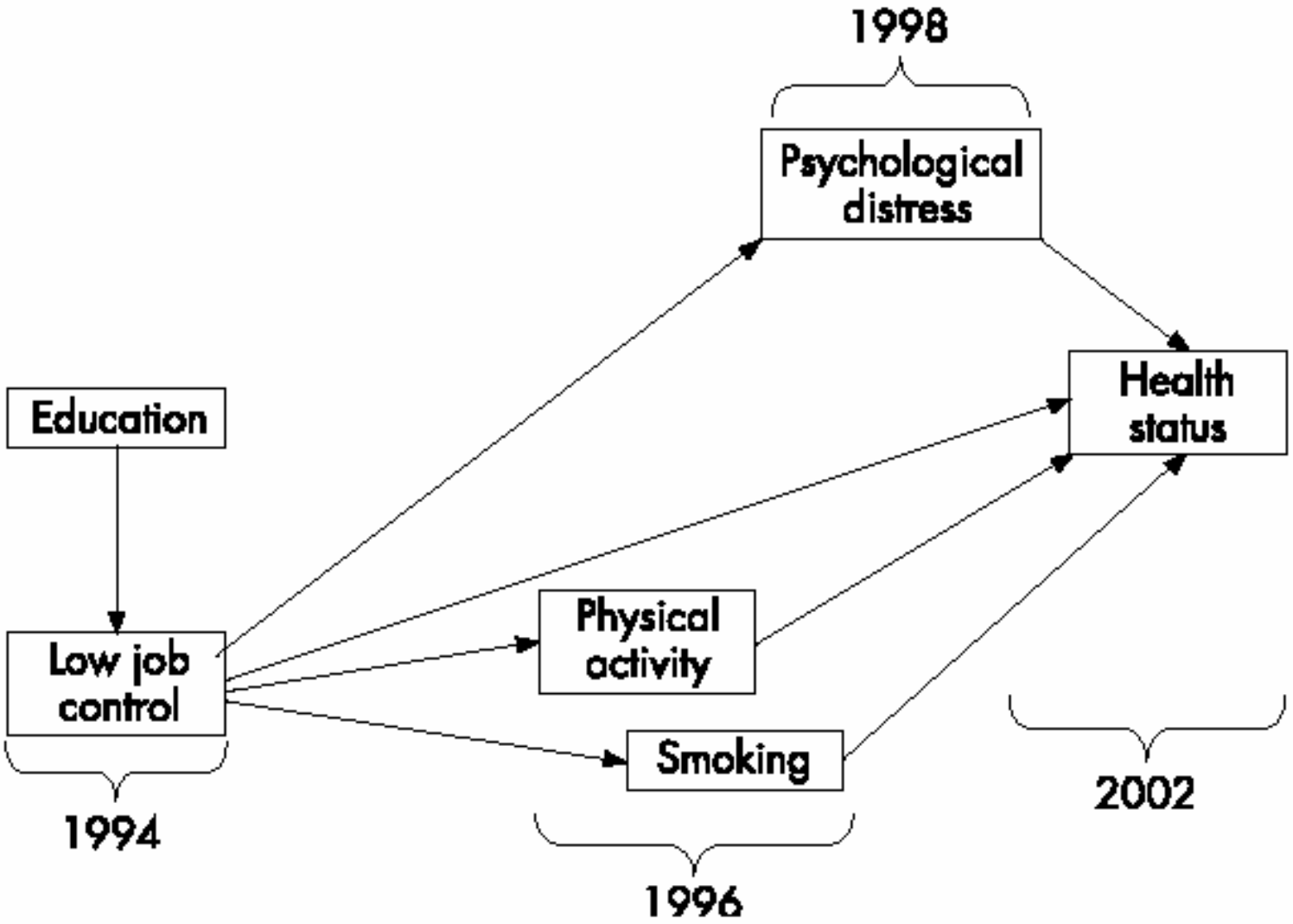


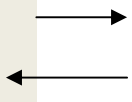
Figure 1 Base model examining the indirect and direct associations between job control and health status. Note that direct paths from education to health behaviours, psychological distress and self-rated health were also included in this model.

Smith et al., BJM, 2007,

From job control to Worker´s Control

Decision latitudes (job control)

Control at work



worker´s control

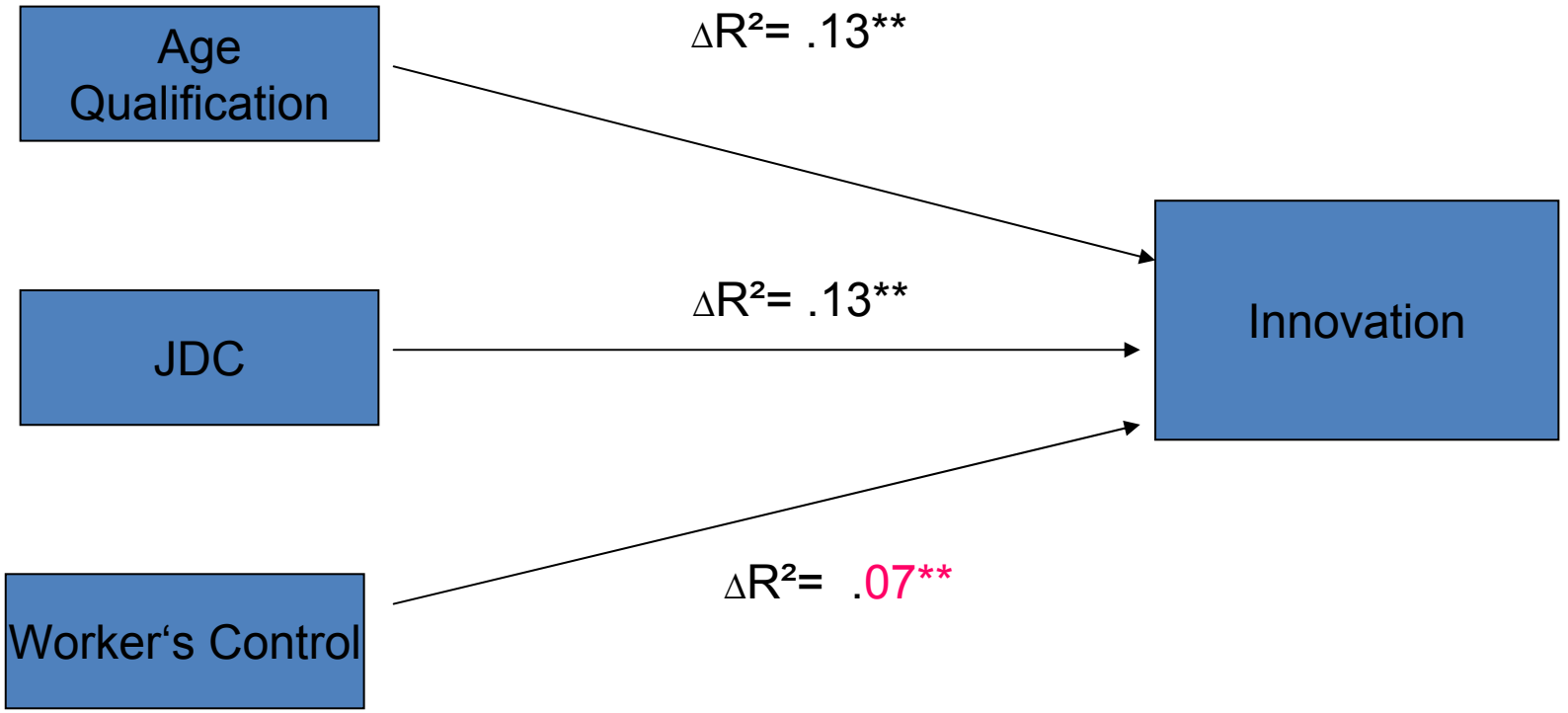
Control about conditions of work

- Self-determination at work
- goal-orientation
- reduced stress
- social cooperation

- Influence on work context
- Profit sharing
- Time sovereignty

Hüttges & Moldaschl (2009)

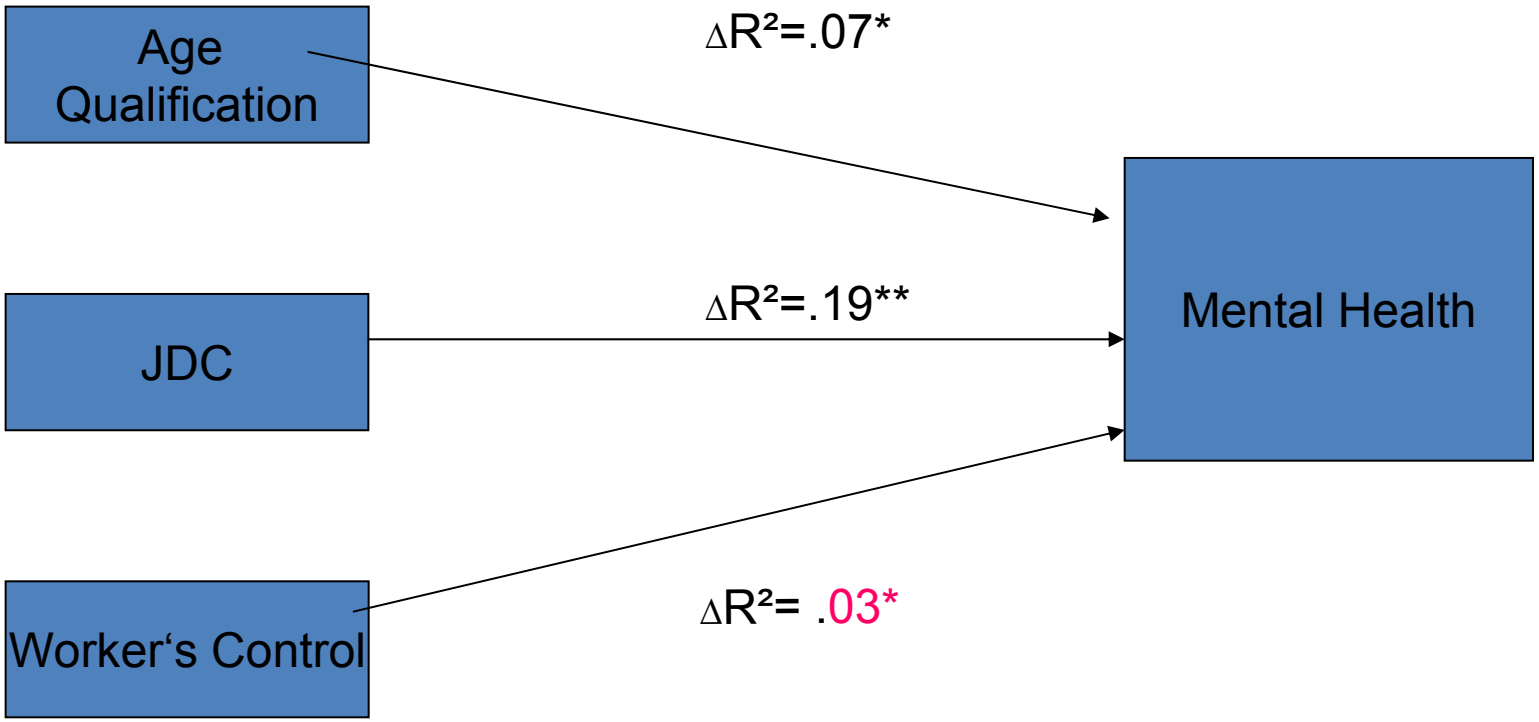
JDC (Karasek) and Worker‘s Control as predictors of Innovation



R^2 =.33 p < .01

N = 164 (Hüttges, 2009)

JDC (Karasek) and worker‘s control as predictors of mental health



R^2= .29 p< .01

N= 164 (Hüttges, 2009)

Effort-Reward Imbalance Model (ERI)

(Siegrist, 1996, 2008)

-**Job strain as result of imbalance between effort and reward career opportunities)**

- **lack of reciprocity between effort and reward (high effort/low reward conditions) leads to arousal and stress**

- **Unlike to JDC the ERI-Model introduces a personal component (over- commitment)**

➔**Recent developments: SOS (Semmer)**
Organisational injustice (Kivimäki)

“Stress as Offence to Self” (SOS) (Semmer, 2006)

Injury of aspiration level:

Disrespectful behaviour of supervisors and colleagues
Illegitimate tasks
Dysfunctional social support ➔

Increased feelings of resentment, irritation, burnout, and reduced Job satisfaction

Semmer et al. (2006):

	Illegitimate tasks		
	few (n= 943)	some (n= 769)	many (n= 875)
Psychosomatic Complaints	19%	32%	50%

Illegitimate tasks: underloading tasks for skilled workers

Organisational Injustice as Independently Predictor of Health

Kivimäki et al. (2003, 2008)

Organisational justice: justice of decision making procedures and interpersonal treatment

Sample and methods: GHQ and sickness
cohort of 416 male and 3357 female employees
in 10 hospitals in Finland 1998 – 2000

		Sickness OR	minor psychiatric morbidity OR
Results: 1. Injustice in decision making	**men**	**1.4**	**1.6**
	female	**1.1**	**1.4**
2. Interpersonal treatment	**men**	**1.3**	**1.2**
	female	**1.2**	**1.2**

➔ **increase in health risks for men 41%and women 12%**

4. **Job Demand- Resource Model (JDR) and an appropriate approaches of diagnostic and evaluation methods**
   - **objective**
   - **subjective**

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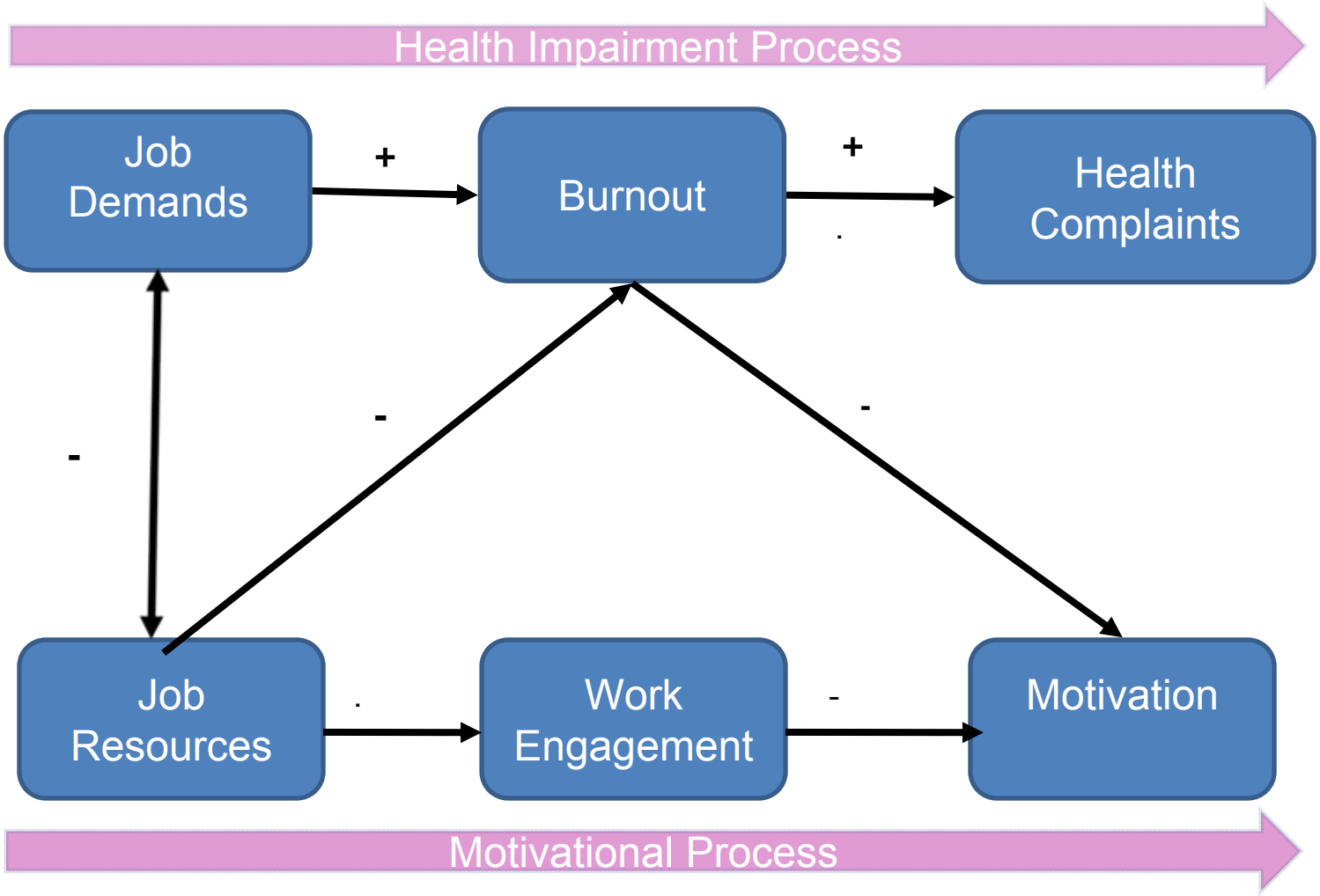
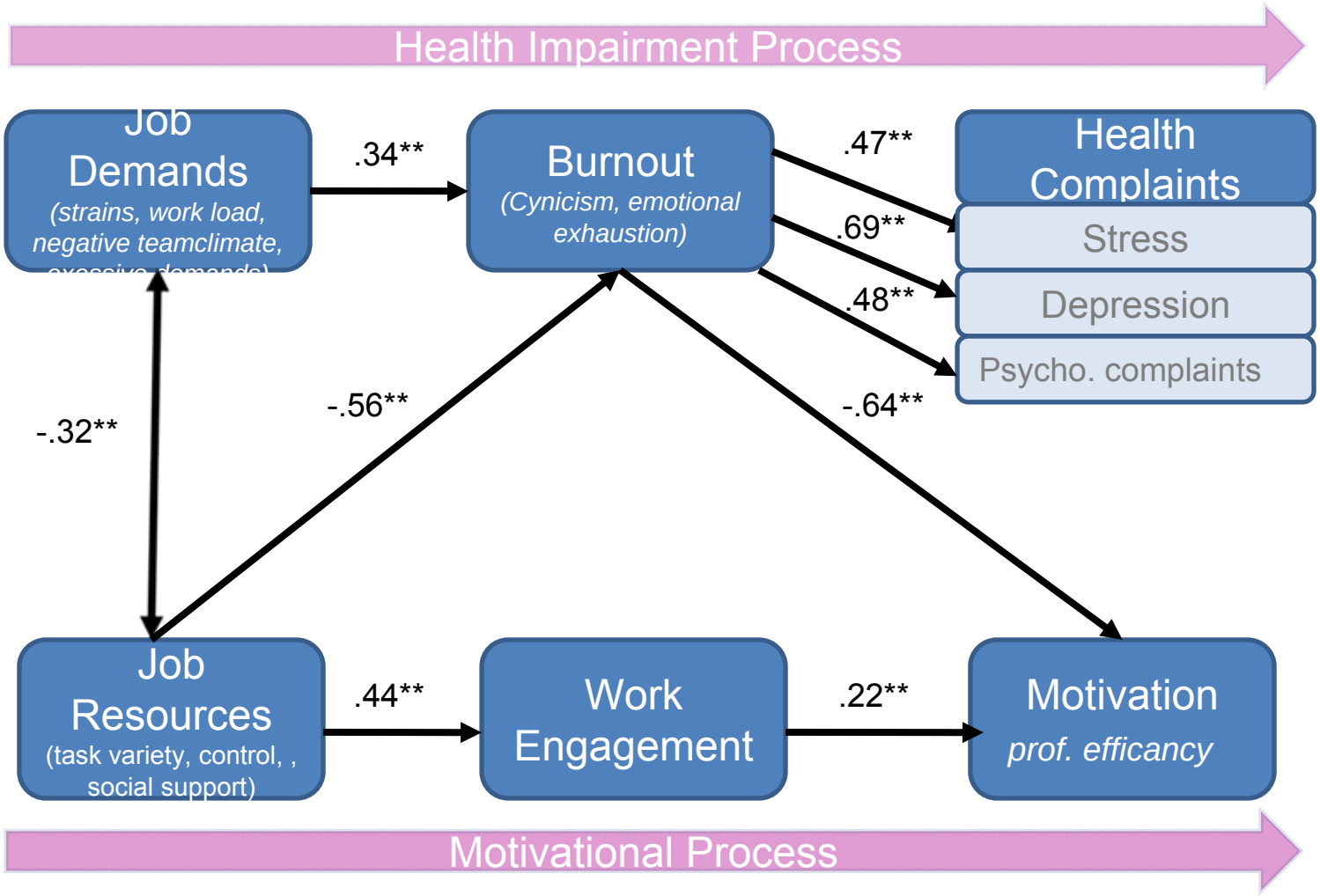
Job Demand Resources Modell



Bakker, Demerouti & Schaufeli

Verification of the Job Demand Resources Modell



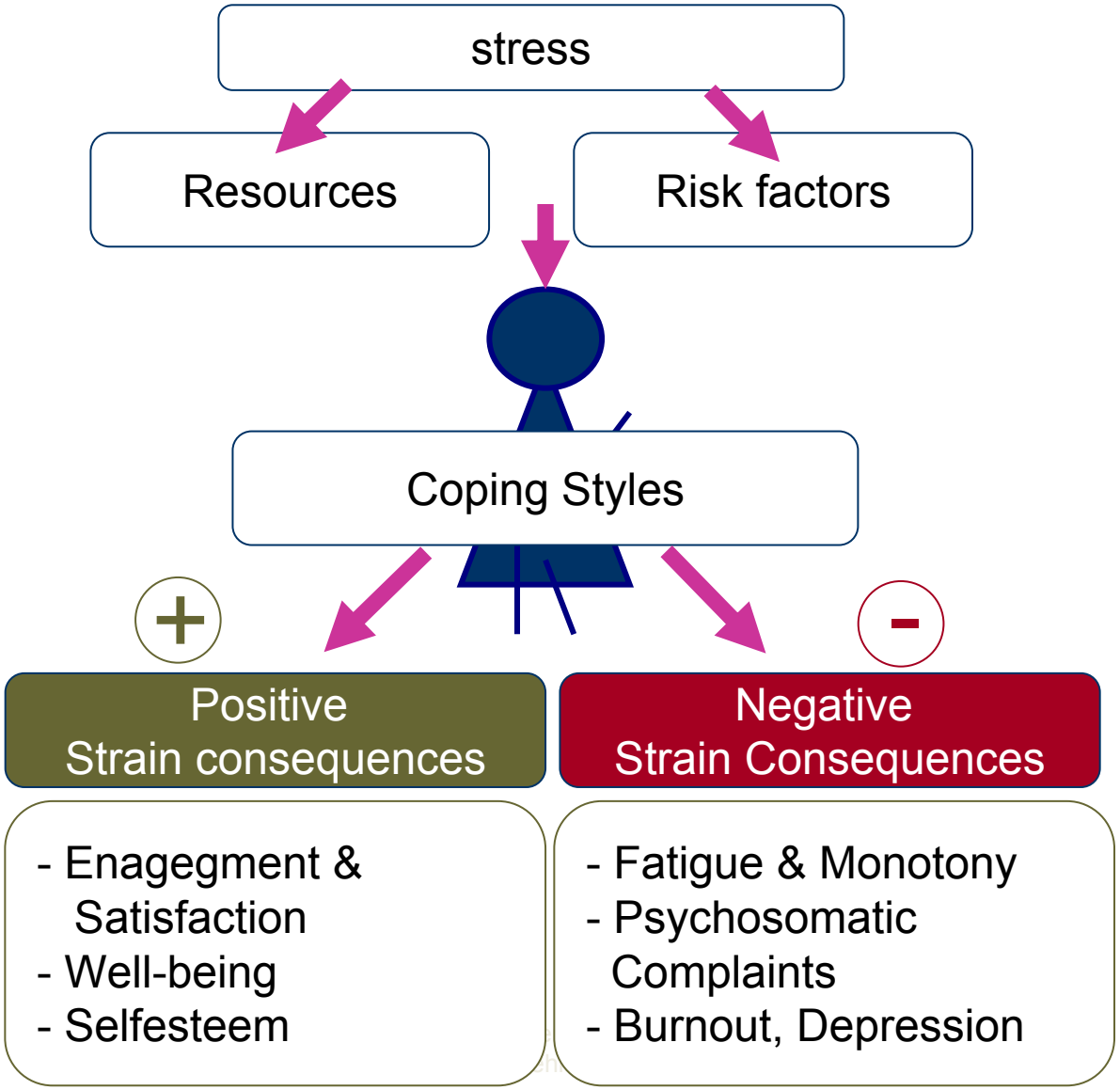
PREVA BGEFT Projekt N= 186

(Wolf & Nebel, 2009)

Different Levels of Stress- Prevention

	Person-focused	Work-focused
Primary **Preventing the development of stress symptoms**	Stress-Management Leadership Training Target: Healthy people	Health-promoting Job design
Secondary **Coping with mild stress symptoms**	Stress- Management Target: Mildly stressed people	Job/task design Job enrichment Job rotation
Tertiary **Limitation of damage**	Therapy	Provision of light duty jobs

Stress and Strain: ISO EN DIN 10 075



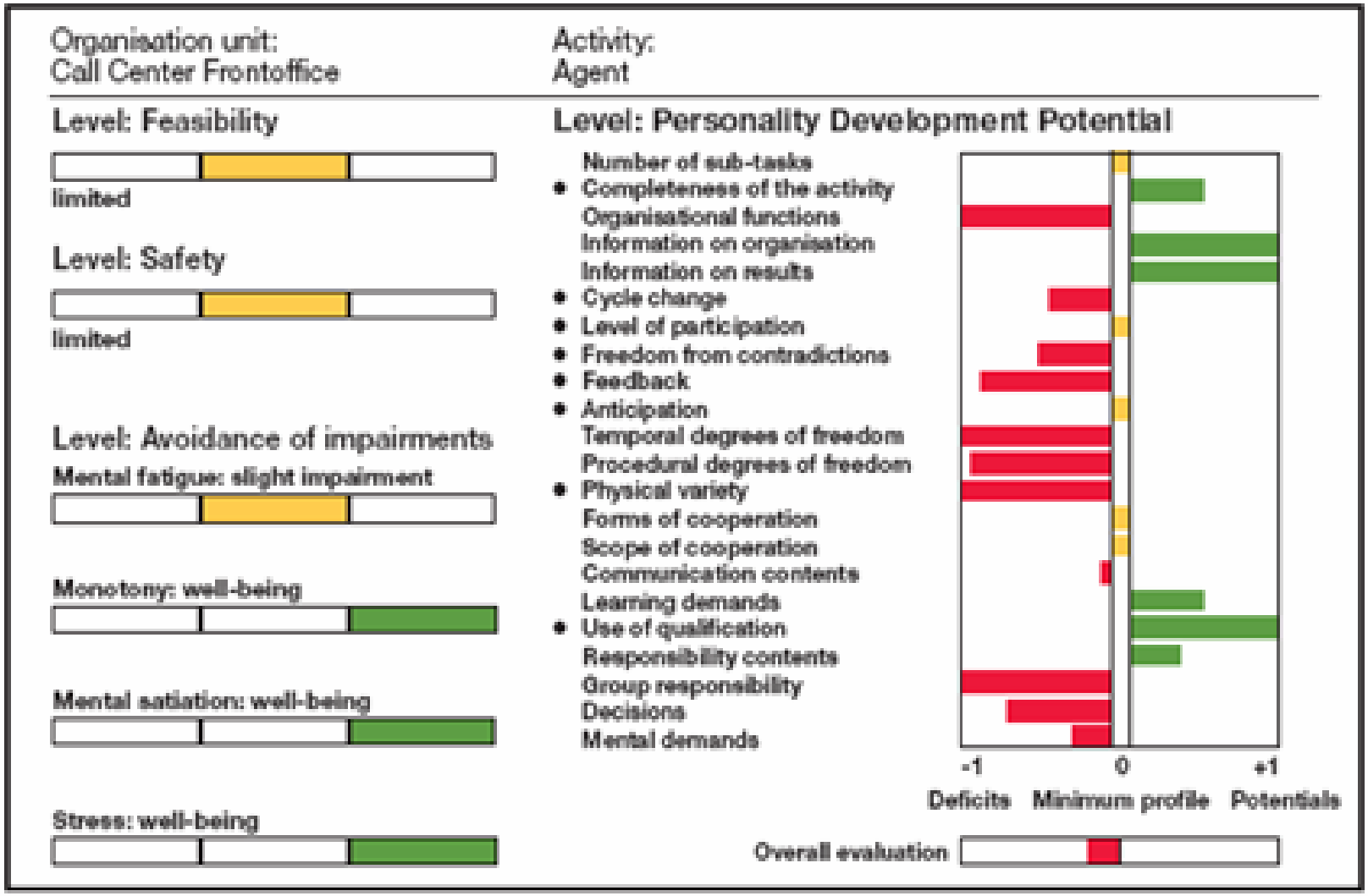


Figure 16: Task profile of front office agent before redesign

Organisational Design in an Inbound- Call Center

Before design		design measures	After design	
Tasks:		6 month design workshops with 6- 8 Agents	**Tasks:**	
Inbound- calls	75%		Inbound- Calls	60%
Data preparing	15		Data preparing	30
Statements of Account	10	**Consequences:** additional tasks from backoffice	Statements of account	10
Ergonomics: defects of posture		Tasks rotation		
environment noise		wireless headsets communication training		
inappropriate illumination		individual illumination		

REBA- 8.0 Manual (2008)

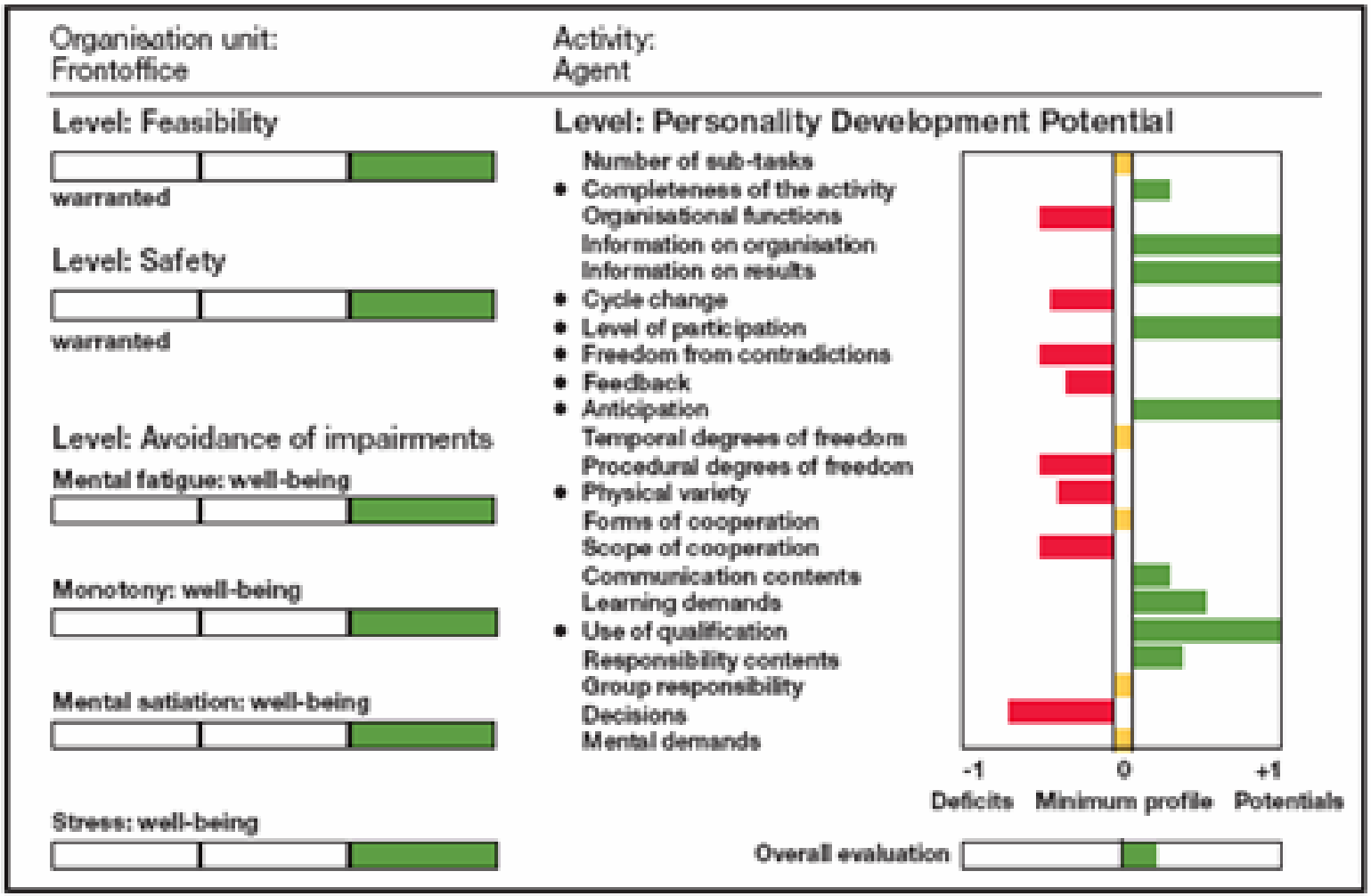


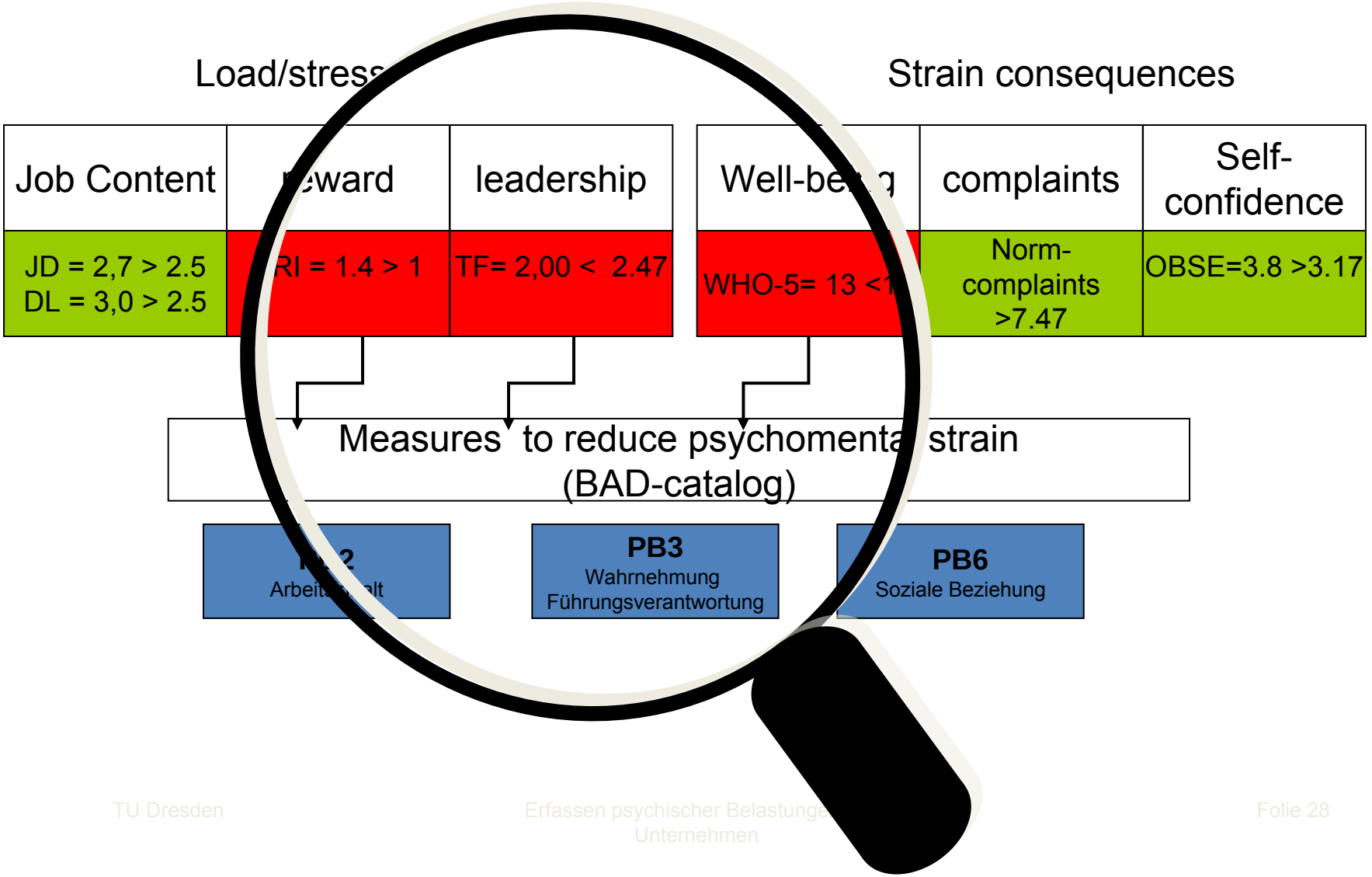
Figure 17: Task profile of front office agent after redesign

Stress- Strain Diagnostic Questionnaires

Stress		Strain	
Job Demand- Control Model FIT (Richter, P., 2008):	10 Items	**Well-being WHO-Five** (Brähler et al., 2007)	5 Items
Effort and Reward Model ERI (Siegrist, J., et al. 2008):	10 Items	**Psychosomatic Complaints GBB-24** (Brähler, E. Et al. 2004)	9 Items
Job Conditions SALSA –Short Version	33 Items	**Organizational Self-Esteem** OBSE (Kanning, U. P., 2004)	10 Items
Social Support SALSA (Udris, 1999)	2 Items	**Stress, Anxiety, Deperssion** DASS (Lovibond, 1995)	16 Items
Leadership Styles MLQ (Felfe, J., 2006)	8 Items	**Burnout** **(**MBI-GS) (Schaufeli et al., 1995)	16 Items
		Work Engagement **(**Schaufeli &Bakker, 2002) UWES	8 Items

Overall 127 Items

Example: Proposals for the design of assembly team work, *N=22*



Nucleus of health promotion at workplace

➔ **self- organizational competence:**

- **Self-value**
- **Self-Efficacy**
- **Social Integration**

Bourbonnais (2007), Occupational & Environmental Medicine

5. Cost- Benefit Analysis

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Cost- Benefit Analysis of Occupational Health Promotion

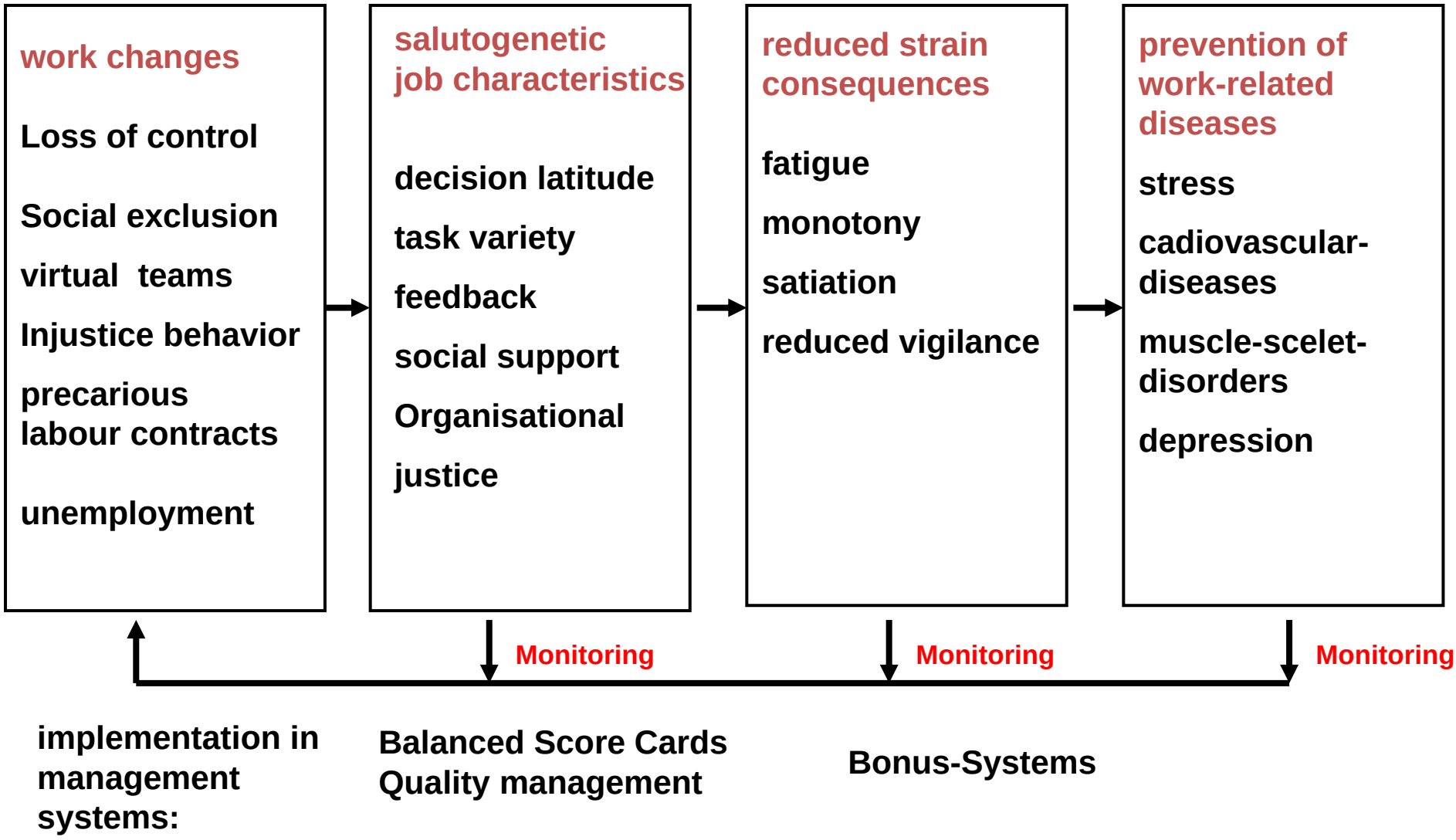
Key figure: return of prevention

$$B = dt \times SD_y \times A \times N \times t$$

B - benefits of measures
dt - effect of (t 2 – t 1) in standard deviation
SD_y - € - amount of standard deviation of salary for performance
A - correlation (r^2) between “soft “ (e.g. mental health) and “hard” (performance) factors
N - Participants in the intervention
t - time of the impact of intervention

Fritz, S. (2006). Ökonomischer Nutzen “weicher” Kennzahlen. 2. erweit. Aufl. Zürich: vdf.

Human- centred prospective job design



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Kivimäki, M., Ferrie, J.E., Head, J., Shipley, M.J., Vahtera, J. & Marmot, M.G. (2004). *J. Epidemiology Community Health, 58*, 931 – 937.

Nebel, C., Wolf, S. & Richter, P. (2009). Instrumente und Methoden zur Messung psychischer Belastung. In D. Windemuth, D. Jung & O. Petermann (Hrsg.), *Praxishandbuch psychischer Belastungen im Beruf*. Wiesbaden: Universum.

Richter, P., Debitz, U. & Pohlandt, A. (2009). Evaluation of the quality of job design with the action-oriented software tool REBA. In C.M. Schlick (Ed.), *Methods and tools of industrial engineering and ergonomics.* Heidelberg. Springer.

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Semmer, N. K., Jacobshagen, N., Meier, L.L. & Elfering, A. (2007). Occupational stress research: The „Stress-as offense-to-self“ perspective. *Occupational Health Psychology, 2,* 43 – 59.

Siegrist, J. & Dragano, N. (2008). Psychosoziale Belastungen und Erkrankungs-risiken im Erwerbsleben. *Bundesgesundheitsbl, Gesundheitsforsch., Gesundheits-schutz, 51,* 305 – 312.

Wolf, S. & Nebel, C. (2008). The influence of transformational leadership on employees health and well-being. Paper presented at the conference „Work, Stress and Health“, Washington

European Economic Decline 2/08 - 2/9

Decline of industrial production (without construction industry)

Estonia	**30.2 %**
Latvia	**24.2 %**
Spain	**22.0 %**
Germany	**20.6 %**
Denmark	**11.8 %**
Netherlands	**5.9 %**
Greece	**4.9 %**

Source: NZZ, April 17, 2009

Economical “Tsunami” Reaches the welfare states and increases Psycho-social risks:

- increase in income inequality ➔
  loss of perceived control
  increase of suicides
- Global separation instead of “global village”

- Increasing imbalance between “business class” and “working class”

- Disruption of social roles

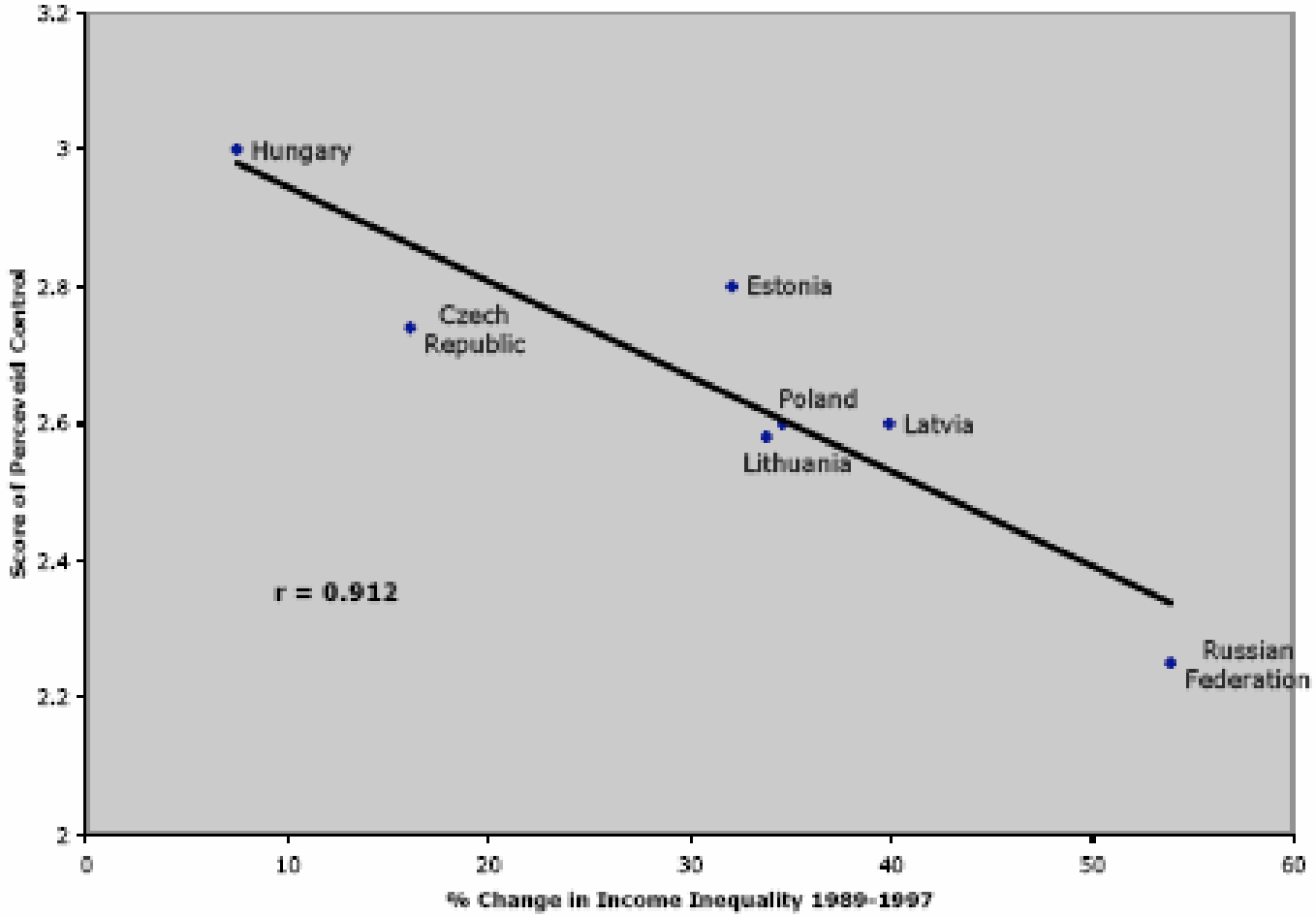
- Social exclusion vs. global integration

- Increasing residential mobility of workers

- Increase in unemployment

-Anxiety about the future

Figure 4: Change in Income Inequality 1989-1994 and Perceived Control in selected former Soviet Bloc countries.



Source: Authors' elaboration. Income Inequality were taken from WIDER database, perceived control scores from Marmot M and Bobak M (2000) Psychosocial and Biological Mechanisms behind the Recent Mortality Crisis in Central and Eastern Europe in Cornia and Paniccia' (2002) Mortality Crisis in Transitional Economies. London Oxford Press.

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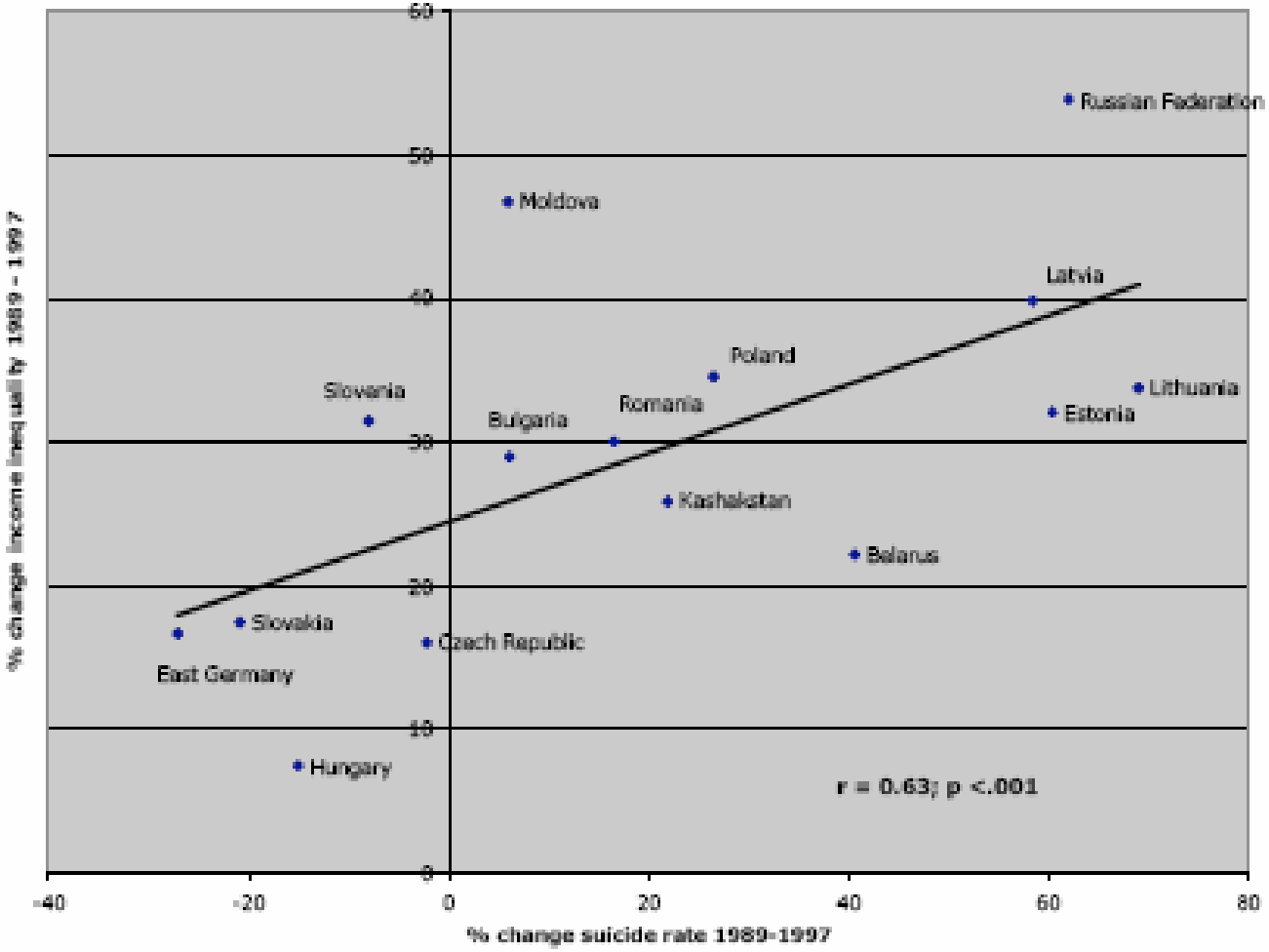
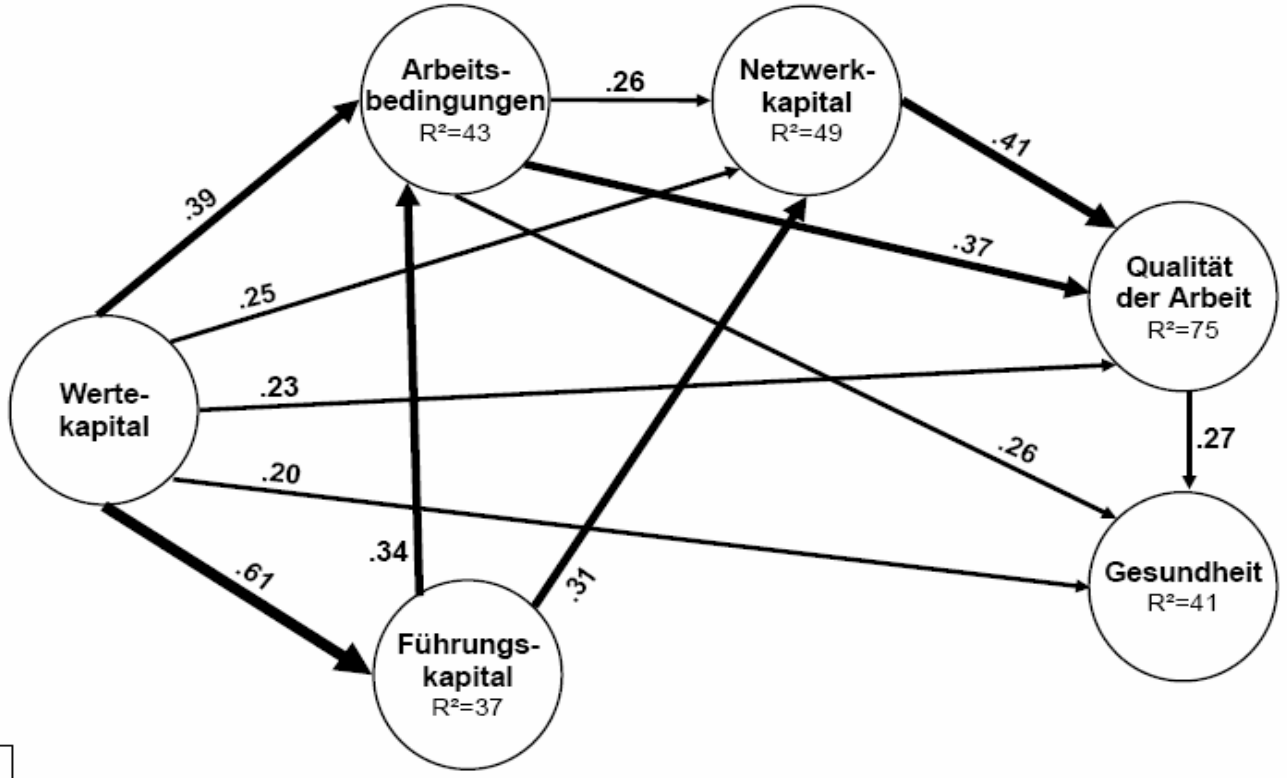
Figure 7: Change in Income Inequality and change in suicide rates in selected former Soviet bloc countries (1989-1997).



Source: Author's elaboration of data from UNU/WIDER Database on Income Inequality and Suicide rates from WHO database Health for all 1989-1997.

De Vogli (2008) GINI- Index and Suicide

Connections between social capital, immaterielle work conditions, social network capital and mental health

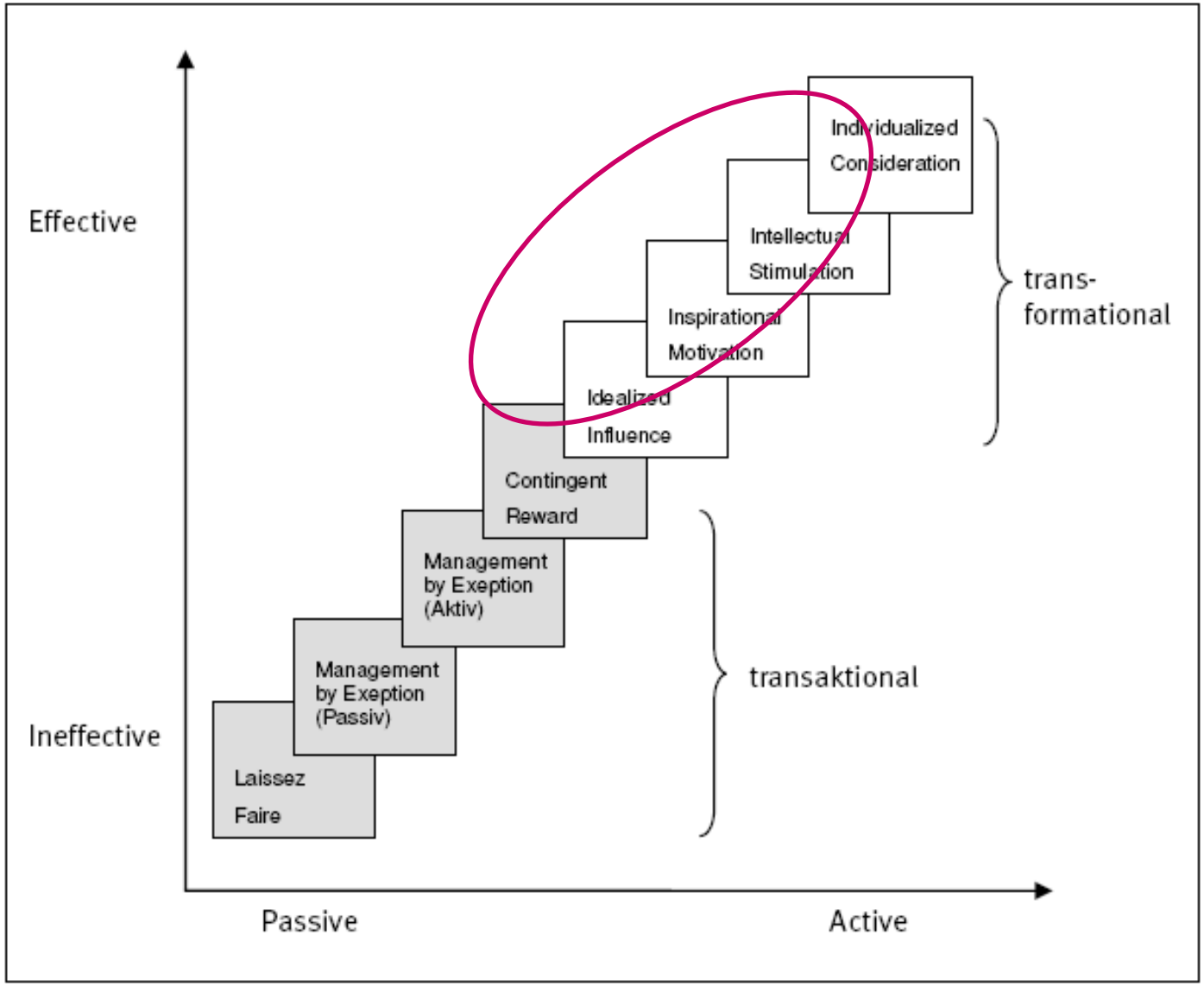


n = 2287
RMSEA: .058
RFI: .936
CFI: .951

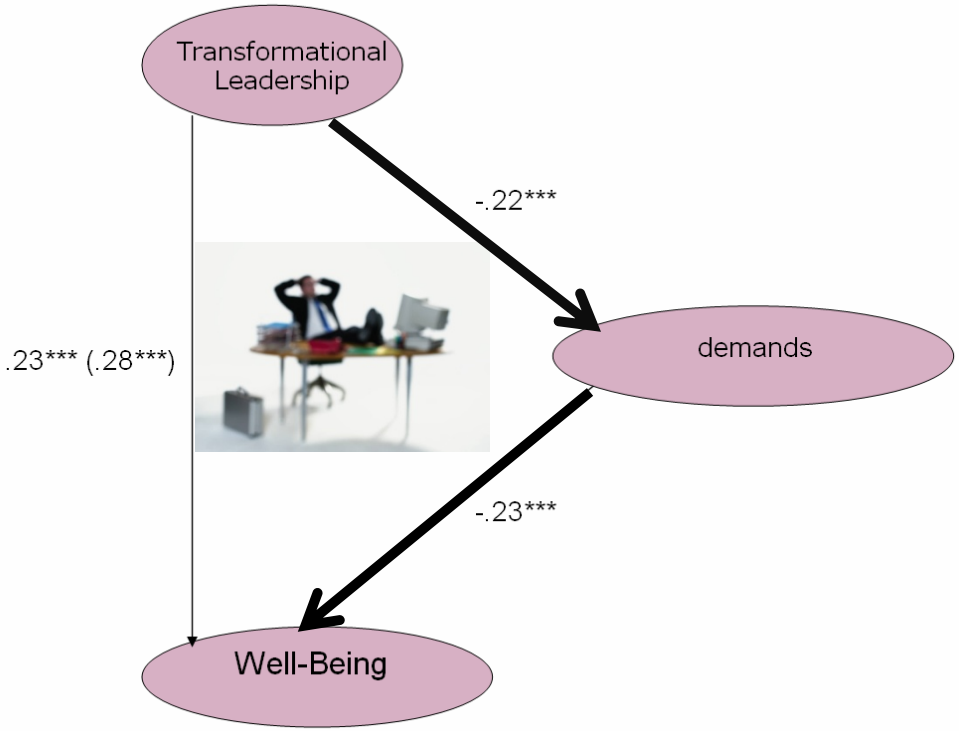
Badura et al., 2008

Full-Range-Leadership-Modell

Bass & Piccolo (1994), MLQ-5 (Felfe, 2006)



Impact of Transformational Leadership on Health and Well-Being



partial mediator effect

Significant indirect path,
Sobel-Test: 2.82 ***

explained variance: 8% vs. 13 %

Wolf & Nebel (2008)

Self-value as Nucleus of Mental Health sensitive disrupted by:

Risks of psychological deprivation in times of crisis (unemployment, precarious work)

- deterioration of sense of coherence
- Loss of time structuring
- Social conflicts
- Lost of long-term and higher-ranking goals
- Identity deterioration

➔ stabilization by measures of human –centred job design