

16.2.2012

# Towards a longer worklife

## From Work Ability Model and Index to concrete actions

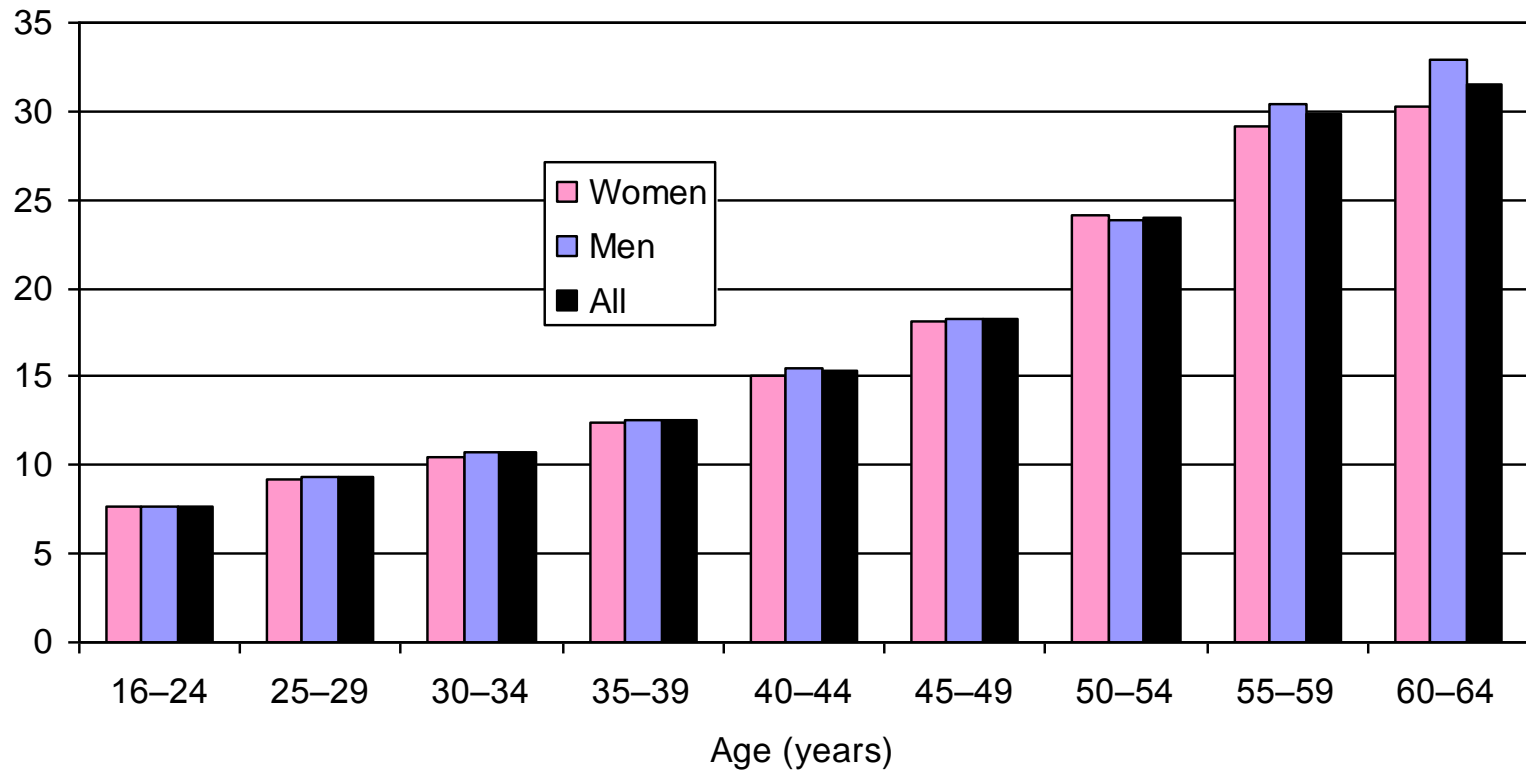
- ▶ Prof. Juhani Ilmarinen
- ▶ NVVA, 13.2.2012

# Juhani Ilmarinen Consulting Ltd

- ▶ **Background** in Finnish Institute of Occupational Health:30 years research in Work Ability and Ageing, development of Work Ability Index, Promotion of Work Ability concept, Age & Generation Management , Life course, and Work Ability House-modell
- ▶ **First National Prize for Innovative Practices in Employment and Social Policy, 2008 ( SITRA, STM)**
- ▶ **Topics today:** Work Ability and Ageing, Work Well-being, Age - and Generation Management, Life course
- ▶ **Projects:**
- ▶ Finland: Good work-Longer Worklife in Technology Industry
- ▶ Germany: Work Ability, Age & Generation Management Training
- ▶ Austria: Fit for the future –programme
- ▶ Netherlands: Work Ability Implementation (Blik op Werk)
- ▶ Australia: RWAS, ComCare, StGeorge Bank
- ▶ [www.jic.fi](http://www.jic.fi), [juhani.ilmarinen@jic.fi](mailto:juhani.ilmarinen@jic.fi), +358-400-815511

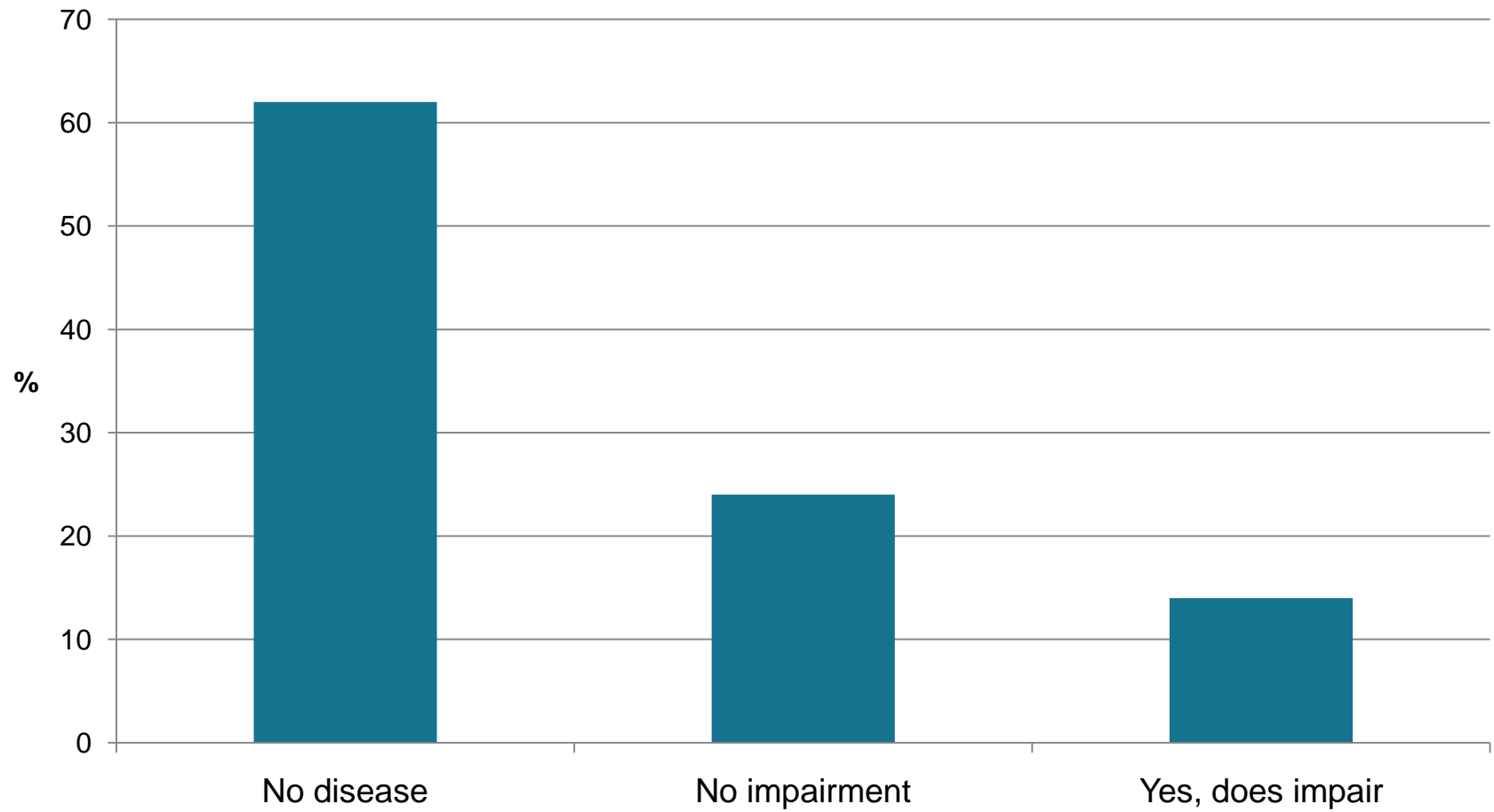
# Ageing and health

# Long term health problem or disability in EU15 by age group and gender



Source: Dupre ja Karjalainen 2003.

# Impairment due to diagnosed chronic diseases or injuries at work



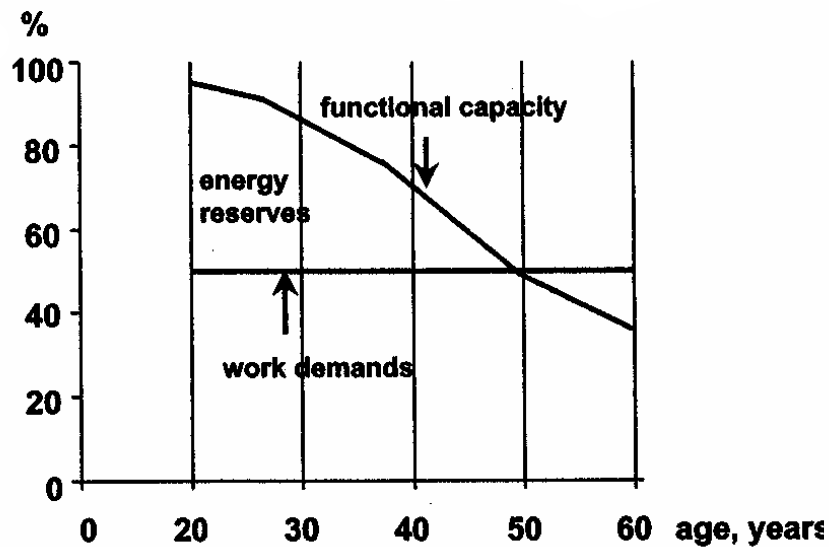
# Role of Occupational Health Services

- ▶ General awareness about Ageing and Work
  - ▶ Competence of treatment of diseases
  - ▶ Competence in Health promotion and Prevention of work disability
  - ▶ New: Competence about **Adjustments needed at work** due to the changes in health and functional capacities
- 
- ▶ Using WAI as validated tool for OHS
  - ▶ Using WAI as a dialoge instrument for OHS; anamnestic tool to identify the problems and measures
  - ▶ Using WAI-data as source for company epidemiology
  - ▶ Follow-up of WAI over time in individual, unit and corporate level
  - ▶ Evaluation the risks and costs of WAI declining
  - ▶ Evaluation the cost-benefits of WAI promotion

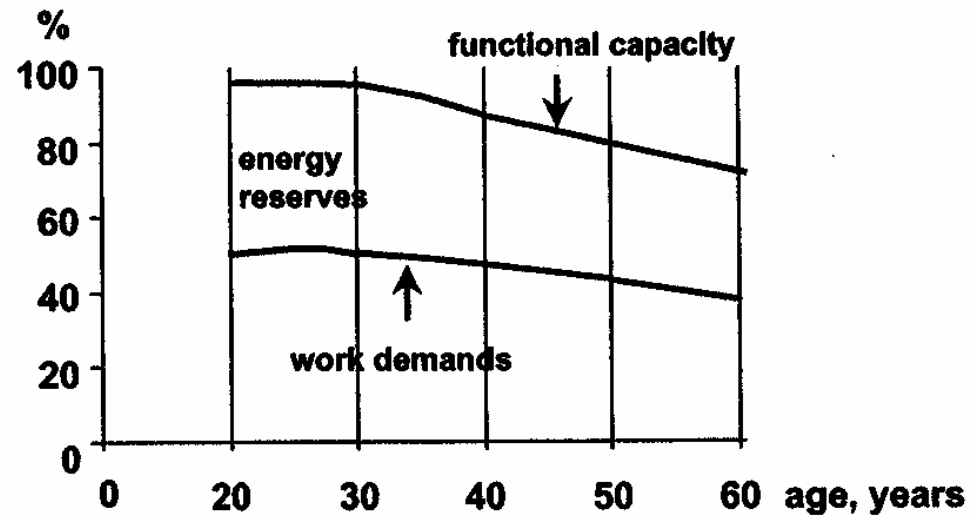
# Functional capacities and age

# Basic problem and basic solution: relationship between human resources and work demands

## PROBLEM



## SOLUTION

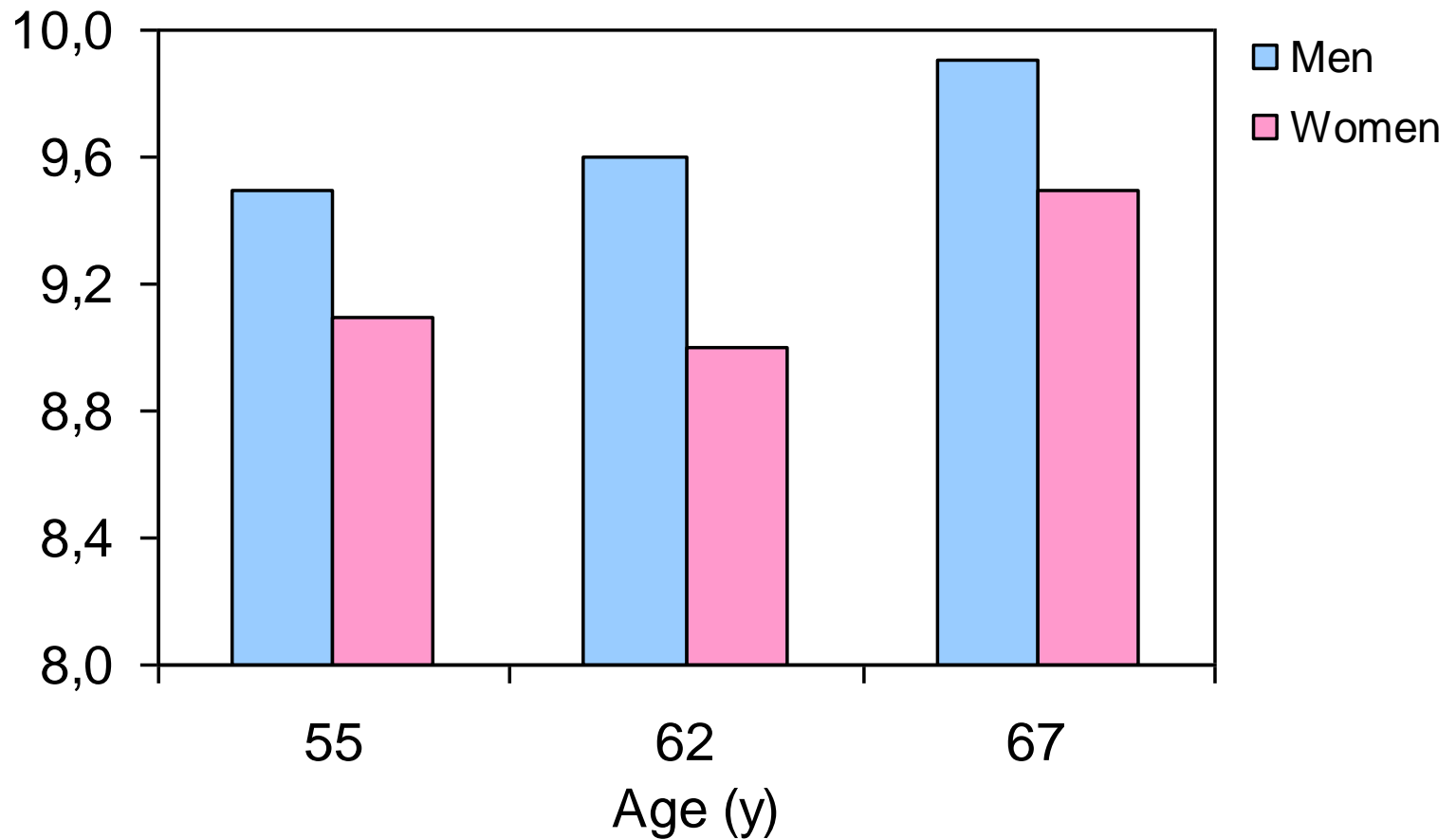




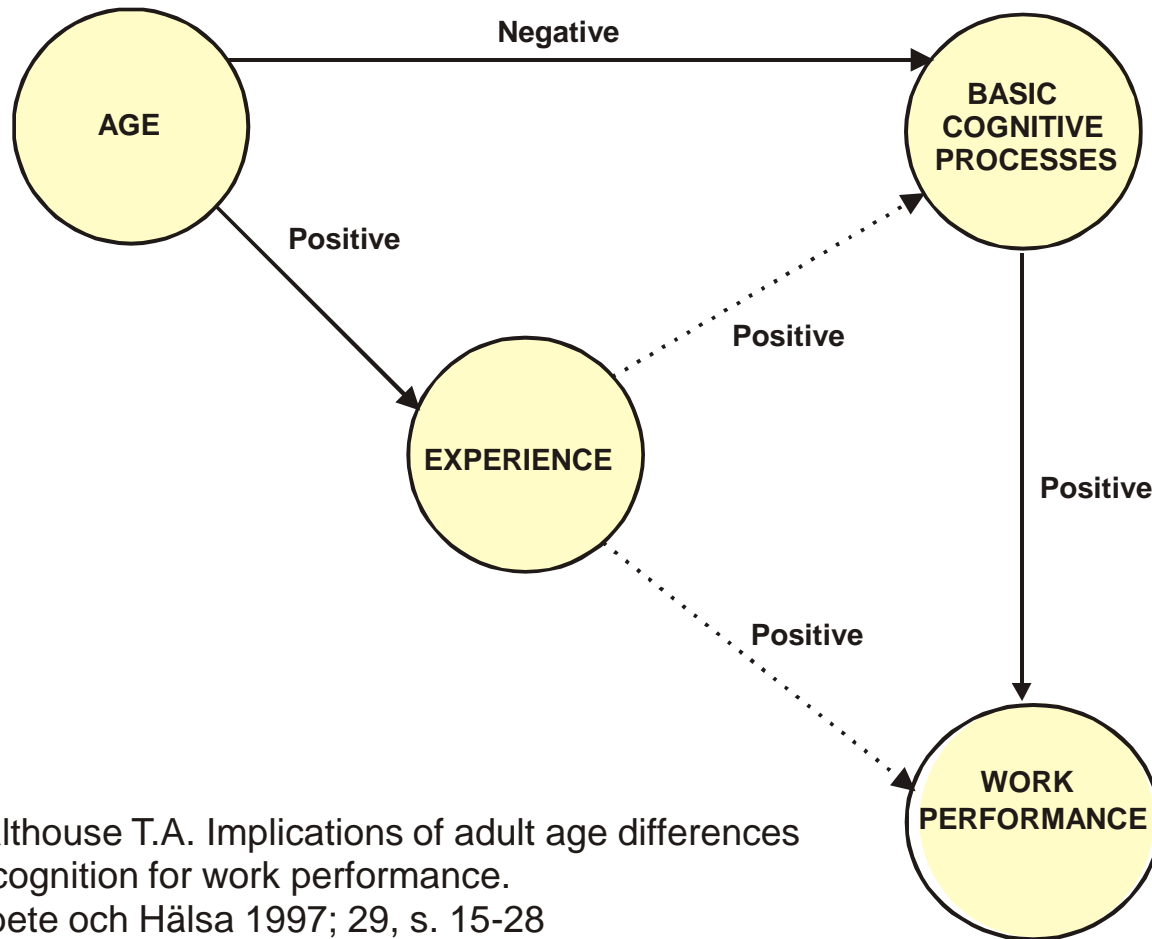
# Physical demanding work at age of 40 and 60 years

- ▶ **40-years old has 20 % higher physical capacity than 60-years old**
- ▶ 60-years old can do the same work, but his strain is 20 % higher, because of lower capacity
- ▶ **For equal strain level – the work load of the 60-years old should be decreased by 20 % :**
- ▶ 4 days/week instead of 5 days/week
- ▶ 6 hours/day instead of 8 hours/day
- ▶ **The decrease of physical work load should be compensated by other tasks, where the competence and experience of older worker is good:**
- ▶ 1 day per week, or 2 hours per day new tasks, like:
- ▶ **Training and mentoring, service functions, networking and client-relations, controlling and supervision, selling, controlling etc.**

Change in subjective cognitive capacity during a 12-year follow-up by gender (KVTEL,FIOH)



# Relation between age, experience, basic cognitive processes and work performance (Salthouse)



Source: Salthouse T.A. Implications of adult age differences in cognition for work performance. *Arbete och Hälsa* 1997; 29, s. 15-28

16.2.2012

- Research with WAI
- Work Ability House - Model
- Promotion of WAI

# Work Ability Index

## 7 Items

- Current work ability compared with the lifetime best
- Work ability in relation to the demands of the job
- Number of current diseases diagnosed by physician
- Estimated workimpairment due to diseases
- Sick leave during the past year (12 months)
- Own prognosis of work ability two years from now
- Mental resources

ICOH 2003

Lea Katajarinne

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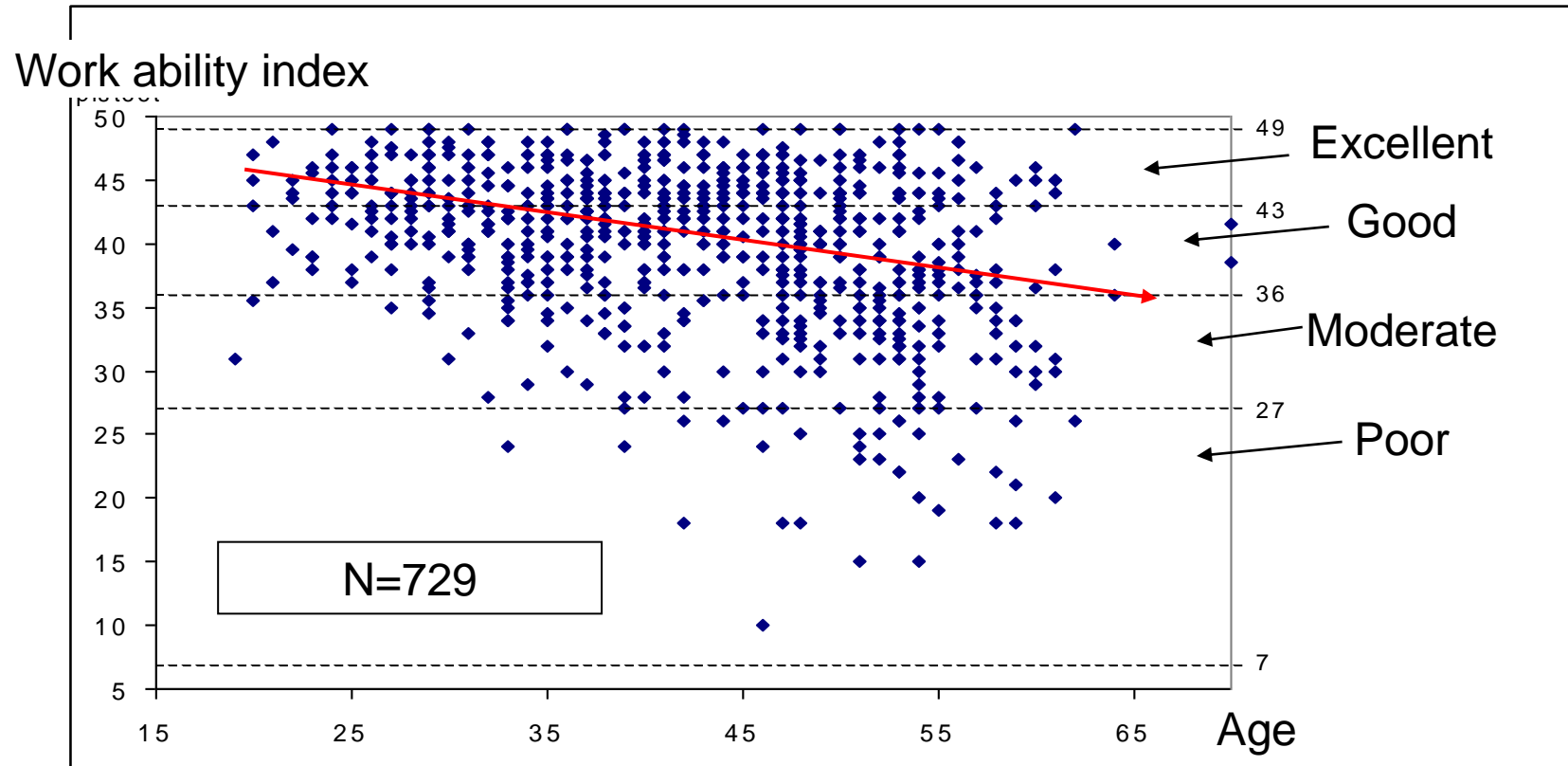
# Work Ability Index

Scoring of the Questionnaire (range 7- 49 points)

<u>Points</u>	<u>Work ability</u>	<u>Objective of measures</u>
7 - 27	POOR	RESTORE WORK ABILITY
28 - 36	MODERATE	IMPROVE WORK ABILITY
37 - 43	GOOD	SUPPORT WORK ABILITY
44 - 49	EXCELLENT	MAINTAIN WORK ABILITY



# Individual differences in work ability



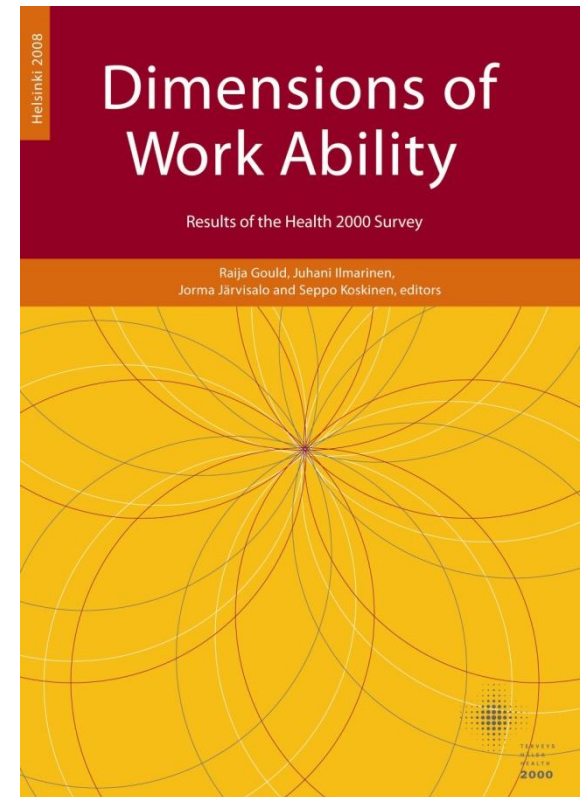


Raija Gould,  
Juhani Ilmarinen,  
Jorma Järvisalo,  
Seppo Koskinen, eds.

# Dimensions of Work Ability

## Results of the Health 2000 Survey

Helsinki 2008



Finnish Centre for Pensions  
ELÄKETURVAKESKUS



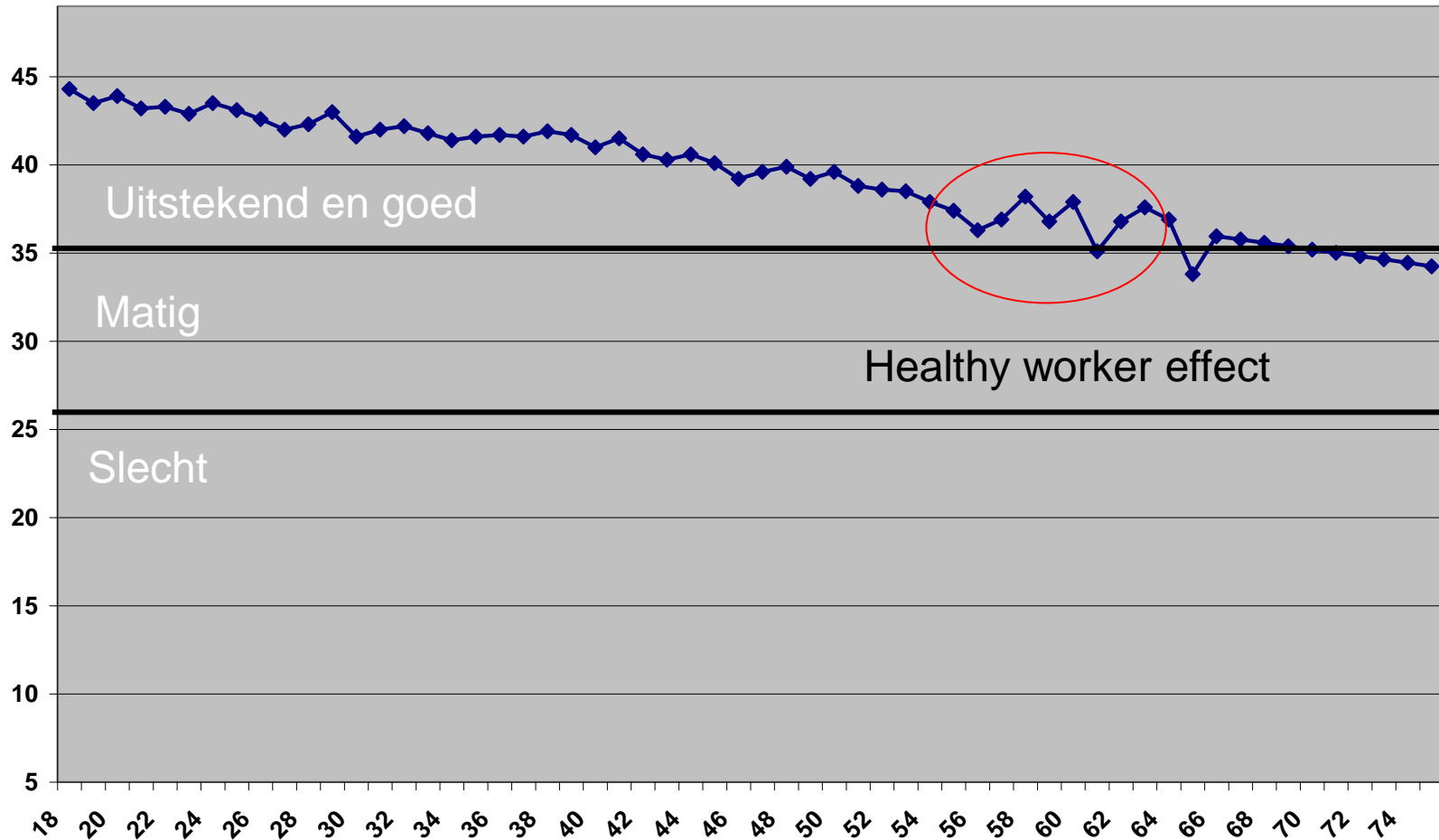
Finnish Institute of  
Occupational Health



Kansanterveyslaitos  
Folkhälsöinstitutet  
National Public Health

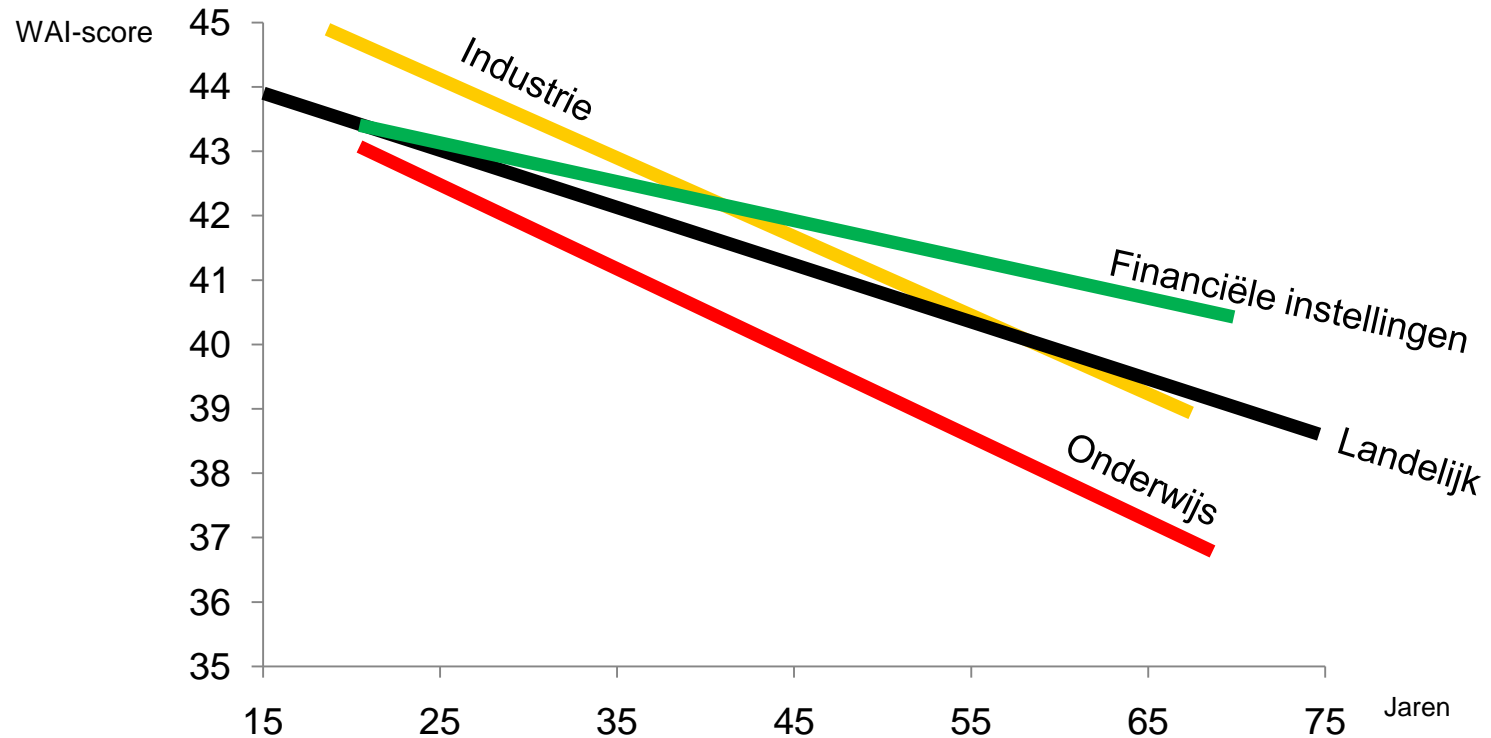
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# Werkvermogen en leeftijd in Finland

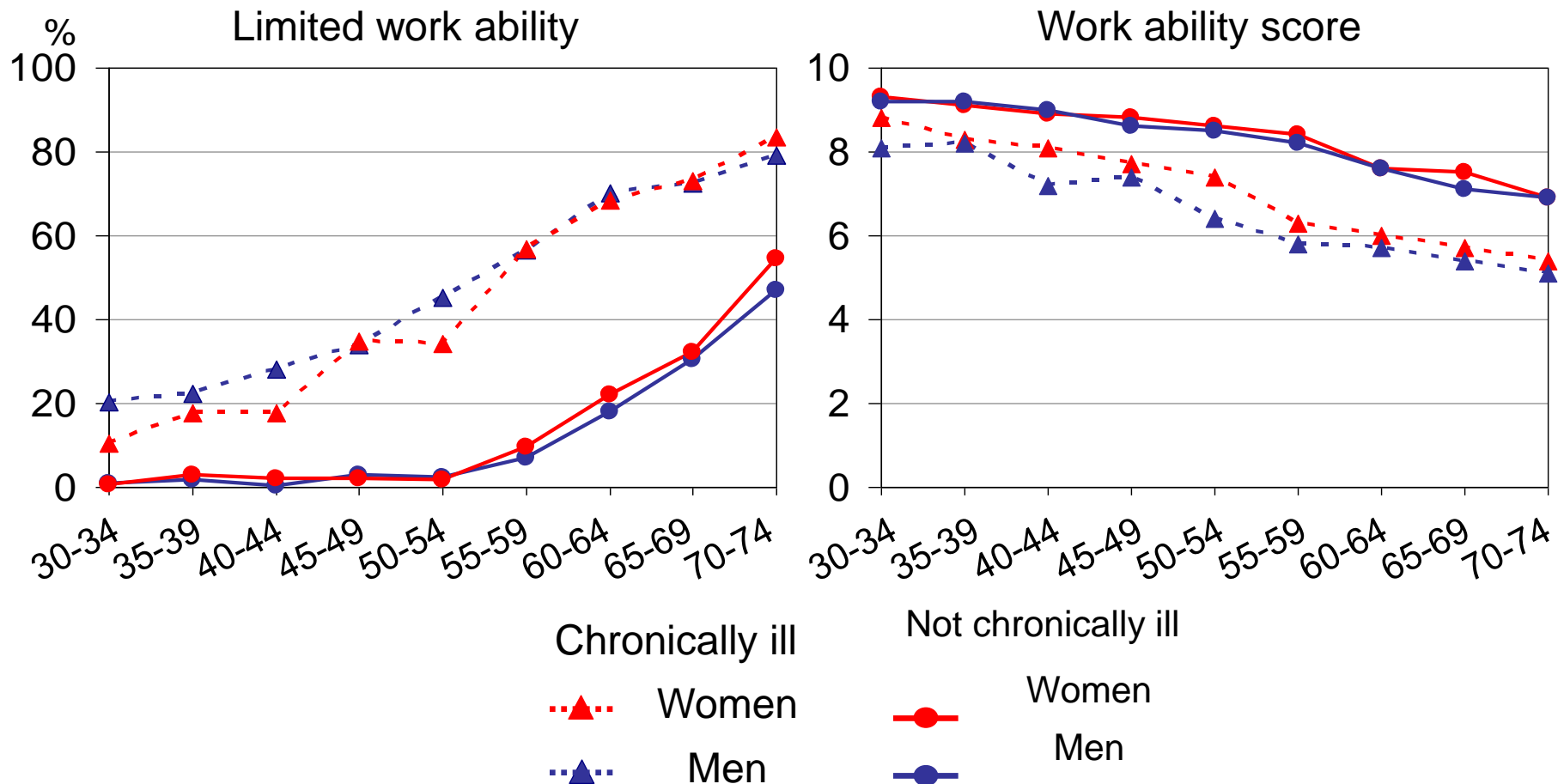


# Verschillen in ontwikkeling WAI-score naar sector in Nederland

- Blik op Werk, 2011-



Proportion (%) of those with limited work ability and the mean work ability score for those chronically ill and those with no chronic illness, Gould et al. 2008



## WAI as predictor of actual exit from job by age among Italian nurses, Cameroni 2006

Work Ability	Younger than 45 yrs OR	Older than 45 yrs OR
Poor	1.38	7.14
Moderate	0.68	2.02
Good	0.91	2.25

# Work ability among 30–64-year-olds without and with **back or neck disorder** (age adjusted)

Disease	Mean work ability score	Persons with limited work ability		Prevalence of disease (%)
		Proportion (%)	Odds Ratio	
<b>Back disorder</b>				
Women: Without disease	8.3	16	1.0	
With disease	7.8***	26	2.2**	28
Men: Without disease	8.1	17	1.0	
With disease	7.5***	26	1.8***	32
<b>Neck disorder</b>				
Women: Without disease	8.2	17	1.0	
With disease	7.8***	27	2.1***	20
Men: Without disease	8.0	18	1.0	
With disease	7.2***	33	2.6***	12

# Work ability among 30–64-year-olds without and with **mental disorders** (age adjusted)

Disease	Mean work ability score	Persons with limited work ability		Prevalence of disease (%)
		Proportion (%)	Odds Ratio	
<b>Depression</b>				
Women: Without disease	8.4	16	1.0	
With disease	6.7***	43	5.7**	11
Men: Without disease	8.1	18	1.0	
With disease	6.2***	47	5.9***	7
<b>Psychosis</b>				
Women: Without disease	8.2	19	1.0	
With disease	6.5***	62	11.7***	1
Men: Without disease	7.9	20	1.0	
With disease	6.8***	74	21.4***	1

# Work ability among 30–64-year-olds without and with **Anxiety** (age adjusted)

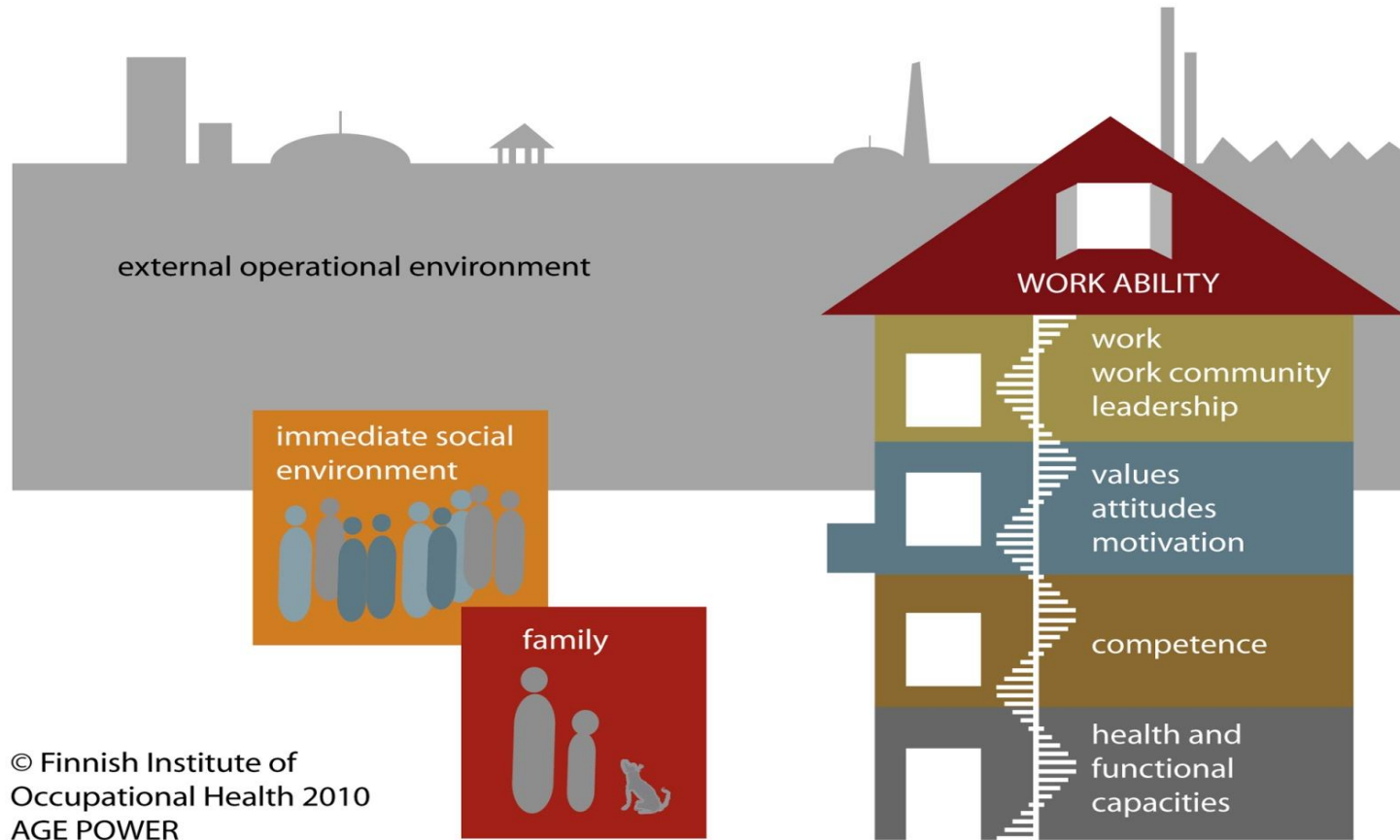
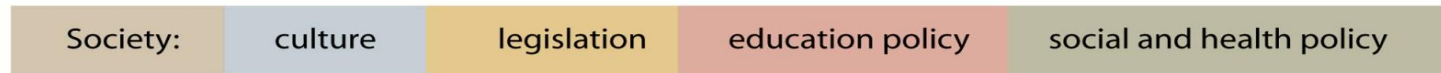
Disease	Mean work ability score	Persons with limited work ability		Prevalence of disease (%)
		Proportion (%)	Odds Ratio	
<b>Anxiety</b>				
Women: Without disease	8.2	18	1.0	
With disease	6.9***	42	4.4***	4
Men: Without disease	8.0	19	1.0	
With disease	6.1***	53	6.9***	2



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# From WAI research to Work Ability- model

# Work ability model

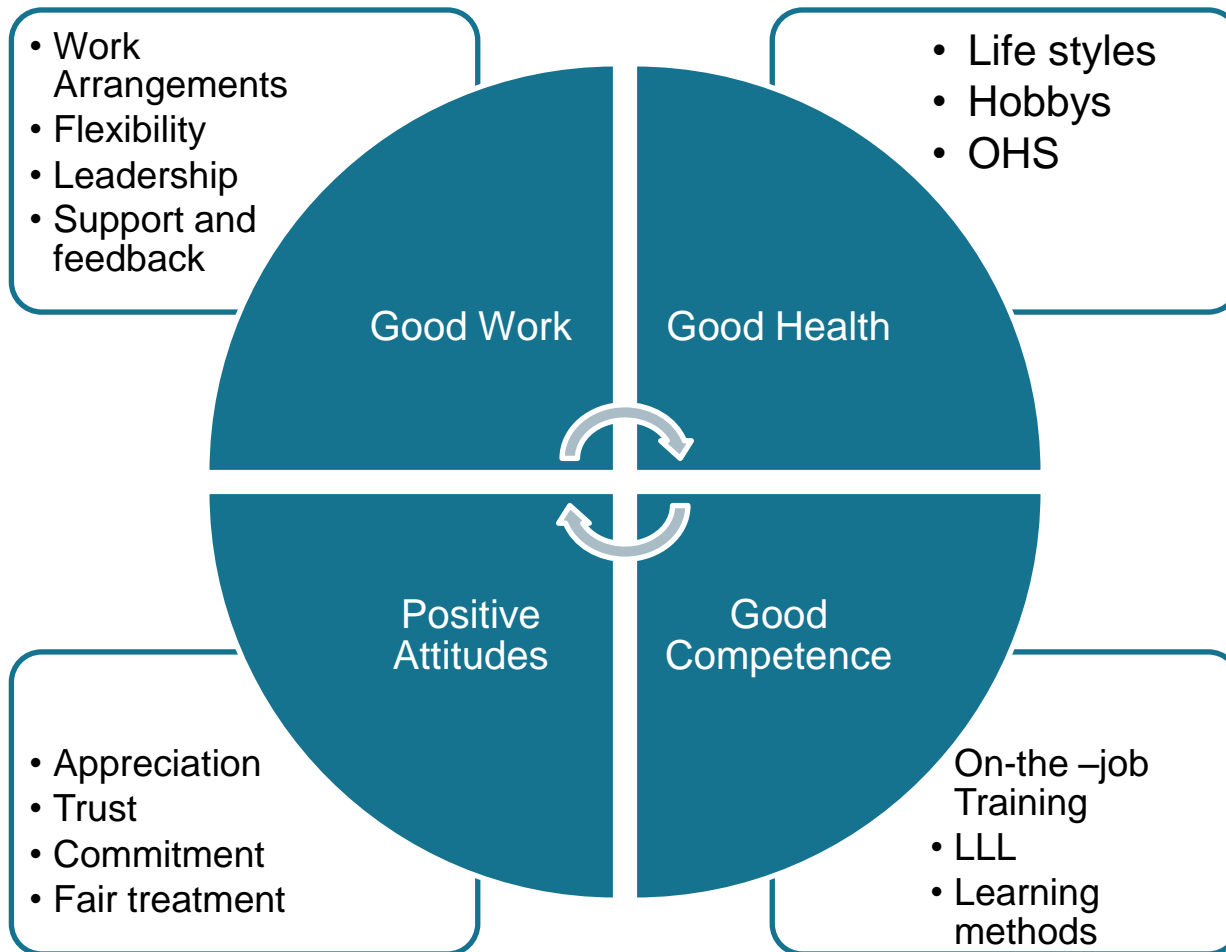


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AGE POWER

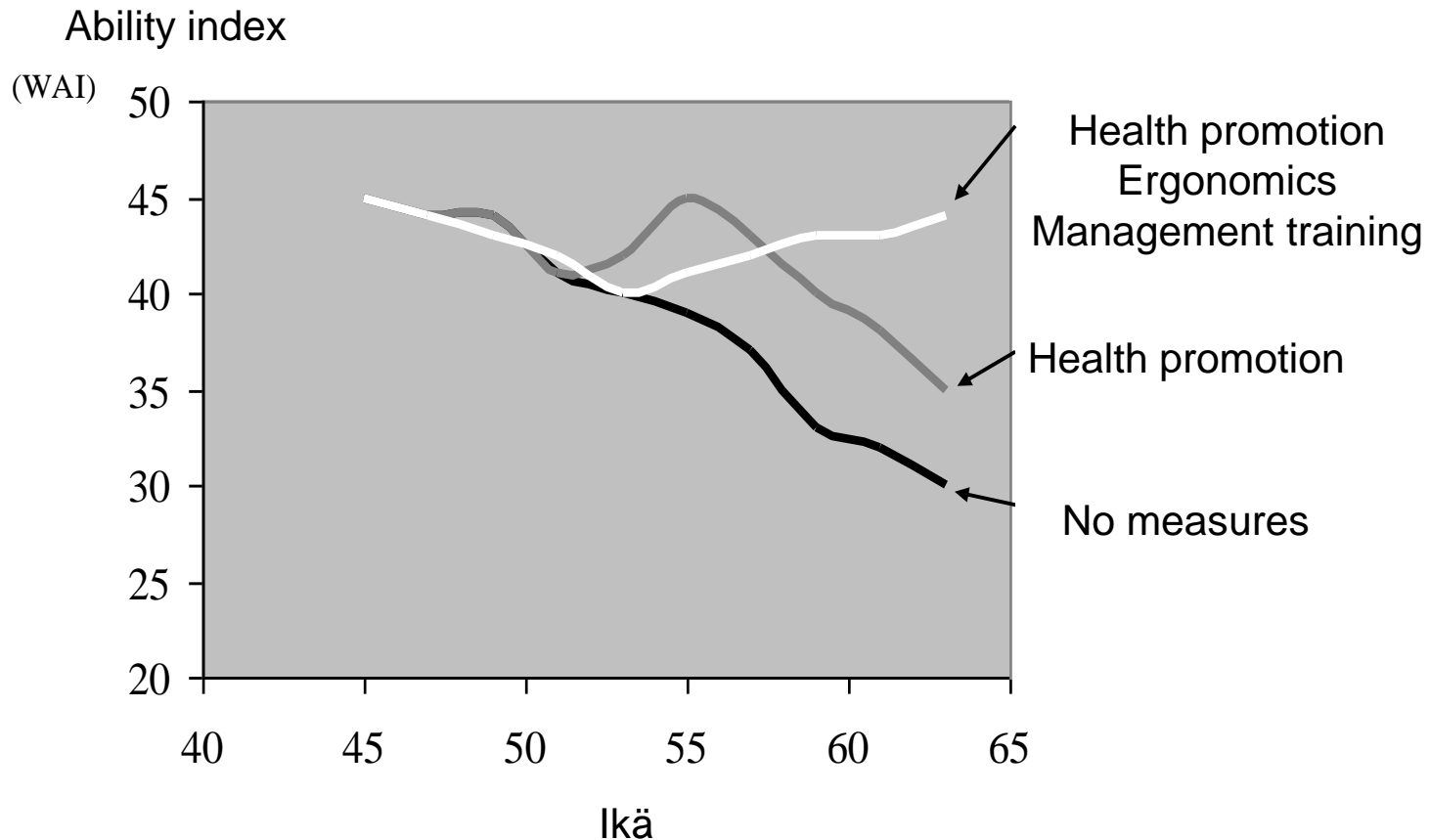
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# Promotion of Work Ability

# Promotion of Work Ability: Targets and Means



# Influencing work ability



# Role of managers and supervisors: base for Age management

- ▶ The management is the most important factor influencing work ability:
  - a good age management improves the work ability, and
  - a poor age management deteriorates the work ability, independent of gender, age and type of job
- ▶ A good age manager has:
  - a fair and friendly attitudes towards ageing
  - promote the collaboration between generations
  - finds individual solutions
  - has good communication skills about ageing matters
- ▶ Managers and supervisors need also PWA

# Good work – longer career

Federation of Finnish Technology Industries

Metalworkers' Union

Federation of Professional and Managerial Staff YTN

Union of Salaried employees TU

Federation of Special Service and Clerical Employees ERTO

# New Work Ability Tool Box

1. Work Ability Index (WAI)
2. Work Well-being Index (WWI) (Personal radar )
3. Work Ability House – Model ( Company radar )
  - Priorisation of floors
  - Identification of actions by floor
  - Priorisation of actions
  - Making a concrete plan for each action



# Company radar: Priorisation of floors (example)

Floor	A: Importance ( 1-10 )	B: Extension ( 1-10 )	C: Possibility to influence ( 1-10)	Result AxBxC ( 1-1000)
Health and ability	9	5	6	270
Competence	8	3	5	120
Values, attitudes and motivation	7	5	3	105
Work, work arrangements, work community and management	10	8	7	560
Family	6	8	2	96
Close community and hobbies	5	8	2	80

# Company Radar: Priorisation of goals/targets by floor of Work (example)

Work, work organisation, work community and management Goal/Target	A: Importance (1-10)	B:Extension (1-10)	C:Possibility to influence ( 1-10)	Result A x B x C (1-1000)
Management skills	10	7	7	490
Personal feed-back	8	10	9	720
Foremen skills	6	8	7	336
Change Management	6	5	5	150
Age attitudes	8	6	7	336
Work time flexibility	8	5	9	360
Team support	6	7	7	294
Workload	6	6	6	216
Atmosphere	6	10	6	360

# Company Radar: Plan for Personal feed-back

Goal/Target	Measure	Person Respon-sible	Time plan	Follow-up
Satisfaction with feed-back improves	1. Feed-back training for supervisors	NN	9/2011	Personal Radar, Participation in training
	2. Feed-back training for employees	MM	10/2011	Participation in training
	3. Instructions and documents	PP	10/2011	Tested instructions and documents

# WAI as a resource for the organisation

Two overarching and strategic benefits.

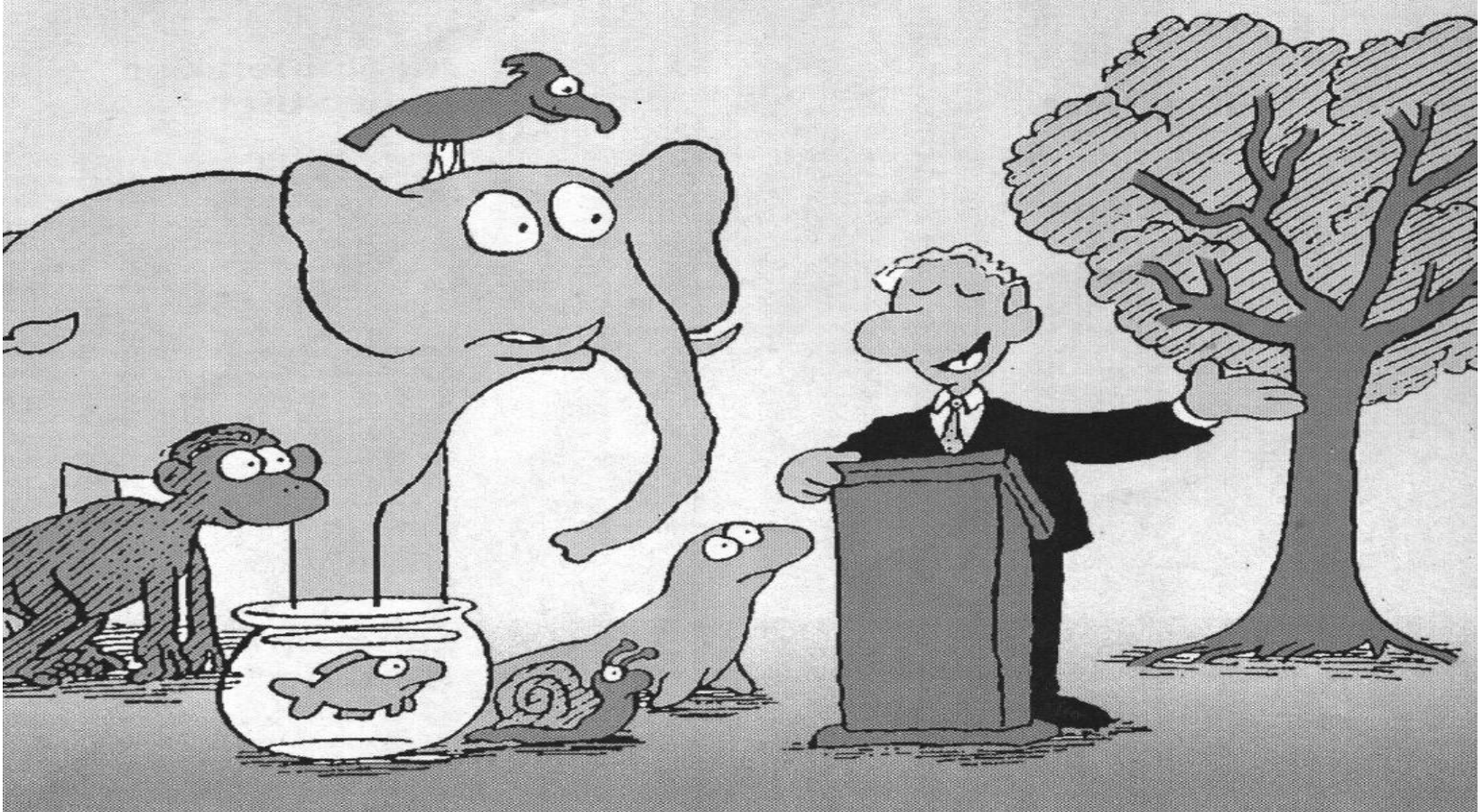
1. Brand reputation in the employment market (and in the community)
2. Cost benefits of improved productivity

# WAI as a resource for the organisation

## More discreet benefits include:

- ▶ Indicate the status of work ability and need for promotion
- ▶ Early indicator of risks of work disability and early exit
- ▶ Initiate preventive actions
- ▶ Evaluate the effects of actions
- ▶ Validated method for Occupational Health Services and for health promotion
- ▶ Initiate the discussion about ageing and work
- ▶ Improve the awareness of human work ability
- ▶ Improve the collaboration between employers and employees due to win-win possibilities
- ▶ Can be used as base for cost-benefit analysis

# Equal treatment or Individuality?



**For the equal treatment, you get all the same qualification task: clime up the tree!**