

# The MAastricht Instrument for Sustainable Employability – Italian version (MAISE-IT): a validation study

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# Sustainable Employability (SE)

(Van der Klink et al. 2016)

“Sustainable employability means that, **throughout their working lives**, workers can achieve tangible opportunities in the form of a set of **capabilities**. They also enjoy the necessary conditions that allow them to make a **valuable** contribution through their work, **now and in the future**, while safeguarding their **health and welfare**. This requires, on the one hand, a work context that facilitates this for them and on the other, the **attitude and motivation** to exploit these opportunities” (p.4)

# Sustainable Employability (SE): 4 core components (Hazelzet et al. 2019)



## Health

Well-being, Quality of working life, Vitality, Lifestyle, Mental and Physical Health



## Valuable work

Perceived positive attitude, Job motivation, Competences, Skills and knowledge



## Productivity

Work ability, Productivity, Work engagement



## Long-term perspective

Long-term effects for all work ages

# Why do we aim to promote Sustainable Employability?

**Ageing societies** require **health** and **well-being** employees preservation and work **performance** maximization (De Jonge and Peeters, 2019)

**Digitalized economy** and network society require **advanced skills** (Cedefop, 2016)

Enterprises have to find **innovative digital business models**, giving top priority to quality and **safety** of working life (Müller, Gust, Feller and Shiffman, 2015)

The MAastricht  
Instrument for  
Sustainable  
Employability (MAISE):  
5 areas  
(Houkes et al. submitted)

Meaning of SE according to employee (2 scales, 10 items)

Employee SE (2 scales, 8 items)

Factors affecting the employees' SE (3 scales, 13 items)

Responsibility for overall employee SE (1 item, items)

Responsibility for factors affecting the employees' SE (5 scales, 18 items)

The MAAstricht  
Instrument for  
Sustainable  
Employability (MAISE):  
5 areas –  
example items  
(Houkes et al. submitted)

**Meaning of SE**

“I can do my job without too much stress”

“Being able to do my work until I retire”

**Employee SE**

“I have the required knowledge to perform my job”

“My job is stressful”

**Factors affecting the employees' SE**

“Atmosphere improvement within my department/team”

“Introduce more flexible working hours”

**Responsibility for overall employee SE**

“With whom does the responsibility for sustainable employability lie according to you?”

**Responsibility for factors affecting the employees' SE**

“Reach a healthier body weight”

“Improvement of working conditions”

## Method: Italian participants

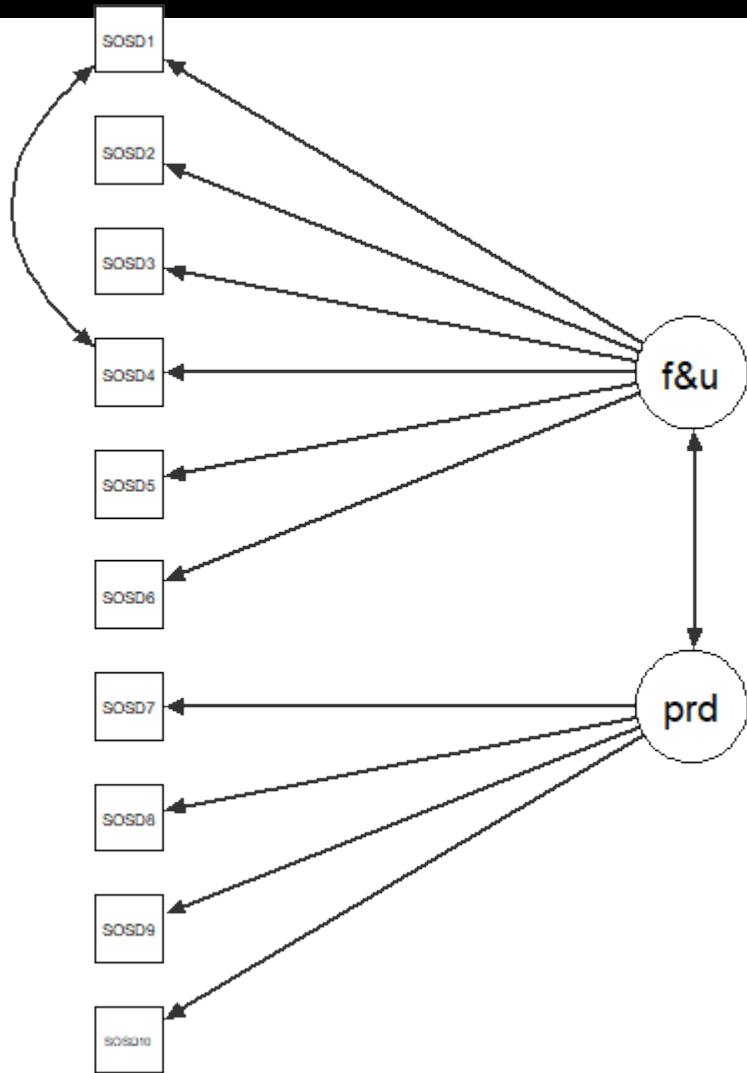
Variable	Total sample	PAA sample	C sample
<b>N</b>	455	328	127
<b>Age (mean)</b>	46.7	48.9	40.2
<b>Gender (%)</b>			
- men	40.5	43.5	31.9
- women	59.5	56.5	68.1
<b>Education (%)</b>			
- primary school	0.2	0.3	0
- middle school	0.2	0.3	0
- lower professional education	5.0	4.6	6.3
- secondary school	25.4	26.8	21.4
- post-secondary education	3.9	4.0	3.6
- bachelor's degree	7.6	6.2	11.6
- master's degree	42.3	42.8	41.1
- post-degree master or PhD	14.9	15.1	14.3
- other	0.5	0	1.8
<b>Education (level)</b>			
(1) < post-secondary education	30.9	32.0	27.7
(2) post-secondary education/university	68.7	68.0	70.6
<b>Occupational activity (%)</b>			
- white-collars	-	-	57
- blue-collars	-	-	9
- pink-collars	-	-	13
- n.d.	-	-	21

## Results: construct validity

MAISE-IT area		<i>p</i>	<i>Chi-2 (df)</i>	<i>CFI</i>	<i>TLI</i>	<i>SRMR</i>	<i>RMSEA (CI)</i>
1	Meaning of SE (2 factors)	<.001	120 (33)	.932	.907	.041	.076 (.062–.091)
2	Level of SE (2 factors)	<.001	61.3 (18)	.946	.916	.041	.072 (.053–.093)
3	Factors affecting SE (3 factors)	<.001	242 (61)	.925	.904	.049	.080 (.070–.091)
5	Responsibility for factors affecting SE (5 factors)	<.001	416 (122)	.932	.915	.006	.073 (.065–.080)



## Results: construct validity – scales



### Meaning of SE

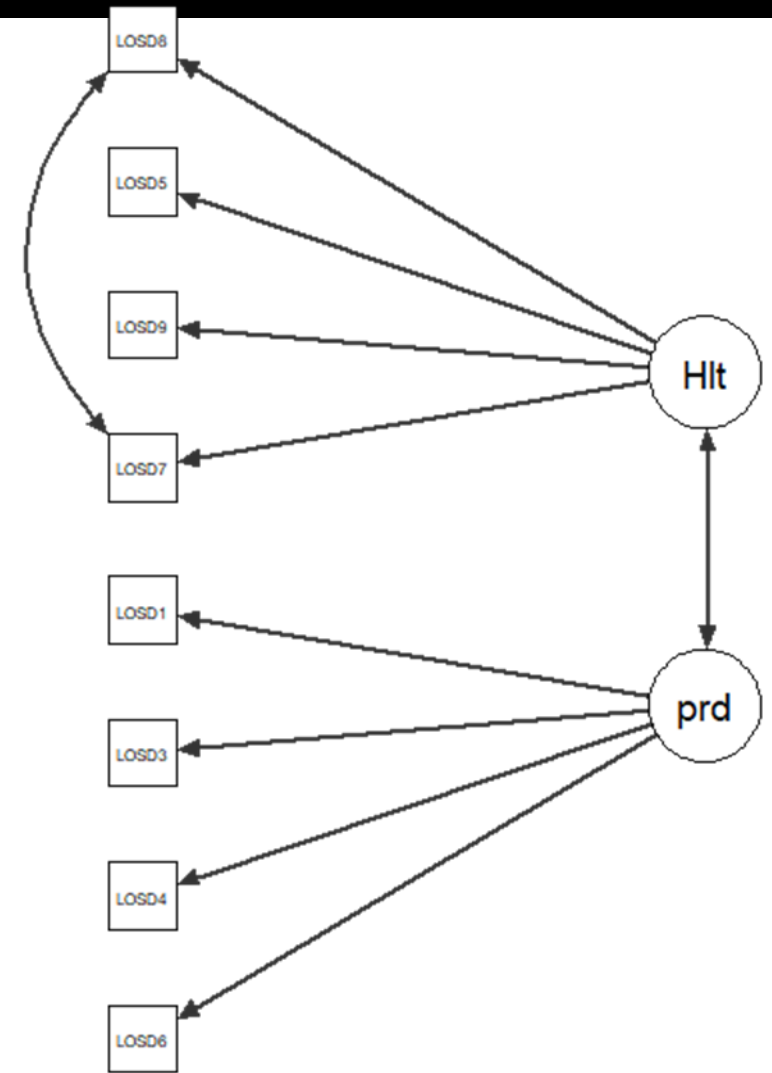
Fit & Useful

Productive

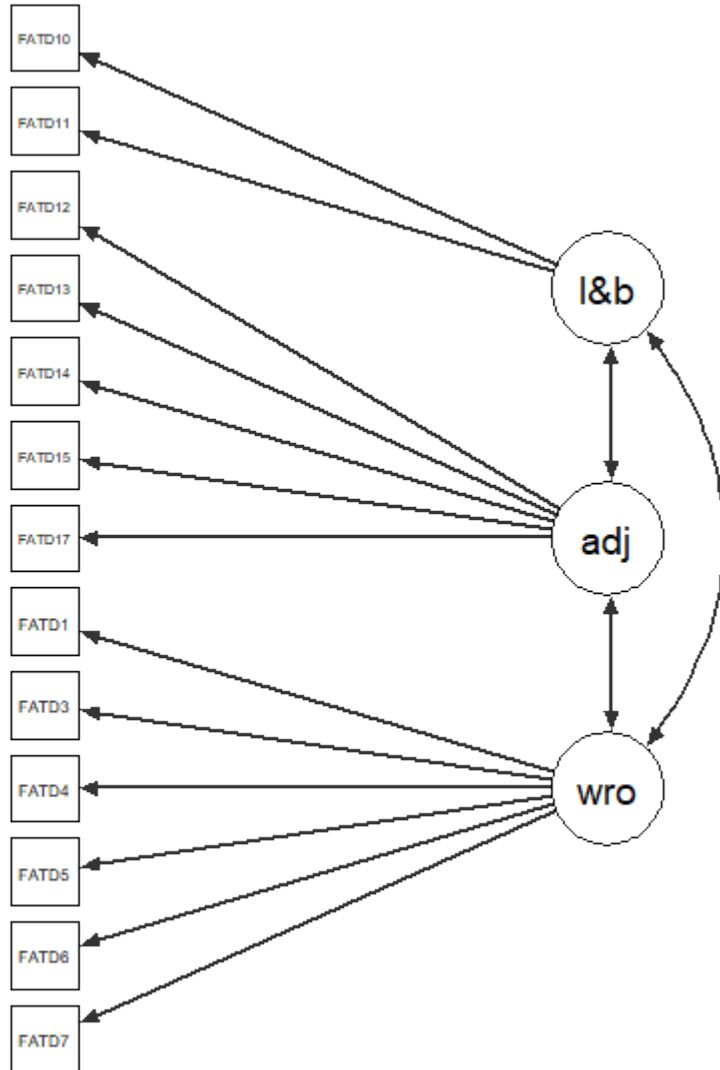
### Employee SE

Performance

Health issues



## Results: construct validity – scales



### Factors affecting the employees' SE

Work organisation

Lifestyle & Balance

Adapted job

### Responsibility for factors affecting the employees' SE

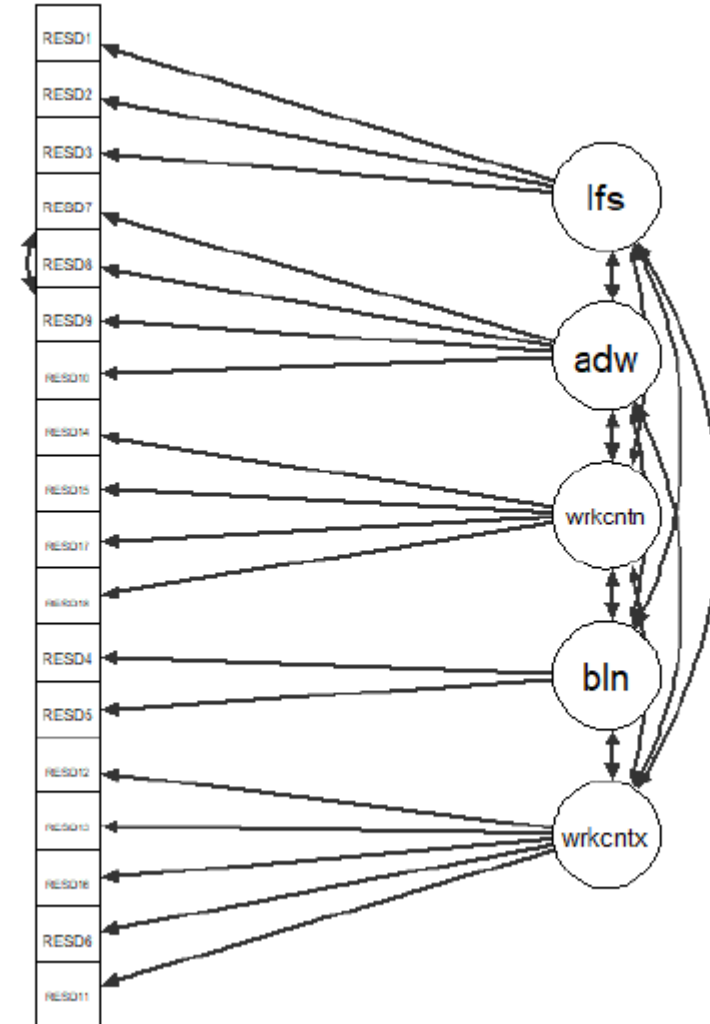
Lifestyle

Balance

Adapted job

Work content

Work context



# Work-Health Balance

(Miglioretti, Gragnano & Simbula 2016)

“A state in which the worker feels able to effectively **balance health and work needs**, considering **management's attention** to employee health and the **perception of compatibility** between one's personal health situation and job characteristics”  
(p.376)

# The Work-Health Balance questionnaire (WHBq) (Gagnano et al. 2017)

Work-health incompatibility (6 items)

“Your job lets you take care of your health”

Health climate (5 items)

“In my organization, health prevention involves all levels of the organization”

External support (6 items)

“Your supervisor listens when you talk about your health”

# Results: concurrent validity and reliabilities

Variable <sup>a</sup>	1a	1b	2a	2b	3a	3b	3c	4	5a	5b	5c	5d	5e	6	7	8	9
<b>MAISE-IT scales</b>																	
1a	-																
1b	.58**	-															
2a	.16**	.22**	-														
2b	.05	.12*	.17**	-													
3a	.34**	.25**	-.01	.02	-												
3b	.09*	.22**	-.00	.26**	.21**	-											
3c	.28**	.22**	.03	.24**	.34**	.50**	-										
4	.07	.06	.07	.01	-.03	-.00	-.09	-									
5a	.09	-.03	.03	-.11*	.03	-.15**	.13**	.03	-								
5b	-.02	.12*	.04	.02	-.03	.04	-.09	.13**	.05	-							
5c	-.06	.11*	-.01	.11*	.04	.21**	.12*	.10*	-.28**	.39**	-						
5d	-.03	.09	.00	.03	-.01	.17**	.09*	.14**	-.18**	.32**	.68**	-					
5e	-.06	.12**	.04	.05	-.01	.19**	.06	.16**	-.21**	.50**	.76**	.74**	-				
<b>WHB-q scales and index</b>																	
6	.01	.02	-.16**	.40**	.04	.22**	.30*	-.09*	-.07	-.09	.02	.02	-.05	-			
7	.04	.07	.17**	-.09*	-.02	-.01	-.08	.17**	-.01	.20**	.19**	.25**	.27**	.29**	-		
8	.02	-.00	.12**	-.14**	-.03	-.10*	-.25**	.11*	.02	.10*	.06	.11*	.07	-.40**	.47**	-	
9	.02	.01	.20**	-.33**	-.04	-.18**	-.30**	.14**	.06	.15**	.07	.10*	.15**	-.86**	.66**	.73**	-
<b>Cronbach's alpha</b>	.78	.70	.75	.37	.79	.91	.82	-	.65	.47	.86	.85	.84	.87	.77	.90	-

<sup>a</sup>Variable: 1a = Fit & Useful; 1b = Productive; 2a = Performance; 2b = Health issues; 3a = Work organisation; 3b = Lifestyle & Balance; 3c = Adapted job; 4 = Overall responsibility for SE; 5a = Responsibility for lifestyle; 5b = Responsibility for balance; 5c = Responsibility for adapted job; 5d = Responsibility for work content, 5e = Responsibility for work context; 6 = Work–health incompatibility; 7 = Health climate; 8 = External support; 9 = WHB index.

\*  $p < .10$ ; \*\*  $p < .05$ .

# Results: means, standard deviations and percentiles

Scale (range 1-5)	# items	M	SD	25th percentile	75th percentile
<b>1. Meaning of SE</b>					
1a. Fit & Useful	6	4.24	.53	4.00	4.67
1b. Productive	4	3.71	.72	3.25	4.25
<b>2. Level of SE</b>					
2a. Performance	4	3.99	.58	3.75	4.50
2b. Health issues	4	2.73	.58	2.25	3.00
<b>3. Factors affecting SE</b>					
3a. Work organisation	6	3.86	.66	3.50	4.33
3b. Lifestyle & balance	2	2.89	1.19	2.00	4.00
3c. Adapted job	5	3.53	.86	3.00	4.20
<b>4. Responsibility for employee SE (n=450)</b>					
Who is responsible for employee Sustainable Employability?	1	2.65	.54	2.00	3.00
<b>5. Responsibility for factors affecting SE</b>					
5a. Lifestyle	3	3.86	.75	3.33	4.33
5b. Balance	2	3.28	.74	3.00	3.50
5c. Adapted job	4	2.12	.87	1.50	2.50
5d. Work content	4	2.57	.77	2.00	3.00
5e. Work context	5	2.49	.75	2.00	2.80

*Note:* A higher score/percentile reflects a more positive score on the particular variable, except for the “health issues” subscale: here a higher score reflects more health problems. A higher score/percentile on scale 3 means that this particular factor contributes a lot to SE. A higher score/percentile on scales 4 and 5 means that responsibility lies mainly with the employee.

## Results: subgroup analyses

MAISE-IT scales	M (SD)		F (df)	M (SD)		F (df)	M (SD)		F (df)
	Men (n= 177)	Women (n= 260)		<55 (n= 303)	55+ (n= 120)		Low educ (n= 135)	High educ (n= 300)	
1. Meaning of SE									
1a. Fit & Useful	4.14 (.58)	4.32 (.49)	11.56 (1)**	4.26 (.53)	4.24 (.56)	.20 (1)	4.25 (.57)	4.25 (.51)	.88 (1)
1b. Productive	3.55 (.74)	3.81 (.69)	14.61 (1)**	3.70 (.72)	3.75 (.74)	.44 (1)	3.82 (.66)	3.66 (.74)	3.69 (1)**
2. Level of SE									
2a. Performance	3.91 (.64)	4.03 (.54)	4.62 (1)**	3.99 (.54)	3.94 (.69)	.82 (1)	3.88 (.62)	4.04 (.55)	4.17 (1)**
2b. Health issues	2.69 (.60)	2.72 (.57)	.37 (1)	2.65 (.56)	2.85 (.60)	10.55 (1)**	2.80 (.59)	2.67 (.57)	3.23 (1)**
3. Factors affecting SE									
3a. Work organisation	3.72 (.70)	3.94 (.62)	11.76 (1)**	3.93 (.62)	3.65 (.75)	15.66 (1)**	3.74 (.71)	3.91 (.64)	3.27 (1)**
3b. Lifestyle & balance	2.90 (1.15)	2.87 (1.22)	.08 (1)	2.92 (1.18)	3.20 (.95)	.07 (1)	3.12 (1.17)	2.77 (1.19)	5.00 (1)**
3c. Adapted job	3.29 (.88)	3.67 (.83)	20.80 (1)**	3.56 (.84)	3.39 (.94)	3.67 (1)*	3.52 (.91)	3.52 (.85)	.10 (1)
4. Responsibility for employee SE									
Who is responsible for employee Sustainable Employability?	2.59 (.57)	2.68 (.52)	2.77 (1)*	2.65 (.54)	2.64 (.53)	.06 (1)	2.63 (.57)	2.65 (.53)	.09 (1)
5. Responsibility for factors affecting SE									
5a. Lifestyle	3.83 (.71)	3.89 (.79)	.52 (1)	3.87 (.78)	3.85 (.72)	.06 (1)	3.84 (.77)	3.88 (.75)	.59 (1)
5b. Balance	3.31 (.77)	3.25 (.73)	.61 (1)	3.29 (.73)	3.32 (.76)	.16 (1)	3.31 (.83)	3.27 (.71)	1.29 (1)
5c. Adapted job	2.16 (.81)	2.07 (.90)	1.07 (1)	2.09 (.84)	2.19 (.94)	1.04 (1)	2.20 (.94)	2.06 (.82)	2.54 (1)
5d. Work content	2.56 (.73)	2.57 (.80)	.02 (1)	2.55 (.77)	2.63 (.78)	.80 (1)	2.63 (.81)	2.53 (.76)	1.03 (1)
5e. Work context	2.50 (.72)	2.48 (.76)	.74 (1)	2.47 (.73)	2.58 (.78)	2.04 (1)	2.56 (.87)	2.45 (.68)	2.00 (1)

\*  $p < .10$ ; \*\*  $p < .05$ .

# Discussion



This study showed the MAISE-IT to be valid in the Italian context



Sustainable Employability concept was moderately associated with WHB concept, without overlapping it. This finding underlines the importance of health management at work



Only one working sector and a small convenience sample  
Only one proxy  
Cross-sectional data



More validation and follow-up studies are needed in larger samples from various working sectors, PMIs and among vulnerable groups such as employees with health issues, older and younger employees, self-employed employees and low-educated employees



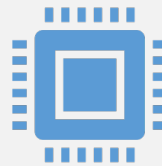
# Implications for practice and further research



If SE is considered a shared responsibility, government and social partners are called to play a fundamental role in terms of SE policy development



The MAISE-IT should be used to assess employees' needs in order to develop group (or subgroup) interventions that fit the employee perspective, and to evaluate its effectiveness



The MAISE-IT could be implemented in digital platforms in order to assess and monitor employee SE, and to evaluate long-term effects of technology-based interventions



# Thank you!

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