



Personal perspectives influencing the development of the LLWI:

Perspective I

Studies of Economics and Psychology

Judson University Elgin, IL, USA 1982 – 1983

Christian-Albrechts-University Kiel, Germany 1983 – 1992

PhD at the University of the Armed Forces Hamburg, Germany





(Photo: Siegbert Brey, 2015)

Personal perspectives influencing the development of the LLWI: Perspective II

More than eight years in the corporate world at Daimler in several corporate Human Resource functions in Stuttgart and Berlin, Germany

Office management of the Executive Board Member Human Resources, Dr. Norbert Bensel, DaimlerBenz Inter Services (debis AG), Potsdam Square, Berlin

1991 - 1999

Photo: debis house at Potsdam Square, Berlin

(Photo: Cafezinho, 2006)



Personal perspectives influencing the development of the LLWI: Perspective III

Workshop hosted by Dr. Norbert Bensel, German Rail, on the "Future of Work"

Meeting with Patrick Liedtke, Geneva Association

Start of the Silver Work Project: "Do people work in retirement? Individual perspectives on work in retirement"

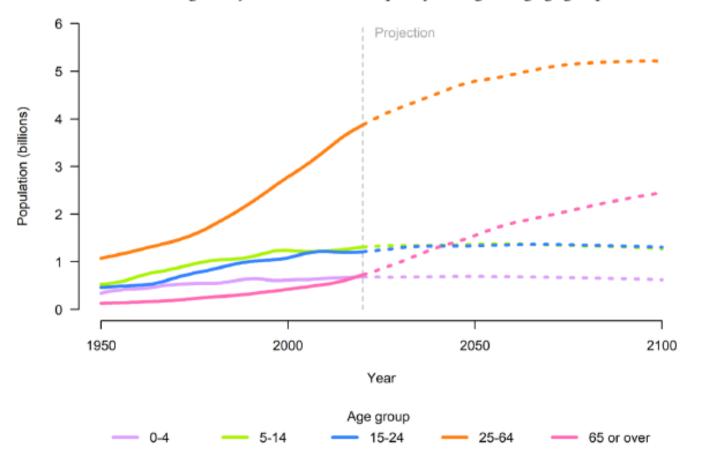
(Photo: Jörg Zägel, 2009)



Demographic change is happening worldwide

Figure 12. Estimated and projected global population by broad age group, 1950-2100, according to the medium-variant projection

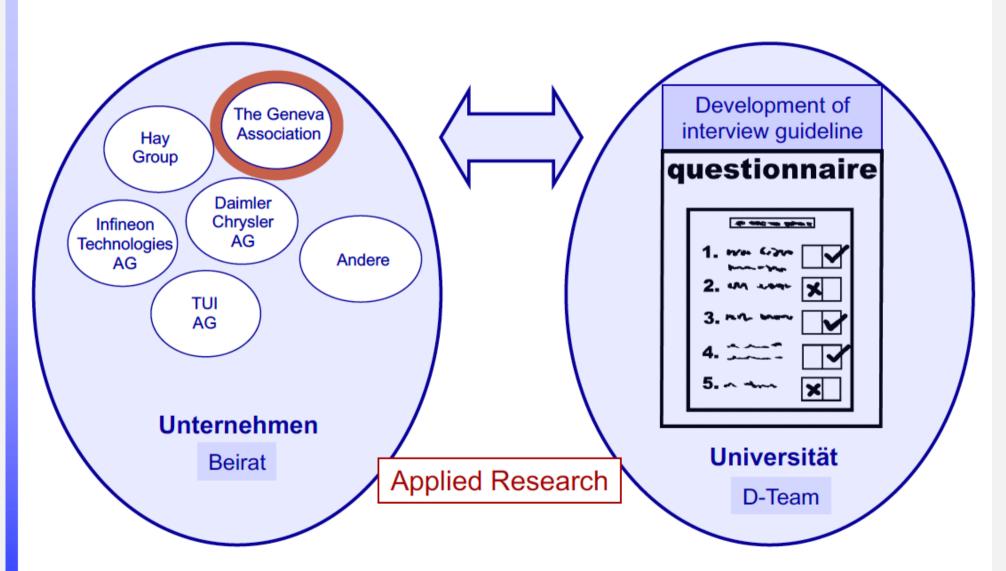
Persons aged 65 years or over make up the fastest-growing age group



Data source: United Nations, Department of Economic and Social Affairs, Population Division (2019). World Population Prospects 2019.

* excluding Australia and New Zealand

Cooperation University - Organisation



We propose a meso level addition to the Active Ageing Index to measure organizational employment conditions for older employees

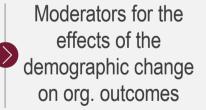
Macro level: Active Ageing Index (AAI)

Purpose: Measure societies' level of older citizens' activity and to provide evidence for policy decision making



Meso level: Index for enablement of active ageing on organizational level

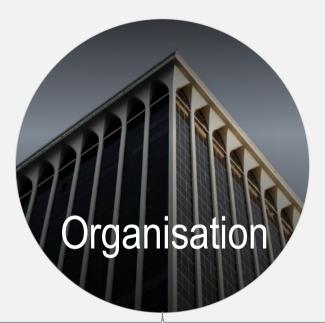
Purpose: Describe age-friendly employment conditions and allow for self-assessment and comparison of organizations' capabilities to successfully employ older employees regarding e.g., performance, health, motivation



Demographic change requires the successful employment of older workforces: Three levels of relevance



What is important at the organisational level? Previous research has focused on individual aspects









Personnel development / lifelong learning



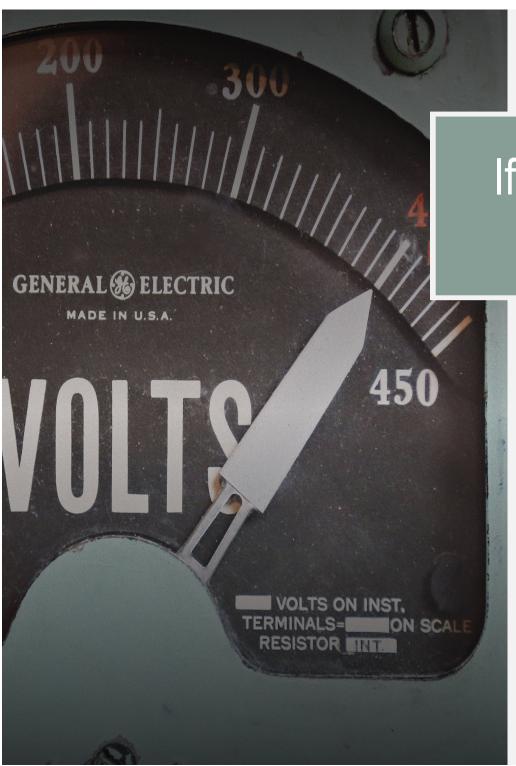
Health management



Ergonomic work design



Etc.



If you can't measure it, you can't improve it.

Peter Drucker (1909 – 2005)

Hence, we developed an index of organizational practices for later life work:
The *Later Life Work Index* (LLWI)



The LLWI as a measure for research and practice



For Research

- Help understanding the set of organizational practices beneficial for making an aging workforce 'work'
- Provide a validated
 multidimensional measure
 that allows to distinguish
 different age-friendly
 organizational practices
- Identifying **relative importance** of individual
 practices compared to others





For Practice

Enabling organizations to

- self-assess their own capabilities regarding employment of an aging workforce
- identify best practices
- benchmark with peers
- derive levers to improve productivity, health and motivation

We compared and integrated organizational practices for later life work identified independently in the U.S. and in Germany



Data

Two datasets on age-friendly organizational practices

U.S. dataset

Semi-structured self-assessment by 61 companies applying for the "Age Smart Employer Award"

Employees M = 7,820; SD = 28,900

Range from 4 to 200,000

Sectors 72% B2C, 18% B2B, 10% B2BC

Characteristics 44% family owned

36% non-profit

Industries Food (23%), Healthcare (18%),

Social Service (15%), Service (13%) Manufacturing (13%), Entertainment (7%), Education (7%), Retail (5%)

Language English

German dataset (Wöhrmann et al., 2018)

27 semi-structured, transcribed, and content analyzed telephone interviews:

Participants German HR and business managers,

employees in retirement age,

scientists, politicians

Gender Male 74.1 %

Female 25.9 %

Age M = 52.7 years; SD = 10.6 years

Range from 35 to 83 years

Professional M = 2844 years; SD = 11.4 years

experience Range from 7 to 59 years

Language German

Results

Merger of the two perspectives revealed 9 domains of practices

ORGANIZATIONAL 1. Equality of opportunity 2. Positive image of age **CULTURE**

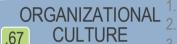
- Equality of opportunity
- 3. Open and target group-oriented communication

LEADERSHIP

- 1. Appreciation
- 2. Responsiveness to individuality

WORK DESIGN 1. Flexible work	HEALTH MANAGEMENT 1. Availability of	INDIVIDUAL DEVELOPMENT 1. Continuous	KNOWLEDGE MANAGEMENT 1. Institutionalized	TRANSITION TO RETIREMENT 1. Timely transition	CONTINUED EMPLOYMENT 1. Individualized	HEALTH & RETIREMENT COVERAGE 1. Retirement
time arrangements 2. Flexible workplaces 3. Work according to capabilities 4. Ergonomic working conditions	physical exercise and nutrition opportunities 2. Workplace medical treatment 3. Health promotion	development planning 2. Appropriate solutions for training and development 3. Enabling development steps and job changes	knowledge transfer 2. Inter- generational collaboration	planning 2. Phased retirement & individualized transition solutions 3. Counseling for retirement life preparation 4. Continuous inclusion and maintaining contact	employment options 2. (Re-)hiring of older employees	savings and pensions 2. Insurances and financial emergency support

Reliability assessment implies satisfying distinction and definition of the domains and underlying practices



- 1. Equality of opportunity
- 2. Positive image of age
- 3. Open and target group-oriented communication



LEADERSHIP

- 1. Appreciation
- 2. Responsiveness to individuality

WORK DESIGN



- Flexible work time arrangements
- 2. Flexible workplaces
- 3. Work according to capabilities
- 4. Ergonomic working conditions

HEALTH MANAGEMENT



- Availability of physical exercise and nutrition opportunities
- 2. Workplace medical treatment
- 3. Health promotion

DEVELOPMENT .83

INDIVIDUAL

- . Continuous development planning
- Appropriate solutions for training and development
- 3. Enabling development steps and job changes

KNOWLEDGE MANAGEMENT



- I. Institutionalized knowledge transfer
- 2. Intergenerational collaboration

TRANSITION TO

RETI.82 /IENT

- Timely transition planning
- Phased retirement & individualized transition solutions
- Counseling for retirement life preparation
- Continuous inclusion and maintaining contact

CONTINUED EMPLOYMENT

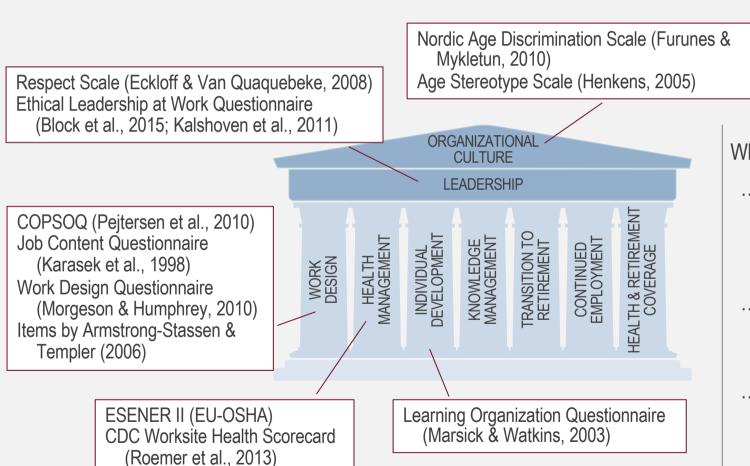


- Individualized employment options
- (Re-)hiring of older employees

HEALTH & RETIREMENT COVERAGE

- Retirement savings and pensions
- 2. Insurances and financial emergency support

We operationalized the index with ~100 items in total and validated the new scales based on well-established criterion variables



Not exhaustive

Where required, ...

- ... scales are transferred to the organizational level (**referent shift**, cf. Chan, 1998)
- ... scales are **shortened/ mirrored** by defining
 3-5 overall items
- ... concurrent validity
 has been evaluated in
 pre-studies

Continuous development planning

Planning for each individual employee's future should be done on an ongoing basis at all ages and stages of the work life.

This could be done through individual meetings between managers and employees and by providing professional workshops that allow for self-reflection on abilities, competencies, and goals.

2 Appropriate solutions for training and development

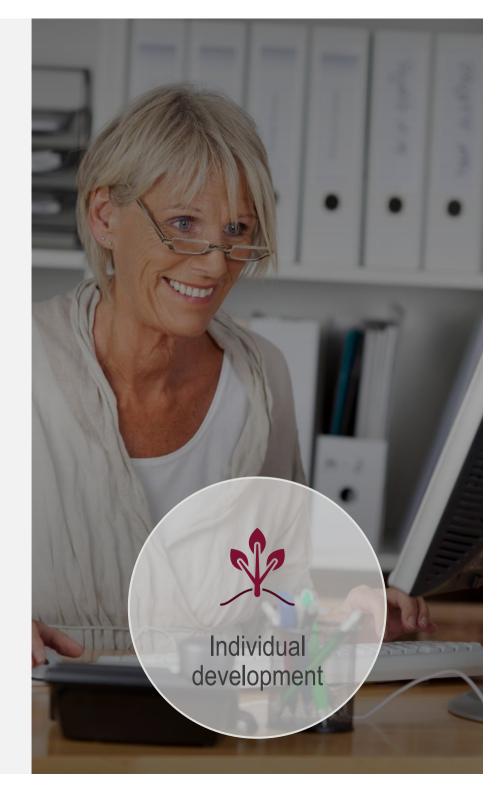
The organization should provide further training and education aligned with the individual employee's professional, educational, and life experience as well as with organizational goals.

Further, training content and methods should be targeted towards specific groups.

3 Enabling development steps and job changes

Modifications to an employee's current position, function or job should be made possible to reflect the specific competencies and development interests of an individual.

For example, this could be achieved by increasing job responsibilities, inclusion into other projects, or a horizontal or vertical change of position, which could also mean an additional apprenticeship or a new job within a different department.





1 Timely transition planning:

Managers should talk with employees about their personal plans for entering the retirement stage, including a succession plan.

Potential transition scenarios should be actively discussed to find individual solutions, for example, through annual employee interviews.

Phased retirement and individualized transition solutions

Generic solutions for the transition into retirement should be tailored according to employees' individual needs. Flexibility and imagination should be present when designing the employee's individual transition into retirement.

Phased retirement through a gradual reduction of working time should be offered companywide. Phased retirement can take place over a shorter or longer period of time, depending on needs.

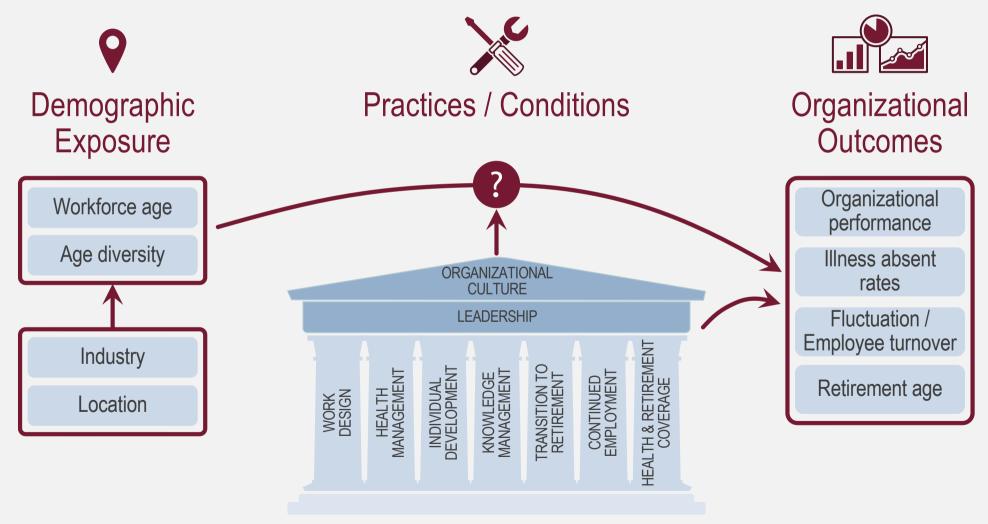
3 Counseling for retirement life preparation

Organizations should support their employees in preparing mentally for the life change of retirement by providing advising and counseling. Employees should be motivated to actively design their retirement life prior to transition.

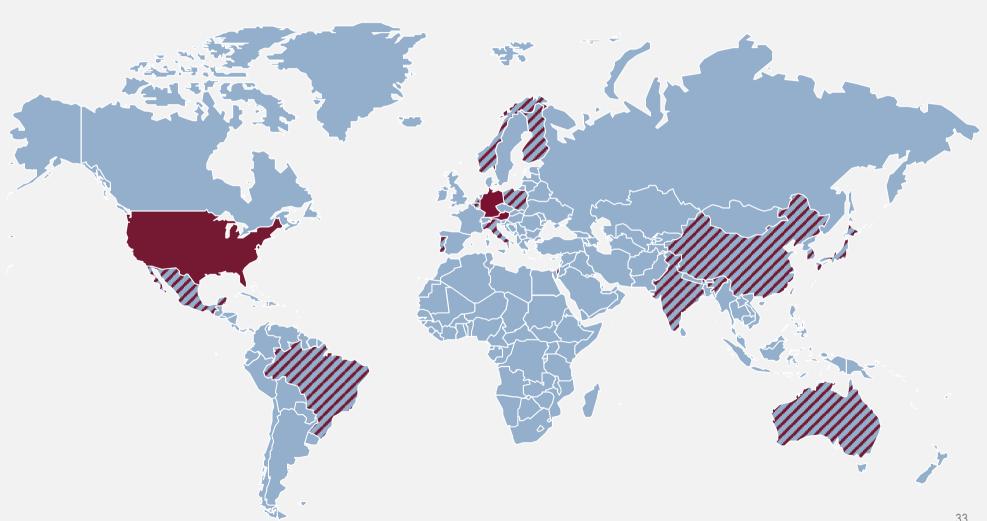
Continuous inclusion and maintaining contact

Tools should be in place to maintain contact with employees even after their retirement and to help them stay engaged as part of the organization. This could be facilitated through an active management of relationships by means of an alumni network, invitations to organizational events or by allowing for voluntary work.

Objective: Understand the moderating effect of organizational practices on age-diverse workforces' outcomes



Partners around the world validate the LLWI in other countries

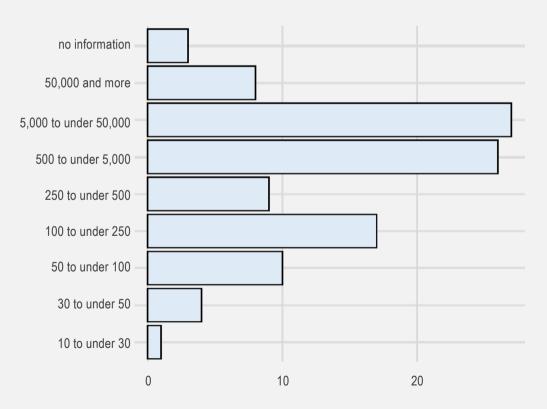


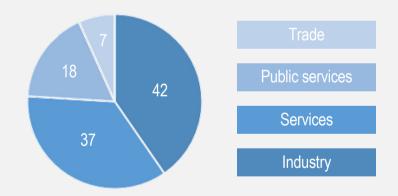
More than 100 organisations have participated in the LLWI study



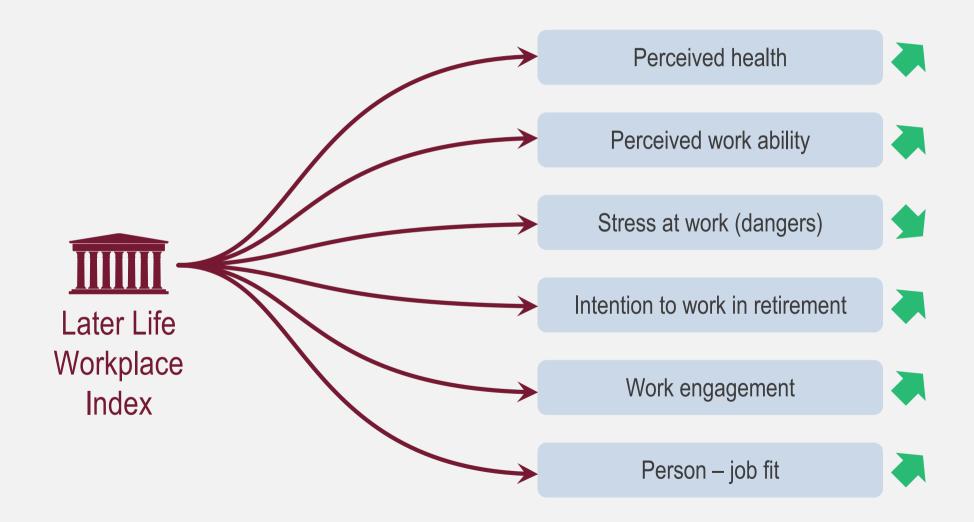
Organisation size



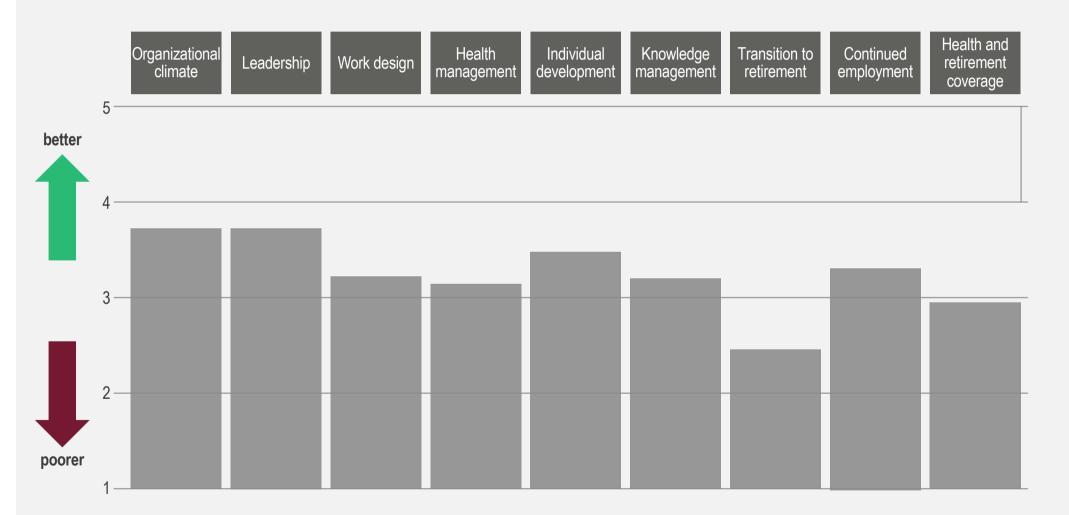




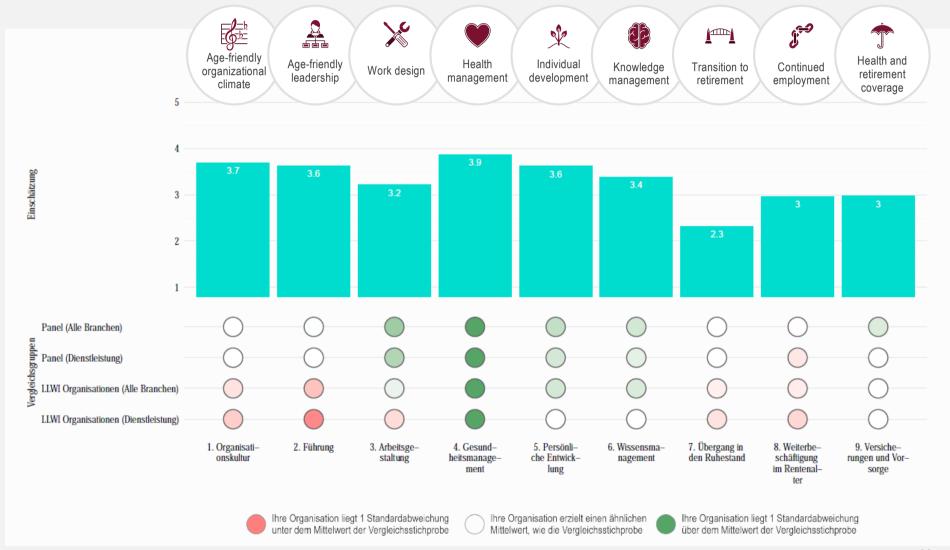
Results so far show positive effects on a number of relevant work outcomes



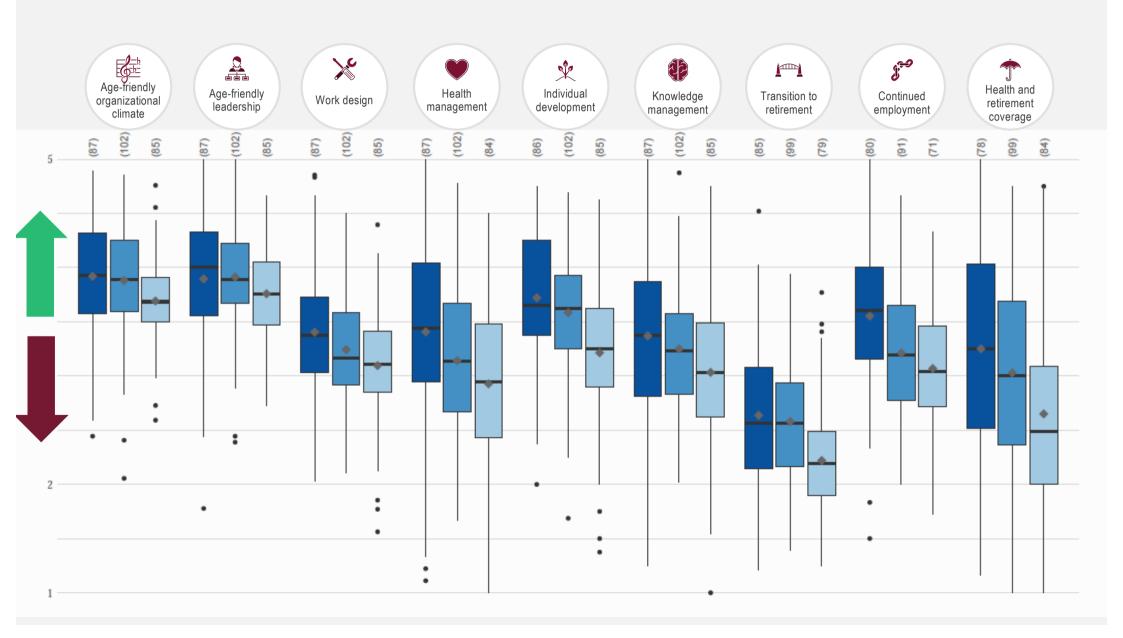
More than 100 organizations in Germany applied the LLWI so far



We benchmark participating organizations with peers and provide detailed feedback to support organizational change



LLWI ratings by HR, executives, and older employees



We have developed three different LLWI versions

	LLWI	LLWI-SF	LLWI-XSF
No. of items	80	29	9
Differentiability	domains and indicators 2–4 items per indicator	domains only 3–4 items per domain	domains only 1 item per domain
Areas of practical application and strengths	in-depth analysis, high level of detail	pre-screening (for deeper analysis), cost and time-efficient assessment	population surveys, pre- screening (for deeper analysis), quick assessment
Versions available (published)	Germany, U.S.	Belgium (Flemish), Germany, Italy, Japan, Korea, Netherlands, Norway, Poland, Portugal, U.S.	
Versions available (in the process of publication)	Belgium (Flemish), Bulgaria, Brazil, Czech Republic, Denmark, India (English), Israel, Italy, Japan, Korea, Lithuania, Netherlands, Poland, Portugal, Romania, Slovakia, U.S.	Bulgaria, Brazil, Czech Republic, Denmark, India (English), Israel, Romania, Slovakia, Turkey	Germany, U.S.

LLWI Short Version (Finsel et al. 2025): Item Examples

Domain/Item	English (U.S.)	Korean
OC Organizational Climate	In our organization,	
OC-1	regardless of age, all employees have the same opportunities.	우리 회사는 연령에 관계없이 모든 근로자에게 동등한 기회를 제공한다.
OC-2	there is a positive attitude towards older employees.	우리 회사는 고령 근로자들에 대한 긍정적인 태도를 보인다.
OC-3	"aging" is talked about openly.	우리 회사에서는 '노화'에 대해 거리낌 없이 이야기할 수 있다.
CE Continued Employment		
CE-1	employment opportunities for people in retirement age are clearly defined and structured (e.g., by integration into strategic workforce planning).	우리 회사는 정년퇴직 연령대 근로자의 고용기회에 대해 명확한 방침을 세우고 있다(예, 정년퇴직 예정자 대상의 전략적인 인력 확보 계획 등).
CE-2	working conditions (time and type of activity) for employees in retirement age are flexibly adapted to their wishes	우리 회사에서 정년퇴직 연령대 근로자들의 근로조건(시간 및 근무형태)은 본인의 희망에 따라 유연하게 조정된다.
CE-3	older applicants are hired as well.	우리 회사에서는 고령자(50세 이상) 대상의 채용이 이루어지고 있다.

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LLWI Extra-Short Version (LLWI-XSF; Deller et al., 2024; work in progress; Wehage et al.)

1. Item <u>development</u> procedure

 Expert focus group: Deductive item development based on LLWI domains and indicators

2. Overview

		# items
1	Organizational climate	1
2	Leadership	1
3	Work design	1
4	Health management	1
5	Individual development	1
6	Knowledge management	1
7	Transition to retirement	1
8	Continued Employment	1
9	Health & retirement coverage	1

3. Countries covered

- Germany & United States(Deller et al., 2024)
- 2nd version in progress: e.g.,
 France, Germany, Israel, Italy,
 the Netherlands, Portugal,
 United States

The Later Life Workplace Index (LLWI) and DIN ISO 25550:2024-06 Ageing societies – General requirements and guidelines for an age-inclusive workforce

INTERNATIONAL STANDARD

ISO/FDIS 25550

Ageing societies — General requirements and guidelines for an age-inclusive workforce

Implications...



...for research

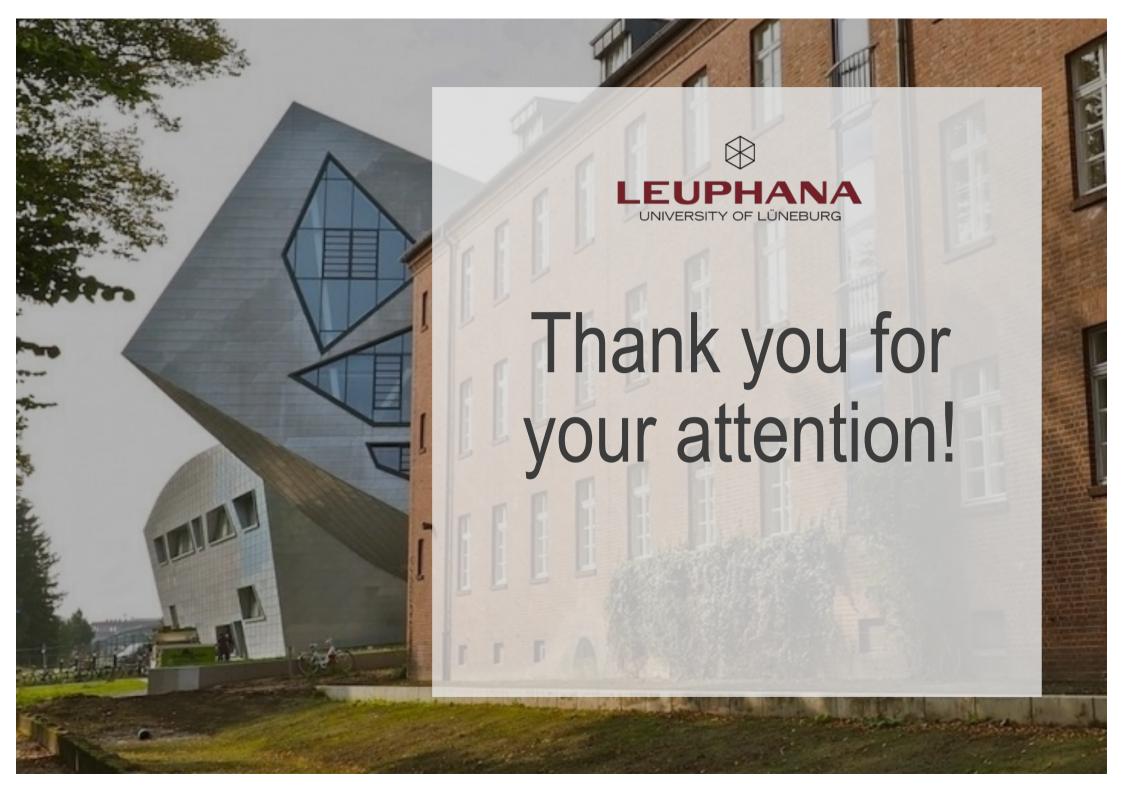
- The LLWI facilitates research on a large variety of research questions
 - All domain scales can be used together or separately
 - Items can be administered to (older) employees, managers or HRM
 - Enables comparison of the relevance of practices
 - Measurement models persists across countries





...and for practice

- The LLWI facilitates organizational change
 - Assess strengths and weaknesses regarding organizational practices for older workers to identify areas for improvement
 - Benchmark among pears
 - Independent of organizational size and industry type



Contact



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www.later-life-workplace-index.org

Selected References



Later Life Workplace Index website https://www.leuphana.de/en/portals/later-life-workplace-index.html



Deller, J., Gu, X., Choi, S. J., & Wöhrmann, A. M. (2025). Working conditions and organizational practices to support well-being of multiage workforce in Germany, USA, Japan, and South Korea. *Public Administration and Policy*, *28*(1), 88-100. https://doi.org/10.1108/pap-08-2024-0143



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LLWI Back up: Domains, Items

-ater Life Workplace Index - Project details.pptx

ORGANIZATIONAL CLIMATE



Domain:

The organizational climate domain includes the set standards and actions of an employer shaped by the mission and values of the organization. An organizational climate that fosters good management of employees just before and in retirement age especially promotes equal opportunities and a positive image for all age groups.

Indicators:

- 1. **Equality of opportunity:** Initial conditions should be the same for every employee regardless of age. Further, no discrimination or stigmatization due to age should occur. Each employee therefore has the same opportunities, e.g. participation in training and professional qualification or in the need of downsizing.
- 2. **Positive image of age:** Prevailing beliefs and attitudes regarding older employees are shaped by a positive attitude within the organization. Aging should be understood as an individual change process of competencies, motivation, values, and behavior. Opportunities should be recognized, valued and realized. For example, by identifying and assigning tasks which correspond to the specific competencies of older individuals.
- 3. **Open and target group-oriented communication**: The organization is characterized by a differentiated image of age that is communicated trough external and internal representation of the organization. This explicitly includes open and transparent exchange between employees and their managers regarding retirement and/or continued opportunities for work. Positive images representing all age groups within the employee magazine, on the intranet or website are another example.

LEADERSHIP



Domain:

The leadership domain includes the responsibility of organizational executives to harness the potential of employees at all ages and particularly just before and in retirement age. This is achieved through the consideration of each individual employee's strengths and by showing appreciation for their talents and contributions.

Indicators:

- 1. **Appreciation**: Managers of an organization should have an appreciative attitude towards their employees of all ages, manifested through a consistent demonstration of respect and kindness. Managers should reward the experience and achievements of their employees by offering higher levels of job autonomy and responsibility. Celebrating milestones and farewells are another way to convey gratitude, particularly when an employee is going into retirement.
- 2. **Responsiveness to individuality**: Managers of an organization should be sensitive to individual needs and events that occur at different life stages. They should also take into account each individual's personality and performance capability. Managers are responsible for recognizing and harnessing individual potential regardless of age and for creating performance-enhancing conditions. Among other factors, this includes the consideration of employees' wishes and suggestions regarding the design of their work space as well as the consideration of individual life circumstances, such as the need to care for family.

WORK DESIGN



Domain:

The work design domain includes the adaptation of work location, times and physical space to fit the individual needs and abilities of employees, relieve strain and increase job satisfaction and efficiency.

- 1. **Flexible work time arrangements**: The organization should allow employees to change their work time depending on individual needs. Specific solutions will depend on the nature of an employee's work. Options for flexibility could include a long or short term switch to part time, offering flextime, job sharing, the possibility of swapping shifts, and unpaid leaves.
- 2. **Flexible workplaces**: When possible, employees should be able to choose their work location based on their individual needs and what is most efficient. Examples include the facilitation and technical support of home-office-solutions or the installation of silent work places within the office.
- 3. **Work according to capabilities**: Employees should have adequate jobs corresponding to their individual physical and mental performance capability and resilience. If not the case, this could be realized through a temporary or permanent change to another role that is less straining. Swapping jobs or reconsidering and adapting work flows should also be taken into consideration.
- 4. **Ergonomic working conditions**: The work place should be designed according to ergonomic requirements and should also take into account the individual circumstances of the employee. For example occupational safety measures should be taken and supportive equipment and/or tools should be provided.

HEALTH MANAGEMENT



Domain:

The health management domain includes all organizational activities that aim to maintain and promote employees' health and work ability. Health management should be characterized by a holistic approach addressing not only specific interventions but also health-promoting work design and leadership.

- 1. **Availability of physical exercise and nutrition opportunities**: Initiatives to strengthen health and work ability should be offered, such as company sports activities, active breaks and nutritional guidance.
- 2. **Workplace Medical treatment**: Measures should be taken to help employees avoid medical conditions and assistance to aid in the recovery of sick employees should be offered. Examples include company doctors, on-site medical check-ups and physical therapy, along with wellness programs.
- 3. **Health promotion**: Measures should be taken to disseminate knowledge about healthy behaviors to help employees make responsible and healthy decisions. This could be done by providing information on healthy living. Moreover, managers should act as role models for healthy behaviors and promote a healthy work environment. This includes taking part in physical exercise, nutrition opportunities and related programs themselves, as well as encouraging a sustainable work-life balance.

INDIVIDUAL DEVELOPMENT



Domain:

Employees should be supported in their professional and personal development during their entire work life. A special emphasis is put on the importance of lifelong learning through continued education and training. There should also be opportunities for career development through internal advancement and promotions.

- 1. **Continuous development planning**: Planning for each individual employee's future should be done on an ongoing basis at all ages and stages of the work life. This could be done through individual meetings between managers and employees and by providing professional workshops that allow for self-reflection on abilities, competencies, and goals.
- 2. **Appropriate solutions for training and development**: The organization should provide further training and education aligned with the individual employee's professional, educational, and life experience as well as with organizational goals. Further, training content and methods should be targeted towards specific groups. Examples of appropriate training and development solutions are workshops, seminars and industry conferences, training for new technologies or equipment, cross-training, and internships for people of all ages. These training and development opportunities can be facilitated onsite or through reimbursement of tuition or fees.
- 3. **Enabling development steps and job changes**: Modifications to an employee's current position, function or job should be made possible to reflect the specific competencies and development interests of an individual. For example, this could be achieved by increasing job responsibilities, inclusion into other projects, or a horizontal or vertical change of position, which could also mean an additional apprenticeship or a new job within a different department.

KNOWLEDGE MANAGEMENT



Domain:

The knowledge management domain includes procedures for the transfer, exchange, and conservation of knowledge between different generations of employees.

- 1. **Institutionalized knowledge transfer**: Institutionalized structures that transfer knowledge from experienced employees to their successors should be in place. This can be achieved through mentoring and "buddy" programs or through a systematic knowledge transfer process before employees leave the organization for retirement.
- 2. **Inter-generative collaboration**: The organization should allow for mutual transfer of knowledge and experience between generations. This transfer goes in both directions, young to old, as well as old to young. Its structure is not necessarily determined by the organization. For example, collaboration can happen within intergenerational pairs or agemixed teams.

TRANSITION TO RETIREMENT



Domain:

The transition into retirement domain includes the necessary conversations, planning, and workplace solutions for any employee who is on the verge of retiring. Information and counseling should be provided to help the employee transition.

- 1. **Timely transition planning**: Managers should talk with employees about their personal plans for entering the retirement stage, including a succession plan. Potential transition scenarios should be actively discussed to find individual solutions, for example, through annual employee interviews.
- 2. **Phased retirement and individualized transition solutions**: Generic solutions for the transition into retirement should be tailored according to employees' individual needs. Flexibility and imagination should be present when designing the employee's individual transition into retirement. Phased retirement through a gradual reduction of working time should be offered companywide. Phased retirement can take place over a shorter or longer period of time, depending on needs.
- 3. **Counselling for retirement life preparation**: Organizations should support their employees in preparing mentally for the life change of retirement by providing advising and counseling. Employees should be motivated to actively design their retirement life prior to transition. For example, individual preparation can be fostered through a structured approach that reflects individual expectations and plans. There may also be opportunities to establish alternative activities beyond employment.
- 4. **Continuous inclusion and maintaining contact**: Tools should be in place to maintain contact with employees even after their retirement and to help them stay engaged as part of the organization. This could be facilitated through an active management of relationships by means of an alumni network, invitations to organizational events or by allowing for voluntary work.

CONTINUED EMPLOYMENT



Domain:

The continued employment domain includes the organizational design and employment options for employees at retirement age. This includes former employees of the organization as well as external employees looking for continued employment.

- 1. **Individualized employment options**: Employment options for individuals, who would otherwise be fully retired, should be offered systematically. To ensure employment options are meaningful for both the organization and the employee, integration of those employees into the organization should be strategically planned. For example, they might be brought in on a temporary basis at peak production times. Tasks and work time should be adaptable to the individual employee. This can be achieved through alternative contract forms such as consulting and mentoring work or flexible work time arrangements with generally fewer hours than a full-time position.
- 2. **(Re-) hiring of older employees**: Older individuals, particularly including already and almost retired employees should be specifically addressed by job marketing, hiring and reemployment processes. This is achieved through age-friendly communication of job offers and the use of alternative marketing paths to address external as well as internal individuals. This explicitly includes employees with long careers in other industries or companies.

HEALTH & RETIREMENT COVERAGE



Domain:

Organizations should support their employees with retirement savings and insurance coverage, if not sufficiently provided by public systems. Requirements vary due to different regulations and social systems. The support may be a direct financial benefit or put into practice as individual planning and assistance.

- 1. **Retirement savings and pensions**: Employees should be offered options for retirement savings, if not sufficiently covered by public systems. Organizations may include pensions and retirement saving accounts into their full compensation packages, offer optional saving possibilities to be opened by the employees individually, and support their employees in timely planning and organization of their retirement savings.
- 2. **Insurances and financial emergency support**: Organizations should offer health related insurance coverage, if not sufficiently covered by public systems. This includes (additional) health-, disability-, care- or life insurances, which particularly cover risks that increase with age. Additional financial support may be offered in case of family emergencies, as e.g., in a case of nursing care or child sickness.

LLWI Long Version Items



Later Life Workplace Index Organizational Climate

OC1 Equality of opportunity

OC1-1 In our organization, regardless of age, all employees have the same opportunities.

OC1-2 In our organization, regardless of age, all employees have the same opportunities for further training.

OC1-3 In our organization, regardless of age, all employees have the same opportunities to develop their career.

OC2 Positive image of age

OC2-1 In our organization, there is a positive attitude towards older employees.

OC2-2 In our organization, older employees are perceived as being able to adapt well to changes.

OC2-3 In our organization, older employees are perceived as competent.

OC3 Open and target group-oriented communication

OC3-1 In our organization, the possibilities of working for older employees are openly communicated.

OC3-2 In our organization, "aging" is talked about openly.

OC3-3 In our organization, employees can openly talk about age-related challenges and issues (e.g., performance

limitations, speed in using digital tools, changes in short-term memory).

OC3-4 In our organization, there is a great deal of understanding for the challenges of aging.



Later Life Workplace Index Leadership

Appreciation

Responsiveness to individuality

LE-1	Managers of our organization show appreciation both for current work results as well as for the overall performance
	of their employees.
LE-2	Managers of our organization give their employees freedom in designing their work.
LE-3	Managers of our organization invest time in their employees.
LE-4	Managers of our organization address the personal needs and living conditions of their employees.
LE-5	Managers of our organization sincerely support their employees in their professional and personal development.
LE-6	Managers of our organization are interested in the well-being of their employees.



Later Life Workplace Index Work Design

WD1 Flexible work time arrangements

Employees of our organization can adjust the beginning and the end of their daily working hours to their individual WD1-1

needs.

WD1-2 Employees of our organization can reduce or increase the number of hours specified in their work contract

according to their individual needs.

Employees of our organization can adapt the timing and the length of their breaks to their individual needs. WD1-3

Employees of our organization have enough flexibility in their working time organization to appropriately address WD1-4

unforeseen events in their private lives.

WD2 Flexible workplaces

WD2-1 Employees of our organization have the opportunity to work from home.

WD2-2 Employees of our organization have the opportunity to flexibly adapt where they work in the organization to their

current needs (e.g., quiet workplaces, standing workstations, project workrooms).

WD2-3 Employees of our organization can choose their place of work to ensure a good balance between their work and

private life (work-life balance).

WD3 Work according to capabilities

WD3-1 In our organization, managers change the tasks of their employees in the foreseeable future (e.g., within half a year)

if the tasks no longer correspond to the employee's ability to perform and to withstand stress.

WD3-2 In our organization, job rotation (regular change of responsibilities) is provided in case of monotonous routines or

high physical strain at the workplace.

WD3-3 In our organization, when tasks are cognitively over- or undemanding (e.g., asking employees to remember many

things, to concentrate, to make difficult decisions) the assignment is changed in the foreseeable future (e.g.,

within half a year).

WD4 Ergonomic working conditions

In our organization, workplaces are designed according to ergonomic recommendations. WD4-1

WD4-2 In our organization, proposals by employees for ergonomic improvements are taken up and implemented as far as

possible.

WD4-3 In our organization, employees can adapt the lighting conditions at their workplace to their individual needs.

In our organization, employees use the most appropriate tools to reduce the physical strain of their work. WD4-4

Later Life Workplace Index Health Management

HM1 Availability of physical exercise and nutrition opportunities

HM1-1 Employees of our organization receive incentives and opportunities to eat healthy food (e.g., by lower prices or a greater variety compared to the less healthy alternatives).

HM1-2 Employees of our organization are encouraged to move as much as possible in the workplace (e.g., use the stairs, talk a walk during lunch break, sports during lunch break, use the bicycle to work).

HM1-3 Employees of our organization receive incentives and opportunities to do sports outside work (e.g., company sports groups, cooperation with gyms).

HM2 Workplace medical treatment

HM2-1 In our organization, employees regularly receive medical check-ups (e.g., vaccinations, stress tests, eye examinations, blood pressure).

HM2-2 In our organization, there are special programs to reintegrate employees into work after a long illness (e.g., medical therapies, mental or physical health therapies).

HM2-3 In our organization, employees receive therapeutic help in the workplace or in the immediate vicinity if required (e.g., physiotherapy in case of great physical stress and strain).

HM3 Health promotion

HM3-1 In our organization, employees are made aware of health-promoting behavior (e.g., through training, counseling, displays).

HM3-2 In our organization, managers and top management are committed to promoting a sustainable, healthy way of life and work for their employees.

HM3-3 In our organization, health aspects play an important role in organizational decisions (e.g., investment decisions or operational changes).



Later Life Workplace Index Individual Development

Continuous development planning

Appropriate solutions for training and development

Enabling development steps and job changes

ID-1	In our organization, development prospects and qualification requirements are identified for employees, regardless of age.
ID-2	In our organization, managers have regular conversations with their employees, regardless of age, about their personal and professional objectives (e.g., annual meetings to discuss their developmental goals).
ID-3	In our organization, employees, regardless of age, know about their potential for development.
ID-4	In our organization, older employees are offered training to learn new competencies and develop their expertise.
ID-5	In our organization, training methods are adapted to take into account the needs of older employees (e.g., more practical learning techniques instead of lecture formats).
ID-6	In our organization, employees, regardless of age, are involved in projects according to their competencies and developmental interests.
ID-7	In our organization, opportunities for career development into management or expert positions are possible for older employees.
ID-8	In our organization, employees move to a different job or position if it better suits their specific skills and abilities.



Later Life Workplace Index Knowledge Management

KM Knowledge management

KM1 Institutionalized knowledge transfer

KM1-1 In our organization, there are mentoring programs in which experienced employees support others with their

knowledge.

KM1-2 In our organization, there are processes/procedures to systematically pass on the knowledge and experience of

older employees to their younger colleagues before they leave the organization.

KM1-3 In our organization, there are IT systems that are also used by older employees for the documentation and

dissemination of knowledge.

KM1-4 In our organization, there are regular opportunities for every employee to exchange experiences and knowledge

(e.g., in regular meetings).

KM2 Inter-generational collaboration

KM2-1 In our organization, older and younger employees are encouraged to share their knowledge and experience.

KM2-2 In our organization, managers support the exchange of knowledge between younger and older employees.

KM2-3 In our organization, employees pass on their knowledge to colleagues of other generations (younger or older).



Later Life Workplace Index Transition to Retirement

TR1 Timely transition planning

TR1-1 In our organization, managers discuss early with their employees (e.g., from the age of 55) as to how to make the transition to retirement.

TR1-2 In our organization, managers take time to plan the transition to retirement for individual employees.

TR1-3 In our organization, succession planning for the employee who is retiring is begun long before the expected

retirement date.

TR2 Phased retirement and individualized transition solutions

TR2-1 In our organization, employees have the option to reduce their weekly working hours during the last years before

retirement (phased retirement).

TR2-2 In our organization, employees have the option to work full time (with 50% pay), followed by a period of non-

working (also with 50% pay) over a period of 2-3 years each before retirement.

TR2-3 In our organization, employees can adjust their working hours before retirement (e.g., flextime or, if shift work, no

night shifts).

TR2-4 In our organization, the transition to retirement is flexibly shaped according to employee needs.

TR3 Counselling for retirement life preparation

TR3-1 Our organization offers counseling to employees who are about to retire so they can reflect upon their expectations

and plans for retirement.

TR3-2 Our organization encourages employees who are about to retire to develop alternative activities for a meaningful

daily routine after retirement (e.g., family, volunteering, traveling).

TR3-3 Our organization provides employees with information about retirement (e.g., articles, brochures, books, internet/

intranet sites).

TR4 Continuous inclusion and maintaining contact

TR4-1 Our organization maintains active contact with retired employees (e.g., by an alumni network).

TR4-2 Our organization informs retired employees about current developments in the organization (e.g., newsletter,

alumni newsletter).

TR4-3 Our organization allows retired employees to catch up with each other regularly (e.g., at meetings of an alumni

network).

TR4-4 Our organization is still in active contact with most of its former employees, even 5 years after their retirement.



Later Life Workplace Index Continued Employment

CE1 Individualized employment options

CE1-1	In our organization, employees may work beyond the conventional retirement age if they wish so.
CE1-2	In our organization, employment opportunities for people in retirement age are clearly defined and structured (e.g.,
	by integration into strategic workforce planning).
CE1-3	In our organization, managers are well-informed about the possibilities of working beyond the conventional
	retirement age.
CE1-4	In our organization, working conditions (time and type of activity) for employees in retirement age are flexibly

CE2 (Re-)hiring of older employees

CE2-1 In our organization, older applicants are hired as well.	
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adapted to their wishes.

CE2-2 In our organization, age-neutral language is used in recruitment (e.g., job advertisements).

CE2-3 In our organization, people of all ages apply for job vacancies.



Later Life Workplace Index Health & Retirement Coverage

RC1 Retirement savings and pensions

RC1-1	Our organization thoroughly informs employees about the components of a retirement plan (e.g., federal or

state retirement systems, retirement plans offered by employer, private savings and investments, continued

employment during retirement).

RC1-2 Our organization offers employees comprehensive opportunities to save money for their retirement.

RC1-3 Our organization offers employees good personal advice on financial security in later life.

RC2 Insurances and financial emergency support

RC2-1	Our organization	keeps empl	loyees wel	l-inf	ormed	labo	ut meaningful	private supp	lementa	l insurance c	overing age-
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related risks (e.g., supplements to health or long-term care insurance, occupational accident insurance).

RC2-2 Our organization offers employees private supplemental insurance as part of the total remuneration package (e.g.,

additions to health or long-term care insurance, occupational disability).

Korean LLWI-SF Items



Later Life Workplace Index Short Form (LLWI-SF) Organizational Climate

Item	English (U.S.)	Korean				
OC Organizatio	nal climate					
OC-1	In our organization, regardless of age, all employees have the same opportunities.	우리 회사는 연령에 관계없이 모든 근로자에게 동등한 기회를 제공한다.				
OC-2	In our organization, there is a positive attitude towards older employees.	우리 회사는 고령 근로자들에 대한 긍정적인 태도를 보인다.				
OC-3	In our organization, "aging" is talked about openly.	우리 회사에서는 '노화'에 대해 거리낌 없이 이야기할 수 있다.				



Later Life Workplace Index Short Form (LLWI-SF) Leadership

LE Leadership

- LE-1 Managers of our organization show appreciation both for current work results as well as for the overall performance of their employees.
- LE-2 Managers of our organization sincerely support their employees in their professional and personal development.
- LE-3 Managers of our organization are interested in the well-being of their employees.

- 우리 회사의 관리자들은 현재 작업 결과뿐만 아니라 근로자들의 전반적인 성과에 대해 감사를 표시한다.
- 우리 회사의 관리자들은 근로자들의 전문성과 개인적 발전을 위해 진심으로 지원한다.
- 우리 회사의 관리자들은 근로자들의 복지에 관심이 있다.



Later Life Workplace Index Short Form (LLWI-SF) Work Design

WD Work design

- WD-1 Employees of our organization have enough flexibility in their working time organization to appropriately address their personal needs.
- WD-2 Employees of our organization can choose their place of work to ensure a good balance between their work and private life (work-life balance).
- WD-3 In our organization, managers change the tasks of their employees in the foreseeable future (e.g., within half a year) if the tasks no longer correspond to the employee's ability to perform and to withstand stress.
- WD-4 In our organization, workplaces are designed according to ergonomic recommendations.

- 우리 회사는 근로자들의 필요에 따라 근무시간을 유연하게 적용하는 제도(유연근무제도)를 갖추고 있다.
- 우리 회사의 근로자들은 일과 삶의 균형(워라밸)을 위해 근무지를 선택할 수 있다.
- 우리 회사에서는 근로자의 업무 수행 능력과 스트레스를 고려하여 필요할 경우, 가까운 시일(예, 반년 이내) 내에 직원의 업무를 변경한다.
- 우리 회사의 근무지(근무환경)는 인체공학적 권장 사항에 따라 설계되어 있다.



Later Life Workplace Index Short Form (LLWI-SF) Health Management

HM Health management

HM-1 Employees of our organization are encouraged to move as much as possible in the workplace (e.g., use the stairs, take a walk during lunch break, exercise during lunch break, use the bicycle to work).

HM-2 In our organization, employees receive therapeutic help in the workplace or in the immediate vicinity if required (e.g., physiotherapy in case of great physical stress and strain, stress management trainings).

HM-3 In our organization, employees are made aware of health-promoting behavior (e.g., through training, counseling, displays).

우리 회사는 근로자들이 근무지에서 가능한 한 많이 움직이도록 권장한다(예, 계단 이용, 점심시간에 산책하기, 점심시간에 운동하기, 자전거로 출근하기).

우리 회사는 필요한 경우 근로자들이 근무지(또는 근무지 인근)에서 치료를 받을 수 있도록 지원한다(예, 신체적 스트레스와 부담이 큰 경우 물리치료, 스트레스 관리 훈련).

우리 회사는 근로자들이 건강증진 활동(예, 훈련, 상담, 전시 등을 통해)에 대해 인지할 수 있도록 한다.



Later Life Workplace Index Short Form (LLWI-SF) Individual Development

ID Individual development

- ID-1 In our organization, individual development prospects and qualification requirements are identified with employees, regardless of age.
- ID-2 In our organization, older employees are offered training to learn new competencies and develop their expertise.
- ID-3 In our organization, employees move to a different job or position if it better suits their specific skills and abilities.

- 우리 회사는 연령에 관계없이 근로자 개개인의 발전 전망과 자격 요건을 파악한다.
- 우리 회사는 고령 근로자들이 새로운 역량을 습득하고 전문성을 개발할 수 있는 교육을 제공한다.
- 우리 회사의 근로자들은 자신의 기술과 능력에 더 적합한 직무나 직책으로 이동한다.



Later Life Workplace Index Short Form (LLWI-SF) Knowledge Management

KM Knowledge management

KM-1 In our organization, there are processes/procedures to systematically pass on the knowledge and experience of older employees to their younger colleagues before they leave the organization.

우리 회사는 고령 근로자의 지식과 경험을 젊은 동료에게 체계적으로 전수하는 프로세스나 절차가 있다.

KM-2 In our organization, there are regular opportunities for every employee to exchange experiences and knowledge (e.g., in regular meetings).

KM-3 In our organization, older and younger employees are encouraged to share their knowledge and experience. 우리 회사는 모든 직원이 경험과 지식을 교환할 수 있는 정기적인 기회를 제공한다 (예, 정기 회의).

우리 회사는 고령 근로자과 젊은 근로자들이 서로 자신의 지식과 경험을 공유하도록 장려한다.



Later Life Workplace Index Short Form (LLWI-SF) Transition to Retirement

TR Transition to retirement

- TR-1 In our organization, managers discuss early with their employees (e.g., from the age of 55) as to how to make the transition to retirement.
- TR-2 In our organization, the transition to retirement is flexibly shaped according to employee needs.
- TR-3 Our organization offers counseling to employees who are about to retire so they can reflect upon their expectations and plans for retirement.
- TR-4 Our organization maintains active contact with retired employees (e.g., by an alumni network).

- 우리 회사의 관리자들은 퇴직 과정에 대해 근로자들과 일찍(예, 55 세부터) 논의를 시작한다.
- 우리 회사의 퇴직 과정은 근로자의 필요에 따라 유연하게 이루어진다.
- 우리 회사는 퇴직을 앞둔 근로자들을 대상으로 퇴직에 대한 기대와 계획을 생각할 수 있도록 상담을 제공한다.
- 우리 회사는 은퇴한 근로자들과 활발한 연락을 유지한다(예, 퇴직자 네트워크를 통해).



Later Life Workplace Index Short Form (LLWI-SF) Continued Employment

CE Continued employment

- CE-1 In our organization, employment opportunities for people in retirement age are clearly defined and structured (e.g., by integration into strategic workforce planning).
- CE-2 In our organization, working conditions (time and type of activity) for employees in retirement age are flexibly adapted to their wishes.
- CE-3 In our organization, older applicants are hired as well.

- 우리 회사는 정년퇴직 연령대 근로자의 고용기회에 대해 명확한 방침을 세우고 있다(예, 정년퇴직 예정자 대상의 전략적인 인력 확보 계획 등).
- 우리 회사에서 정년퇴직 연령대 근로자들의 근로조건(시간 및 근무형태)은 본인의 희망에 따라 유연하게 조정된다.
- 우리 회사에서는 고령자(50 세 이상) 대상의 채용이 이루어지고 있다.



Later Life Workplace Index Short Form (LLWI-SF) Health and Retirement Coverage

RC Health & retirement coverage

- RC-1 Our organization offers employees comprehensive opportunities to save money for their retirement (e.g., retirement plans offered by employer).
- RC-2 Our organization offers employees good personal advice on financial security in later life.
- RC-3 Our organization offers employees private supplemental insurance as part of the total remuneration package (e.g., additions to health or long-term care insurance, occupational disability).

- 우리 회사는 근로자들의 은퇴 비용을 절감할 수 있는 포괄적인 기회를 제공한다.
- 우리 회사는 근로자들의 노후 재정적 안정을 위한 상담과 조언을 제공하고 있다.
- 우리 회사는 근로자들에게 총 보수의 일부로 추가적인 민간 보험을 제공한다(예, 건강 또는 장기 요양 보험, 직업 장애에 따른 보험 등).