

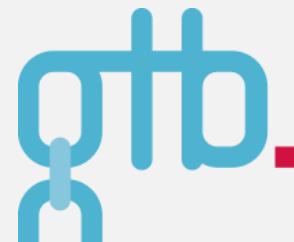
Linking of the “Integration von Menschen mit Behinderungen in die Arbeitswelt” (IMBA) to the “International Classification of Functioning, Disability and Health” (ICF)

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BACKGROUNDS

- **Backgrounds**
- Objectives
- Methods
- Results
- Conclusion

The priority of Return To work

- Positive effects of employment on health
- Work disability → societal burden

The challenge of workable work

- The influence of external and personal factors
 - Work related
 - Non-work related
- Work demands ↔ individual capacity
 - Assess
 - Match
 - Adjust

(Heerkens et al., 2004; Waddell&Burton,2006; OECD, 2010; Pacolet et al, 2016;
Pacolet&Wispeolare, 2016; Heerkens et al., 2017; NIHDI, 2018)

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Towards the assessment of work capacity

- Disability → Ability
- Functional Capacity Evaluation → needs the assessment of multiple constructs
- Need for tools/assessments to assess work capacity
 - Multidimensional
 - Efficiently
- Need for a conceptual framework and common language

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ICF in RTW: opportunities and challenges

- Reference framework
 - Functional Capacity Evaluation (FCE)
 - Vocational Rehabilitation (core set ICF-VR)
 - Social security (core set ICF-SS)
- However: not specifically developed in context of RTW
 - Lack of a dynamical aspect → work prognosis?
 - Lack of work-related concepts in ICF → not covered or not defined

(Heerkens et al., 2004; Brage et al., 2008; Anner et al., 2012; Finger et al., 2012; Reneman, Soer & Gross, 2013; Escorpizo & Stucki, 2013; Finger et al., 2016; Heerkens et al., 2017)

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IMBA in RTW: opportunities and challenges

- Developed in 1996 by IQPR
 - Work-related documentation tool
 - Based on profile comparison
 - Work ability profile ↔ work requirement profile
 - Standardized set of defined items
 - Activity and- context related
 - 70 main items
 - 108 detail items
 - 9 main characteristics
 - Scoring system
 - Ordinal scale (0-5)
 - Dichotomous scale (yes/no)
1. Body Posture
 2. Bodily Locomotion
 3. Body Part Movement
 4. Information
 5. Complex Physical Characteristics
 6. Environmental Influences
 7. Occupational Safety
 8. Work Organization
 9. Key Qualifications

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IMBA profile comparison

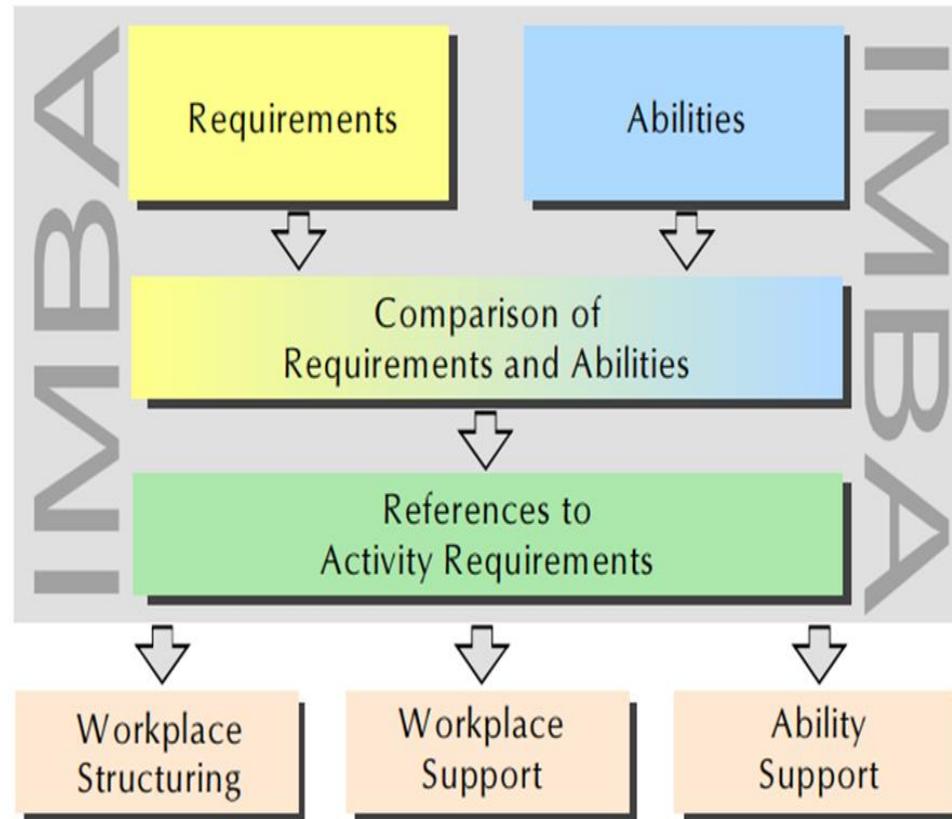


Figure 9: The procedure of profile comparison. (German Ministry of Labour and Social Affairs, 2000)

Objectives

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Primary objective

- linking IMBA-ICF
 - Concepts
 - Scoring systems

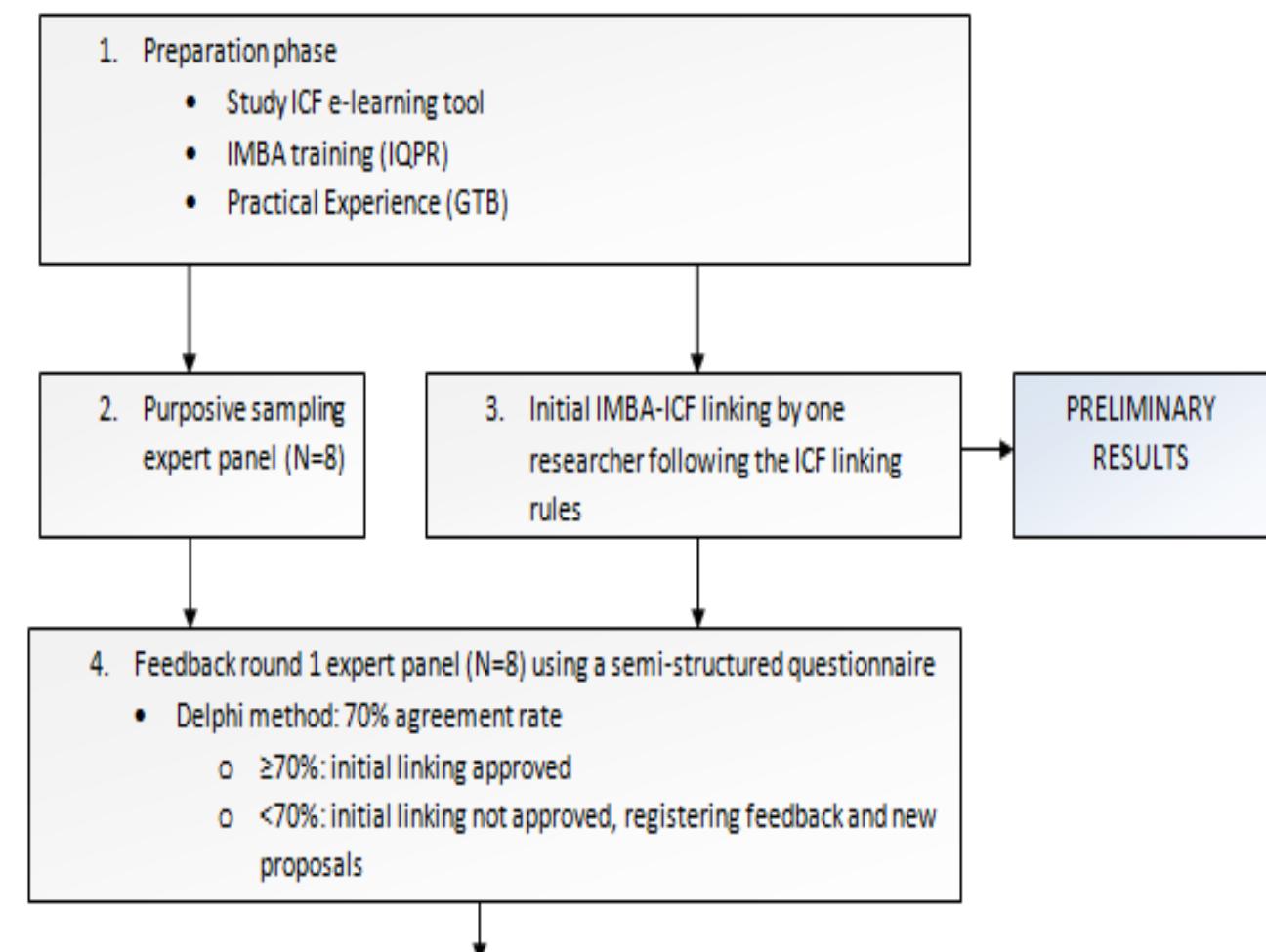
Secondary objectives

- Compare IMBA to ICF core sets: ICF-SS, ICF-VR
- Evaluate relevance of IMBA in RTW and (dis)ability
- Evaluate possible integration of IMBA and ICF

Methods

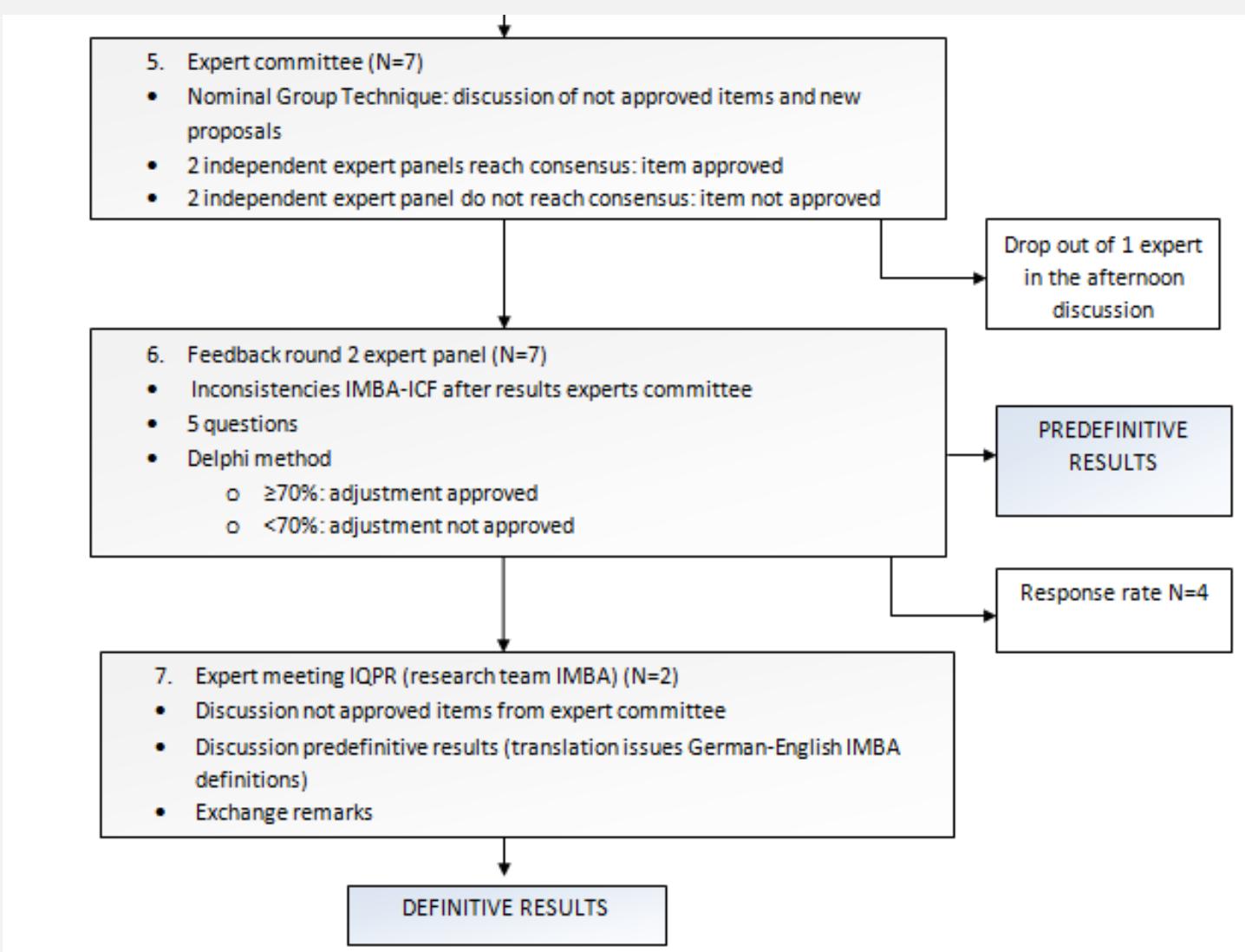
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➤ Process consisting of 7 steps



Methods

- Backgrounds
- Objectives
- **Methods**
- Results
- Conclusion



Results

- Backgrounds
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- Methods
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Linking outcome (concepts)

- **70 IMBA items → 107 concepts**
- 94 concepts → 87 different ICF categories (mostly third level)
 - 41 → activities and participation (d)
 - 39 → body functions (b)
 - 7 → environmental factors (e)
- 10 concepts → ‘not defined’ in ICF
- 1 concept → partially ‘not defined’ in ICF
- 2 concepts → ‘not covered’ in ICF

Results

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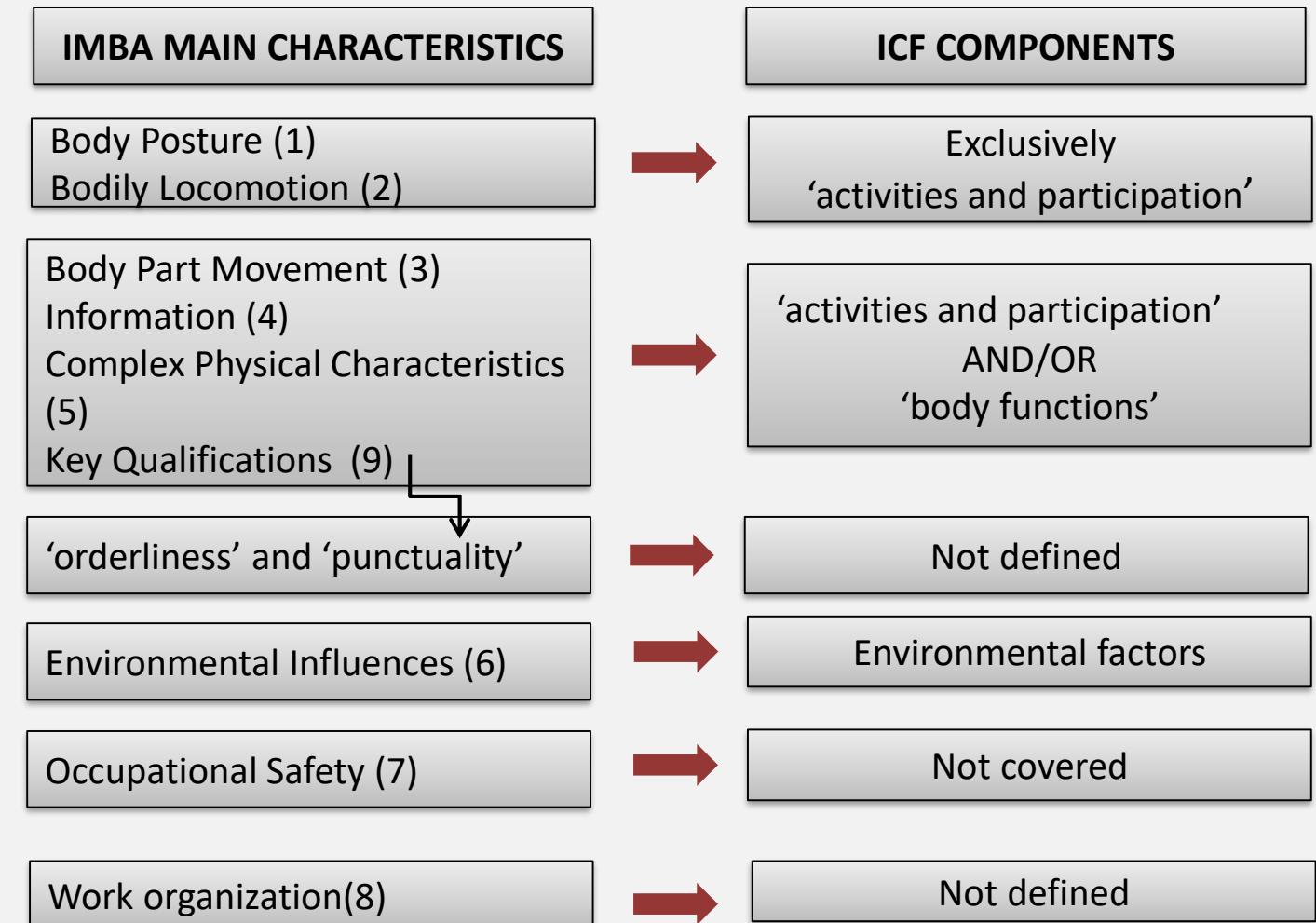
Fragment IMBA-ICF linking table

IMBA ITEM	NAME ICF CODE	ICF CODE			ANNOTATION	
All IMBA items	Work and employment,(other specified and) unspecified	d	8	59	/	/
1. Sitting	Sitting AND Maintaining a sitting position	d	4	10	3	/
2. Standing	Standing AND Maintaining a standing position	d	4	10	4	/
3. Kneeling/ Crouching	Kneeling AND Maintaining a kneeling position OR Maintaining a squatting position	d	4	10	2	/
4. Lying	Lying down AND Maintaining a lying position	d	4	10	0	/
5. Bent over/ Stooped	Maintaining a body position, other specified	d	4	15	8	Bent over (up to 30°)/ Stooped (over 30°)
6. Arms in Compulsory Position	Maintaining a body position, other specified	d	4	15	8	Arms in Compulsory Position
7. Walking Ascending	Walking AND Going up and down stairs	d	4	50	/	/
8. Climbing	Climbing	d	4	51	/	/
9. Crawling/ Sliding	Crawling OR Moving around, other specified	d	4	55	0	Sliding

Results

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Linking outcome (concepts)



Results

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IMBA documents information about?

→ Transformed to first level of ICF

BODY FUNCTIONS

- Mental functions
- Sensory functions and pain
- Neuromusculoskeletal and movement-related functions

ACTIVITIES AND PARTICIPATION

- Learning and applying knowledge
- Mobility
- General tasks and demands
- Communication
- Interpersonal interactions and relationships

ENVIRONMENTAL FACTORS

- Natural environment and human made changes to environment'

Results

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Comparison of IMBA to ICF core sets

- ICF-SS → covered by IMBA to great extend
- ICF-VR (brief) → covered by IMBA to great extend
 - ICF-VR(brief) = more extensive in environmental factors
- ICF-VR (comprehensive) → great overlap
 - ICF-VR (comprehensive) = more extensive in environmental factors and activities and participation

Results

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Linking outcome (scoring systems)

- Theoretical frameworks: IMBA ≠ ICF
 - IMBA scale: resource-oriented/abilities
 - ICF scale: impairments/difficulties
-
- Explorative IMBA-ICF conversion
 - Proposal based on expert opinion
 - Can be used in practical setting (for now)

Results

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IMBA-ICF ordinal scale

IMBA-ICF LINKING ORDINAL SCALE

Main characteristics **Body Posture, Bodily Locomotion, Body Part Movement, Information, Key Qualifications**

IMBA PROFILE VALUE	ICF QUALIFIER
0 (no ability/requirement)	4 (complete difficulty/impairment)
1 (very low ability/requirement)	3 (Severe difficulty/impairment)
2(low ability/requirement)	2 (Moderate difficulty/impairment)
3 (moderate ability/requirement)	1 (Mild difficulty/impairment) (p 25-p50) 0 (No difficulty/impairment) (p50-p75)
4 (high ability/requirement)	0 (No difficulty/impairment)
5 (very high ability/requirement)	0 (No difficulty/impairment)

Results

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IMBA-ICF dichotomous scale

IMBA-ICF LINKING DICHOTOMOUS SCALE

Main characteristic environmental Influences

IMBA PROFILE COMPARISON	ICF QUALIFIER
Requirement YES Abilities YES	0 (no barrier) +0 (no facilitator) +1 (mild facilitator) +2 (moderate facilitator) +3 (substantial facilitator) +4 (complete facilitator)
Requirement YES Abilities NO	1 (mild barrier) 2 (moderate barrier) 3 (severe barrier) 4 (complete barrier)
Requirement NO Abilities YES	0 (no barrier) +0 (no facilitator)
Requirement NO Abilities NO	0 (no barrier) +0 (no facilitator)

Conclusion

- Backgrounds
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- Integration possible to great extend
 - IMBA and ICF → complement each other
 - Strengths IMBA
 - Profile comparison → focus = work capacity
 - Specific and relevant work-related items
 - Work demands taken into account
 - Strengths ICF
 - Reference framework

Conclusion

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Further developments

- ICF
 - Extended terminology → work-related categories
 - Classification of personal factors
- IMBA
 - Possible additions (ICF-VR)
- Linking of the scoring systems
 - Pilot study → evaluate explorative linking
 - In depth quantitative research

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