



# “Rehabilitation ergonomics” as a strategy to support return to work for (breast)cancer survivors

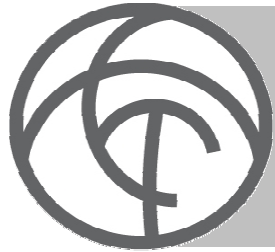
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# What's in a word ?

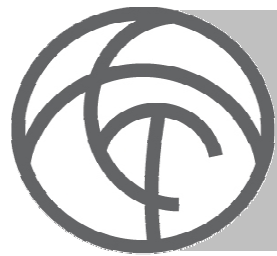
## Rehabilitation ergonomics (Rehab.Erg.)

Rehabilitation Ergonomics is the practice of applying scientific and functional principles to provide a match of work and worker that prevents injury or assists in the return to work process.

The practitioners are therapists and other specialists whose backgrounds include anatomy, physiology, kinesiology and pathology and ergonomics. They must analyze both the humans who perform work activities and the setting in which they work.

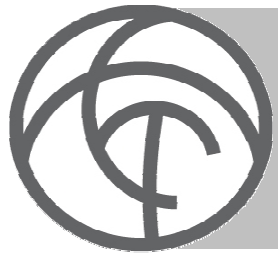
Rehabilitation ergonomists specialize in functional evaluation, improvement of functional work performance, education of the worker and redesign of work to reduce musculoskeletal stressors.

(Susan J. Isernhagen; DSI Work Solutions, Inc.)



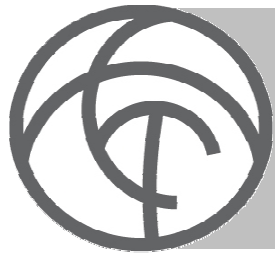
# Primary Goals of Rehabilitation Ergonomics

- ④ Improve the productivity of individual workers and the work group
- ④ Maintain the health and improve the safety of the worker in the workplace
- ④ Decrease lost work time due to illness or injury
- ④ Enhance return to work processes and minimize the likelihood of disability-induced retirement



# Bridging the gap between care & RTW

- ④ **Functional capacity evaluation (FCE):**  
testing (with RTW perspective) of functional activities (sitting, standing, lifting, pushing, pulling, carrying, gripping, ...)
- ④ **Work rehabilitation:**  
Work-related rehabilitation provides a structured regime that allows the worker to increase function and regain work capabilities (physic &/o psychic).
- ④ **Job modification:**
  - to match the work to the capacity of the worker
  - to promote return to work and prevention of reinjury.
- ④ **Early intervention:**  
Immediate intervention when a work injury or illness threatens work ability, reduces the lost time for the worker and increases healing and functional work capability (e.g. dis-ability management)



# Rehabilitation approach

Ability profile

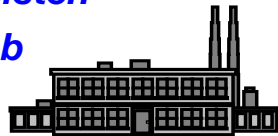
*capaciteiten*

*persoon*



*vereisten*

*job*



Job demands

Acceptable situation

werkbare situatie

intervention

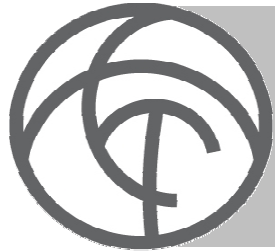
ingrepen

ergonomie

training  
gerichte revalidatie,  
....

revalidatie

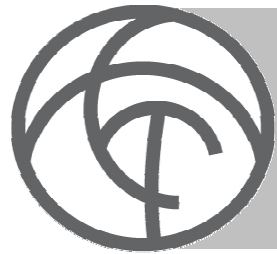
Treatment



# Methods

## Assessments :

- Functional capacity evaluation (FCE)
- Psychological & psychosocial functioning
- Job-description & workload
- Context of worker :
  - Transport to work
  - Private situation



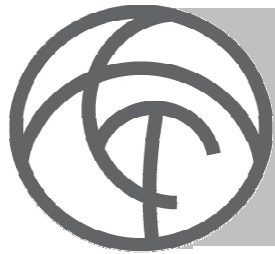
# Instruments

## Instrument to analyse situation

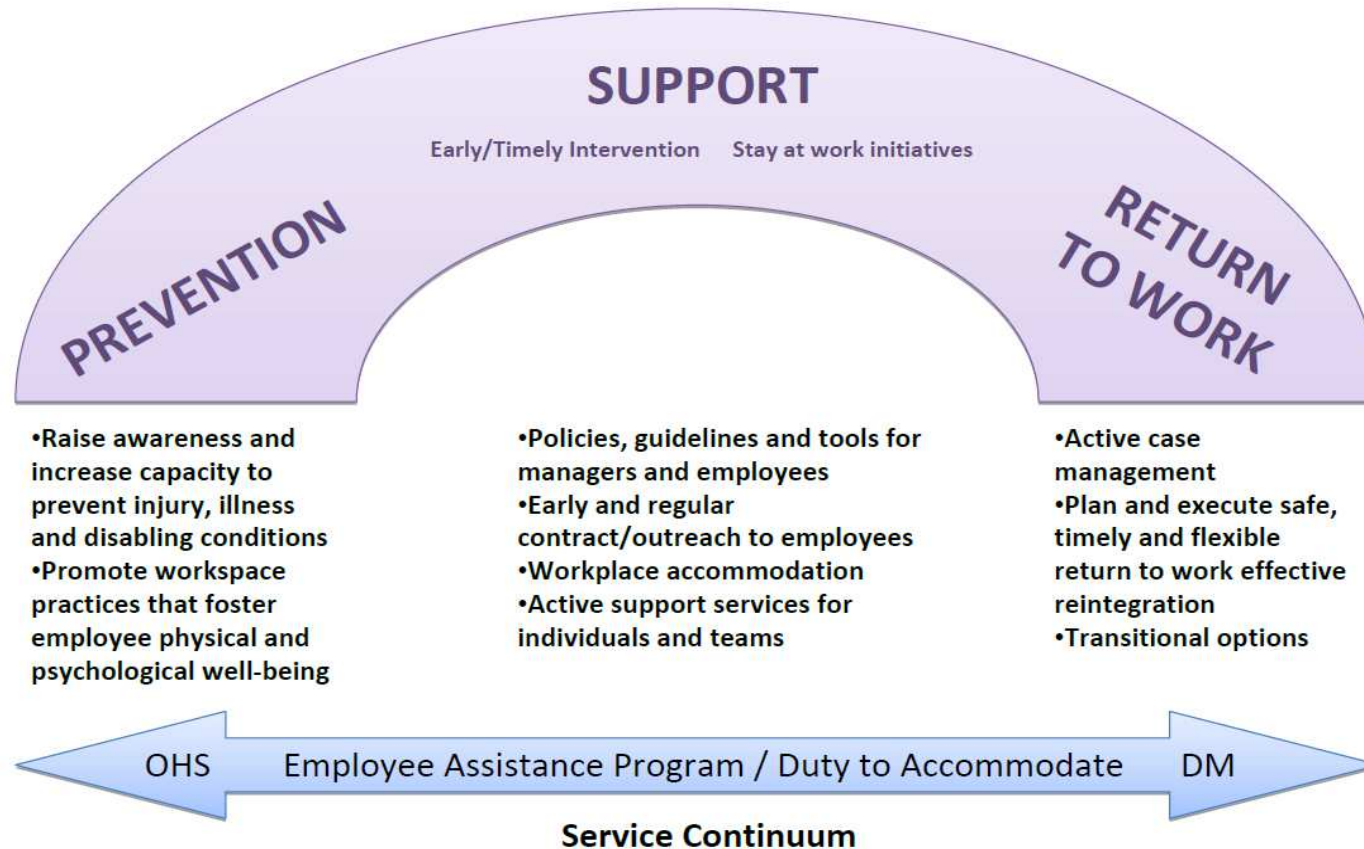
- Integration von Menschen mit Behinderungen in die Arbeitswelt (IMBA )

## Instrument to implement RTW:

- Dis-ability management
  - Management (organisation level)
  - Case-management (individual level)

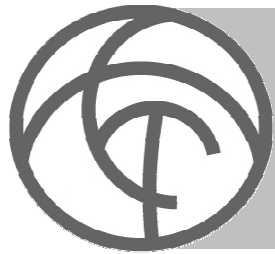


# (Dis-)ability management

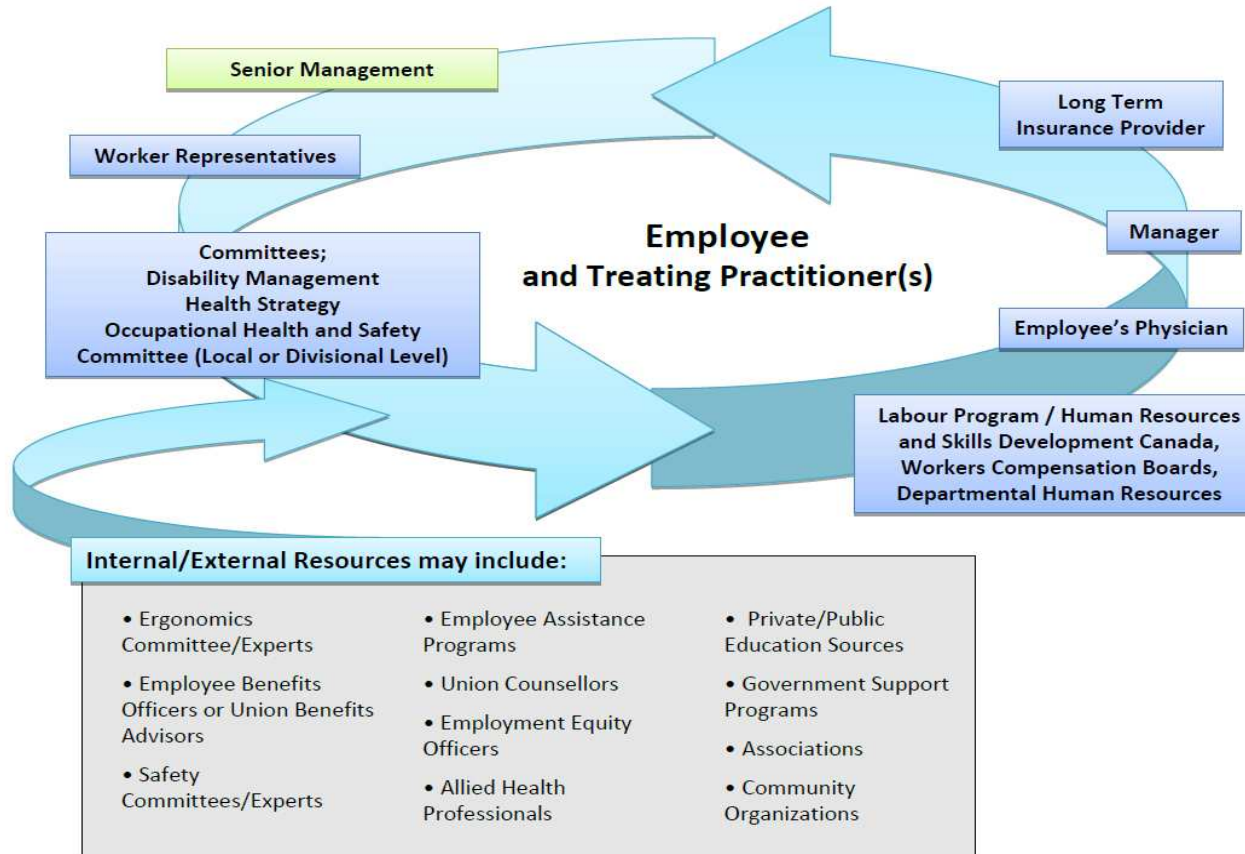


<http://www.tbs-sct.gc.ca/hrh/dmi-igi/steps-etapes/bdmp-epgi05-eng.asp>

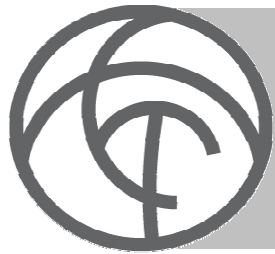




# DM & DCM



<http://www.tbs-sct.gc.ca/hrh/dmi-igi/steps-etapes/bdmp-epgi05-eng.asp>

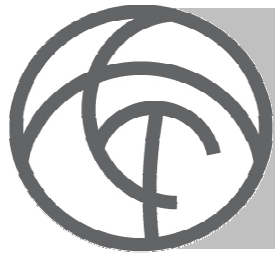


# IMBA (Integration von **M**enschen mit **B**ehinderungen in die **A**rbeitswelt)

- ④ Assessment System to Improve the Integration of People with Disabilities in Work

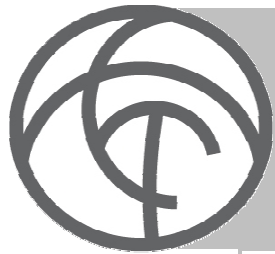
<http://www.imba.de>

- ④ « Job demand » Form
- ④ Ability Form (transparent)
- ④ Matching



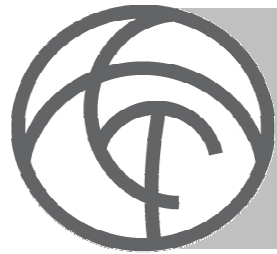
# IMBA (exempl. Score-form)

body postures	0	1	2	3	4	5		BM
sitting				X				
standing					X			
kneeling				X				
to lay down	X							
bended position			X					
arms in difficult positions					X			
<b>move the body</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>		<b>BM</b>
moving body parts								
information intake								
complex handling								
safety								
organisation								
key qualifications								



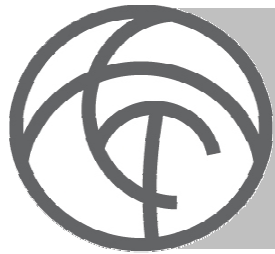
# IMBA : matching

IMBA	Ability profile						
	job requirements						
body postures	0	1	2	3	4	5	BM
sitting				X	O		
standing					X		
kneeling				X			
laying	X			O			
bending		O	X				
arms in difficult positions				O	X		



# Breast cancer (BC)

- ④ Increasing prevalence
- ④ Decreasing age at diagnosis
- ④ Increasing 5-year surviving
- ④ Threat to
  - quality of life (indiv. level)
  - participation (social & professional) on indiv. Level & company level
  - Soc. Security & non-active labor force (company & society level)



# Return to work (RTW) & BC survivors

## **Problems : patient level**

- Diagnosis & treatment
- Functional limitations (chronicity)
- Psychosocial & psychologic problems
- Relevant others (private, social, work,...)
- Financial consequences

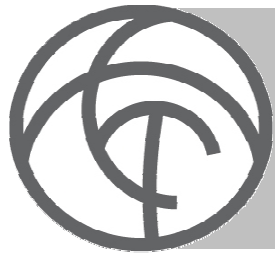
## **Problems : organisation level**

- Effect of chronicity on productivity
- Replacement worker
- Administrative &/o financial consequences



# Bottlenecks

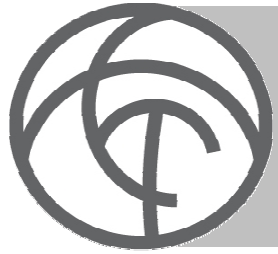
- ④ **Transition into survivorship**
  - Process by patient, not by employer
  - Treatment of patients in cure/care
  - Policy in social insurance / society
- ④ **Changes**
  - Perspectives in life
  - work-ability
- ④ **Treatment (cure & care) do not involve “work”**
- ④ **Employer has no (or few) contact with cure/care or other stakeholders**



# Possible solutions

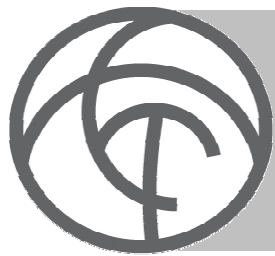
- ④ All stakeholders involved:
  - Participatif process
  - Knowledge off & respect for different points of view
- ④ Phase of the treatment & rehab process
  - Diagnostic phase
  - Treatment (patiënt)
  - Surviving (worker)
- ④ Persons/Functions involved at relevant moments in RTW process:
- ④ Specific actions: tailor-made RTW process (!?)



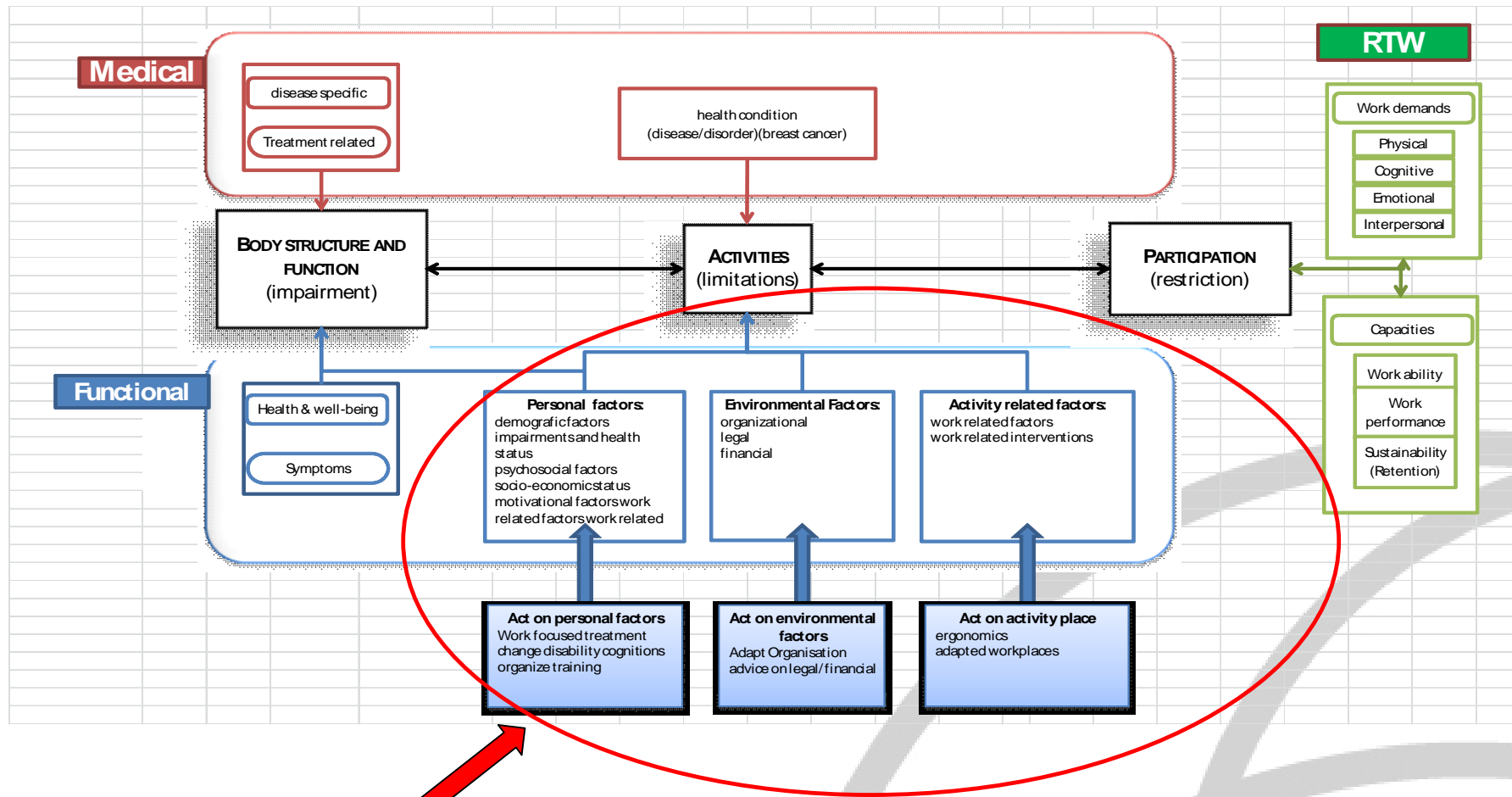


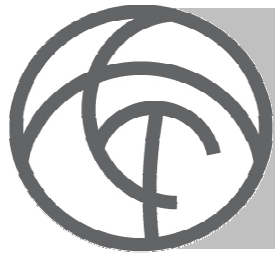
# Solution strategy :

- ④ Tailormade use of rehabilitation ergonomics
- ④ Step by step:
  - Intake & evaluation prognostic factors
  - Assessment
  - Monitorring RTW process
  - Follow-up



# Eclectic model for OT in RTW for BC patients





# Stakeholder involvement

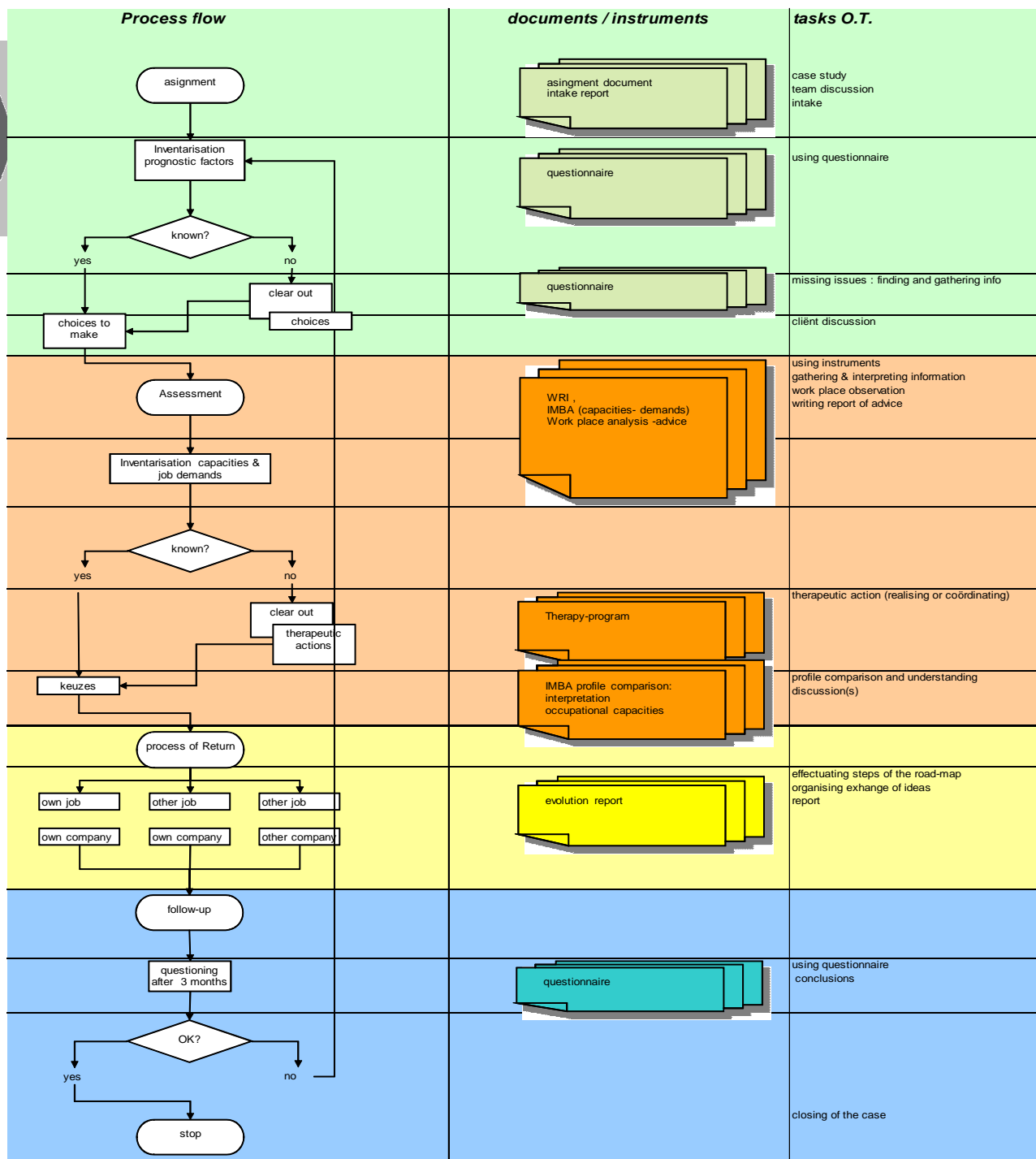
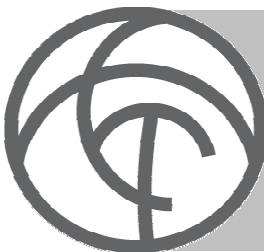
## ⌚ Patient & relevant others

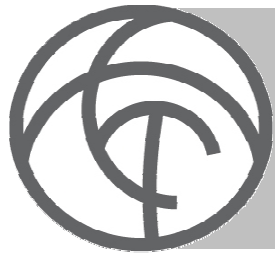
## ⌚ Cure/care

- Medical doctors / oncologists
- Oncol. Rehab team
- Home-care & general practitioner
- Social insurance

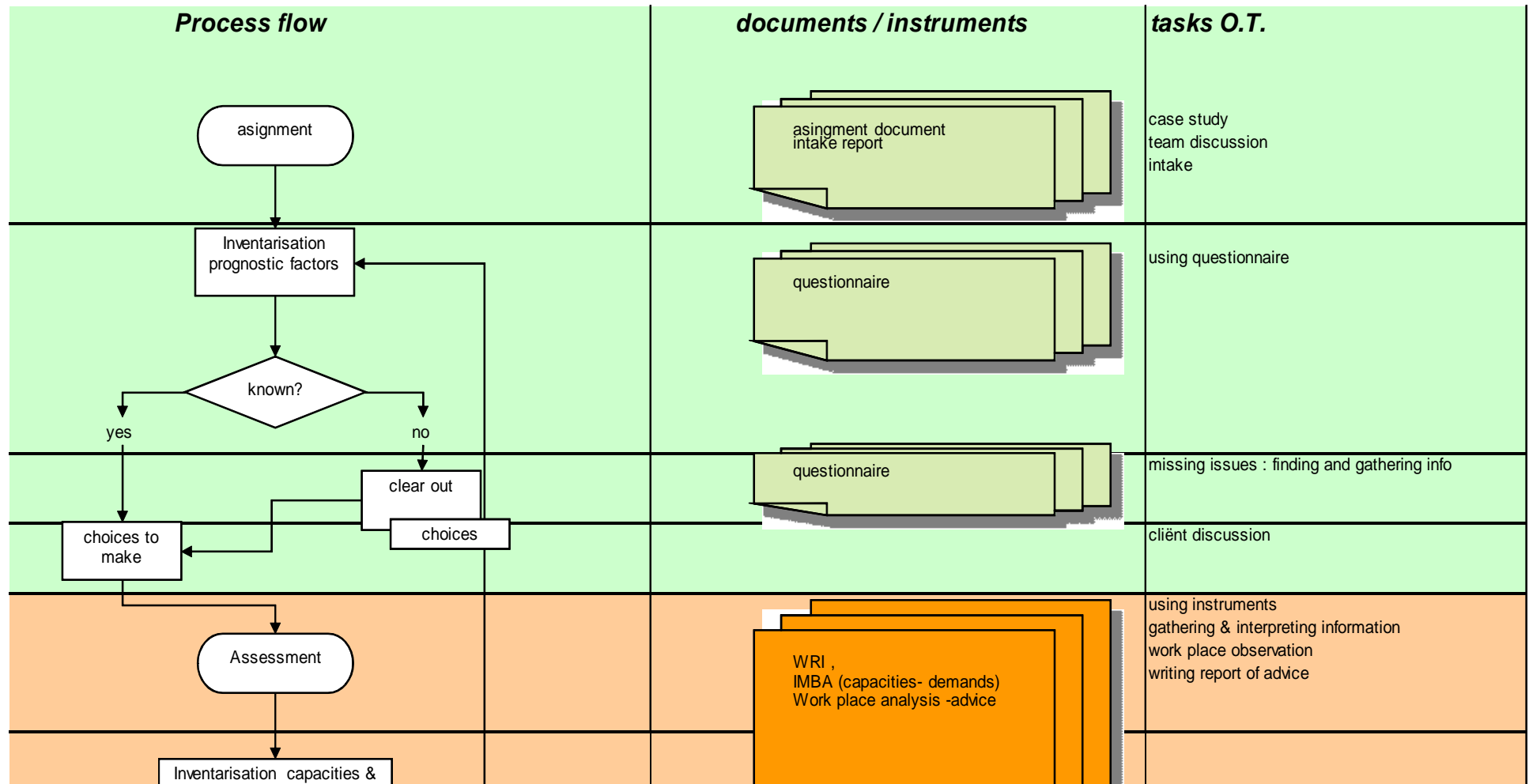
## ⌚ Employment:

- Colleagues
- N+...
- Employer
- Occupational physician

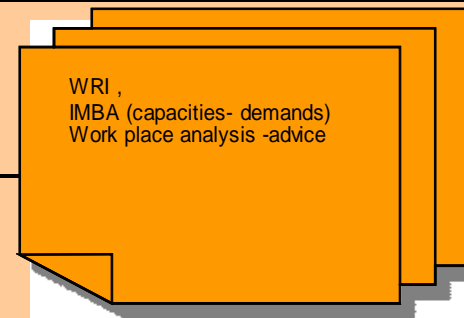
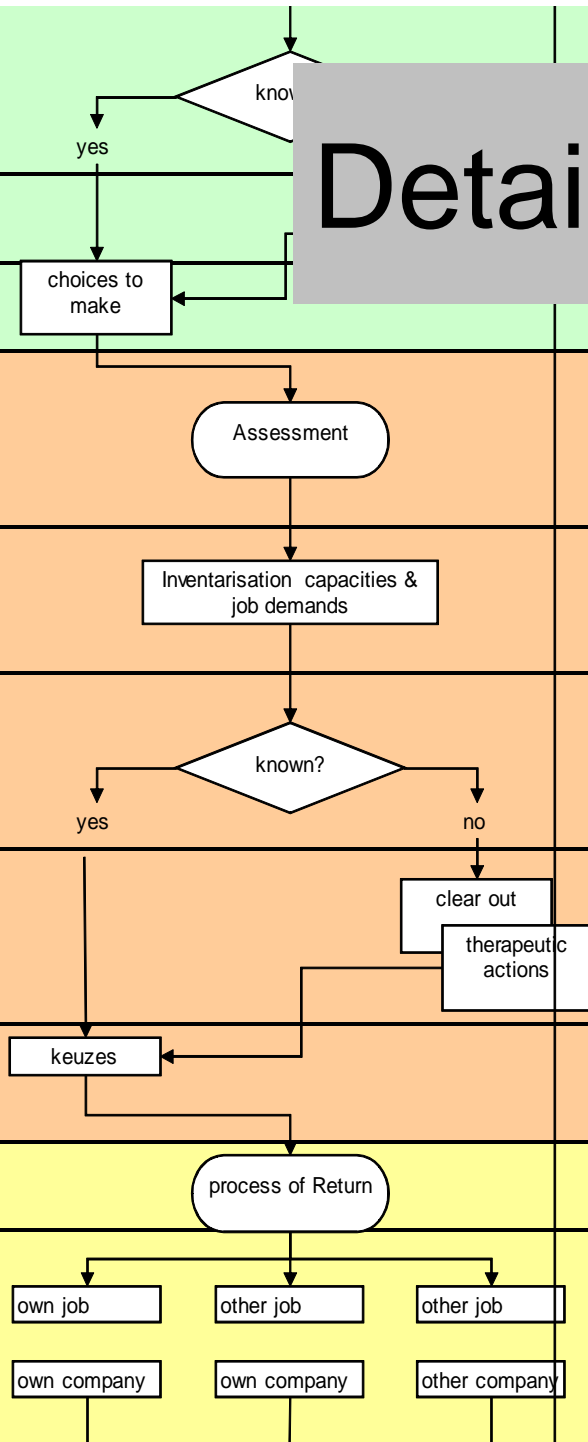




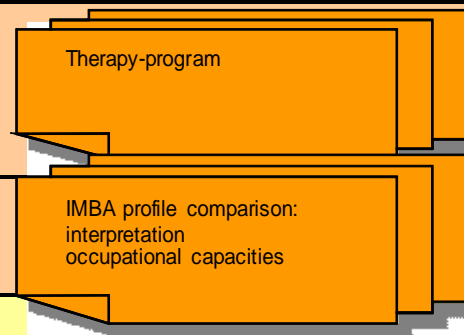
# Detail flow chart



# Detail flow chart

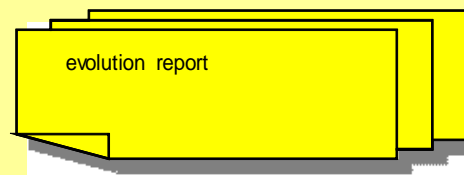


using instruments  
gathering & interpreting information  
work place observation  
writing report of advice



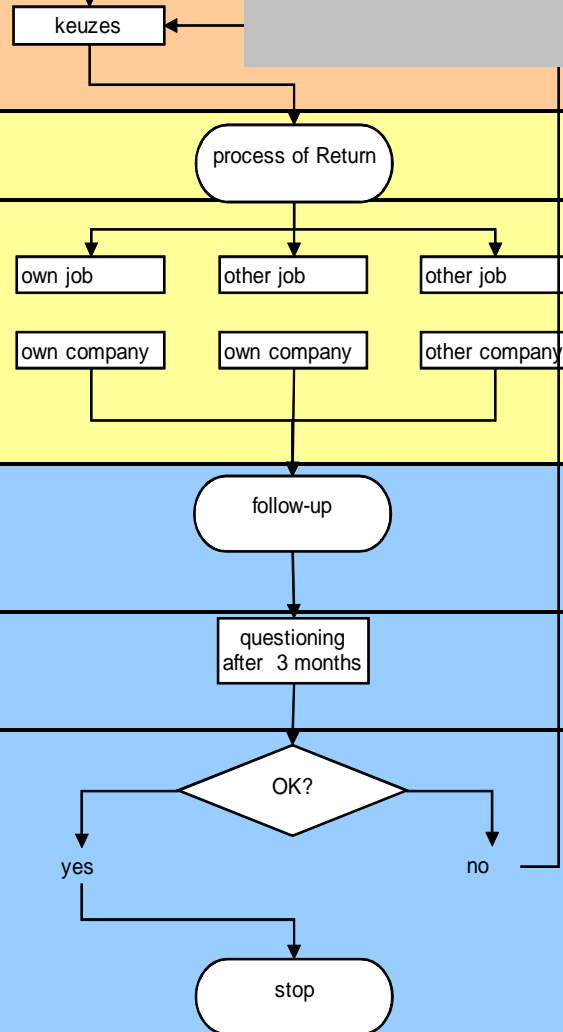
therapeutic action (realising or coördinating)

profile comparison and understanding  
discussion(s)



effectuating steps of the road-map  
organising exchange of ideas  
report

# Detail flow chart



occupational capacities

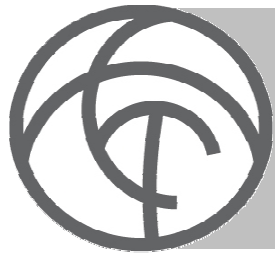
evolution report

effectuating steps of the road-map  
organising exchange of ideas  
report

questionnaire

using questionnaire  
conclusions

closing of the case



# Conclusions:

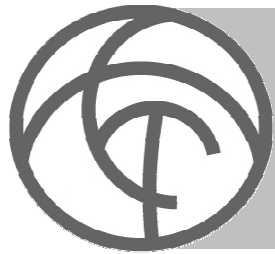
## ④ Breast cancer survivors :

- Number increases
- Age decreases
- Surviving increases ; chronicity / disabilities
- Work is part of quality of life

## ④ Rehabilitation ergonomics can be of good use to assist RTW in BC survivors

- Systematic approach
- Based on abilities





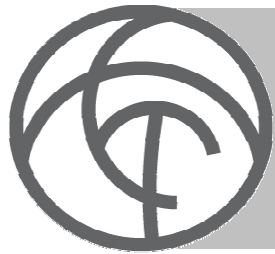
# Discussion

## ⊗ Rehabilitation for (breast cancer) patients is researched:

- Focus on “cure”
- Research on specific elements ( e g fatigue, esthetic issues,...)

## ⊗ RTW research in BC:

- Starting by care-disciplines
- Employer poorly involved (different sociale systems !)
- Ergonomics are mentioned but not systematically implemented



# Discussion

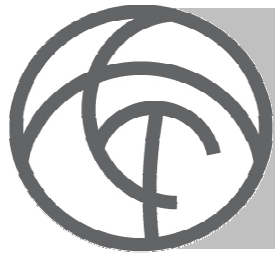
⊗ Ergonomists do not (often) “cross the bridge”

⊗ Information flow:

- Poorly from care to work
- Even less from work to care

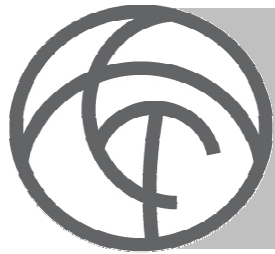
⊗ Rehabilitation ergonomics should be more:

- Subject of exchange of knowledge
- Researched
- Implemented



# References

- ④ Désiron, H. (2010). Occupational therapy and return to work for breast cancer survivors. *WFOT Bulletin*, 61, 45-51.
- ④ Désiron, H. A. M., Donceel, P., de Rijk, A., & Van Hoof, E. (2013). A Conceptual-Practice Model for Occupational Therapy to Facilitate Return to Work in BC patients. *Journal of Occupational Rehabilitation.*, First on line, 1-11.
- ④ Désiron, H. A. M., Donceel, P., Van Hoof, E., & de Rijk, A. (2013). Occupational therapy in return to work for breast cancer patients: opinion of Belgian experts. *European journal of cancer care*, (submitted).
- ④ Désiron, H. A. M., Knippenberg, E., Willems, B., & Neerinckx, E. (2008). Occupational therapy for breast cancer survivors: improving quality of life by return-to-work assistance. *Journal of Rehabilitation Medicine*, 135-136.



## Additional resources :

- ④ <http://www.ilo.org/public/english/standards/relm/gb/docs/gb282/pdf/tmemdw-2.pdf>
- ④ <http://journals.cambridge.org/action/displayJournal?jid=IDM>
- ④ <http://www.tbs-sct.gc.ca/hrh/dmi-igi/steps-etapes/bdmp-epgitb-eng.asp>
- ④ <http://www.respectophetwerk.be/data/case-studies/promoting-the-integration-of-workers-with-disabilities-at-ford/promoting-the-integration-of-workers.pdf>



# Thank you

For your attention

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Magyar Ergonómiai Társaság



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