

› DEMO TORC GAME

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TNO innovation
for life

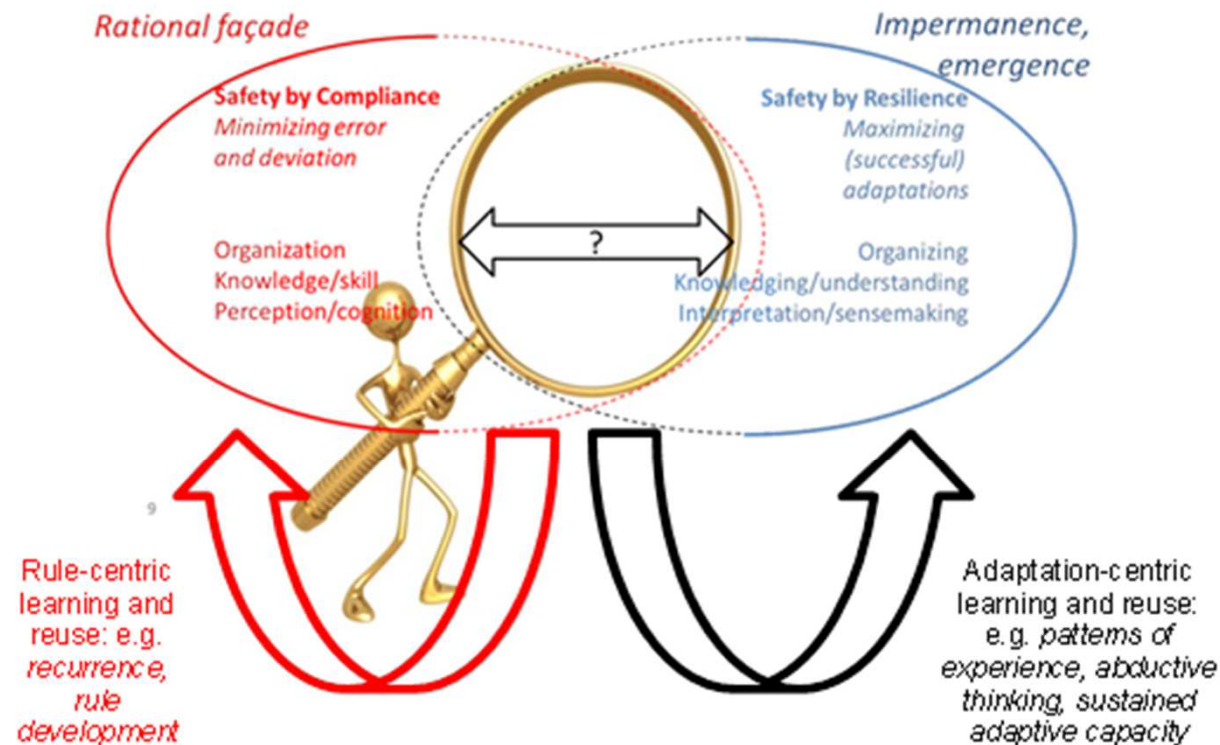
CONTENT

- › Resilient capability
- › Training format
- › Mock up TORC (serious) game
- › Gaming elements

- › And try out the game
- › After action review/ evaluation



RESILIENCE RECONCILES WITH COMPLIANCE



RESILIENT CAPABILITY

The ability to perform or achieve certain actions or outcomes through a set of controllable and measurable faculties, features, functions, processes, or services and encompasses:

- › **competences**
 - › **resources**
 - › **a strategy**

to enable a sustainable adaptive response to demands due to e.g. disturbances, disruptions and change.

- › *A capability can be found at individual, team and organizational levels.*

TRAINING AIMS

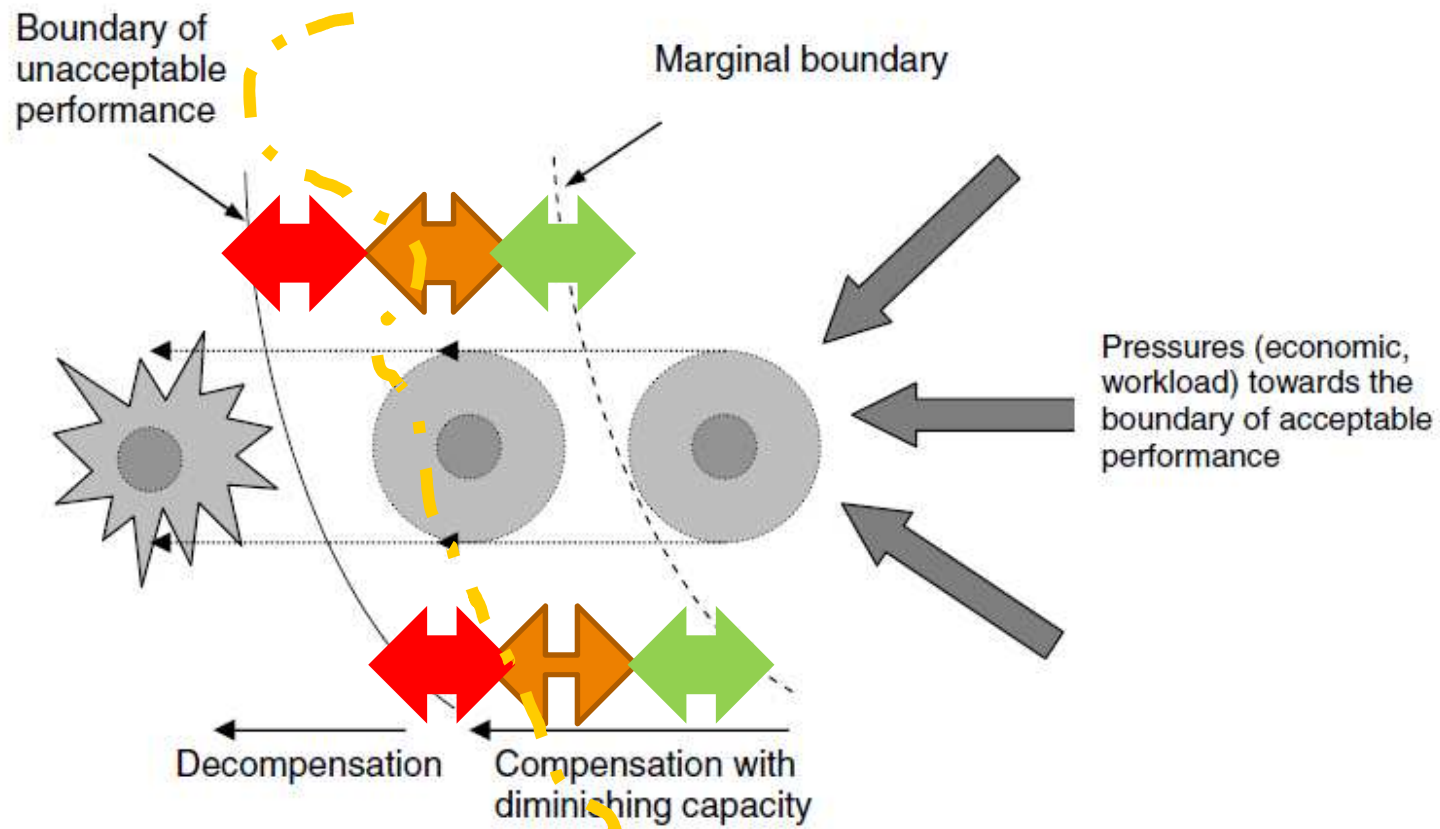
- › Experience resilience in action by simulated practices in real company cases
- › Learn about resilience as an operational capability to cope with sudden or unexpected demands in work
- › Explore and decide on strategies to work with unexpected situations in the operation
- › Explore and decide on resources to be deployed to support and back up your adaptive action
- › Experience how your team and company network is of great value to support resilience activities
- › Reflect on applied capabilities and review on experience build up as well as positive and negative outcomes

TORC TRAINING SERIOUS GAME

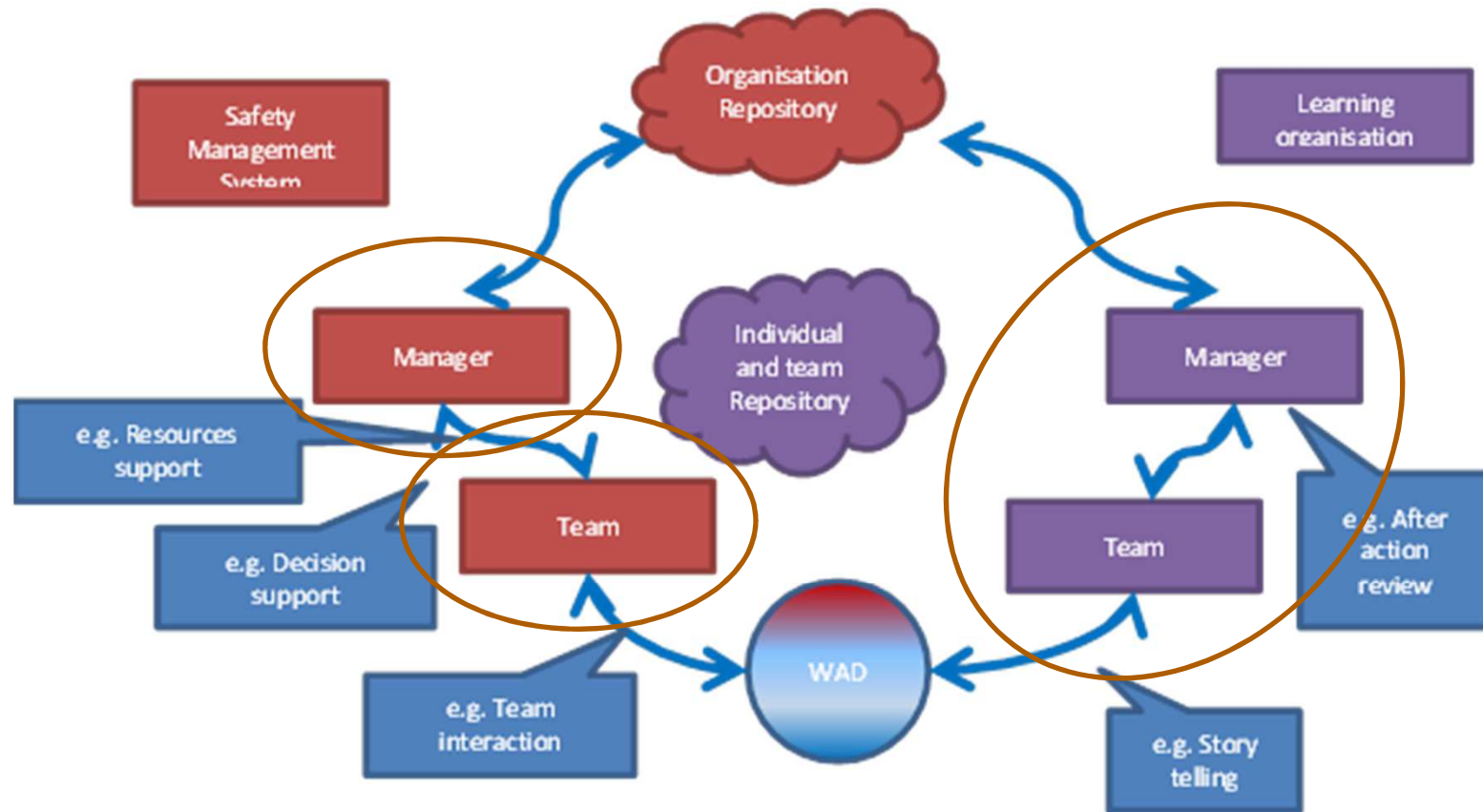
- › Resilience in compliance context
- › Accommodate heavy rail, high speed infrastructure and oil& gas exploration
- › Making shifting realities happen: “game changers”
- › Simulate operations
- › Close to reality
- › Build on experience and imagination
- › Team effort: wisdom of the team
- › Resilience in action and resilience (repository) after action

WHEN TO ADAPT TO SUDDEN DEMANDS?

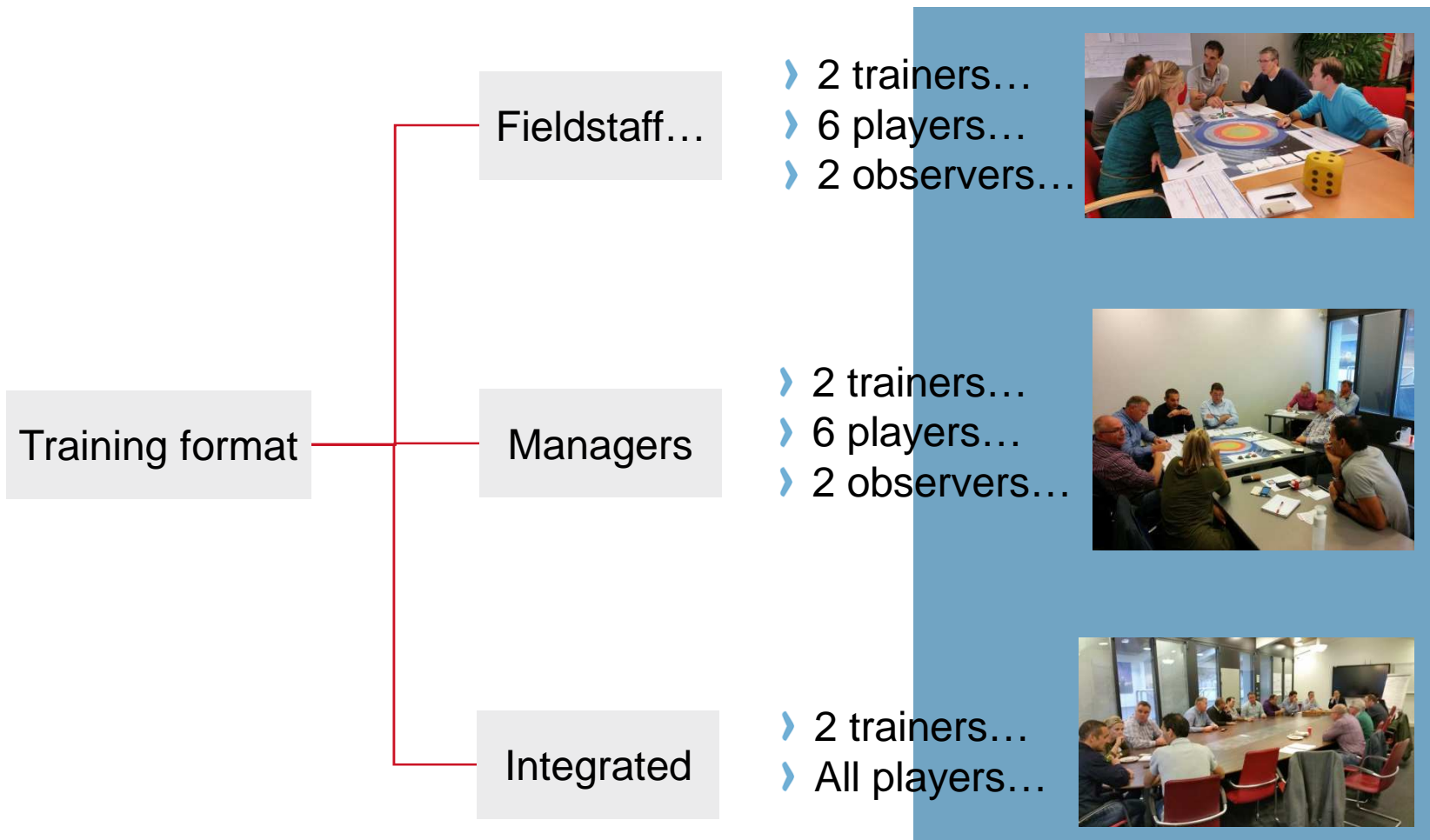




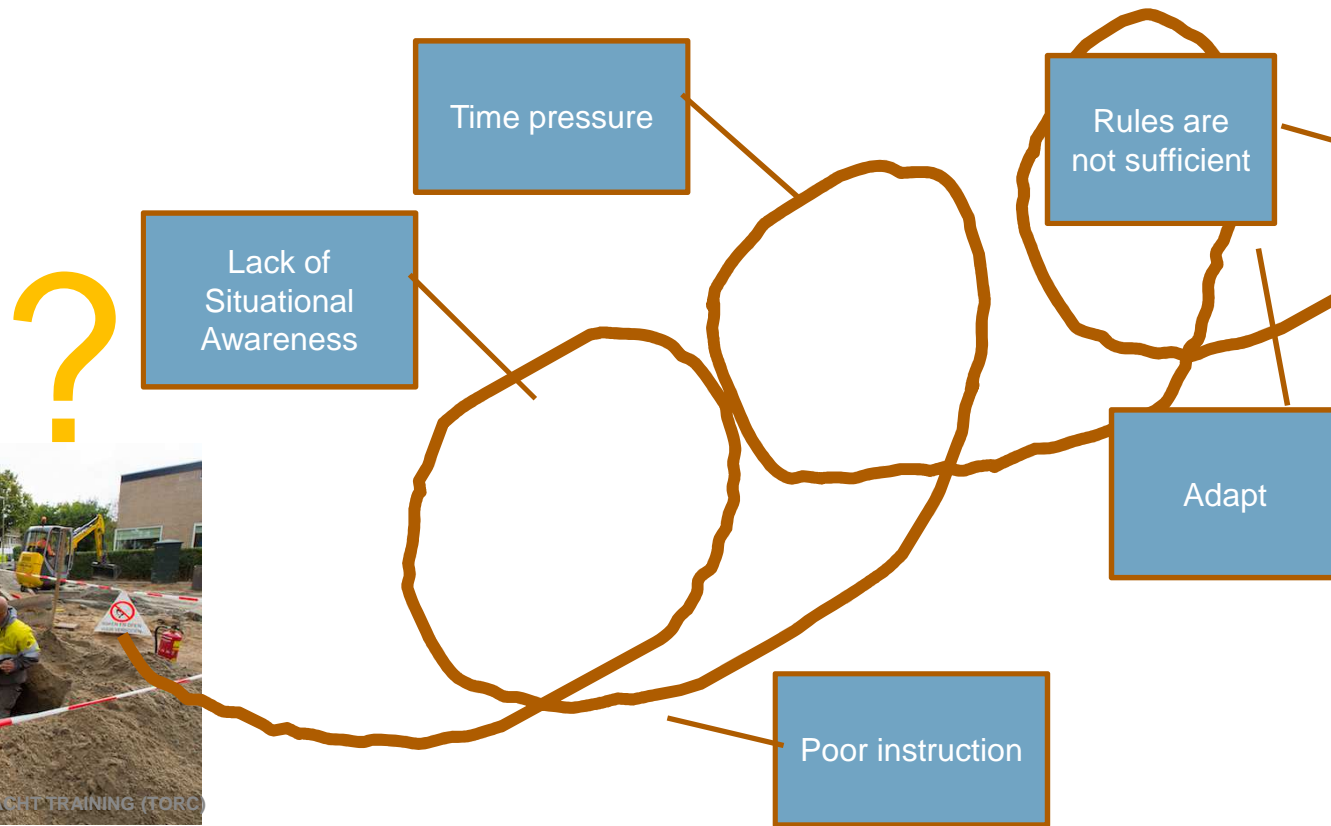
ADAPTATION IN/AFTER ACTION



TORC TRIADE

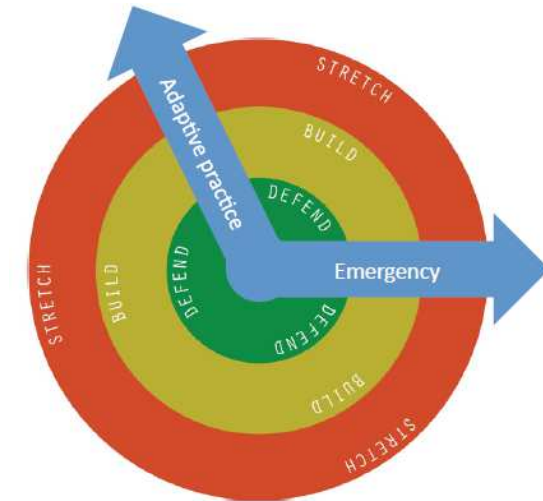


COPE WITH UNEXPECTED ISSUES IN WORK



TY OPERATONELE VERKRACHT TRAINING (TORC)

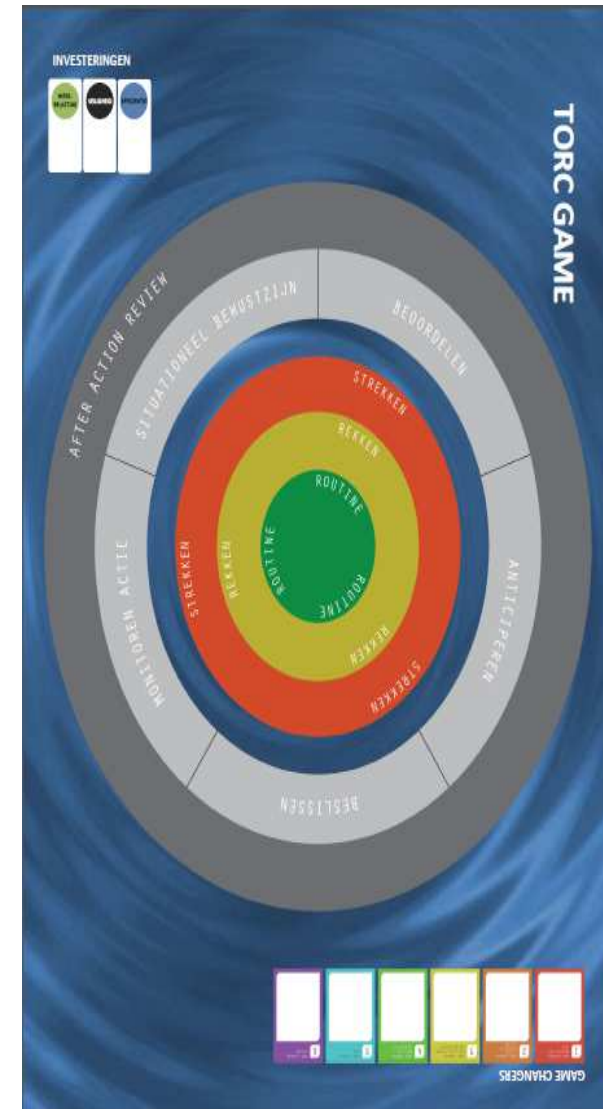
REACTION DISTURBANCES?



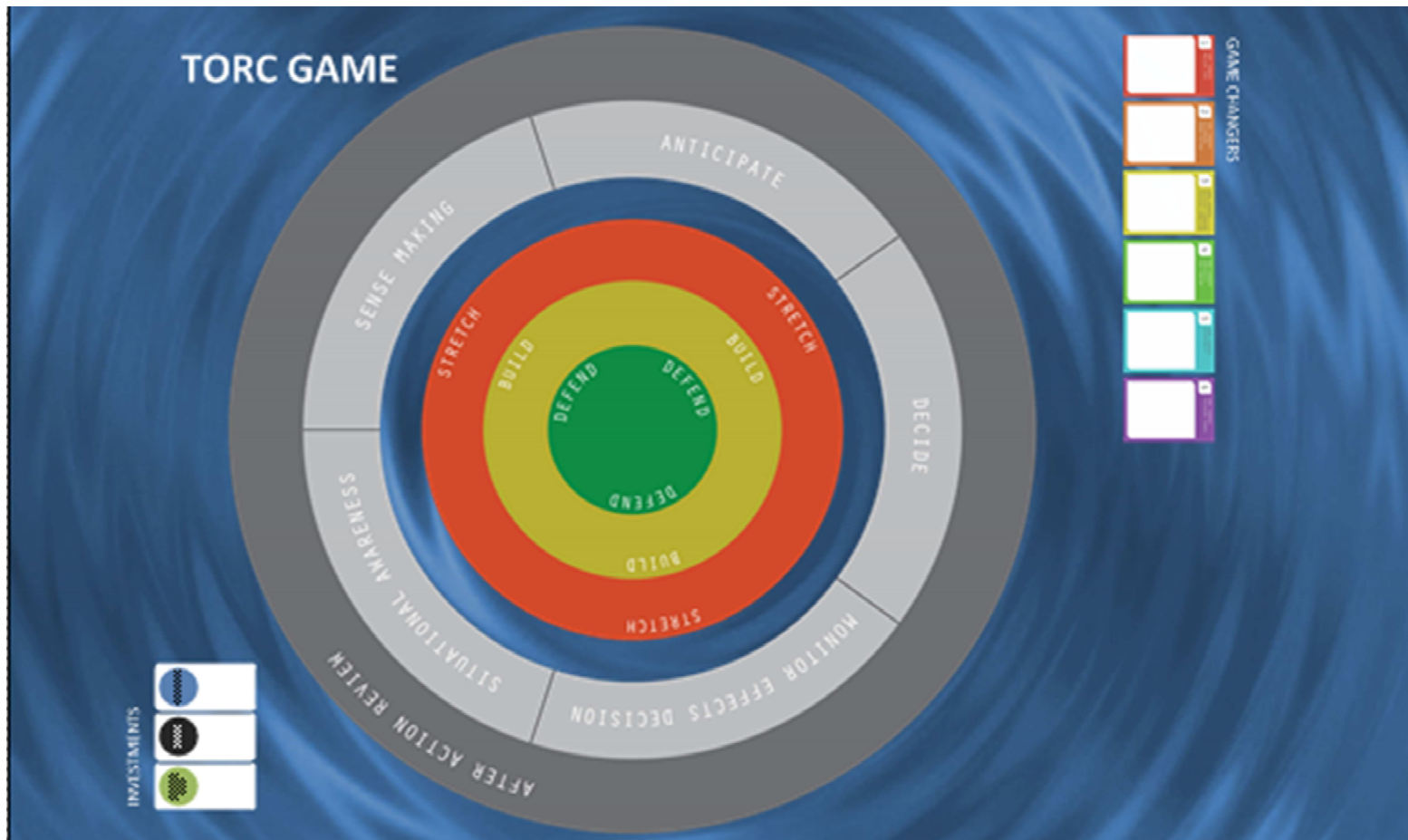
- › **Defend**
 - › This is the preferred mode of operation. Resilient action takes place to deal with everyday operational surprise within the boundaries of the normal operation.
- › **Build**
 - › The organization provides additional defences. This can be done by adding robustness to the normal operation at spots where there are known vulnerabilities, or where procedures are known to need interpretation.
- › **Stretch**
 - › On a case-by-case basis, controlled action outside of modelled operation in a controlled manner is an option when responding to unexpected situations, e.g. through the management of change process if the available work permits, procedures and resources no longer support the necessary action.

START UP....

- › The training / the game
- › Roles player/ observer
- › Rules
 - › Time frame 6 x 10 minutes to react
 - › Anonymous, logposter to management, they play same game changers
- › Decide action/reaction
 - › Within the procedures (defend), interpretation rules(build), big ones (stretch)
 - › Take the lead teamleader; decide after you got input team members
- › Effect on
 - › safety, efficiency, workload
- › Case based game use of realistic scenario
 - › Game play according to steps
 - › Reflect on decisions and actions observers

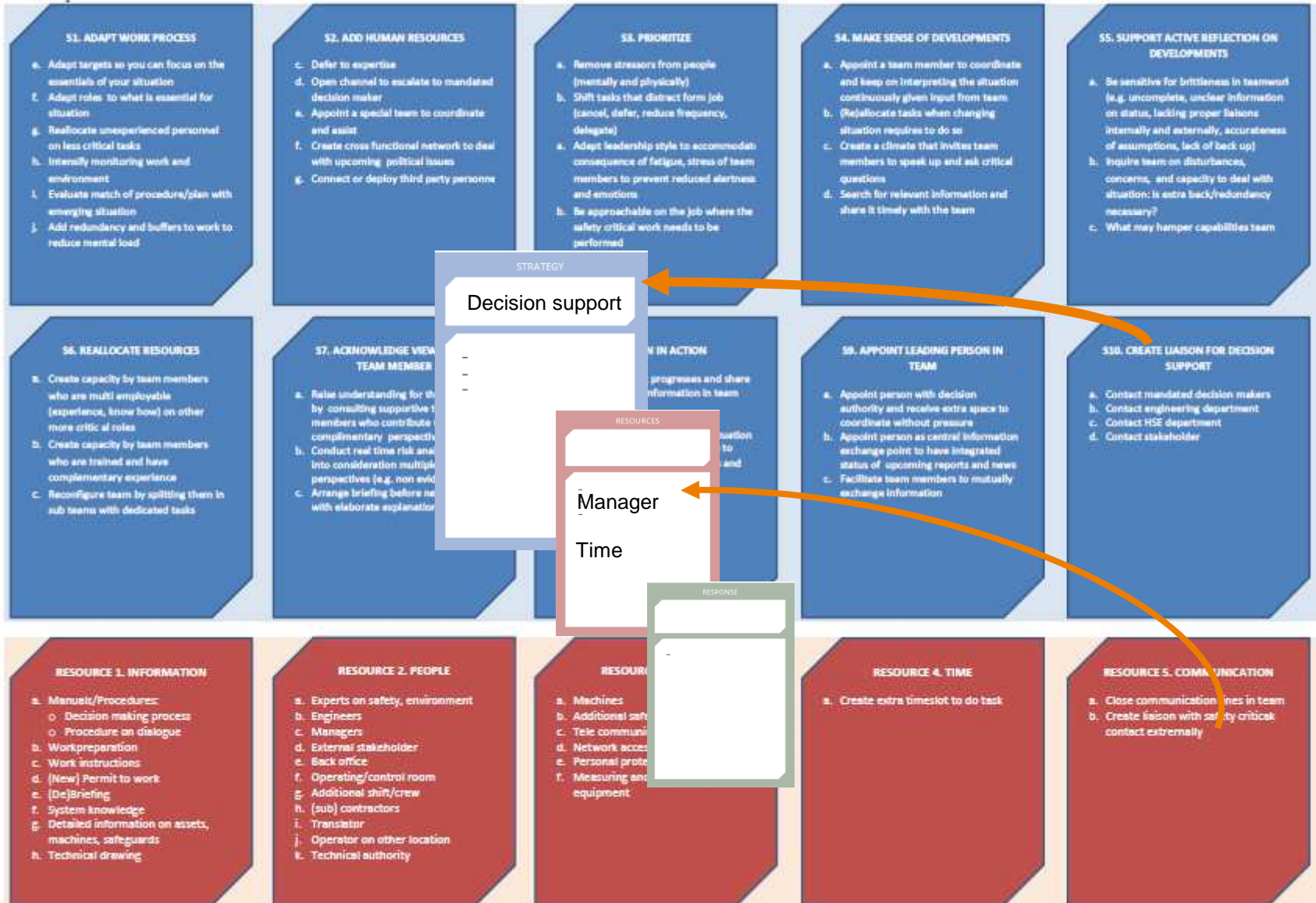


GAME PLAY BOARD



Demo TORC game

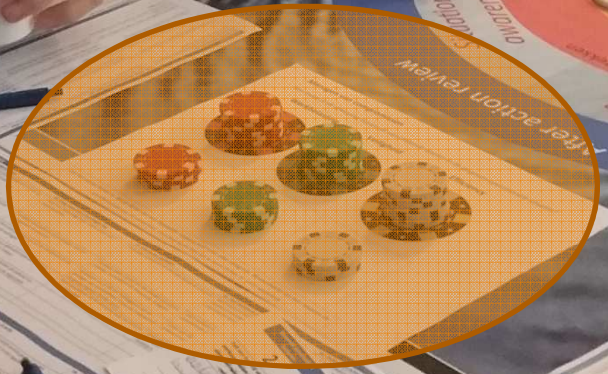
TORC Capabilities





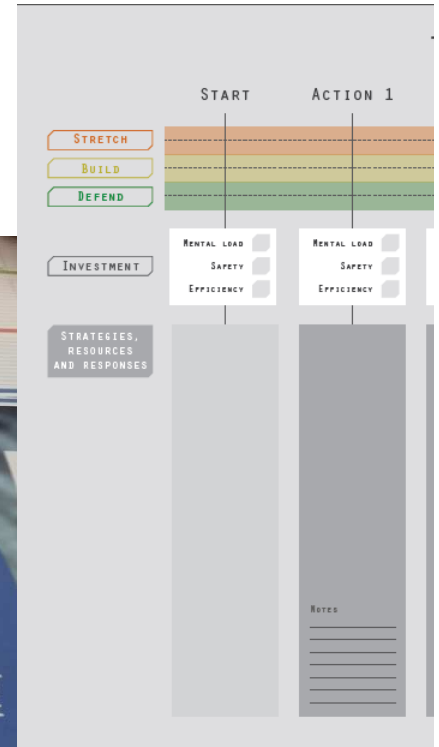
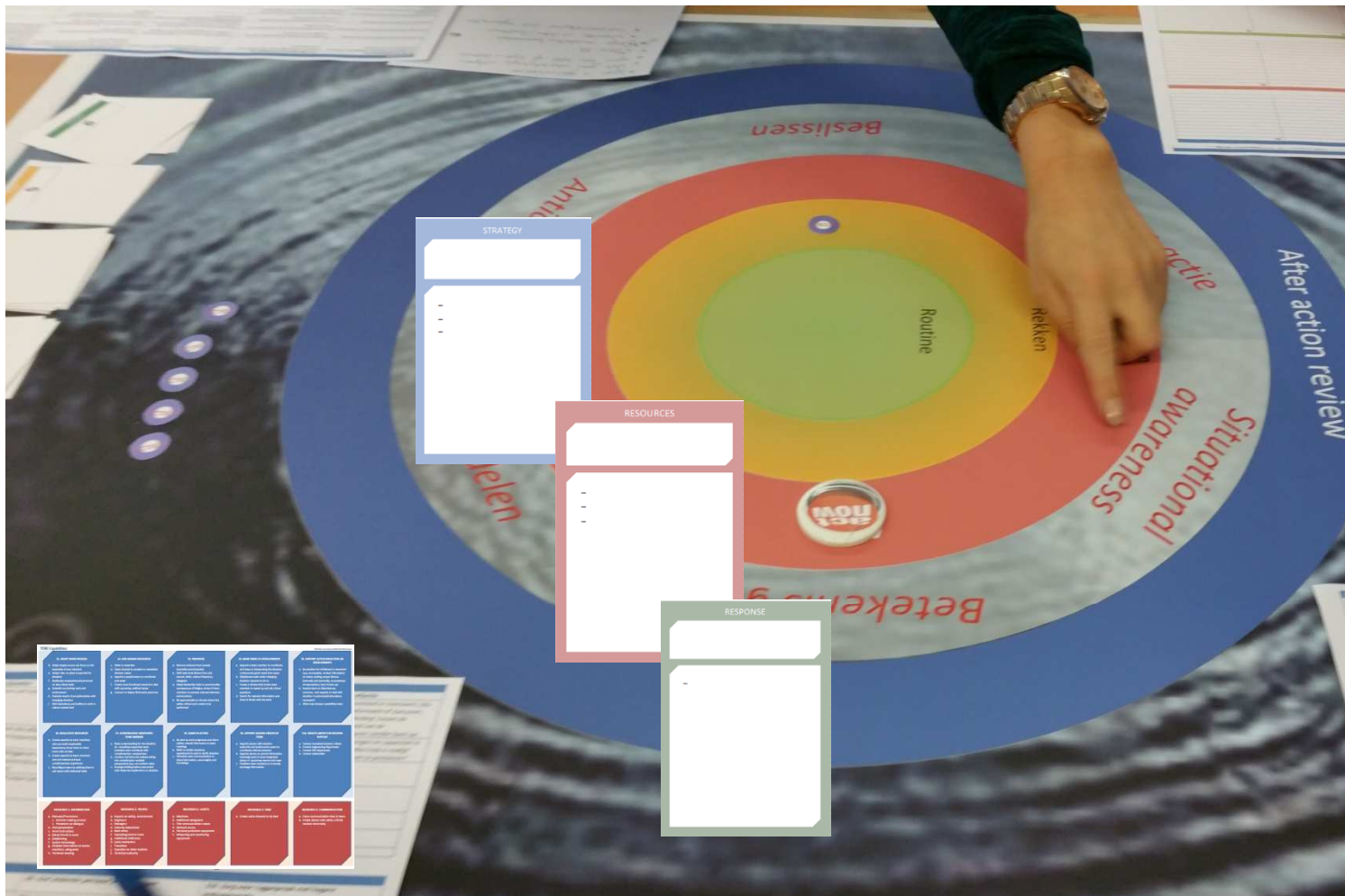
Demo TORC game

INVESTEMENTS



ADAPTIVE PATH TORC GAME LOG

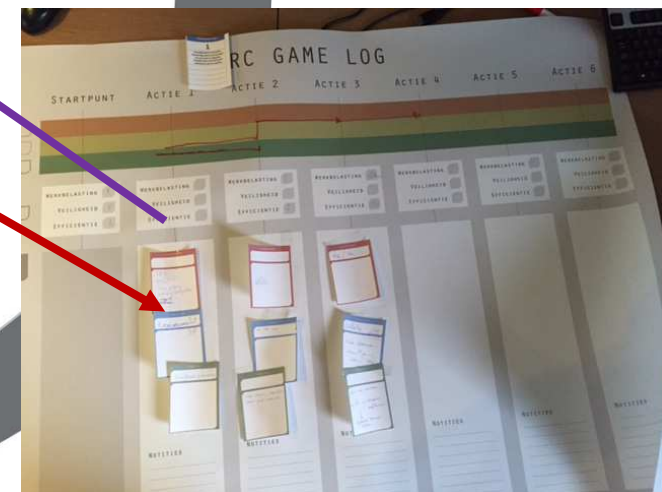
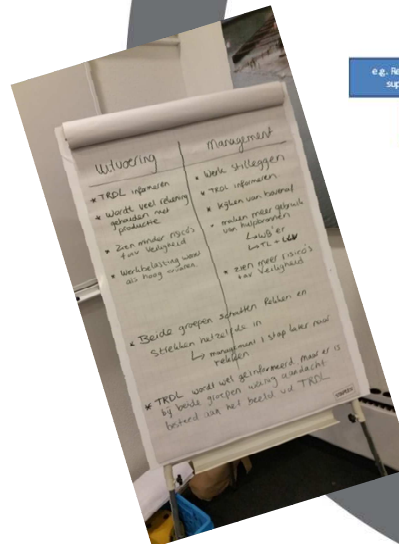
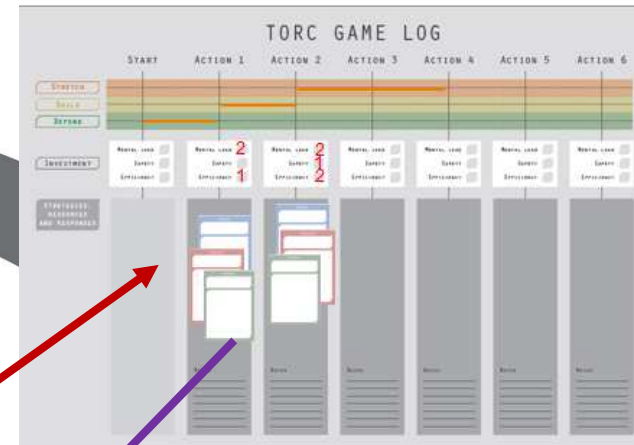
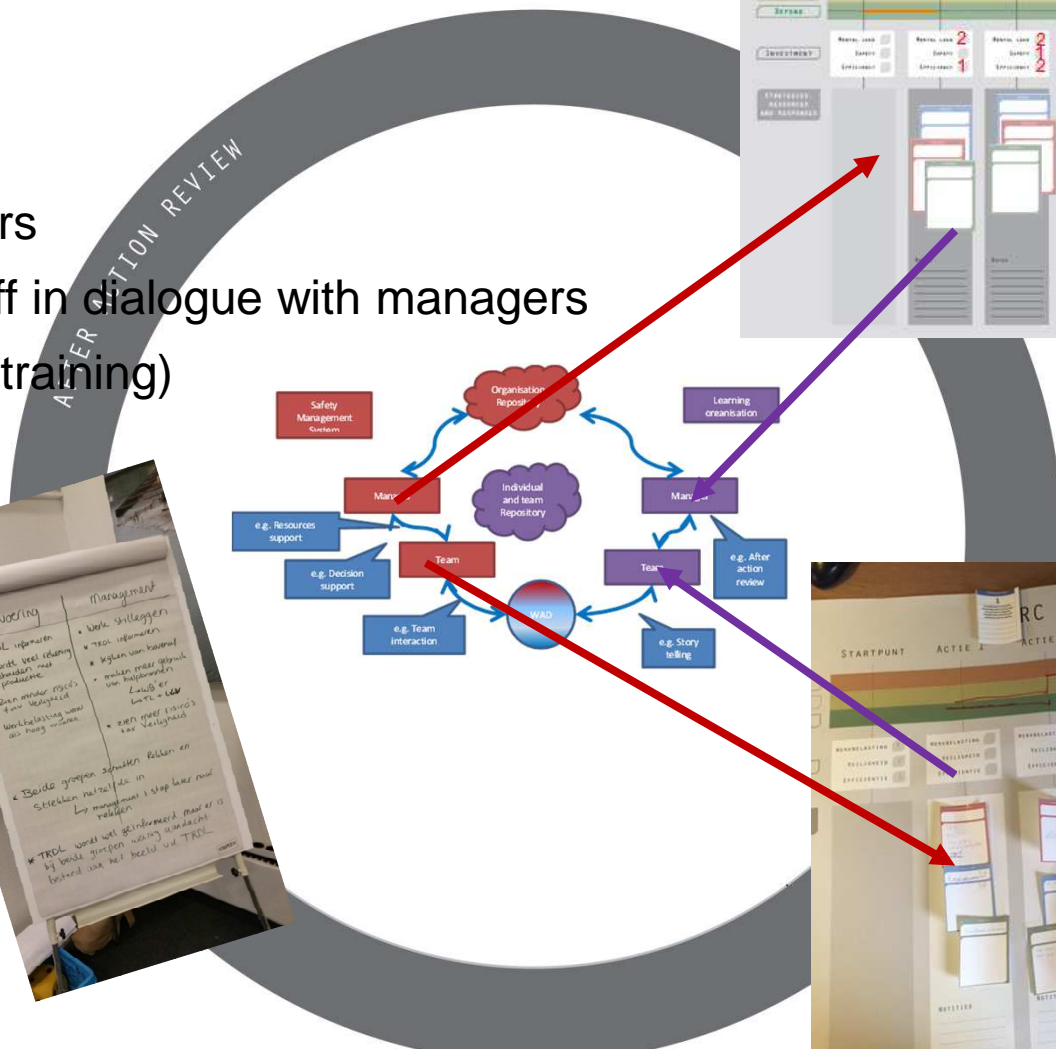
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STRETCH							
BUILD							
DEFEND							
INVESTMENT	MENTAL LOAD <input type="checkbox"/> SAFETY <input type="checkbox"/> EFFICIENCY <input type="checkbox"/>	MENTAL LOAD 2 SAFETY <input type="checkbox"/> EFFICIENCY 1	MENTAL LOAD 2 SAFETY <input type="checkbox"/> EFFICIENCY 2	MENTAL LOAD <input type="checkbox"/> SAFETY <input type="checkbox"/> EFFICIENCY <input type="checkbox"/>	MENTAL LOAD <input type="checkbox"/> SAFETY <input type="checkbox"/> EFFICIENCY <input type="checkbox"/>	MENTAL LOAD <input type="checkbox"/> SAFETY <input type="checkbox"/> EFFICIENCY <input type="checkbox"/>	MENTAL LOAD <input type="checkbox"/> SAFETY <input type="checkbox"/> EFFICIENCY <input type="checkbox"/>
STRATEGIES, RESOURCES AND RESPONSES		STRATEGY RESOURCES RESPONSE	STRATEGY RESOURCES RESPONSE				
		NOTES	NOTES	NOTES	NOTES	NOTES	NOTES



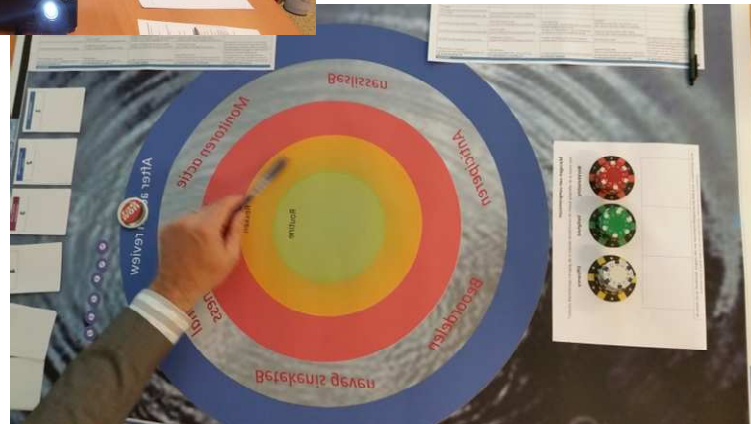
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1.1.2.1	1.1.2.2	1.1.2.3	1.1.2.4	1.1.2.5
1.1.3.1	1.1.3.2	1.1.3.3	1.1.3.4	1.1.3.5
1.1.4.1	1.1.4.2	1.1.4.3	1.1.4.4	1.1.4.5
1.1.5.1	1.1.5.2	1.1.5.3	1.1.5.4	1.1.5.5

AFTER ACTION REVIEW

- › By players
- › By observers
- › By field staff in dialogue with managers (integrated training)



LET'S START



COMPANY CASE: STRUKTON RAIL DESCRIPTION

› Case 1. KROL defect

› Activities:

› Maintenance job with 3 activities at night. See outline drawing, Withdrawal of the track for service: 0:45am to 5:30 am

› Activities

› 1. replacement tongue movement

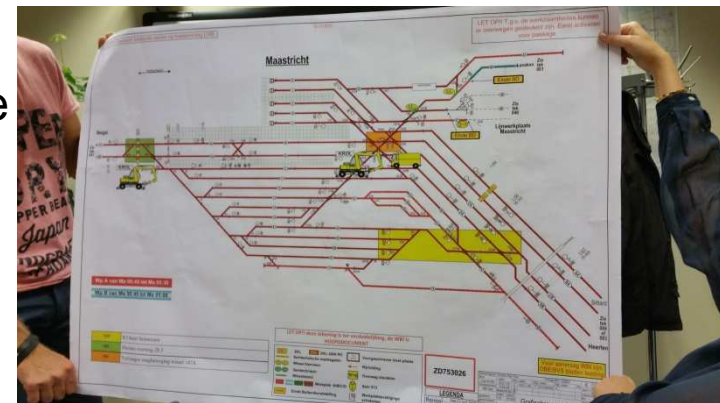
2. revising the level crossings

3. R3 turn switches

› NVW officials: 1 LWB (LWB - Leader Workplace Safety), 3 LLVs (Local Safety Leaders) and 3 TLs (Technical Leaders), 3 GMs (Tools Machinist; 1 at level crossings and 2 at tongue movement), 1 BBD (Supervisor for track that has been withdrawn for service)

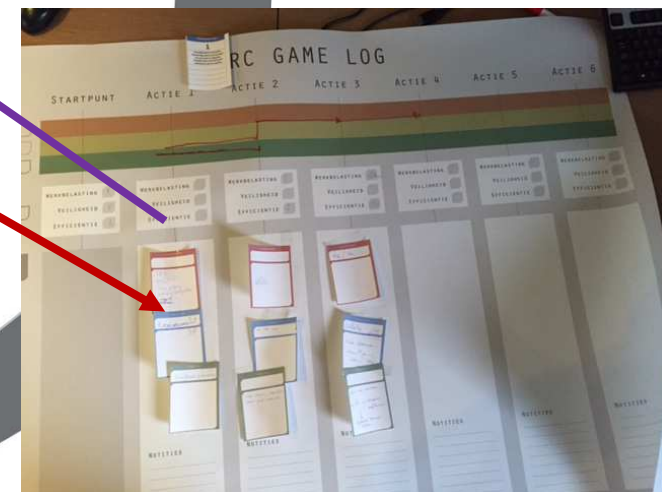
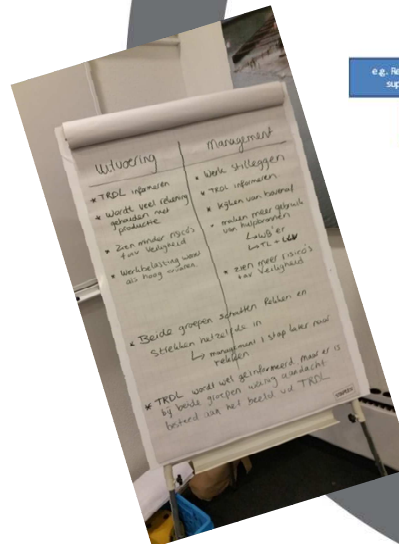
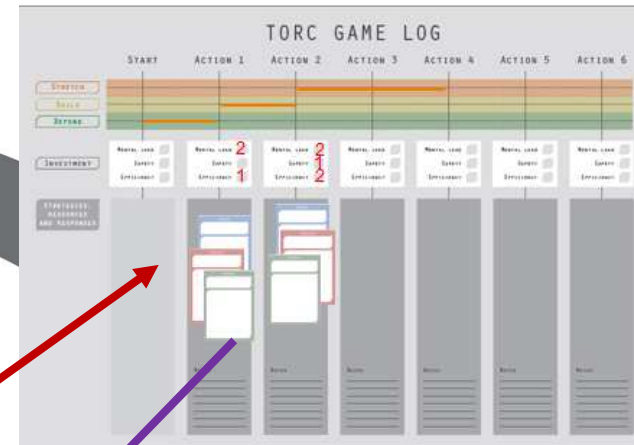
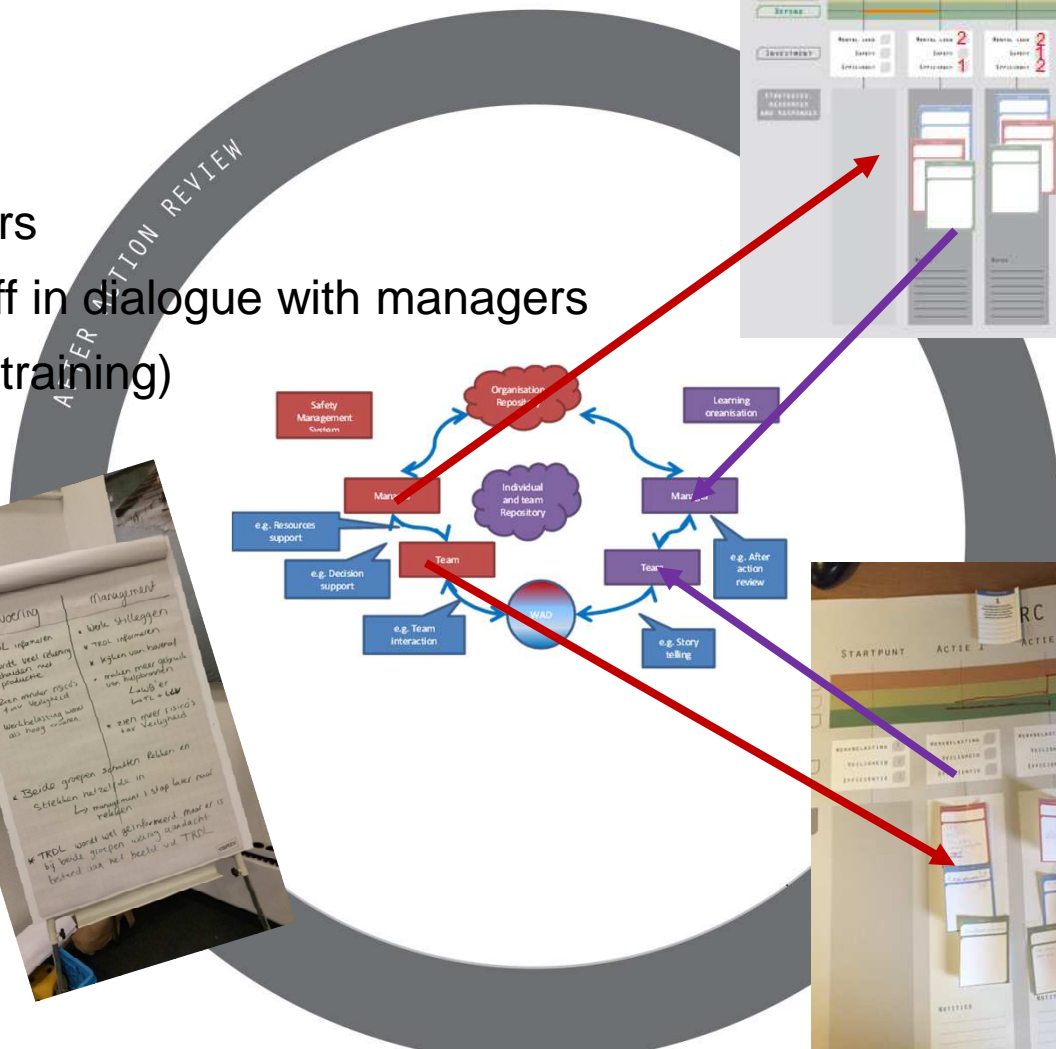
COMPANY CASE: STRUKTON RAIL DESCRIPTION

- › Situation: Track is out of service, instruction has been given. Staff are ready to deploy patches. And are waiting for call from the LWB to LLV to go to work.
- › Trigger start game: At 04.00 pm the KROL of the tongue movement goes defect possibly resulting in the situation that the track cannot be delivered into service on time as well as the adjacent track as the KROL is situated with its boom in the adjacent track. At the moment it is 4.30h already with only 1 hour to go!



AFTER ACTION REVIEW

- › By players
- › By observers
- › By field staff in dialogue with managers (integrated training)



A photograph of an offshore oil rig at sunset. The sun is a bright yellow circle on the horizon, casting a warm orange glow across the sky and the dark sea. The rig's complex structure of towers and cranes is silhouetted against the bright sky. A white horizontal bar with arrowheads at both ends is positioned below the rig.

› **THANK YOU FOR YOUR ATTENTION**

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