



**Hogeschool van Amsterdam**  
Amsterdam University of Applied Sciences

# PREREQUISITES FOR BUILDING A POSITIVE SAFETY CULTURE

Dr. Nektarios Karanikas

MSc, CEng, PMP, MRAeS, MIET, GradIOSH, Lt. Col. (res.)

Aviation Academy

Associate Professor of Safety & Human Factors

**European Union Health, Safety & Environment Forum**  
21-22 March 2017, Amsterdam, the Netherlands

CREATING TOMORROW



# FROM SIMPLICITY TO COMPLEXITY



H/S/E  
individual  
programs



HSE  
Systems

# HSE MANAGEMENT SYSTEMS AND SAFETY CULTURE

Health, Safety &  
Environment  
Management





# HOW DO WE UNDERSTAND “SAFETY CULTURE”?

- “Safety culture” was firstly introduced in 1986 as part of the Chernobyl accident investigation report.
- Since 1986 plenty and diverse definitions exist.
- Confusion between the meanings of safety culture and safety climate.
- What are the results?
  - Different guidance provided by various industry sectors.
  - Divergent activities for developing safety culture amongst organizations.
  - A wide range of safety culture assessment instruments.



# THE MISPERCEPTIONS AROUND “SAFETY CULTURE”

- Safety culture is sometimes used as the new scapegoat during safety investigations.
- Seen as sum or product of individuals, rather than a matter of interaction and sharing.
- Measurement methods and tools:
  - Address dimensions (i.e. “what”), but do not uncover the underlying mechanisms (i.e. “why” and “how”) if not followed by qualitative analysis.
  - Lack a valid reference point for comparison.
  - Do not explicitly explore how safety competes with other parallel organizational objectives (e.g., production, security, quality).

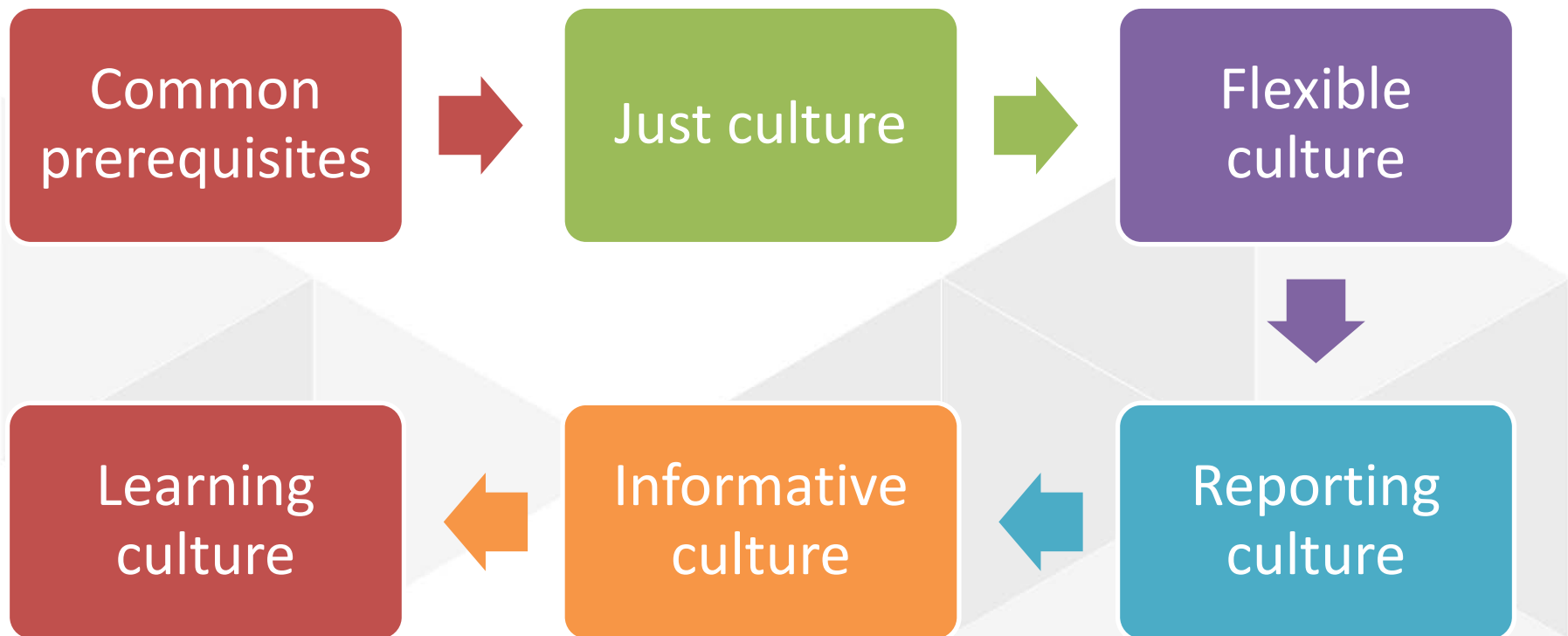
# DECOMPOSITION OF SAFETY CULTURE



Reason, J. Achieving a safe culture: theory and practice. *Work & Stress*, 12(3), 293-306, (1998).

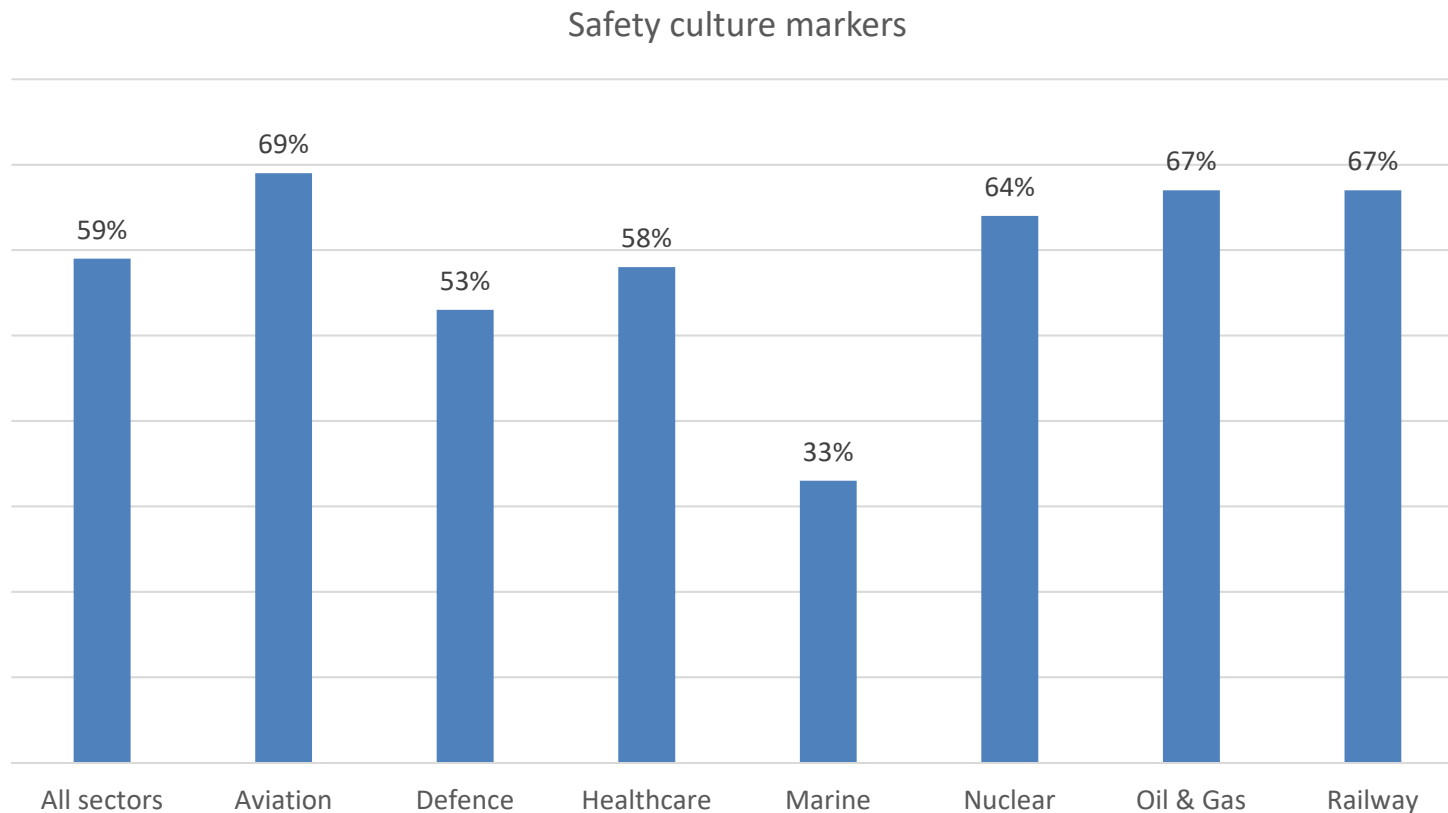


# THE SUGGESTED JOURNEY FOR SAFETY CULTURE DEVELOPMENT





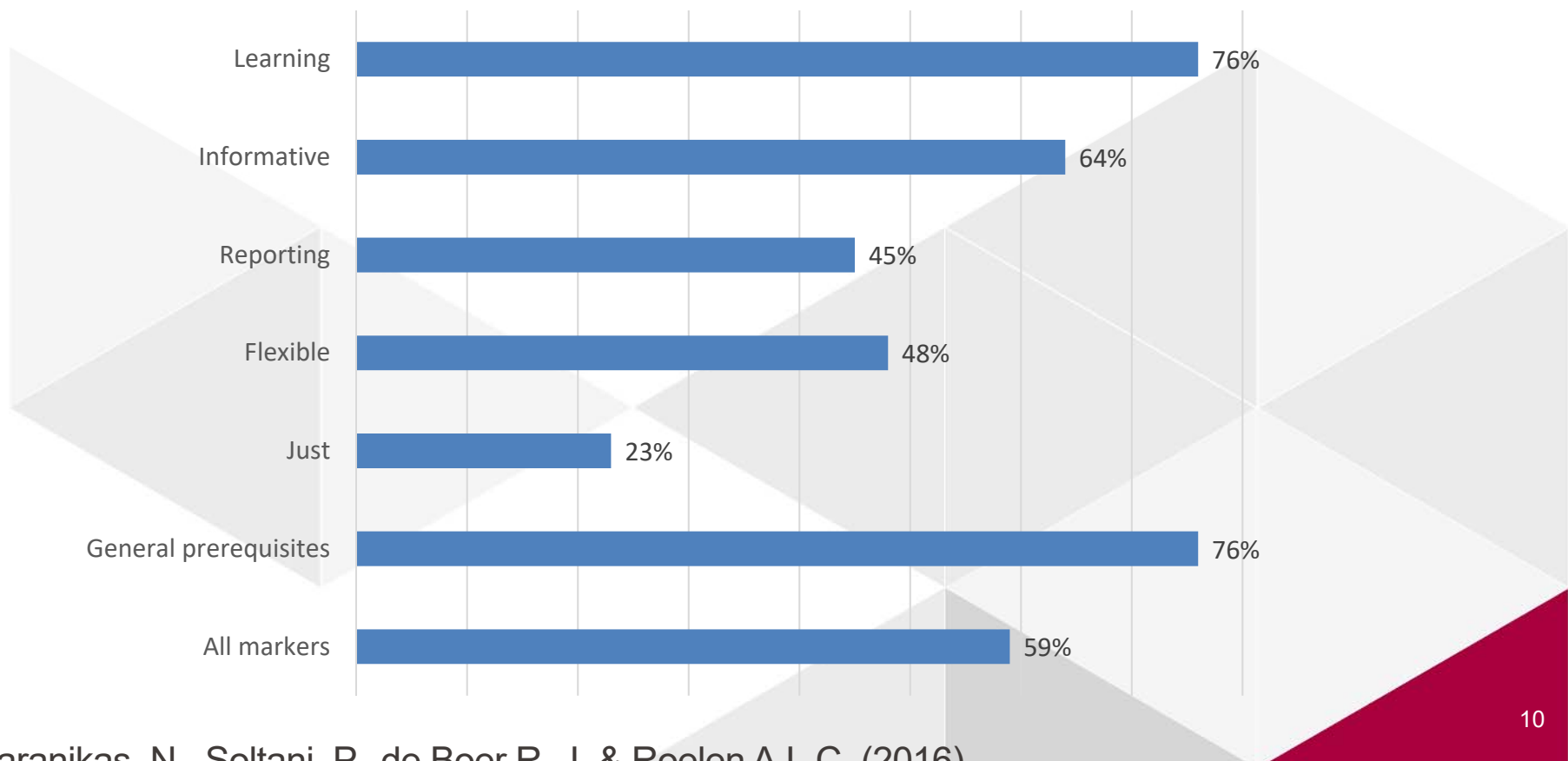
# SAFETY CULTURE MARKERS ACROSS THE INDUSTRY



Karanikas, N., Soltani, P., de Boer R. J. & Roelen A.L.C. (2016)

# THE “ORDER” OF SAFETY CULTURE DEVELOPMENT

Safety culture markers in the industry



## SOME PARADOXES: JUST CULTURE

- Just culture is applied:
  - Differently, depending on the actual severity of safety events – the worse the outcome the more the “justice”.
  - Frequently to the visible actors (e.g., workers, operators) and not to higher management levels – the latter are most of the times immune to “just” culture.
- Just culture does not apply when we are rewarded for our performance (e.g., promotion, bonus). When we are benefited, it is by default fair – we do not question the decisions.
- Staff is informed about the just culture policy after they join the organization – they do not know and accept the “terms & conditions” in cases of adverse events.



## SOME PARADOXES: FLEXIBLE CULTURE

- We accept flexibility (i.e. distance between work-as-imagined and work-as-done) when we receive the desired output.
- When things do not go as expected, flexibility becomes a causal factor.
- We accept flexibility but request full compliance from workers during audits – we ask from them to pretend.
- We ask from seniors to allow us space for flexibility, but we want to exert full control over subordinates.

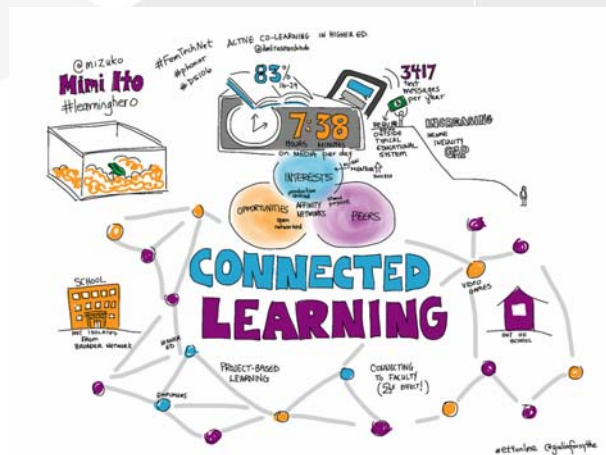


# SOME PARADOXES: REPORTING CULTURE

- We view increased reporting as positive sign of trust and contribution to safety, but we expect reports from end-users, whereas managers across all organizational levels rarely submit reports.
- We collect data about hazards and problems and we lack reports about solutions and good practices.
- We do not regularly record the informal reports (e.g., around the coffee table).

# SOME PARADOXES: INFORMATIVE & LEARNING CULTURES

- We share safety information but we do not schedule time in working plans so workers can access, read and understand such information.
- We confuse information dissemination and safety training with learning – the latter is a journey towards changing our views and attitudes.



# IS PLANNING FOR SAFETY CULTURE ENOUGH?





# THE AVAC SAFETY CULTURE DEVELOPMENT TOOL

- Based on the Aviation Academy's safety culture framework – applicable to all industry sectors.
- Consisted by 2 parts:
  - Check of organizational documentation against the prerequisites for safety culture: How completely do you plan for it?
  - Survey across the organization staff:
    - To what extent are the plans visible to the employees?
    - Are there prerequisites existent but not planned?
    - Are there differences across organizational levels and functions?
  - Ultimate scope is the assessment of the gaps between
    - Theoretical framework and plans
    - Plans and “average” reality
    - Various “realities” - vertical & horizontal alignment





# THE AVAC SAFETY CULTURE DEVELOPMENT TOOL

- Current development phase:
  - First draft reviewed by three knowledge experts & two companies
  - Second draft to be reviewed further by the research team & more companies
- Inclusion of the tool in the project “Aviation Safety Metrics” for assessing the relationship between safety culture development and safety performance.
- **We welcome companies from all industry sectors to contribute to the development of the tool through pilot application and collection of feedback.**

## SOME LAST REMARKS

- HSE management systems were introduced to address and not to increase complexity.
- A bureaucratic approach to HSE ensures compliance, but compliance does not equal to safety.
- Safety culture and thinking are not fostered through paper work.



# AVIATION ACADEMY EVENTS

- **MASTER CLASS HUMAN FACTORS AND SAFETY**  
**19–23 JUNE 2017**
- **INTERNATIONAL CROSS-INDUSTRY SAFETY CONFERENCE (ICSC)**  
**2-3 NOVEMBER 2017**
- **MASTER CLASS RISK ASSESSMENT**  
**12-16 MARCH 2018**
- **MASTER CLASSES IN INCIDENT INVESTIGATION & SAFETY MANAGEMENT (2018)**

Information:

[www.amsterdamuas.com/aviation](http://www.amsterdamuas.com/aviation)





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# Questions?

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