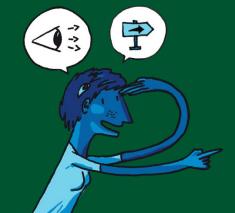


FON CS



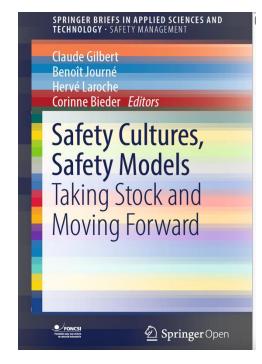
THREE CHALLENGES TO INSTALL A DESIRED SAFETY CULTURE

René Amalberti, Prof, MD, PhD, Director FONCSI, Member of the French Academy of Technologies



FONCSI IN A FEW WORDS

- The FONCSI- FONdation pour une Culture de Sécurité Industrielle): a French public-interest research foundation
 - Operates as an international think tank on matters related to industrial safety, human & organizational factors, and safety governance of high-hazard industries.
 - Major partners: railways companies, nuclear industry, aviation industry, building and construction, and Oil and Gaz industry, including the national authorities of these sectors. We also interact with healthcare industry and authorities and the retail banking international sector.
 - Scientific work plan organized around in-depth "strategic analyses", each of which lasts 2 years. During these two-year strategic analyses, we undertake a literature review, hearings with industry/regulatory stakeholders, organize a by-invitation academic seminar and a stakeholder dissemination workshop.
 - We have already undertaken a number of these analyses, with outputs published in an open access collection of books managed by Springer, the SpringerBriefs in Safety Management (https://www.springer.com/series/15119).



Last analyses

Safety and Subcontracting: the evolution of outsourcing

Regulator-regulatee relationship in highhazard industries'

Demographic changes digitalisation and compleity

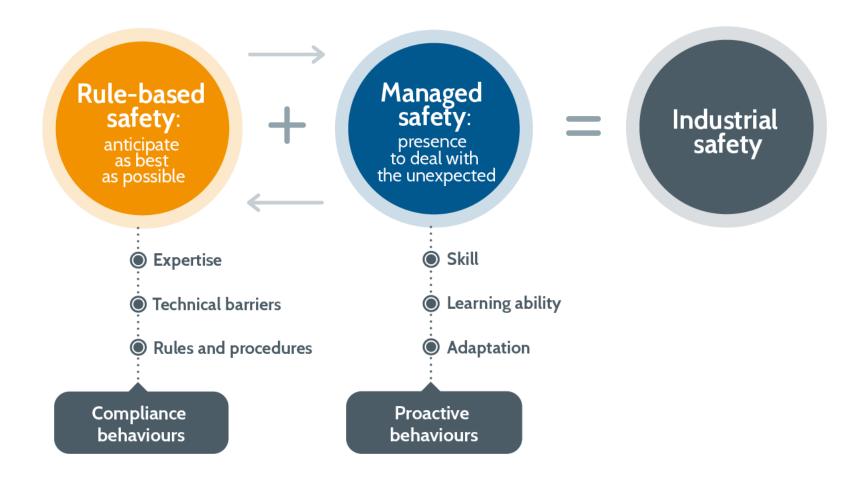
The new challenges of rule-based Vs Mananeg based safety

OUTLINE

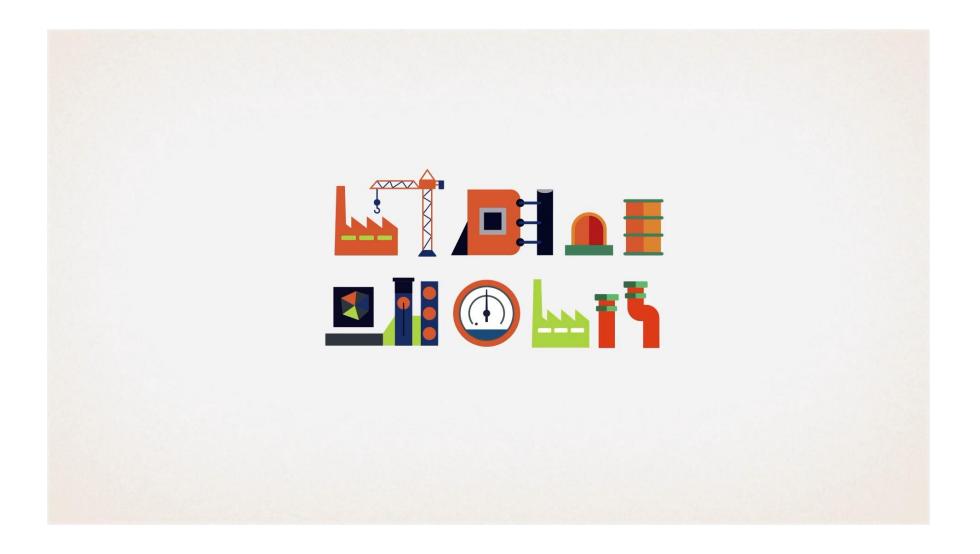
- Safety culture has become a must-have for industry.
- Three prerequisites to install a desired safety culture in a company.
 - Diagnosing the historical safety culture pre-existing to any intended improvement
 - Understanding a typology of desirable safety cultures depending on the industrial context concerned
 - Avoiding considering safety culture in isolation and standalone.

SAFETY CULTURE HAS BECOME A MUST-HAVE FOR INDUSTRY.



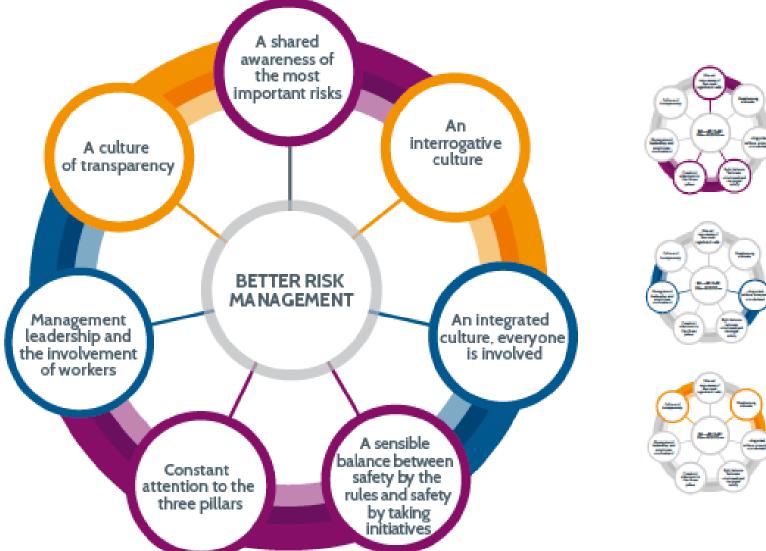








ICSI-FONCSI MODEL





Strategy



Actors



Process



THE TWO FACES OF SAFETY CULTURE

THE RESULT OF A LIVING SYSTEM

Safety culture. is a type of organizational expertise that is situated in the system and on going practices and constituted, institutionalized and continually redefined and renegiotiated within the organizing processes through the interplay between action and reflectivity (US acad. Sciences 2018)

AN ASPIRATION GOAL TO BE ACHIEVED

Rather than a specific organization of roles and learning processes or measurable set of attitudes and beliefs," safety culture is understood as an aspirational goal to be achieved, however difficult and elusive, and "often only one of a number of competing organizational objectives" (Silbey 2009)



THE CHALLENGE OF MOVING THE CULTURE



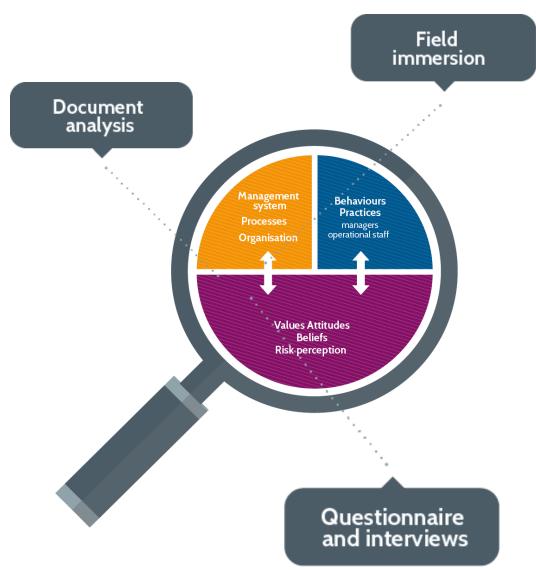
There is no Holy Grail model for action, only a model adapted to your own context

THREE PREREQUISITES TO INSTALL A DESIRED SAFETY CULTURE IN A COMPANY.

FIRST Diagnosing the historical safety culture pre-existing to any intended improvement



THERE IS ALWAYS AN HISTORICAL SAFETY CULTURE PRE-EXISTING TO ANY INTENDED IMPROVEMENT.



- Require understanding this initial culture before attempting to change it.
- **Significant work is needed** to diagnose not just the *what* (is the culture), but also the *why* this pre-existing safety culture has been developed, and to what extent it is perceived as effective at least by some workers.
- This long initial pre-diagnosis means going beyond questionnaires, and largely conditions what could be probably changed, and what is just wishful thinking.



ROOT CAUSE ANALYSIS



How organisations investigate occurrences reveals their model

- The model becomes visible whether it's implicit or explicit
- Where do they look?
- What do they change?



Examples of pre-existing cultures

Embracing risk

..is the essence of the profession.

Power to experts Power to autonomy

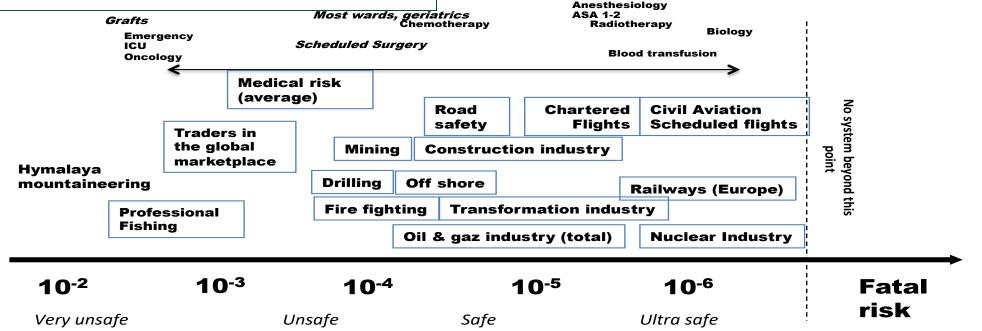
'Give me best chances and safest tools to survive in these adverse conditions and make exploits' Success analysis more important than accident analysis

Excluding risk

...as far as possible.

Power to the regulators /supervisors of the system to avoid exposing front-line actors to unnecessary risks.

Priority to prevention
Reduction of individual and group autonomy





A THIRD MODEL: TOWARDS HIGH RELIABILITY ORGANIZATIONS

Concern with failure:

 vulnerability awareness, actively searching for bad news

Keep Margins or <u>"fat</u>":

• in the systems to cope with difficult situations

Reluctance to simplify interpretations:

• distrust evidence, foster a diversity of viewpoints

Sensitivity to operations:

• presence in the field, use of field expertise

Commitment to resilience:

develop professional skills; foster transverse interactions

Deference to expertise:

 whatever the professional level, consult those who know best



Three Contrasted Safety models

ULTRA ADAPTIVE Embracing risk

Context: Taking risks is the essence of the profession.

Cultural trait: Fighter spirit, cult of champions and heroes

Safety model: Power to experts

'Give me best chances and safest tools to survive in these adverse conditions and make exploits'

Success analysis more important than accident analysis

Safety training: Experts talk to juniors, acquisition of expertise, understanding own limitations

HRO model Managing risk

Context: Risk is not sought out, but it is inherent in the profession.

Cult of group intelligence and adaptation to changing situations.

Safety model: Power to the group and capacity to face the unexpected

Organization, roles, and procedures Mutual protection team members. Suspicion of simple explanations

Priority to Recovery and mitigation
Safety training: Training in teamwork

ULTRA SAFE Excluding risk

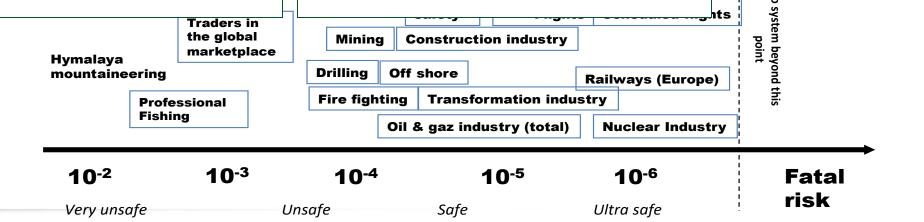
Context: Risk is excluded as far as possible.

Cult of applying procedures and safety organized by an effective supervisory organization.

Safety model: Power to the regulators of the system to avoid exposing front-line actors to unnecessary risks.

Priority to prevention

Safety 'Training only inside the tube': training limited to what the organization considers the need for expected operations.



THREE PREREQUISITES TO INSTALL A DESIRED SAFETY CULTURE IN A COMPANY.

SECOND, Understanding a typology of desirable safety cultures depending on the industrial context



MARKERS TO CONSIDER AS OBSTACLES TO CHANGE THE CULTURE

- Level of internal consistency
 - Number of organizational interfaces to be coordinated, employees with different backgrounds and practices, different sets of rules and operational procedures,
 - How much the project of changing safety culture is endorsed and supported by executives and managerial chain and aligned with changing the corporate culture
- Level of internal stability
 - Executives, Management, Staffing stability
- Level of Market stability
- Level of usual complexity in fieldwork / outsourcing / network of companies usually coworking on the same field
- Time horizon ambitioned for changing the culture



A TENTATIVE TAXONOMY FOR SUCCESSFUL CHANGE

	Control of Field complexity/ market diversity	Staffing stability, executives & Workforce stability	Control of outsourcing and politics for working as in networks	Internal consistency in the management chain over the long term	What methods to monitor changes, including changes for reporting and safety analysis
Four or five actionable changes	Changes are in the desirable directions on the short and long term The achievable culture will favor the regulated-managed balance towards a rule-based priority				
Three actionable changes	Changes are in the desirable directions, but persistence could be a problem				
Two actionable changes	Changes limited in scope and number, rapid but unstable The achievable culture will favor the regulated-managed balance towards a managed-based priority				
Only one actionable change	Forget the idea of changing safety culture				

THREE PREREQUISITES TO INSTALL A DESIRED SAFETY CULTURE IN A COMPANY.

THIRD, Avoiding considering safety culture in isolation and standalone.



SAFETY CULTURE IS



••••

.... widely shared by the employees of an organisation/community

6

.... when it comes to controlling the most significant risks associated with its activities

The reflection of the importance that organisational culture gives to safety in all decisions, at all levels



THE INTERDEPENDENCY BETWEEN CORPORATE CULTURE AND SAFETY CULTURE

- Any change in safety culture requires a change in corporate /organizational culture
- Safety culture cannot be disconnected nor pushed to adopt antagonist values with the ones shaping the corporate culture of the company
- Any contradiction will profit first to corporate culture
 - Diagnosing corporate culture needed prior or in sync to diagnosing safety culture



THANK YOU FOR YOUR ATTENTION