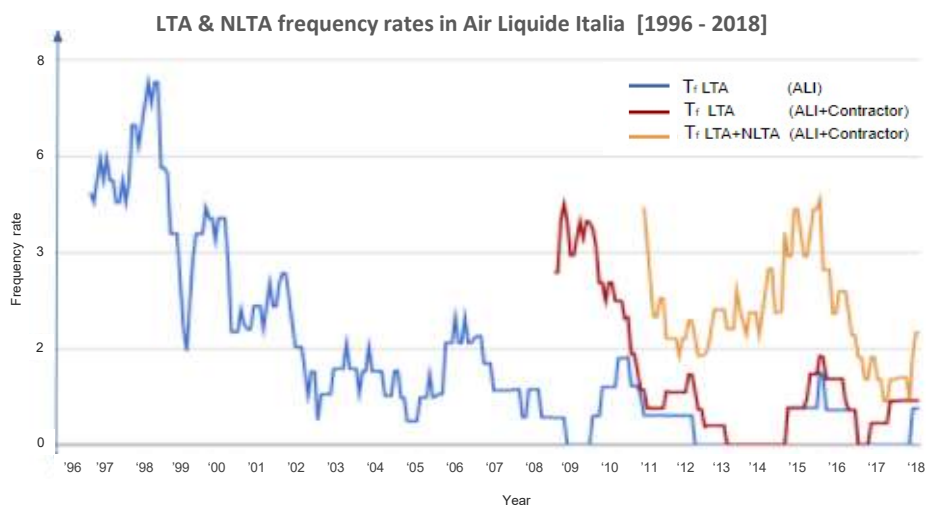


PERFORMANCE VARIABILITY A RESOURCE TO IMPROVE SAFETY MANAGEMENT

Domenico SANTORO
Air Liquide

1

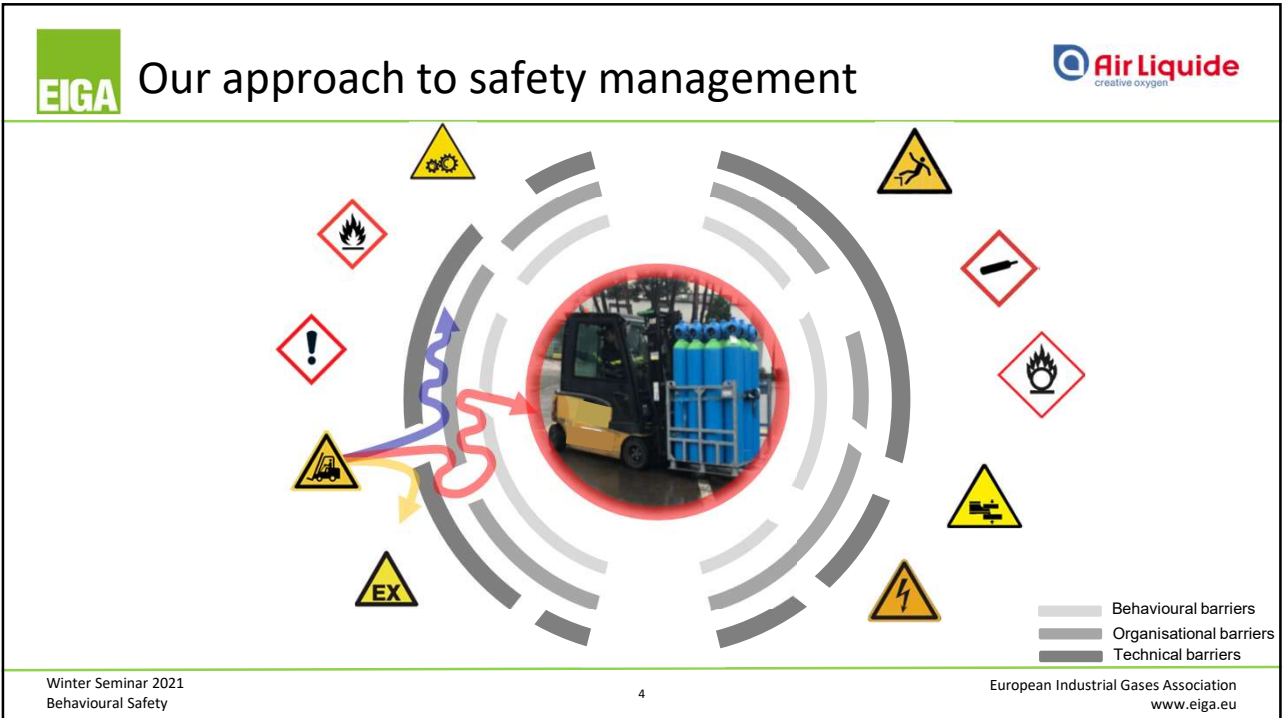
Why we decided to renew our safety management



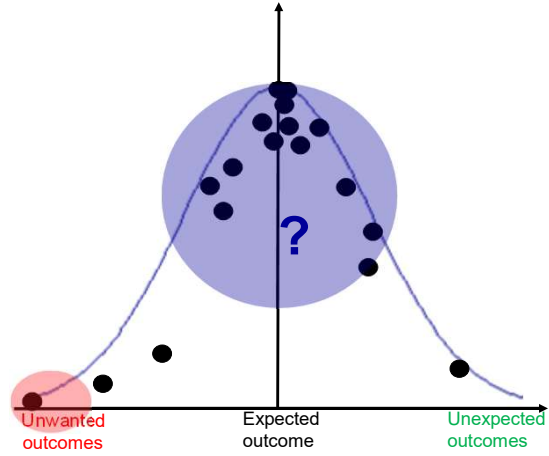
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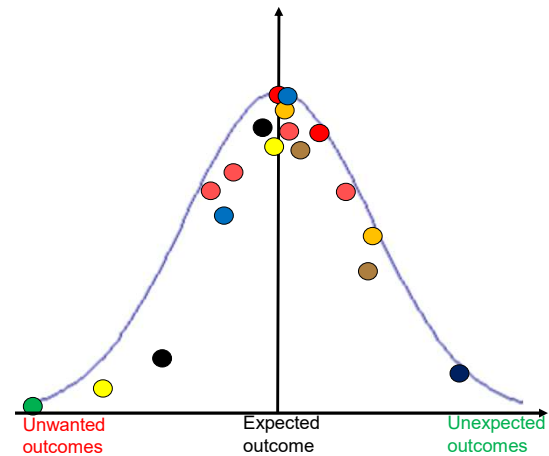
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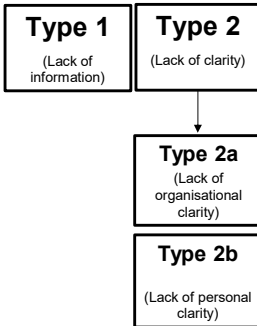


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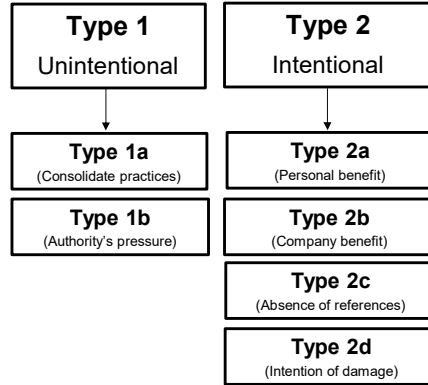


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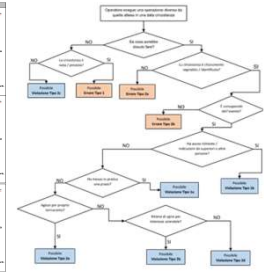
Mistakes



Variabilities



QUESTION	ANSWER	COMMENTS
1. Qualifica personale (cognome, nome, data di nascita, luogo di nascita, stato di famiglia, ecc.)		
2. Esperienza lavorativa (settore, attività, mansioni, ecc.)		
3. Formazione (diplomi, lauree, corsi, ecc.)		
4. Certificazioni (diplomati, laureati, corsi, ecc.)		
5. Esperienze (attività svolte, mansioni ricoperte, ecc.)		
6. Competenze (tecniche, linguistiche, ecc.)		
7. Abilità (motorie, intellettive, ecc.)		
8. Attitudini (personali, professionali, ecc.)		
9. Caratteristiche (fisiche, psichiche, ecc.)		
10. Altre informazioni (eventuali, ecc.)		



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Safety events investigation

- Not only **“Why did it happen”** but also **“Why it didn’t happen before?”** and **“Why it doesn’t happen elsewhere?”**
- More effective corrective actions on the basis of performance variability understanding



Observation by master drivers in the training and qualification process

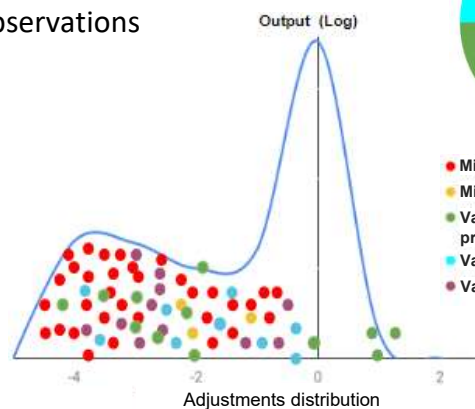
- Coaching focused on the performance variability observation: **“Why do they perform his job in a different way?”**, **“What do they found difficult to apply”**
- Better mindset set-up; improvements in training and qualification processes

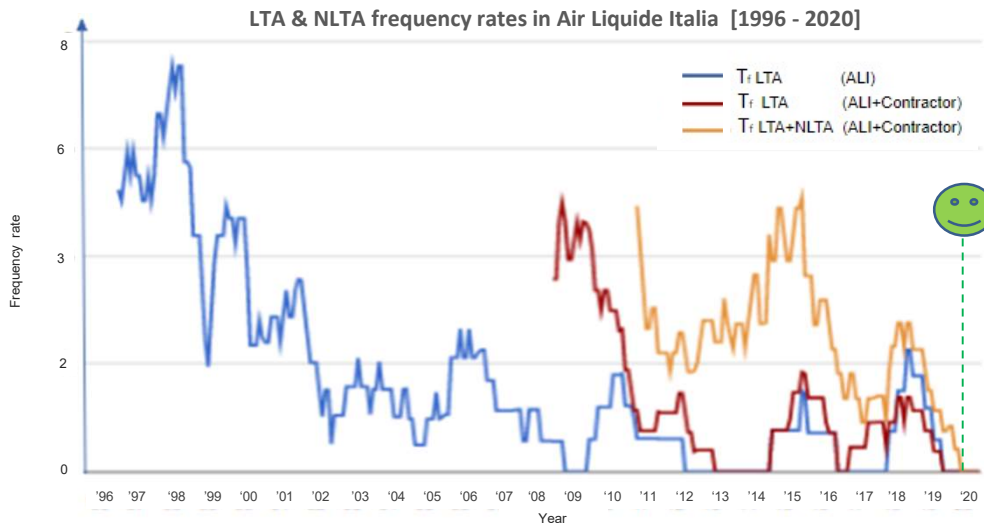


“BSV II” (Behavioural safety visits)

- Broaden observation: from single operator to the group
- Self-observation: be aware of the own adjustments
- **“Why do they change their behaviour?”**, **“Do their colleagues make the same adjustments?”**, **“It’s a good or a bad practice?”**
- Preventive approach, understanding of the adaptability, good practice promotion, bad practice effective correction

- Bulk unloading at customer site
 - 18 months unannounced observations
 - 3400 item observed
 - 68 unexpected behaviour





- To recognise and understand the performance variability means to learn from the adaptability of the organisation
 - Better understating of the operational context
 - More accurate safety events investigation
 - More effective action plans
 - Proactive best practices promotion and bad practices correction
- This is a great resource to improve safety management

... and not only!

Doc Ref.	Document title	Link
	La variabilità della prestazione per migliorare la sicurezza sul lavoro. Metodi e strumenti A.Zuliani, D.Santoro; Wolter Kluwer, 2019	https://shop.wki.it/ricerca/?inizio_ricerca=zuliani%20santoro
	Safety I – Safety II. The past and the future of safety management E.Hollnagel; Ashgate, 2014	https://erikhollnagel.com/books/safety-i-and-safety-ii.html
	Human Error J.Reason; Cambridge University Press, 1990	