

If Risk Management Services



Mattias Rosengren

- *1991 -2001 Processoperatör, Nynas AB NHN*
- *2001 -2006 Civilingenjörsexamen, Kemiteknik, KTH*
- *2006 – 2010 Processingenjör, Nynas AB NHN*
- *2010 – 2011 Processäkerhetsingenjör, AGA gas, Lidingö*
- *2011 – 2015 Processingenjör/Projektledare Nynas AB JHV*
- *2015 – 2019 Riskingenjör, Zurich Insurance, STH*
- *2019 – nu Riskingenjör, If Industri, Bergshamra*



This is If

If in brief

SAMPO GROUP

Owned by Sampo plc

Listed on Nasdaq Helsinki,
Nasdaq Stockholm (SDRs)
and Nasdaq Copenhagen

Head office: Stockholm, Sweden

CEO: Morten Thorsrud

Business areas

Private, Commercial, Industrial and
Baltic



~8 200

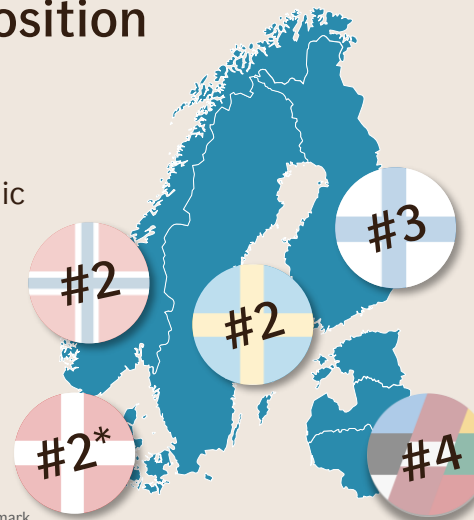
Employees (FTE)

3.9 million

Customers

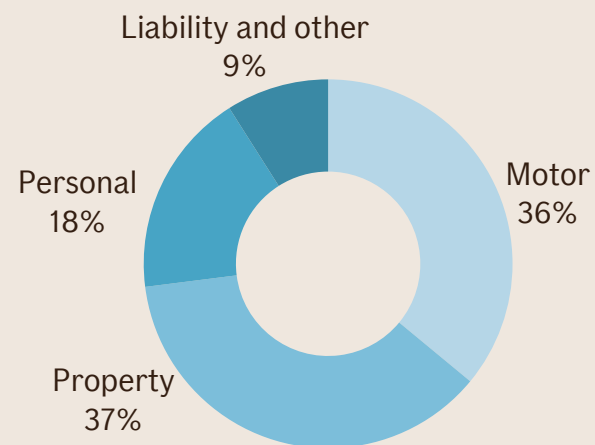
Market position

if... **#1**
Nordic



* Proforma market share If+Topdanmark
Source: National insurance association statistics

Premium by product line



Key financials

SEK 67 bn

Gross written premium 2024

83.1%

Combined ratio 2024

Rating

AA-

Rating by Standard & Poor's

Aa3

Rating by Moody's

Egendom- och Avbrottsförsäkring

- Byggnader, varor, maskinerier & inventarier
- Produktionsavbrott & internberoenden
- Kund & Leverantörsavbrott

'Plötslig och oförutsedd fysisk skada'



Hantera risker tillsammans

Vi identifierar och hanterar risker tillsammans med våra Nordiska kunder. Vi levererar försäkringslösningar, risk management och skadehantering globalt.

En djup förståelse för Nordiska företag och deras risker globalt kombinerat med en stark underwriting kompetens i alla större produktområden gör oss bäst i världen på att försäkra stora företagsrisker i den nordiska regionen.



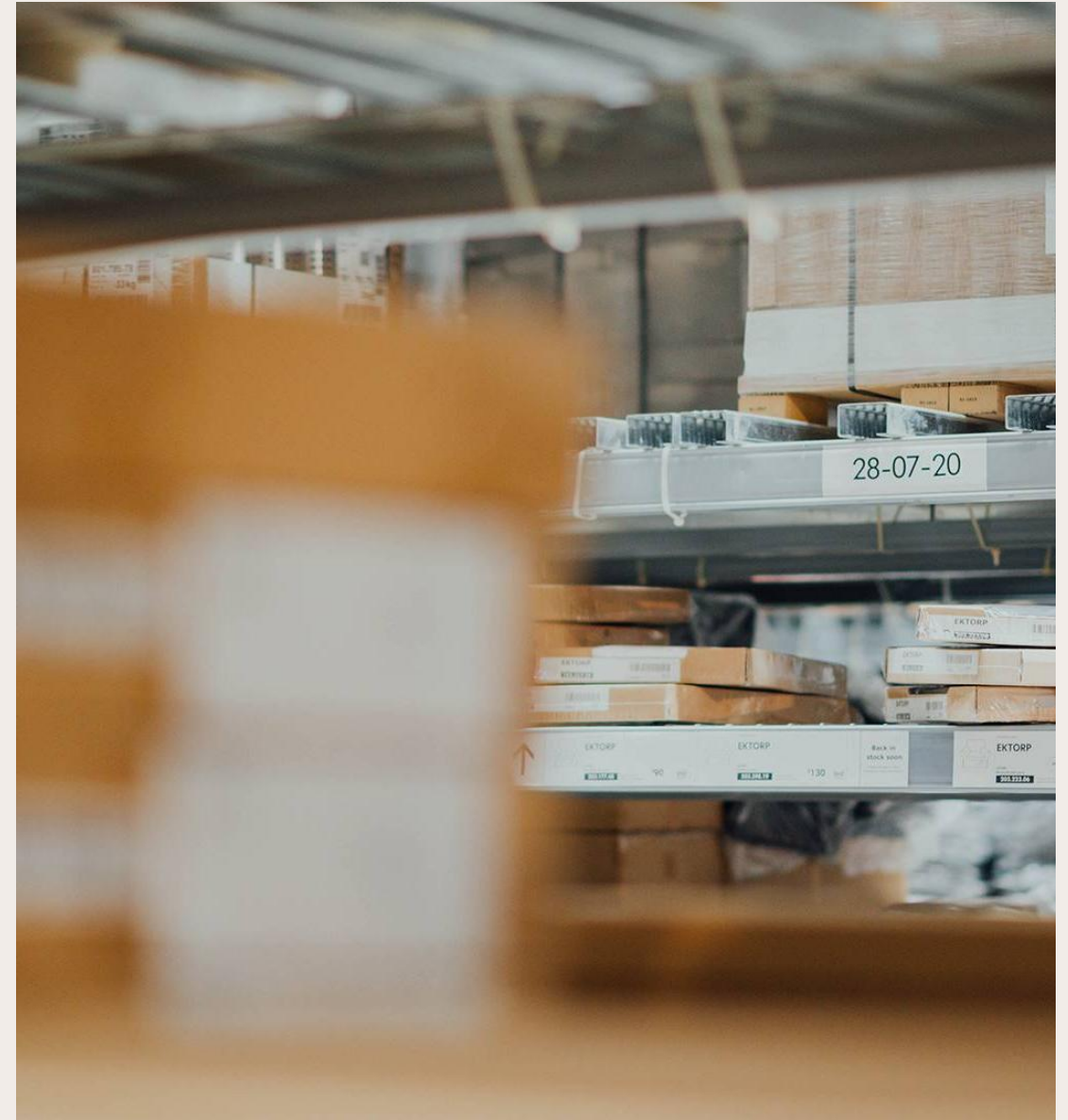
If Industrial – a forerunner in Risk Management in Europe

Den största leverantören av internationella riskhanteringstjänster inom den nordiska försäkringsbranschen.

RM-expertis inom områdena

- Egendom och avbrott
- Ansvar
- Cyber
- Frakt
- Hälsa och säkerhet

Målet för vårt riskhanteringsarbete är att skydda våra kunders verksamhet och minimera den totala riskkostnaden. Ofta inkluderar detta en grundlig riskbedömning på plats och ett skräddarsytt skadeförebyggande program som en del av våra tjänster.



Vilka är vi

- Industrial Risk Management since the 18th century
- Largest industrial insurer in the Nordic Countries



Experienced risk management experts specialized in large corporate clients



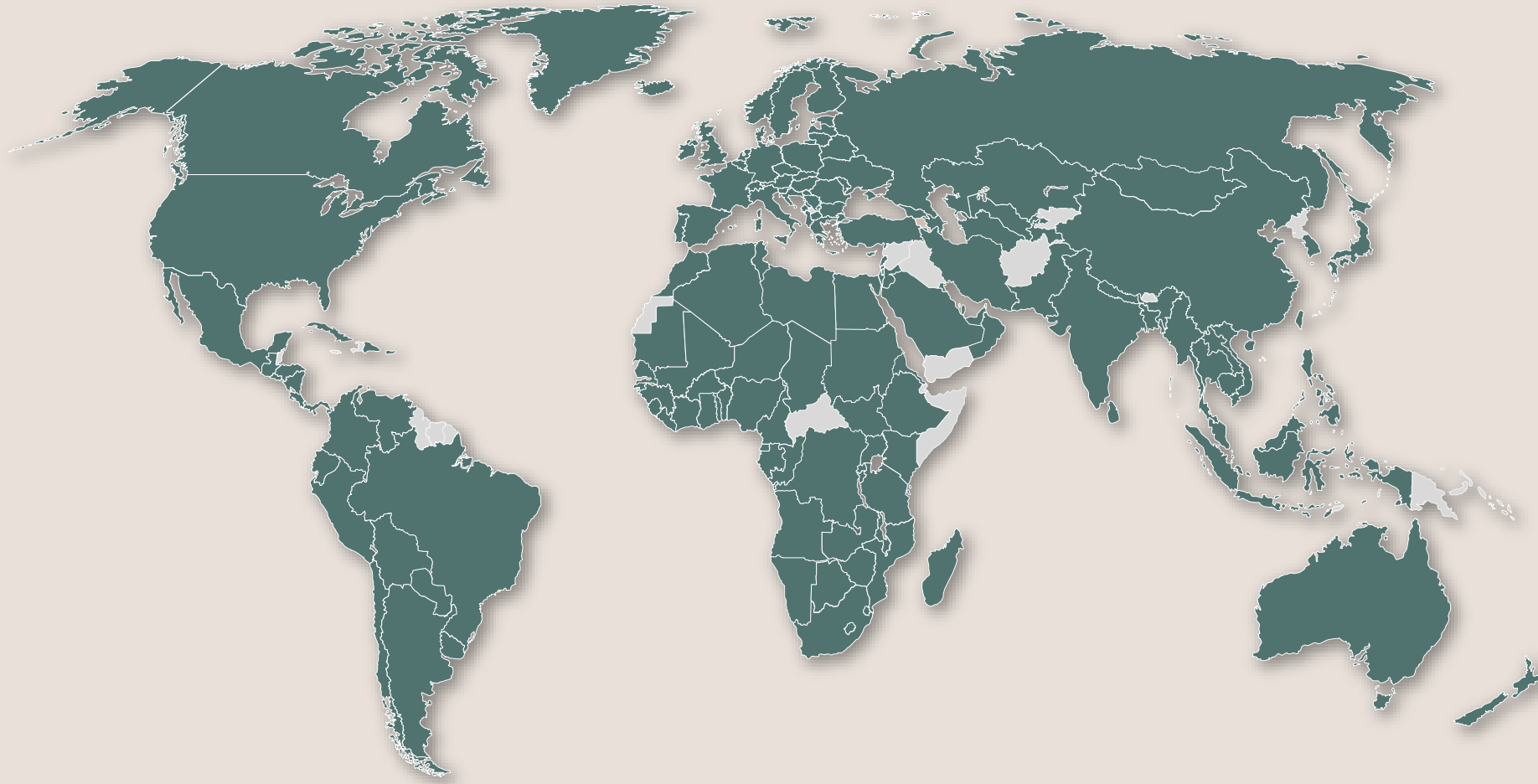
1,300

Annual visits

2,000

Days at site worldwide





Professional Risk Management on a global scale

Own representation & Partner
No active / no representation

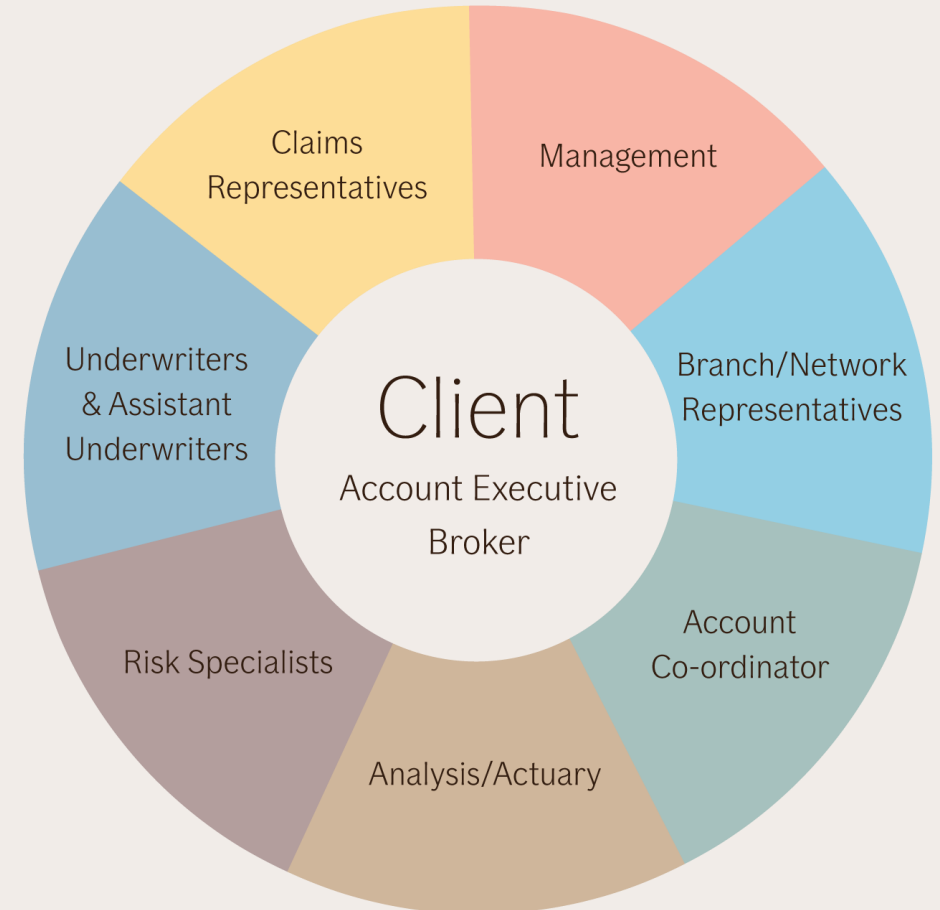


Konto-riskingenjör - del av ett kund team

Ansvar och uppgifter

Planering av tjänster

- Val av experter
- Säkerhetsställa kontinuitet
- Uppföljning av rekommendationer
- Kommunikerar uppkomna avvikelser
- Tillhandahåller risksummeringar



Sevesoanläggningar

- Typ av verksamhet
- Nivå riskhantering
- Största möjliga skada

SEVESO CHEMICAL DISASTER

"Of course we should not have made the mistakes... the Seveso accident was a prime example of the stupidity of management. Including me."

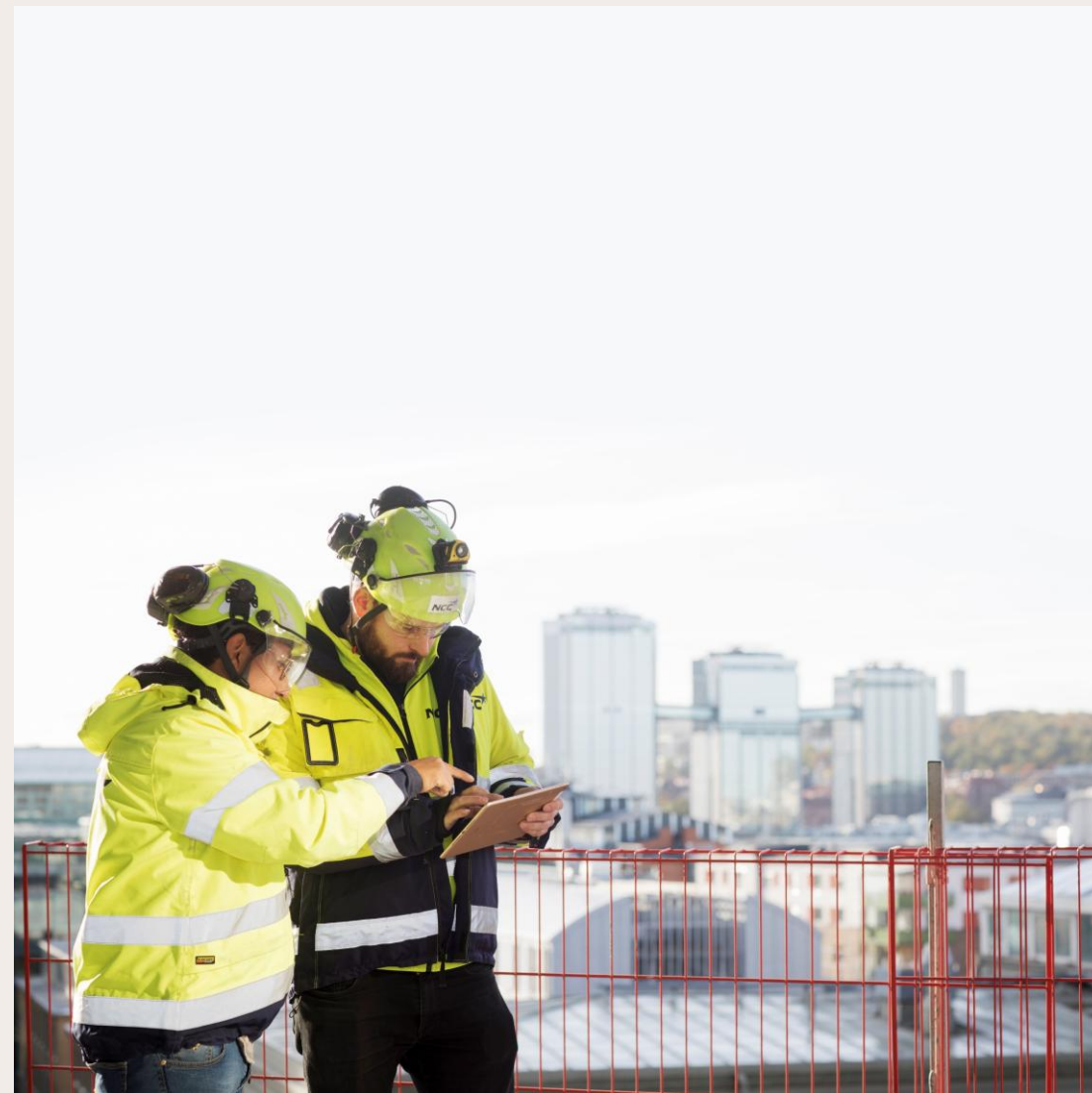
- Jörg Sambeth, technical director of ICMESA



On-site surveys

Syftet med Riskbesiktningar

- Att förstår risken som vi försäkrar
- Genomförs för att vi ska få skriva försäkring för risken
- Genomförs med en frekvens baserat på försäkrade värden och typ av risk
- Hjälpa till med riskförebyggande arbetet
- Beräkna största möjliga skada (EML)



Vart är det vi ser riskerna?

- Konstruktion/Site layout
- Speciella risker
- Spillkontroll (Loss of containment control)
- Underhåll/inspektion
- Ledningssystem
- Släcksystem
- Yttre Exponeringar
- Avbrott



'Mechanical Integrity Failure' Losses

43% av 100* analyserad storskador inom petrokemi and raffinaderier beror på mechanical integrity failure.

70% av dessa pga korrosion (utvändig eller invändig)

19% pga av flänsläckage

72% av dessa under normal drift

*Totalt 25 000 000 000 USD

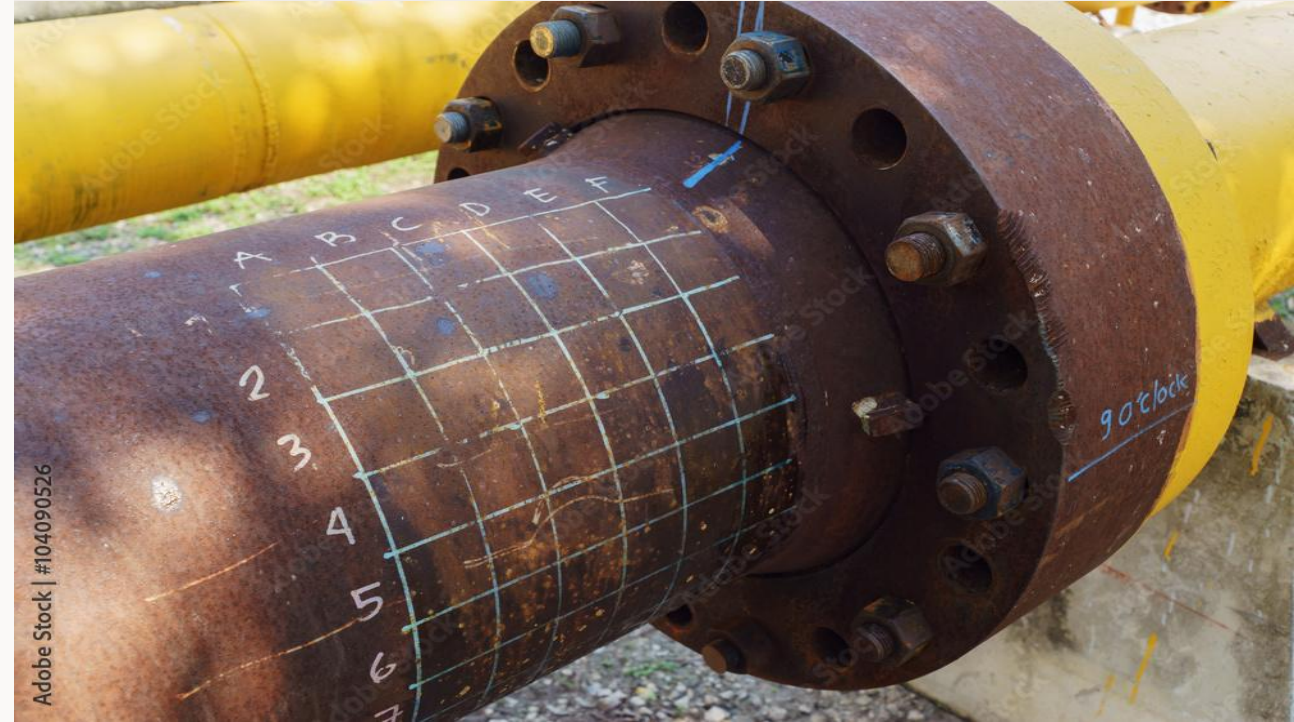


[AP Photo/Jae C. Hong]

Källa: An Analysis of Common Causes of Major Losses in the Onshore Oil, Gas & Petrochemical Industries. Ron Jarvis CEng MICheM, Risk Engineer, Swiss Re, London Andy Goddard CEng MICheM, Risk Engineer, Talbot Underwriting Ltd, London

Inspektion (mechanical integrity failure prevention)

- Underhållsorganisation/inspektion
- Inspektionsprogram (RBI, PMI, CUI)
- Flänsförbandskontroll
- Dräneringar och avluftningar
- Täthetskontroller



NECIT Unveils the Power of Non-Destructive Testing (NDT)

'Non-Mechanical Integrity Failure' Losses

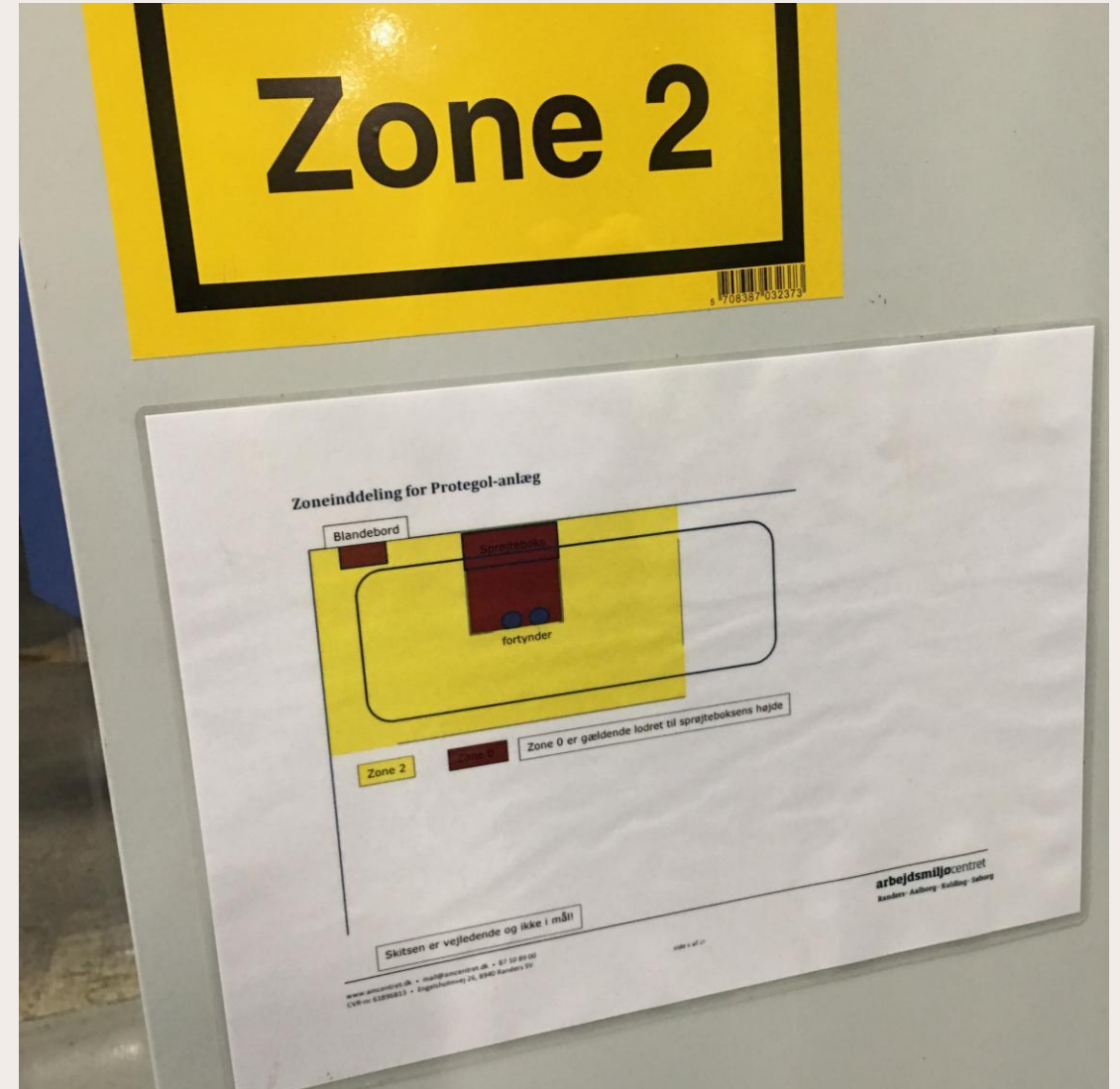
- Största delen av dessa skador sker under icke normal drift och vanligaste momentet är under uppstart.
- 44% beror på driftprocedurer och rutiner
- 37% på Control of work (säker avblindning, arbetstillstånd, säkert arbete)



Källa: An Analysis of Common Causes of Major Losses in the Onshore Oil, Gas & Petrochemical Industries. Ron Jarvis CEng MChemE, Risk Engineer, Swiss Re, London Andy Goddard CEng MChemE, Risk Engineer, Talbot Underwriting Ltd, London

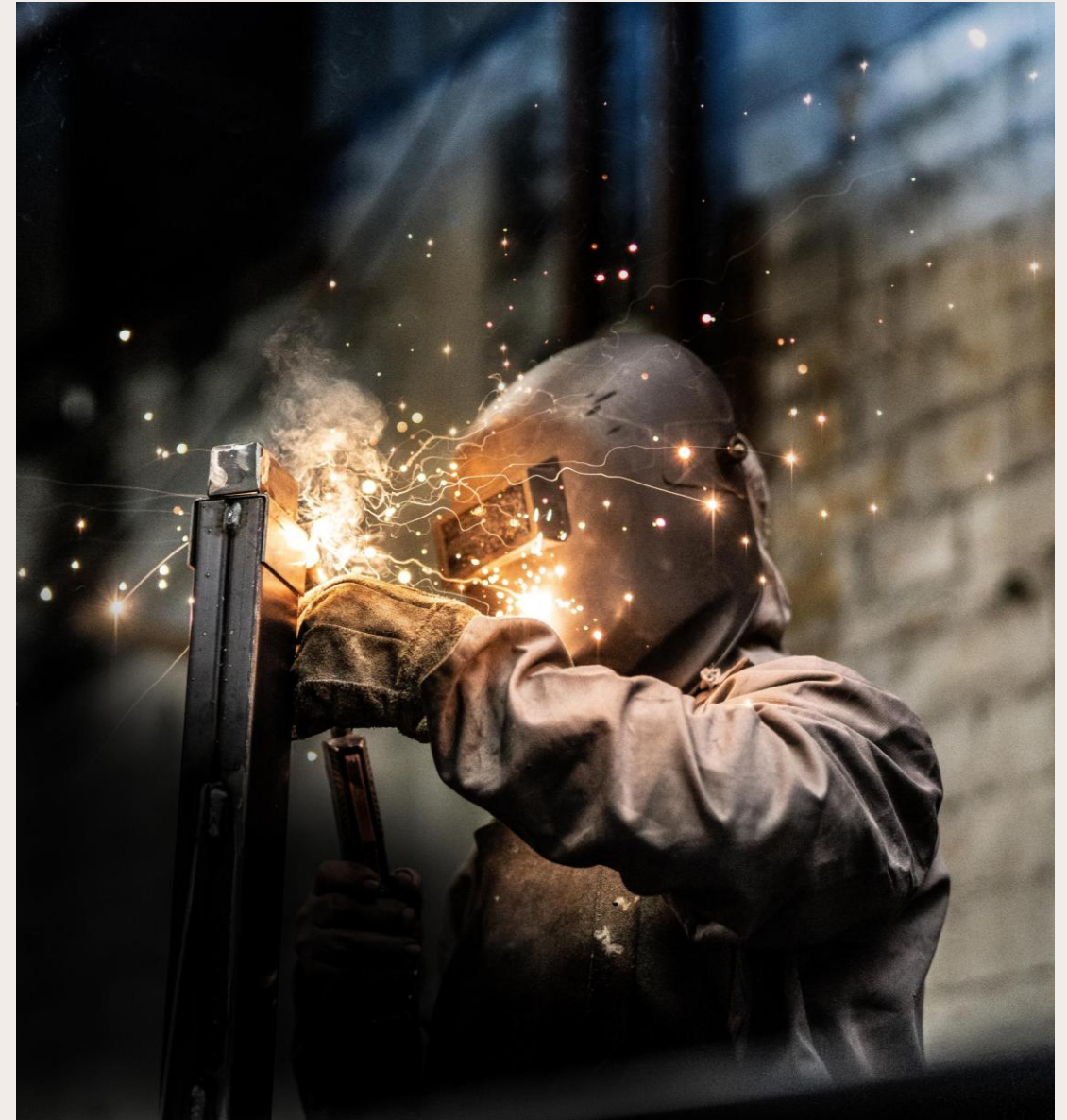
Loss of containment control

- DCS och operatörssupport (SOP, EOP, Window of operation, alarm management)
- Säkerhetsfunktioner (SIF:s, ROEIVs and Interlocks)
- Tryckavsäkringar (PSV, TSV, sprängbleck)
- Kontroll tändkällor (ATEX, separation, jordning)
- Plastic IBC:s



Ledningssystem

- MOC rutin
- Arbetstillstånd-/heta arbeten rutin
- LO/TO inkl. blindspaderutiner
- Rutiner för brandskyddssystem ur funktion
- Rutiner för bygling av säkerhetsfunktioner
- Utbildning
- Ordning och reda
- Kontroll tändkällor (EX/ATEX)
- Uppdatering hazops
- Uppdaterade P&ID:s
- Near misses, learning from losses
- Etc.



Släcksystem

- Fasta automatiska släcksystem inkl. gas
- Branddetektering
- Brandposter/vattenkanoner
- Brandvattenkapaciteter
- Insatsplan
- Intern räddningstjänst
- Extern räddningstjänst



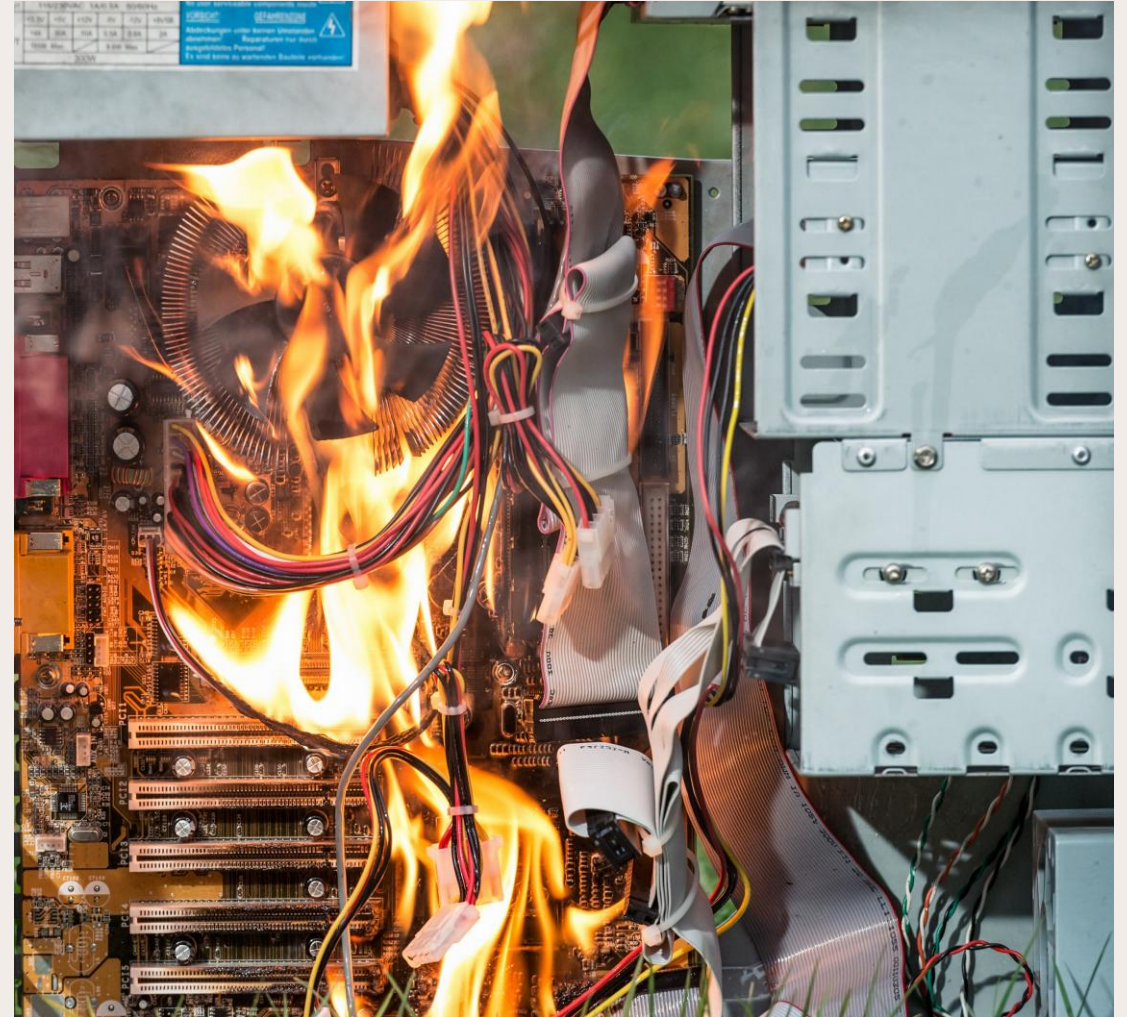
Konstruktion/site layout

- Brännbar konstruktion i byggnader
- Brännbart material i processanläggningar
- Avstånd mellan processanläggningar
- Mellan processanläggningar och tanklagring
- Invallningar, uppsamling
- Brandskydd stålkonstruktion
- Riskanalyser/hazops under projekttiden



Speciella risker

- GasolInsexplosion
- Pölbrand
- Brand i tankfarm
- Brand i lastning-/lossingsstation
- Dammexplosion
- Brand i ställverk eller andra supportsystem

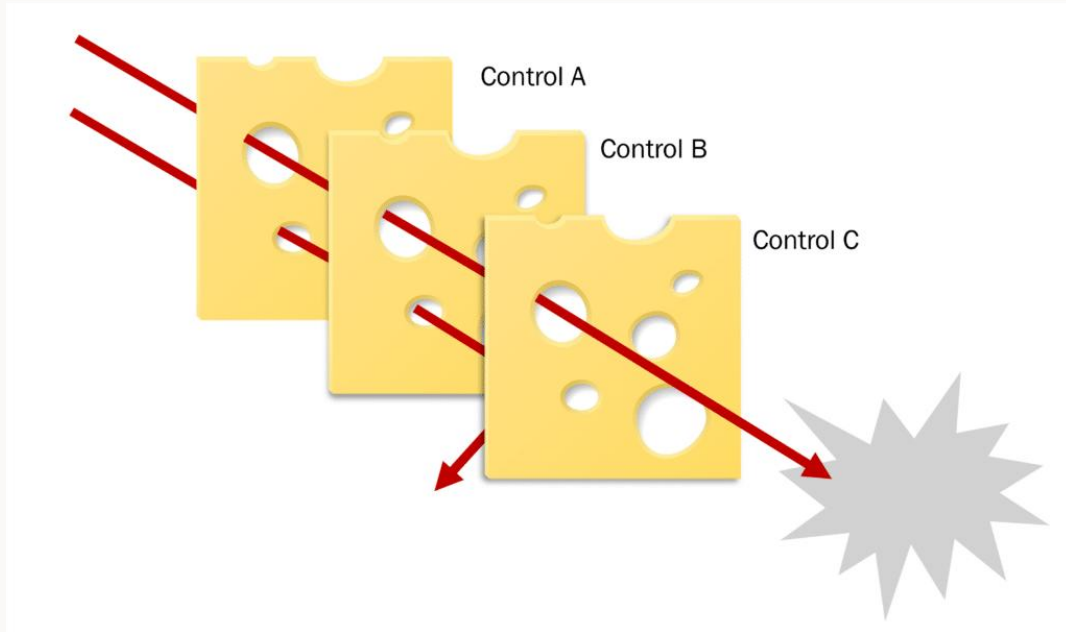


Svagheter om man tittar globalt oavsett region

- Processisolering och arbetstillstånd
 - Dokumentation
 - Ställa av utrustning för underhåll
 - Kontroll att utrustning är tryck/energilös innan man börjar arbeta
- Hantering av förändringar
 - Inkonsekvent dokumentation
 - Bristande granskning
 - Äldre anläggningar med många ändringar
 - Bristande utbildning och förståelse
- Förbikoppling av säkerhetsutrustning
 - Skyddsfunktioner och larm
 - Förståelse
- Kompetens
 - Operatörsdisciplin (följa rutiner varje dag under press)
 - Personalomsättning
 - Kunskapstapp

Referens: Marsh Global Refining and Petrochemical risk quality benchmarking, February 2025

Vid stora skador är det ofta flera skyddslager som brister.



**Figure 11. Reasons for sprinkler failure:
2017–2021 annual averages**

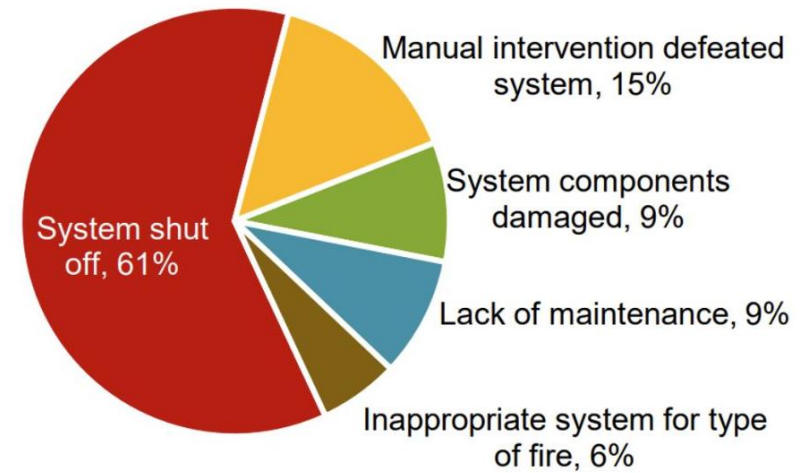


Figure from NFPA Research Report "U.S. Experience with Sprinklers."

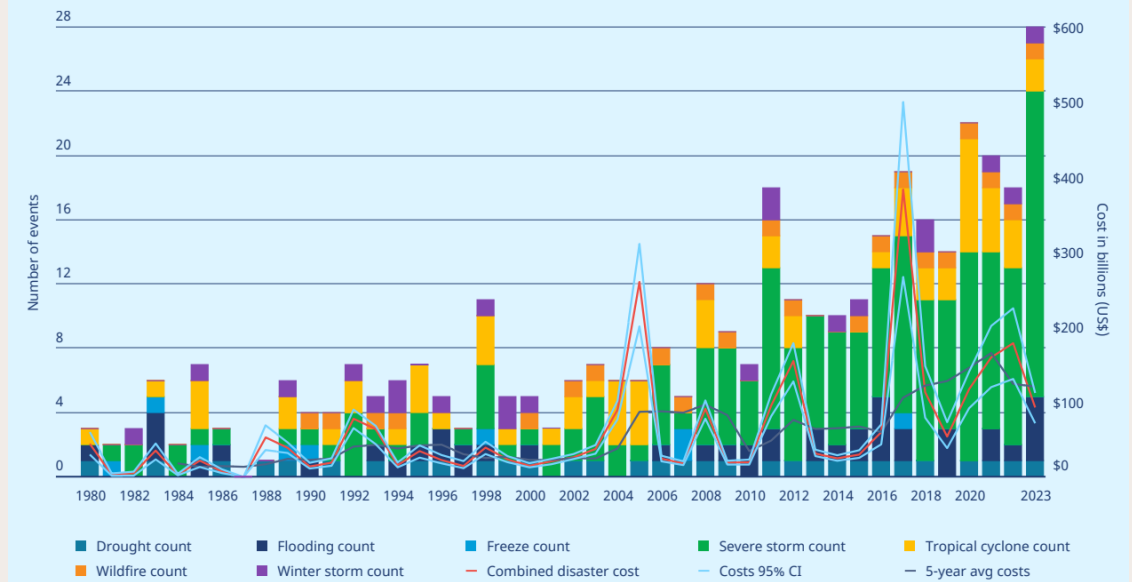
Yttre exponeringar

- Naturskaderisker
- Riskverksamheter i närområdet
- Inbrott/anlagd brand



03| US billion-dollar disaster events 1980-2023

CPI adjusted



Data source | National Oceanic and Atmospheric Administration

Maskinavbrott

- Underhållssystem
- Kritiska reservdelar
- Vibrationsmätningar
- Termografering ställverk
- Oljeanalyser transformatorer
- Förebyggande underhåll



Avbrott

- Kritiska maskiner
- Kritiska leverantörer
- Produkt- och råvarulager
- Backupkapacitet inom gruppen
- Internberoenden

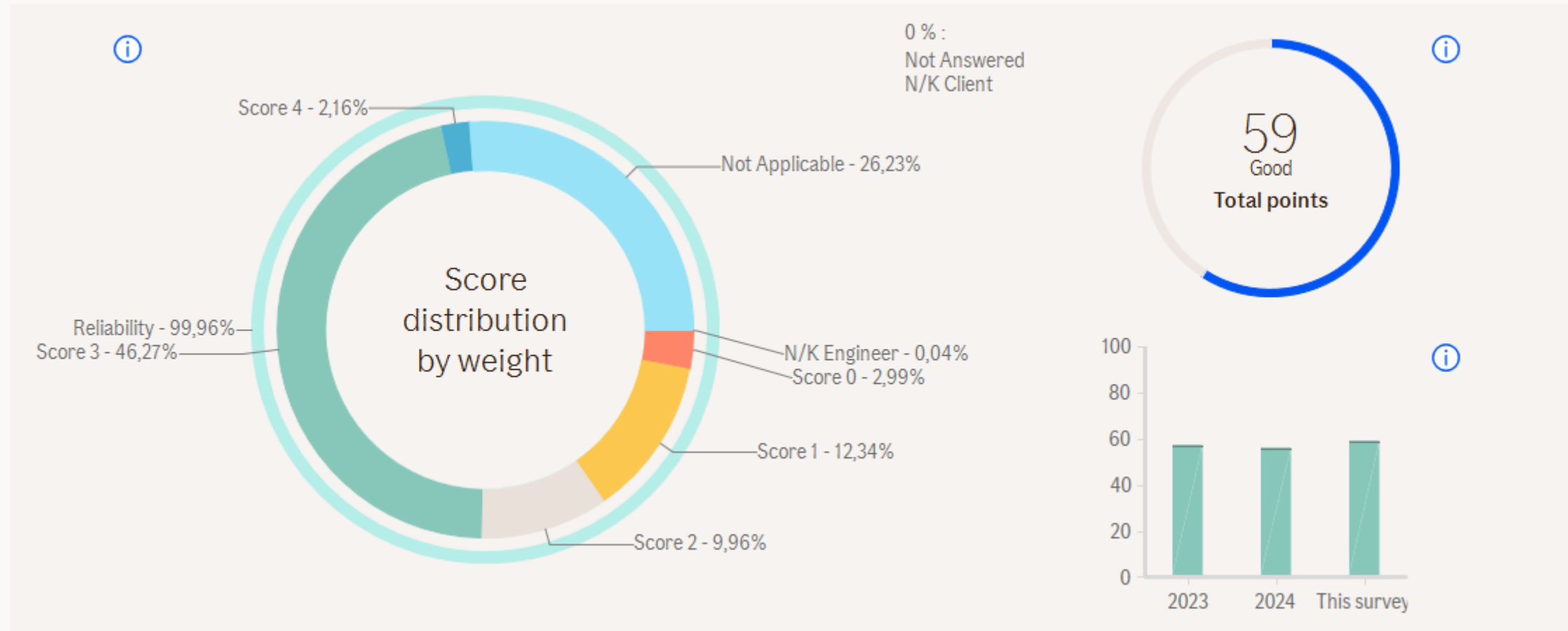


Riskfaktorer

	● Excellent ● Good ● Average ● Fair ● Poor ● N/A ● Unknown		
	2024	2023	2022
Construction	● Fair Fair	● Good Good	● Good Good
Occupancy	● Good Good	● Good Good	● Good Good
Human element	● Excellent Excellent	● Excellent Excellent	● Good Good
Protection	● Good Good	● Good Good	● Good Good
Exposure	● Average Average	● Average Average	● Average Average
Special Hazards	● Good Good	● Good Good	● Good Good
BI - site level	● Good Good	● Good Good	● Average Average
BI group-level	● Poor Poor	● Poor Poor	● Poor Poor

Average = Western European Standard quality

Risikfaktorer summering



The scoring of the Navigator is based upon a principle of an **Average** risk, with conditions at site being judged in comparison to the average. Where conditions are worse or much worse the grading will be "**Fair**" or "**Poor**" respectively. Similarly, if conditions are better or much better than average the grading will be "**Good**" or "**Excellent**".

Skadescenarier

- EML – Estimated Maximum Loss
- NLE – Normal Loss Expectency
- Machinery Breakdown Loss



Texas City, Texas 1989 - Safety Health Environment Consulting | Salt Lake City | ARGO Safety, Health, & Environment Solutions

Risk Management Library

Bookshelves where you can quickly find material on the same topic

- Help and advice on risk management
- Self-service (e.g. info-sheets)
- Articles and publications
- Videos and digital learning contents
- Useful links



if-insurance.com/rmlibrary


Risk Management Library

Managing risks together, digitally!

Welcome to If's risk management library. Here you can find digital contents and articles to support your own risk management and loss prevention activities.



What are you interested in?

The following topics and themes are available on the library's bookshelves.


Cyber risk management
→


Hybrid work
→


Li-ion batteries
→


Safe workday
→


Sustainable risk management
→


Travel related risks
→


Wellbeing
→


Learning Hub
Here you can find all digital courses
→

Join our community!

Gain insights and risk management expertise from your insurer through Risk Consulting magazine. Subscribe also to If News and get the latest articles directly to your mailbox.

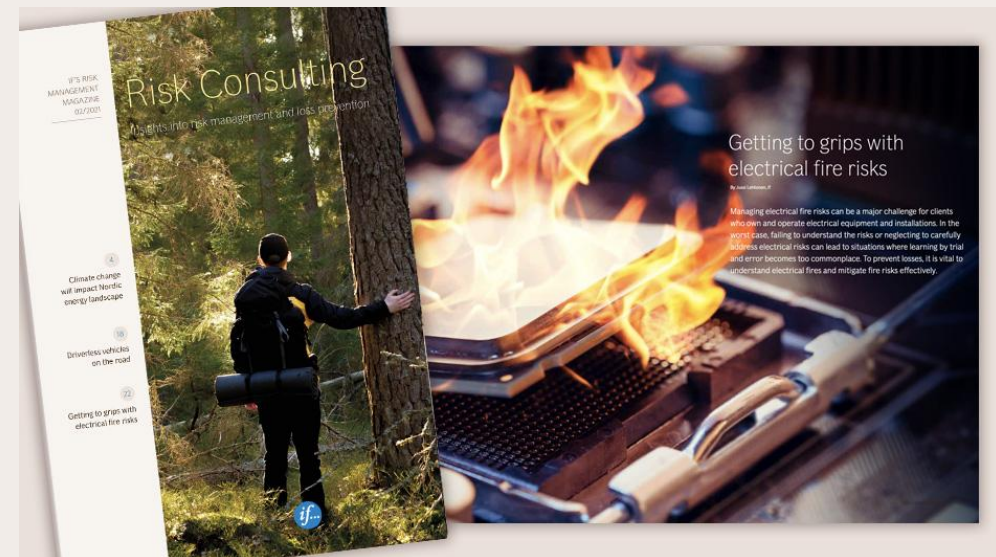

If News


All issues of Risk Consulting



Information sharing

- Risk Consulting Magazine
- If News
- Reports on Loss preventions solutions
- Emerging risks
- Loss drivers
- Client events



Risk management research activities

Industrial





Applied RM research in
cooperation with
universities, clients and
research institutes

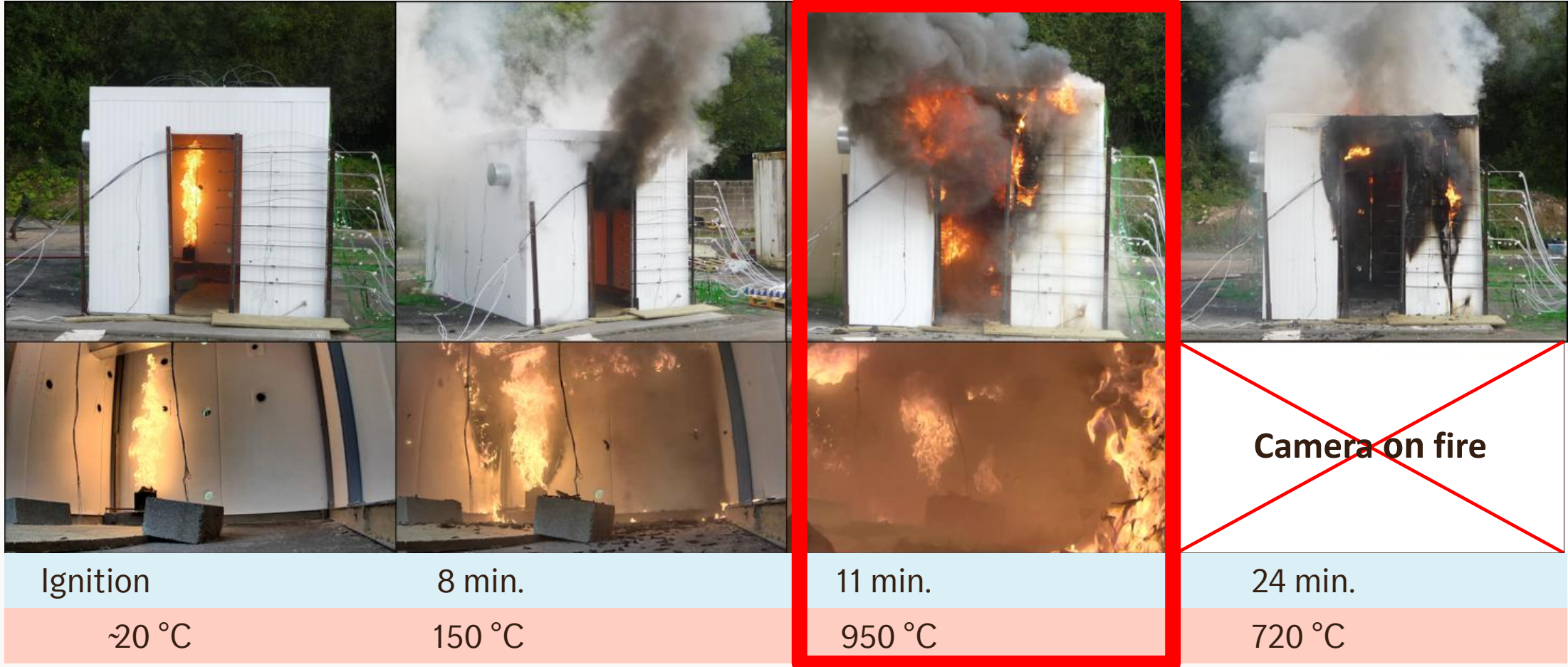
Areas where we do research to increase risk knowledge

- Renewable energy and energy distribution
 - Li-ion batteries
 - PV panels
 - Climate change effects
- Active protection
 - Foam system , Oxygen Reduction
 - Water mist
- Passive protection and building structures
 - Fire sectioning
 - Insulation



Example: Combustible construction – PIR test

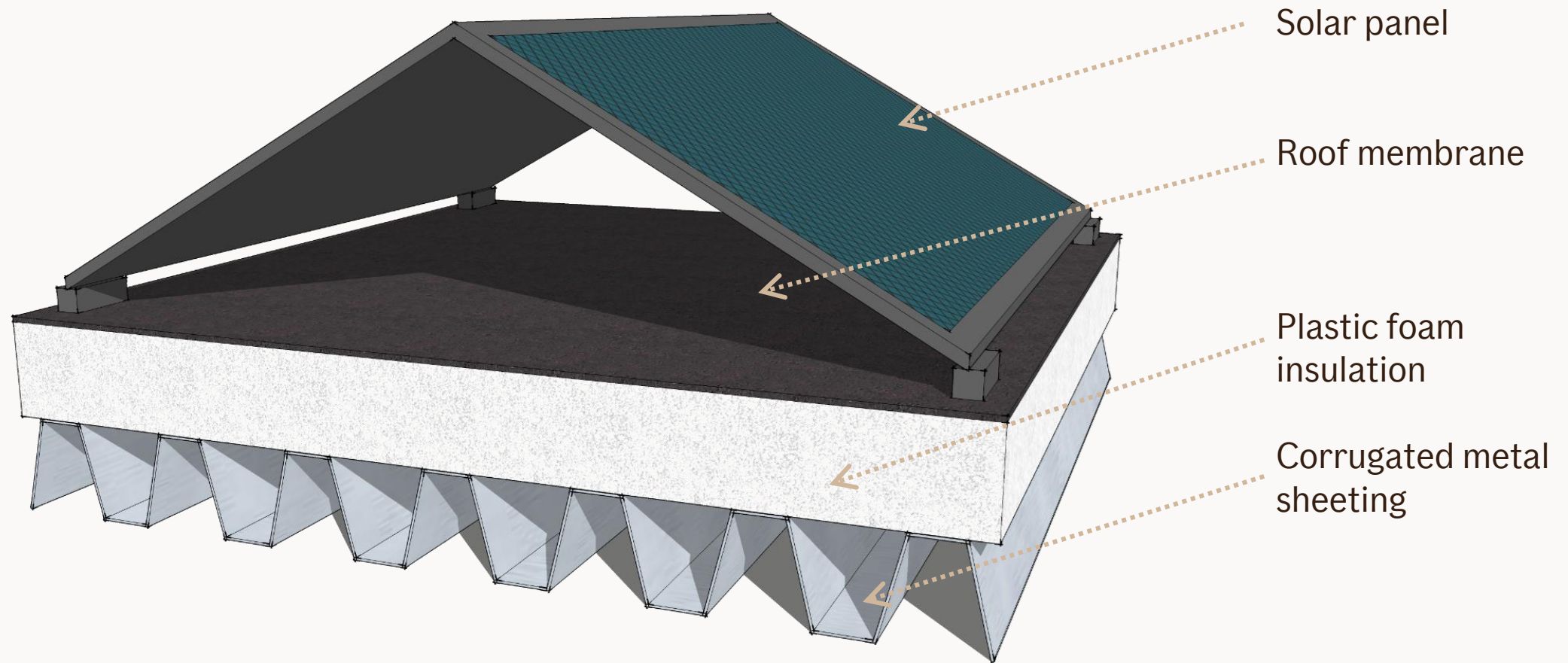
Flashover





Solar panels on
combustible roofs – fire
test together with IKEA

An example of an industrial roof structure



Mitigation tests

Glass
wool
test



PIR
test



Fire door tests



Fire Doors and Shutters

What is the hazard?

Fire doors and shutters play a critical role in maintaining the integrity of a fire wall or other type of fire separation. If a fire door or shutter is not closed or fails to close properly, fire and smoke could spread from one fire compartment to another, thereby increasing the property damage and the resulting business interruption. The fire door, as part of the fire division walls and thus the fire safety of the building, are also vital in ensuring the safe evacuation of the persons present in the building.

How to reduce the risk

The following applies mainly to industrial and commercial buildings.

The fire door or shutter should have the same fire resistance rating as the fire division wall in question. This rating (e.g. "REI 120") should be indicated on the door or the shutter.

The fire doors and shutters should be maintained in good condition

- Adequate documentation should be available showing the fire rating of each fire door or shutter, the type and frequency of inspections with their results and the performance of annual maintenance.
- The annual inspection and maintenance work should be provided and carried out by competent personnel.



Penetrations in Fire Rated Walls and other construction elements

What is the hazard?

Open penetrations in fire rated walls are a common hazard found in most occupancies. Despite their often insignificant appearance, there is the potential risk of fire and smoke spreading through the penetration, from one fire section to the next. Fires can also spread vertically and therefore the sealing of penetrations through floor and ceiling constructions is of particular importance. The fire sealing method mentioned in this document is also known as fire stopping. Even if the



Picture shows an example of unsealed penetrations through a fire rated wall.



Fire dampers

What is the hazard?

If the dust extraction system has an air speed of 10 m/s or more then it is important that the extraction is shut down when the dampers are activated. This prevents the build-up of negative pressure in the ducts and will eliminate the risk that the ducts will implode or collapse.

All openings in walls, floors and ceilings have the potential to be weak spots in fire separations. Unprotected openings allow heat and smoke to spread through a fire separation into adjacent fire compartments. Heat may be conducted by metal parts (e.g. a ventilation duct) which could result in the ignition of combustibles located in the adjacent fire compartment.

How to reduce the risk?

Fire compartmentation provides an opportunity to limit a fire to a manageable size. However, it is typical that cables, pipes, conduits, ducts etc. are needed for the building installations or production equipment. To maintain an effective, fire separation every opening should be adequately protected.



Tack!



By your side