



# Inergen®

An eco friendly fire extinguish system,  
does it exist?

Why look to Inergen® when  
sustainability & safety are of the essence.

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## Millions of websites offline after fire at French cloud services firm

By Mathieu Rosemain, Raphael Satter

3 MIN READ



PARIS (Reuters) - A fire at a French cloud services firm has disrupted millions of websites, knocking out government agencies' portals, banks, shops, news websites and taking out a chunk of the .FR web space, according to internet monitors.

None of us want such an experience. How to avoid it?



# Agenda






- Inergen - the clean agent fire suppression system.
- How Inergen works and why Inergen is eco friendly and 100 % safe for people.
- How Inergen will help secure your business continuity.
- Best-practice in environmental, safe workplace, as well as corporate governance with Inergen.

Short about  
me...

# Who is Fire Eater...



## Highlights about us...

-  International company from 1974 located in Hillerød, Denmark.
-  100 % dedicated to fire protection solutions with Inergen.
-  We are known for our quality, innovation, safety, sustainable approach and our high level of service.



No fire, No danger, No damage

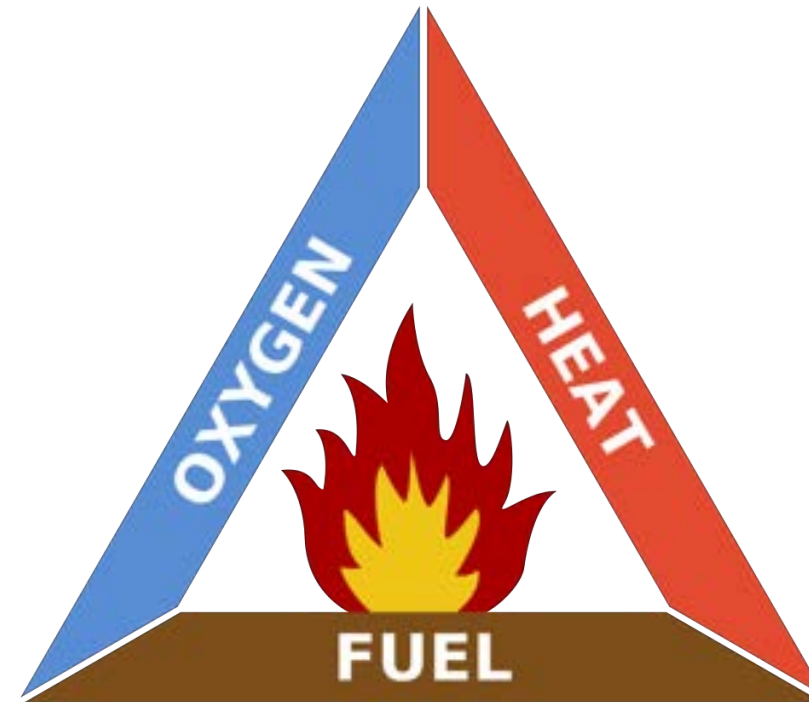
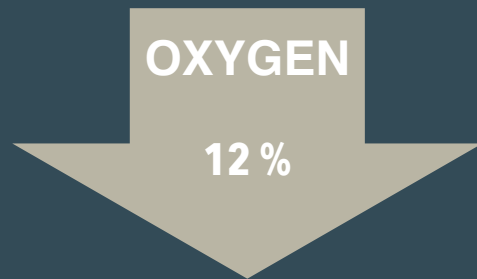
# Secure your business continuity



How to ensure that your choice of fire extinguisher meets the UN's sustainability goals, both before and after a fire?



How Inergen works  
and why Inergen is  
eco friendly and  
100 % safe for  
people



**Inergen** extinguishes a fire by blending a mixture of natural gases into the room, thus lowering the oxygen level from 20.9 % to approx. 12 % that suffocates the fire with a good safety margin.

# Extinguishing with Inergen

## Benefits of Inergen:

- 🔥 Can effectively extinguish even "hidden" fire
- 🔥 No consequential damages.
- 🔥 If persons remain in the room during extinguishing, they will suffer no harm due to the Inergen discharge.



# What is Inergen?

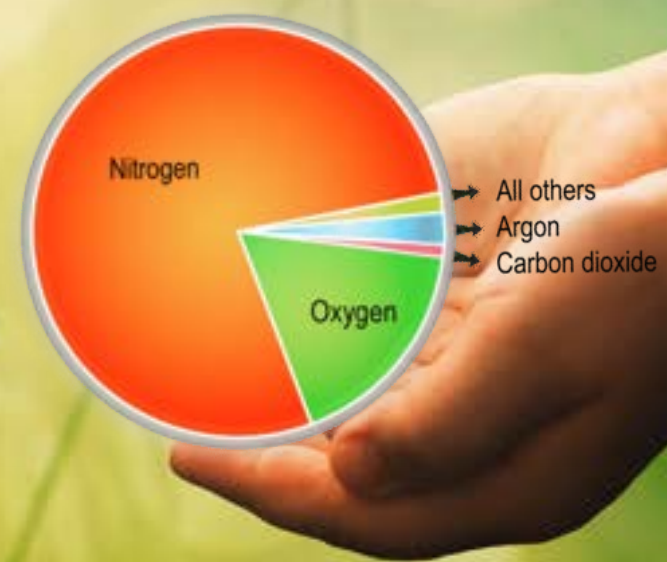


**Inergen**  
52 % Nitrogen  
40 % Argon  
8 % CO<sub>2</sub>

**Ordinary atmospheric air**  
78,1 % Nitrogen  
20,9 % Oxygen  
0,9 % Argon  
0,037 % CO<sub>2</sub>

## Ordinary atmospheric air

Inergen is a mixture of natural gases which has no harmful effect on the environment or humans.





# How Inergen works and why Inergen is safe for people.



## What personal safety is not...

- ❶ The international standards (e.g., NFPA2001, EN15004) do not address the personal safety reflecting the effect of the individual agents in realistic real-life scenarios.
- ❷ What requirements should one set for personal safety?
  - ❶ One should be able to breathe in an extinguishing concentration without being harmed in the short or long term.
  - ❷ The gas, together with heat, must not produce thermal decomposition products.
  - ❸ Give the employees peace of mind by experiencing full-scale tests! It should be mandatory.
  - ❹ Installing an agent that can be full-scale tested, will provide certainty that every aspect can be documented, and that the solution is not providing false safety.

# Inergen and respiration

## How Inergen works...

- 🔥 Inergen extinguishes a fire by lowering the oxygen concentration from 21 % to approx. 12 %.
- 🔥 At the same time, the critical body organs (brain, heart) need the correct oxygen supply.
- 🔥 Inergen has a small content of CO<sub>2</sub>, which secures that the Oxygen supply to the critical organs, is not decreased when the inspired Oxygen is reduced from 21 % to 10-14 %.



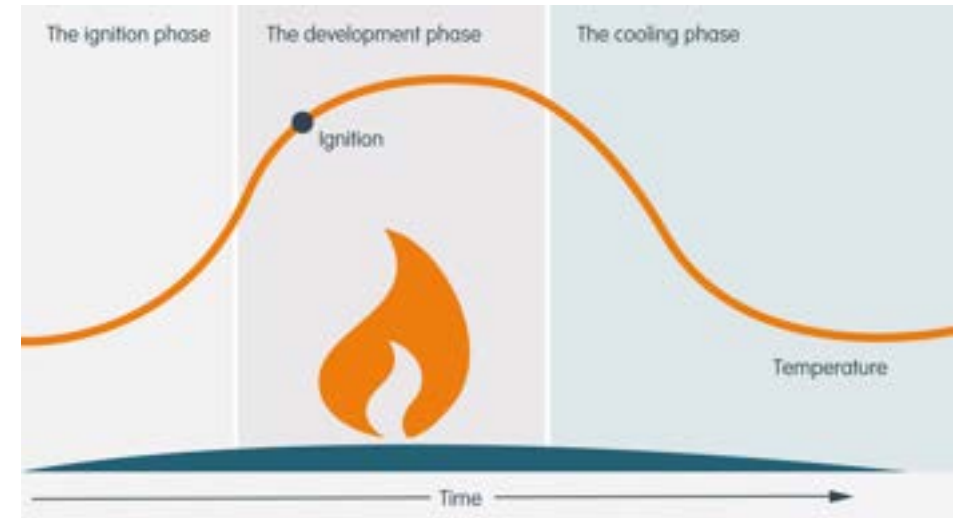
exercise and respiration

# Early extinguishing efforts are crucial

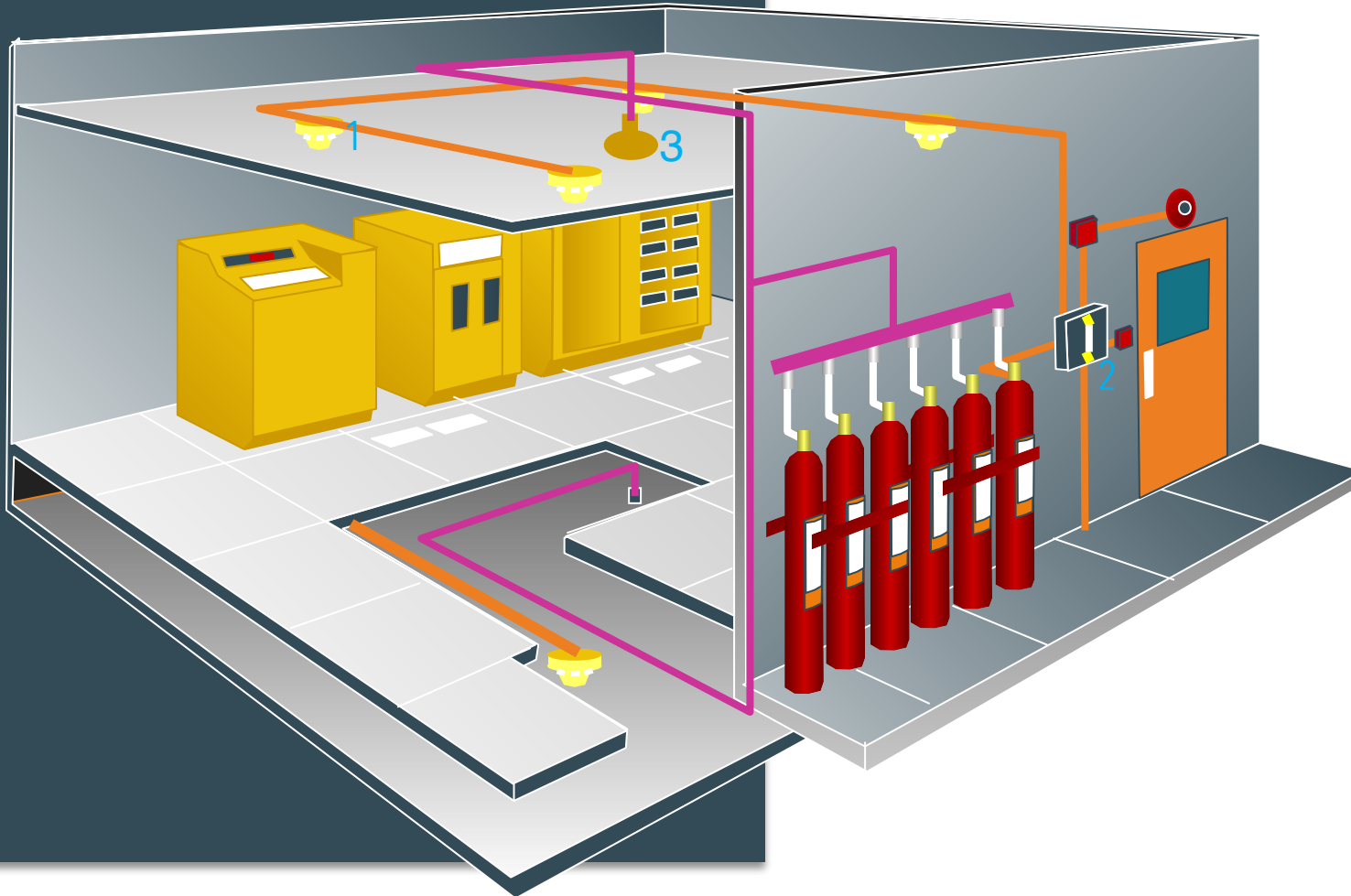


Early intervention is essential...

- 🔥 An Inergen system is activated by smoke particles in the air.
- 🔥 Early detection is of critical importance to both life safety and prevention of damages to equipment.
- 🔥 Early detection in combination with an efficient and clean extinguishing system will secure business continuity.



# Inergen system



1. Detector
2. Control panel
3. Nozzle
4. Inergen pressure bottles

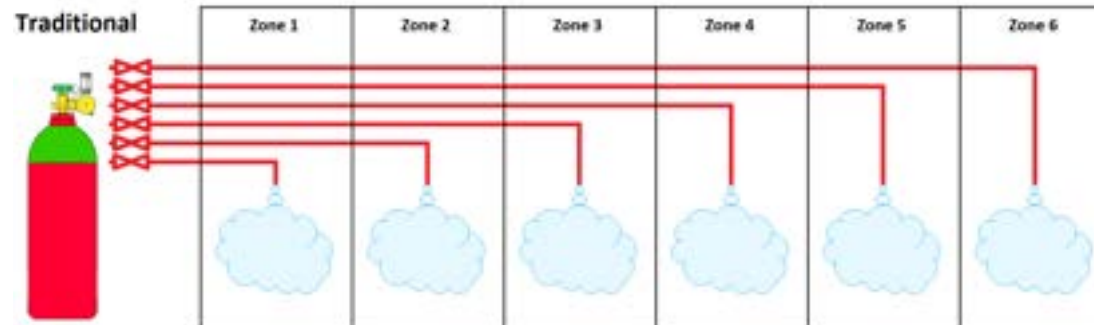
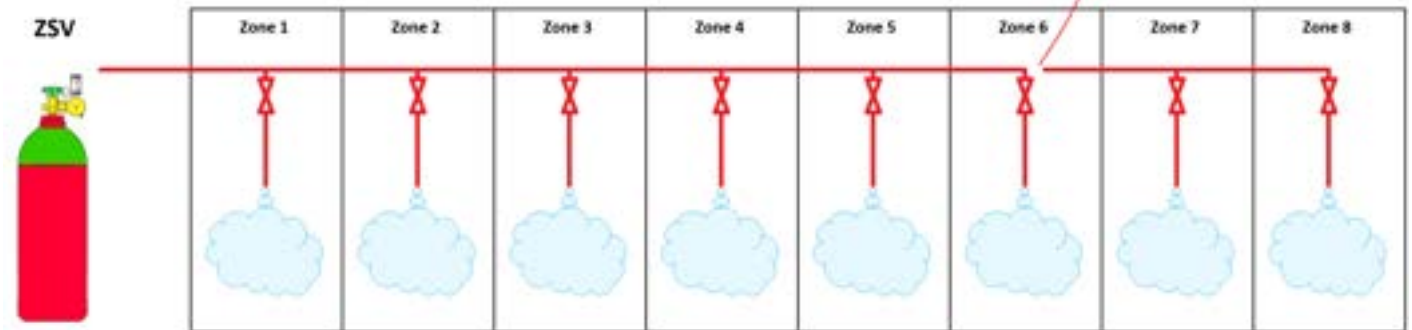
One cylinder bank  
-multiple zones



Innovation

## The ZSV zone valve

Less piping with our ZSV zone valve.  
Easy to add on new zones later on.



# Reference projects with the ZSV zone valve



Innovation

## Inka

Production & warehouse  
9 zones / 68 cylinders



## IVAR

Waste sorting plant  
17 zones / 1224 cylinders



## Drytech

Production & warehouse  
12 zones / 201 cylinders



# ESG is in our DNA





Inergen®  
for a sustainable  
future



# Total safety for your data center



- 🔥 Fire Eater invented Inergen and introduced the first Inergen systems to the market in 1989.
- 🔥 We focus on Inergen and include important system features in every system, which are unique to Fire Eater:
  - 🔥 Every valve can be 100 % tested for functionality and documented during periodical service/maintenance inspections.
  - 🔥 We supply nozzle silencers to control noise during discharge. Our latest development is keeping noise as low as 85dB-A.
  - 🔥 Local zone valves minimizing the amount of pipework.
  - 🔥 ContinuOxy reducing residual risk. Sil-2 or SIL-3 compliance is possible.
  - 🔥 Pressure switch monitoring of each cylinder.

Innovation

Gassco  
protected with Inergen...



Data centers  
protected with Inergen...



Ksatt - Svalbard  
protected with Inergen...



Troll research station - Antarctica  
protected with Inergen...





# Summery



- 🔥 Inergen from Fire Eater is the preferred fire protection solution for many data centers all over the world.
- 🔥 It is a futureproof and sustainable solution which is safe for people, buildings and valuables as data equipment.
- 🔥 We are offering our solution worldwide and we are ready to support you.

# Questions

