FIRESUPPRESSION LTD

VESDA, FIRE DETECTION & FIRE SUPPRESSION

Clean Agent
Fire Suppression Alternatives

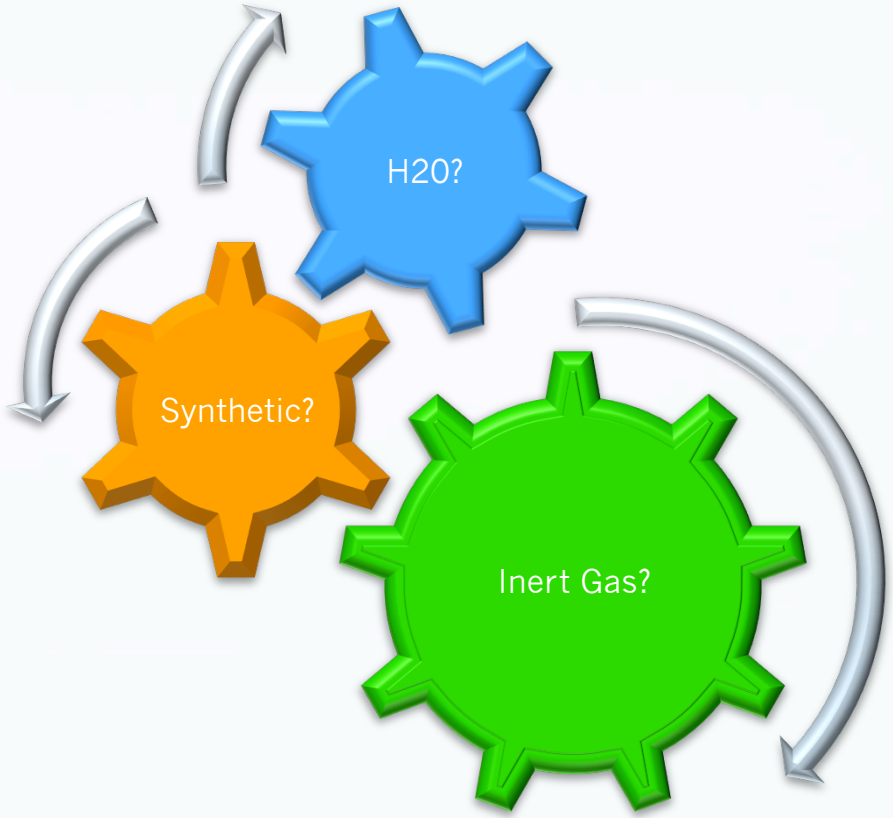
Comparison

Inergen Clean Agent Systems

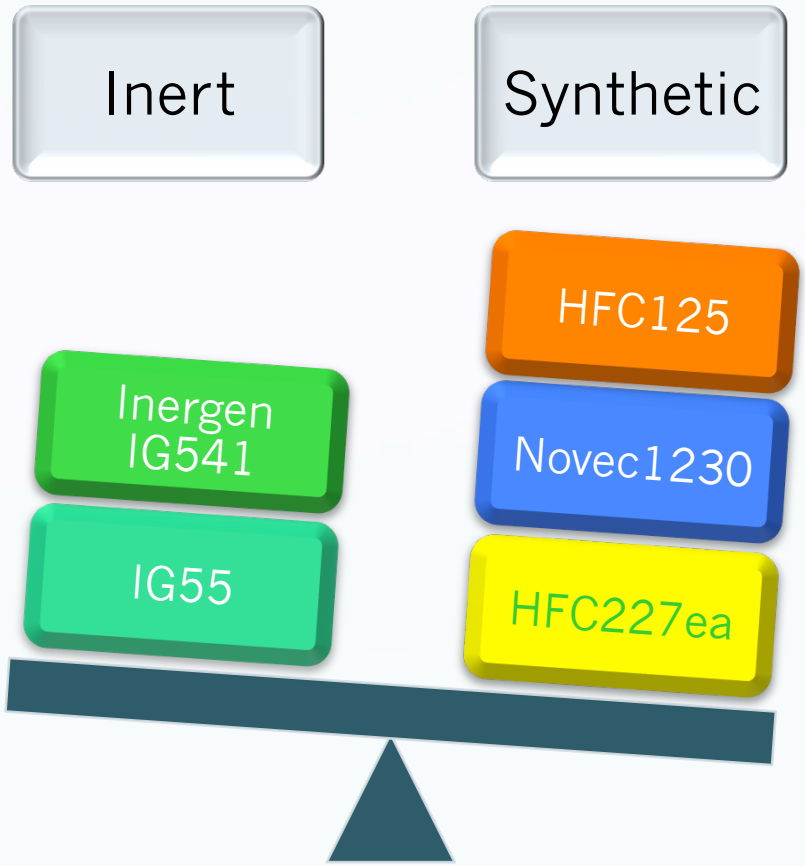
IG55

Novec1230

FM-200®



Which System Is *The Best* ?



Fire Suppression Agent Comparison

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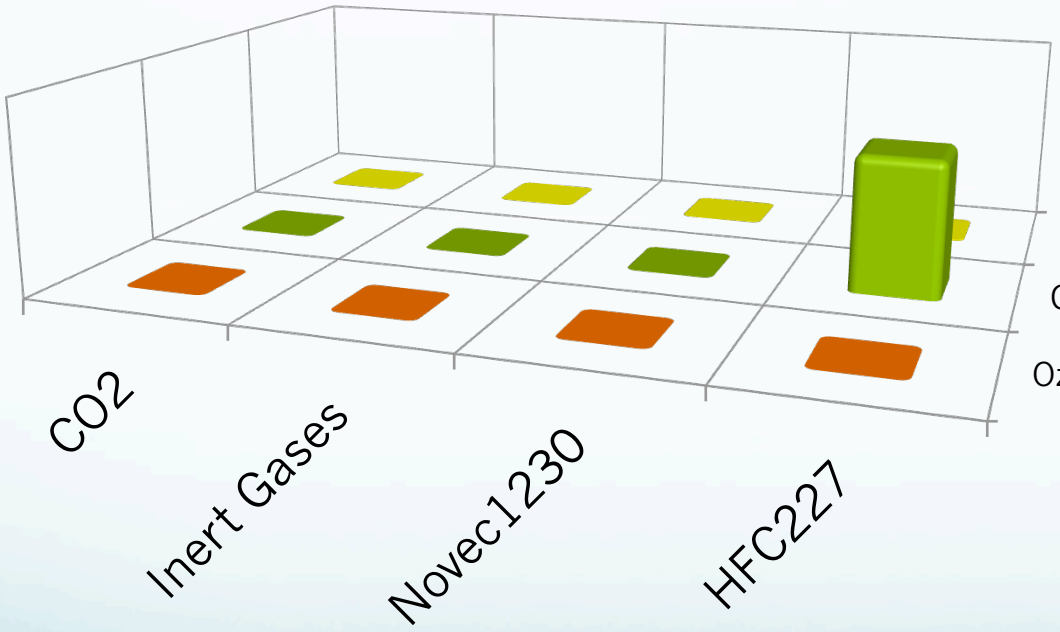
ENVIRONMENT

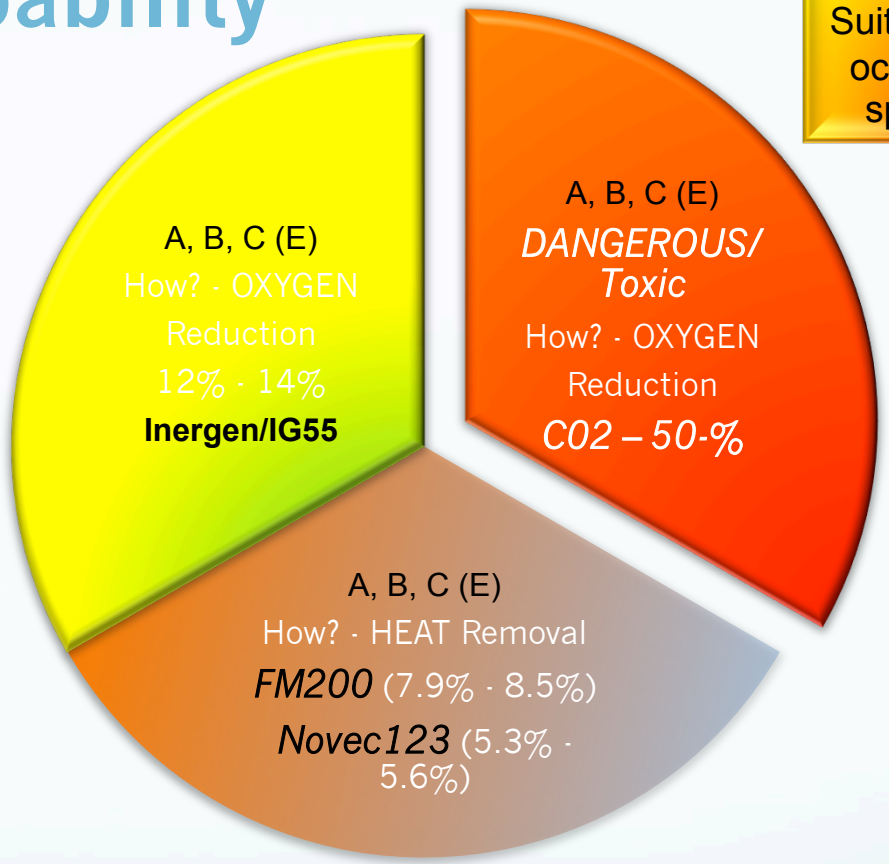
Although these figures represent the agent itself, it does not take into account the GWP of the manufacturing of the cylinders

	OZONE DEPLETION FACTOR	GLOBAL WARMING POTENTIAL	ATMOSPHERIC LIFE TIME
CO_2	0	n.a.	n.a.
Inergen	0	n.a.	n.a.
IG-55	0	n.a.	n.a.
Novec1230	0	1	0,014 years (5 days)
FM-200	0	3500	33 years



	CO2	Inert Gases	Novec1230	HFC227
Ozone Depletion Factor	0	0	0	0
Global Warming Potential	0	0	1	3500
Atmospheric Lifetime	0	0	0.014	33

Extinguishing Capability



* not effective on ...
  - class A deep seated fires
  - chemicals containing their own supply of oxygen (cellulose nitrate)
  - chemicals capable of auto-thermal decomposition

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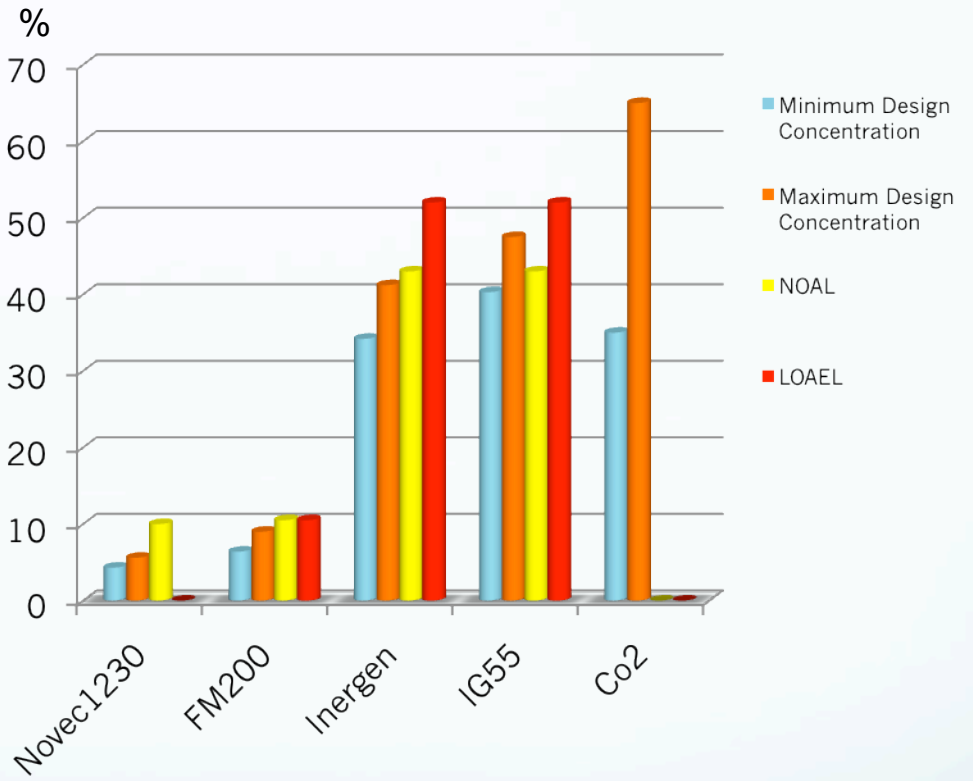
Human Safety

	Design Concentration	NOAEL	LOAEL
Novec1230	4,2% - 5,9%	10%	>10%
FM-200®	6,4% - 9,0%	9%	10,5%
Inergen®	34,2% - 41,2%	43%	52%
IG-55	40,3% - 47,5%	43%	52%
CO_2	35% - 65%	5%	n.a.



- NOAEL - No observable adverse effect level
- LOAEL - lowest-observed-adverse-effect-level

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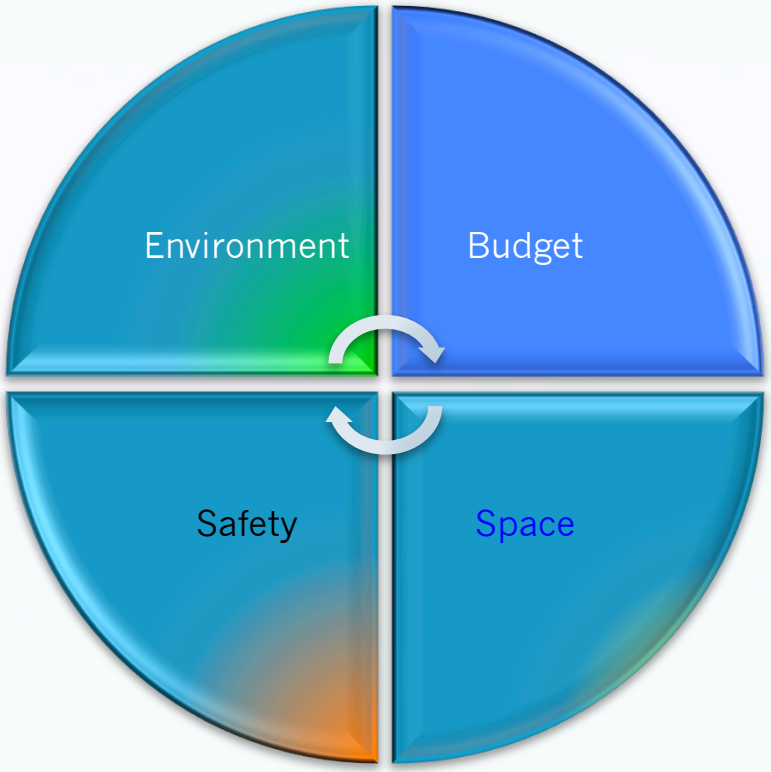

Fire Suppression Decision Factors

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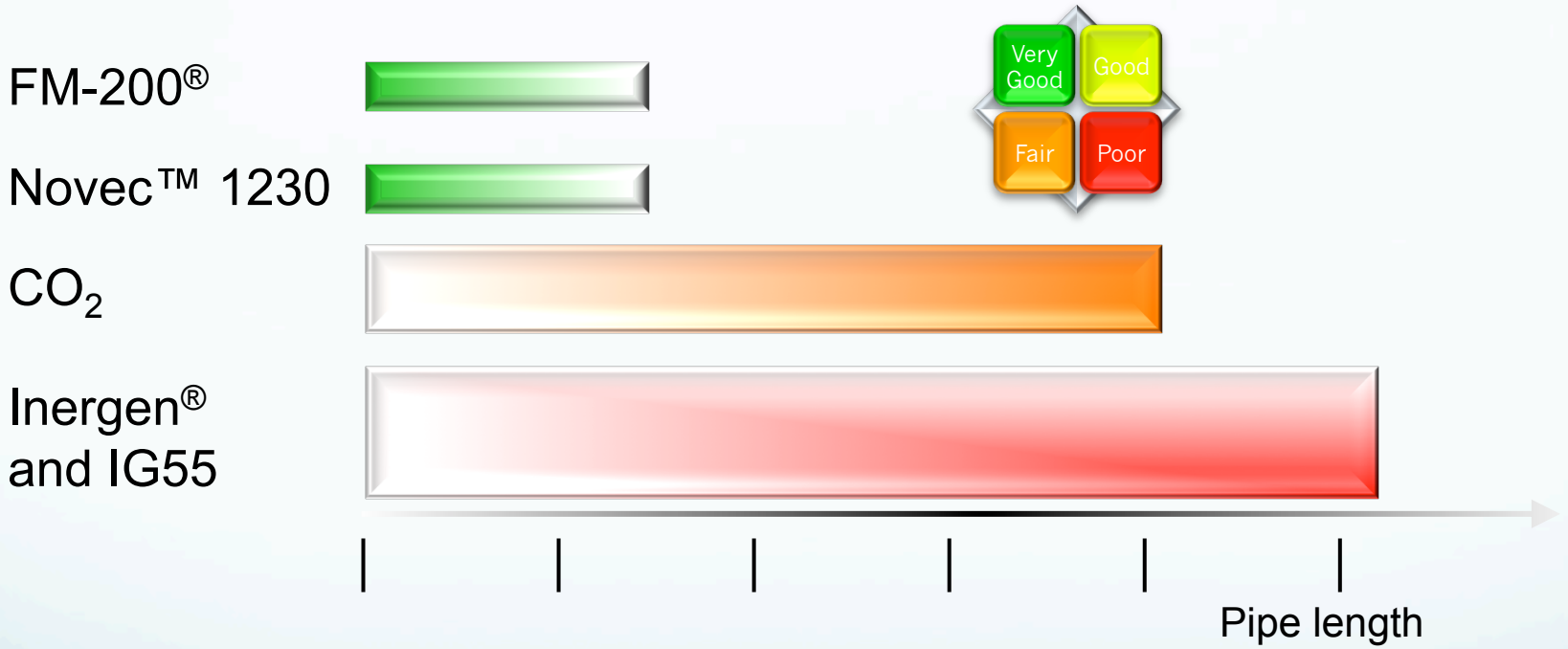
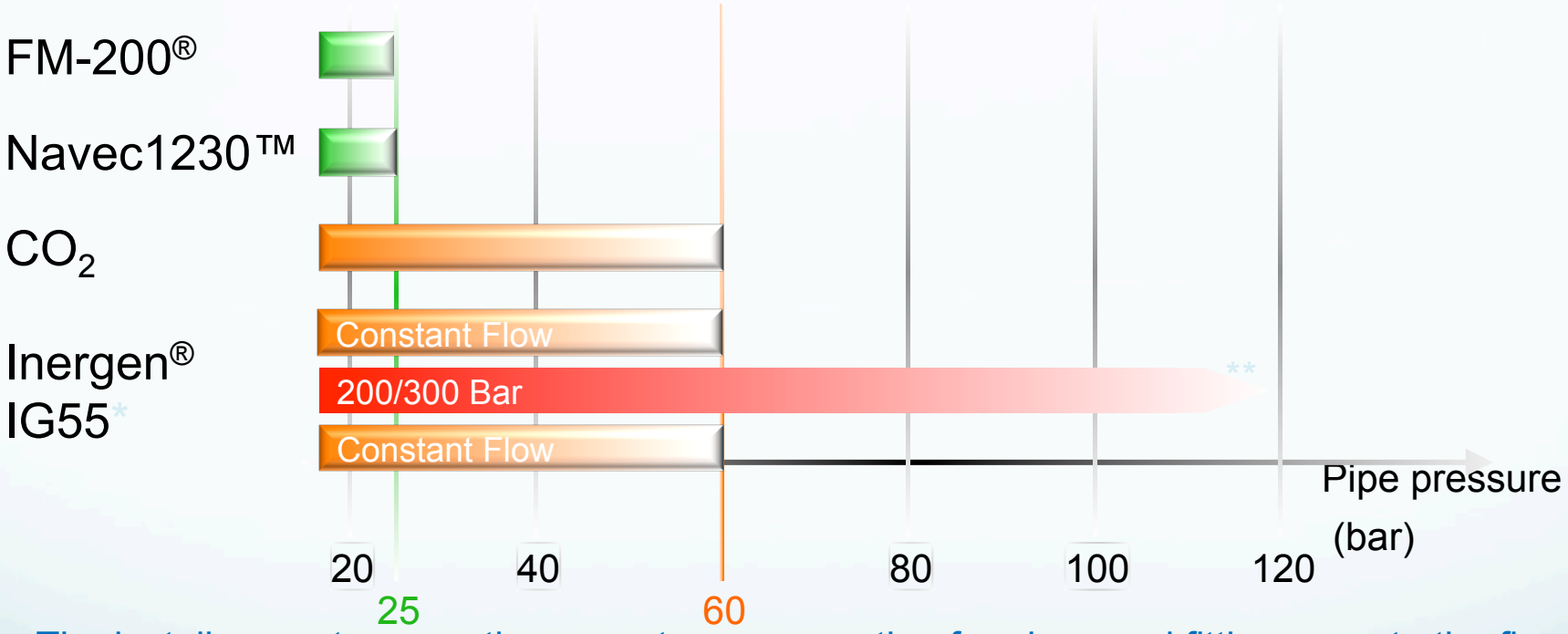
Distribution Pipe

Pipe length and complexity of the pipe run



The length of the bar does not give absolute ratios, it is a general indication only.
The width of the bar refers to the possible complexity of the pipe run (indication only).

Working Pressures



The installer must ensure the correct pressure rating for pipes and fittings acc. to the flow calculation result.

* Pipe pressure downstream the pressure reducing unit.

** The final peak pressure in the pipe will result from the hydraulic flow calculation.

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Cylinder Foot Print

Comparison for a 200 m³ class A hazard

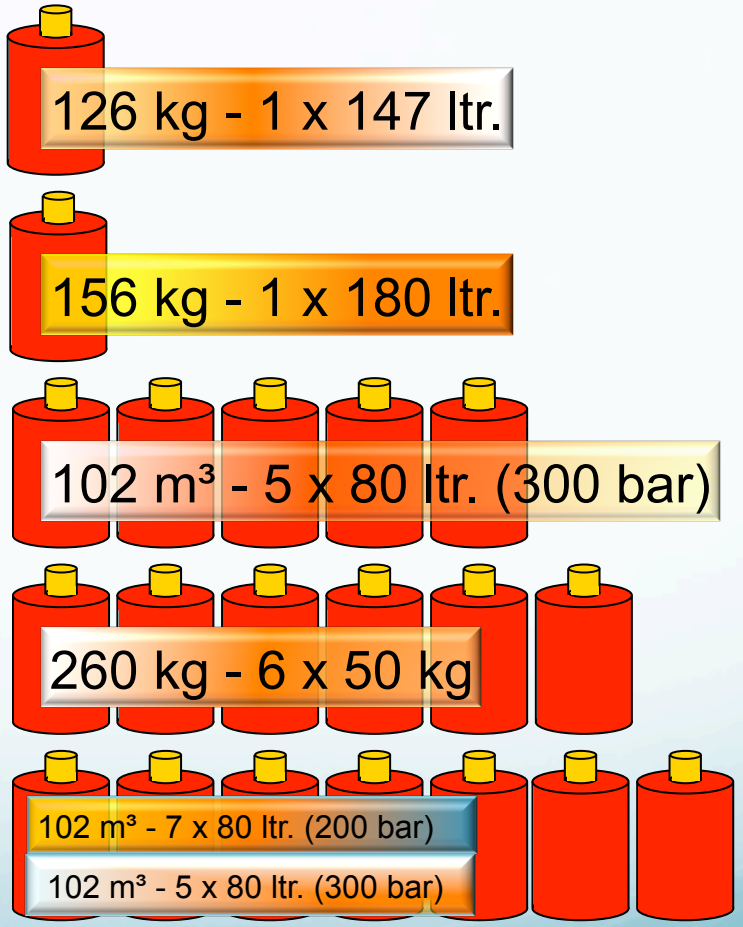
FM-200®: 7,9% = 0,63 kg/m³

Novec™1230: 5,3% = 0,78 kg/m³

Inergen®: 39,9% = 0,51 m³/m³

CO_2: 50% = 1,30 kg/m³

IG55/Inergen®: 39,9% = 0,51 m³/m³



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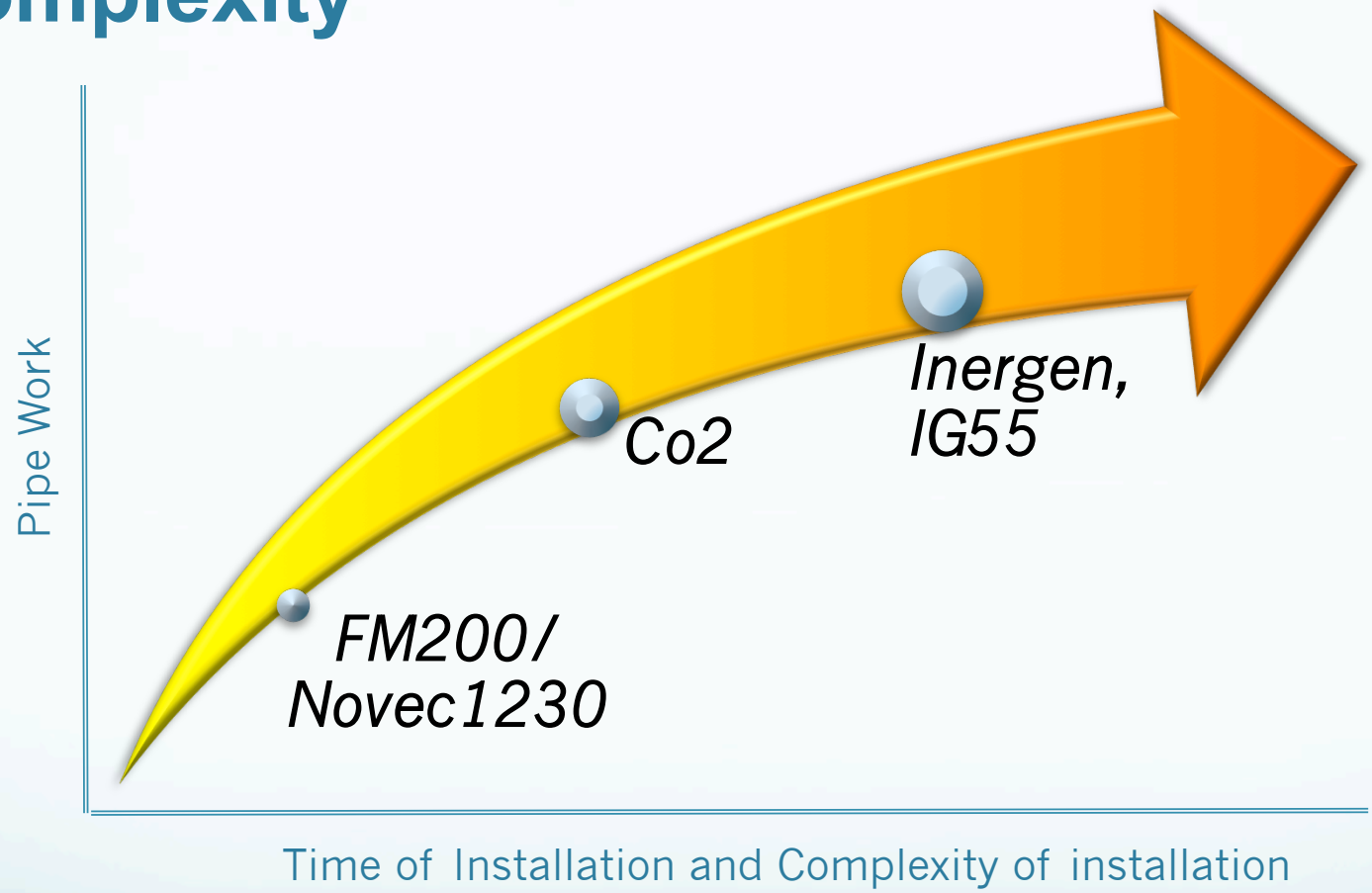
Installation Time & Complexity



FM200 and Novec1230 demand less space and less pipe work. Inert Gas cylinders can often be more complicated with larger foot prints and more pipe work

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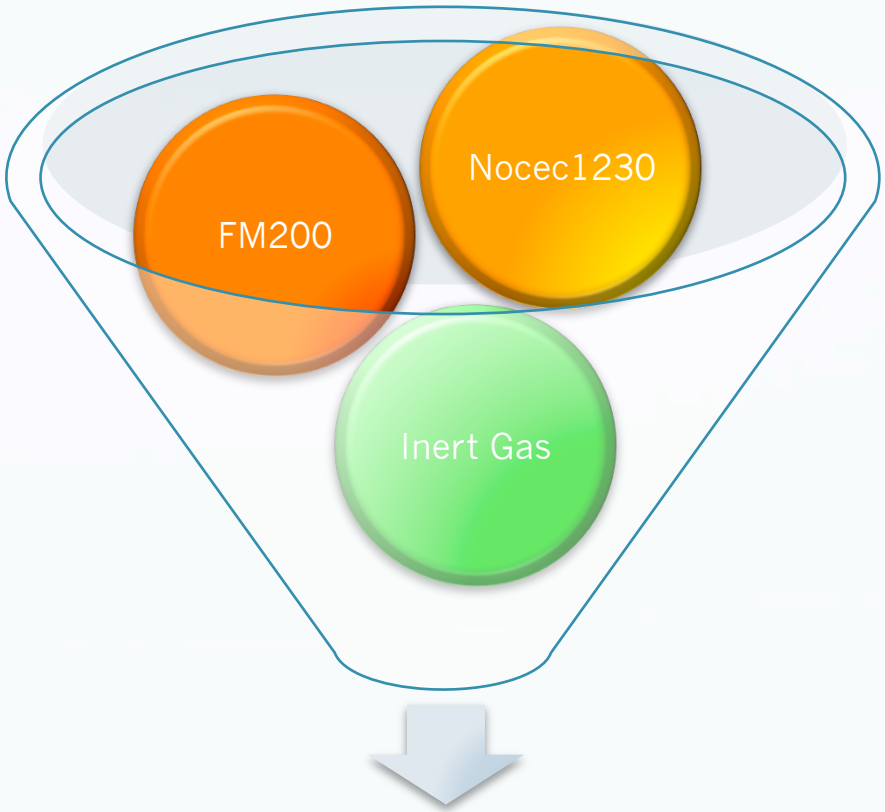
The Question?



Q :- So what is *The Best Fire Suppression Agent*?

A :- Generally, there is no Best system!

Many factors finally lead to the decision for a certain system ..

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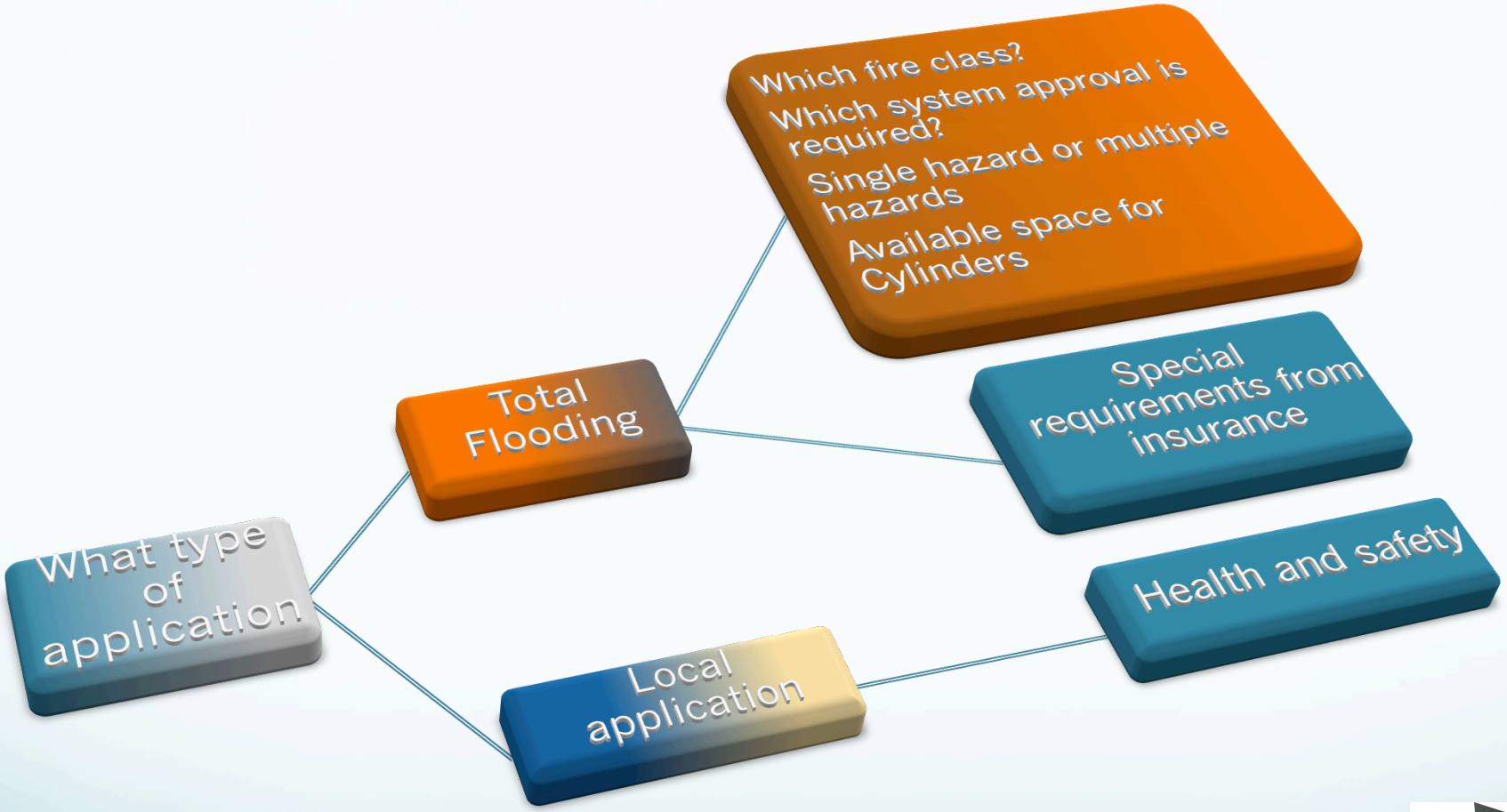
Decision Factors



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