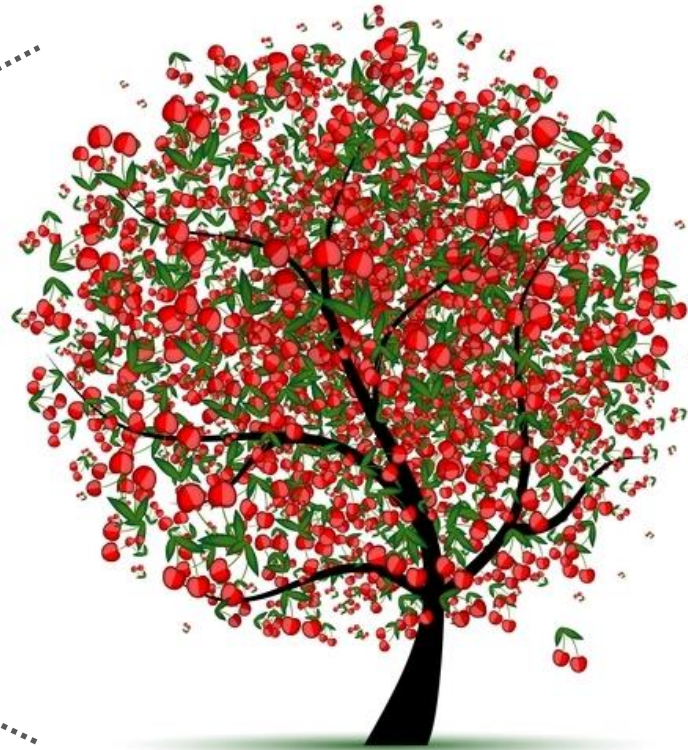
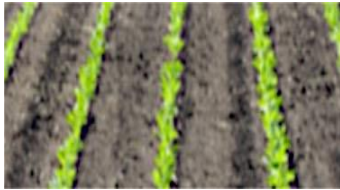




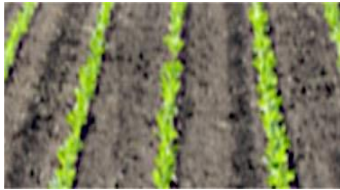
Less is more

Elke Van Asbroeck
Managing Director

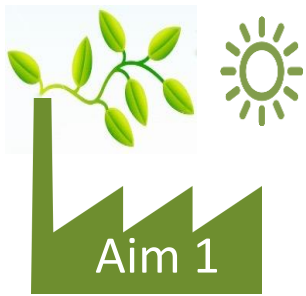




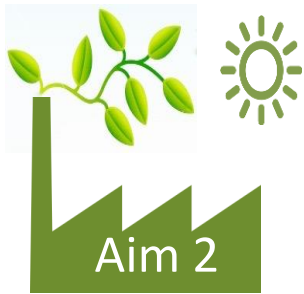
- 1. Healthy plant today**
- 2. Even healthier in future**



- 1. Risks properly controlled**
 - 2. SVHCs progressively replaced**
- = AIM AUTHORISATION (art 55)**



Exposure is well controlled
Opportunities to further reduce emissions

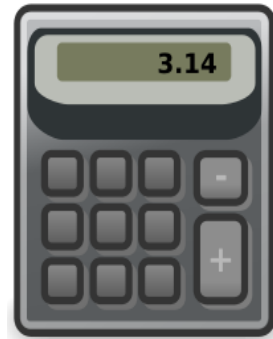


Description R&D history
Opportunities to find even better solutions



Balance of impacts
“use -applied-for” vs “non-use”

Need?



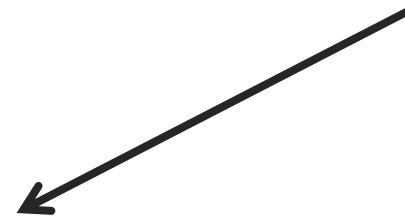
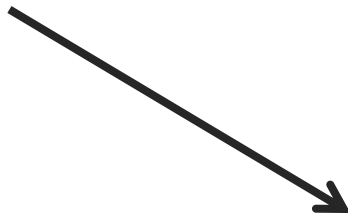
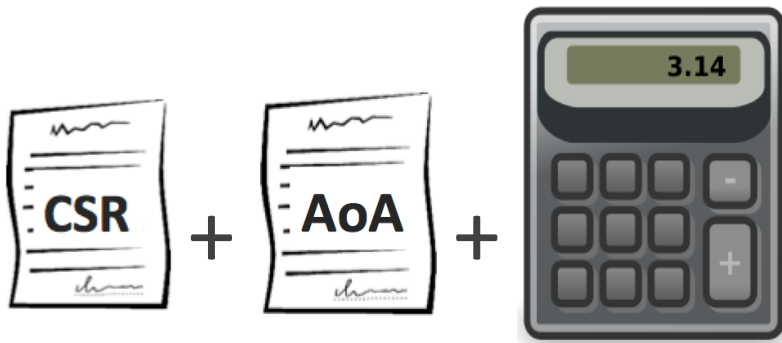
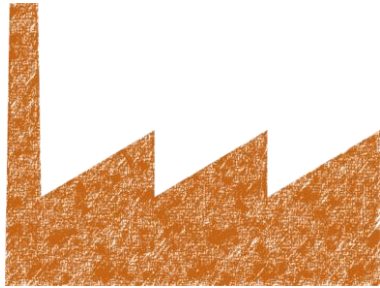
When



+



= Obvious







Crit. 1: No consumer exposure

and

Crit. 2: Excess risk of all exposure groups < **X**

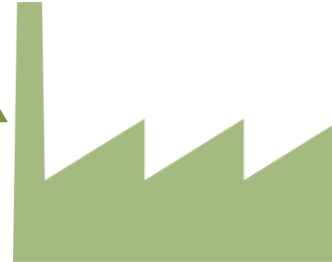
and

Crit. 3: Excess risk man-via-env < **X**



NOK

OK

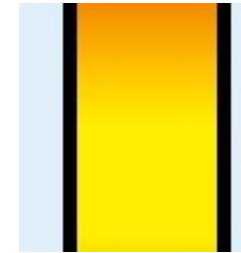


What Excess Risk (X) is acceptable?

Comparison 1: German model



Tolerable



Acceptable

4:10.000



excess risk of 1:100

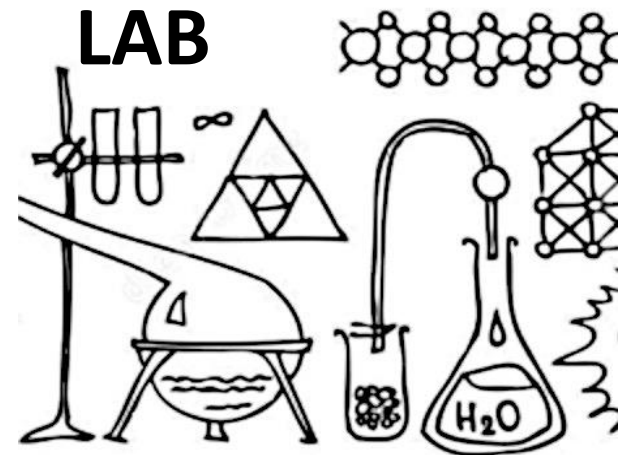
Comparison 2:



Reality Check

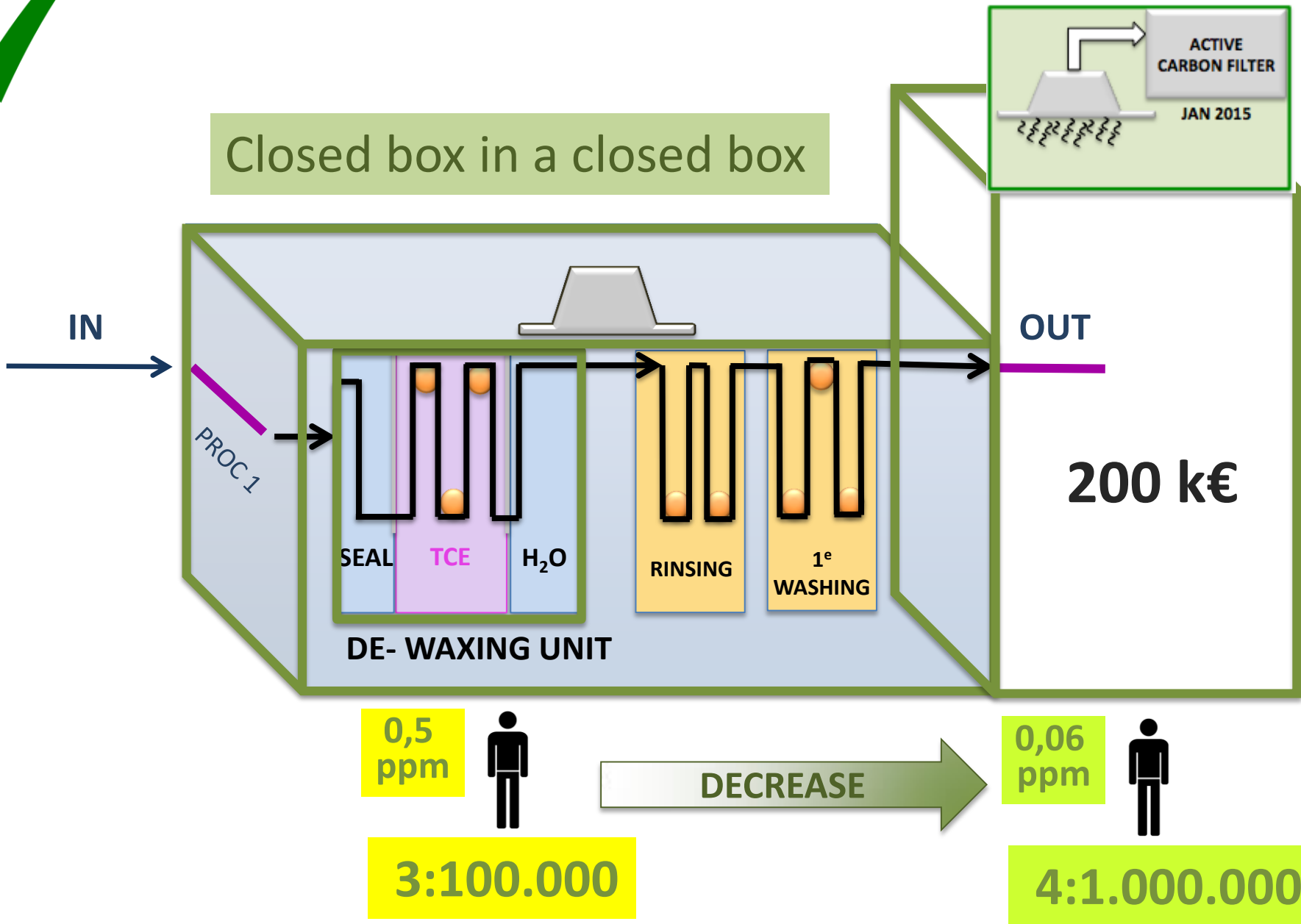


Crit. 1: No consumer exposure

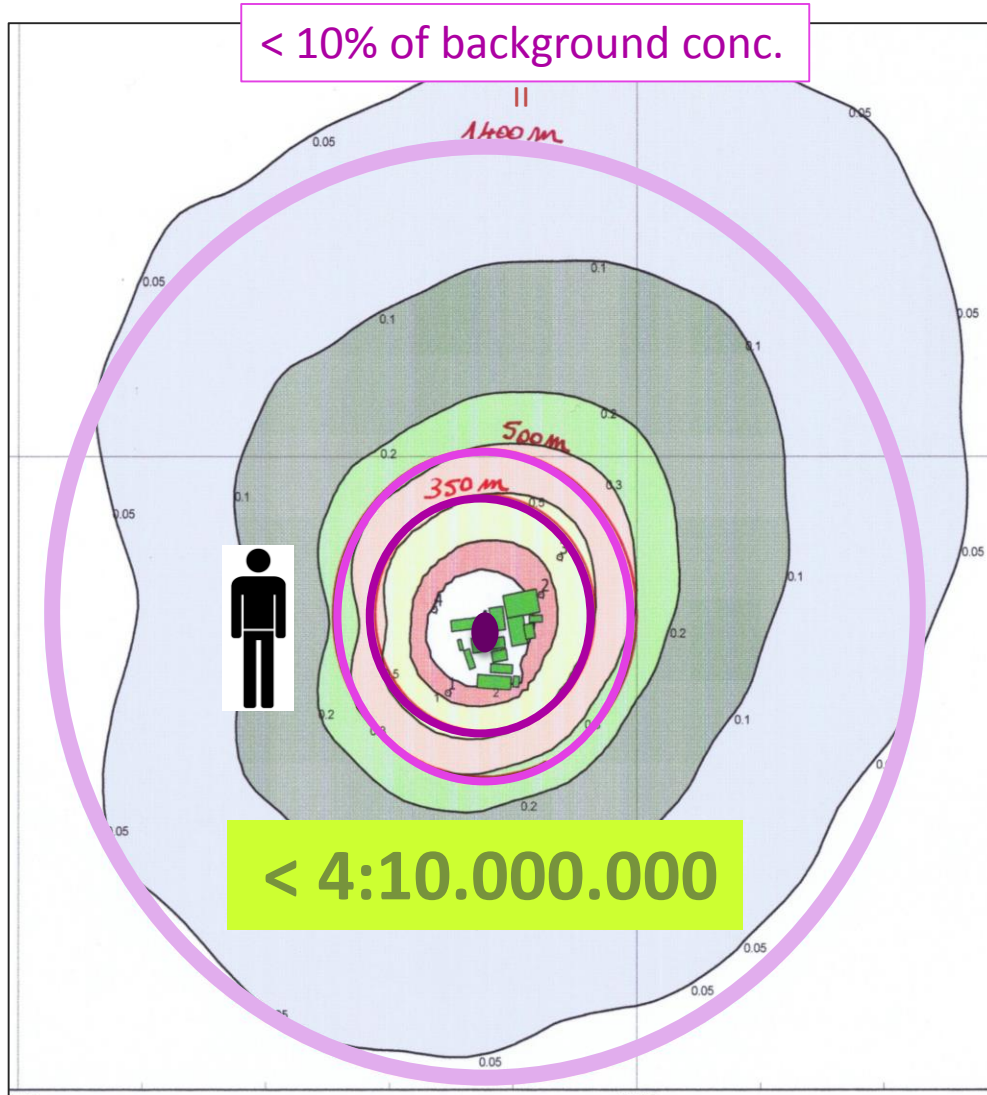


Conc. < detection limit

Crit. 2: Excess risk of all exposure groups < 4:10.000



Crit. 3: Excess risk man-via-env < 4:100.000



Crit. 1: No consumer exposure

and

Crit. 2: Excess risk of all exposure groups < 4:10.000

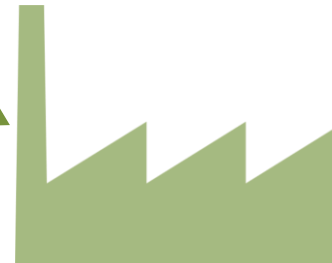
and

Crit. 3: Excess risk man-via-env < 4:100.000



NOK

OK



Good enough?

+

Scale



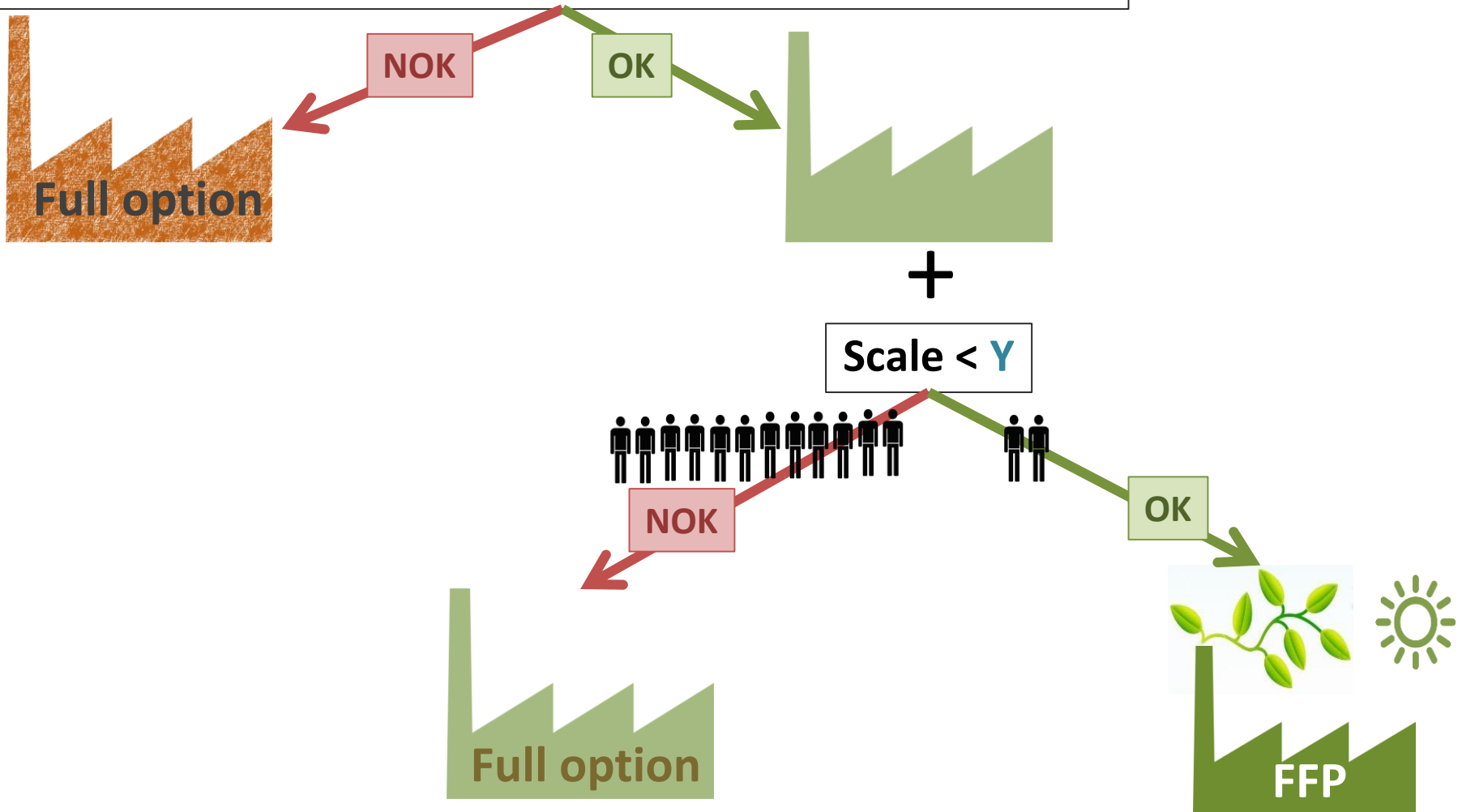
Crit. 1: No consumer exposure

and

Crit. 2: Excess risk of all exposure groups $< 4:10.000$

and

Crit. 3: Excess risk man-via-env $< 4:100.000$



Scale < **Y**

(excess risks x **people**) < **Y**

Y = 1 ? **NO!**

What is realistic?

Let's take a plant with

- 100 workers
- 1.000 neighbours

X 4: 10.000

X 4: 100.000

$y = 0,04$

$y = 0,04$

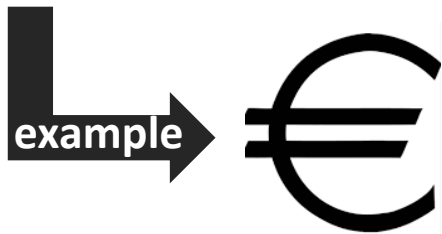
Y = 0,08

Scale < **Y**

(excess risks x **people**) < **Y**

Y = 0,08

Is this high or low???



HH (if all fatal) cost = 0,08 x 5m€ = **400.000€**



HH (if all fatal) cost for 1yr= **10.000€**

$X = 0,08$
€ HH (if all fatal) 1yr
= 10.000€

1yr unemployed
ca. **90.000€** (society)



Reality Check



Crit. 4: Scale



0,08 based on plant with

- 40 • 1~~X~~0 workers
- 52.000 • 1.0~~X~~0 neighbours

Scale  VLISCO
= risk x people
= extremely low x 52.000
= **0,0184 << 0,08**



Crit. 1: No consumer exposure

and

Crit. 2: Excess risk of all exposure groups < **4:10.000**

and

Crit. 3: Excess risk man-via-env < **4:100.000**

and

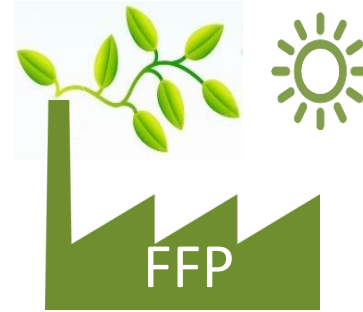
Crit. 4: $\Sigma(\text{excess risks} \times \# \text{ people}) < Y$



Thus...



evidence
=



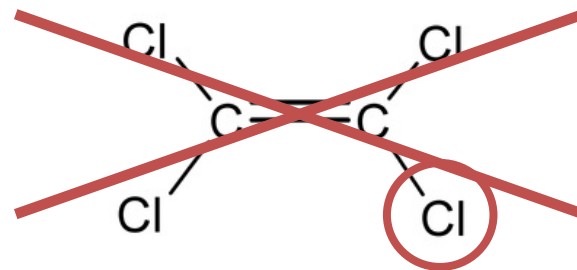
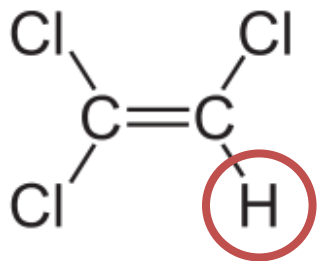
Why?



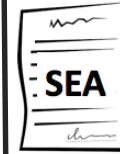
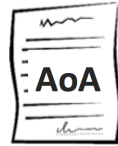
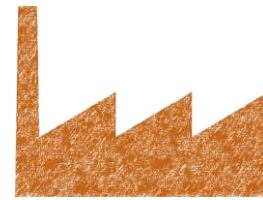
Description R&D history

Opportunities to find even better solutions

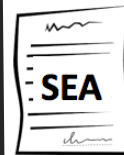








- | | | |
|--|---|---------------------------------------|
| ✓ Monitoring data | ✓ Process description | ✓ Market / Sales |
| ✓ Analytical method +
Detection limit | ✓ R&D history | ✓ Supply chain |
| ✓ Mass balance | ✓ Functional criteria | ✓ Human health impact |
| ✓ Procedures (ref.) | ✓ Long to short list | ✓ Environmental impact |
| ✓ Equipment
(minimization emissions) | ✓ Short list assessment
Risk / techn. & econ. feas / avail. | ✓ Economic Impact |
| ✓ Man-via-env. | ✓ Future R&D plan | ✓ Social Impact |
| ✓ No consumer exposure | ✓ Ranking | ✓ Wider Econ. Impact |
| ✓ # people exposed | ✓ Non-use scenario | ✓ Distributional Impact |
| | | ✓ Compare Benefits & risks |
| | | ✓ Length review period |



- ✓ **Monitoring data**
- ✓ **Analytical method + Detection limit**
- ✓ **Mass balance**
- ✓ **Procedures (ref.)**
- ✓ **Equipment**
(minimization emissions)
- ✓ **Man-via-env.**
- ✓ **No consumer exposure**
- ✓ **# people exposed**

- ✓ **Process description**
- ✓ **R&D history**
- ✓ **Functional criteria**
- ✓ **Long to short list**
- ✓ **Short list assessment**
Risk / techn. & econ. feas / avail.
- ✓ **Future R&D plan**
- ✓ Ranking
- ✓ Non-use scenario

- ✓ Market / Sales
- ✓ Supply chain
- ✓ Human health impact
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- ✓ Economic Impact
- ✓ Social Impact
- ✓ Wider Econ. Impact
- ✓ Distributional Impact
- ✓ Compare Benefits & risks
- ✓ **Length review period**



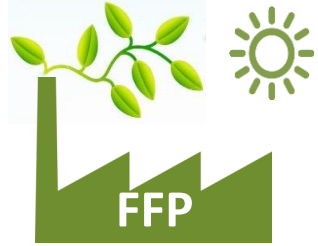
- ✓ **Monitoring data**
- ✓ **Analytical method + Detection limit**
- ✓ **Mass balance**
- ✓ **Procedures (ref.)**
- ✓ **Equipment**
(minimization emissions)
- ✓ **Man-via-env.**
- ✓ **No consumer exposure**
- ✓ **# people exposed**



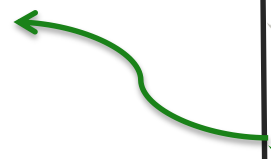
- ✓ **Process description**
- ✓ **R&D history**
- ✓ **Functional criteria**
- ✓ **Long to short list**
- ✓ **Short list assessment**
Risk / techn. & econ. feas / avail.
- ✓ **Future R&D plan**
- ✓ Ranking
- ✓ Non-use scenario



- ✓ Market / Sales
- ✓ Supply chain
- ✓ Human health impact
- ✓ Environmental impact
- ✓ Economic Impact
- ✓ Social Impact
- ✓ Wider Econ. Impact
- ✓ Distributional Impact
- ✓ Compare Benefits & risks



✓ **Length review period**



How can you support improvement?



Realistic Dose response curve / DNEL

- ✓ Timing! As of inclusion in Annex XIV
- ✓ For all endpoints

<ul style="list-style-type: none"> ✓ Monitoring data ✓ Analytical method + Detection limit ✓ Mass balance ✓ Procedures (ref.) ✓ Equipment (operator awareness) ✓ Man-via-env. ✓ No consumer exposure ✓ # people exposed 	<ul style="list-style-type: none"> ✓ Process description ✓ R&D history ✓ Functional criteria ✓ Long to short list ✓ Short list assessment (toxic. & econ. loss / adv.) ✓ Future R&D plan ✓ Ranking ✓ Non-use scenario 	<ul style="list-style-type: none"> ✗ Market / Sales ✓ Supply chain ✓ Human health impact ✓ Environmental impact ✓ Economic impact ✓ Social impact ✓ Wider EoM. Impact ✓ Distributional impact ✓ Compare benefits & risks ✓ Length review period
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List of required elements

Clear dossier quality standard

Fast decision making

- ✓ Business certainty





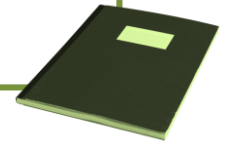
30% cost reduction



Quality label best in class



Concise to evaluate for RAC/SEAC



Drives improvement







Passion

to drive **improvement**
together with our clients

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