Wageningen Universiteit
Wageningen Campus
Droevendaalsesteeg 1 e.o.
WAGENINGEN, Netherlands, 6708 PB

Prop All Risk - Resurvey

Date Visited 01-Mar-2019

Commercial Property

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RFS ID / Location ID:	75988- 1 /672791
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Latitude :	51.985210
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Class of Risk :	Universities

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INTRODUCTION

All loss estimates developed as a result of our property surveys are for the sole use of AIG underwriters. Engineering loss estimates are based on the professional judgment of our engineers / consultants. There is detailed guidance and methodologies that are referenced and used in the calculation of our Loss Estimates. Using our Loss Estimates without an understanding of the underlying guidance and methodologies is not recommended. AIG assumes no responsibility for use or reliance upon the loss estimates presented below.

REPORTED VALUES - EUR

PROPERTY DAMAGE:

Buildings	452,239,943.60	Machinery + Equipment	0
Contents	228,590,025.90		
		Stock / Inventory	0
		Other PD	0

TOTAL PROPERTY DAMAGE VALUE: **680,829,969.50**

BUSINESS INTERRUPTION : (24 Months IP)

BI / Gross Revenues	.
Extra costs	100,000,000.00
Payroll : (Months IP)	.

TOTAL BUSINESS INTERRUPTION VALUE: **100,000,000.00**

TOTAL SUM INSURED: **780,829,969.50**

MAXIMUM AMOUNT SUBJECT (MAS) - EUR

P.D. 222,593,915 32.5% **B.I.** 100,000,000 100.00 % **IBI_CBI** 0 **Total** 322,593,915 41.3 %

PD Loss Breakdown	%	Monetary Loss
Building Damage	30.3	136,913,027
M+E Damage	0	0
Contents Damage	37.5	85,680,888
Stock Damage	0	0
Other PD	0	0
Total PD Loss		**222,593,915**

BI Type	BI Loss Breakdown	Months	Days	%	Monetary Loss
BI	Phase 1 Downtime	24.0		0	
Total BI Loss					**0**

Other Coverage	Loss Amount
Extra costs	100,000,000.00

Occupancy

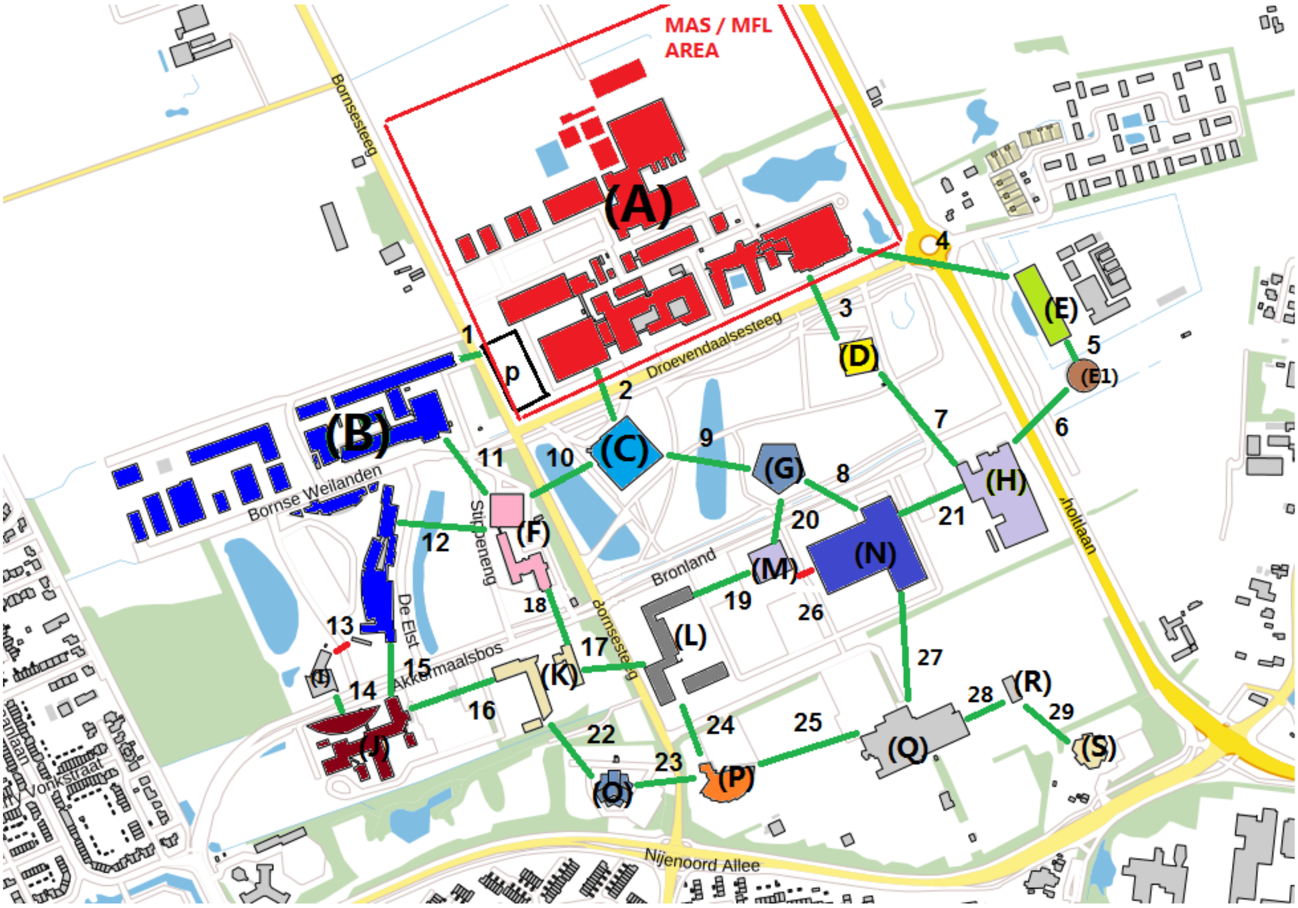
Wageningen University & Research (WUR) trains specialists (BSc, MSc and PhD) in life and social sciences and focuses its research on scientific, social and commercial problems in the field of life sciences and natural resources. The biotech-, aggrotech-, chemistry- and toxicology buildings with higher occupancy hazards are not located on the campus (they are located at Bomenweg/Dreijenlaan). General SIC code: 8221 with HG 3.

The policy consist over 110 insured objects. The most valuable objects are located on and around the campus in the city Wageningen. As this area only consists over 63 objects they are grouped in 19 clusters of buildings (per color on the sketch below) to determine the MAS and MFL area.

Campus layout with Clear Space Separations (CSS)

Due to the layout of the campus there are 29 clear space separations. In general:

- no slope;
- no constant truck parking at the campus;
- no negative influence due to vegetation. If there are trees in a space separations no conifers etc, just deciduous trees and no woods.
- in all the mentioned space separations there are no tunnels and no passageways so Equivalent Space Separations are not applicable on this campus.



The clear space separations on the campus are:

1. 47 meter
2. 70 meter
3. 150 meter
4. 200 meter
5. 30 meter
6. 106 meter
7. 150 meter
8. 62 meter
9. 110 meter
10. 85 meter
11. 90 meter
12. 108 meter
13. 25 meter
14. 33 meter
15. 64 meter
16. 111 meter
17. 81 meter
18. 77 meter
19. 83 meter
20. 55 meter
21. 90 meter
22. 99 meter
23. 86 meter
24. 88 meter
25. 140 meter
26. 27 meter
27. 160 meter
28. 64 meter
29. 89 meter

Demarcate CCS documentation/motivation
In worst case per AIG guidelines 61 meters is needed for clear space separation (if both building are combustible and with severe fire load). Except buildings M&N there are no building with ISO 1,2,3, or 4 constructions greater than 9 meter so no height adjustment factors need to be applied.
It also has to be mentioned that there are no Flammable Liquid Tank Farms or rail tanker storages on the campus. Taken above mentioned observations into account all separation which are greater than 61 meters are per definition sufficient and no further descript below except the separations of buildings M&N due to height adjustment factor so they are also descript below if <100m.

Clear Space Separation 1 between buildings (A) and (B)

- Construction Buildings (A): multiple buildings, partly B constructions, in general ISO 5/A but as the open parking structure of 4 stories at the space separation side is leading this construction (ISO 3 / B) is used.
- Construction Buildings (B): multiple buildings, partly 1/D, 2/C and 3/B constructions. As the building at the space separation is leading this construction (ISO 3/B) is used.
- Occupancy parking near buildings (A): high fire load (conservative taken a full occupied garage into account)
- Occupancy buildings (B): Slight fire load (offices at the exposed buildings)
- Windows on buildings (A) more than 25% due to open parking structure
- Windows on building (B): Less than 25%
- No height Adjustment factor applied
- No yard storage

- Provided Distance: 47m
- Distance Required: A>B: 45m(parking downgrade 1 class) B>A 15m

- **Adequate** Space Separation provided

Clear Space Separation 5 between building (E) and (E1)

- Construction Buildings (E) ISO 3/B
- Construction Buildings (E1): ISO 3/B
- Occupancy building (E): laboratories: moderate fire load
- Occupancy Buildings (E1): education: low fire load
- Windows on buildings (E) more than 25%
- Windows on building (E1): less than 25%
- No yard storage

- Provided Distance: 30m
- Distance Required: E>E1:23m E1>E 30m

- **Adequate** Space Separation provided

Clear Space Separation 8 between building (G) and (N)

- Construction Buildings (G): ISO 5/A
- Construction Buildings (N): ISO 3/B
- Occupancy Buildings (G): low fire load (education)
- Occupancy Buildings (N): moderate fire load (laboratories and offices)
- Windows on building (G): less than 25%
- Windows on building (N): more than 25%
- No yard storage

- Provided Distance: 62m
- Distance Required: G>N: 23m N>G 15m

- **Adequate** Space Separation provided

Clear Space Separation 13 between building (B) and (I)

- Construction Buildings (B) ISO 2/C
- Construction Buildings (I): ISO 2/C
- Occupancy Building (B): low fire load (office/ laboratories and their annexes)
- Occupancy Buildings (I): low fire load (office building)
- Windows on buildings (B) less than 25%
- Windows on building (I): less than 25%
- No yard storage

- Provided Distance: 25m
- Distance Required: 38m

- **Inadequate** Space Separation provided

Clear Space Separation 14 between building (I) and (J)

- Construction Buildings (I) ISO 2/C
- Construction Buildings (J): ISO 5/A
- Occupancy Buildings (I): low fire load (office)
- Occupancy Buildings (J): moderate fire load (laboratories)
- Windows on buildings (I) less than 25%
- Windows on building (J): more than 25%
- No yard storage

- Provided Distance: 33m
- Distance Required: I>J: 23m J>I: 30m

- **Adequate** Space Separation provided

Clear Space Separation 19 between building (L) and (M)

- Construction Buildings (L): ISO 6/AA
- Construction Buildings (M) ISO 6/AA (concrete bearing, roofs, floors etc). The façade is made of fire retardant lumber hence downgraded to B construction.
- Occupancy Buildings (L): low fire load (apartments)
- Occupancy buildings (M): moderate fire load (laboratories and offices)
- Windows on buildings (L) less than 25%
- Windows on building (M): less than 25%
- No yard storage
- Height adjustment factor building M: +6m

- Provided Distance: 70m
- Distance Required: L>M: 12+6=18m M>L: 15+6=21m

- **Adequate** Space Separation provided

Clear Space Separation 20 between building (M) and (G)

- Construction Buildings (M) ISO 6/AA (concrete bearing, roofs, floors etc). The façade is made of fire retardant lumber hence downgraded to B construction.
- Construction Buildings (G): ISO 5/A
- Occupancy buildings (M): moderate fire load (laboratories and offices)
- Occupancy Buildings (G): low fire load (education)
- Windows on buildings (M) less than 25%
- Windows on building (G): less than 25%
- No yard storage
- Height adjustment factor building M: +6m

- Provided Distance: 55m
- Distance Required: M>G: 45+6=51m G>M: 30m

- **Adequate** Space Separation provided

Clear Space Separation 21 between building (N) and (H)

- Construction Buildings (N) ISO 3/B
- Construction Buildings (H): ISO 3/B
- Occupancy buildings (N): moderate fire load (laboratories and offices)
- Occupancy Buildings (H): moderate fire load (laboratories and offices)
- Windows on buildings (N) less than 25%
- Windows on building (H): less than 25%
- No yard storage
- Height adjustment factor building M: +6m
- Height adjustment factor building H: +6m

- Provided Distance: 90m
- Distance Required: 23+6=29m

- **Adequate** Space Separation provided

Clear Space Separation 26 between building (M) and (N)

- Construction Buildings (M) ISO 6/AA (concrete bearing, roofs, floors etc). The façade is made of fire retardant lumber hence downgraded to B construction.
- Construction Buildings (N): ISO 3/B
- Occupancy buildings (M): moderate fire load (laboratories and offices)
- Occupancy Buildings (N): moderate fire load (laboratories and offices)
- Windows on buildings (M) less than 25%
- Windows on building (N): more than 25%
- No yard storage

- Height adjustment factor building M: +6m
- Height adjustment factor for building N:+6m

- Provided Distance: 27m
- Distance Required: M>N: 38+6=44m N>M: 23+6=29m

- **Inadequate** Space Separation provided

Insured values

Based on the SOV, provided by the underwriter, dated: 27 November 2018 the insured value on the campus is: PD 681 M EUR + BI 100 M EUR

Using an average value per m2 to determine the MAS and MFL is not representative because some buildings are owned, some are leased or rented. Per value split, provided by the broker, dated: 27 November 2018 the most of the insured property can be allocated to the following clusters of buildings:

Cluster A: addresses Droevendaalsesteeg 1 + 3 + Bornsesteeg 48:
buildings € 136,913,027 + inventory € 85,680,888

Clusters B+I: address: Bornse Weilanden 1-9 + De Elst 1 + Vijfde Polder 1:
buildings € 68,744,257.00 + inventory € 44,865,811.00

There is no other MAS/MFL area of buildings representing a larger PD value than descript above.

For BI there is no split; only the amount of 100M Euro for extra cost values at premier risqué base

MAS PD

Based on the insured values the MAS area is building cluster A. MAS PD = 223 M EUR

MAS BI

The affected area represents 90.000m2. Per AIG's reconstruction table for Universities the rebuilding time will be around 32 months. Based on the facts that the MAS area:
- represents multiple buildings (ca 50% barns/sheds/parking + 50% college buildings);
- has possibilities form multiple construction yards so buildings can be build simultaneous;
- no time delay expected to receive rebuilding permits by the municipality.

the rebuilding time is reduced to 24 months.

The policy has covered BI 100.000.000 EUR based on premier risqué with an indemnity period of 104 weeks. By the lack of a BIA or a BCP 100% loss has to be anticipated under MAS conditions.

MAXIMUM FORESEEABLE LOSS (MFL) - EUR

P.D. 146,911,984 21.6% **B.I.** 100,000,000 100.00 % **IBI_CBI** 0 **Total** 246,911,984 31.6 %

PD Loss Breakdown	%	Monetary Loss
Building Damage	20	90,362,598
M+E Damage	0	0
Contents Damage	24.7	56,549,386
Stock Damage	0	0
Other PD	0	0
Total PD Loss		**146,911,984**

BI Type	BI Loss Breakdown	Months	Days	%	Monetary Loss
BI	Phase 1 Downtime	24.0		0	
Total BI Loss					**0**

Other Coverage	Loss Amount
Extra costs	100,000,000.00

This MFL with PD of 147 M EUR + BI 100 M EUR = 247 M EUR is certified by Christian Kopper on 15-march-2019

The MFL area equals the MAS area as descript at the MAS section. This is based on space separations. Extra reduction of the MFL per AIG loss estimates procedures for universities is not applicable based on the facts that the requested conditions are not met. Also no MFL walls to reduce the MFL in this area.

The cluster of buildings (A) area can be split to: 30.000m2 ISO 2/C + 60.000m2 ISO 5/A. The occupancy of the ISO 5/A buildings is University with SIC code 8221, representing hazard grade 3.
The occupancy of the ISO 2/C buildings is storage of agricultural vehicles and equipment. There are no workshops, or oil tanks etc. that increase the risk / hazard grade. No positive or negative factors observed to change the suggested damage percentages per AIG guidelines.

Scenario:
A fire starts in a combustible building in the middle of the cluster and spread out of all the buildings in cluster (A). The fire will stop on the north side because there is open land. On the east there is sufficient clear space separation to prevent a fire jumps to buildings (E) as descript in the MAS section of this document under clear space separation 4. Sufficient clear space separation will prevent fire jumps to buildings on the south as descript in the MAS section of this document under clear space separation 2 and 3. Fire spread to the west is also prevented by adequate clear space separation, as descript in the MAS section of this document under clear space separation 1.

The affected area represents 90.000m2. Per AIG's reconstruction table for Universities the rebuilding time will be around 32 months. Based on the facts that the MAS area:
- represents multiple buildings (ca 50% barns/sheds/parking + 50% college buildings);
- has possibilities form multiple construction yards so buildings can be build simultaneous;
- no time delay expected to receive rebuilding permits by the municipality.
the rebuilding time is reduced to 24 months.

MFL PD
Building loss = 66% x 50% + 33% x 100% = 66%
Buildings value = € 136.913.027
MFL PD Building loss= € 90.362.598

Inventory = 66%x 50% + 33% x 100% =66%
Inventory value = € 85,680,888
MFL PD Inventory loss: € 56,549,386

Total MFL PD = 146,911,983.77 = 13%

MFL BI
The policy has covered BI 100.000.000 EUR based on premier risqué with an indemnity period of 104 weeks. By the lack of a BIA or a BCP 100% loss has to be anticipated under MFL conditions.

NORMAL LOSS ESTIMATE (NLE) - EUR

P.D. 70,135,809 10.3% **B.I.** 100,000,000 100.00 % **IBI_CBI** 0 **Total** 170,135,808 22 %

PD Loss Breakdown	%	Monetary Loss
Building Damage	6	27,136,560
M+E Damage	0	0
Contents Damage	18.8	42,999.248
Stock Damage	0	0
Other PD	0	0
Total PD Loss		**70,135,809**

BI Type	BI Loss Breakdown	Months	Days	%	Monetary Loss
BI	Phase 1 Downtime	12.0		0	
Total BI Loss					**0**

Other Coverage	Loss Amount
Extra costs	100,000,000.00

The building with the highest insured value on the campus has address: Droevendaalsesteeg 1 and is called Radix. The west part of this building (50%) is adequate sprinkler protected.

The NLE scenario is:
Fire starts at ground floor of Radix Middle. As fire detection is limited, the discovery of the fire will be late. As the fire compartments in the older parts of the buildings are lightly constructed, fire is expected to spread to the floors above and towards Radix East. Radix Middle is surrounded by buildings on three sides, making it impossible for the fire department to secure all separations during the start of the repressive actions. Towards the Radix West well-constructed 60 minute compartments are in place. Helped by the FD and sprinkler, the fire will not spread to the Radix west buildings.

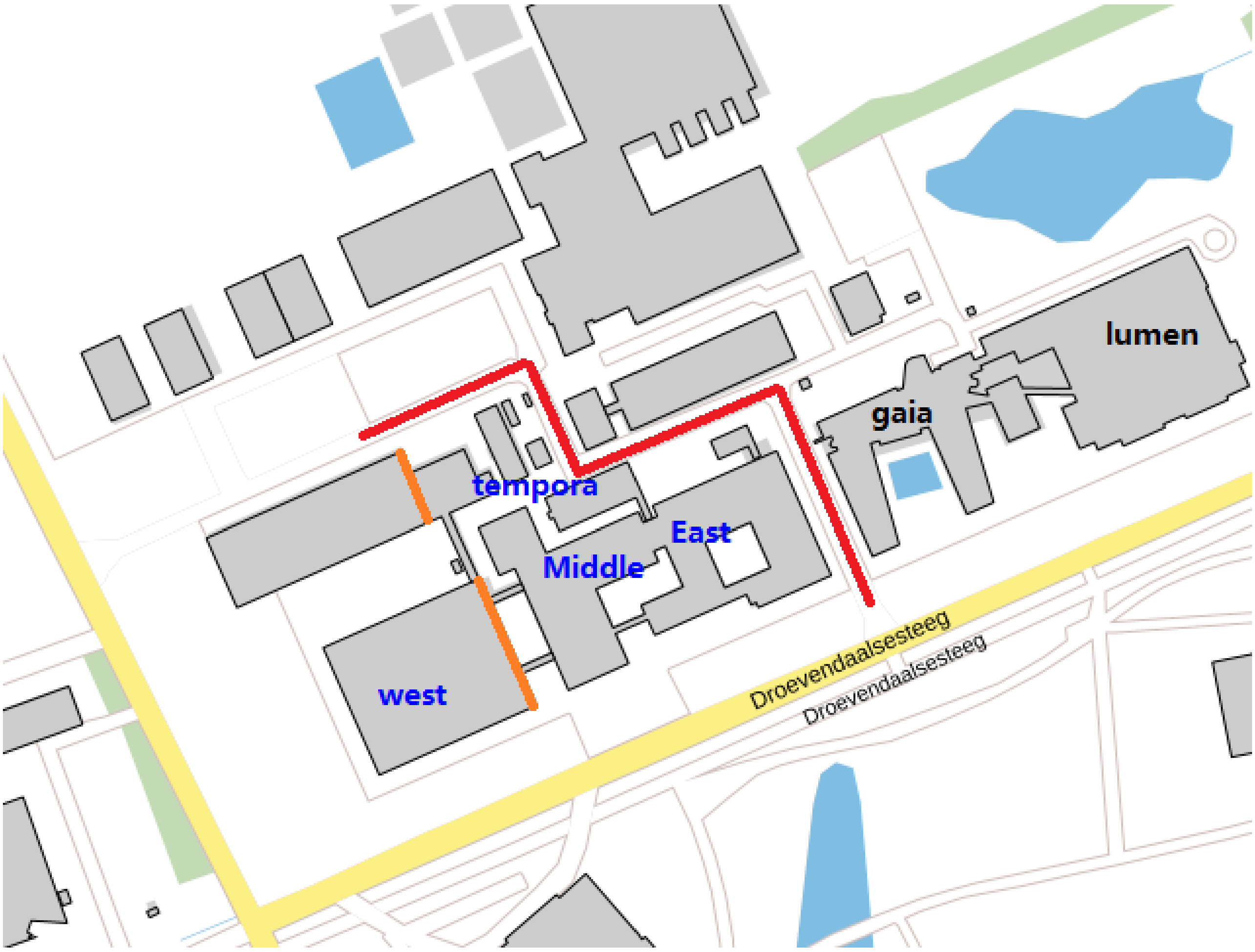
Tempora buildings are partly interconnected with or at 7 meters distance and will be involved due to their combustible constructions.

It's assumed the FD can make a stand outside the building on the east to prevent fire spread to the building Gaia-Lumen

In this scenario we expect Radix East, - Middle and Tempora to burn out completely and Radix West to be affected for 25%, incl secondary smoke/soot and water damage. Recovery value of the burned out buildings is 50%, according to MFL table. Inventory will be lost completely in the burned out building parts.

Insured value per brokers sheet
Buildings: 67,841,400.56
Inventory: 61,427,498.03

Assumed is the insured value can be split per buildings section:
Radix west = 40%
Radix middle = 20%
Radix east = 30%
Tempora = 10%



red = fire dept stand in clear space
orange = fire dept stand by use of internal fire walls and sprinkler

The expected building loss:
Radix west (ISO 5/A) = 40% x 25% involved x 50% damage percentage by construction type = 5%
Radix middle (ISO 5/A) = 20% x 100% x 50% damage percentage by construction type = 10%
Radix east (ISO 5/A) = 30% x 100% x 50% damage percentage by construction type = 15%
Tempora (ISO 1/D) = 10% x 100% x 100% damage percentage by construction type= 10%
Total = 40%
40% of 67,841,400.56 = € 27,136,560.22

The expected content loss:
Radix west (ISO 5/A) = 40% x 25% involved x 50% = 5%
Radix middle (ISO 5/A) = 20% x 100% x 100% = 20%
Radix east (ISO 5/A) = 30% x 100% x 100% = 35%
Tempora (ISO 1/D) = 10% x 100% x 100% = 10%
Total 70%
70% of 61,427,498.03 = € 42,999,248.62

NLE PD **=** € 27,136,560.22 + € 42,999,248.62 = € 70,135,808.84 = 6.4%

NLE BI

Rebuilding time under this scenario is estimated at 12 months. Loss of valuable results may take a longer period to reconstruct. No information available on this subject. Further investigation, during the forming of a group BCP is necessary to get more accurate figures.

The BI / extra cost values are premier risqué. Therefore no further split is applied; it is calculated as if the full amount applies to this location.