

The Association for Heads of Technical Services in Health Care Institutions (VTDV) is an important platform for knowledge stimulation and knowledge exchange. The members (270) of the VTDV are employed in diverse areas of health care including hospitals, institutions for care of the elderly, nursing homes and mental health care.

For more information : www.vtdv.be

ir Eddy De Coster secretary VTDV Belgium





UZ
LEUVEN



Developing the Health Science Campus Gasthuisberg



ir Eddy De Coster
Head of the technical department

Evaluation after 4 years

IFHE congress Barcelona 2008 – Norway 2012

UZ
Leuven

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UNIVERSITY HOSPITALS LEUVEN



Key figures

Patient care

- Number of beds: 1.920
- Admissions: 64.300
- Patient days: 533.000
- One day stay: 111.850

Education

(Faculty Medicine / Farmaceutical Sciences / Movements and Rehabilitation Sciences)

Number of students: 9.940

Staff members

10.889 (7.562 FTE)

Patient care

8.800 (6.061 FTE)

Research & Education

2.089 (1.501 FTE)



In-town campus (6ha)

1925 : Cancer institute

1972 : VCTB St Rafaël



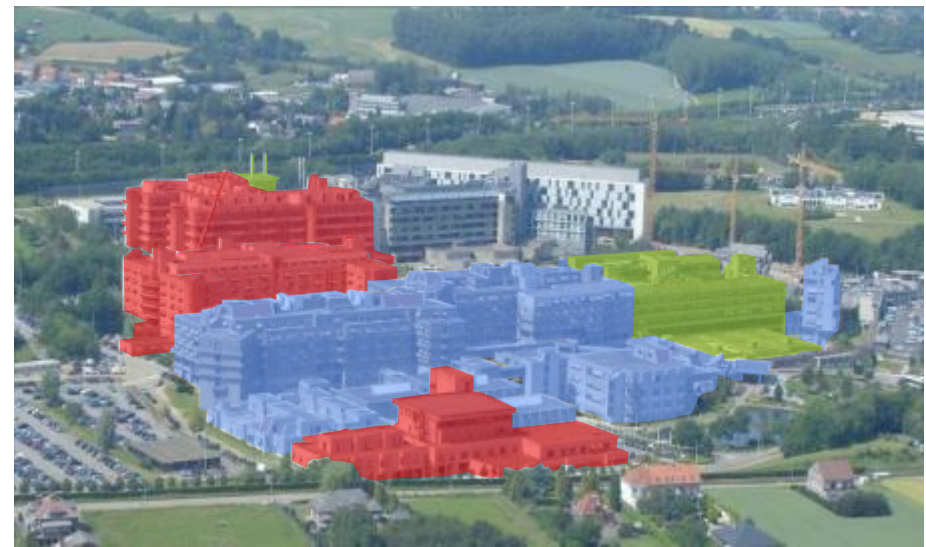
Campus Gasthuisberg (75ha)

1975 : fase I + 0&N1

1982 : fase II

1993 : fase III

Total of 250.000 m²



Fase I



Fase II

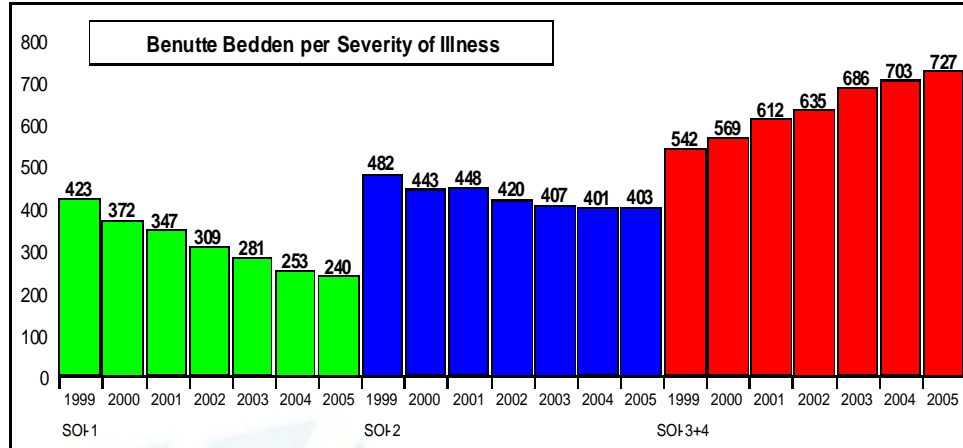


Fase III

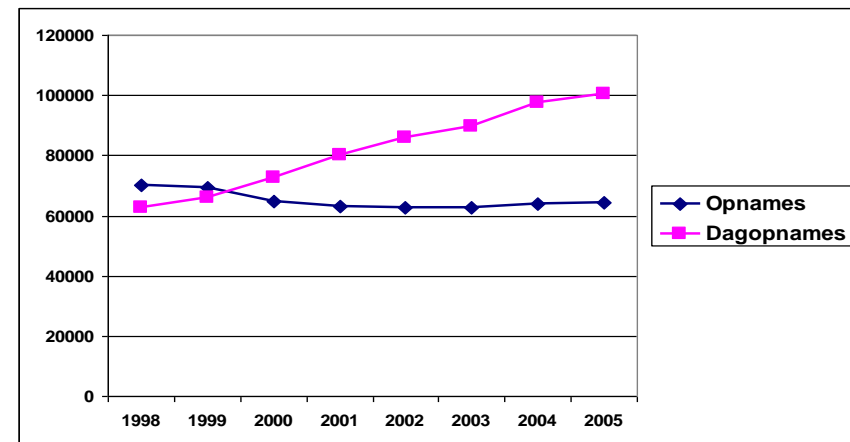


- **Health care strategy landscape in Belgium (Europe , world)**
 - **Increasing need** for health care: demography, technology, ...
 - **Scarcity of means**: medical doctors, nursing personal
- **Health care strategy answer of University Hospitals Leuven :**
 - **Efficiency**
 - Capturing the growing needs as good as possible using the scarce means
 - **Quality**
 - Goal oriented / result driven application of health care
 - **Task settlement model, no competition model**
 - Profiling as top-clinical health care, innovation in basic health care
 - Networking
 - **Integration of biomedical group** (Catholic University Leuven) and hospital (UZ Leuven)

Shift to more complex case-mix



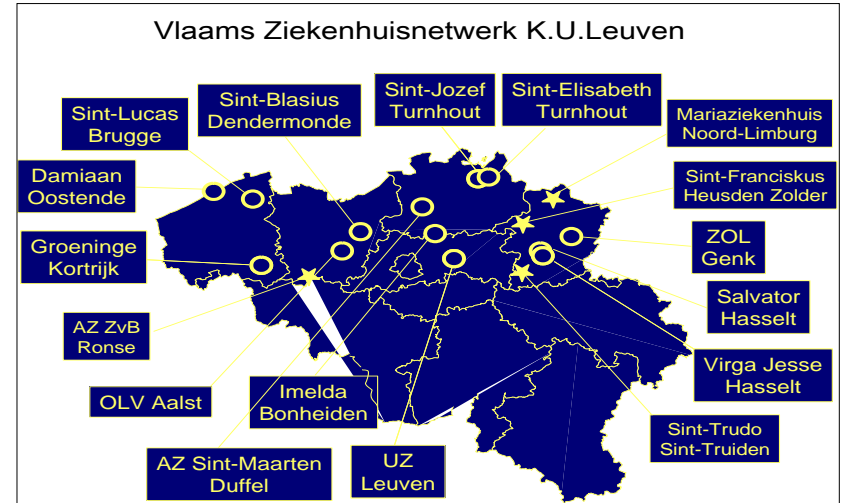
More ambulatory care



Integration KUL-UZ / partners



Flemish Hospital network K.U.Leuven



Spatial ordening area planning → needs

- INFRASTRUCTURAL

- Evacuation & move of the city-campus
18.000 m² still in use as clinical space (>600 employees)
- Ageing of the infrastructure GHB
25.000 m² > 30 years old, 98.972 m² > 20 years old

- SUBSTANTIVE- STRATEGIC

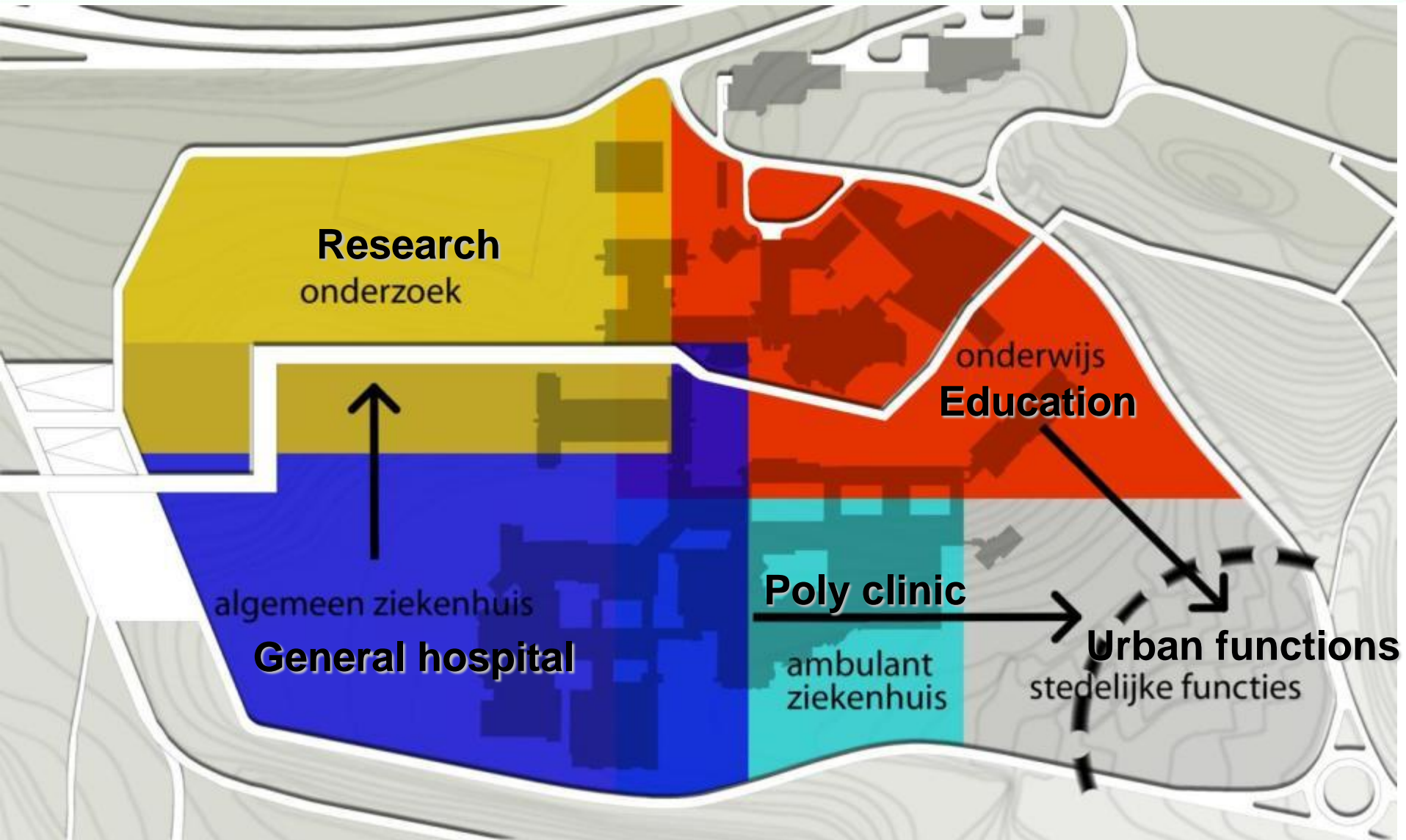
- Implementation of the (care)strategic plan:
GHB acute campus / PLB rehabilitation campus
- Downsizing number of beds – Shifts in care profile:
More intensive care / increase of ambulatory care
- Incorporated strategy group Biomedical KUL - UZ Leuven
- *Health-Science Campus : magnet site open for third parties : Red Cross, KHL college (nurseryschool), VIB (Flemish research institute for biotechnology), ...*



ANALYSE - SCHAAVERGELIJKING GASTHUISBERG - LEUVEN
CAMPUS GHB LEUVEN KCAP met KARRES en BRANDS 03/2003

2003

- Transform former campus plan → < 25 year
- To predict all needs for the next 25 years :
 - *Care : transfer & re-homing, renewal,*
 - *Education : K.U.LEUVEN – KHLEUVEN*
 - *Research : Programmes - Spin-offs- VIB*
- Expert-authority in spatial sheduling



awg architecten Antwerp www.awg.be



Metaphor for the City:

a “city in development”. What primes is structure, shape and terrain.

Principle of containment, that attempt to set an end on taking possession of open space, intense use of space within the walls. The instrument is a closed ring road encircling the campus.

Green Lungs:

the surrounding “open” areas remain intact and form a green buffer zone around the enclosed centre.

Heart Metaphor:

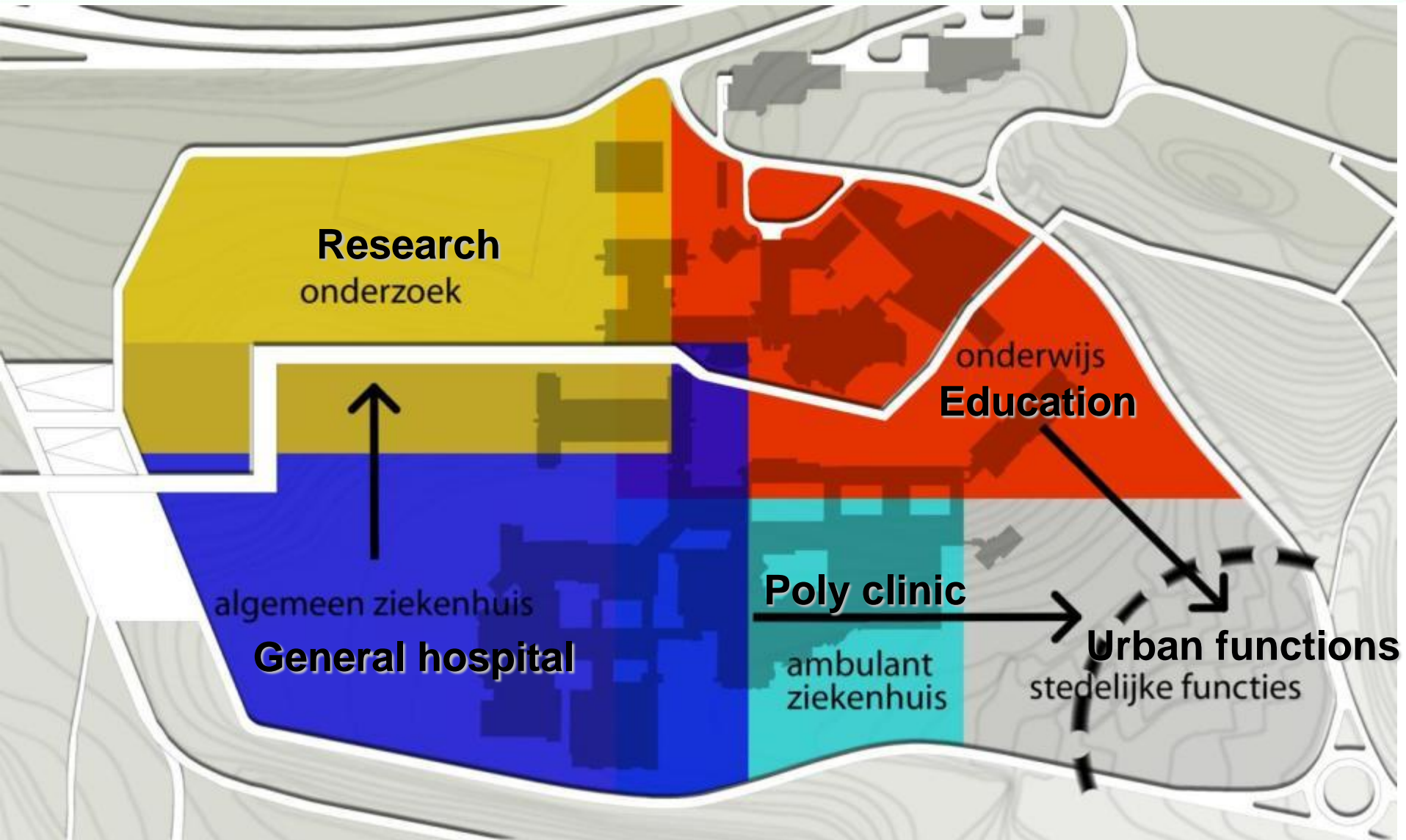
the campus divided into four sections ;Hospital, Research, Education and Urban functions.

The Cross-Axis :

connecting the existing to the newly-built, linking the open spaces to the buildings around them. The horizontal line represents the existing visitor’s axis, The vertical line forms a supplement to developing a clear, logical link between new and existing development on all levels.

Campusplan

- Pro (+)
 - Strategy biomedical campus
 - Increase of interaction between services and functions
 - Shorten of walking distances
 - Transparency, liveability, sustainability
- Contra (-)
 - Need to integrate the management of the campus
 - Complexity of realisation
 - Incremental costs :
 - Underground parkings
 - Grate-dimension (7.8 m x 7.8m) = overproportion
 - Investment versus exploitation
 - Overhead(functions)



O&N 4
Biotechnologie

ONCO
uitbreiding fase III

MIC + GMP

Rega-instituut

Animalium

kopstation /
datacenter

Administratief
gebouw

Auditorium

Parkinggebouw
K.U.L.

KHL

2011

Fase IVc
Ziekenhuisschool &
Kinderpsychiatrie

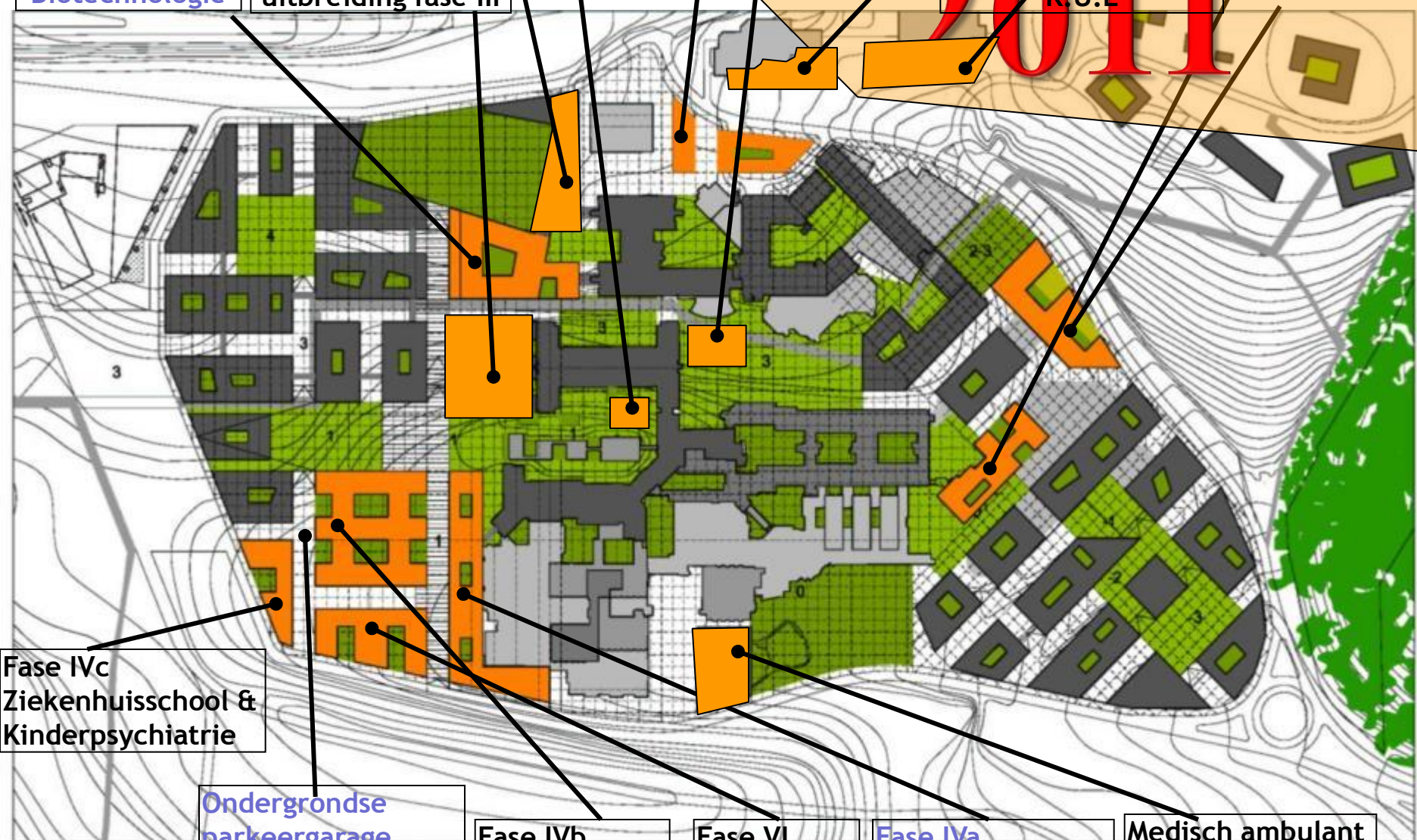
Ondergrondse
parkeergarage

Fase IVb
Vrouw & Kind

Fase VI
Psychiatrie

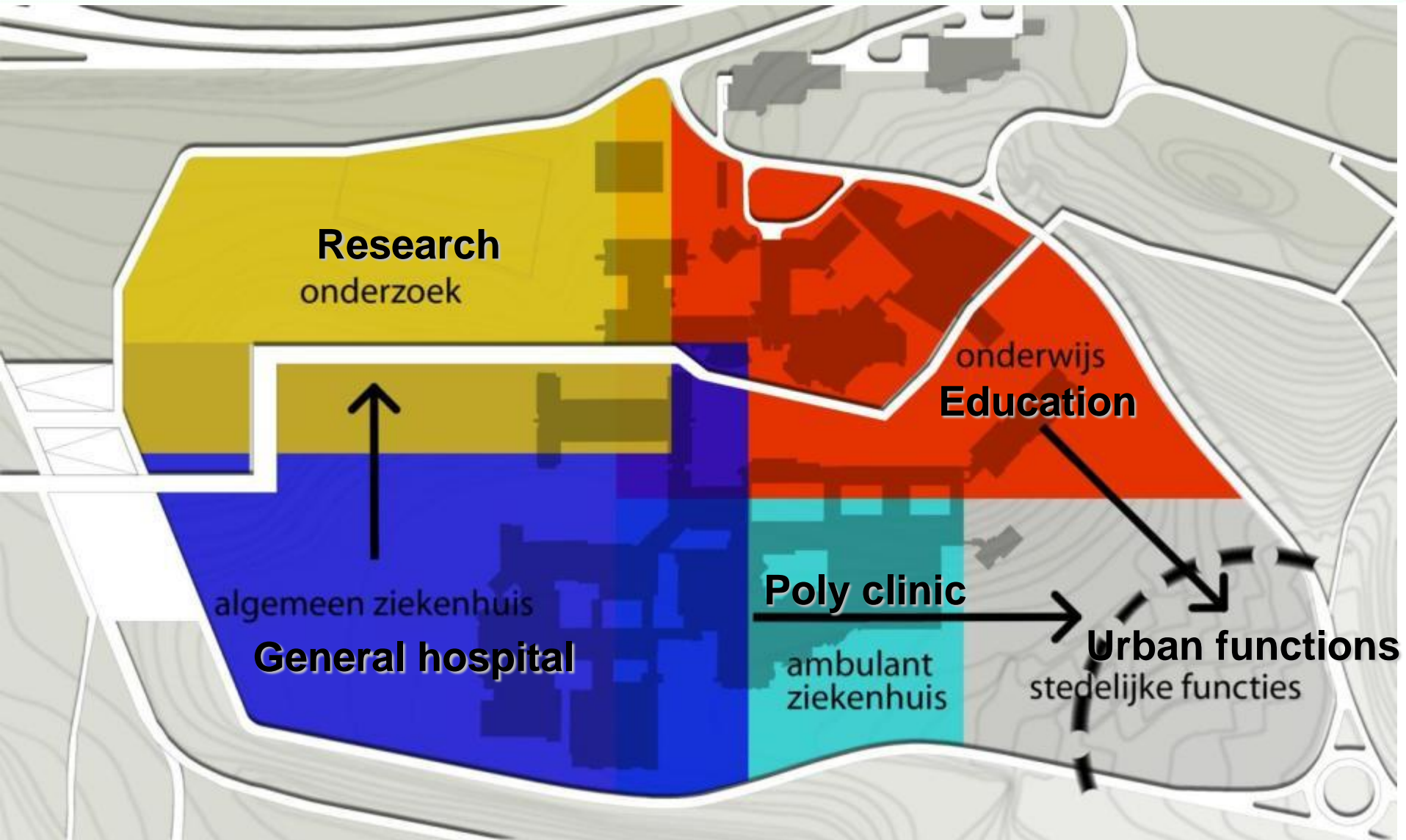
Fase IVa
Kritieke Diensten

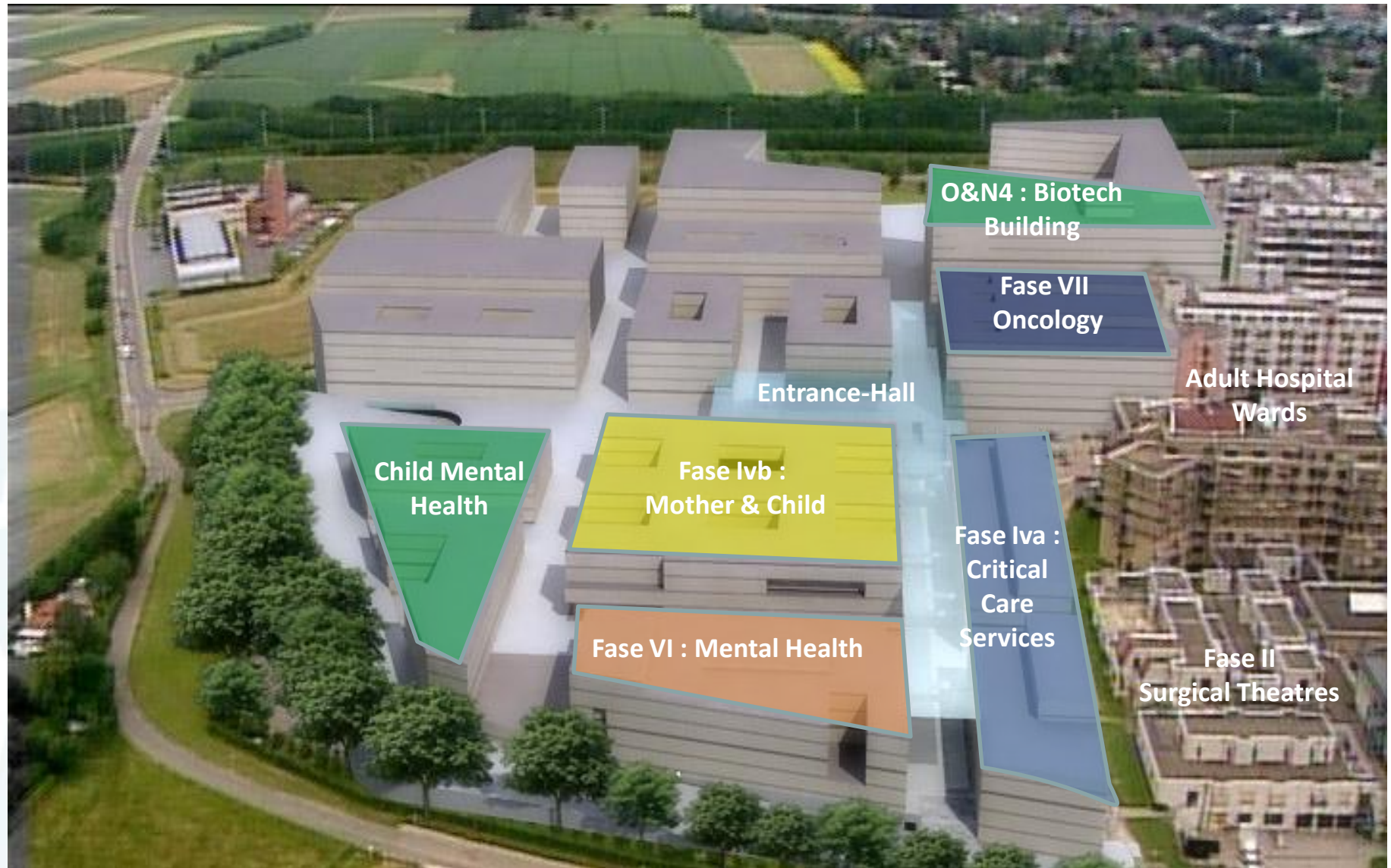
Medisch ambulant
centrum



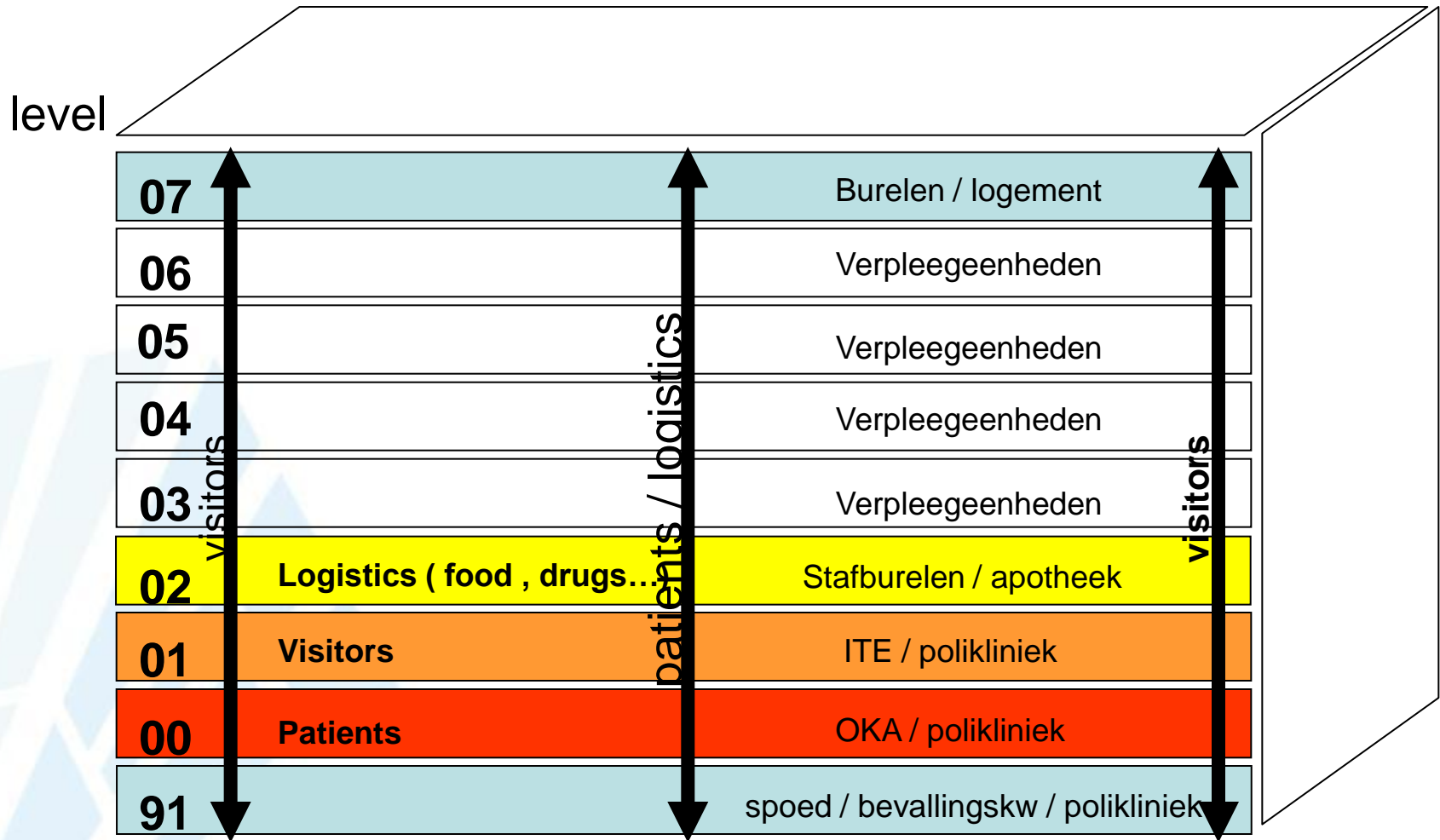




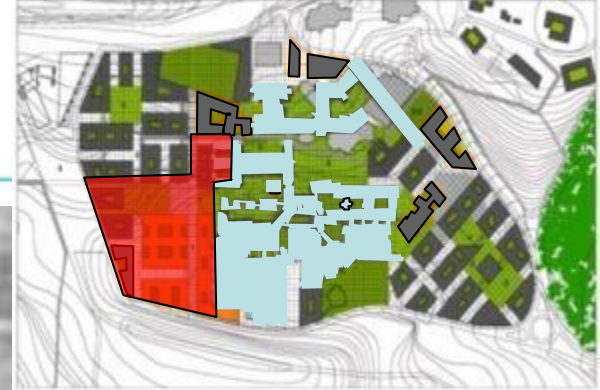








Timing



Fase VII
Oncology
2014-2017

Entrance Hall 2014-2015

Fase IVa
Critical care
2010-2013

Fase Ivb Women and child
2013-2015

Fase VI
Mental Health
2011-2013

Fase IVc
Mental Health
Children
2014-2016

Underground
Parking building
2009-2012

O&N4



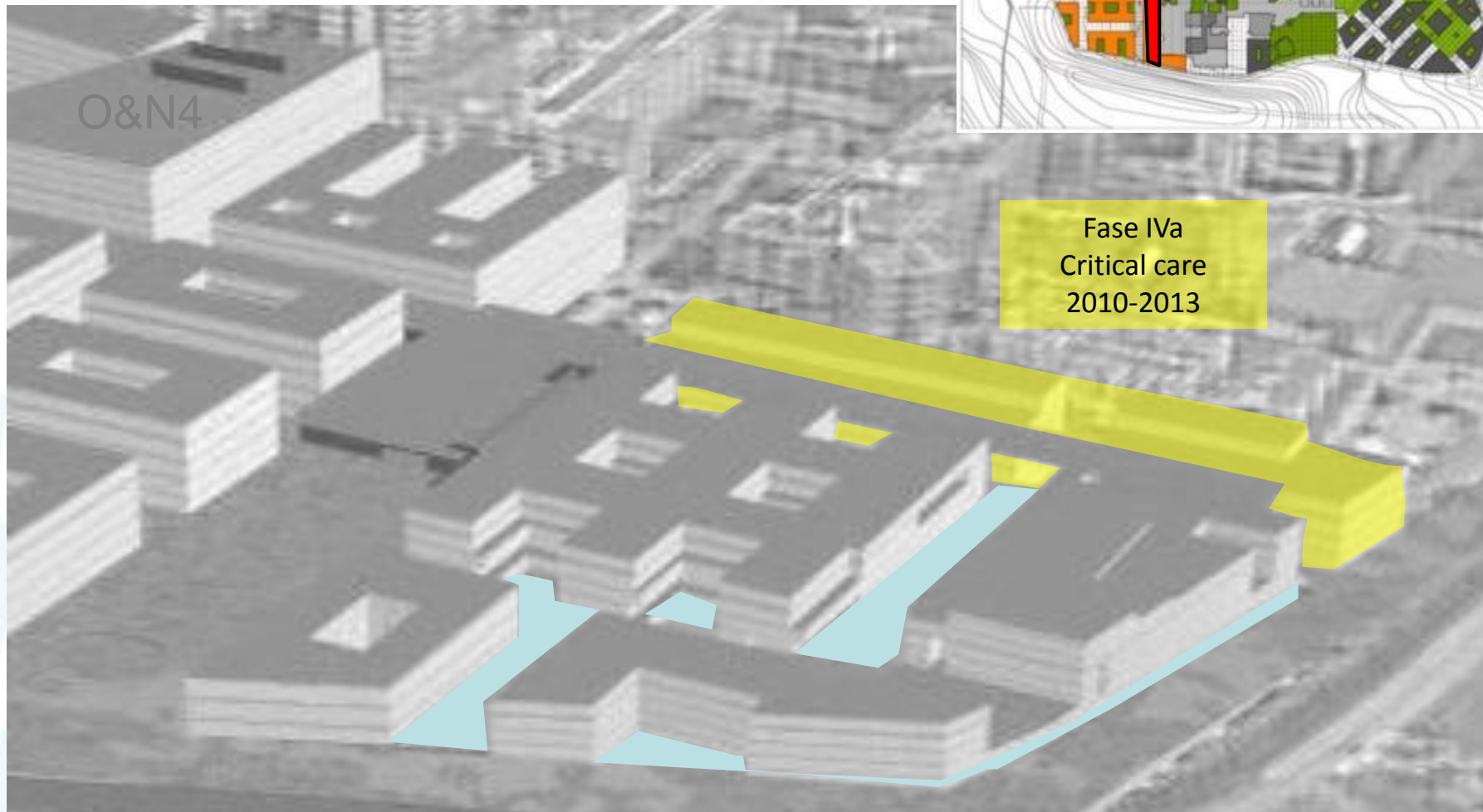
situation 2011

- **Key figures**

- 1500 spots
- $\pm 50.000 \text{ m}^2$ over 3 levels
- Parking spots for Ambulances
- **Flexibility:** 7,8m x 7,8m

- **Timing implementation**

- Start September 2009
- In use
 - Parking part 1 (500 p s): February 2011
 - Parking part 2 (1000 p s): September 2012



- **Key figures**

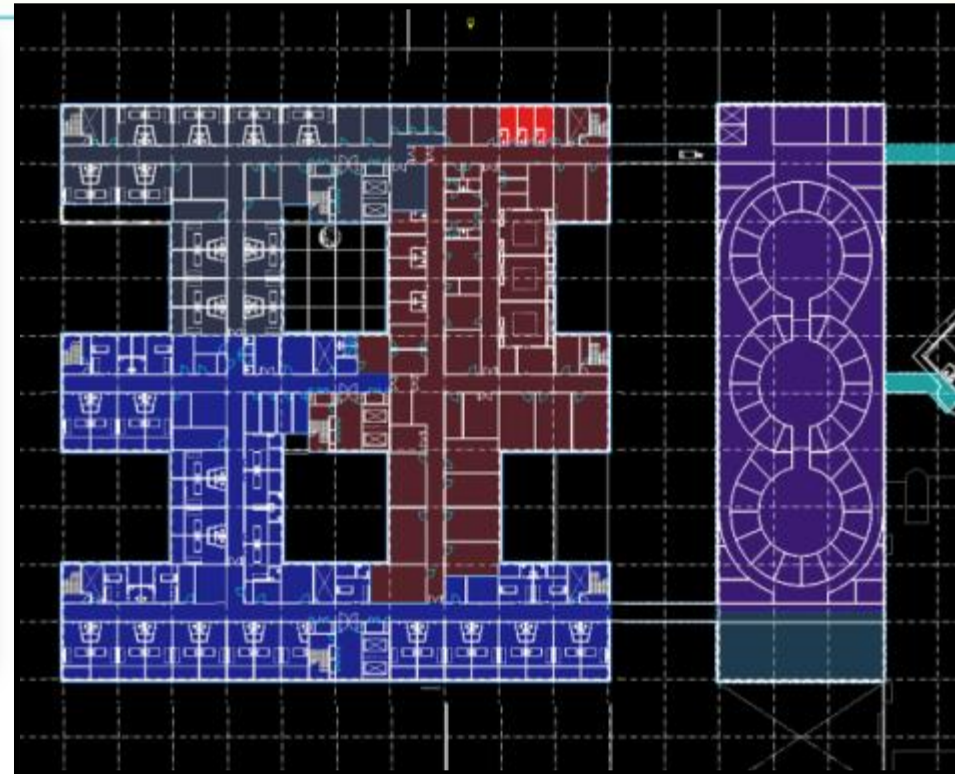
- ± 32.000 m² over 5 floors
 - Emergency room
 - 10 Operating theatres
 - 2 Intensive Care Units (ICU) (28 beds)
 - Neonatology ICU (35 beds)
 - Dialysis

- **Timing implementation**

- Start
- In use

end 2009

begin 2014





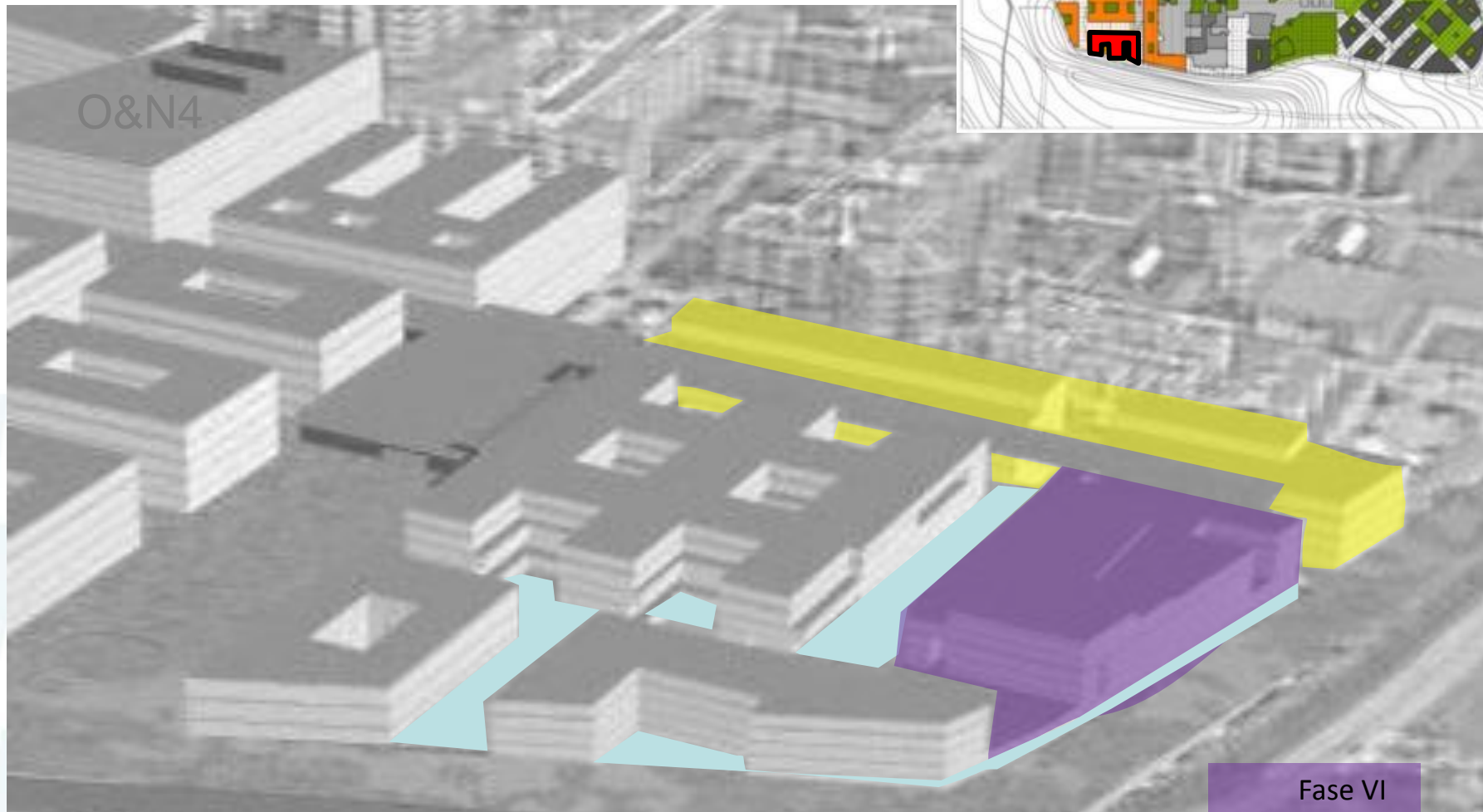
CORDEEL

casco



+03 nicu





Fase VI
Mental health
2011-2013

- **Keyfigures**

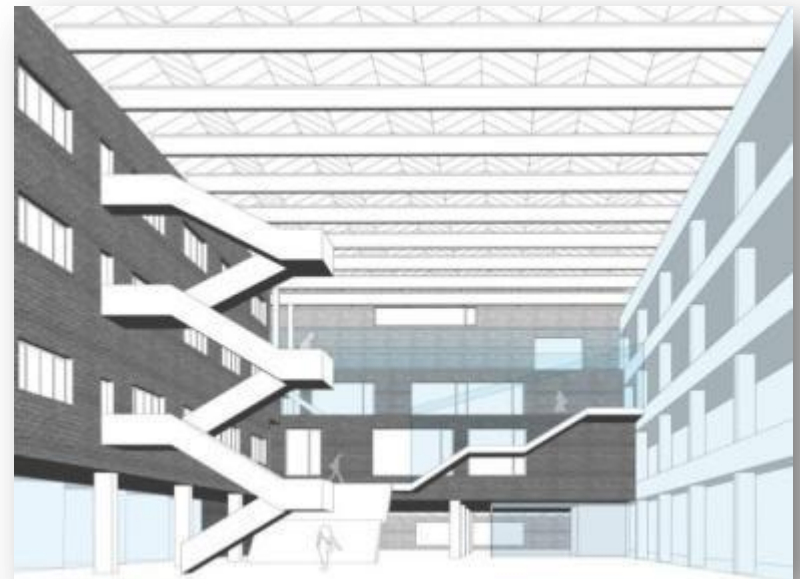
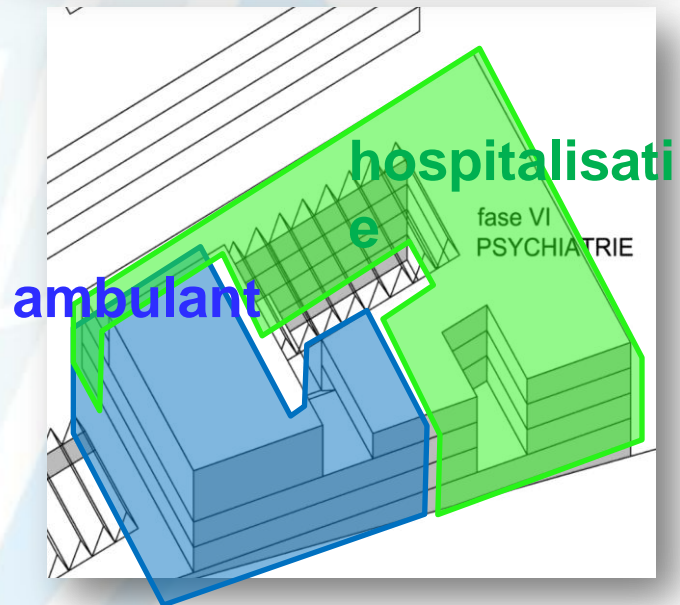
- ± 9.500 m² over 5 levels for **acute mental health**
- Hospitalisation (90 A-beds)
- Out patient care (25 a-beds)

- **Timing realisation**

- Start
- In use

september 2011

february 2014



Timing

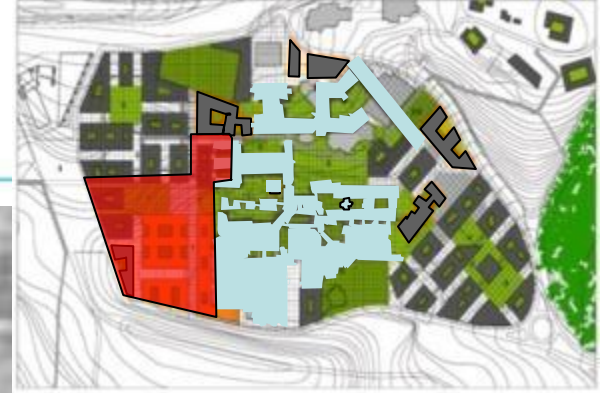
Fase VII
Oncology
2014-2017

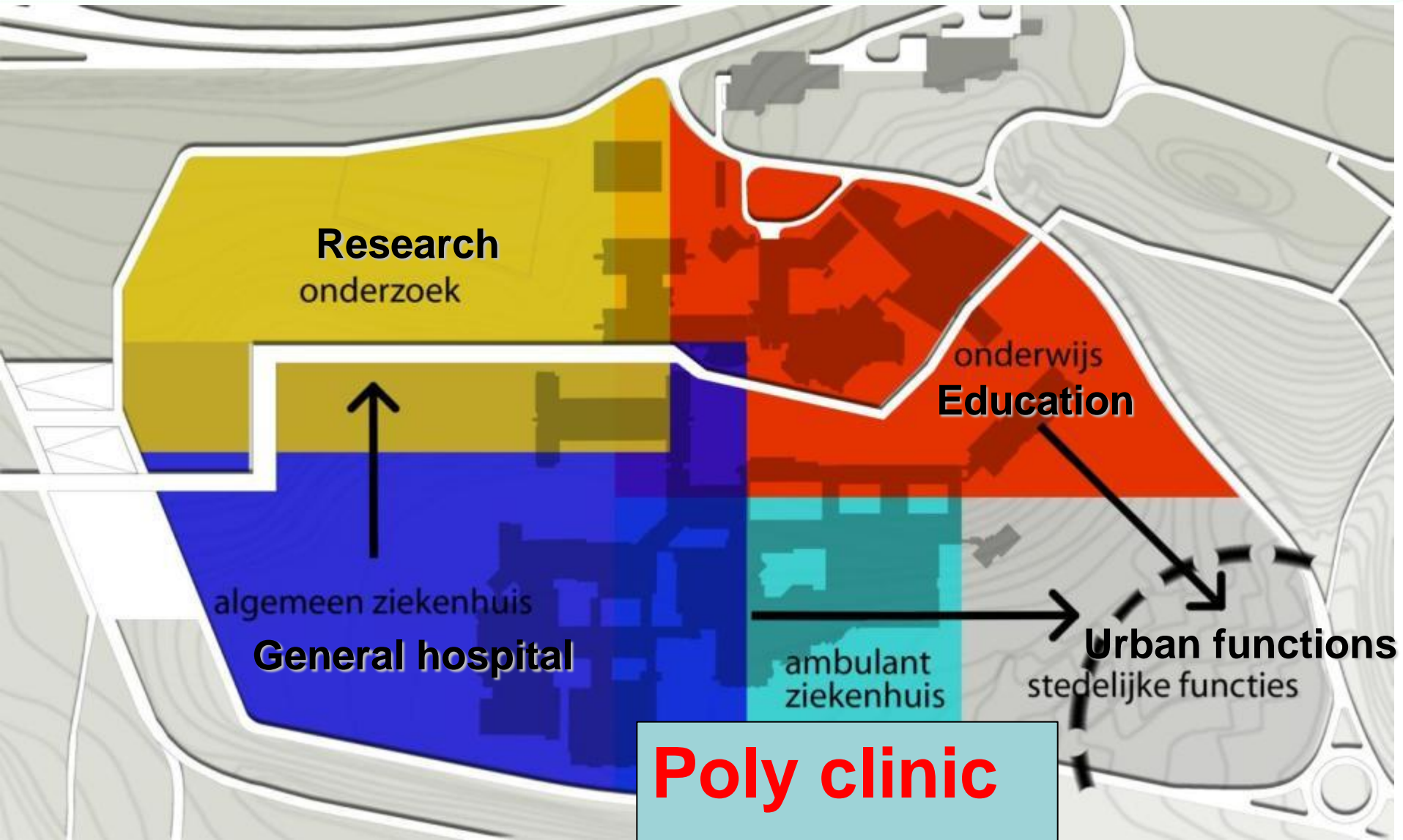
Entrance Hall 2014-2015

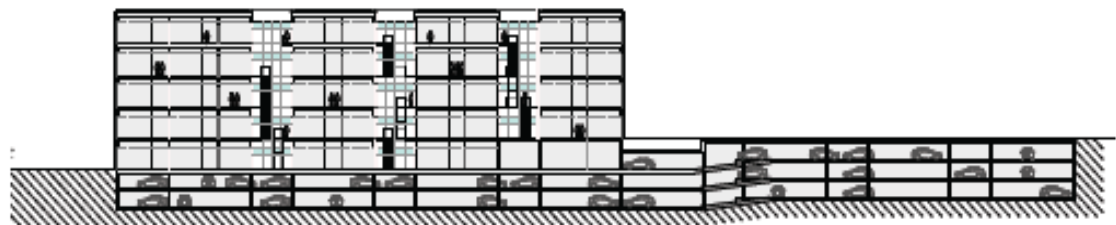
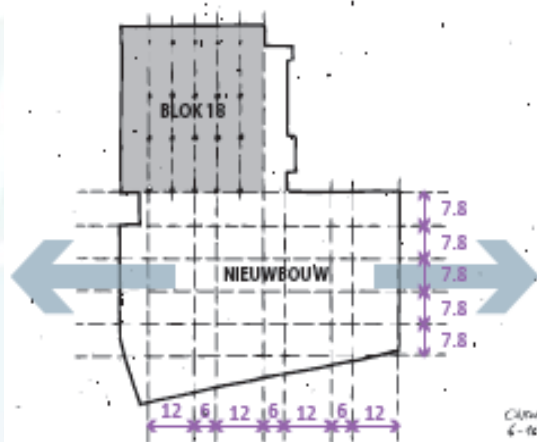
Fase Ivb Women and child
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O&N4



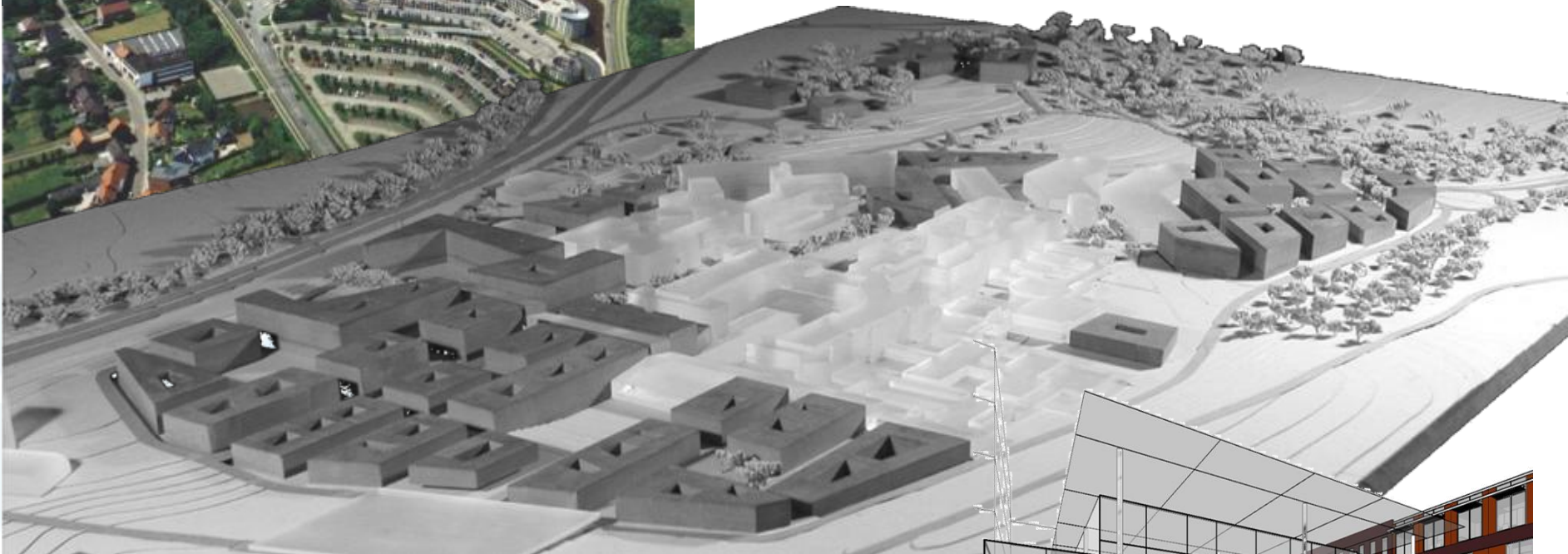




Study started september 2011



Building a new town



Employees :	> 15.000
Patients :	> 1.000.000/year
Visitors :	> 1.000.000/year
Students (2011-2012) :	> 11.000 (medicine, pharmacy, nursing,...)



Project H2O

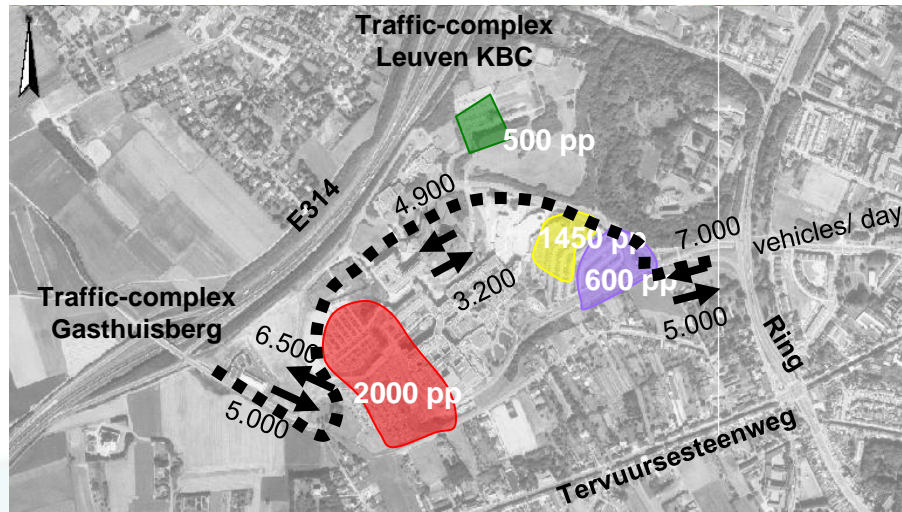


Healthcare Research & Education

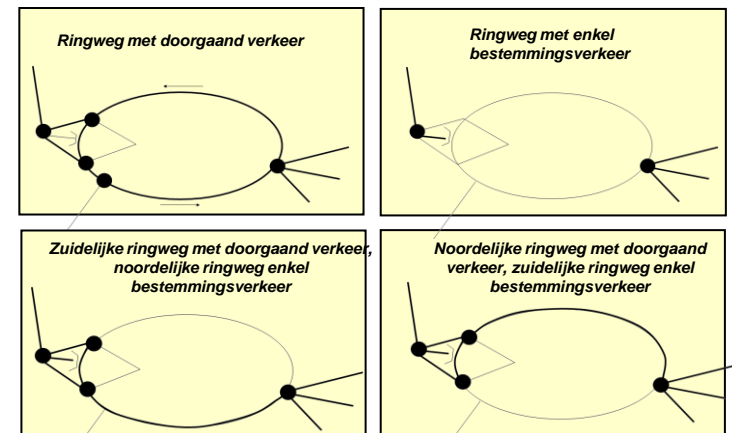
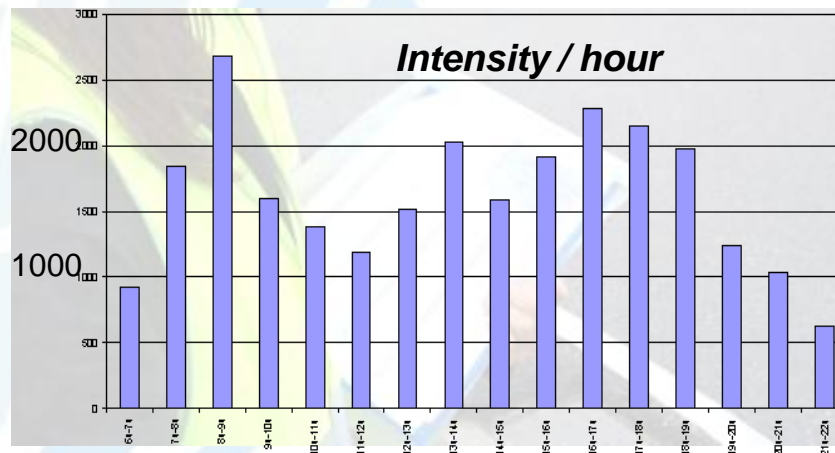
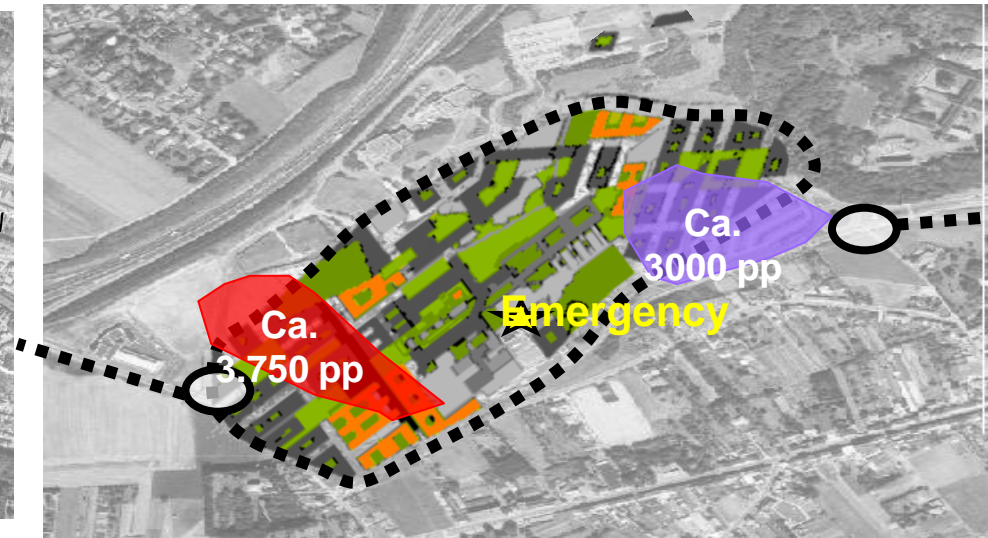
Healthcare t(w)o Organise

1. Ring road & parkinglots (< mobility)
2. Covered street en central entrance hall
3. Energy production and distribution
4. Catering
5. Logistic platform

Actual situation (as is)



Scenario's for the future (to be)



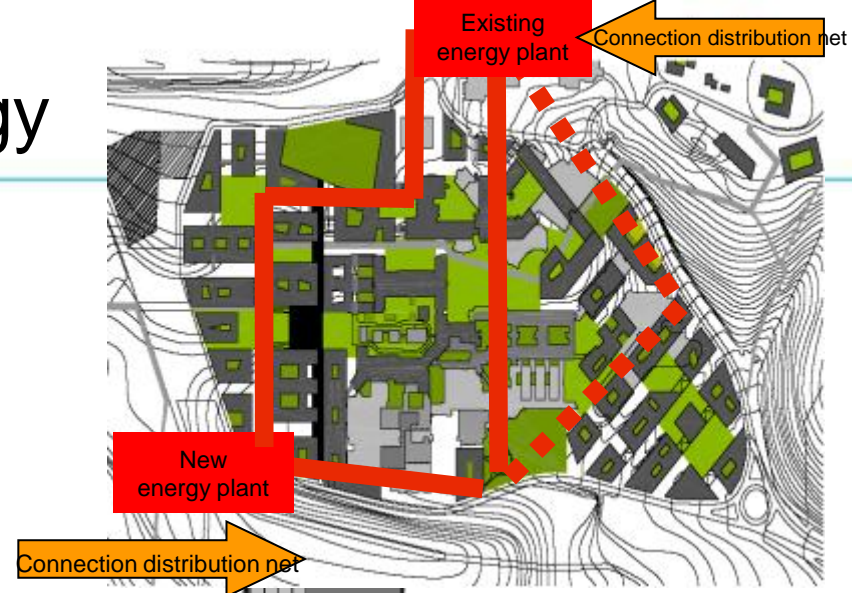


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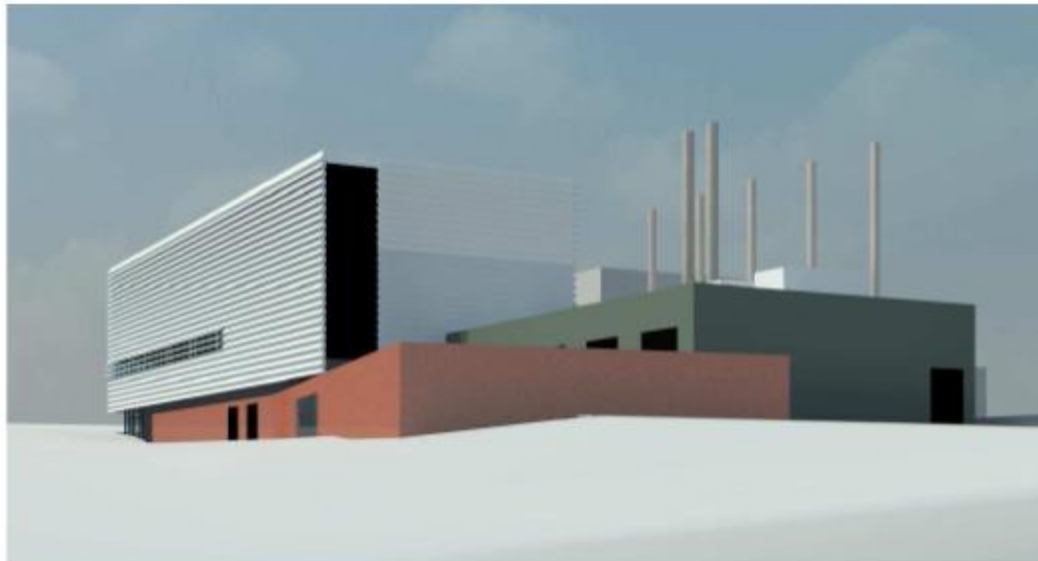
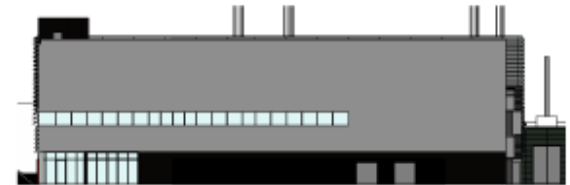
Masterplan Energy

Electrical and data center

- timing and implementation
- Start sept 2009
- In use end 2010



gevelopeningen liggend achter lamellen



- Functions of building
 - Electrical energy supply plant
 - Master plan Energy Supply campus Gasthuisberg
 - » New plant for electricity
 - Normal- en emergency power distributed via knots
 - Tension of 10,5 kV
 - Guarantee operability:
 - » Main distributors installed in twofold
 - Emergency power production dimensioned according to 'N+1' rule

- Functions of building
 - Data center
 - In addition to current data centers UZ Leuven
 - Cover existing and future growth in IT systems
 - Principal project objectives:
 - » redundancy
 - » Maintenance-friendly
 - » Energy efficient
 - » Cost efficient

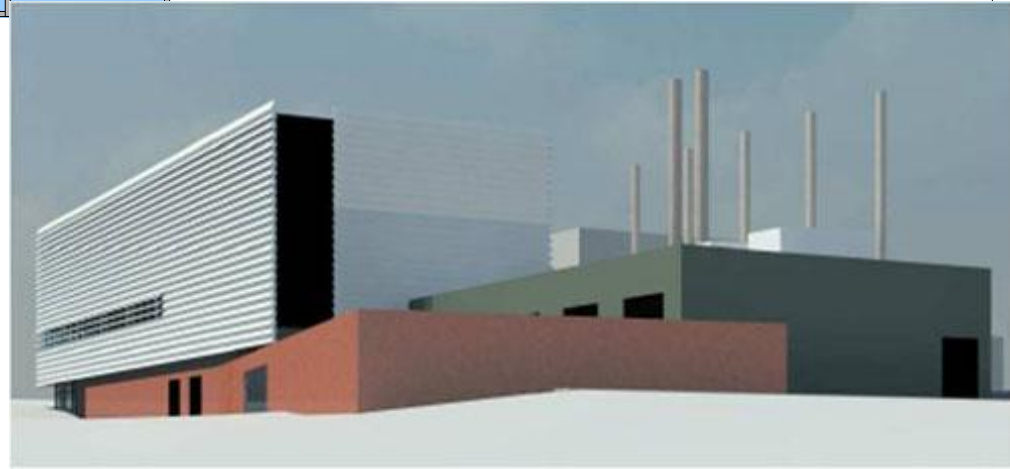
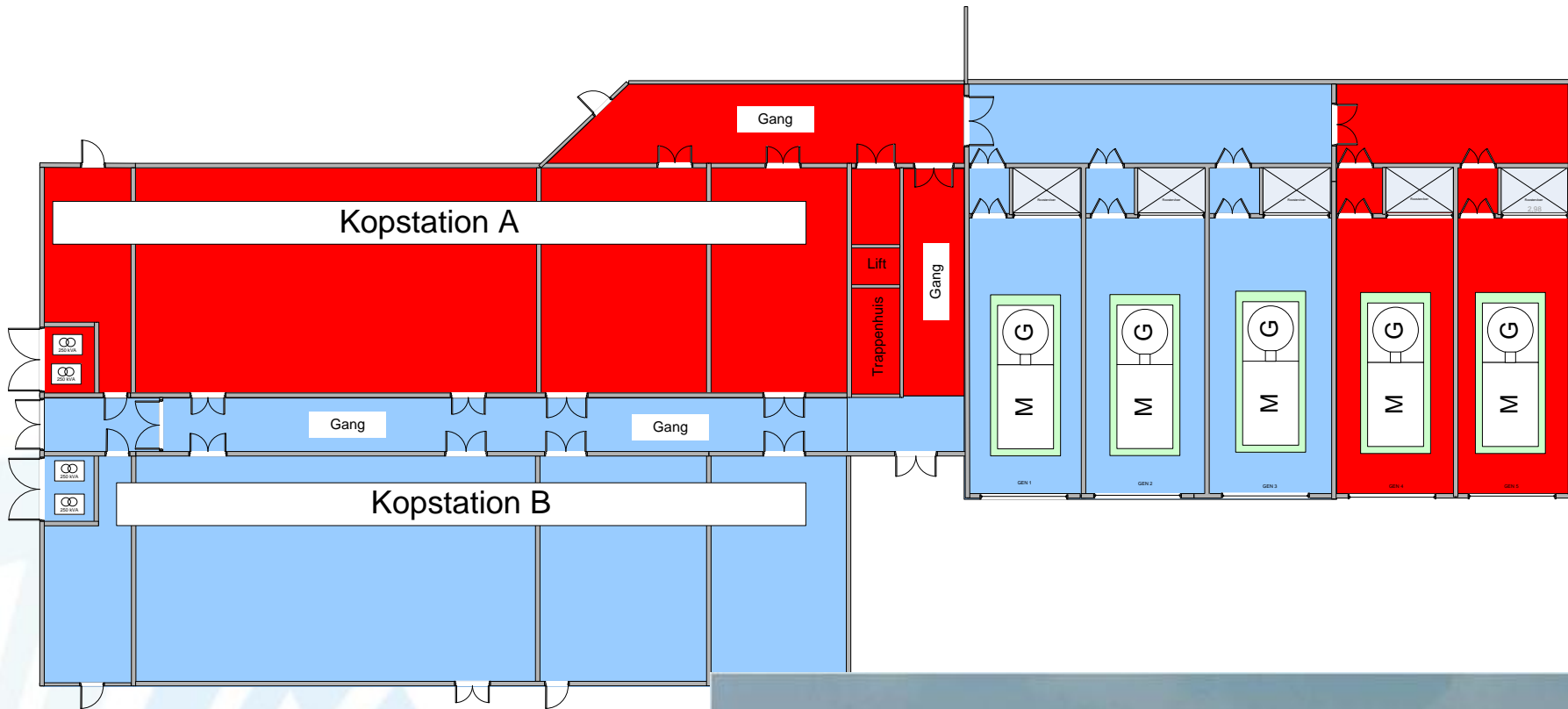


Electrical energy supply plant

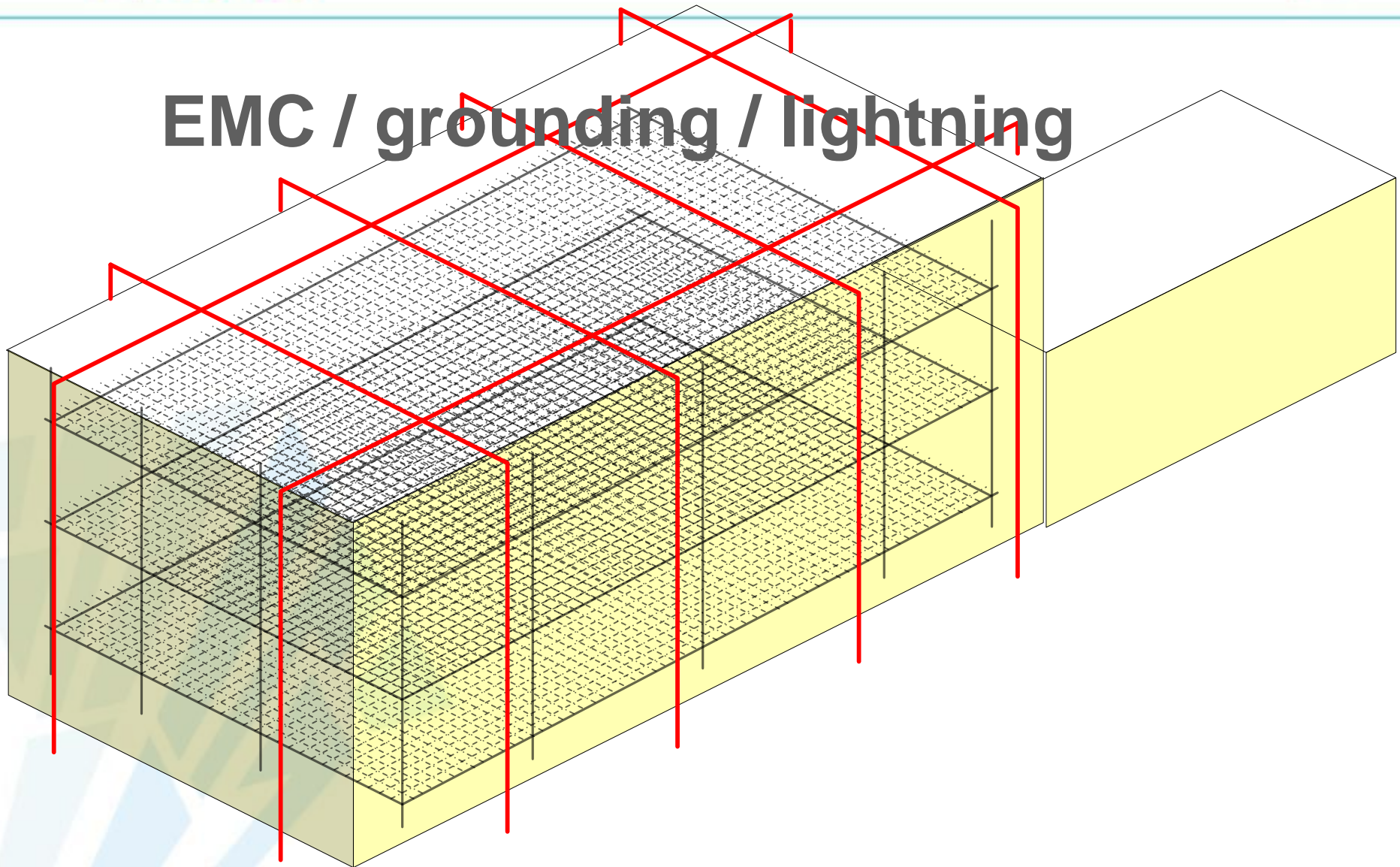


- Electrical energy supply plant
- Data center
- Emergency power plant





EMC / grounding / lightning





THE END

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