

WSD

SAHLGRENKA
UNIVERSITY
HOSPITAL
*Imaging and
Intervention Centre*

12th June 2017

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**SAHLGRENKA
UNIVERSITY
HOSPITAL**

Imaging and Intervention Centre



Sahlgrenska University Hospital

A hospital with a history

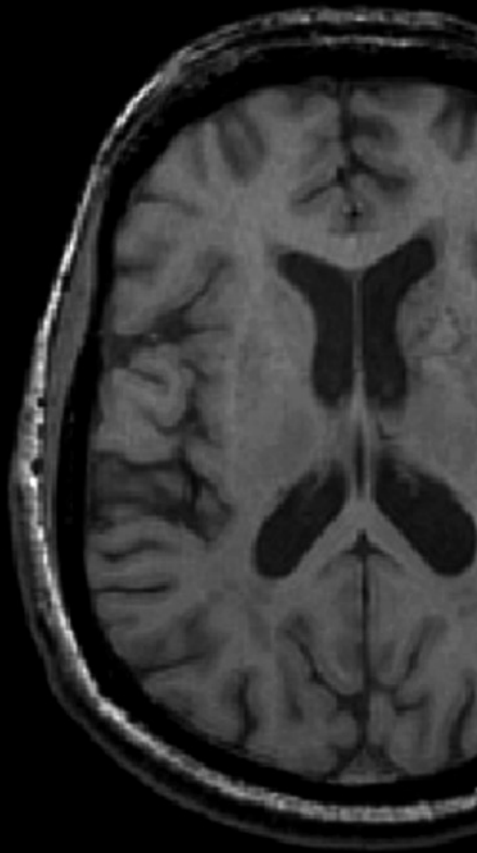
- ***Sahlgrenska Hospital***
 - *First patient admitted on 11th March 1782*
 - *Founded by Director Nicolaus Sahlgren*
 - *Dr Pehr Dubb was the first hospital director*
 - *Located in the middle of the city of Gothenburg*
- ***Sahlgrenska University Hospital***
 - *Founded on 1st January 1997*
- ***Sahlgrenska University Hospital in numbers*** (2015)
 - *10 000 new born*
 - *360 transplantations*
 - *200 000 emergency patients*
 - *16 000 employees*



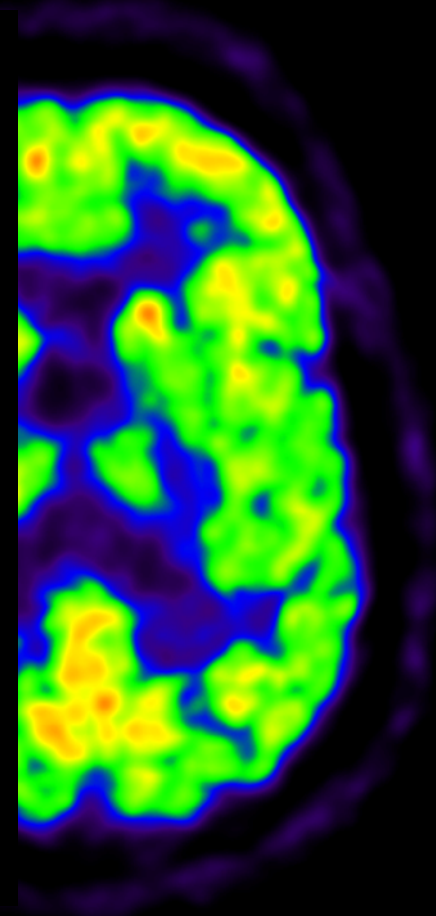
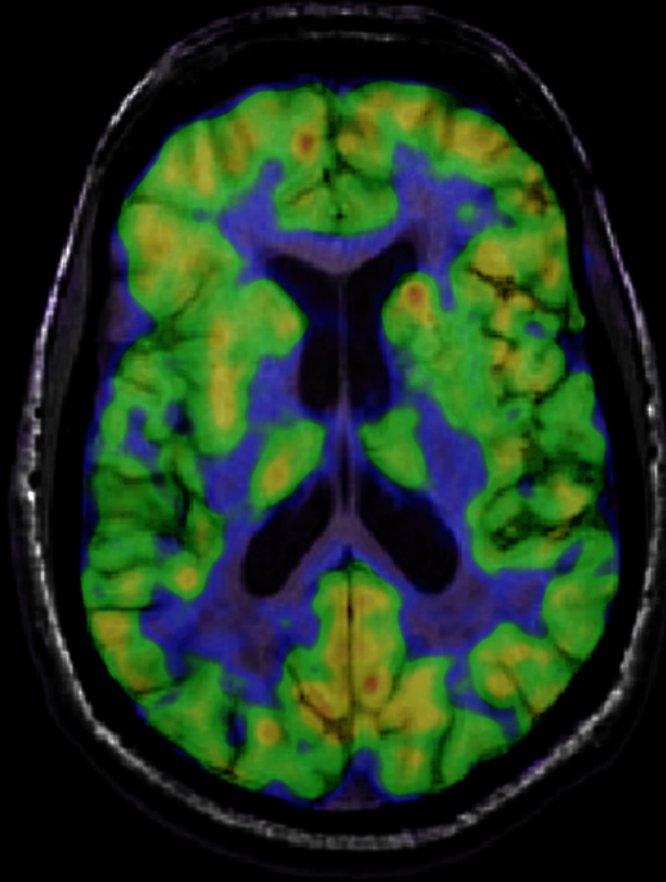


Background





MRI



PET

Timetable

1990s Need for better facilities for radiology and surgery

2004 Planning process started

2010 Implementation decision with financing plan

2012 Construction of "the Imaging and Intervention Centre"

2016 First patient

2020 Fully operational

Key Facts

Building area: 21000 m²

Investment: SEK 2 bn

Developer: Västfastigheter

Architect: Tyréns AB



The Aim

Most recent developments within imaging technology

Image diagnostics and surgery and hybrid operating theatres

New working methods

Cyclotron housed in the cellar

Research



The Vision

Collaboration across borders

Single building – closer collaboration

Partnership with local academic and industrial players

Facilities adapting to changing conditions



The Imaging and Intervention Centre

Hybrid operation and Intervention

X-rays

MRI

Ultrasound

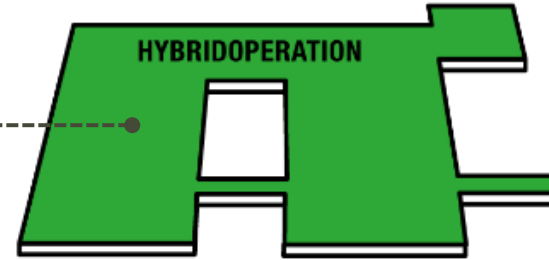
Computed tomography

positron emission tomography (PET)

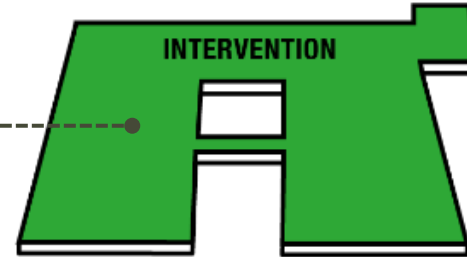
... or combinations of these technologies.



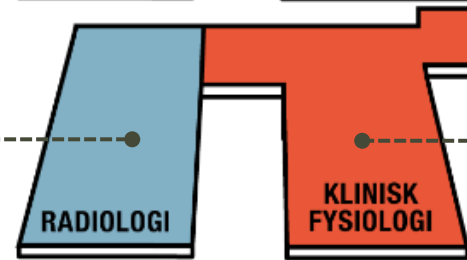
HYBRID OPERATION



INTERVENTION

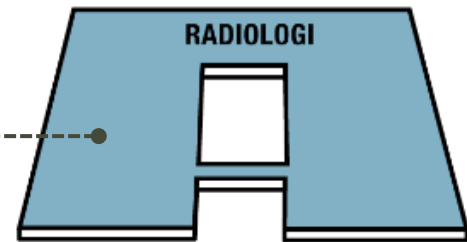


RADIOLOGI

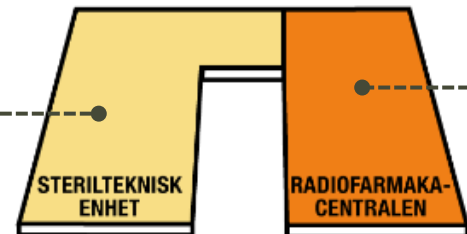


NUCLEAR MEDICINE

RADIOLOGI



**INSTR. STERILISATION
CENTRE**



**RADIATON PHYSICS
SECTION**

For Example, the Ground floor

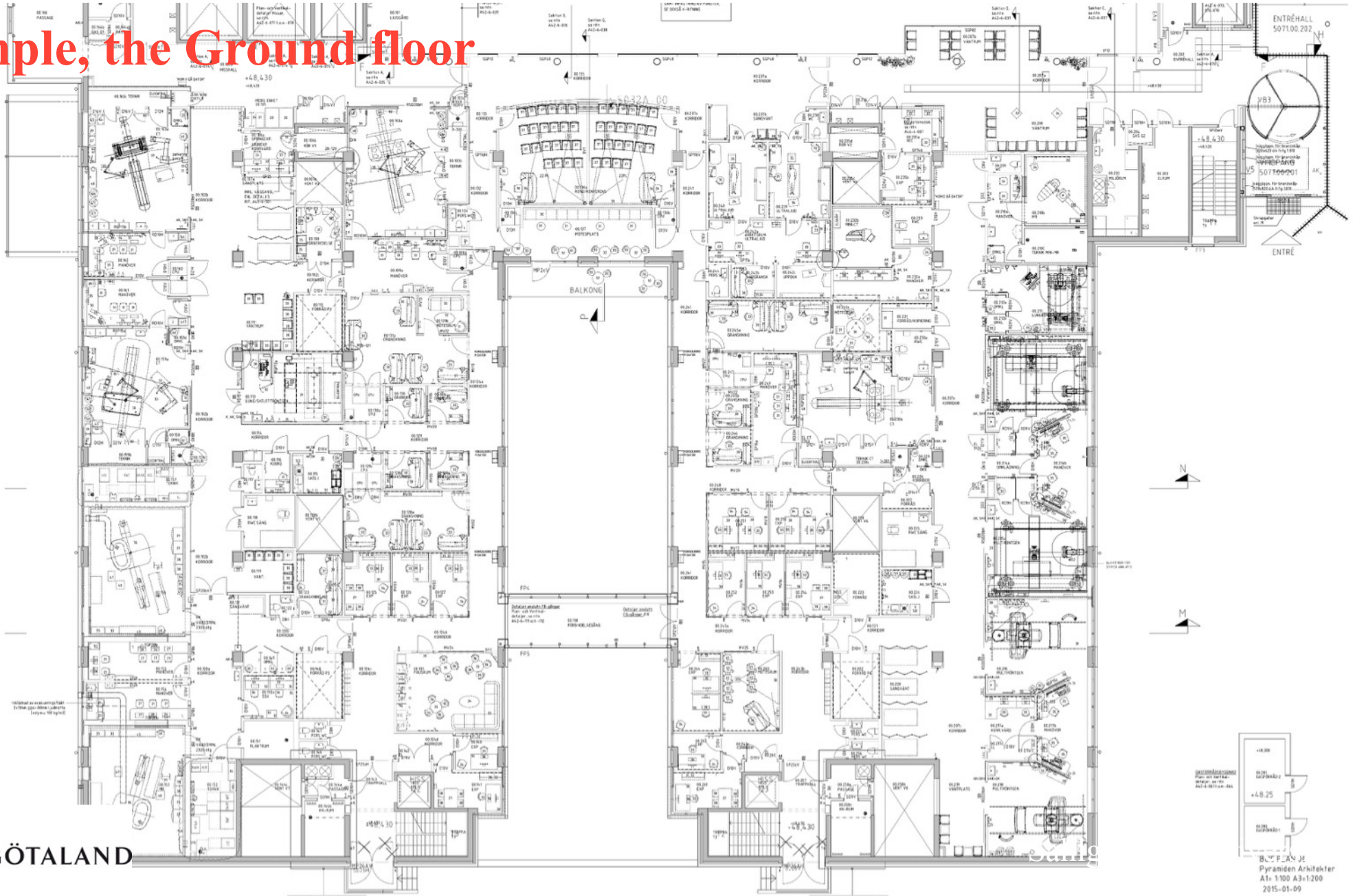




Photo TYRÉNS





Photo TYRÉNS



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Designing a robust and flexible building that is aligned with the vision of the Imaging and Intervention Centre

We will take a look at:

- Its structure and foundations
- How it is kept up to date
- How it all fits



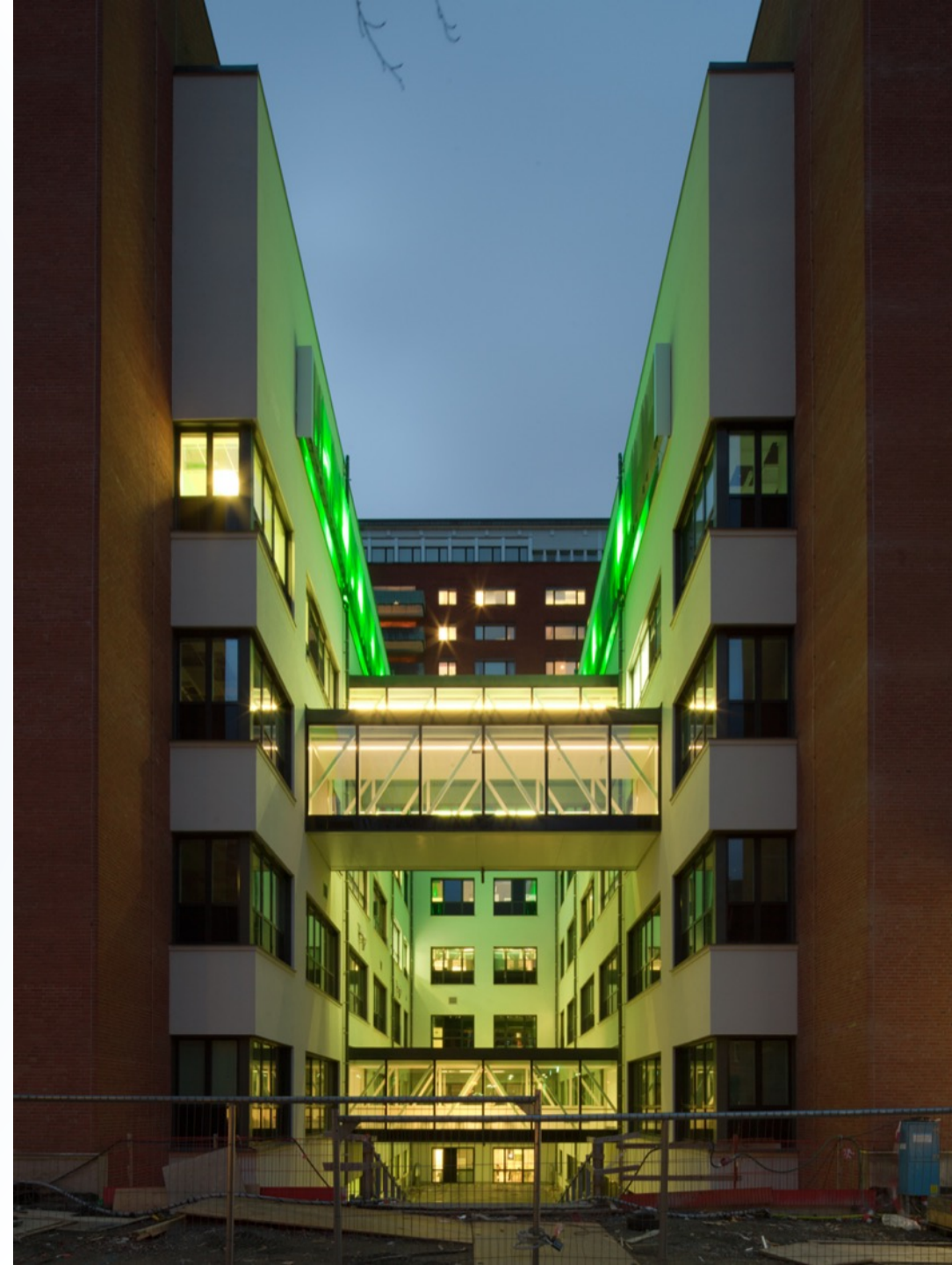
Structure and foundations

Requirements

- Complex medical equipment
 - *High loads supporting up to 12 tons (MRI)*
 - *Rigid structure to minimise vibrations*
 - *High additional load from lead and steel plates in walls and floor*
 - *Construction work carried out beside functional buildings and underground infrastructure*
- Flexibility
 - *Building prepares to locate MRI in all surfaces along the façade*
 - *Slabs prepared for additional holes in case of reconstruction*
 - *Easy to mount equipment slab constructions*

Building

- Foundations: solid steel piles anchored to rock
- Basement: in situ cast concrete with moisture barrier
- Slabs: in situ cast concrete without beams
 - *Stiffness in two directions*
 - *Easier to locate (new) holes*
 - *High load bearing capacity*
- Top floors (technical floors): steel construction



Keeping it up to date

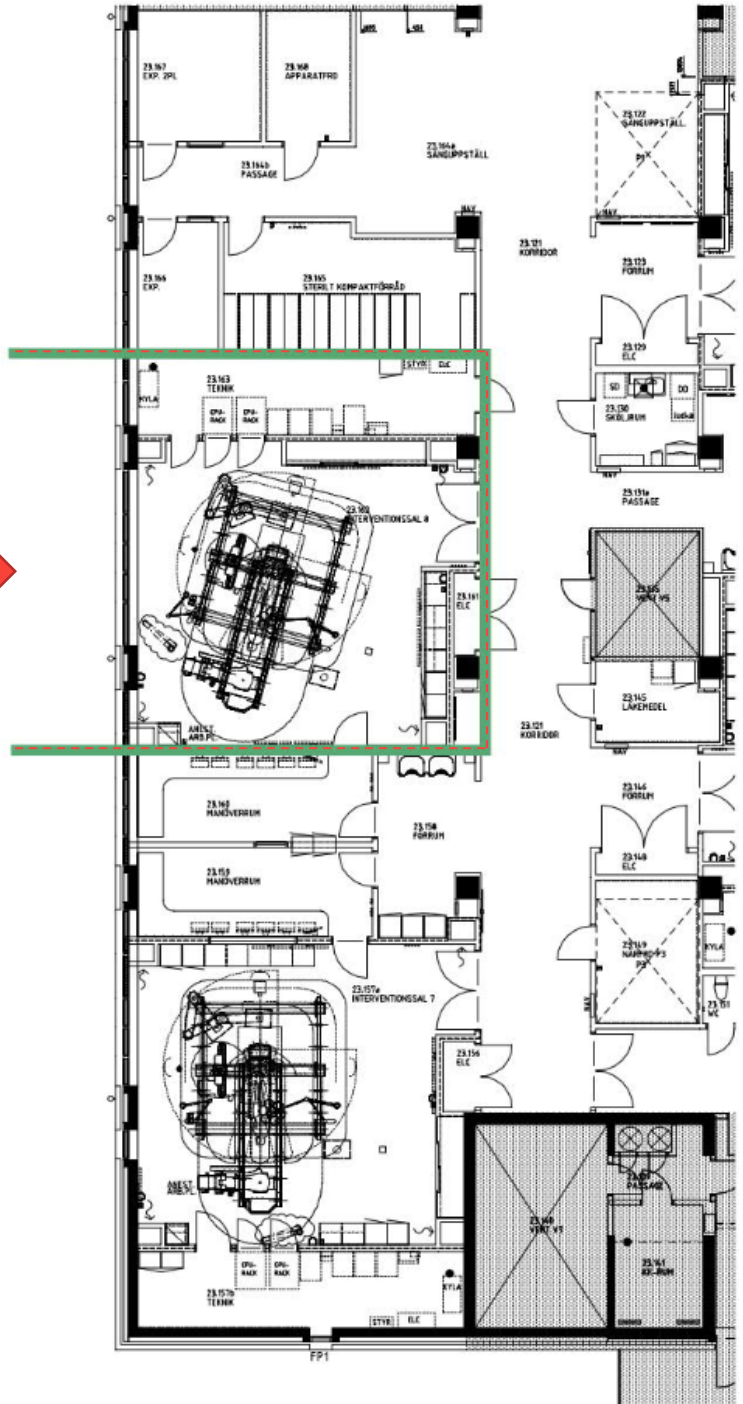
- We are expecting one major change in the technical equipment every other month
- To make that possible every OP-room is designed to "stand alone"
- Minimising impact on clinical operations



Keeping it up to date





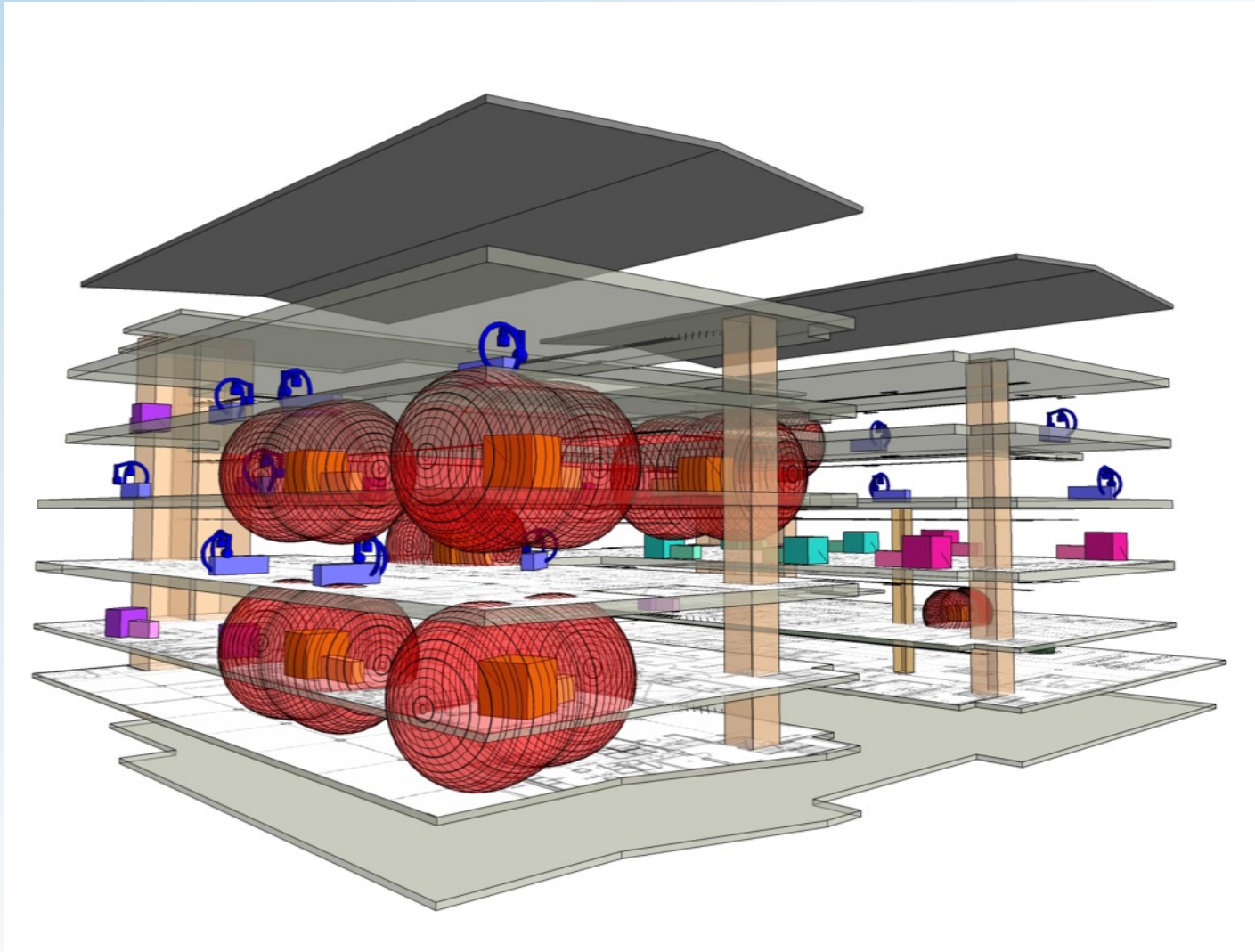


Making it all fit

- Careful planning
- Unique combination of advanced medical equipment within close proximity
- A team with in-depth knowledge of the technical equipment's special requirements







Making it all fit

Making it all fit

- Support to the design team and the contractors
- Focus on the logistics
- 400 patients were booked on the 1st day and everyone received the desired care



Thanks!

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