



Universitair Medisch Centrum  
*Utrecht*

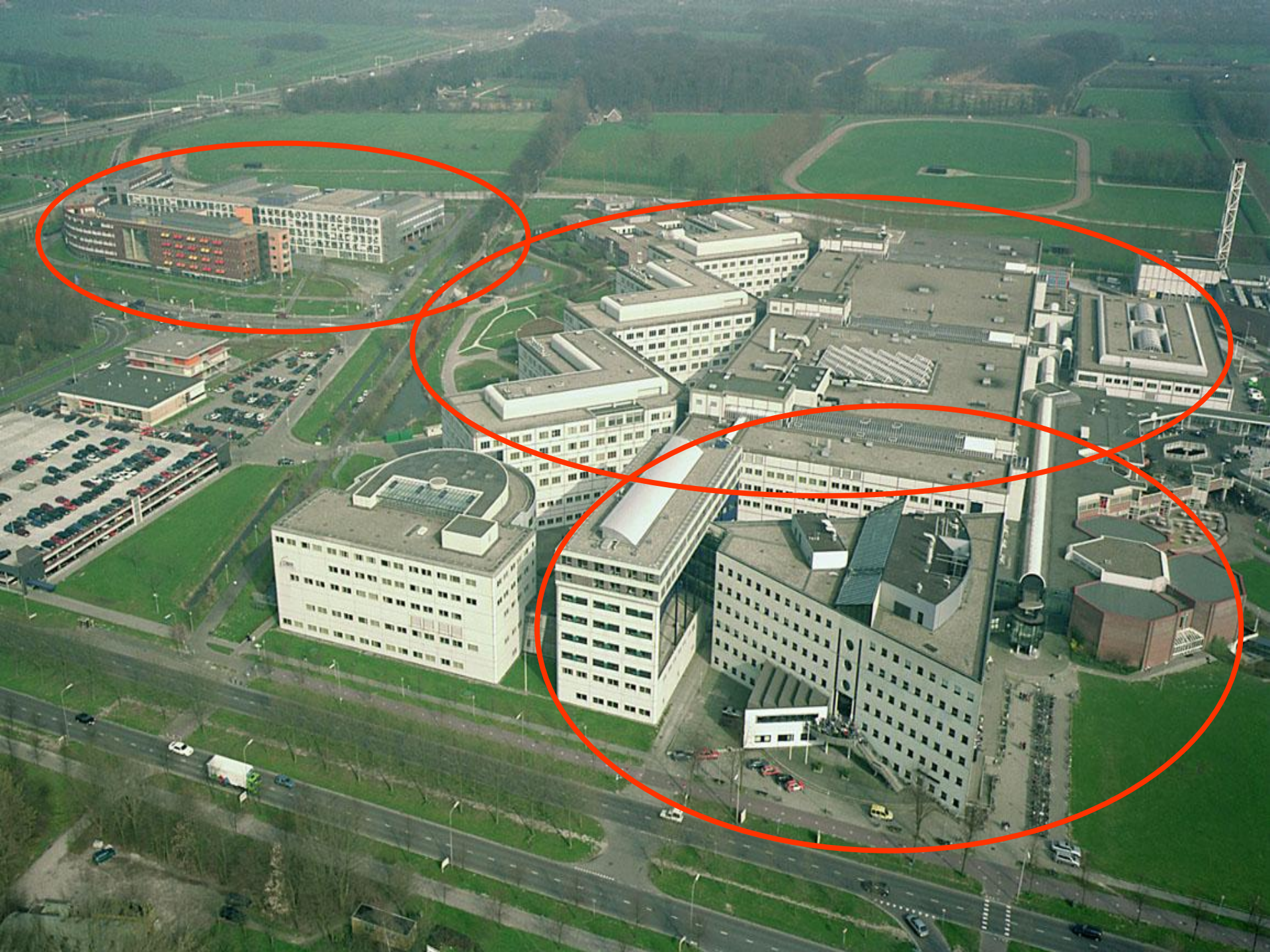
# University Medical Centers in the Netherlands: why and how

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Chairman of the board

UMC Utrecht

Chairman of the Dutch Federation of UMCs (NFU)





# The university system in the Netherlands

- 13 semipublic universities
- 8 with a faculty of medicine
- Faculty of medicine:
  - $\pm$  20% of university budget
  - $\pm$  25% of the professors
  - undergraduate (bio)medical teaching
  - preclinical and clinical research



# The healthcare system in the Netherlands

- Private providers (not-for-profit)
- Private insurers (not-for-profit)
- Tight regulation of:
  - Patient selection
  - Premium
  - Budgets
- Currently changes in insurance and budget system aiming at more competition



# Hospitals in the Netherlands

- 100 hospitals  
(16 million inhabitants)
- 20 'large' hospitals  
(>500 beds, teaching facilities)
- 8 academic hospitals  
(associated with university)
- Few 'commercial' out-patient clinics  
(<5% of care)



# Ministry of Education

University



Board of trustees



Executive board



Faculties (deans)

- students
- teachers
- researchers

Academic Hospital



Board of trustees



Executive board



Departments (chiefs)

- students
- teachers
- researchers
- patients



# Ministry of Education





# University Medical Centers: Accountability

- Various models depending on local situations
- Allocation of money for research, teaching and patient care to divisions/departments
- Integration of money flow at the division/department level
- Contract model with departments based on performance
- Integrated annual budget and report





# University Medical Centers: Internal Organization

- Various models depending on local situations
- Integration of research, teaching and patient care in divisions/departments
- Management team of division/department is responsible for all functions
- 60% of executive board members of UMCs has a background as professor



# University Medical Center Utrecht: Organization

- Executive Board: 3 members  
(prof. of medicine, prof. of neurosciences, economist)  

- Central facilities (HRM, Finances, ICT)  

- 12 Divisions lead by 1 or 2 professors, 1 nursing and 1 operating manager.  

- Clinical departments, research groups etc with integrated budget responsibility



# University Medical Centers in the Netherlands

- Mergers of academic hospitals and medical faculties
- New organisations in 7 of 8 locations
- 60.000 employees,
- Total budget  $4.400 \times 10^6$
- Integration of care, education and research at all levels





# University Medical Centers: Is 8 enough?

- 340 first year medical students per UMC: that's a lot
- For teaching each UMC needs 5-10 other hospitals
- Geographic spread for specialized and tertiary care is needed
- Less UMCs than in the USA or Switzerland on population basis
- Competition fosters quality, in particular in research
- Increased awareness of the necessity to concentrate some functions



# 8 UMCs in the Netherlands: research and development

- 7.500 papers in peer-reviewed scientific journals per year
- One-third of total scientific output of the country
- 100.000 citations per year, 40% over world average
- High quality of clinical research
- Strong national and international cooperation
- 2000 new clinical research protocols per year
- Active human technology assessment departments



# 8 UMCs in the Netherlands: teaching and education

- Medical students (15.000)
- Bachelor and master programs in biomedical and health sciences (1500 students)
- Ph.D. programs (3500 students)
- Training for medical specialist (2500 residents)
- Training for specialized nursing (3000 students)
- New professionals: physician assistants en nurse practitioners
- Postgraduate teaching



# 8 UMCs in the Netherlands: patient care

- 800.000 new patients/year
- 60% tertiary/licensed care
- 80% of tertiary and 50% of licensed specialized care in the country
- 10% of secondary care in the country





# 8 UMCs in the Netherlands: health care funding

• Regular budget	€ 1.900
• licensed specialized care	€ 400
• Last resort tertiary care	€ 400
• Healthcare R&D	<u>€ 200</u>
	€ 2.900 x 10 <sup>6</sup>



# 8 UMCs in the Netherlands: research and education funding

- Bachelor and master programs € 400  
(tax money)
  - Post initial medical & nursing training € 200  
(insurers)
  - (Bio) medical research € 400  
(tax money)
  - Third party money € 500
- € 1.500 x 10<sup>6</sup>



# University Medical Centers: merging academic hospital and faculty of medicine

## PROs

- Strategic synergy
- Bench-to-bedside alignment
- Improved accountability
- Less bureaucracy

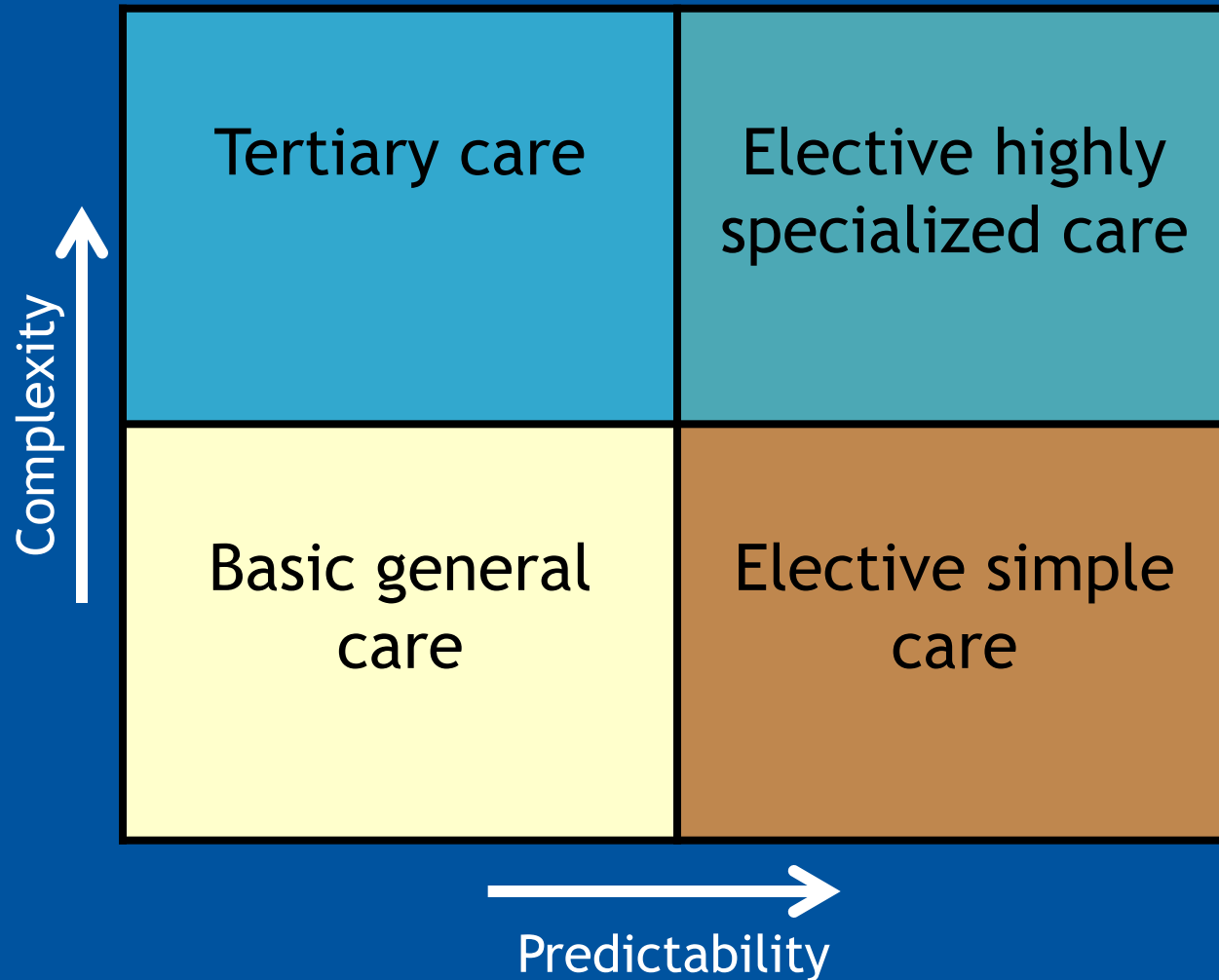


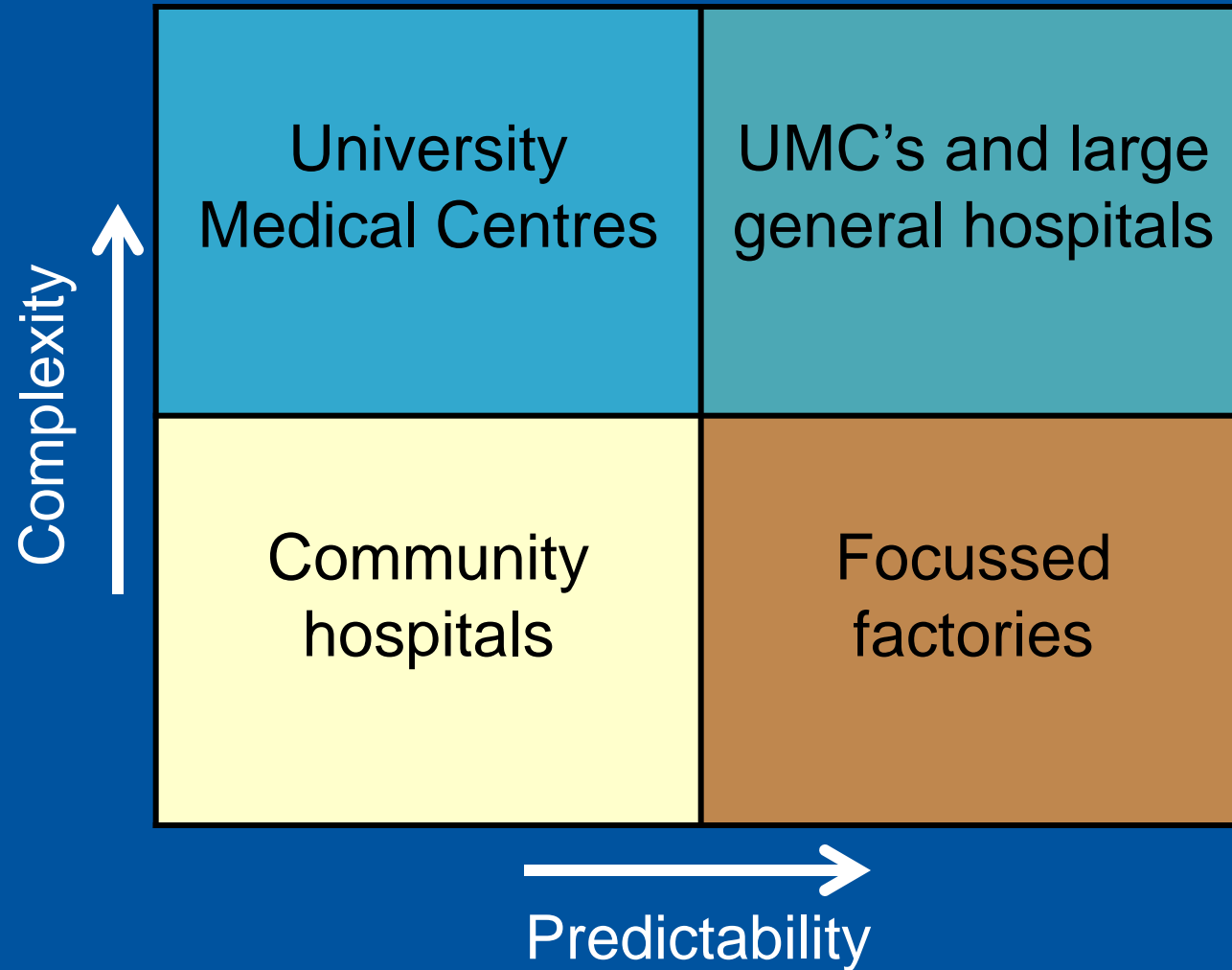
# University Medical Centers: merging academic hospital and faculty of medicine

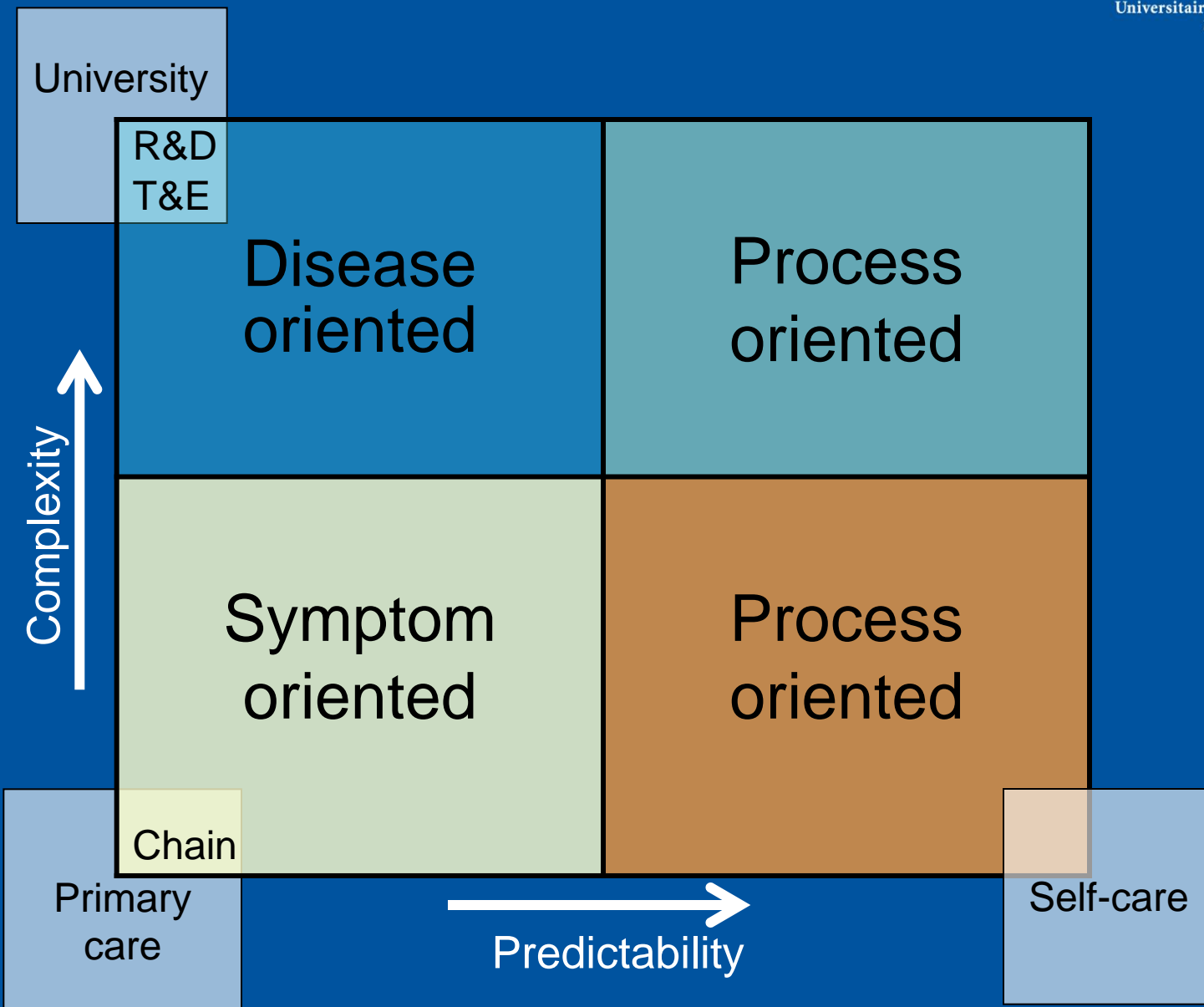
## CONS

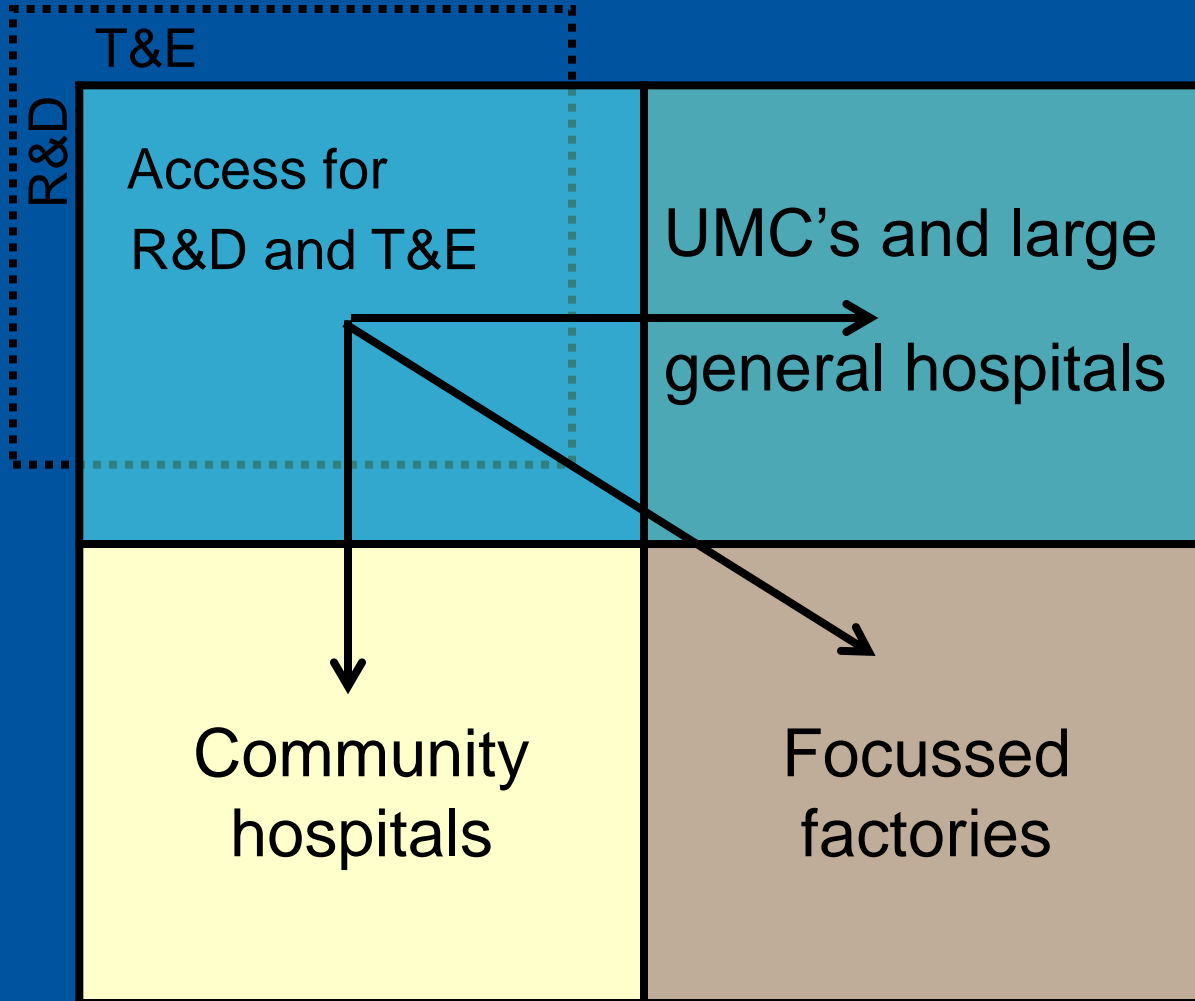
- “Research will suffer, patient care will dominate”
- “Patient care will pay for preclinical research”
- Loss of interaction with other academic disciplines
- A step toward separate medical universities

# Phenomenology of hospital care













# UMCs: ambitions

- The motor of research and development in health, disease and healthcare
- The breeding site of the health care work force
- The provider of tertiary care in the health care system



# UMCs: challenges

- How to maintain research and development (R&D)
- How to provide teaching and education (T&E)
- How to guarantee tertiary care for complex and 'orphan' patients (TC)

↪ in a money- market- driven system