



**Cruising into the future, innovations in orthopaedic surgery**  
09/12/2023 08:30 | Fysieke opleiding - Hogeschool VIVES - campus Brugge



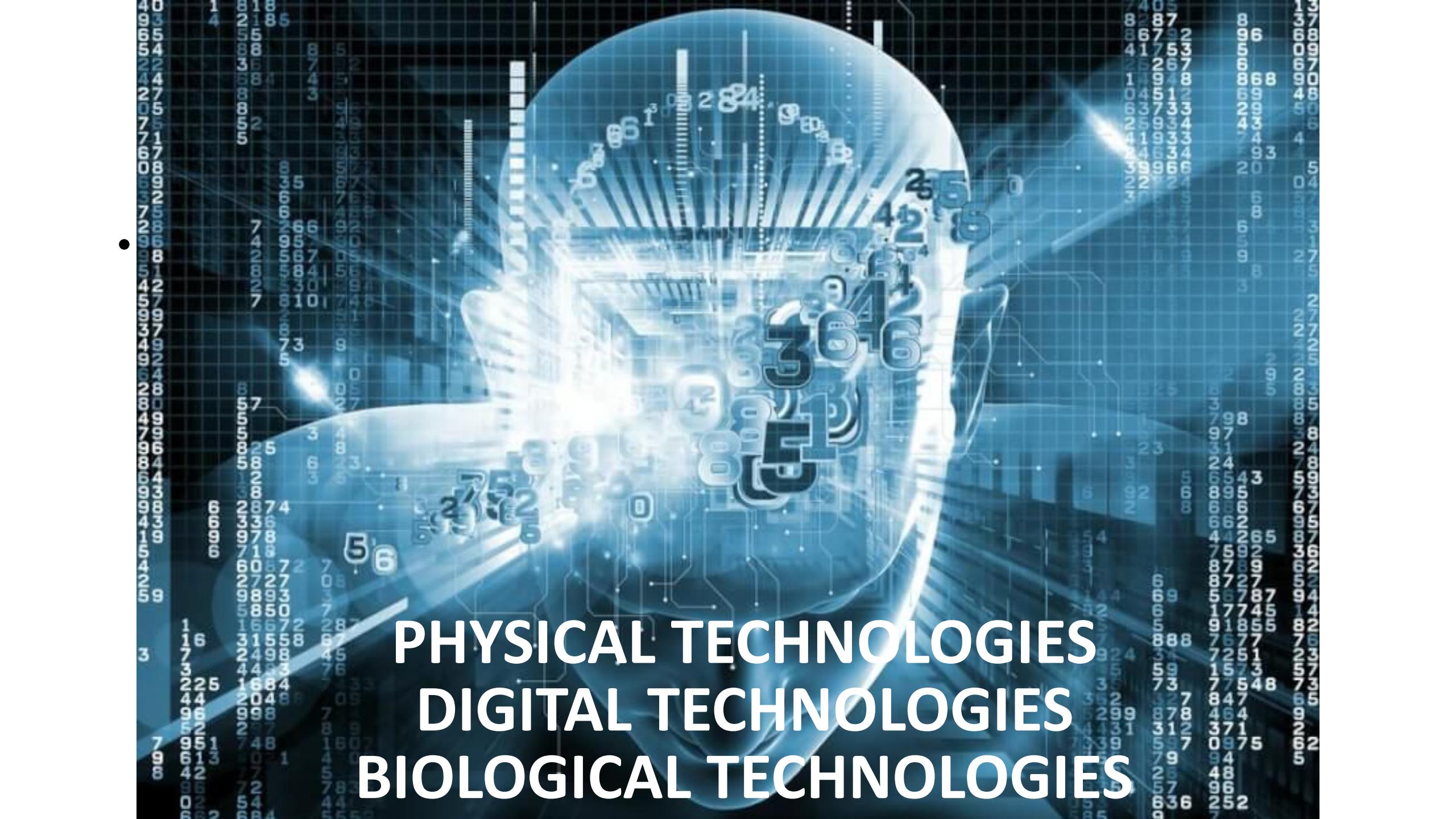
1750



1870



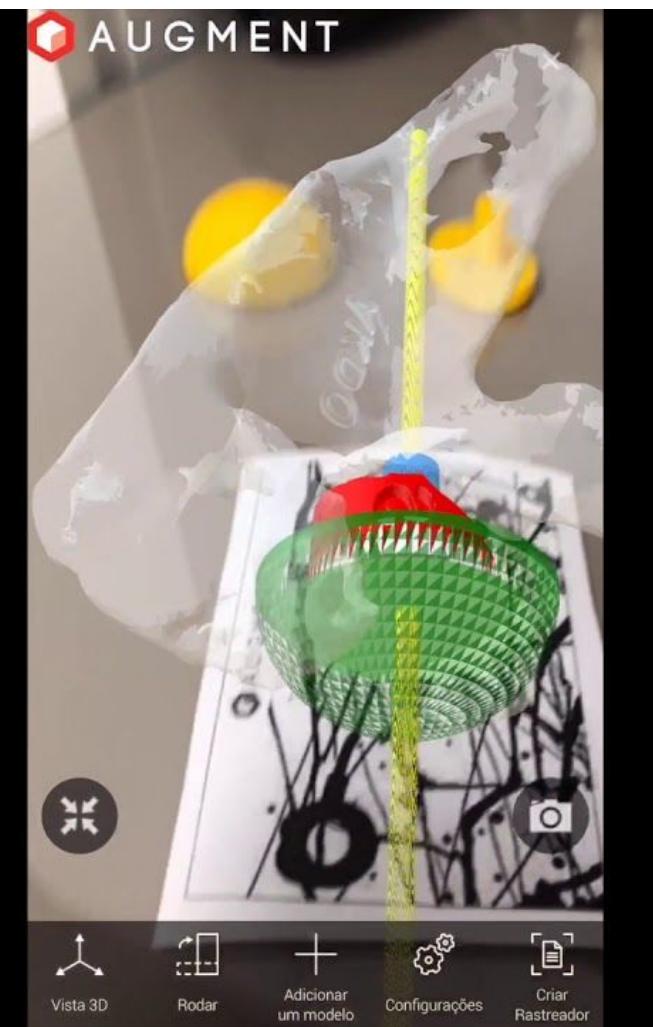
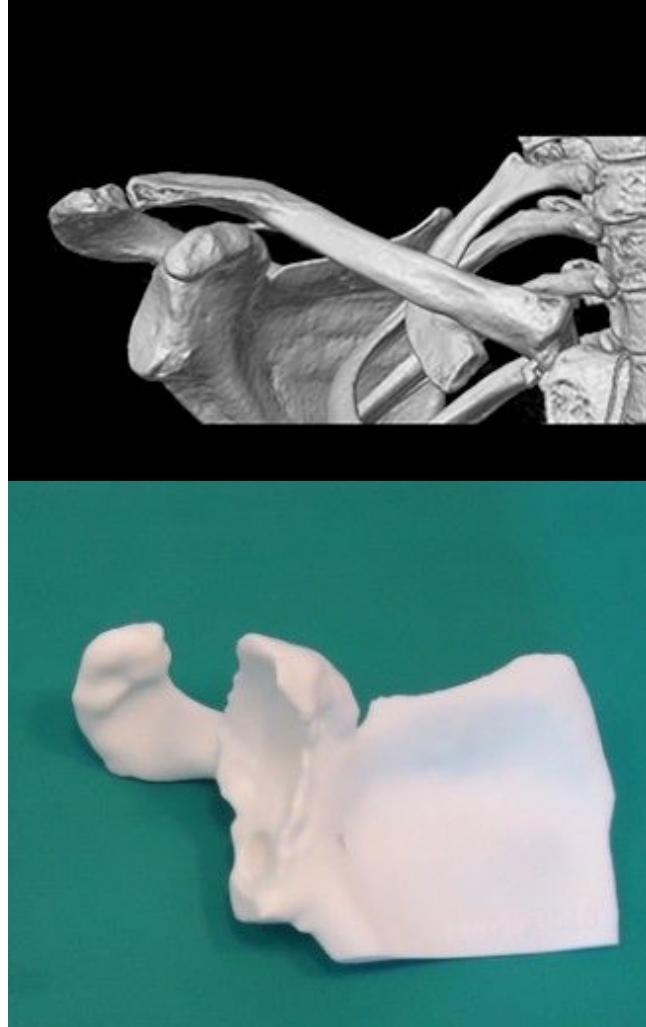
1950



# PHYSICAL TECHNOLOGIES DIGITAL TECHNOLOGIES BIOLOGICAL TECHNOLOGIES

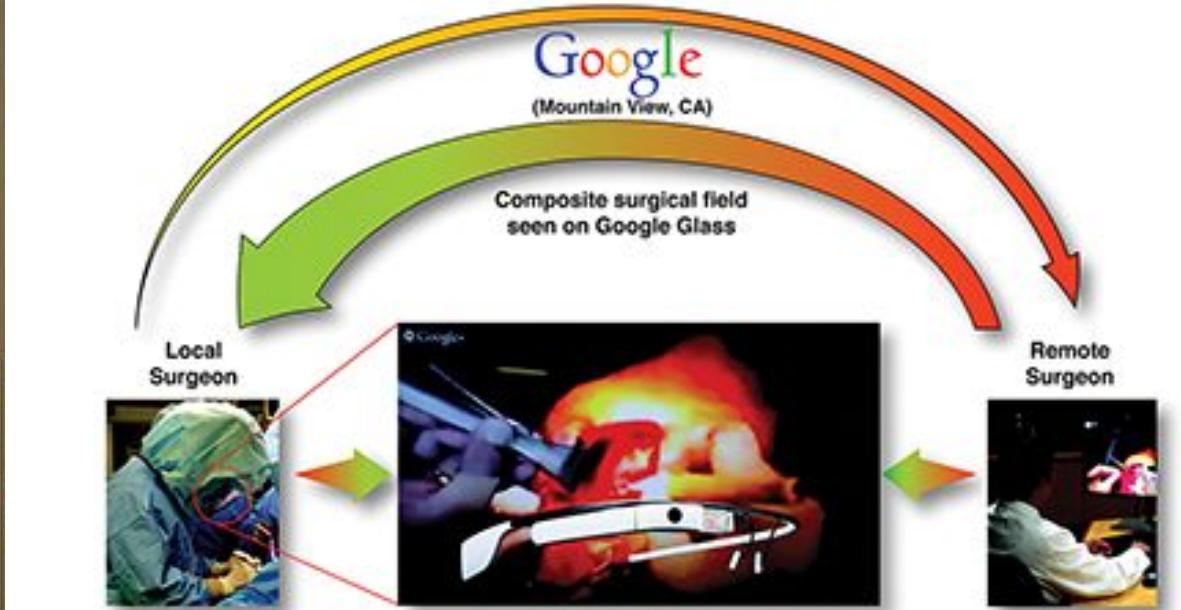
# VIRTUAL REALITY

creates an experience in which the user enters either a fantasy world, like a video game, or a virtual version of a real world, such as a flight simulator.



# AUGMENTED REALITY

creates an experience in which the user sees digital objects and characters within the real world.

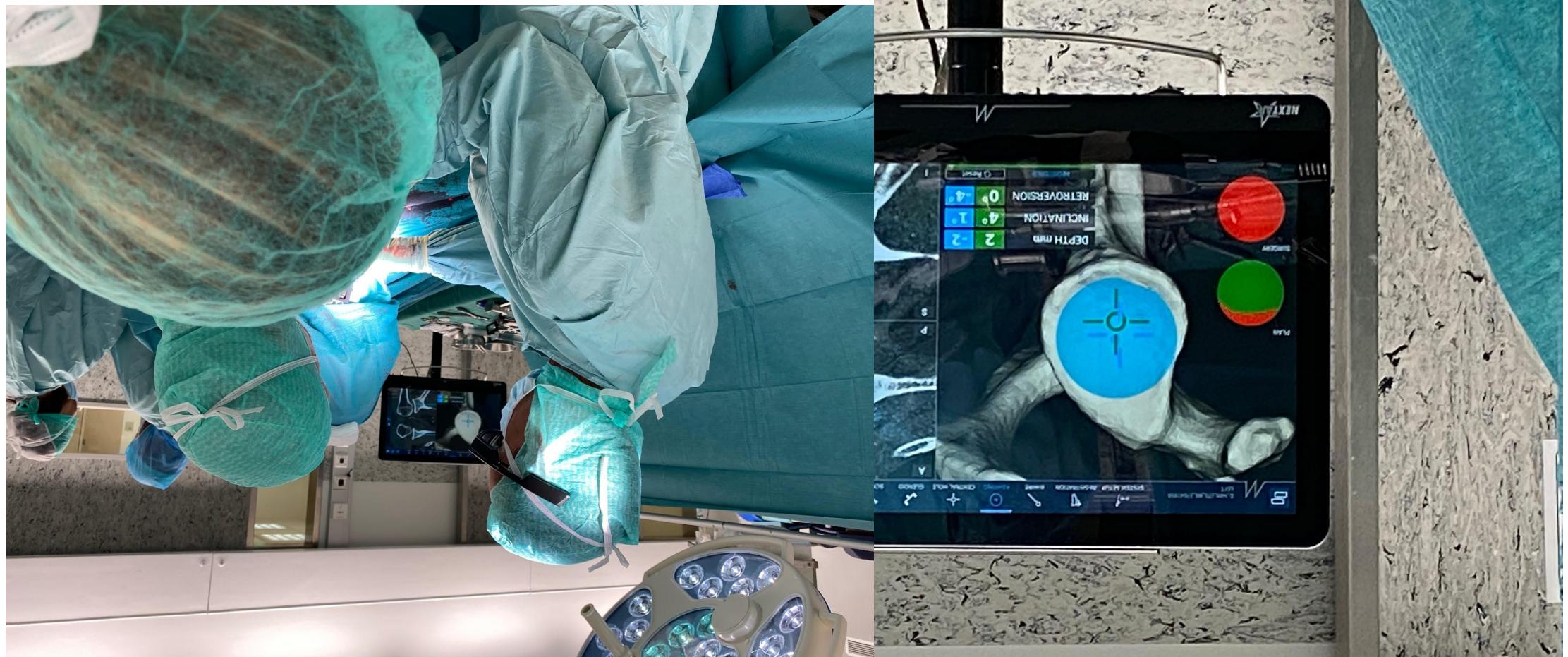


**TOOL**

**to fasten skill acquisition + bring expertise to remote places**

# GUIDED PERSONALIZED SURGERY

gives instructions for optimal positioning of implants,  
with the use of navigated instruments “real time” on screen

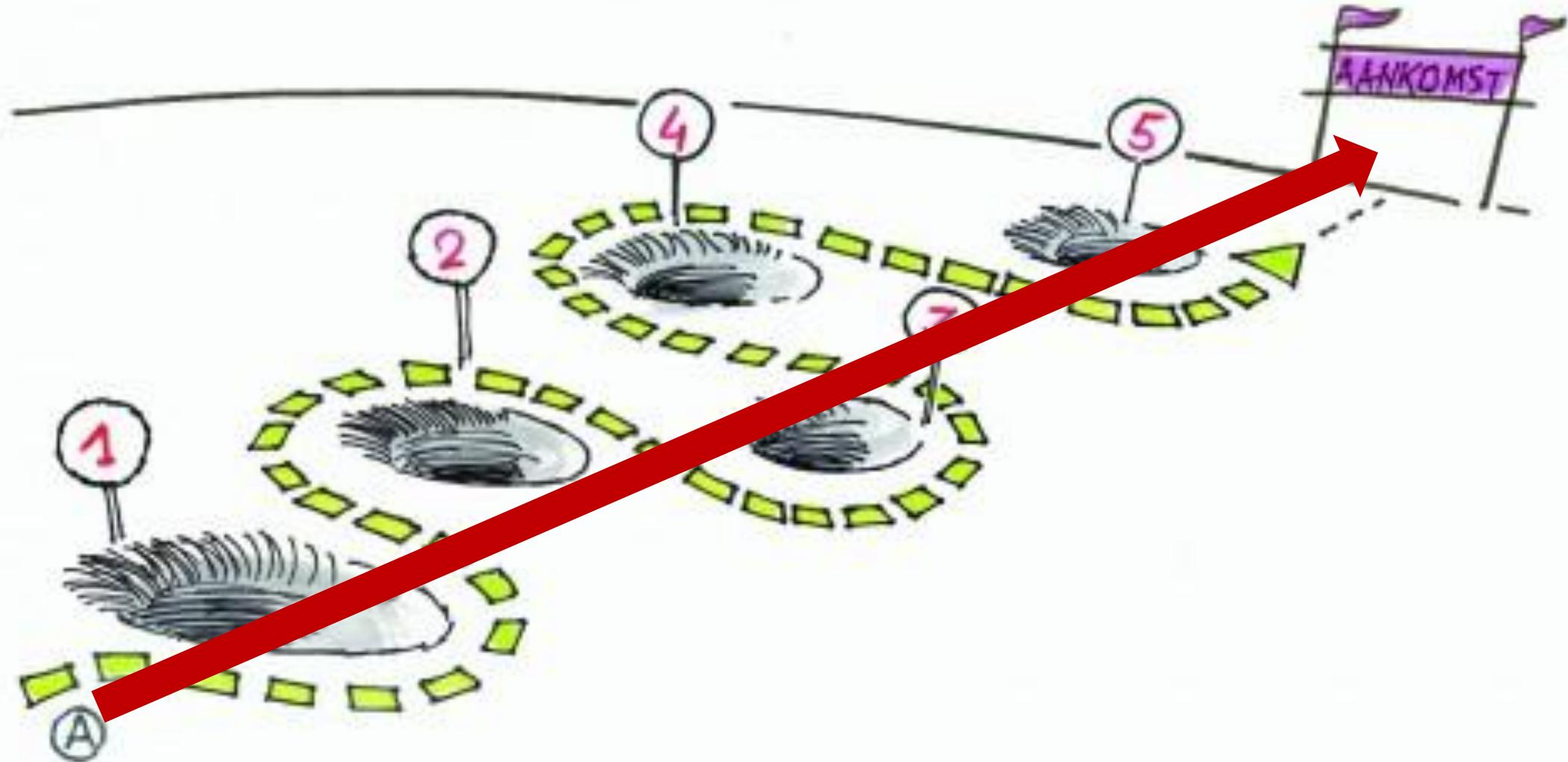


# ARTIFICIAL INTELLIGENCE

“ability to correctly interpret external data, to learn from such data, and to use those learnings to achieve specific goals and tasks through flexible adaptation”.

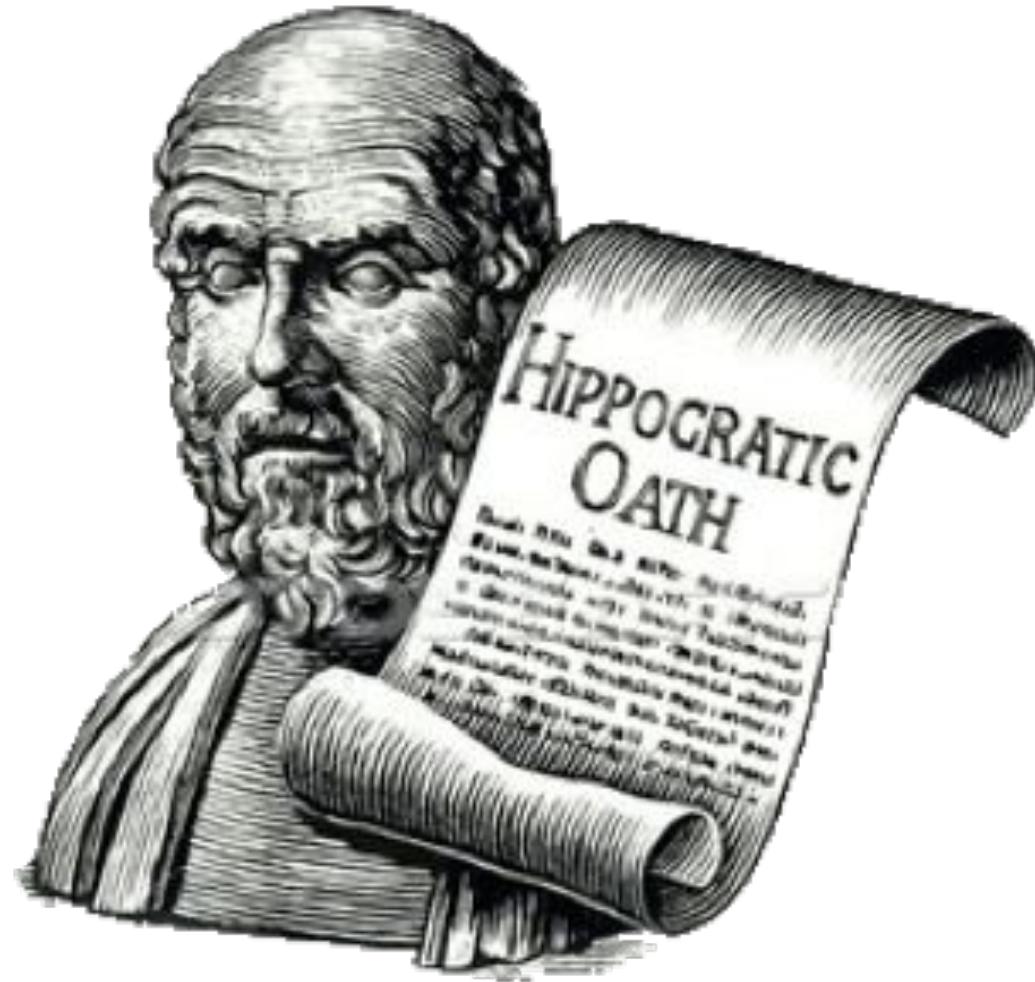
- *data management*
- *treatment plans*
- *assisting repetitive jobs*
- *medication management*
- *genetic information*
- SURGERY? => requires ROBOT





PATIENT = MIDDEL?





**PATIENT = DOEL!**

# 4<sup>de</sup> Industriële Revolutie in 2023

- Voldoende variabelen?
- Minder complicaties?
- Minder revisies?
- Klinische data?

**Chen AL, Bain EB, Horan MP, Hawkins RJ**

Determinants of patient satisfaction with outcome after shoulder arthroplasty.  
J Shoulder Elbow Surg. 2007 Jan-Feb;16(1):25-30.

leeftijd  
uitkering

**De Wilde LF, Berghs BM, Vande Vyver F, Schepens A, Verdonk RC**  
Glenohumeral relationship in the transverse plane of the body J Shoulder Elbow Surg 2003 May-Jun;12(3):260-7.



**Baettig SJ, Wieser K, Gerber C.**

Determinants of patient satisfaction following reconstructive shoulder surgery  
BMC Musculoskelet Disord. 2017; 18: 458.

private ziekteverzekerings  
licht fysisch werk  
pensioen  
niet-roker  
geen alcoholabusus  
peri-operatieve pijn

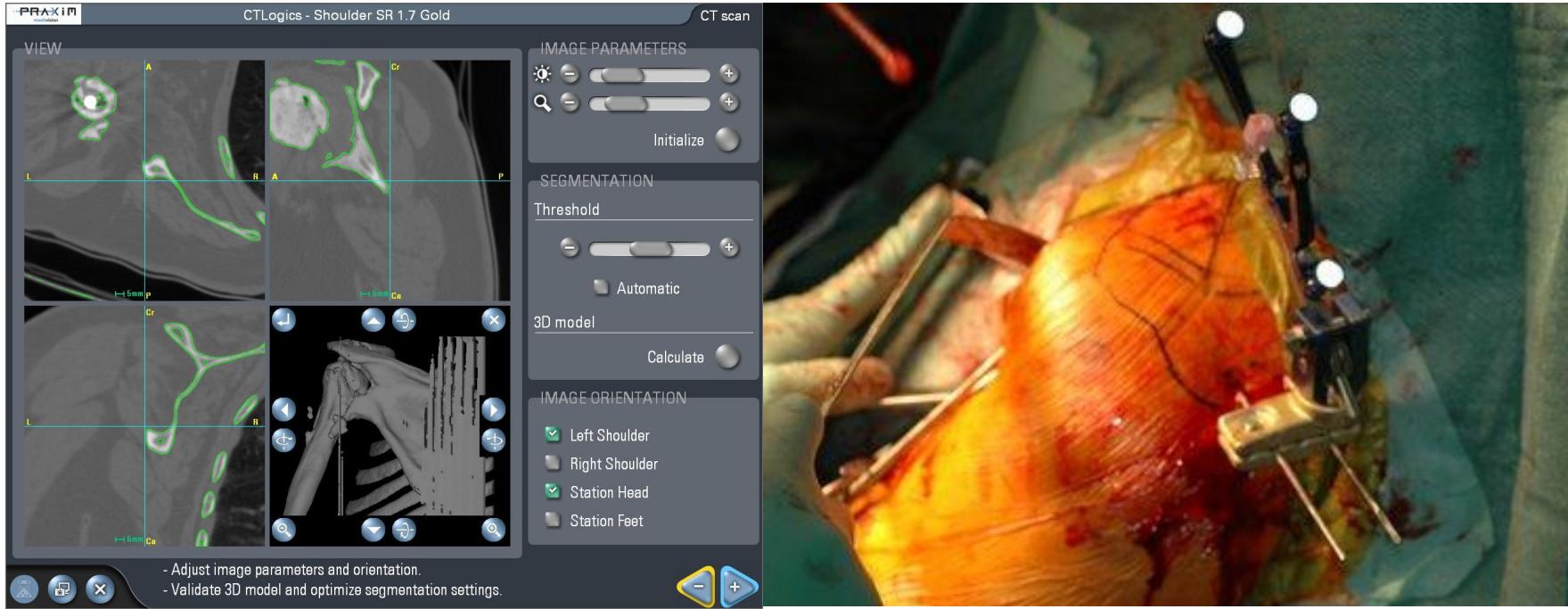
**NO CRUISING**  
**TWO TIMES PAST SAME  
POINT WITHIN SIX HOURS  
IS CRUISING**

CVC21100(k)

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15.78.020



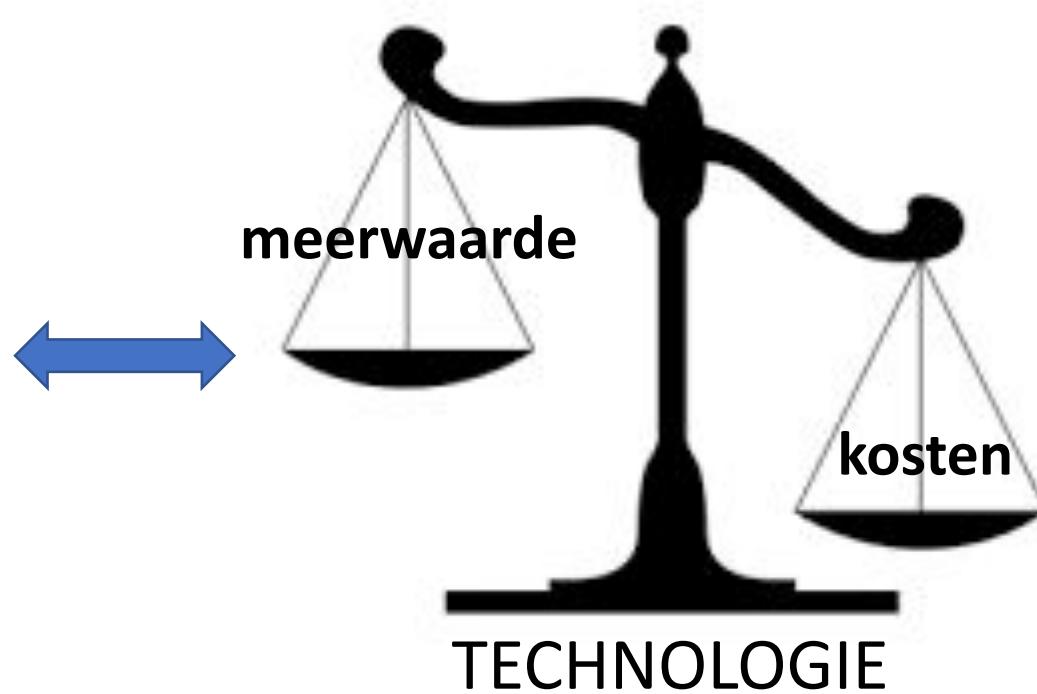
B Berghs, C Lecluyse, L De Wilde: **Computer Navigation in Reversed Total Shoulder Arthroplasty**. 21st Congress of the European Society for Surgery of the Shoulder and Elbow SECEC-ESSSE, Bruges, September 17-20, **2008**



Debeer P, Berghs B, Pouliart N, Van den Bogaert G, Verhaeghen F, Nijs S. **Treatment of severe glenoid deficiencies in reverse shoulder arthroplasty: the Glenius Glenoid Reconstruction System experience** J Shoulder Elbow Surg **2019** Aug;28(8):1601-1608.

# (R)EVOLUTIE = méér dan technologie

- Multidisciplinaire aanpak
- Rationaliseren hospitalisatie
- Informeren
- Subspecialisatie
- Schaalvergroting
- ...





- 8.00 Onthaal - Inschrijving - Koffie/Ontbijt
- 9.00 Introductie  
*Dr. Bart Berghs, Orthoclinic*
- Sessie 1:**  
Moderatoren Prof. dr. Filip Stockmans en  
Dr. Maxence Vandekerckhove, Orthoclinic
- 9.05 Heupprothesen in dagziekenhuis  
*Dr. Jan Vanlommel, Orthoclinic*
- 9.15 Patiënt Specifieke Instrumentatie bij enkelprothesen  
*Dr. Patrick Deprez, Orthoclinic*
- 9.25 3D-geprinte osteotomieën van de enkel  
*Dr. Farhad Tajdar, Orthoclinic*
- 9.35 Automatische detectie van fracturen  
*Dr. Koen Mermuys, radioloog AZ Sint-Jan Brugge*
- 9.45 Het medisch aspect van orthopedische ingrepen  
*Dr. Barbara Verstraete, zaalarts Orthoclinic*
- 9.55 Optimalisatie van pijnbestrijding tijdens en na een ingreep  
*Dr. Emmanuel Van Tornout, anesthesist AZ Sint-Lucas Brugge*
- 10.05 Wondproblemen in de orthopedie  
*Dr. Hanne Vandevivere, Orthoclinic*
- 10.15 Q&A
- 10.30 Pauze

**az sint-jan**  
brugge - oostende av

- Sessie 2:**  
Moderatoren Prof. dr. Frank Plasschaert en  
Dr. Geert Van Damme, Orthoclinic
- 11.00 Templating in schouderchirurgie  
*Dr. Filip Verhaegen, schouderchirurg*
- 11.10 Augmented Reality in schouderchirurgie  
*Dr. Joris Beckers, Orthoclinic*
- 11.20 Schouderprothesen op maat, de toekomst  
*Dr. Bart Berghs, Orthoclinic*
- 11.30 Knieprothesen op maat, de toekomst  
*Dr. Lucas Beckers, Orthoclinic*
- 11.40 Robotica 2.0 bij knieprotheser  
*Dr. Pieter-Jan Vandekerckhove, Orthoclinic*
- 11.50 Staande full leg CT, de gouder  
*Dr. Wouter Huyse, radioloog UZ Gent*
- 12.00 Toelichting bij de nieuwe website  
*Caroline Rasking, secretariaat Orthoclinic*
- 12.10 Q&A
- 12.20 Slotbeschouwing  
*Dr. Geert Van Damme, Orthoclinic*
- Lunch & Save the Date 2024