



HosmartAI

Hospital Smart development
based on AI

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HosmartAI

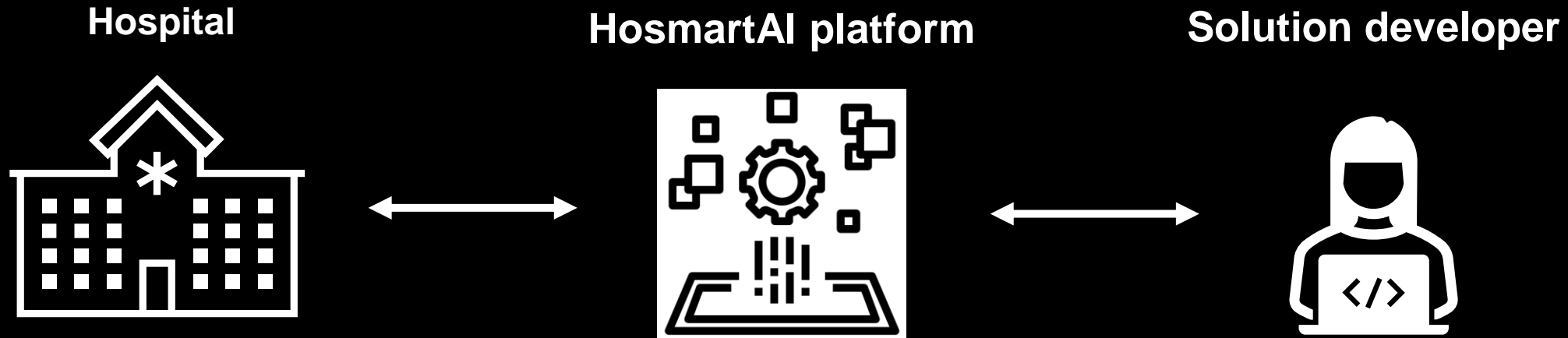
Duration: January 2021 – May 2024

Funding: 9 997 244 €

Partners:



Project



- Platform to develop, deploy and monitor AI and robotics solutions in hospitals
- HosmartAI project
 - Develop platform
 - Develop solutions
 - Conduct pilot studies in hospitals

Pilot projects

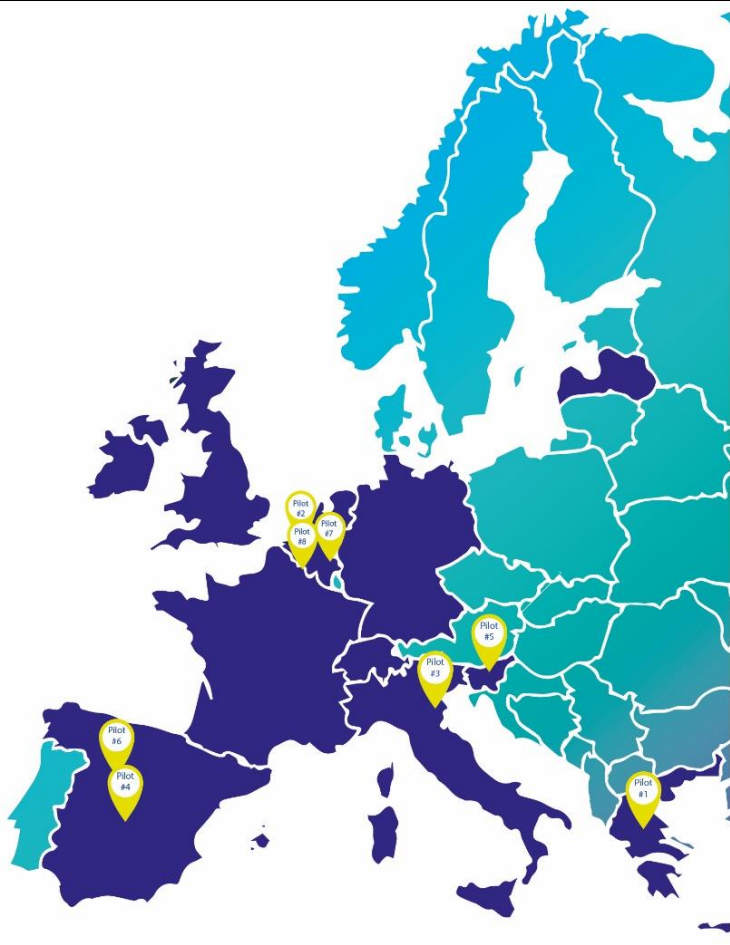
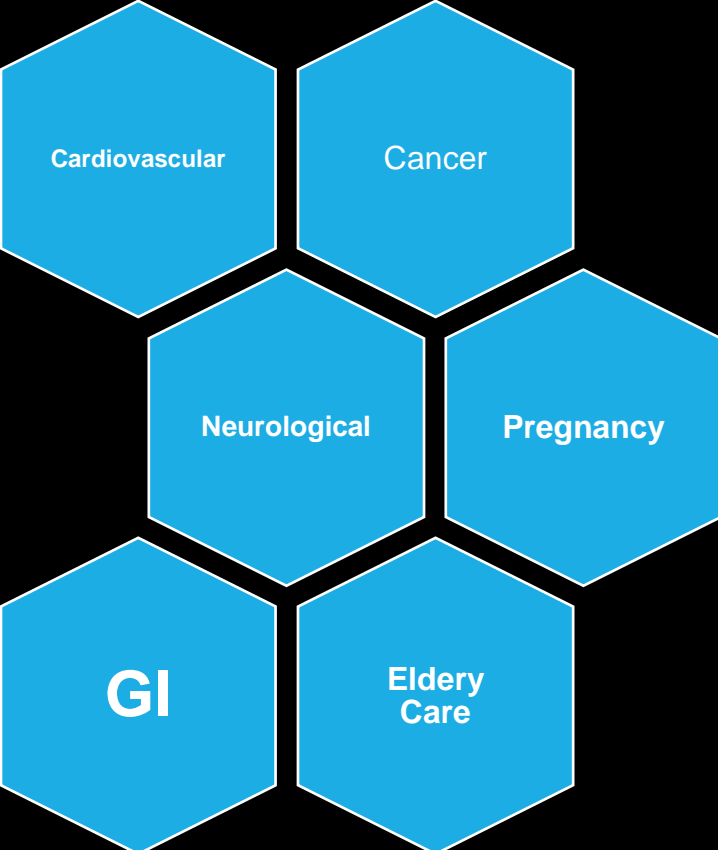
Logistics

Diagnostics

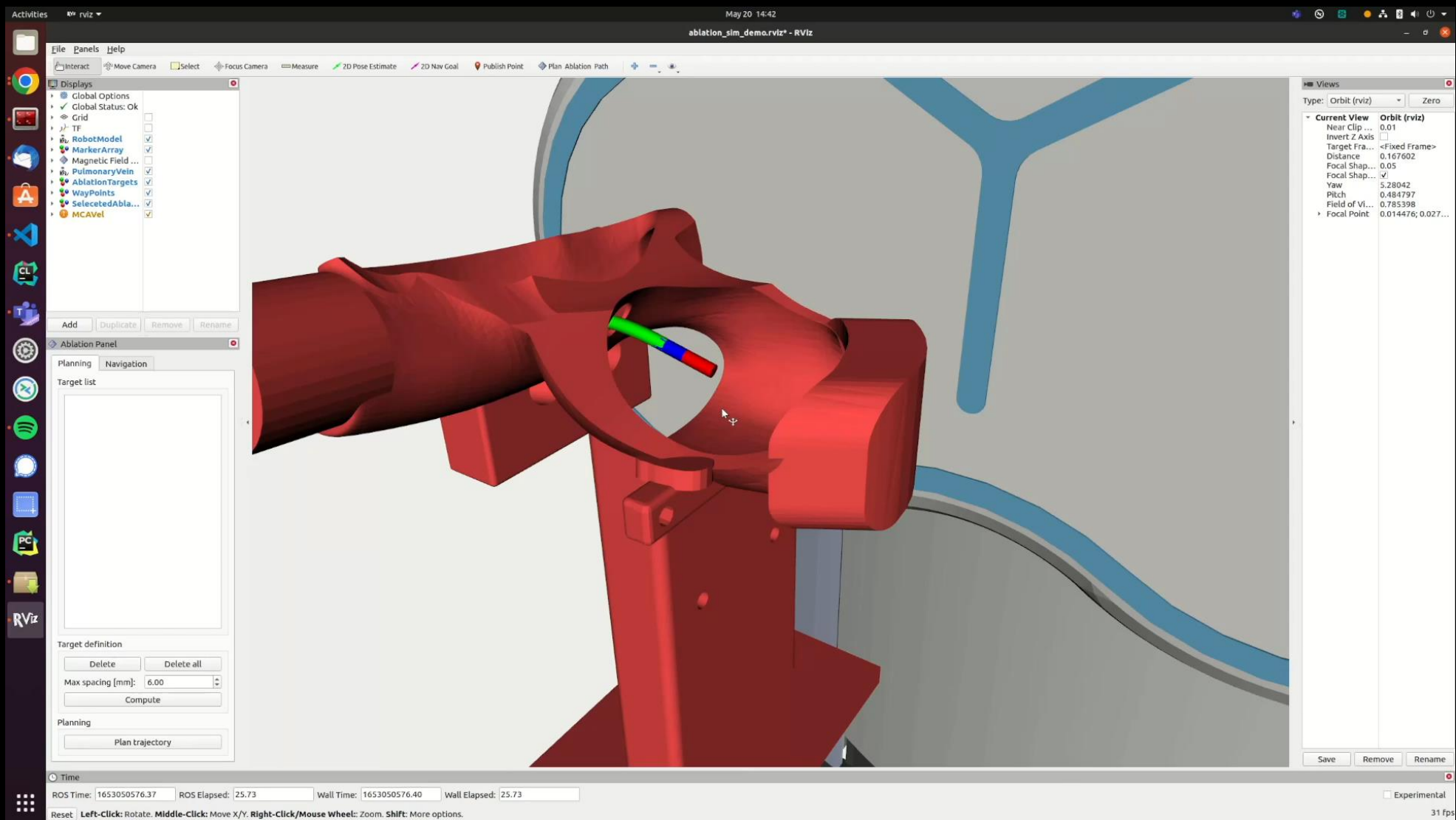
Treatment

Surgery

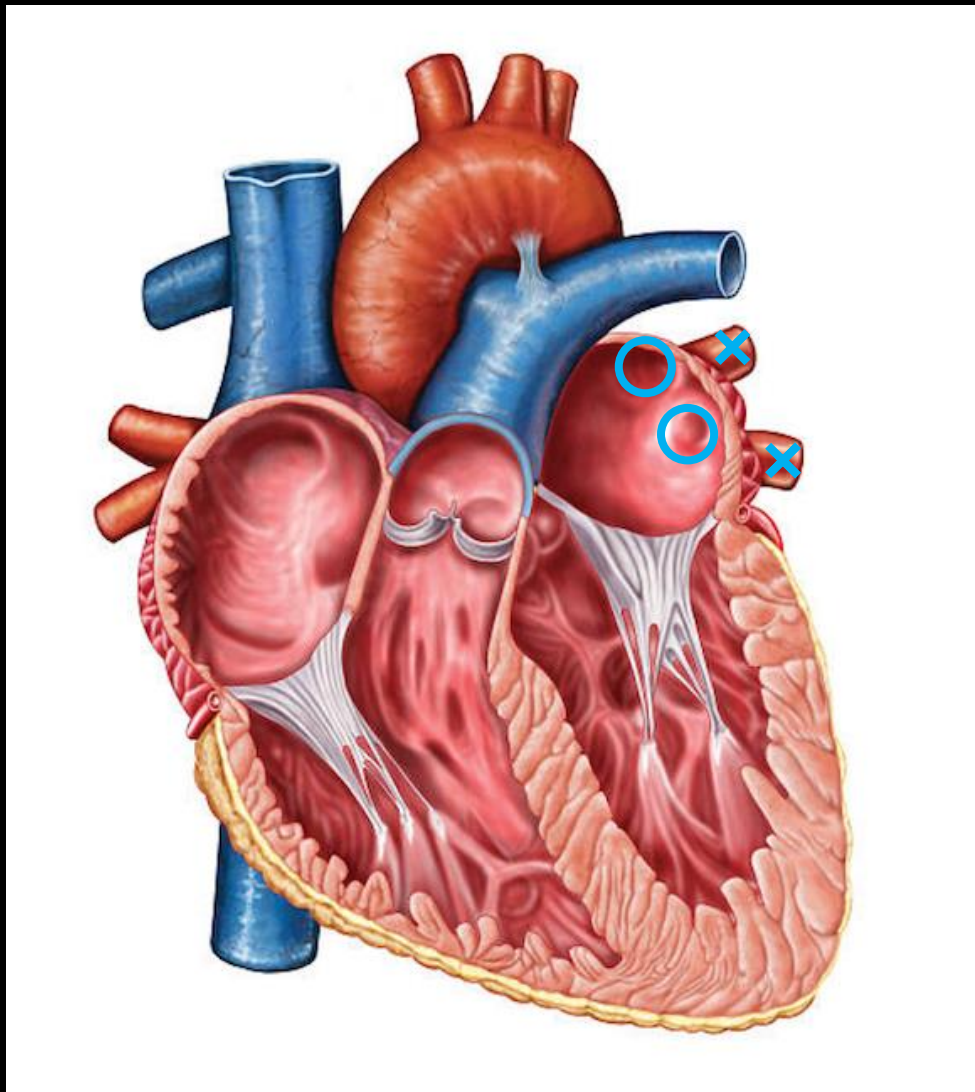
Assistive Care



What is remote magnetic navigation?



Atrial Fibrillation



- **Irregular heartbeat** in the left atrium
- **5.2 million patients** in the US in 2010
- **Risk factors:** diabetes, high blood pressure, obesity, tobacco, etc.
- **Increased risk** for heart failure, strokes and heart attacks

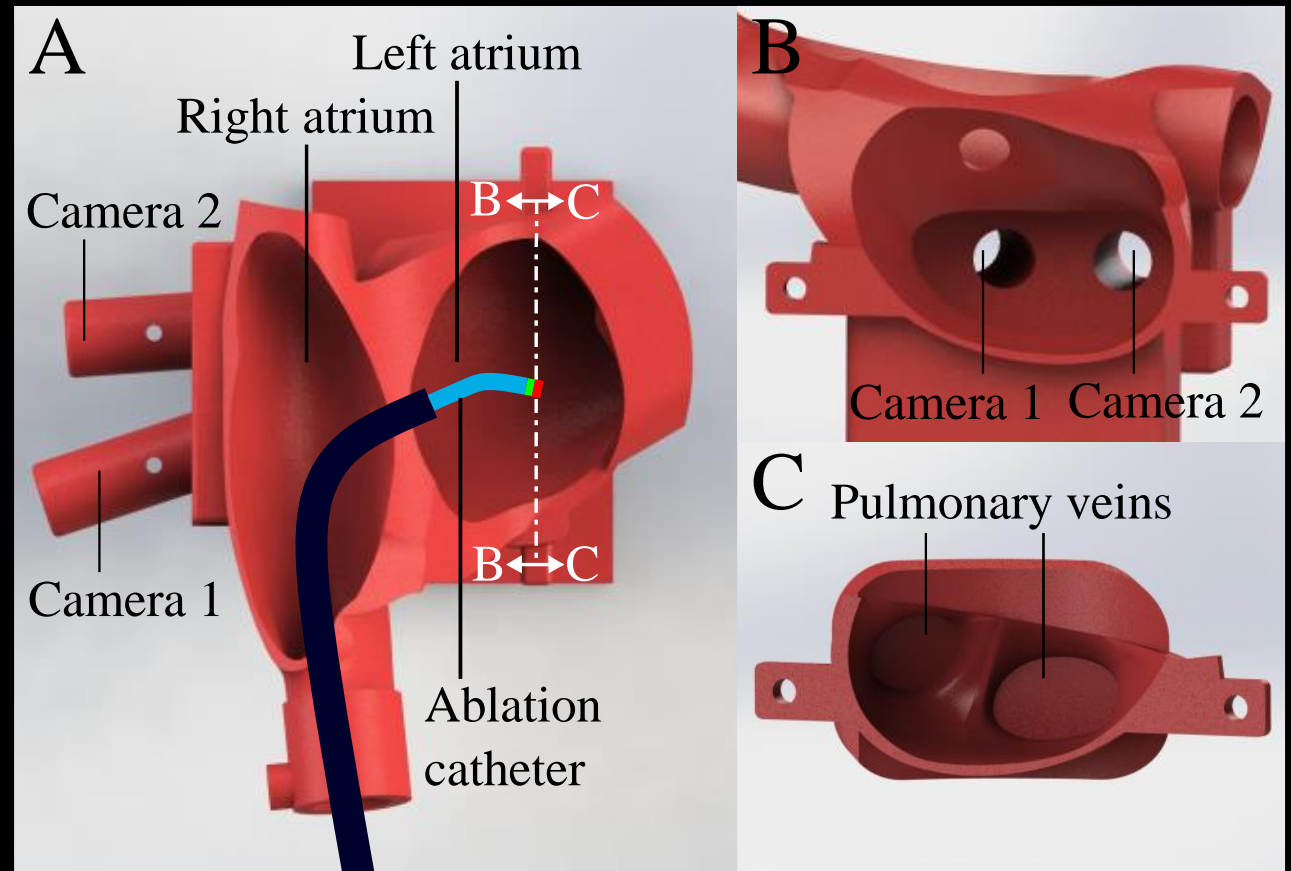
Evaluation

Goals: Develop, compare and evaluate the performance of different catheter ablation approaches

- Manual navigation
- Remote magnetic navigation (ideally telesurgery from Madrid)
- Automated magnetic navigation

Performance indicators:

- Procedure duration
- Contact stability
- Ablation angle
- User satisfaction



Stereo tracking

Telesurgery

Parent computer (Remote)

Child computer (Zurich)

Controller



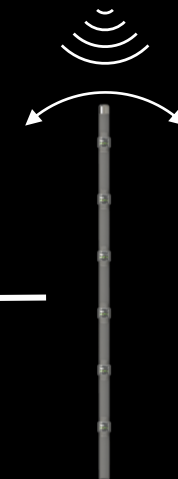
GUI



Navion controller



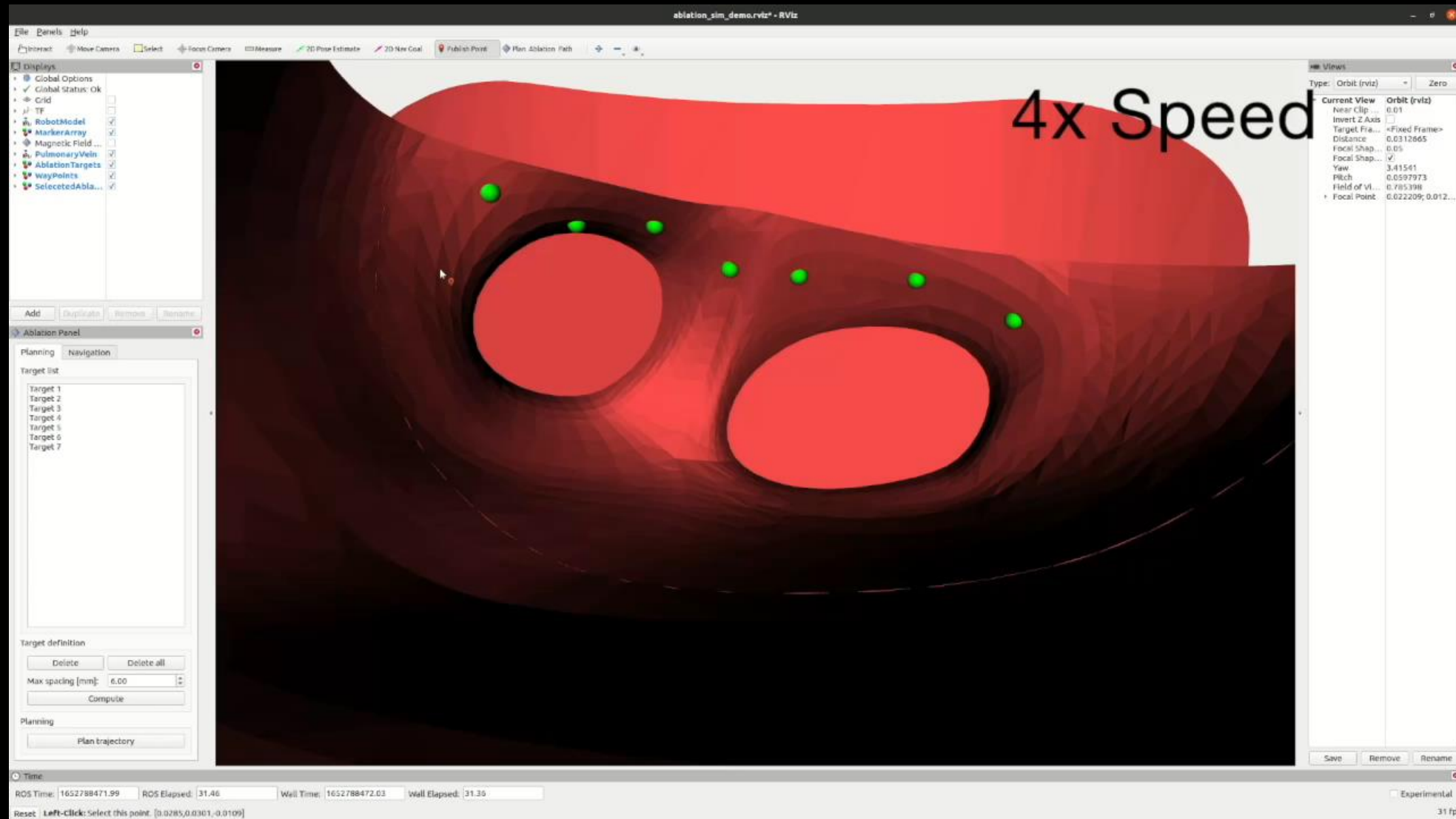
Tracking



Telesurgery



Automated navigation



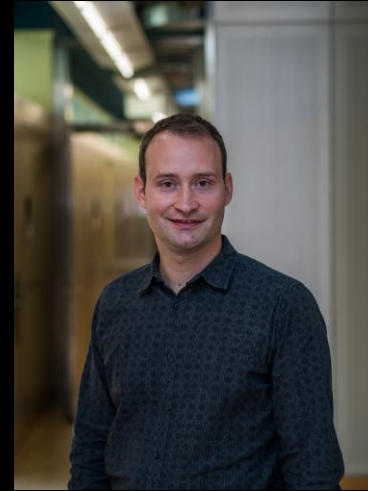
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