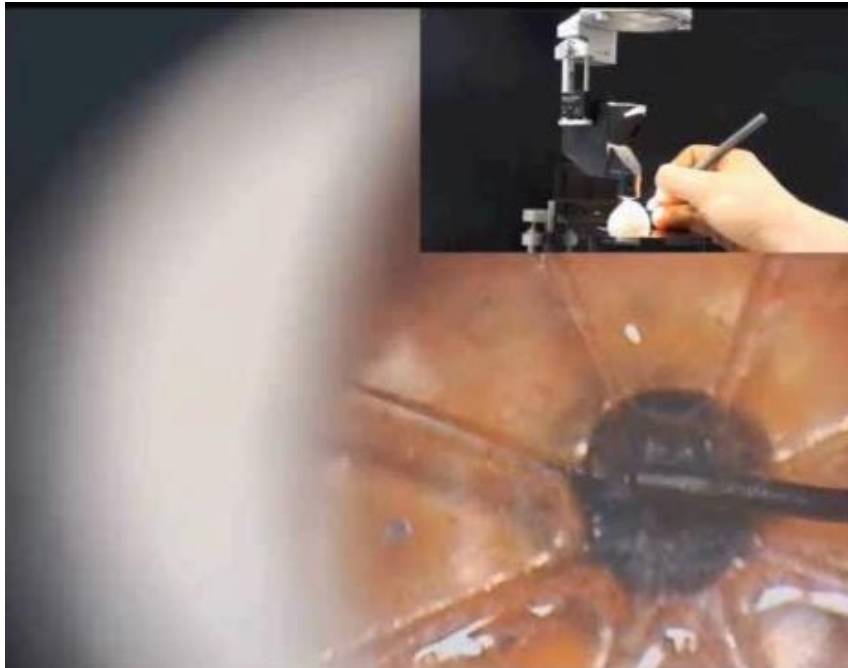


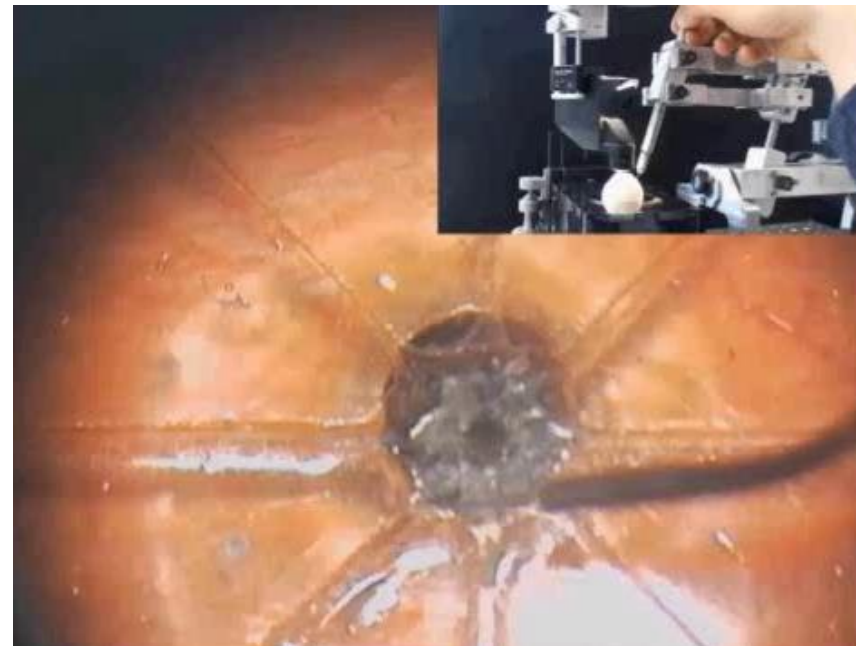


# **Use Case for European Robotics in Ophthalmologic Micro-Surgery**



manual

# assisted vitreoretinal surgery

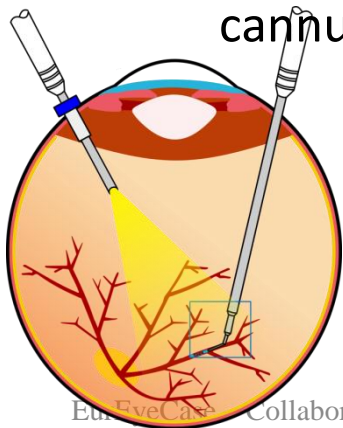


robot-assisted

# Ambition: Step Change in robotics technology and ability?

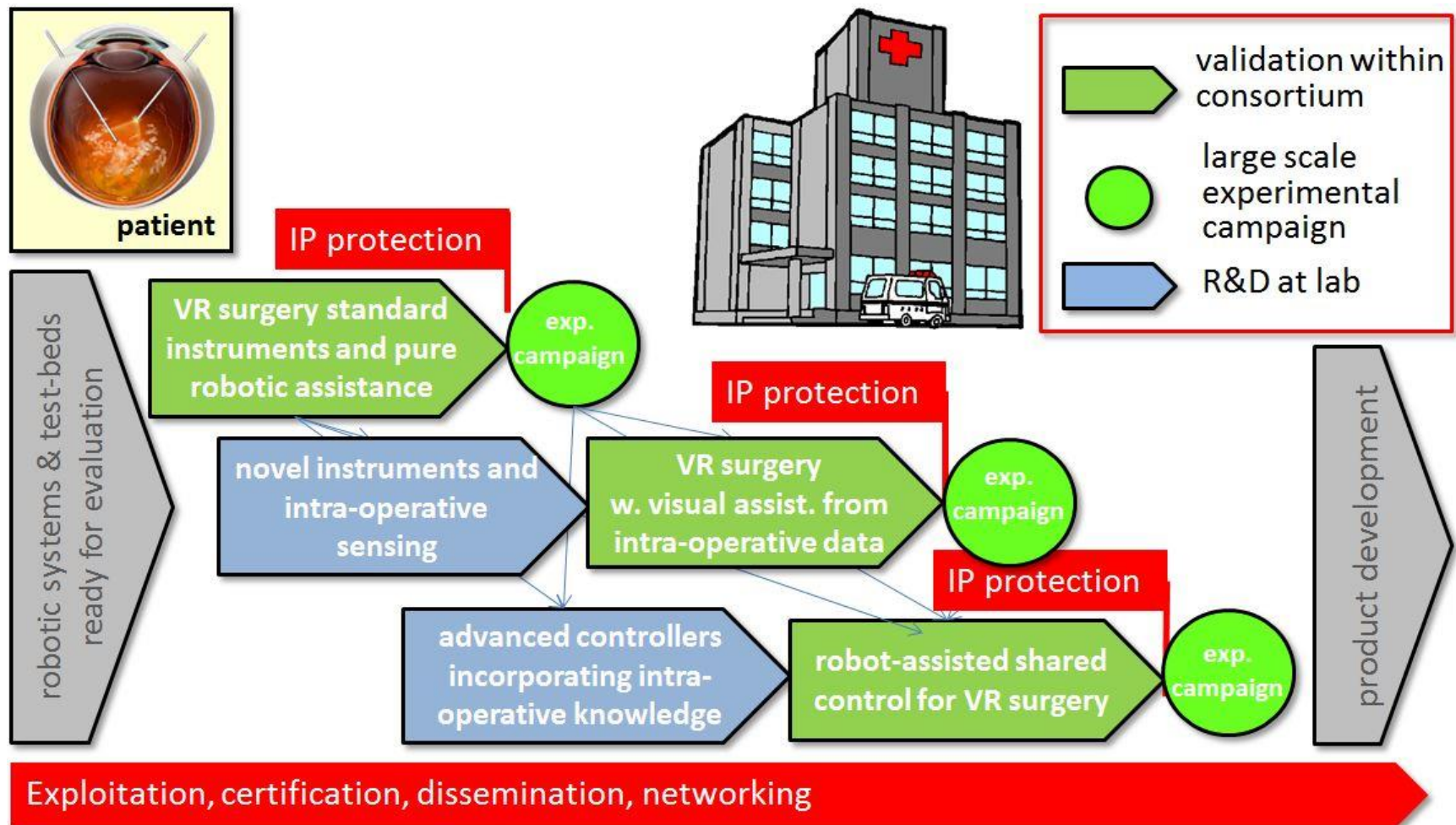


- highly-skilled surgeons, working at limits of precision, with limited feedback
- **use case 1:** peeling of membranes requires utmost focus and skill, risky
- **use case 2:** no curative treatment of RVO, treatment by cannulation impossible by hand



- addressing clinical need;
- beyond human positioning capability;
- cognitive assistance – surpassing s.o.a. pure teleoperation
- safety, guidance from OCT, force, proximity, stereomicroscope

# How: what is our approach?



# Impact of Our Project on the Application Domain

- Surgical Partners taking lead in ophthalmologic robotic surgery;
- Validation of safety and feasibility of robot-assisted Retinal Vein Cannulation and ERM;
- Hope for treatment of people suffering from RVO (16.4M worldwide) and 12% of population over 70 years suffering from epiretinal membrane formation