

# A Roadmap towards Touchless Interaction during Image-guided Therapy

Enhancing workflow in complex medical procedures through strategic technology implementation

## INTRODUCTION

Philips is the global leader in Image-Guided Therapy (IGT). This medical specialisation provides integrated solutions that allow for minimally invasive medical procedures. A specialised medical team consisting of multiple stakeholders works closely with Philips's newest technological devices and systems during these interventions. These complex procedures are followed and guided via real-time, on-screen imaging modalities. This way, technology-enabled, optimal care can be provided for many different interventions. Clinical demands, challenges and complexities can be very specific and patient-dependent. Often bottlenecks in IGT

procedures come down to limitations like sterility and hands-busy situations. However, touchless UI technologies provide solutions in many ways. Technologies like eye-gaze, voice control and gesture sensing are expected to minimise the number of mistakes made and time lost because of inefficiencies. The future context of IGT is explored by doing creative trend research to get an idea of the technologies, trends, and developments in the future healthcare landscape. A future vision of IGT is established to give an expression of a desired future. It provides a strategic reference point for actionable innovations.

Through qualitative research, ideation and conceptualisation, several design implications are provided. Synthesising these concepts into an implementation strategy that aligns with the future vision is essential. Since the result of this thesis will be a roadmap, a division is made into three separate horizons leading towards the future vision. These horizons address a particular aim, alignment with the developing healthcare landscape and related implementation of the concepts into the roadmap. At the bottom of this poster, the main idea of the final roadmap is presented.

## FUTURE VISION of IGT

The role of IGT develops towards solving patient pathologies with both an **aligned medical team**, and **significant technological support of multiple smart systems**. An optimized, integrated and efficient workflow supported by **touchless interaction solutions** will contribute to **value-based care** provided within the context of IGT.



Gesture Sensing

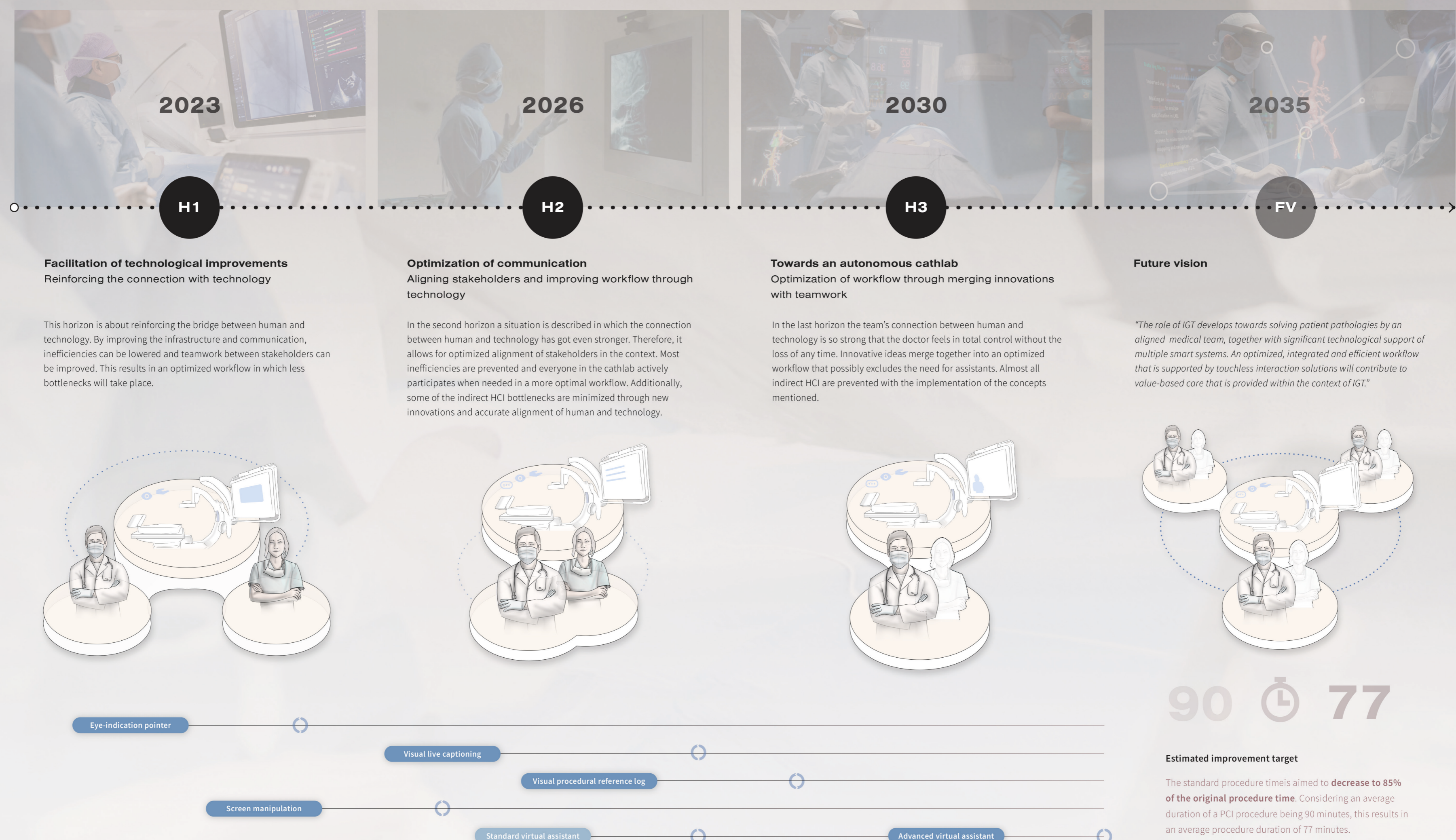


Eye-gaze tracking



Voice control

## FINAL ROADMAP



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