## Cardiac Surgery in a changing world-Avenues for clinical application of modelling and simulation solutions in cardiac surgery

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## Abstract

Cardiovascular disease is one of the most prevalent diseases worldwide and cardiac surgery has been challenged with new and innovative ways of diagnosing and treating surgical patients. New and emerging technologies have changed the way cardiac surgeons think and radically changed therapeutic possibilities, allowing for an increasingly personalized approach and treatment.

In a data driven age, systematic analysis is needed to accomplish better and better results.

We will try to summarize recent developments in the application of simulation and modelling to clinical cardiac surgery and suggest some areas of future development.