

Coordinated European taskforce towards the vision of a Personalised *In-Silico* Cardiology

The PIC (Personalised *in-silico* Cardiology) launches on Friday 1st of September 2017. The PIC is a 4 year project that will train 15 innovation leaders in the vision of a healthcare supported by *in-silico* and computational technologies.

Recent scientific progress has created an exceptional capacity to simulate the heart and its interaction with the circulatory system *in-silico* (i.e. on a computer). Patient-specific *in-silico* models enable comprehensive integration and interpretation of clinical data. These models provide the pathway for developing personalised and preventive management strategies for cardiovascular diseases that are tailored to each patient. In addition, recent advances in data science, such as machine learning and data mining enable the extraction of novel insights and knowledge from the large repositories of clinical data from our health information systems.

PIC is the European Innovative Training Network (ITN) that will train a cohort of 15 future innovation leaders able to articulate and materialise this vision where healthcare is guided by *in-silico* models. These models become virtual reconstructions of an individual, or avatars, to advise doctors about a patient's current health status and therapy options. *PIC* fellows will build and apply models of individual patients to maximise the value of clinical data, helping clinicians deliver a personalised therapy by informing diagnosis, and optimising clinical devices & drug choices.

PIC will address the specific challenges and barriers that face collaborations between clinicians and engineers by encouraging them to work closely together. Fellows will be exposed to the generation of novel academic ideas, the design of practical solutions that meet actual clinical needs, the translation of these ideas into industrial products, and the compliance with safety and regulation requirements. These outcomes will be achieved by pooling the expertise of leading experts from 4 universities, 3 medical equipment companies, and 3 hospital trusts. New talent and innovation will be produced through the training the fellows in computational cardiac modelling, medical imaging & sensing, and clinical devices & instrumentation. These are the key technological areas for developing *in-silico* driven personalised medicine, and the ability to innovate new healthcare solutions will have a major impact on society's welfare.

Further information at: <http://picnet.eu> and on twitter: [@PICnetEU](https://twitter.com/PICnetEU)

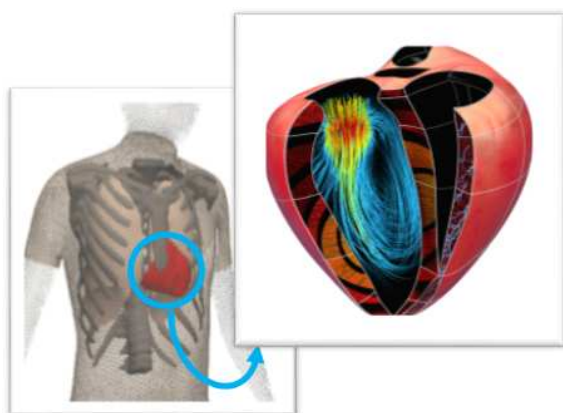


Illustration of the concept of a patient "avatar", a computational (*in-silico*) reconstruction to evaluate the function of the heart.



The ten PIC partners across Europe