

# The development process of a new imaging technology

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## Introduction

My project relates to the development of a novel medical imaging technology, which post processes Cardiac CT images in a manner that provides new clinically relevant diagnostic information. (Analogous to how CT-FFR takes 3D CT data and provides clinically relevant information, an FFR value, that is not readily available without a specialist software package, by merging the 3D anatomical data with an assumption of various underlying fluid dynamic principles). My project extended from the initial development of my idea, through to the completion of a research study and the submission and award of a patent pending. A prospective trial exploring the use of this technology is currently underway.

## Project Goals

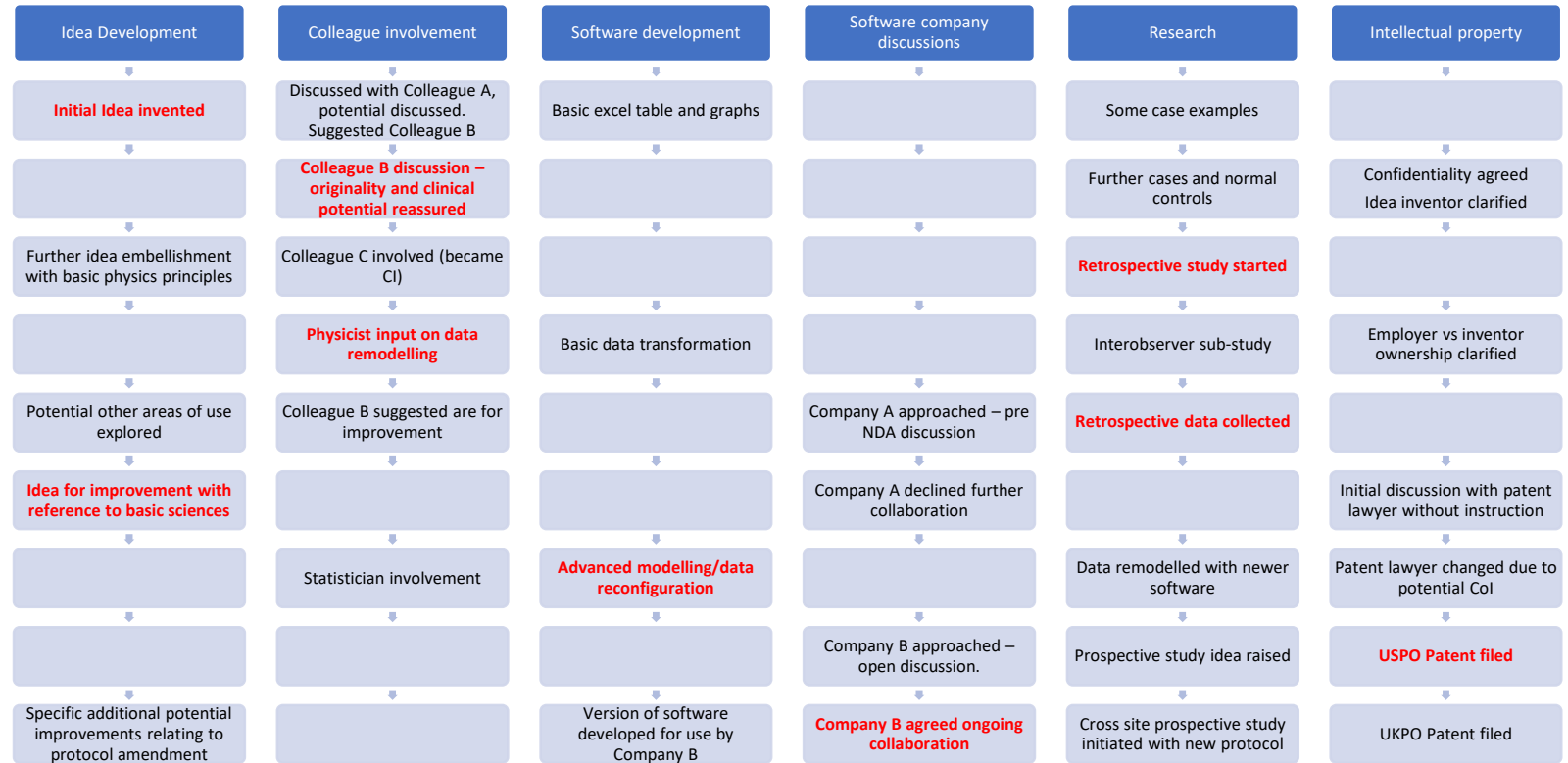
To transform a new idea/concept into a clinical tool used within common clinical practice within the speciality of Cardiac CT

To produce peer reviewed publications that support the use of this novel technology

To get 'buy-in' from imaging software company to help develop a software module

To ensure intellectual property remains with the inventor

## Project Timeline



12 months

## Project Timeline

Above is demonstrated a rough timeline over the course of 12 months. This extends from initial idea invention, through to UKPO patent pending and a prospective study. In red in each step is felt to be the main driver of the process forward. For instance, Colleague B (second row down) was incredibly impressed and enthusiastic about the idea, and is well immersed in the current literature relating to novel diagnostics. This discussion led to the formalization of a retrospective research project.

## Project Objectives

As opposed to a project with a clear objective, the objective was variable throughout. As always, a big driver was the publication of new science; however, the potential of Software company involvement, and the potential of Intellectual Property was only clearly realized after Company A declined further collaboration. Despite declining the project, they were the first people external to the group to review the potential, and were very keen on the idea, but felt it wouldn't suit their particular software.

## Ongoing project elements

- UKPO outcome will only be known in 18 months following filing
- Ongoing prospective study to establish clinical utility
- Company B collaboration will significantly depend on results from ongoing study
- No research is submitted – awaiting results from prospective study