

## Accelerating the Future:

Designing a Robust and Affordable Radiation Therapy Treatment System for Challenging Environments

## What does STFC do?



STFC is a UK research council, funding excellent science in particle physics, nuclear physics and astronomy. We run state-of-the-art science facilities in the UK, and organise UK access to international facilities such as CERN, FAIR ...

We also run an extensive Public Engagement and science communication programme to inspire and attract people to consider STEM subjects.



## We work with universities

STFC funds university research projects and postgraduate training awards in astronomy, particle physics, space science and nuclear physics



- Around 1,700 researchers in these disciplines based in UK universities and our labs
- Provide universities with the opportunity to apply for contracts with major international science facilities
- Our university partnerships and laboratories deliver our science programme

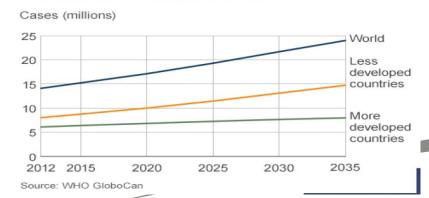
# Developing medical LINACs for challenging environments

- Cancer is a critical societal issue
- 65-70% are likely to occur in low and middle income countries
- Radiotherapy is a fundamental component of effective cancer treatment and control.

GLOBOCAN 2012: Estimated Cancer Incidence, Mortality and Prevalence Worldwide in 2012



#### Predicted Global Cancer Cases











## Bridging the Gap Workshop October 2017

- Understanding the problem
- Oncologists, medical physicists accelerator physicists
- Attendees from

### Outcome – 5 seedcorn projects











# Burying the complexity Workshop March 2018 - Manchester

- Progress update on the 5 projects





## **Accelerating the Future**



Welcome and

Thank you to our hosts in Botswana



