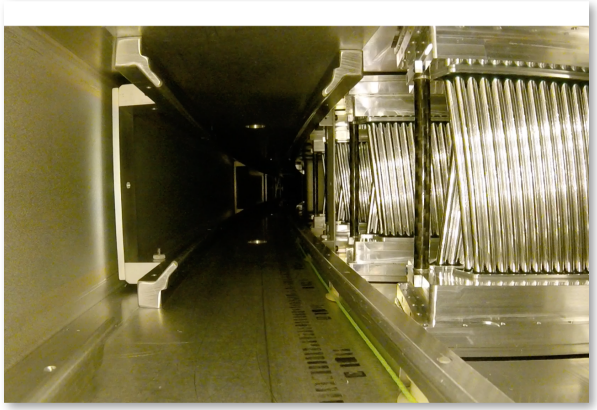
WP1 : g-2 Detectors

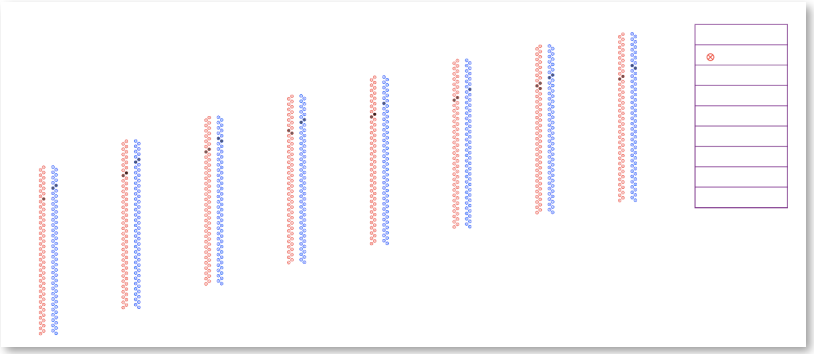
Milestone-1 : Tracker DAQ Integration : 01/06/2017 : COMPLETED 10/04/2017

Deliverable 1.2: Report on installation and initial commissioning of g-2 trackers : 01/01/2018 (LIVERPOOL)



g-2 took data from May-31 to July-7
DAQ and detectors performed well.
Had one complete 8 module tracker for this commissioning run
- recorded approx 2M tracks

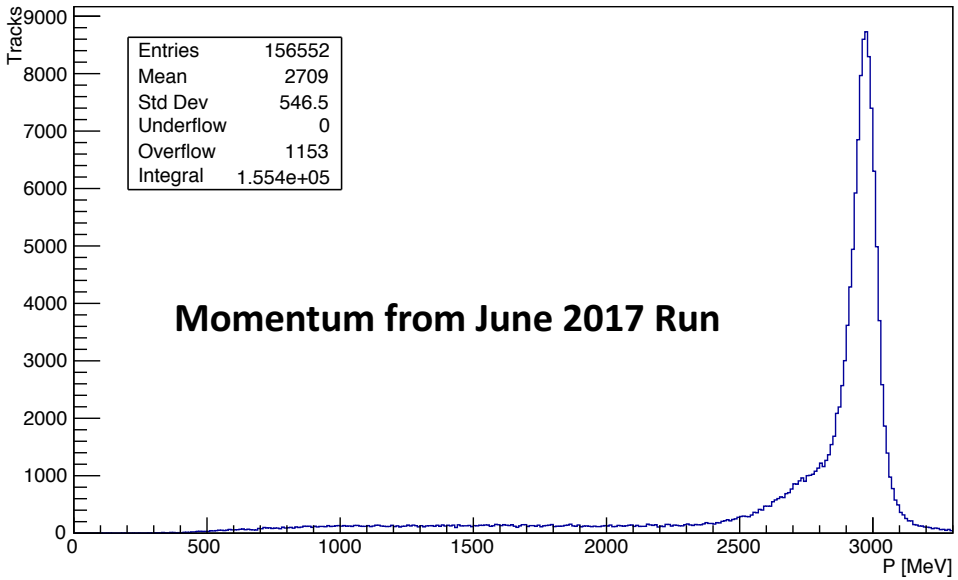
The second 8-module tracker s are being installed at the moment while performing vacuum studies. The DOE g-2 project will close on Dec-14.
We are OK for the 01/01/18 deliverable

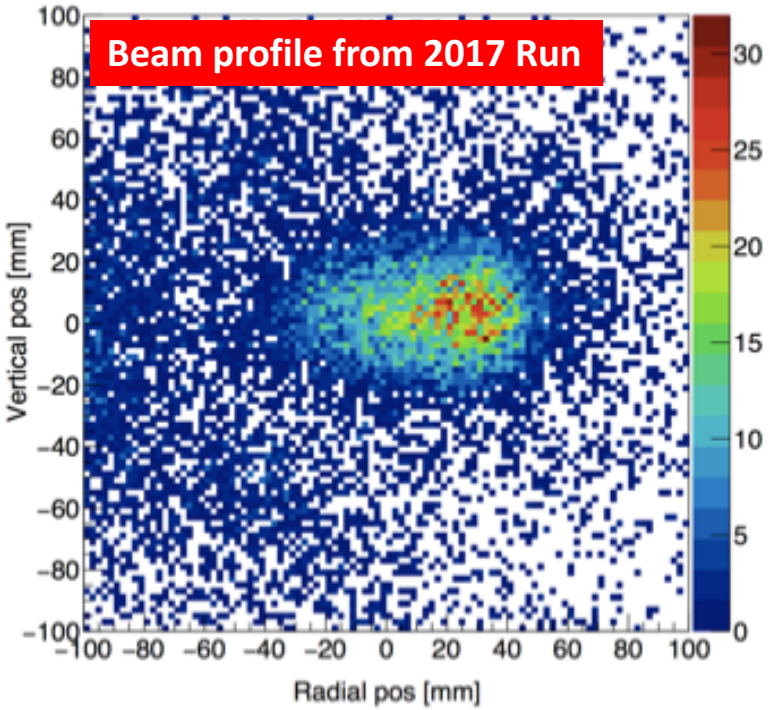


Further modules may be installed in the summer 2018 shutdown but the DOE/STFC deliverable is 16 modules.

We are investigating physics gain vs impact on
Q1 quadrupole and kickers.

WP1 : g-2 Detectors

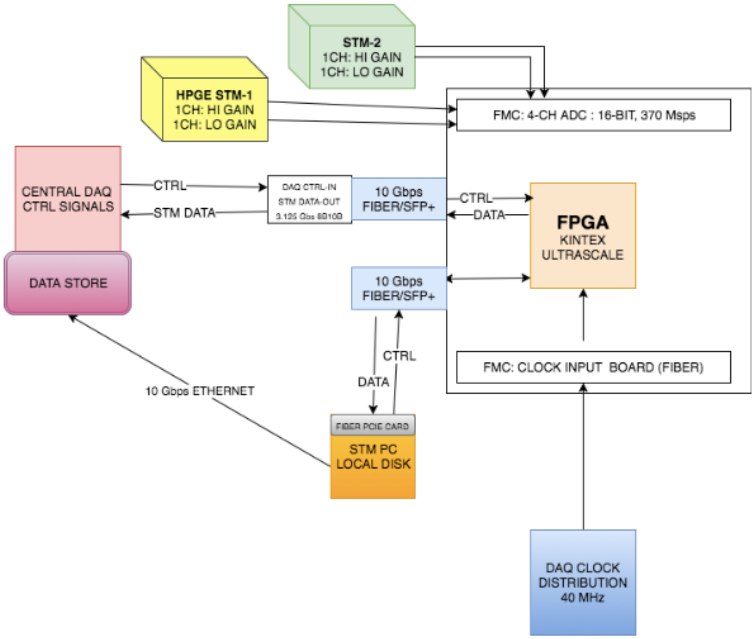




WP2 : Mu2e Detectors

Milestone-3 : Installation of MU2e HPGe detector : 01/01/2020
Deliverable 2.3: Design of Mu2e HPGe detector : 01/04/2018

Expect to complete specification of detector and procure by end of year. Some useful information on detector Orientation/depth from the data taken at Elbe/HZDR in August.
Masters student at Liverpool will do an in-depth analysis of Elbe data.



Will also purchase FPGA readout/ADC and start to integrate with test setup in FCC.

WP3 : Calibration Tools (g-2)

Deliverable 3.2: Calibration system for g-2 straw tracker (01/07/2017) (REPORT UPLOADED: 04/07/17)

Milestone 5: g-2 calibration system commissioned (01/01/2019)

European Commission

MUSE

H2020 Grant Agreement N° 690835

Deliverable D3.2 – WP3 – Due date: 30 June 2017

Title: g-2 tracker (calibration) tools

Type: Report

Dissemination level: Public

WP number: WP3

Lead Beneficiary: UCL

Abstract:

This report describes the calibration tools that have been developed for the g-2 straw tracker. These comprise of three systems: a vacuum test-stand, a cosmic test-stand and a source test-stand. The data from these test-stands coupled with a GARFIELD simulation have been used to fully characterise the straw trackers that are presently taking their first data from stored muons in the g-2 storage ring at FNAL.

Done - we continue to use the calibration system particularly in the context of evaluating solutions to reduce the water content of the storage ring vacuum.

WP4 : Software Tools (g-2)

Milestone-6 : g-2 offline reconstuction code ready for analysis of data : 01/01/2017 (Report uploaded 30/12/16)
Deliverable 4.2: Simulation of 10^{11} muons for g-2 and stress-testing of framework : complete

Milestone-7 : Mu2e HPGe reconstruction code : 01/05/2019

Evaluating in software the MWD algorithms for energy (and time)