

EuroCirCol Kick of meeting

Study Beam Induced Vacuum Effects

CERN March'15



- *WP is coordinated by* 
- *Study beam-induced vacuum effects*



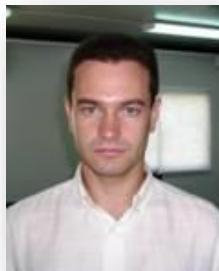
- Develop mitigation strategies for beam-induced vacuum effects
- Study beam stability at cryogenic temperatures
- Develop the design for a cryogenic beam vacuum system
- Build a prototype
- Measure the prototype at ANKA light source



Francis Perez
Head of Accelerator Division
WP4 Coordinator



Joan Casas
Head of Engineering Division



Carles Colldelram
Transversal Section Head
Engineering Division
Task leader



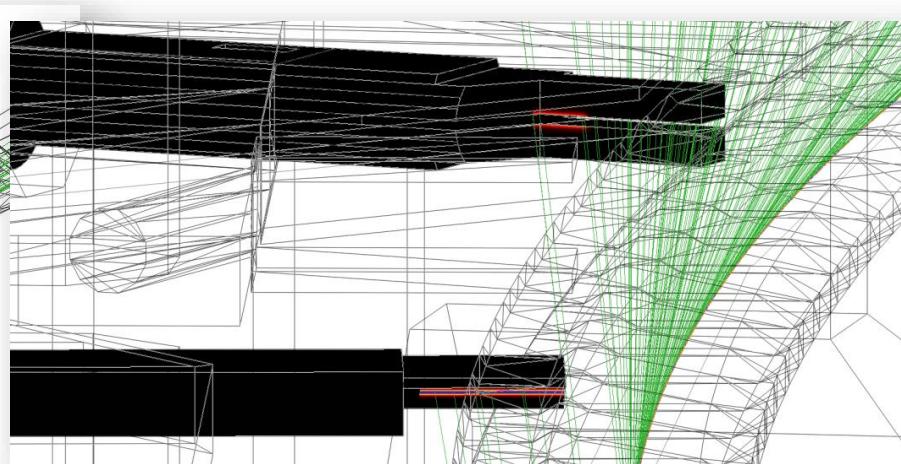
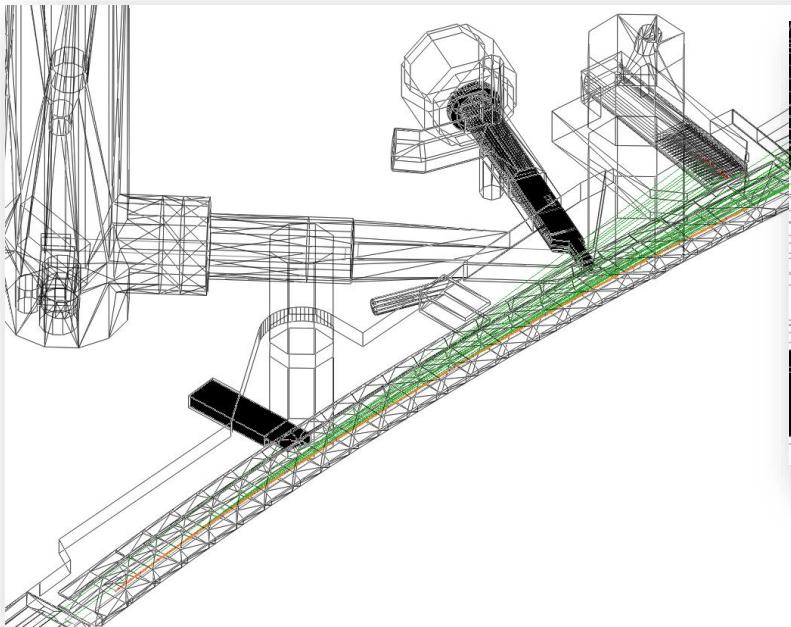
Raquel Monge
Vacuum Group Leader
Transversal Section
Vacuum Project Engineer



Marcos Quispe
Transversal Section
Deputy
Simulation Engineer

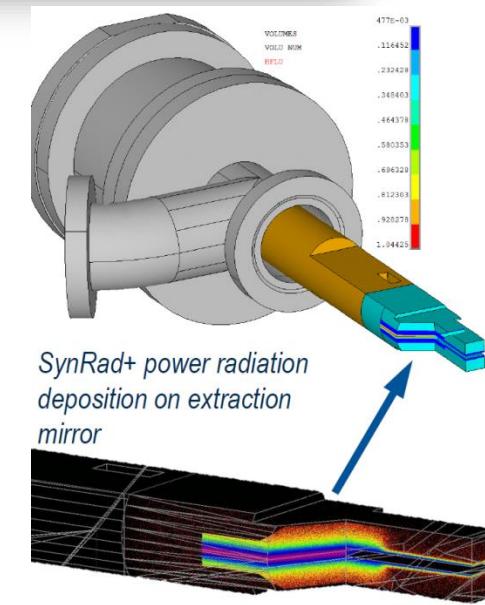
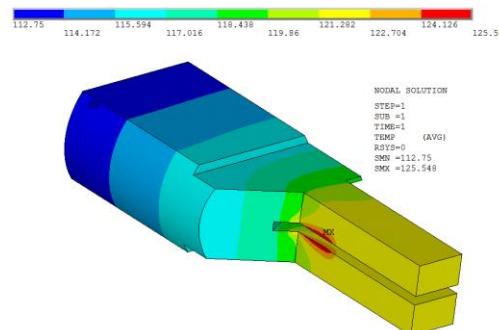


PhD Student
Vacuum Project Engineer
Under Selection process

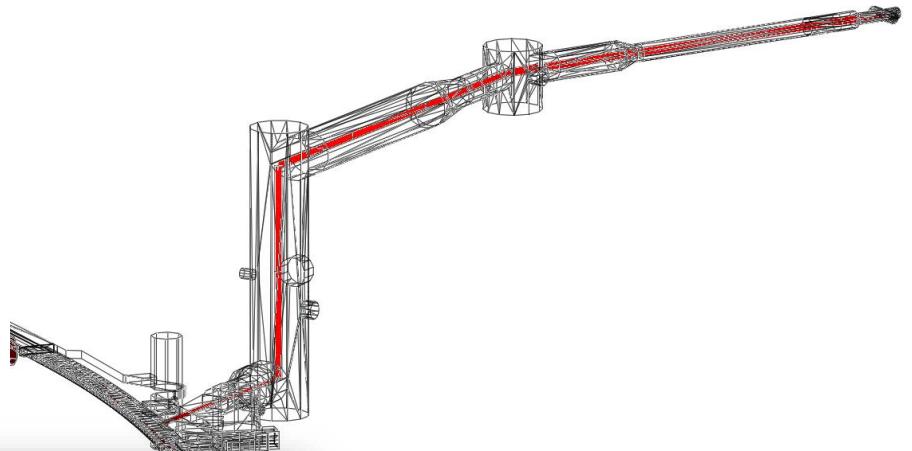
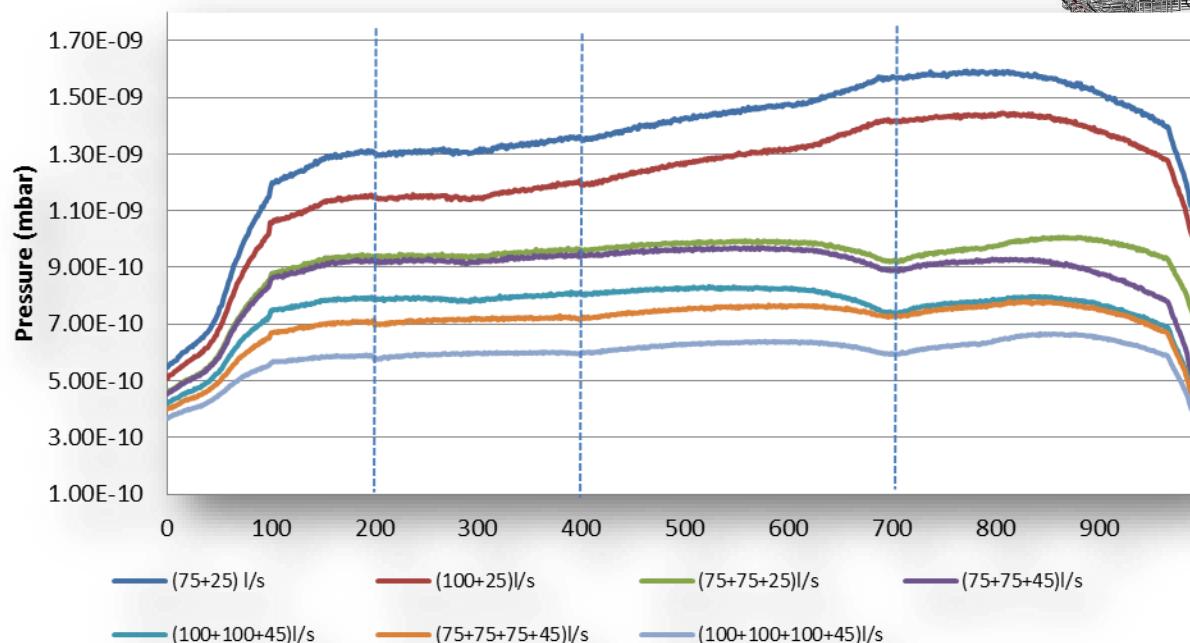


SynRad+ Synchrotron radiation power deposition

Data Extraction and inserted to Ansys for thermomechanical simulations



MolFlow+ Vacuum profiles
simulations & optimization



WP Coordination (Francis Perez)

CONCEPTUAL DESIGN

- Study beam-induced vacuum effects
- Develop mitigation strategies for beam-induced vacuum effects
- Study beam stability at cryogenic temperatures
- Develop the design for a cryogenic beam vacuum system

CONSTRUCTION

- Build a prototype
- Measure the prototype at ANKA light source

WP Coordination (Francis Perez)

CONCEPTUAL DESIGN

- Study beam-induced vacuum effects
 - For the final FCC machine
 - For the prototype

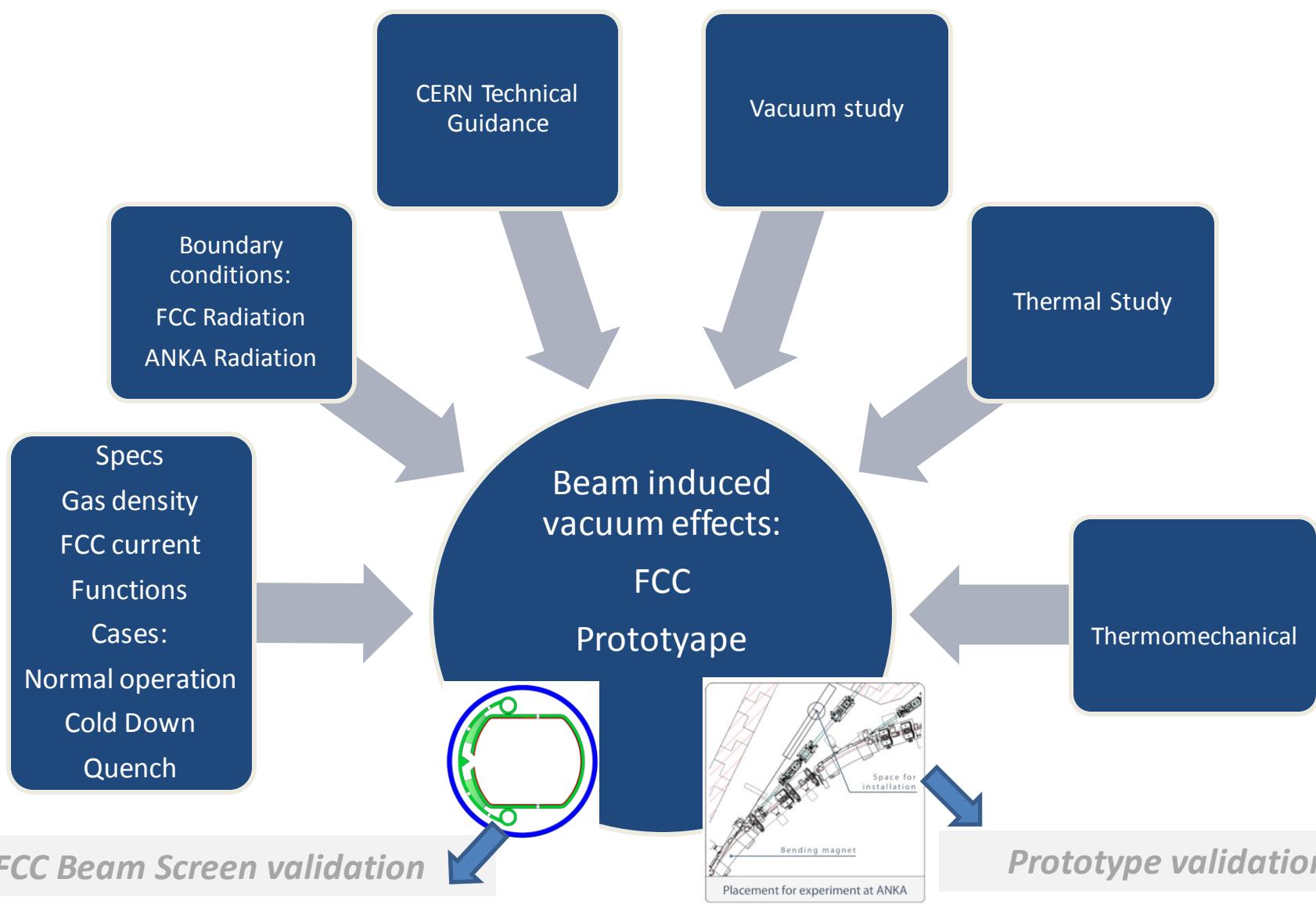
With the studies for the FCC machine we will develop validation model

With this model we will develop the prototype concept with the figures for this set up to compare with the final results

CONSTRUCTION

- Build a prototype
- Measure the prototype at ANKA light source

The final results has to be analysed to figure out the reliability of the device





Thanks for your attention

