

**Berlin March 2011**

# Sample Environment JRA

## Purpose

The principle aim of the JRA is to enhance the capabilities of sample environment available at neutron facilities. We will extend the supported sample environment at the participating facilities and provide knowledge and expertise to the collaborating participants. The three key areas of endeavour are high pressure gas cells, ultra high temperature furnaces and gas handling systems.



# What have we really achieved half way through?

- *We have built a community*

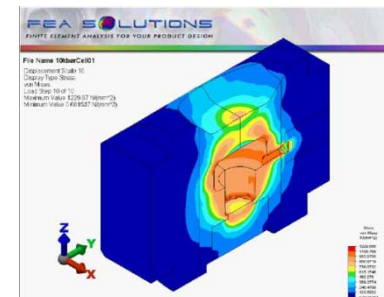


Great communications between differing teams

Ability to get good intelligence on systems and equipment

Use other team's experience and knowledge to each facilities improve systems

Reduced barriers between facilities







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## Comments from this morning

### ■ High Pressure task

- Using neutron and x ray data to verify the FEA analysis
- Progress on intensifier systems in all institutes
- Sharing of facilities, knowledge and equipment
- Good discussion on the control of such systems – next step to extend the use of the CRNS valve.
- Beginnings of a standard stick.

## ■ Gas Absorption Systems


- New approach to the control software – is this shareable?
- Extension of facility to include residual gas analysis
- Issues with the use of materials for containers of hydrogen at high temperature and 100s bar. – We need to exchange information in this area



## ■ Aerodynamic furnaces

- Enormous amount of work on the stabilisation of the aerodynamic system
- Prototype on the way
- Compact design

## ■ Electrostatic furnace

- Two experiments
  - Move the equipment from one facility to another
  - 'Simple and easy' to set up
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- How best to disseminate the knowledge and know how of the team?





Excellent food and refreshment yesterday evening

A very interesting visit to the site of the Potsdam Conference

So a big thank you to Dirk and the team for organising this meeting