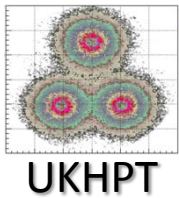


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# Agenda

- (1) Introduction, funding, status, etc
  - Rob Edgecock
- (2) PASI target interests/group
  - High power target group in TD
  - ISIS target group
  - Huddersfield target group
  - Sheffield target group
  - Warwick target group
- (3) ISIS target design codes
  - Stephen Brooks
- (4) Discussion of project activities
  - All
- (5) Website
  - Stephen Brooks
- (6) Future meetings
  - All
- (7) AOB



# Introduction

- 3 WPs recommended for funding by STFC Accelerator R&D
- In subsequent discussions: need for flexibility identified

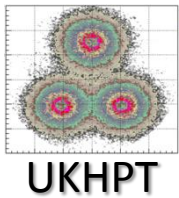
**WP1 - Generic tools for high power target development and operation**

**Task 1: Monitoring systems**

- structural integrity
- coolant flow integrity
- heat transfer integrity
- erosion/corrosion resistance integrity
- temperature

**Task 2: Studies for high Z targets**

- new
- deliberately vague
- where flexibility is possible
- e.g. target limits, windows, ADS, etc



# Introduction

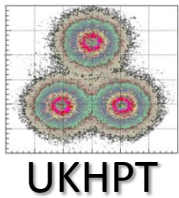
## WP2 – ISIS upgrades

### Task 1: ISIS upgrades

- improvements to existing target
- existing target at 0.5MW
- ISIS targets for 1 and 5MW

### Task 2: ESS

- flexibility here
- possible contributions to be determined
- gain experience relevant for ISIS

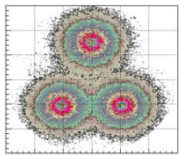


# Introduction

## WP3 – Fluidised tungsten

### Task 1: Fluidised tungsten

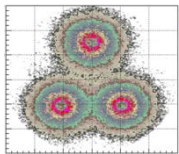
- Flow rig development for tungsten powder
- Heating and cooling tests
- Develop suitable diagnostics
- Pulsed proton beam test at HiRadMat facility
- Magnetic field effects
- In-beam investigation of magnetic field effects
- Identify suitable low Z powder
- Outline circuit design
- Conceptual design of Target Station



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## Related Activities

- **Current ISIS targets**
- **Superbeams**
- **Muon production**
- **Boron Neutron Capture Therapy**
- **Radioisotope production**
- **Etc**
- **Be good if these things were also included in project**



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# Coordinators

**Project coordinator:**

**Rob Edgecock (STFC)**

**Deputy:**

**Chris Densham (STFC)**

**WP1 Coordinator:**

**David Jenkins (STFC)**

**Task 1:**

**?**

**Task 2:**

**?**

**WP2 Coordinator:**

**Matt Fletcher (STFC)**

**Task 1:**

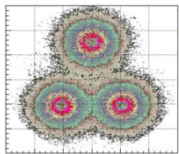
**?**

**Task 2:**

**?**

**WP3 Coordinator:**

**Chris Densham (STFC)**

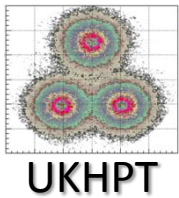


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## PASI Funding

	2012/13	2013/14	2014/15	2015/16	Total
<b>WP1 Task 2</b>					
TD	0.6	0.6	0.6	0.6	2.4
PPD	0.35	0.35	0.35	0.35	1.4
Huddersfield	0.5	0.5	0.5	0.5	2.0
Sheffield	0.25	0.25	0.25	0.25	1.0
<b>WP2</b>					
TD	0.7	0.7	0.7	0.7	2.8
Huddersfield	0.5	0.5	0.5	0.5	2.0
Sheffield	0.25	0.25	0.25	0.25	1.0
<b>WP3</b>					
TD	1.15	1.15	1.15	1.15	4.6
<b>Non-staff</b>	~£50k	~£60k	~£40k	~£75k	~£225k

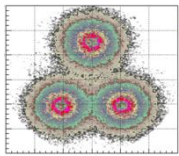
+ John Back (total 1.8) and Chris Booth (total 0.4) from RG



# PASI Funding

- **There is some flexibility!**
- **Some resources that I can allocate**
- **First call: ISIS staff**
- **Nevertheless, some control is required:**
  - **All overseas travel must be approved by me first! Short email with approx. cost**
  - **No capital equipment (>£10k) is allowed**
  - **All other >£500 needs approval first**

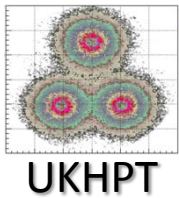




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## Meetings proposal

- **Project:** **3 times/year?**
- **WP/Tasks:** **Up to WP/Task, but reasonably frequent 1/1 or 2 months?**



## Next Steps

- **Need to produce project plan and milestones**
- **Delivered to CJ**
- **Main aims of meeting:**
  - **Determine experience and interests**
  - **Devise PP based on this and review constraints**
  - **Identify milestones**
  - **Both should be based on PASI funding, not any additional funding from elsewhere**