

23rd International Conference on

**STRUCTURAL MECHANICS in
REACTOR TECHNOLOGY**

SMiRT 23

Manchester, United Kingdom

August 10 to 14 2015

SMiRT 23 Manchester 2015

- Venue – The Lowry and Manchester
- Accommodation
- Organisation
- ISC
- Planning meeting
- Programme
- Social programme
- Budget – Financial support
- Questions

Manchester location

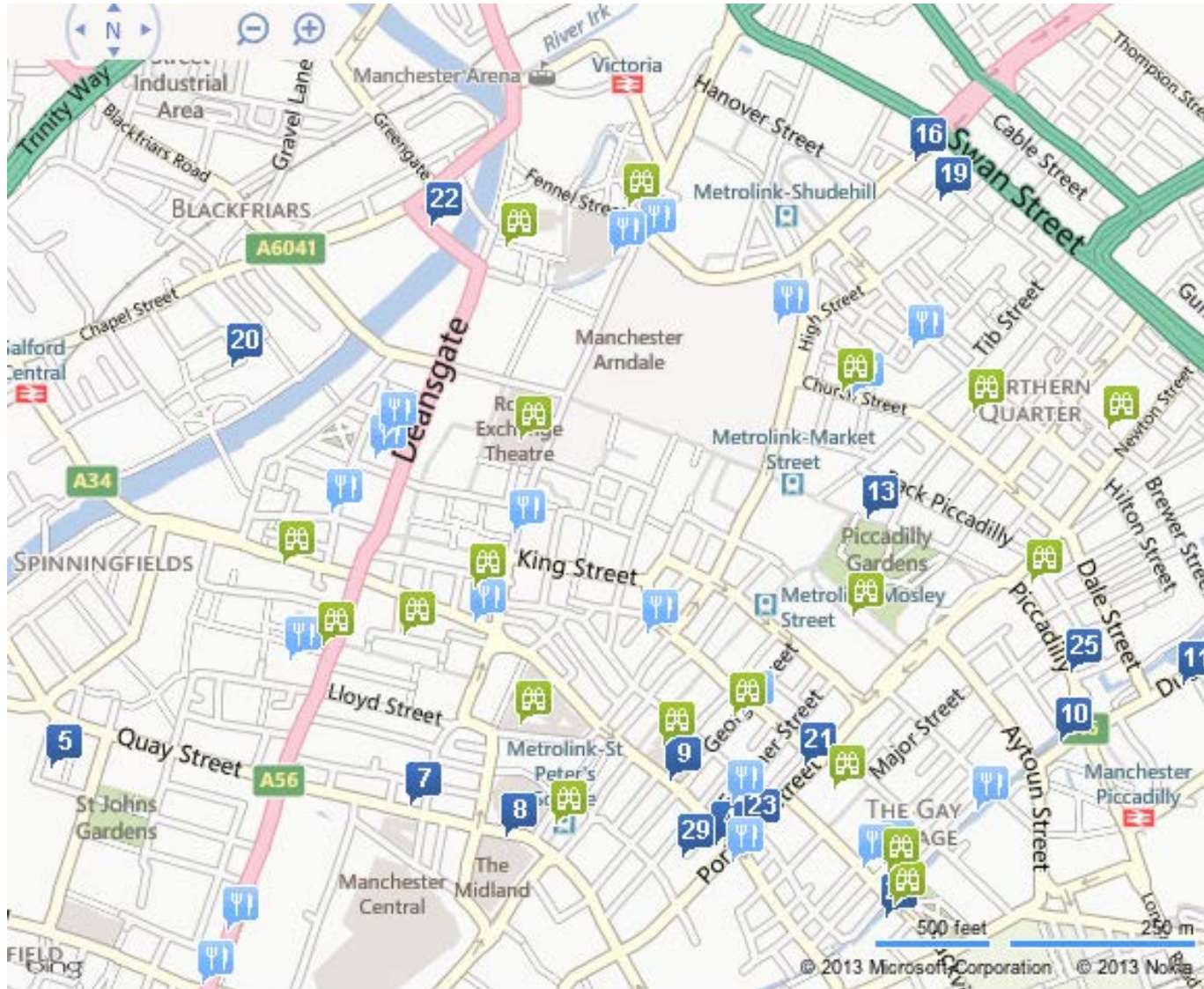
- Manchester International Airport 20 minutes on public transport
- Ten minute metro link Manchester to The Lowry
- Convenient rail links to London, Liverpool etc



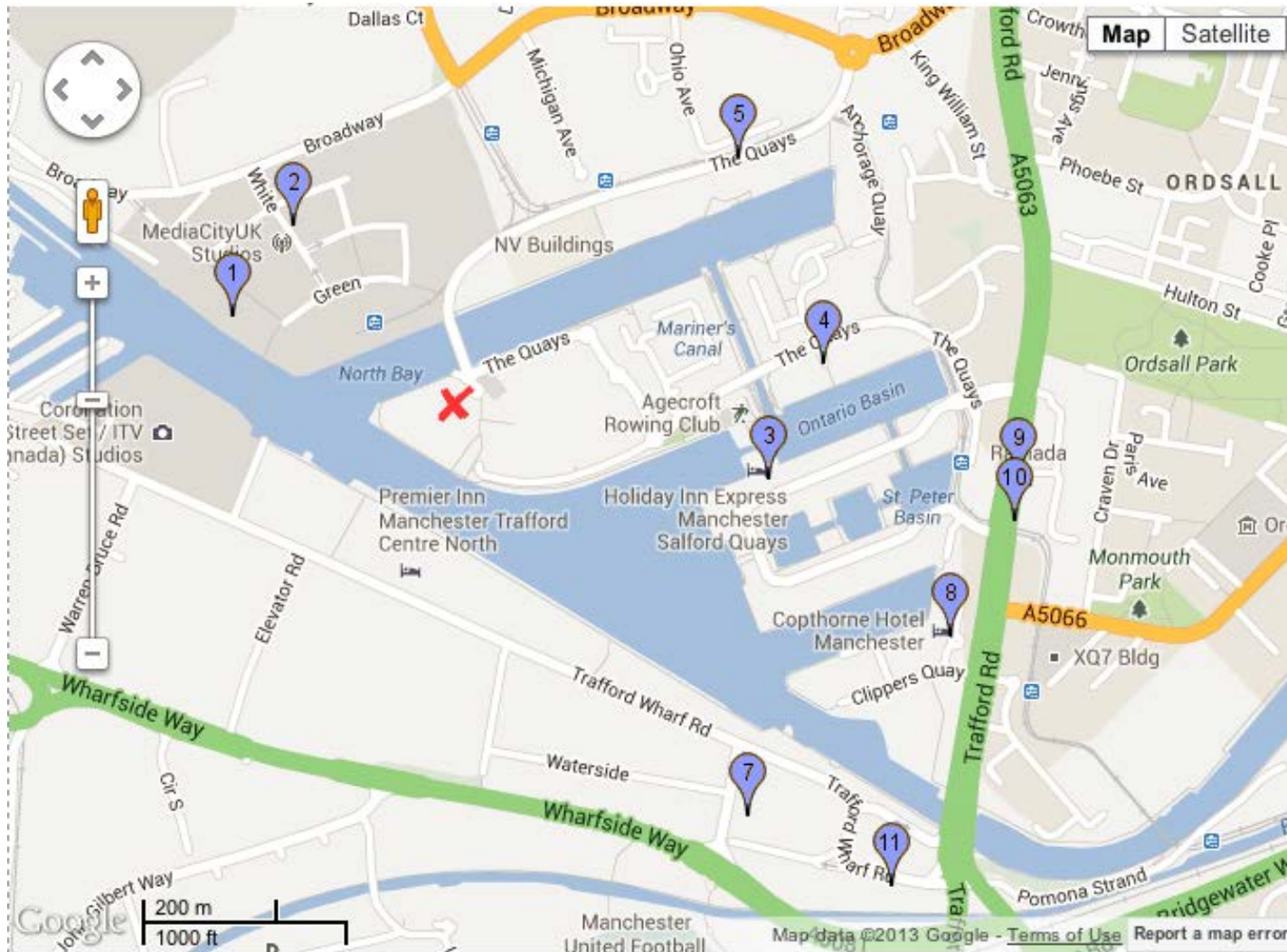
Accommodation

- Hotels via Nuclear Institute agency accessed from SMiRT 23 website – one stop shop
- Wide range of hotels in Manchester and at Lowry
- Typical room rates £65 per night upwards
- Student accommodation £100 per week
- One-click booking via SMiRT 23 website and Nuclear Institute agency

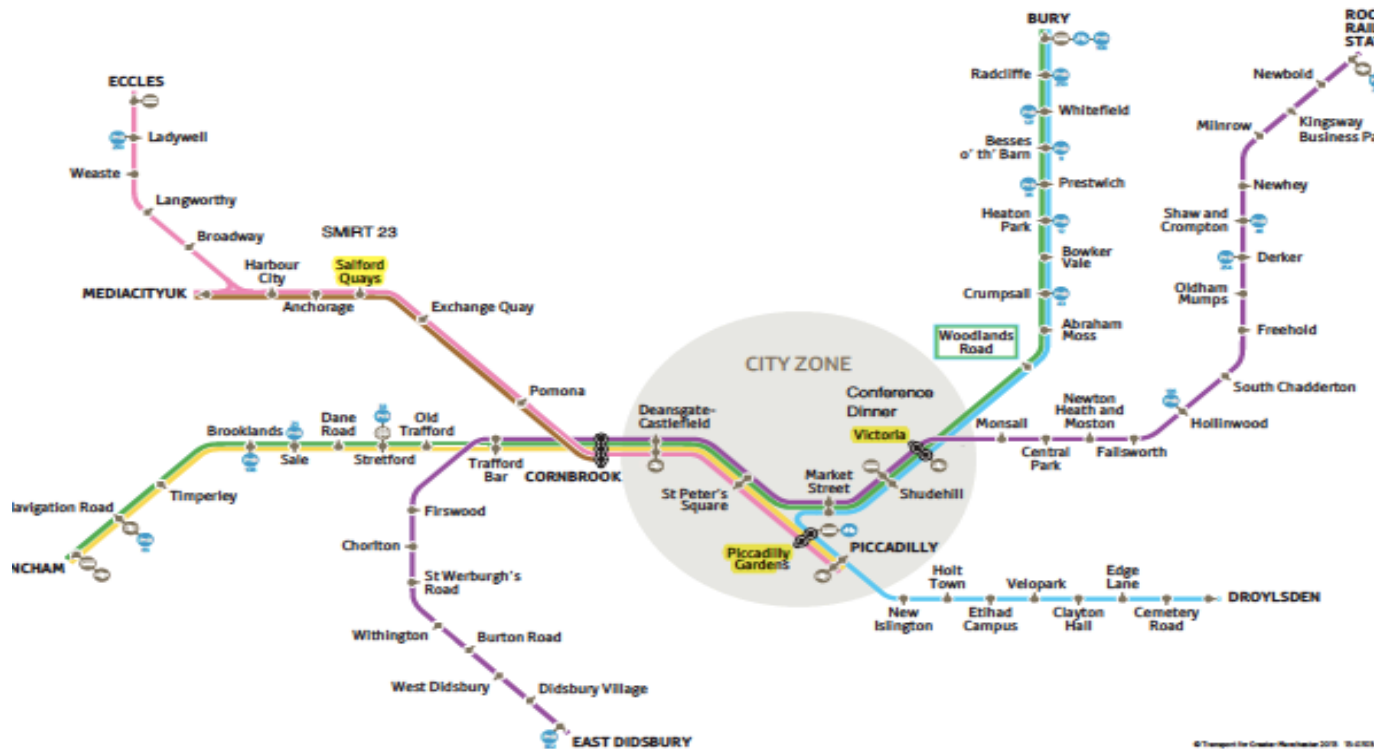
Manchester Centre Hotels



Salford Quays Hotels



Manchester Metrolink



15 mins
journey
every 12
mins
cost
£2:60

Metrolink stop	Bus interchange	Park + Ride Number of spaces available	Altrincham - Bury	East Didsbury - Rochdale Railway Stat
Line interchange	Trafford Centre bus link	Cycle hub Membership required	Altrincham - Piccadilly	Eccles - Piccadilly
Rail interchange			Bury - Droytsden	MediaCityUK - Cornbrook

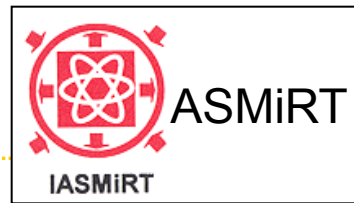
Woodlands Road stop: limited service 10am-4pm Mon-Fri at all other times use Abraham Moss

SMiRT 23 Organisation



- Local Organising Committee (LOC) will remain at core of organisation throughout
- Senior Advisory Panel to be established
- International Scientific Committee along normal SMiRT lines
- Dedicated organisation through Nuclear Institute team and industry supporters

IASMiRT
 Board and
 Advisory Board



Chair
 D Shepherd

UK Senior
 Advisory Panel

UK LOC Executive

- Office for Nuclear Regulation (ONR)
- EDF Energy, Generation
- AMEC Clean Energy
- Nuclear Institute
- NAFEMS
- University of Manchester

Technical ISC
 Dr M P O'Donnell
 Prof. N K Prinja

LOC Social Prog.
 Sonia Shepherd
 University of Manchester

LOC Financial
 E Boyes
 T. Morris

LOC Marketing
 T. Morris
 E Boyes

LOC Service Provision
 E Boyes/Madhu Madhavi
 F Sheil

- Int. Scientific Committee
- Session Chair
- Key Note Speakers
- Technical Programme
-

- Technical Visits
- Conference Venue
- Manchester Council
- Partners Prog.
-

- Budget
- Planning

- Sponsorship
- Marketing
- Publicity
- Exhibition
- ...

- Conference Venue
- Hotels etc
- Delegate reg.
- Conf Dinner
- Customer service

Web Site



- Team from EDF Energy, AMEC and NI
- Training started in October
- Access only late December – conflicted with holidays
- Plan to populate relevant sections by end February
- Working with Abhinav this week

International Scientific Committee

- Ten Divisions
- Manus O'Donnell chair, Nawal Prinja deputy
- Local participants for each Division via Manchester and other UK universities
- Aspiration for all interested members SMiRT 22 ISC to continue for SMiRT 23 - please contact Manus or Nawal
- Early Career Award
- NED special edition organised by University of Manchester

Jaeger Lecture



- Professor R A (Bob) Ainsworth invited to present Jaeger Lecture
- BNFL Professor of Structural Integrity at University of Manchester since 2011
- Previously 35 years structural integrity in nuclear industry
- Originator of R6 and R5 structural assessment methods for fracture and creep
- Elected Fellow of Royal Academy of Engineering 2004
- Elected Fellow of Royal Society 2009

ISC



- ISC Aim, Scope and Objectives
- Current position on the ISC organisation (SOME GAPS)
- Supporting Guidance for ISC
 - ISC Guidance for Division Chairs
 - The SMiRT 23 Early Career Award

The ISC Aim and Scope

- The ISCs aim is:-
 - To organise, plan and deliver the scientific and technical aspects of the conference.
- The Scope covers:-
 - Pre conference planning activities to develop the technical programme.
 - Implementation of the technical programme.
 - Post conference close out activities and feedback.

The ISC Objectives

- The Objectives are:-
 - To maintain technical excellence of the conference content.
 - To promote international networking and nuclear capabilities.
 - To deliver the programme to high technical quality, on time and in line with the budget.
 - To promote technical development and early career engagement with SMiRT conferences
 - To proactively communicate with the Local Organising Committee and IASMiRT
 - To support improvements of the IASMiRT web-based conference tool.

ISC – Division Organisation (1)

Division I – Mechanics of Materials

Who	Comments	Progress (Asked / Agreed / GAP)
Dr Andrey Jivkov	University of Manchester (UK)	Agreed Will also support NED special edition
Professor Damen Panesar	University of Toronto (Canada)	Asked at SMiRT 22
Graham Doughty	EDF Energy	Asked but commitment TBC

•Division II – Fracture Mechanics and Structural Integrity

Who	Comments	Progress (Asked / Agreed / GAP)
Professor Steve Garwood	Ex-Rolls Royce now at Imperial college	Agreed
Richard Bass	ORNL USA	GAP – TBC
	Russia	GAP – TBC
Dominique Moinereau	EDF, France	GAP - TBC

ISC – Division Organisation (2)

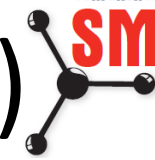


- Division III – Applied Computation, simulation

Who	Comments	Progress (Asked / Agreed / GAP)
Laure Pellet	EDF Energy / University of Manchester, UK	TBC
Cheryl O'Brien	Idaho National Labs, USA	Asked at SMiRT 22
Norihiro Nakajima	JAEA, Japan	TBC

- Division IV – Characterisation of Loads

Who	Comments	Progress (Asked / Agreed / GAP)
Peter Ford	ONR, UK	Agreed
Annie Krammerer	Bectel (USA)	Recommended & asked at SMiRT 22
Emmanuel Viallet	EDF (France)	Asked at SMiRT 22



ISC – Division Organisation (3)

- Division V – Modelling Testing & Response Analysis of SSC

Who	Comments	Progress (Asked / Agreed / GAP)
Professor Colin Taylor	Bristol University	TBC
Abe Hiroshi Shin Morita shin_morita@nsr.go.jp	Japan Japanese Nuclear Regulation Authority, experience of IAEA & OECD.	GAP GAP
Ram Singh	BARC, India.	GAP & experience with NED special edition
Susamu Nakamura	Japan snakamura@iea.or.jp	TBC

- Division VI – Design and Construction Issues

Who	Comments	Progress (Asked / Agreed / GAP)
Dr Paul Smith	Head of profession AMEC, UK	TBC
Dr Ayman Saudi	Candu Energy (Canada)	Asked at SMiRT 22
Dr Sanj Malushte	Bechtel	TBC

ISC – Division Organisation (4)

- Division VII – Safety, Reliability, Risk and Margins

Who	Comments	Progress (Asked / Agreed / GAP)
Prof. Andreas Rietbroc	Risk Institute, University of Liverpool, UK	TBC
Eric Mathet	ATMEA (France)	TBC
? Greg Hardy ?	NRC, USA contribution to SMiRT 22	TBC
Ravi Ravindra	MKRavindra Consulting	Volunteered

- Division VIII – Operations, Inspection and Maintenance

Who	Comments	Progress (Asked / Agreed / GAP)
Dr Russ Booler	AMEC, UK	TBC
Dr Steven Doctor	PNNL (USA)	TBC
?	RUSSIA	GAP

ISC – Division Organisation (5)

- Division IX – Waste, fuel cycle Facilities & Decommissioning

Who	Comments	Progress (Asked / Agreed / GAP)
Richard Stainsby	NNL, UK	TBC
Dr Abby Jones (Ms)	University of Manchester	TBC
Bhasker Tripathi	NRC (USA)	TBC
?	Russia	GAP

- Division X – Challenges of New Reactors

Who	Comments	Progress (Asked / Agreed / GAP)
Professor Tim Abram	University of Manchester , UK With strong links to NNL	TBC
Professor Xinxin WU (Ms) xinxin@mail.tsinghua.edu. cn	Tsinghua University, China	Asked at Visit to EDF Energy TBC

ISC – Guidance for Division Chairs

- Use your scientific, technical and engineering judgement to assure high standards of technical papers.
- Coordinate with other division chairs to help optimise the logistics, planning and organisation of the technical programme.
- Meet / telecom with your ISC division technical team to progress your technical division.
- To advise / support the organisation of abstracts and the technical sessions.
- To provide advice to the ISC Chair on the technical content of your division.
- To attend the ISC planning meeting in November 2014 in Manchester UK.
- To help identify around 3 papers for consideration to be published in a special edition of NED Journal - authors must opt in to be considered for this.
- To recommend candidate papers for the Early Career Award – authors must opt in to be considered for this.
- To support the ad-hoc committee Fostering of Early Career Participation in SMiRT
- To provide the LOC with help and support to identify Key note speakers.
- To identify session chairs within your division.
- To work with the LOC to gather session feedback and reporting, as required.
- To support IASMiRT membership within your division.

Format of Sessions



- Types of Technical papers/presentations
 - A) Technical division papers
 - B) Technical workshops within a division
 - C) Special Topic papers / state of the art papers within a division or across related divisions
 - D) Plenary sessions – these cross-division sessions are the responsibility of the local organising committee, with support and advice from the ISC

The SMiRT 23 Early Career Award

- SMiRT 23 Early Career Award (previously know as the junior award)
 - A) Candidates must opt in to be considered for this award which will be made to the presenter of the paper judged of most merit in recognition of their contribution to the Structural Mechanics in Reactor Technology Conference.
 - B) The award will be presented at the SMiRT 23 closing ceremony.
 - C) They will be invited to provide an extended paper in the special edition of the NED
 - D) The winner will receive a cash prize worth \$1000 + registration fee for SMiRT 24.
- Guidance on the Early Career Award
 - Candidates must opt in to be considered as part of their abstract submission and registration.
 - Candidates must be within ten years of starting their nuclear engineering or research career.
 - ISC chair for each of the 10 Divisions (Division I through to Division X) to recommend 2 papers which meet the above requirements and are of sufficiently high technical quality.
 - ISC chair for each Division to clarify reasons for their recommendation(s) and put forward for LOC for consideration.
 - Hold point - this could deliver a max of 20 papers (abstracts) for LOC consideration.
 - LOC will have the final review and decision on the Early Career Award award based on ISC input and advice.

Topical Symposia



- Analyst competency
- Benchmarking
- Nuclear applications of graphite
- New build and “standard” designs
- Harmonisation of codes and standards
- High temperature integrity
- Pre-and post seminars
- Integrated within Divisional structure

Planning Meeting

- Date fixed 19th to 21st November
- University of Manchester Conference Centre
- 1 day NAFEMS technical seminar with IMechE
- No charge for participants
- 1 ½ days planning and Board interactions
- Hotel block booking arrangement

Tentative programme

SMiRT 23 Preliminary Programme						
	Sunday 9	Monday 10	Tuesday 11	Wednesday 12	Thursday 13	Friday 14
9:00 to 10:30		Opening ceremony and Jaeger Lecture	Paper sessions	Plenary	Plenary panel	Paper sessions
10:30 to 11:00		Break				
11:00 to 12:30		Leadership plenary	Paper sessions	Paper sessions	Paper sessions	Plenary, closing ceremony and Early Career award
12:30 to 13:30		Lunch				
13:30 to 15:00		Paper sessions	Tech Plenary	Paper sessions	Paper sessions	Farewell lunch
15:00 to 15:30		Break				
15:30 to 17:00		Paper sessions	Paper sessions	IASMiRT GA	Paper sessions	
19:00 to 21:00		Reception		Lowry entertainment		Conference dinner

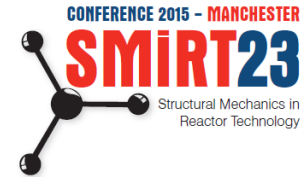
11 paper sessions, 12 parallel rooms, 5 papers per session = $11 \times 12 \times 5 = 660$ papers

Technical Visits

- Most likely Heysham (below)
- Possibly Sellafield
- New build site if feasible from Manchester



Manchester – Social Programme



Organised events:

- Conference dinner Thursday 13th
- Free event for delegates at The Lowry
- Access information/support at The Lowry

Under consideration:

- Roman/medieval Chester
- Liverpool via Manchester Ship Canal
- Lyme Park or Chatsworth House - stately homes and used for popular period dramas

Manchester Cathedral

- Founded in 1215 on earlier Saxon church
- Situated in central Manchester – few minutes walk from most hotels
- Established venue for Gala dinners



Chester "Rows"



Ship canal to Liverpool



Liverpool water front



Lyme Park



Budget Income

	£	\$	€
Full Fee Delegates (260 at £825)	214,500	353,925	257,400
Early Bird Delegates (200 at £625)	125,000	206,250	150,000
Student Delegates (40 at £175)	7,000	11,550	8,400
Dinner (500 at £25)	12,500	20,625	15,000
Delegate Income	359,000	592,350	430,800
Sponsorship	48,900	80,685	58,680
Exhibitors	40,000	66,000	48,000
Total Sponsoship	88,900	146,685	106,680
Total Income	447,900	739,035	537,480

Budget Expenditure

	£	\$	€
Hire of Lowry	95,000	156,750	114,000
Tea/coffee/lunch 5 days	60,000	99,000	72,000
AV Equipment	58,000	95,700	69,600
Welcome reception at Lowry	10,000		
Music and entertainment	5,000		
Total Venue Costs	228,000	376,200	273,600
Conference Dinner Venue	4,560	7,524	5,472
Dinner equipment and staff	8,500	14,025	10,200
Dinner food	15,000	24,750	18,000
Dinner wine and reception	5,750	9,488	6,900
Entertainment and other costs	5,000	8,250	6,000
Total Dinner Cost	38,810	64,037	46,572
NI Management Charge	25,000	41,250	30,000
NAFEMS Charge	8,900	14,685	10,680
Total Management Fees	33,900	55,935	40,680

Expenditure continued



Printing	10,000	16,500	12,000
Postage	13,000	21,450	15,600
Artwork and advertising	12,000	19,800	14,400
Website	22,424	37,000	26,909
Delegate packs and miscellaneous	15,000	24,750	18,000
Total Marketing	72,424	119,500	86,909
IASMiRT Dues	21,212	35,000	25,455
Jan 2014 Board meeting	1,000	1,650	1,200
Nov 2014 Planning meeting	12,500	20,625	15,000
Total Meetings	13,500	22,275	16,200
Contingency	30,054	49,589	36,065
Total Expenditure	447,900	739,036	537,480

Financial support



Local committee very gratefully acknowledge that EDF Energy and AMEC Nuclear have committed to underwriting the financial solvency of the conference

Timeline

- January 2014 Board meeting Manchester
- January 2014 Newsletter
- February 2014 Website operational
- March 2014 Second announcement, call for abstracts
- October 2014 Deadline for abstracts
- November 2014 Planning and Board meetings
plus NAFEMS seminar Manchester
- April 2015 Deadline for papers, third announcement,
registration
- June 2015 Early registration closes
- August 2015 SMiRT 23

SMiRT 23 – Any Questions?

