



SMiRT 23  
The Lowry Centre  
Greater Manchester  
August 10<sup>th</sup> to 14<sup>th</sup> 2015

Dave Shepherd



# Current Status



- LOC continues unchanged
- ISC engaged
- Contracts let for venue and dinner venue
- 500 hotel rooms blocked – review next year
- Registration costs minimised
- Plenary speakers agreed
- Draft programme available for ISC to develop
- Major issues with web tool
- Circa 500 abstracts to date
- This meeting for feedback and advice



**Dave Shepherd**

Chairman, SMIRT 23  
Nuclear Safety Consultant  
Former Superintending Officer, ONR



**Dr Manus O'Donnell**

Chairman of the ISC  
Research Manager  
EDF Energy, UK



**Professor Nawal Prinja**

Deputy Chairman, ISC  
Technical Director  
AMEC Clean Energy



**Dr Christopher Race**

Dalton Research Fellow  
School of Materials  
University of Manchester



**Tim Morris**

Sponsorship Organiser  
Chief Executive, NAFEMS



**Peter Ford**

Principal Inspector  
Office for Nuclear Regulation



**Madhu Madhavi**

SMIRT 23 Conference Organiser  
Nuclear Institute



**Rachael Macartney**

SMIRT 23 Conference Team  
Communications Officer  
Atkins



**Matthew Dawber**

SMIRT Conference Team  
Technical Secretary, ISC  
AMEC Clean Energy



# International Scientific Committee



- Ten Divisions
- Manus O'Donnell chair, Nawal Prinja deputy
- Local participants for each Division via Manchester and other UK universities
- Early Career Award
- NED special edition organised by University of Manchester

Division 1		Division 6	
Andrey Jivkov	Manchester University	Paul Smith	AMEC
Daman Panasar	University of Toronto	Ayman Saady	Candu
Graham Doughty	EDF Generation	Sanj Malushti	Bechtel
Division 2		Division 7	
Steve Garwood	Imperial College	John Llambias	Risktek
Elisabeth Keim	AREVA Germany	Seiichiro Fukushima	TEPSCO
Yun Jae Kim	Seoul University	Masoud Zedah	Bechtel
Division 3		Ravi Ravindra	MKRavindra Consulting USA
Laure Pellet	Manchester University	Division 8	
Cheryl O'Brien	INL	Russ Booler	AMEC
Keith Wright	Rolls Royce	Steve Doctor	Pacific Northwest Labs
Division 4		Division 9	
Peter Ford	ONR	Anthony Bamford	NNL
Annie Kammerer	Bechtel	Bhasker Tripathi	NRC
Emmanuel Vallet	EDF France	Stephen McDuffie	US DoE
Shin Morita	Japan		NDA Sellafield
Division 5		Division 10	
Colin Taylor	Bristol University	Tim Abram	Manchester University
Malcolm Goodwin	ABS Consulting	Xinxin Wu	Tsinghua University
Susumu Nakamura	IAE Japan		



# The Lowry



- Stunning arts and conference venue in Manchester's Salford Quays
- Good daily communications with Manchester
- Well organised AV and catering facilities



# The Lowry

- Not-for profit foundation operates two theatres at The Lowry – ideal for plenary sessions
- Excellent staff and infrastructure to manage large numbers of delegates





# The Lowry



- Excellent breakout and exhibition areas
- Permanent art gallery open free to delegates
- Evening entertainment open to public and free to delegates





# The Lowry

- Variety of smaller rooms for parallel sessions
- Can be configured to suit SMiRT
- All with excellent AV due to arts/performance requirements





# Manchester Cathedral



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





# 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

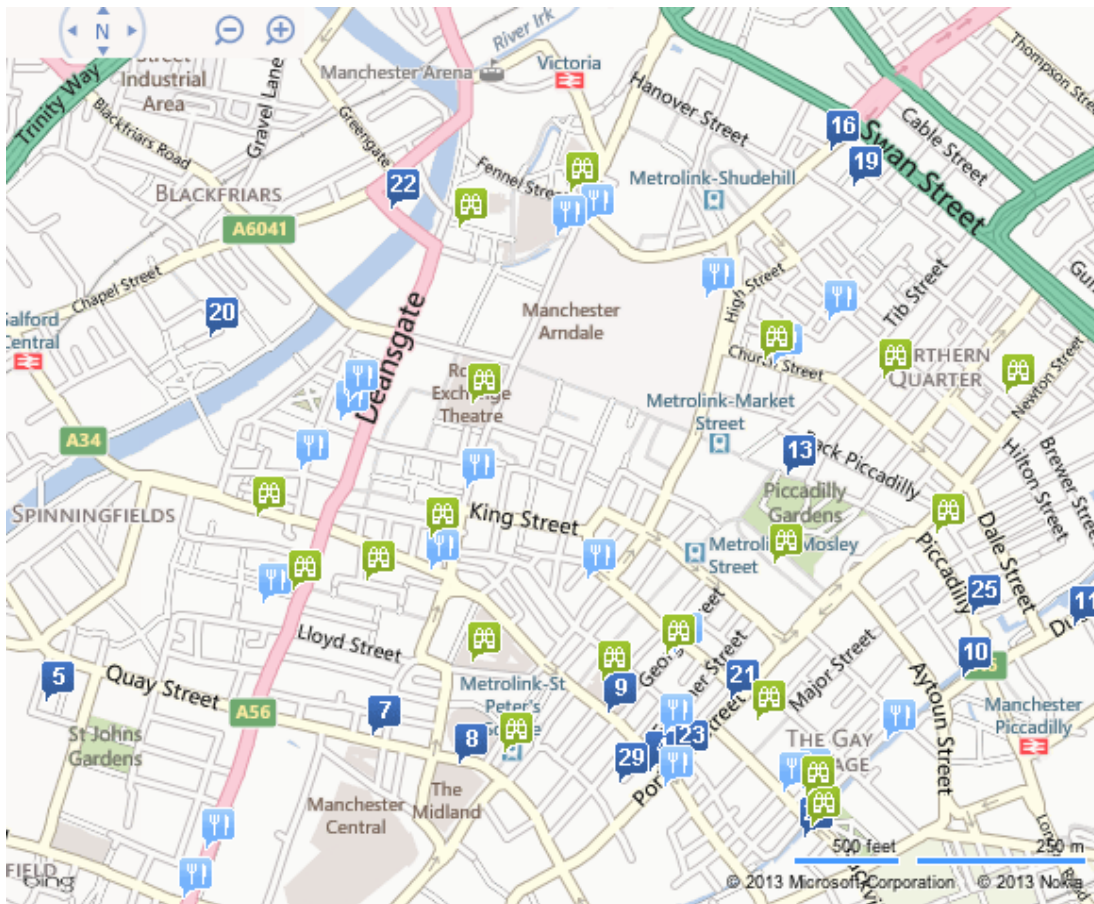




# Accommodation

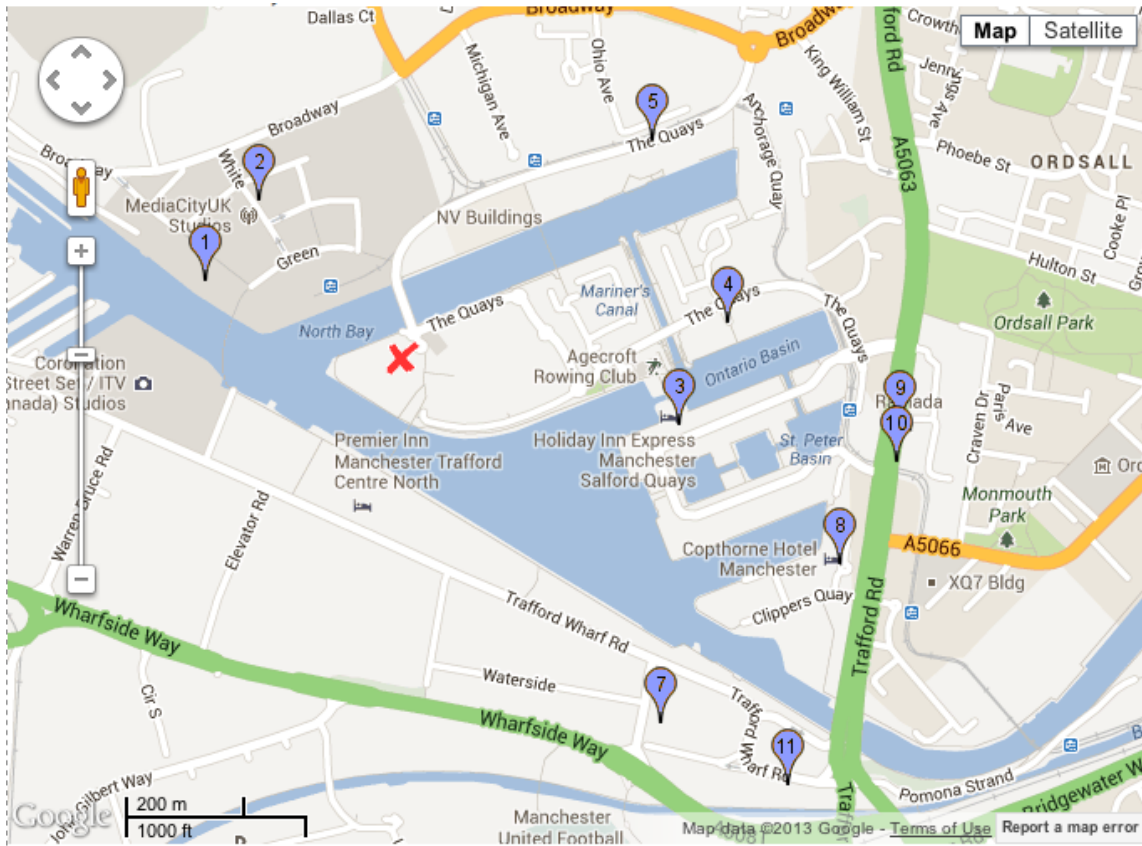
- Hotels via Nuclear Institute agency accessed from SMiRT 23 website – one stop shop
- Wide range of hotels in Manchester and at Lowry
- Typical room rates £65 per night upwards
- Student accommodation £100 per week
- One-click booking via SMiRT 23 website and Nuclear Institute agency

# Manchester Centre Hotels



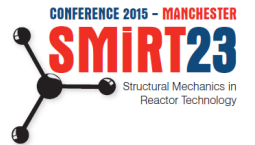


# Salford Quays Hotels





# Metrolink

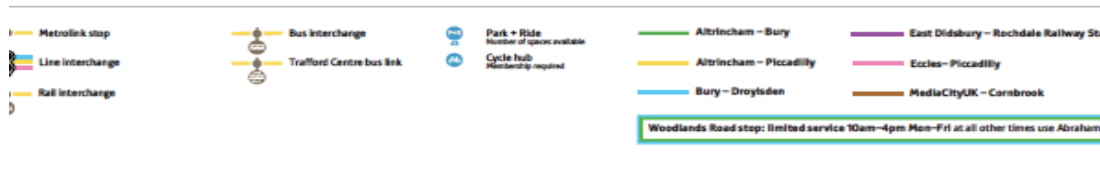
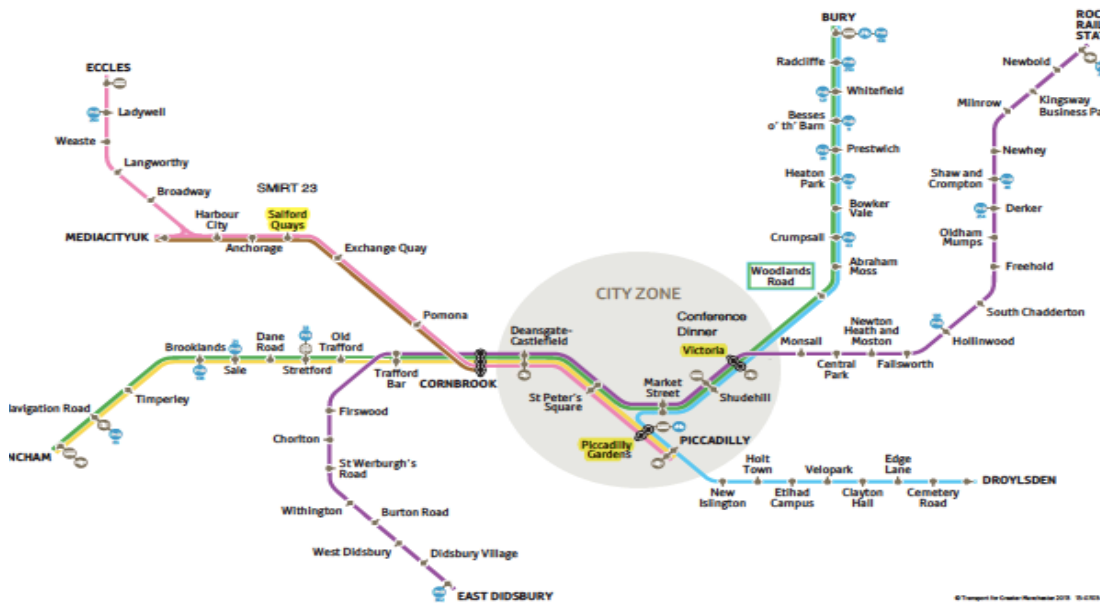




# Manchester Metrolink



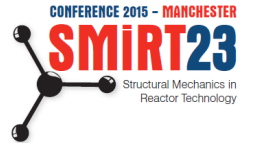
15 mins  
journey  
every 12  
mins  
cost  
£2:60







# Media City Station





# The Lowry from Media City





# Budget Income



	£	\$	€
Full Fee Delegates (260 at £725)	188,500	311,025	226,200
Early Bird Delegates (200 at £625)	99,000	163,350	118,800
Student Delegates (40 at £175)	7,000	11,550	8,400
Dinner (40 at £25)	1,000	1,650	1,200
<b>Delegate Income</b>	<b>295,500</b>	<b>487,575</b>	<b>354,600</b>
Sponsorship	65,000	107,250	78,000
Exhibitors	40,000	66,000	48,000
<b>Total Sponsoship</b>	<b>105,000</b>	<b>173,250</b>	<b>126,000</b>
<b>Total Income</b>	<b>400,500</b>	<b>660,825</b>	<b>480,600</b>



# Budget Expenditure



	£	\$	€
Hire of Lowry	95,000	156,750	114,000
Tea/coffee/lunch 5 days	50,400	83,160	60,480
AV Equipment	58,000	95,700	69,600
Welcome reception at Lowry	7,000	11,550	8,400
Music and entertainment	2,000	3,300	2,400
<b>Total Venue Costs</b>	<b>212,400</b>	<b>350,460</b>	<b>254,880</b>
Conference Dinner Venue	3,800	6,270	4,560
Dinner equipment and staff	8,500	14,025	10,200
Dinner food	12,650	20,873	15,180
Dinner wine and reception	5,750	9,488	6,900
Entertainment and other costs	5,500	9,075	6,600
<b>Total Dinner Cost</b>	<b>36,200</b>	<b>59,730</b>	<b>43,440</b>
NI Management Charge	25,000	41,250	30,000
NAFEMS Charge	10,000	16,500	12,000
<b>Total Management Fees</b>	<b>35,000</b>	<b>57,750</b>	<b>42,000</b>
<b>Cancellation Insurance</b>	<b>3,000</b>	<b>4,950</b>	<b>3,600</b>
Printing	7,000	11,550	8,400
Postage	3,000	4,950	3,600
Artwork and advertising	7,000	11,550	8,400
Website	22,424	37,000	26,909
Delegate packs and miscellaneous	18,500	30,525	22,200
<b>Total Marketing</b>	<b>57,924</b>	<b>95,575</b>	<b>69,509</b>
<b>IASMIRT Dues</b>	<b>21,212</b>	<b>35,000</b>	<b>25,455</b>
Jan 2014 Board Meeting	1,000	1,650	1,200
Nov 2014 Planning Meeting	5,000	8,250	6,000
<b>Total Meetings</b>	<b>6,000</b>	<b>9,900</b>	<b>7,200</b>
<b>Contingency</b>	<b>28,764</b>	<b>47,461</b>	<b>34,517</b>
<b>Total Expenditure</b>	<b>400,500</b>	<b>660,826</b>	<b>480,600</b>



# Sponsorship

- EDF Generation, AMEC and University of Manchester all substantial sponsors in kind
- Additional sponsors to date Atkins, LANL, AASMiRT, NNL and HRC Europe.
- Total to date £43,500
- Many lines of enquiry



# Financial support



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



# Format of Sessions



- A) Technical division papers
- B) Technical workshops/panel sessions within a division
- C) Technical workshops/panel sessions/ state of the art papers within a division or across related divisions
- D) Plenary sessions – across conference workshops/ panel sessions/leadership lectures



# Tentative programme



	Sunday 9th	Monday 10th	Tuesday 11th	Wednesday 12th	Thursday 11th	Friday 14th	
09:00 to 10:30		Opening Ceremony Jaeger Lecture and Leadership Plenary 1	Plenary Workshop 5 New Build and Harmonisation of Codes and Standards	Plenary Workshop 6 Small Modular Reactors	Plenary Workshop 7 Flooding Hazards – Developments Post-Fukushima		
10:30 to 11:00		Break					
11:00 to 12:30		Leadership Plenary Lectures 2 and 3				Plenary Panel, ECA and Closing Ceremony	
12:30 to 13:30		Lunch					Farewell lunch
14:00 to 15:30		Leadership Plenary Lectures 4 and 5					
15:30 to 16:00		Break					
16:00 to 18:00					General assembly		
19:00 to 21:00		Welcome reception		Lowry evening event		Conference dinner	





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10:30 to 11:00		Break				
11:00 to 12:30		Leadership Plenary Lectures 2 and 3	Paper session 1/6 to 1/9	Paper session 1/14 to 1/17	Paper session 1/18 to 1/21	Plenary Panel, ECA and Closing Ceremony
12:30 to 13:30		Lunch				
14:00 to 15:30		Leadership Plenary Lectures 4 and 5	Paper session 1/10 to 1/13	Workshop 2 State-of-art paper on Component Fragility of NPP	Workshop 3 Nuclear Applications of Graphite	Farewell lunch
15:30 to 16:00		Break				
16:00 to 18:00		Paper Session 1/1 to 1/5	Workshop 4 High Temperature Assessment	General assembly	Paper session 1/22 to 1/26	
19:00 to 21:00	Welcome reception		Lowry evening event		Conference dinner	



# Summary of Workshops

<b>Workshops</b>				
<b>Ref</b>	<b>Title</b>	<b>Leader</b>	<b>Division</b>	<b>Remarks</b>
1	Nugenia	Elisabeth Keim	2, 7, 8	MOD email 14 July 2014
2	State-of-art paper on Component Fragility of NPP	Prabir Basu	1, 3, 4, 5, 7	PB email 22 June 2014. PB needs travel support.
3	Nuclear applications of graphite	Jim Reed	1, 2, 3, 8	
4	High Temperature Assessment	Dave Dean	1, 2, 3, 4	MOD email 20 May 2014
5	New Build and Harmonisation of Codes and Standards	Andrei Blahoainu	Plenary	AB email 2 June 2014. Could be full Plenary
6	Small Modular Reactors	Nawal Prinja	Plenary	
7	Flooding Hazards – Developments Post-Fukushima	Abhinav Gupta	Plenary	AG correspondence
8	SC Modules	Amit Varma	6	With Andrew Whittaker
9	Seismic Isolation	Andrew Whittaker	5	With Pierre Sologoub
10	Practitioner Competence and Benchmarking	Jim Wood	3	Tim Morris. Could be full Plenary
11	SSI	Andrew Whittaker	5	With Farhang, Justin Coleman and Greg Merz
12	Multi-unit site risk for external hazards	Nilesh Chokshi	7	Panel session
13	Risk-informed regulatory framework for external hazards	Nilesh Chokshi	7	Panel session
14	Wind fragility modeling	Larry Twisdale	7	Workshop



# Leadership Lectures

Plenary Lectures		
Title	Lecturer	Remarks
Jaeger Lecture	Bob Ainsworth	Formally invited and agreed. Need exact title
Nuclear Generation - Current and Future Challenges	Jean-Pierre West	EDF
New Build Licensing and Generic Design Assessment	Andy Hall	Principle agreed with Pete Ford, my suggestion for title.
Research for Future Needs	Dame Sue Ion	
Meeting the future challenge	Amec?, Atkins?	



# 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



# Leadership Speakers

- Andy Hall – Chief Nuclear Inspector ONR
- Jean-Pierre West – Senior Vice President EDF
- Dame Sue Ion – Euratom, USDOE, BNFL
- Industry and Government possibilities



# 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.



# Papers

- Summary booklet for sessions etc
- Electronic format
  - Memory stick
  - Download in advance
  - Reading station



# Technical Visit



Heysham twin AGR site - 2400 MW  
Advance booking required  
Coach from The Lowry







# 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

Collaboration with Urban Fabric Events

# Chester "Rows"





# Liverpool water front





# Lyme Park





# Web Tool



- Team from NI, EDF Energy and AMEC
- Access only late December 13 – conflicted with holidays
- Delayed first announcement April 14
- Substantial issues late October 14 disrupted collection of abstracts
- Thanks to much hard work NCSU and developers restored site early November
- Abstract deadline extended to end 2014



# Timeline



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



# Abstracts



Algeria	2	Japan	37
Austria	2	Korea	32
Belgium	2	Netherlands	4
Brazil	3	Puerto Rico	3
Bulgaria	3	Russia	14
Canada	26	Slovenia	1
China	21	Spain	3
Czech Republic	5	Sweden	3
Egypt	1	Switzerland	7
Finland	15	Taiwan	2
France	37	Turkey	1
Germany	33	UK	95
Hungary	1	USA	87
India	30	TOTAL	475
Italy	3		



# SMiRT 23 – Any Questions or Suggestions?

