

**MES - Facilitating
the Metamorpho-
sis of Biopharma
Manufacturing**

**The ISA88
Committee has
approved a new
ISA88 Technical
Report**

**INSIDE
THIS
ISSUE:**

**Pharmatex 1
Conference**

**ISA Golf 1
Outing**

**Section 2
Performance
Award**

**Presidents 3
Corner**

**MES within 4
Biopharma -
Pharmatex**

**A Snapshot 7
Tour of
Pharmatex**

**ISA 9
Committee**



Pharmatex Conference and Learning Program

This year PHARMATEX 2008 hosted the 19th International Confederation of Contamination Control Societies Symposium.

This industry, at the cornerstone of Ireland's knowledge economy, is hungry for information, innovation and excel-

lence.

The three day Conference and Learning Programme was divided into eight tracks ranging from the Heads of Industry, Disposables in Bio Manufacturing, Industrial Communications, Training and Re-Skilling Workshop

and The Next Step in Automation.

ISA Ireland Section Golf Outing

The ISA Ireland Section Golf Outing 2008 took place at the end of August in Harbour Point Golf Club in Cork.

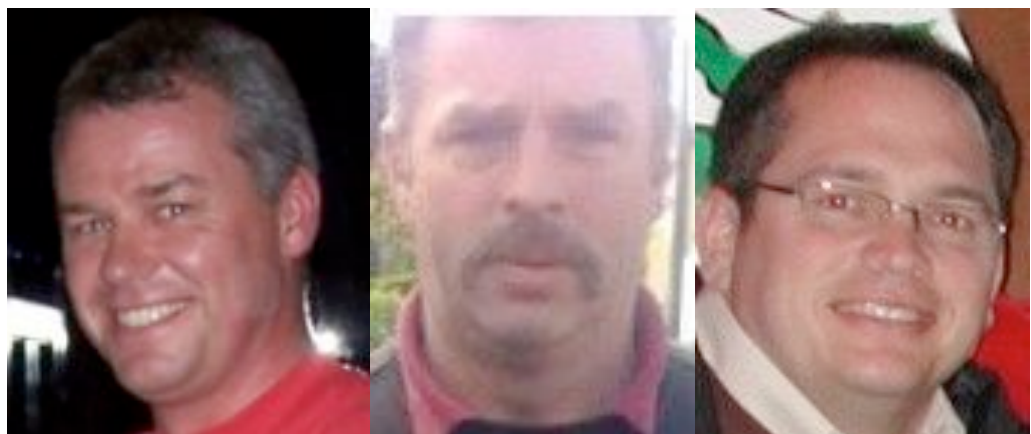
The event was well supported by the event sponsors and by the participants who turned out on the day.

The event sponsors included:

ESI Technologies
FESTO
HA O'Neills
Janssen Pharmaceuticals
NTRON
O'Sheas Electrical
ProsCon

After a wet and windy week leading up to the event, the weather improved for the day – which was reflected in the scoring.

It was a team event and the winning team clinched victory by all three players getting



Golf outing first place winners, left to right - Mr. Ray Wolfe, Mr. Denis Foley and Mr. Brian Bridgewater

birdies on the tricky par 5 finishing hole.

The final results were :-
1st Brian Bridgewater / Ray Wolfe / Denis Foley
2nd Eamon Bradfield / Joe Redmond / Frank Corrigan
3rd Brian Curtis / Tony O'Flynn / Tommy Flynn

Nearest the Pin was Declan Lordan. Longest Drive was Ray Wolfe.

The prizes were presented by ISA Ireland Section President Mr. Mick Meade at the 19th hole, where all the near misses and putts lipping out

were discussed in detail.

Next years proposed golf outing is being scheduled for May 2009. For further information / comments contact [Eamon Bradfield \(eamonis@gmail.com\)](mailto:Eamon_Bradfield@eamonis@gmail.com)

2008 / 2009 COMMITTEE

Mr. Michael Meade - President,
DPS Engineering, 021-7305030

Mr. Tadhg Moriarty
Secretary, DWN Instrumentation
Ltd (Cork), 021-4346953

Mr. Seamus Cotter
Treasurer, DPS Engineering,
021-7305049

Mr. Jim Long
Past President, HSE Connolly
Hospital, Dublin 15, 01-6465071

Mr. Billy Walsh
Education, U.C.C., 021-4902144

Mr. David O'Brien
Newsletter Editor - DPS Engineering,
021-4702767

Mr. John Downey
Membership - RPS Environmental
Engineering, 021-4804600

Mr. Terry McCarthy
Technical Program - Insteco Ltd,
021-4883798

Mr. Eoin O'Riain
Webmaster - Readout, 087-2663282

Mr. Brian Nolan
Honors & Awards - O'Sheas Electrical,
021-4510700

Committee -

Mr. Kevin Dignam, 021-4305034

Mr. Eamon Bradfield, 021-4703386

Mr. Willie Cody, 025-34636

Mr. Gary Hartnett, 021-4522940

Mr. Robert Shine, 021-4543722

Section Performance Award Submission 2008

Special Accomplishment -
Joint Organisers of
PHARMATEX 2007

Date: 27 May 2008
Section: Ireland
District : 12

Reference: Special Accomplishment / Training & Education Programme

Joint Organisers of the PHARMATEX Conference & Learning Programme which was held from 11 – 13 September 2007 in the Radisson Hotel, East Gate, Little Island, Cork, Ireland.



Mr. Mick Meade (left) President of ISA Ireland Section with Mr. Declan Lordan (centre) and Mr. Billy Walsh (right) at the recent Pharmatex Conference and Learning program 16-Sep-2008.

Dear SPA Evaluation Committee,

Four of the nine member joint organising Conference Committee were leading members of the ISA Ireland Section Committee, namely, Kevin Dignam, Declan Lordan, Eoin O'Riain and Billy Walsh.

They assisted in organising the very successful three day Conference & Learning Programme that was held in Cork, Ireland during September 2007.

with PHARMATEX 2008 which is been held from 16 – 18 September in Cork, Ireland, the only difference this year is that the associated Exhibition will be smaller in size, that is a table top format. Website:

<http://www.pharmatex.ie>

I include detailed supporting documentation for your perusal.
Respectfully Submitted by:

Section President 2007 / 2008

A three day major Exhibition was held in conjunction with the Conference & Learning Programme.

Several key people in Ireland attended Track A (Pharma and Bio-Pharma: The Next Ten Years) including Michéal Martin, Minister for Enterprise, Trade and Employment. Senior representatives from Irish State agencies such as IDA Ireland, Enterprise Ireland, Forfás were present as well.

The ISA Ireland Section

Committee members were involved in all aspects of the programme which took nine months to plan with meetings held every two weeks but they had complete control of Track C (Wireless Automation in Bio Pharma Plants) and Track G (Process Analytical Technology: The User Perspective). More than 250 delegates attended Tracks A, B, C, D, E, F, and G over the course of the three days.

This winning formula is been used again in 2008



**ISA—The Instrumentation, Systems,
and Automation Society**

MEMBERSHIP

In order that the ISA Ireland section records are accurate and up-to-date, it is important to let me know if your information has changed. This will enable us to make sure that all correspondence from the Ireland section and the USA will reach you at the proper destination in time.

Euro Rates for ISA

Membership:

Regular Membership €60.00

Senior Membership €60.00

Student Member (3 yrs)

€15.00

Division Membership €7.00

Regular/ senior membership

(2 years) €112.00 (save €8.00)

Regular/ senior Member

(3 years) €159.00 (save

€21.00)

(€ / \$ exchange reviewed on

three monthly basis)

Mr John Downey

Membership Chair

Tel: 021-4804600

E-mail : john.downey@rpsgroup

Presidents Corner - *Brother, Can You Spare a "Time?"*

A statistic which I had previously come across and often quote is "in a typical voluntary organisation only 3% of the membership offers to serve".

This perhaps gives some substance to the perceived view of "the same old faces on the committee" when put forward as a reason for ceasing membership of such an organisation.

Such attitudes are very obvious today across the spectrum of typical

voluntary organisations – churches, sporting clubs, charitable bodies, professional societies, etc. Unfortunately ISA and the Ireland Section are no different in this regard.

This increased lack of volunteers is perhaps is also resultant from the current turmoil in the world as people feel, like our ancestors before, to retreat into the castle and pull up the drawbridge.

However I believe that the answer is in fact the

opposite and in times of downturn these organisations are in more need of members and of the service by those members.

"Brother, Can You Spare a Dime?" (lyrics by Yip Harburg, music by Jay Gorney (1931), also sung as "Buddy, Can You Spare a Dime?", is one of the best-known American songs of the Great Depression.

When Bing recorded this song in October, 1932,

one out of every four Americans who wanted to could not find work.

The banking system was near collapse. Record sales had plummeted because Americans did not have the money for such luxuries.

This is arguably very reflective of the current situation in which the world now finds itself.

My belief is that time is the most precious non-renewable of all the world's resources because our personal possession of this resource is both

indeterminate and cannot be increased.

Therefore such should be utilised very wisely indeed and so the giving of time freely for the benefit of others is to be much treasured.

Generally, volunteering is described as an unpaid activity where someone gives their time to help an organisation or an individual who they are not related to. Volunteering is therefore "...an activity that involves spending time, unpaid, doing something that aims to benefit the

environment or individuals or groups other than (or in addition to) close relatives".

In our era of pop psychology and self-help, few things can make such a profound difference to an individual as a spirit of engaged service and volunteerism.

Studies have shown that a key motivation for volunteering is social exchange and obligation to society. Recent theories on volunteerism put forward some advantages as follows.

Postulates that people will search for environments that allow them to use their skills and abilities to express their attitudes and values.

Is considered to be integrative for both society and individuals and to provide direct ways for them to initiate change.

Suggests that it improves

the happiness, life satisfaction, self-esteem and sense of mastery of people.

Provides physical and mental health benefits.

So in a parody of the lyrics of Yip Harburg, and with all that we still have,

I ask you "Brother, Can You Spare a Time?" for all those organisations, and including ISA Ireland Section, which are in need

of your skills to enable a better world for the generations to come.

Michael Meade
President
ISA Ireland Section

30th ANNIVERSARY
OF CHARTER DINER

The 30th Anniversary of Charter Dinner which will be held on Saturday 8th November 2008 at the Maryborough Hotel Cork.

Tickets will be priced at €75 each and the room layout will be for round tables of ten. Formal invitations including booking form are available.

The intent of the dinner will be to recognise and honour thirty years of growth, development and consolidation by the ISA Ireland Section and especially the members who enabled such in the intervening period.

The respective histories of the United States and Ireland are inextricably linked and receipt of our charter from ISA has inevitably led to increased interface between both countries. Increased globalisation has seen ISA expand from the United States into a truly worldwide organisation and the Ireland Section takes a very proactive and direct part in the functioning of ISA at European District level.

We have negotiated special rates with the Maryborough Hotel for the function at €49 per person sharing and €74 for single occupancy. Should you wish to avail of these rates, please contact the hotel reservations directly at (021) 4918307 quoting ISA as a reference.

ISA Technical Talk - Athlone

The talk was entitled "Project Management, Best Practice to Achieve Project Success".

Presenter Mr. Karl Lawler gave the technical talk to ISA members at the Creggan Court Hotel in Athlone, Co. Westmeath on the 27th May.

There was an appreciative audience for a superbly presented talk which was well attended by members from several corners of the country.



Mr. Jim Long (left) making presentation to speaker Mr. Karl Lawler (right) of Biokinetics.



Group Photo L - R : taken by Brian Curtis Frank Maher - (retired) ESB , Charles Smith - Allergan, Gordon Blakeney - Ntron Europe, Jim Long - HSE, Douglas Christy - G&P Systems, Karl Lawler (speaker) - Biokinetics, Billy Walsh - UCC, Daniel McGuinness - APV Ireland, David Barbour - Epsilon Consulting.



ISA Technical Talks

ISA Ireland hosts several technical talks and presentations focused on industry related topics. Technical talks are open to all ISA members.

Also, read future additions of INCON to get details of the next upcoming technical talk or visit the ISA Ireland website.

Next Addition of INCON

- Honours and Awards Presentations
- ISA EXPO 2008

Call for INCON input by membership

ISA Ireland welcome all members to contribute articles or reports which may be of interest or benefit to other ISA members. Please contact the Newsletter Editor if interested in submitting articles for the INCON Newsletter.

MES - Facilitating the Metamorphosis of Biopharma Manufacturing

The following report is courtesy of Mr. Seamus Cotter who presented the report at this years Pharmatex Conference and Learning Program 2008.

This is brief story about the industry and technology. Where is the industry now? Why do Technology Projects Fail?

How should Technology Projects Facilitate the Metamorphosis?

Industry Summary
Pharmaceutical and Biotech industry must

contend with an increasingly difficult economic climate 56 products have been lost in phase III of development from 2002 – 2005

Between 1997 and 2004 safety based withdrawals lead to loss in sales of \$13,5bn.

By year end approx \$35.5bn worth of products will have lost blockbuster status since 2005.

In 2003 The wall street Journal published an article informing the world that 'Manufacturing Techniques

lag far behind those of potato chip and laundry soap makers.' Since 2003 improvements have been made however manufacturing defects account for almost 75% of all drug recalls

FDA benchmarking outside the industry – 'You need to improve Other high tech industries (electronics, medical devices) have achieved enormous productivity gains in manufacturing in the last 25 years. We should expect nothing less from the pharmaceutical industry.

Industry Summary Benchmarking Standard Manufacturing Benchmarking

Some reasons for the Differences

30-60% of all labor (Direct and Indirect) in a Bio-Pharm plant can be spent on completing, managing, reviewing, and correcting paperwork. The Paper can cost as much in labour as the product. 25-75% of manufacturing cycle time is because of waiting for paperwork activities to be

completed.

The Paper can take longer to make than the product 25 -50% of Work In Process Inventory is because of the paper. There can be twice as much inventory of the



product because of the Paper.

Industry Direction – FDA

GMP's for the 21st Century Product quality and performance achieved and assured by design of effective and efficient manufacturing processes. Product specifications based on a mechanistic understanding of how formulation and process factors impact product performance

- Continuous "realtime" assurance of quality
- Regulatory policies and procedures tailored to recognize the level of

scientific knowledge supporting product applications, process validation and process capability

- Risk-based regulatory scrutiny that relates to the level of scientific understanding of how formulation and manufacturing process factors affect product quality and performance, and the capability of process control strategies to prevent or mitigate risk of producing a poor quality product.

Technology has a role to play in these (Facilitating Process Knowledge, PAT, Scientific Understanding)

Where Should the Industry be going?
Lean – Six Sigma – Right First Time Continuous Processing (Process Analytical Technology), Process Knowledge, Operational Excellence, Innovation.

Technology is becoming increasingly important in the search for competitive

advantage yet many companies which have invested in new technologies have been disappointed with the results – why?

Pitfalls
Sainsbury's
'In 2006 the giant British food retailer had to write off its US \$526 million investment in an automated supply-chain management system. Merchandise was stuck in the company's depots and warehouses and was not getting through to many of its stores. Sainsbury was forced to

MEMBERSHIP

ISA provides its members with unparalleled access to technical information, professional development resources, and opportunities to network with other automation professionals. In addition to these unique benefits, membership supports a not-for-profit organization dedicated to advancement of the state-of-the-art and recognition of the automation profession.

Find out more about benefits and privileges of ISA membership by exploring <http://www.isa.org>

ISA Council of Society Delegates Approves Name Change

The Council voted to rename the Society from ISA – The Instrumentation, Systems and Automation Society to the International Society of Automation. The Council of Society Delegates controls the policies of the Society, and Members are represented by one delegate for each geographic ISA Section.....more in the next issue of INCON.

MES - Facilitating the Metamorphosis of Biopharma Manufacturing

hire about 3000 additional clerks to stock its shelves manually. ‘

Terminal 5 Heathrow ‘Amazing, it was a high profile and expensive project requiring state of the art technologies and methods in all areas (architecture, logistics, ICTs, security, construction, etc...) forgot to effectively deal with a key component: the people that will have to work in this new place!’
Source

www.spectrum.ieee.org

Pitfalls

‘There is history of [software] projects gone awry. Most IT experts agree that such failures occur far more often than they should.

What's more, the failures are universally unprejudiced: they happen in every country; to large companies and small; in commercial, nonprofit, and governmental organizations; and without regard to status or reputation. The business and societal costs of these

failures—in terms of wasted taxpayer and shareholder dollars as well as investments that can't be made—are now well into the billions of dollars a year.’

‘The problem only gets worse as IT grows ubiquitous. This year organizations and governments will spend an estimated \$1 trillion on IT hardware, software, and services worldwide. Of the IT projects that are initiated, from 5 to 15 percent will be abandoned before or shortly after

delivery as hopelessly inadequate.

Many others will arrive late and over budget or require massive reworking. Few IT projects, in other words, truly succeed. ‘

S o u r c e
www.spectrum.ieee.org

estimates of resources required
Badly defined system requirements

developers, and users
Use of immature technology
Inability to handle the



Setting the Standard for Automation™

Why the failures ?

Why the Pitfalls

Unrealistic or unarticulated project goals
Inaccurate

Poor reporting of the project's status
Unmanaged risks
Poor communication among customers,

project's complexity
Sloppy development practices
Why the Pitfalls
Poor project

management
Commercial pressures
Stakeholder Politics
Poor Management Commitment if any
No Training on Handover

Technology – Beating the Trend – Suggested Way Forward
Technology Definition – Three Components

Knowledge (Collection of Know-How)

An artefact system with control – (A physical Item – The System)

A process of Enquiry or Action (Human activity of discovery and use)

Lets call it KAP. (Knowledge, Artefact, Process)

If all three are not considered then the risk of failure is increased.

Technology – Knowledge

Element
Project Management Knowledge

Knowledge of the Artefact (Hardware Software and Infrastructure)

Choose the Software Integrator Wisely:
Cost

Quality System
Track Records
Knowledge, Skills, Ability

Long Term Support

Careers in Automation

A Design for Your

Future

Did you know that the average person spends approximately 2,000 hours a year working in his or her chosen occupation?

When you find a career that you love - one that matches your talents and interests - those hours can be exciting, challenging and satisfying. But with the thousands of job choices out there, how do you find that special career?

This area of ISA's web site will provide you with information about educational institutions, certification programs, and jobs in automation.

Visit the [Career Library](#) to find out more about careers in automation and the types of careers and qualifications necessary to pursue a career in the automation industry.

About ISA

Founded in 1945, ISA (www.isa.org) is a leading, global, nonprofit organization that is setting the standard for automation by helping over 30,000 worldwide members and other professionals solve difficult technical problems, while enhancing their leadership and personal career capabilities. ISA develops standards; certifies industry professionals; provides education and training; publishes books and technical on Federation (www.automationfederation.org).

MES - Facilitating the Metamorphosis of Biopharma Manufacturing

Capability Knowledge of the Business – Bio Pharma

Knowledge of the Requirements – All Stakeholders – need to be involved (IT, Users, Management, QA, H.R. Supply Chain, Finance - do not ignore any stakeholder who may have a potential say in its use)

Leverage the Knowledge from Stakeholders, remember one ignored is a lost opportunity for a more comprehensive solution

Technology – Artefact Element Infrastructure needs careful consideration Think of future capacity requirements

Security and Access Control

Enterprise Solution – Corporate vs Local Collaboration

Simple Structure

Standardised Interfaces with DCS and ERP Systems

Avoid Customised Solutions

Location

Support Agreements Training – Customised or Standard ?

Technology – Process of Enquiry and Action

User Requirement Specification

Input from all Stakeholders

Clear Unambiguous definitions – The System will

All stakeholders need to define what one wants up front, collaborate agree and move on.

It is too late if disagreements arise during design

System Integrator to deliver Compliance Matrix against URS – it is important to know as soon as possible if the 'The System cannot do ... or that the system scope does not allow for' ..

Have the cannot's, will not's and cost too much discussions early. This allows focus on the solution during design and implementation and allows harmony to prevail!

Technology – Process of

Enquiry and Action

Users must know as soon as is effectively possible about how this system will affect how they work

Management must face the

Work practice changes Training and Up-skilling Needs

Redundancies ?

Work Flows and job re-fit Job- Redesign

Users must agree to work with the new system, receive the necessary training and move forward.

Process of Enquiry and

Action – The most neglected Component Excellent engineering of an application of technology of a system of manufacturing is a necessary, but not sufficient, condition for enabling it to fully realize the potential benefits of that technology.

The technology will only perform at its full potential if the utilization of the system's human resources is also engineered.

That is, so engineered as to enable all personnel to

communicate and cooperate fully with each other. And failure to meet this condition cripples the technology.

Conclusion The industry must change Technology must accelerate this change to maintain competitive advantage.

Adopt all components of KAP to mitigate risk of failure.

Become early adopters and

innovators – no longer should biopharma manufacturing use the 'stifled by regulation' excuse.

Realise that Technology is a Strategic Tool not a Unit of Cost – broader financial justification techniques are required.

Listen to the next presentations on how MES if correctly implemented can help you with the Metamorphosis.

Acknowledgements:

Emerson Process Management

IBM Business Consultant Service

DPS Engineering

Pharmatex

Mr. Seamus Cotter Pharmatex 2008

A Snapshot Tour of Pharmatex 2008

MEMBERSHIP BENEFITS

Technical Information

Free Standards

Receive free unlimited ISA standards. Accredited by the American National Standards Institute (ANSI), ISA has published more than 150 standards, recommended practices, and technical reports, through the dedicated efforts of a network of industry experts.

Free Web Seminars

Unlimited free access to a library of over 40 online pre-recorded web seminars covering today's hottest topics.

Technical Library

Access to unlimited downloads of ISA's library of over 2,500 technical papers published at ISA conferences and symposia.

InTech Magazine

Free qualified subscription to InTech, the premier monthly magazine for automation professionals.

Technical Division Membership

Join a network of automation professionals who share your technical interests. Student Members get two free memberships.

ISA Transactions

Free online access to current and past articles covering the latest advances in the science and engineering of measurement and automation.



MEMBERSHIP BENEFITS

Networking Opportunities

ISAJobs.org

Free online listing of your resume when you're looking for your next career move

Local Section Membership

Network with automation professionals in your local area for meetings, training events, and more.

Professional Development

Leadership Opportunities

Develop your leadership skills by participating in ISA's free online Leadership Development Certificate Program.

Discounts

Take advantage of significant Member discounts on ISA products, training and event registration

Certification and Licensure

Take pride in supporting the Society that recognizes your profession through professional certification programs. ISA offers the Certified Automation Professional (CAP), Certified Control Systems Technician® (CCST), and the Certified Industrial Maintenance Mechanic (CIMM) programs and supports the development of the Control Systems Engineer (CSE) licensure program.

Mentoring Program

Connect online with, and learn from, experienced professionals and practitioners, and much, much more.

A Snapshot Tour of Pharmatex 2008



ISA Committee for 2008 / 2009



Front Row L to R: Brian Nolan, Seamus Cotter, Jim Long, Mick Meade (President), Tadgh Moriarty

Back Row L to R: Dave O'Brien, John Downey, Billy Walsh, Willie Cody

President - Mr. Mick Meade

President Elect - Vacant

Secretary - Mr. Tadgh Moriarty

Treasurer - Mr. Seamus Cotter

Education - Mr. Billy Walsh

Technical Program Chair - Mr. Terry Mc Carthy

Membership Chair - Mr. John Downey

Newsletter Editor - Mr. Dave O'Brien

Web Master - Mr. Eoin O'Riain

Standards and Practices Chair - Vacant

Honours and Awards Chair - Mr. Brian Nolan

Past President - Mr. Jim Long

Committee - Mr. Eamon Bradfield

Committee - Mr. Kevin Dignam

Committee - Mr. Willie Cody

Committee - Mr. Gary Hartnett

FEEDBACK

Section Committee Members can also be contacted at:

ISA Ireland Section P.O. Box 203, Togher Mail Centre, Cork

website: <http://www.iol.ie/~isaire>

email: info@isa.ie

The views expressed in INCON are not necessarily those of ISA or ISA Ireland