

# Emergency Management Research Digest

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# Why research is important

Emergency Mgt. relies on researchers to:

- observe & evaluate;
- provide reports & recommendations;
- reflect on how and what we have done;
- help us define, recognize, and understand the multitude of issues we face in the field of emergency management. (Rotanz, 2007)

# Types of Research

- Large scale funded research – e.g.. under EU FP7 / Horizon 20:20 programmes
- University facilitated/funded research – part of academic workload
- Student-led research
- Collaborative research – “town and gown”

# Large scale funded research

# Project Slándáil @ TCD

- Project Lead: Khurshid Ahmad, Project Co-Ordinator
- EU funding of 2.94 million euro
- Aims to build & test a prototype system for managing disaster emergencies by fusing information available in different modalities in social media with due regard to ethical and factual data provenance.

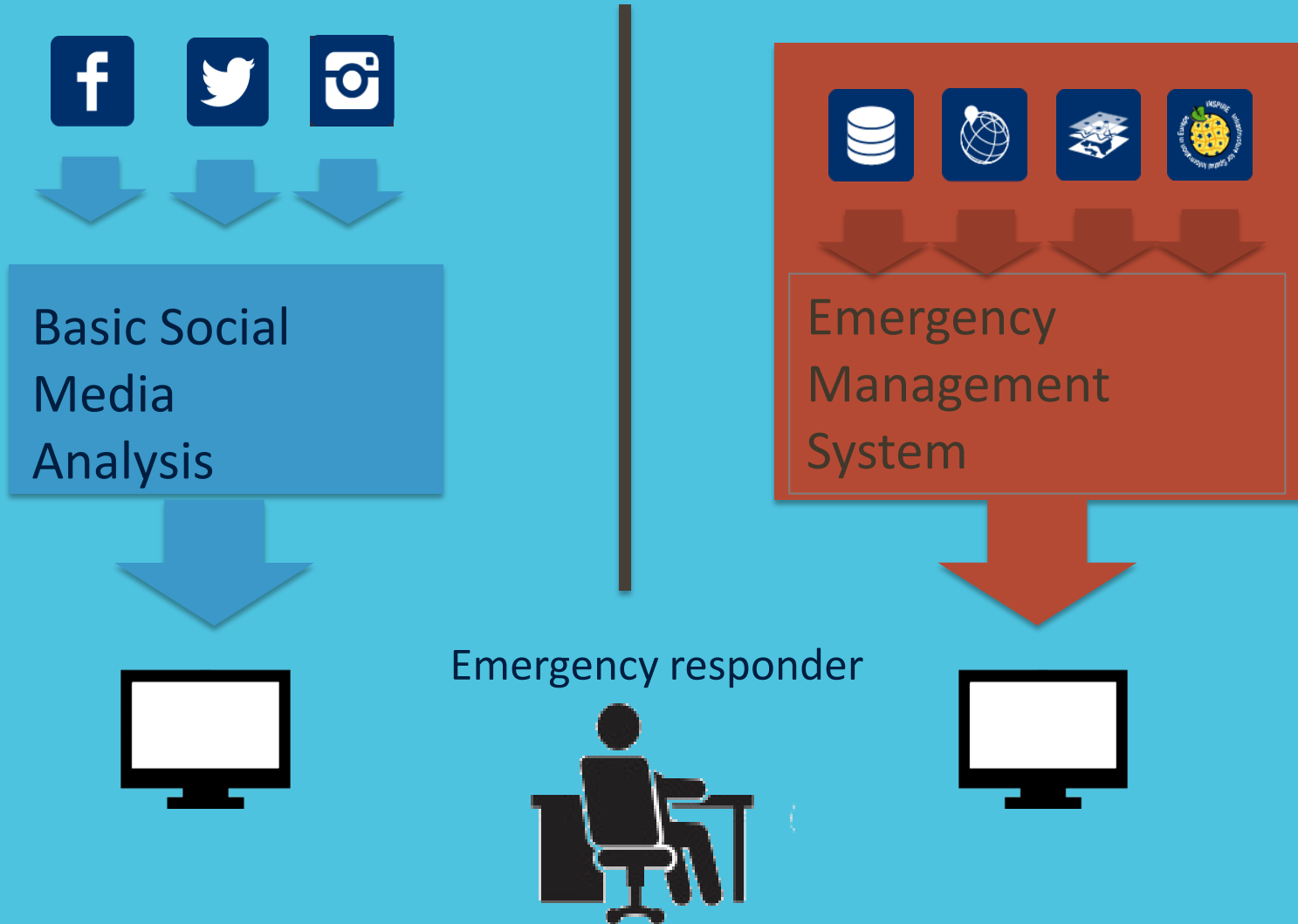
# Research Partners



# Dilemmas

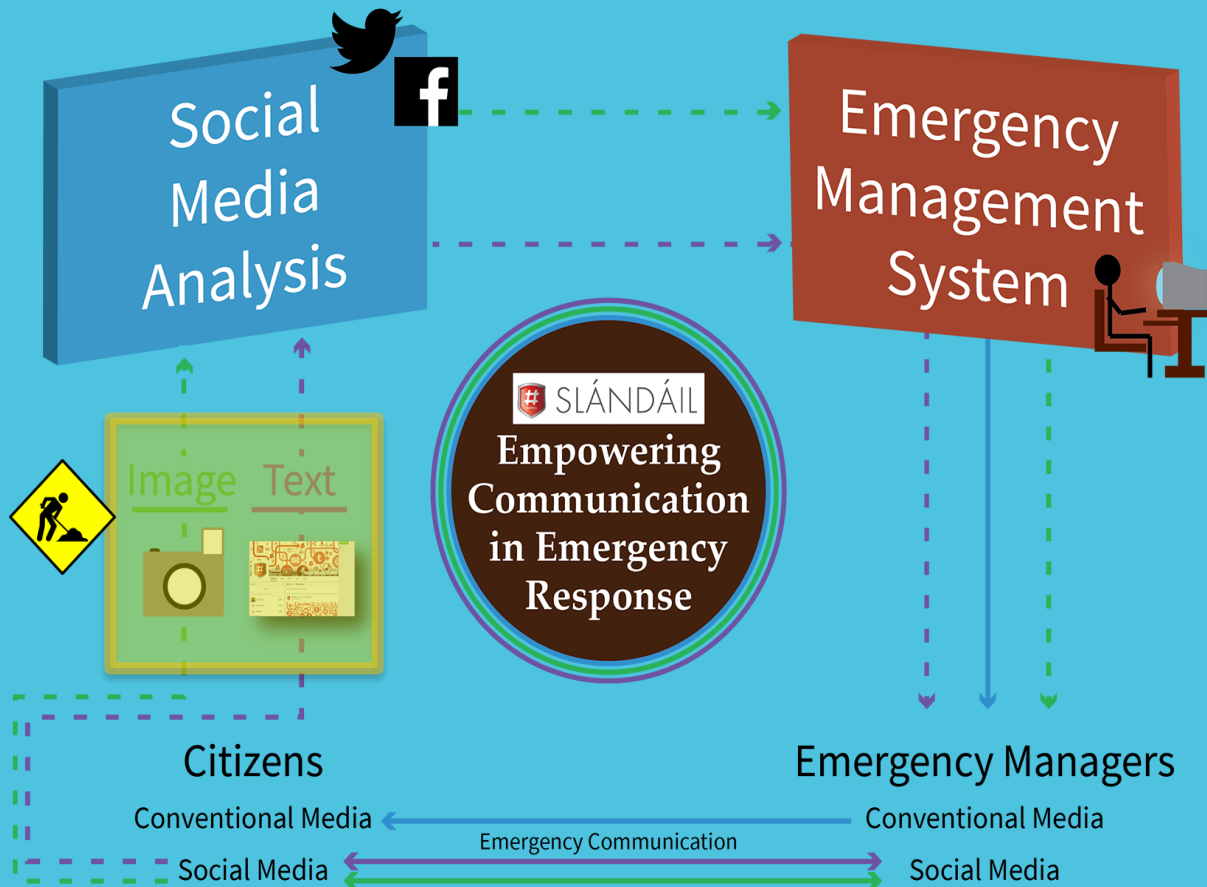
- How do we avoid spending good money on bad information?
- How do we cut through all the background noise on social media to extract the information that actually tells us something?
- How can we make the best use of all of the information available to us, in order to respond in the most efficient manner?

# How Emergency Management systems work

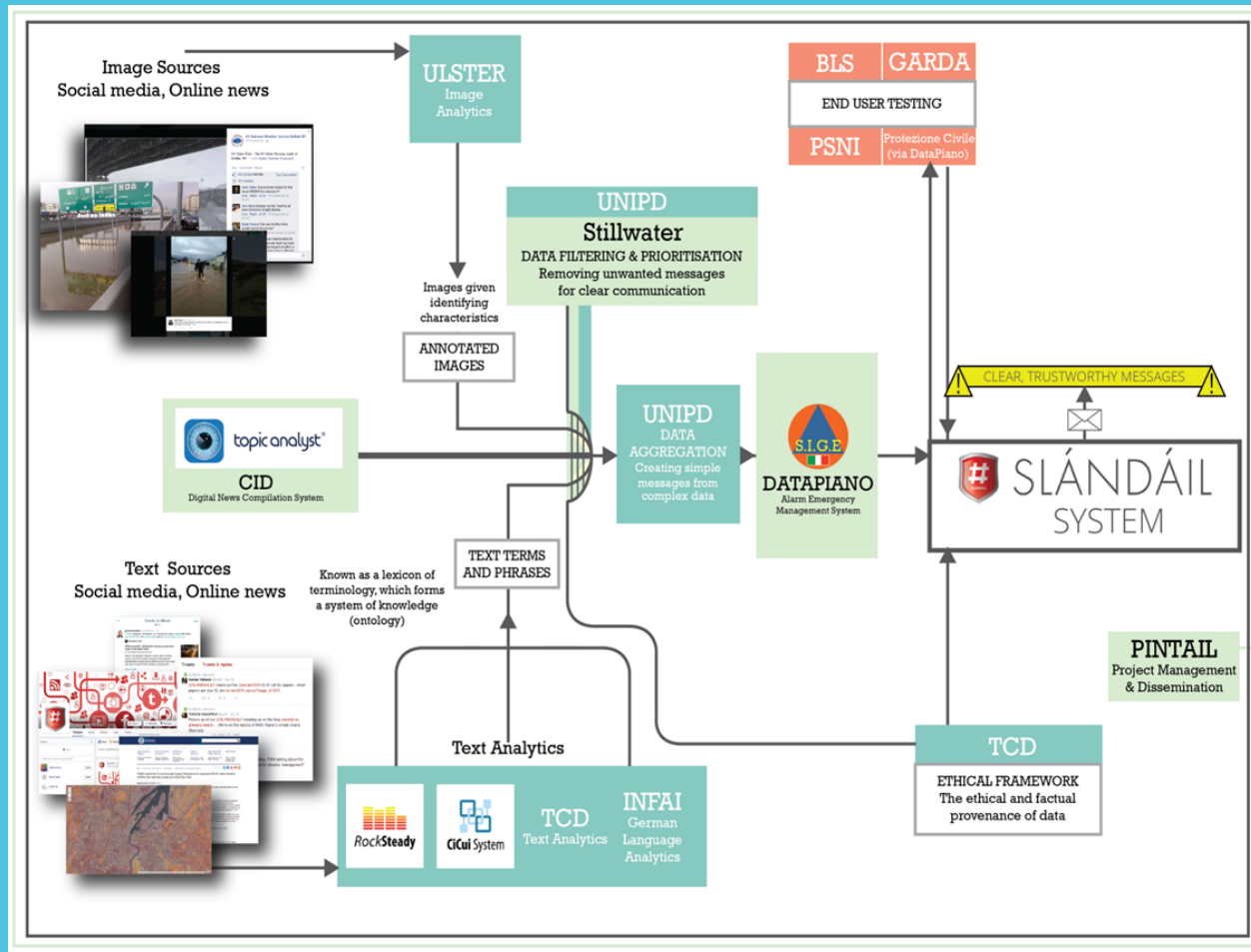




# Towards the Slándáil System



# Project Map



# Slándáil System will be unique in that it can:

- aggregate the information in different modalities (text and images);
- deal with multi-lingual/cross-cultural communications during a disaster;
- treat ethical and factual provenance of data during a disaster;
- and Slándáil System was designed, implemented and tested with user involvement at all stages.

# University facilitated/funded research

# Cash as a form of relief in Humanitarian Logistics -

G. Heaslip at GMIT

- Cash-based responses are mechanisms to provide resources to a population in two main ways – by providing them directly with cash or by giving them vouchers.
- Considered more cost effective solution than the more common provision of goods and services.

## Advantages of Cash

- Allows households flexibility in deciding their spending needs;
- Can help generate local market activity and restart livelihoods;
- It is often considered a more empowering and dignified form of support.

## Possible Drawbacks

- More susceptible to theft, corruption and misuse;
- More prone to targeting errors;
- Can cause inflation and distort local markets;
- Project will develop an understanding of cash transfer programmes that will help reduce their risks to humanitarian operations.

# Humanitarian Passport (Humanitarian Logistics Competencies) G. Heaslip at GMIT

## Overview of Project

- This research proposes a Humanitarian Logistics Competency Framework (HLCF) to assist in the professional development of humanitarian logisticians.
- The research identified 9 competency domains containing 39 specific competencies.

The resultant framework can be used by:

- individuals to develop the necessary competencies to be successful at their current and future career levels;
- humanitarian organisations to map their own competency frameworks to a common standard.

Overall should facilitate workforce mobility and support the overall concept of a Certified Humanitarian Logistic Professional.

# Risk & Preparedness: An Individual and Household Perspective

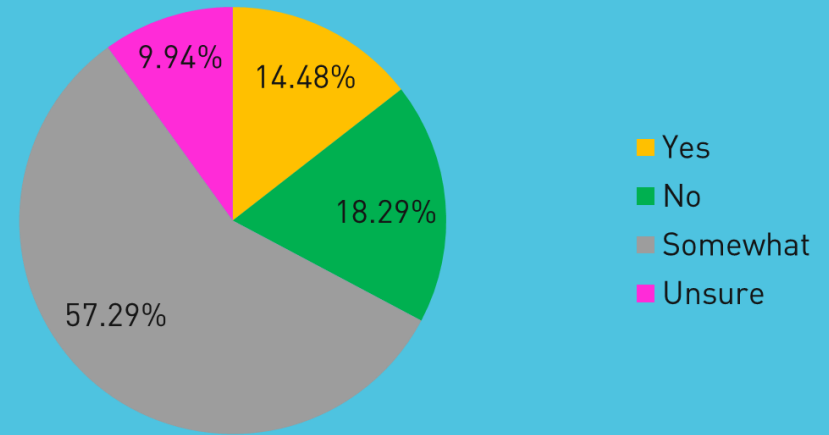
McMullan, C., Brown, G., Largey, A. at DCU

Survey of 2137 participants found:

- “Most likely” emergencies: 1.Storm;  
2.Disruption to Energy Supply; 3.Low  
Temperatures
- “Highest Impact” emergencies: 1.Fire;  
2.Loss of Critical Infrastructure e.g. water;  
3.Infectious Disease affecting humans.

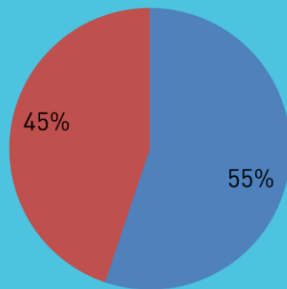
# Some Findings

Would you consider yourself prepared to deal with an emergency?



Have you taken any action to protect yourself or your home in case of an emergency?

■ YES ■ NO



I think the emergency services will help me



I don't think it will make a difference



Expense factor



I don't want to think about it



I haven't had time



I don't know what to do





# Do industrial incidents in the chemical sector create equity market contagion?

Brown, Corbet, McMullan, Sharma at DCU

*Purpose:* This study looks at incidents in the US chemical industry and the impact on the share value of (1) the incident company; and (2) direct competitors.

## *Findings:*

- The incident company experiences a deeper drop in share value as the number of injuries and fatalities increases.
- When there are 10 or more fatalities or injuries competitor companies suffer substantial losses (customers try to completely replace a particular category of product)
- When there are less than 10 injuries and fatalities, the share value of competitors increase (customers swap brand)

## *Practical implications:*

- This research may be used as evidence to promote and justify the cost of safety mechanisms etc. within the industry.

# Student Led Research

MSc Emergency Management at  
DCU

# Thesis Topics 2015



David Bradley	Implementing a standardised reporting framework for medical incidents at event & mass gatherings in Ireland
Darren O' Connor	Knowledge of the 2006 Framework for Major Emergency Management and the Major Emergency Plan for Dublin
John O'Halloran	Business Continuity Management in An Garda Síochána
Josh Moonman	The Evolution Of The Personal Effects (PE) Process Following A Mass Fatality Incident
Keith Walsh	Exploring effective Business Continuity Management in Public Sector Organisations
Laurence P. Sweetman	An Exploration of the Emergency Preparedness of Dublin City University
Michael A. Murray	Major Emergency Management In Ireland From The Volunteer Perspective – An Exploratory Study
Owen Brosnan	An Investigation into Post Traumatic Stress and Resilience of Dublin Fire Brigade Emergency Control Centre Employees
Pádraic Agnew	Maritime Emergency Management: Coordination Arrangements between the Principle Response Agencies and the Irish Coast Guard
Paul Connolly	Towards a model of good practice for emergency management in Ireland: How can the current approach to National Level Emergency Management be enhanced?
Sinead Carr	Strategic Emergency Management: Towards a Programme Management Framework
Siobhan Stoneham	The Effective Implementation Of The Seveso III Directive (2012/18/EU) within the Bottling Operations Process of a Drinks Manufacturing Organisation.
Stephen P. McNally	Towards A Standards-Based Business Continuity Management Programme For Dublin City Council
Una Dixon	An Exploratory Study Of Ireland's Energy Security



<b>John Mulvaney</b>	<b>An Examination Of The Irish National Electricity Utility's Capacity To Appropriately Respond To A Major Wind Storm</b>
<b>Monica Doyle</b>	<b>Behavioural Based Systems and Safety Performance Within a Pharmaceutical Facility</b>
<b>Alan Murphy</b>	<b>An Examination Of Learning Styles Of Fire Fighters</b>
<b>Claire Bradley</b>	<b>How could the use of Emergency Notification Systems enhance Emergency Communications in Irish Second Level Schools?</b>
<b>Justin Burns</b>	<b>An Investigation into the provision and organisation of welfare in relation to dealing with major emergencies or incidents of a prolonged nature</b>
<b>Katelin Billups</b>	<b>An Exploratory Study of Decision Making and Training in the Emergency Response Services in Ireland</b>
<b>Kealan McMoreland</b>	<b>An Exploration of how a National Coordination Office can Impact the Irish Voluntary Emergency Services</b>
<b>Natalie Marr</b>	<b>Interagency Collaboration</b>
<b>Neil Curran</b>	<b>An Evaluation of the Principle Response Agencies' decision making process to request Irish Defence Forces Assistance during Major Emergencies</b>
<b>Peter Jordan</b>	<b>Determining risk probability and resilience within crowds and the benefits of a crowd profiling tool for principle response agencies' in the planning and preparedness of major crowd events.</b>
<b>Sean Ward</b>	<b>Safety at Major Sports Events</b>
<b>Tim O'Connor</b>	<b>Building Control (Amendment) Regulations 2014 – An Exploration of Impact on Fire Safety Performance in Buildings</b>
<b>Zena Ni Dhuinn-Bhig</b>	<b>Exploring community flood resilience</b>

# Dissemination of Research

Get writing!

# “Emergency Management Review”

## A peer reviewed journal

EMR covers:

- Qualitative and quantitative empirical research
- Practitioner perspectives, good practice and case studies
- Theoretical and conceptual articles
- Literature reviews
- Papers on emergency management education and learning
- Methodological advances

EMR will publish papers that contribute to understanding and debate around emergency management and its related subject areas, and that develop issues relating to theory and practice.



# Dissemination of Research

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## *Emergency Management Review*

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*Emergency Management Review, 2 (2) 2015*

## IRELAND'S APPLICATION OF THE SYSTEMS APPROACH TO EMERGENCY MANAGEMENT 2005 - 2013

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Sean Hogan  
National Directorate for Fire and Emergency Management  
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### ABSTRACT

In 2004 the Irish Government instigated a comprehensive review of arrangements for responding to major emergencies and in particular the 1984 Emergency Planning Framework. The result was a new Framework for Major Emergency Management, based on the Systems Approach, which was launched in September 2006. While the new Framework was founded on the same principles of inter-agency co-ordination as the 1984 document, it expanded greatly the guidance provided for practitioners and also added some new features, including the Lead Agency concept and a standard Information Management System. Following a two year development programme, the new arrangements became operational in September 2008 and since then they have been successfully deployed on a number of occasions, most notably during the severe weather of 2009 and 2010.

### Keywords

Irish Emergency Management; A Framework for Major Emergency Management; Programme Implantation; Systems Approach; Ireland.

# Dissemination of Research

## IMPROVING THE QUALITY OF BUSINESS CONTINUITY MANAGEMENT THROUGH GREATER ENGAGEMENT WITH FRONT-LINE EMPLOYEES.

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### ABSTRACT

The apogee of effective Business Continuity Management (BCM) is the attainment of full embeddedness within an organisation's culture. To achieve this, BCM must become a routine occupation for employees at all organisational levels. This research builds upon past research which shows that BCM responsibility is generally retained at management level.

The research examined the use of the Human Resources concept of employee engagement as a method to improve front-line engagement specifically with BCM. To do this, existing levels of employee engagement and awareness were measured within a discrete business line of a large Irish company. Interventions based on drivers of employee engagement were introduced and the resulting changes in BCM quality were measured.

Findings showed that existing levels of BCM training and awareness were low and that front-line employees were not routinely involved in continuity planning or management. Introduction of drivers of employee engagement such as training and reporting tools achieved improvements in the sample population but effective manager/employee collaboration proved elusive. The research showed that employee engagement techniques can be successfully deployed within an organisational team to improve BCM quality and awareness through collaboration with front-line employees.

## CURRENT PRACTICE IN POSTGRADUATE EMERGENCY MANAGEMENT EDUCATION

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### ABSTRACT

There has been much discussion regarding what should be included on the curriculum of emergency management programmes (Alexander 2003; Thomas and Milti 2003). While there is no doubt that the discipline of emergency management covers a wide variety of topics, this research indicates that a set of core modules may be identified across the postgraduate programmes analysed. This research involved three key phases. Initially a literature review was used to establish the core content recommended by academics, standards, and professional bodies. This generated a list of 34 topics. Next a sample of ten universities offering a relevant postgraduate programme was identified. These universities were drawn from five English speaking countries: UK; USA; Australia; New Zealand; and Ireland. The syllabus for each programme was compared against the 34 topics identified from the literature. Finally, graduates from the Irish programme were asked to determine the relevance of the modules which they had studied. Since all were emergency management practitioners, it was felt they were well placed to make such a judgement. Results revealed that the five most prevalent modules included in the programmes were: Thesis; Principles of Emergency Management; Risk Management; Planning and Preparedness; and Research Methods. The Irish graduates also reflected the importance of these modules. However, they included Business Continuity Management as one of the five most relevant modules - with Research Methods being considered of less importance.

# References

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