Key enabling technologies including nanotechnology, additive manufacture, biotechnology, and photonics, have been boosted by major national investments to support innovation across a wide spectrum of materials, processes and products. By their very nature, emerging technologies carry uncertainties, including in the understanding of potential risks and how to manage them.

Managing risk is part of everyday life and particularly crucial to businesses working at the cutting edge with novel materials and processes, where a need exists for reassurance that things are being done right, safely, and within the law, to minimise the barriers to market success and consumer acceptance. Moreover, it helps businesses and organisations secure investor, workforce and customer trust, protects reputations, and guards against potential future liabilities.

Funding for innovation R&D is helping revitalise manufacturing industry and accelerate new concepts to commercial reality, by supporting collaborative partnerships across a variety of sectors to innovate and develop new processes & products at the same time as recognizing the need to address and reduce risks.

The value of working in partnership with IOM

The UK DTI and latterly the Technology Strategy Board established the UK’s Micro & Nanotechnology Centre of Excellence addressing safety & risk (SAFENANO) at the IOM in 2006, to provide industry, academia and governments with independent authoritative expertise and state-of-the-art facilities to enable effective risk management.

We are one of the leading providers of safety expertise supporting innovation research through the EC Framework Programmes and Horizon 2020, in projects involving advanced composite materials, energy storage devices, additive manufacture techniques, amongst others. We work to ISO standards to help our clients successfully implement responsible risk management practices, based on a sound understanding of the hazards, exposures, risks and their duty-of-care regulatory obligations. These services are supported by our free-to-access web resources at www.safenano.org providing news, guidance, standards, and regulations relating to managing the potential risks to health and the environment from the development and use of nanotechnology.

The accompanying technical note on the IOM Innovation RiskMap builds on our experience in supporting nanotechnology innovation, and exemplifies how working with us can provide you, your partners and clients with pragmatic solutions to de-risk product and process innovation through onsite assessments and independent assurance of the effectiveness of safety practices.

For more information, please contact:

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De-risking Innovation R&D for Successful Commercialisation
Introducing… IOM’s *Innovation RiskMap*

De-risking new product and process R&D

Inadequately examined risks and a changing regulatory environment slows down investment and the market launch of products developed with new materials and processes. With the *IOM Innovation RiskMap* you can integrate risk management in your innovation process and make it part of your business success.

The *IOM Innovation RiskMap* provides you with a planning and management document which supports your innovation process. It provides you with an environmental, health and safety profile to make products that are safe from R&D to full production.

Having an *Innovation RiskMap* allows you to:

- Identify critical elements in your R&D, materials and production processes
- Identify gaps to be addressed
- Define the best time to implement measures
- Build up your risk management system step by step
- Integrate your EHS approach into your corporate management
- Be more cost effective and better for workers and the environment
- Make safety and health a part of your innovation plan

We can work with you to develop an *Innovation RiskMap* by providing tailored support to map and implement the elements into routine practice, through consultancy and training across your company, to help ensure successful and sustainable commercialization of your R&D and pilot scale activities.

Contact IOM today about developing an *Innovation RiskMap* to de-risk your product and process innovation and integrate safety and health in your business strategy.
The IOM Innovation RiskMap identifies and provides solutions for managing risks along the value chain, from R&D through pilot-scale to production and reuse/recycling/disposal, integrating it with your existing occupational health and environmental risk management system and practices.

Elements of the Innovation RiskMap comprise:

- **Initial assessment of product and business**
  - Assess the current status of your business and products
  - Benchmark against international best practice
  - Identify gaps and management needs
  - Propose timing to address the needs

- **Regulatory, compliance and standards support**
  - Safety Data Sheets and Labelling
  - Customer information
  - Environmental assessment
  - Compliance with national and international regulations

- **Workplace assessment**
  - Audit of existing control methods and newly installed devices
  - Release testing
  - Exposure and risk assessment

- **Product development and testing**
  - Human and ecological hazard profiling of your materials
  - Physical-chemical characterisation
  - Emission and exposure scenarios for users
  - Support in creating products which are “Safe by Design”

- **Development of company policies**
  - Risk management to continuously improve EHS performance
  - Integration of risk management into business processes
  - Training strategy and plan for new and existing staff

- **Training**
  - For production staff, safety experts and all management levels
  - Safe practices and use of protective equipment
  - Strategies to translate policies into company practice
  - Risk management as part of the business plan

- **System and facility design**
  - Assessment and gap analysis of existing system and facility
  - Support engineers in designing new facilities & scale-up
  - Define health-relevant specifications for installations & processes
  - Conduct acceptance testing for new controls

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**OUR COMPANY**

The Institute of Occupational Medicine (IOM) is one of the leading providers of workplace health research, consulting and services. Our expertise extends across a very wide range of disciplines.

Established in 1969 in the UK as an independent charity, we have our origins in the research sector where we continue to have an international reputation for pioneering workplace health projects.

IOM employs around 140 staff who help deliver safer working environments and healthier working lives for thousands of employees around the world, across every possible industry and service sector.

From our UK base and headquarters in Scotland, we have 4 regional offices (Edinburgh, London, Stafford and Chesterfield) which serve our UK, European and North American clients. We established our Asian base with IOM Singapore in 2012.

In our research work, IOM has a high global standing through its published research. In our consulting and services work, we have a reputation for high quality, authoritative and independent measurement surveys and reporting, which we undertake for hundreds of clients - large and small - each year.

Today, IOM is one of a select few internationally recognised authorities on workplace health. Our work is accepted across all stakeholder groups, from management to employee representatives as well as regulatory agencies and governments around the world.

**YOUR CONTACT**

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