

## **IECEX Industry Seminar Integrating IECEX and ATEX for Europe**

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## **ATEX Directive 94/9/EC**

- Council Directive 94/9/EC of 23 March 1994 on the approximation of the laws of the Member States concerning Equipment and Protective Systems intended for use in Potentially Explosive Atmospheres
- ATEX = “Atmosphere Explosible”  
= Potentially Explosive Atmosphere

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## **ATEX Directive 94/9/EC**

- Applicable throughout European Economic Area (EEA)  
= EU (25)+ EFTA (3) (+Switzerland) = 29
- Voluntary application since 1996
- Compulsory application since 2003
- It is a “Trading Directive”
- Concerns safety only to set minimum levels to prevent concerns on safety being a barrier to trade

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## **ATEX Directive 94/9/EC**

- Broad Scope
  - Equipment (Motors, Luminaires, Diesel Engines, Pumps, Fans, Conveyor Belts Instrumentation, etc.)
  - Protective Systems (Flame Arresters, Suppression Systems, Venting, etc.)
  - Safety Related Devices (IS Safety Barriers, Motor Protection Relays, etc.)

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## **ATEX Directive 94/9/EC**

- Compliance against “The Essential Health and Safety Requirements” (EHSRs) from Annex II
- Standards have a subsidiary role supporting claims of compliance
- Harmonised standards are deemed to demonstrate compliance
- Use of other standards has to be justified

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## **ATEX Directive 94/9/EC**

- Compliance against EHSRs to be reviewed against “State of the Art” of technological development
- Harmonised standards are presumed to show “State of the Art”
- Other standards may be even more valid but justification for use must be provided

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## ATEX – Is it Certification ?

- ATEX is a mandatory legal device
- Only partly certification
  - Process depends on Category
  - The key document, “The Declaration of Conformity” (DoC) is always issued by the manufacturer without any monitoring by a third party
  - The DoC may, or may not, be reliant on evidence from a third party

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## IECEx vs ATEX

- IECEx is a true Type 5 Certification Scheme for all equipment, giving the identical level of confidence for everything
- ATEX only approaches Type 5 level for Category 1 Equipment and Protective Systems, giving progressively lower confidence for the lower Categories

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## IECEx vs ATEX

- IECEx
  - ExTR + QAR >> Certificate of Conformity (issued by IECEx Certification Body and searchable on IECEx web site)
- ATEX Category 1 (or Cat. 2 electrical)
  - EC-Type Examination Certificate + Quality Assurance Notification (or ??)
  - >> Declaration of Conformity (issued by manufacturer on own responsibility)

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## IECEx vs ATEX

- IECEx
  - ExTR + QAR >> Certificate of Conformity (issued by IECEx Certification Body and searchable on IECEx web site)
- ATEX Cat. 2 non-elec. + Cat 3
  - Manufacturer constructed Technical File >> Declaration of Conformity (issued by manufacturer on own responsibility)

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## ATEX Advantages

- Flexibility
  - need not stick to exact wording of standards if alternative justification against EHSRs is contained in Technical File
- BUT
  - Not transparent as the only publicly available document is the Declaration of Conformity
  - Technical file invisible to purchaser

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## IECEx Advantages

- Transparency >> Confidence
  - Conformity is exactly against requirements in declared IEC Standards and Certificates are available on web site
- BUT
  - Cannot use useful developments in draft standards until finally published and included in ExCB scope

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## ATEX Advantages

- **Notified Bodies are readily appointed by Member States**
  - Plenty of choice for manufacturers
- **BUT**
  - Some bodies have limited expertise and basis for notification is not clear
  - Some bodies treat essentials (such as provision of a report) as a chargeable extra

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## IECEx Advantages

- **Appointment of ExCBs and ExTLs is by a system of peer assessment**
  - Transparent and leads to mutual confidence
  - Reporting is obligatory and subject to random peer review
  - Leads to customer confidence in the scheme and therefore value of certificates
- **BUT**
  - Prevents those that may be so inclined from cutting corners

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## The Route for Europe

- **Target End Point**
  - IECEx Certificates of Conformity fully accepted without further paperwork
- **Problem**
  - IECEx is about Safety
  - ATEX is about Trade
  - European Commission would need to change the whole structure of its approach to trading directives !

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## The Route for Europe

- **Interim Solution 1**
  - IECEx Documentation accepted with an ATEX "Cover Sheet"
  - All the technical work is done once within the IECEx framework
  - Possible currently for all 60079 series standards except 60079-11 Ex 'i'
  - Possible for all 60079 series standards as soon as next edition of 60079-11 is published

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## Interim Solution 1

- **Works best when single body does all the work**
  - ATEX QAN based on IECEx QAR
  - EC-Type Examination Certificate based on ExTR
- **N.B. Purpose of IECEx CoC and EC-Type Examination Certificate are different**

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## Interim Solution 2

- **Involving two certification bodies**
  - One outside Europe
  - One inside Europe
- **Need for additional report to show how the ExTR is accepted for ATEX**
- **Need for QAN based on QAR**
- **Issues of accreditation, notification and public liability insurance for the European Body**

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## Interim Solution 2

- The ATEX Notified Body has to take full legal responsibility and show the necessary paperwork
- The Notified Body is responsible to the European Commission via its national government

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## The Paper Trail

- All certification activities require a paper trail
- The IECEx Scheme paper trail is prescribed to a major extent within the scheme
- The ATEX Directive does not prescribe particular forms of paperwork

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## The Paper Trail

- The IECEx paper trail is satisfactory for ATEX
- Most forms of paper trail devised for ATEX would not be acceptable for IECEx
  - It is not unknown for a European Notified Body to refuse to release the report to its customer !

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## The Baseefa Philosophy Production Control

- All work being done for ATEX QANs is being reported in a format acceptable for an IECEx QAR
- The customer gets exactly two for the price of one
- We do no extra work, so there is no extra charge

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## The Baseefa Philosophy Design Test and Assessment

- By our customers are able to use standards acceptable to IECEx there is no extra charge for the technical work
- There are additional sheets of paper to cover ATEX and IECEx, but the cost is minimal for most projects

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## IECEx plus ATEX The Benefits

- For very little extra cost
  - Future proofed acceptability throughout the world as the IECEx Scheme grows
  - Legal acceptability in Europe

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