**INTERNATIONAL ELECTROTECHNICAL COMMISSION (IEC) SYSTEM**

**FOR CERTIFICATION TO STANDARDS RELATING TO EQUIPMENT FOR**

**USE IN EXPLOSIVE ATMOSPHERES (IECEx SYSTEM)**

**Ex Management Committee, ExMC**

**TITLE: IECEx System Report Card - 2022**

**INTRODUCTION**

The Secretariat has prepared this document as an annual Report Card to IECEx Members on both the state of the IECEx System and progress on several matters since the 2021 IECEx ExMC meeting including:

* IECEx System Membership
* Statistics of issued IECEx Certificates of Conformity, ExTRs, QARs, FARs and PCARs
* Review of the IECEx System including review of Certificates and supporting documents
* Finances
* Promotional Activities
* Secretariat and General Technical Administration activities
* Outline of activities/Decisions of the IECEx Executive
* The application of IECEx OD 060 under Extraordinary Circumstances or Events

This document is issued for information to members and is listed on the IECEx 2022 ExMC meeting agenda for noting and any discussion.

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**IECEx System Report Card - 2022**

1. **General Overview**

Discussions and decisions from the 2021 series of IECEx Meetings set the tone and direction for further development, growth and expansion of the IECEx System and its Schemes.

The Secretariat is pleased to report on the following key points concerning IECEx operation since the 2021 IECEx meetings:

* At the time of preparing this report the Islamic Republic of Iran is the most recent country to join IECEx as Participating member Countries bringing the total number of countries with a seat on the IECEx Management Committee to 36.
* The COVID-19 Pandemic was causing disruption to the usual way of conducting IECEx business, adjustments made early 2020 enabled business continuity
* Increased use of IECEx Unit Verification Certificates
* Additional enhancements to the IECEx On-Line Certificate System
* The marked increase in the demand and issue of IECEx Certificates of Conformity and Reports, as reported in 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020 and 2021, continues in 2022 with year-on-year growth being maintained.
* Continued processing of Scope extensions from ExTLs and ExCBs
* Promotion at Regional and International forums although travel restrictions in 2021 and 2022 have limited these activities to remote participation and presentations
* An increase in the number of day-to-day industry inquiries being directed at the IECEx Secretariat – this is reflected in the increased e-mail traffic of the Secretariat
* Work on enhancements and updates to the “IECEx Website” @ www.iecex.com
1. **Membership**

IECEx System Membership, as of 30th June 2022 stands at:

* **36** Countries as members of the IECEx Management Committee, ExMC
* With **four** separate Certification Schemes
	+ IECEx Certified Equipment Scheme (Rules = IECEx 02)
	+ IECEx Certified Service Facilities Scheme (Rules = IECEx 03-\*)
	+ IECEx Conformity Mark Licensing Scheme (Rules = IECEx 04)
	+ IECEx Certification of Personnel Competencies (CoPC) Scheme (IECEx 05)

 and the IECEx Recognized Training Provider Program (RTPP)

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| **@ 30 June 2021** | **@ 30 June 2022** |
| **IECEx Certified Equipment Scheme*** + **60** Accepted ExCBs + 5 Applicants
	+ **68** Accepted ExTLs + 7 Applicants
	+ **7** Accepted ATFs + 1 Applicant

**IECEx Certified Service Facilities Scheme*** + **17** Accepted ExCBs + 2 Applicants

**IECEx Conformity Mark Licensing System*** + **14** Accepted License issuing ExCBs

**IECEx CoPC Scheme*** + **15** Accepted ExCBs

**IECEx Recognized Training Providers** * + **33** Recognized Training Providers (RTPs)
 | **IECEx Certified Equipment Scheme*** + **62** Accepted ExCBs + 5 Applicants
	+ **68** Accepted ExTLs + 7 Applicants
	+ **10** Accepted ATFs + 1 Applicant

**IECEx Certified Service Facilities Scheme*** + **18** Accepted ExCBs + 2 Applicants

**IECEx Conformity Mark Licensing System*** + **13** Accepted License issuing ExCBs

**IECEx CoPC Scheme*** + **14** Accepted ExCBs + 2 Applicants

**IECEx Recognized Training Providers** * + **35** Recognized Training Providers (RTPs)
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1. **Statistics – Certificates, Licenses and Reports**

As at 30th June 2022 there were **135,621** Issued IECEx Reports, Certificates and Licenses across all the following four IECEx Schemes compared with 121,837at the same time last year (30th June 2021)– this represents an overall growth of **11.3%.**

* The IECEx Certified Equipment Scheme, IECEx 02 (see Table 1A)
* The IECEx Certified Service Facilities Scheme, IECEx 03 (see Table 2)
* The IECEx Conformity Mark Licensing System, IECEx 04 (see Table 3)
* The IECEx Certification of Personnel Competencies (CoPC) Scheme, IECEx 05 (see Table 4)

The figure “Totals”, in Table 1A, show the total number of combined Equipment CoCs (Certificates of Conformity), ExTRs (IECEx Test Reports) and QARs (IECEx Quality Audit Reports) issued under the IECEx Certified Equipment Scheme. Table 1B shows a comparison between new Certificates (Issue 0) compared to supplementary issues of existing Certificates (i.e. changes to existing certificates, Issue 1 and above).

Figure 1A provides an overview trend of the number of Certificates and Reports issued under the IECEx 02 Scheme (Certified Equipment Scheme), while Figure 2 provides a breakdown of the percentage weighting of CoCs compared to ExTRs and QARs issued over the life of the IECEx System.

The conclusion drawn from these statistics is that the IECEx Certified Equipment Scheme is still experiencing significant and sustained growth. The following factors are seen as facilitating this growth:

* Penetration of new markets, such as the Gulf Region
* Industry’s recognition of the value that certification under an Internationally accepted Regime brings to risk mitigation as part of their compliance regime
* The increasing involvement by industry in the management and operation of IECEx
* The credibility of the IECEx System based on compliance to IEC Standards, a common assessment system for all ExCBs and ExTLs, and ongoing surveillance,
* Increased awareness and recognition of IECEx as “world's best practice” via the formal endorsement by the UNECE, as per the United Nations approved Common Regulatory Arrangement (CRA) for Equipment Used In Environments with an Explosive Atmosphere, Edition 2.0
* One set of operational procedures and reporting formats
* The transparency of IECEx activities provided by the IECEx website and On-Line CoC system
* A greater level of industry understanding of the IECEx system by way of promotion of IECEx by IECEx Officers and Members
* A growing international awareness of the value of structured International Conformity Assessment Systems such as IECEx
* The value of networking among all Ex experts including ExCBs and ExTLs and associated technical discussion forums provided, for example ExTAG
* A dedicated technical Secretariat

**3.1 IECEx 02 – IECEx Certified Equipment Scheme**

**Year ending Figures IECEx 02 Certified Equipment Scheme**

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| --- | --- | --- | --- | --- | --- |
| **Issued In the Year of ..** | **CoCs** | **ExTRs** | **QARs** | **Total CoCs & Reports** | **Drafts CoCs in the System** |
| 2001 | 0 | 2 | 0 | 2 | 0 |
| 2002 | 0 | 4 | 0 | 4 | 0 |
| 2003 | 11 | 10 | 10 | 31 | 10 |
| 2004 | 98 | 62 | 50 | 210 | 115 |
| 2005 | 258 | 136 | 132 | 526 | 225 |
| 2006 | 570 | 922 | 265 | 1757 | 360 |
| 2007 | 931 | 933 | 362 | 2226 | 431 |
| 2008 | 1263 | 1234 | 547 | 3044 | 499 |
| 2009 | 1492 | 1361 | 718 | 3571 | 618 |
| 2010 | 2072 | 1957 | 951 | 4980 | 675 |
| 2011 | 2619 | 2268 | 1033 | 5920 | 1000 |
| 2012 | 2695 | 2469 | 1254 | 6418 | 1150 |
| 2013 | 3126 | 2910 | 1398 | 7434 | 1286 |
| 2014 | 3582 | 3348 | 1514 | 8444 | 1461 |
| 2015 | 3930 | 3745 | 1822 | 9497 | 1583 |
| 2016 | 4130 | 3898 | 1936 | 9964 | 1921 |
| 2017 | 4106 | 3792 | 2033 | 9931 | 2048 |
| 2018 | 4218 | 3972 | 2155 | 10345 | 2033 |
| 2019 | 4554 | 4091 | 2342 | 10987 | 1673 |
|  2020 | 4648 | 4153 | 2272 | 11073 | 1835 |
| 2021 | 4916 | 4497 | 2751 | 12164 | 2196 |
| @ 30 June 2022 | 2161 | 2049 | 1286 | 5496 | 3320 |
| **Totals** | **51380** | **47813** | **24831** | **124024** |  |

**Table 1A- Total number of IECEx Equipment & Component CoCs and Reports issued**

**Unit Verification Certificates**

One hundred and twenty-nine (129) IECEx Unit Verification Certificates have been issued in the year to date @ 30th June 2022 and this is very similar to the result of 130 for the same period in 2021.

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| **Issue 0 CoCs expressed as % of all CoCs issued in the year** |
| **Issued in the Year of** | **# All CoCs** | **# “Issue 0”****CoCs** | **“Issue 0” as % of all CoCs** |
| 2010 | 2072 | 1059 | 51.1% |
| 2011 | 2619 | 1157 | 44.2% |
| 2012 | 2695 | 1173 | 43.5% |
| 2013 | 3126 | 1340 | 42.9% |
| 2014 | 3582 | 1674 | 46.7% |
| 2015 | 3930 | 1672 | 42.5% |
| 2016 | 4130 | 1730 | 41.9% |
| 2017 | 4106 | 1601 | 39.0% |
| 2018 | 4218 | 1704 | 40.4% |
| 2019 | 4554 | 1606 | 35.3% |
|  2020 | 4648 | 1674 | 36.0% |
| 2021 | 4916 | 1552 | 31.6% |
| YTD @ 30 June 2022 | 2161 | 693 | 32.1% |

**Table 1B – Issue 0 CoCs (New Certificates as opposed to up issues)**

**expressed as % of all CoCs (Equipment Scheme)**

**Figure 1A – Cumulative Growth of Issued IECEx CoCs, ExTRs and QARs for the IECEx Certified Equipment Scheme**

**Figure 1B – Year-by-Year Growth of Issued IECEx CoCs, ExTRs and QARs for the IECEx Certified Equipment Scheme**

**Figure 1C – Comparison of draft IECEx Equipment CoCs in the On-line System as indicative of future year on year growth of the Scheme**

**Figure 2 – CoCs, ExTRs, QARs Percentages**

**Figure 3 - Total IECEx Equipment Scheme CoCs, ExTRs and QARs at each Year end and to 30 June 2022**

**3.2 IECEx 03 – IECEx Certified Service Facilities Scheme**

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| **Total number of Certified Services CoCs issued** |
| **Issue In the Year of** | **CoCs** | **FARs** | **Total** | **Drafts in System** |
| 2007 | 3 | 17 | 20 | 0 |
| 2008 | 11 | 50 | 61 | 0 |
| 2009 | 15 | 32 | 47 | 9 |
| 2010 | 26 | 44 | 70 | 7 |
| 2011 | 31 | 59 | 90 | 8 |
| 2012 | 20 | 29 | 49 | 9 |
| 2013 | 28 | 66 | 94 | 12 |
| 2014 | 24 | 66 | 90 | 1 |
| 2015 | 28 | 90 | 118 | 6 |
| 2016 | 25 | 87 | 112 | 10 |
| 2017 | 33 | 93 | 126 | 19 |
| 2018 | 39 | 102 | 141 | 21 |
| 2019 | 38 | 128 | 166 | 16 |
| 2020 | 26 | 107 | 133 | 21 |
| 2021 | 64 | 135 | 199 | 34 |
| @ 30 Jun 2022 | 22 | 69 | 91 | 49 |
| **Totals** | **433** | **1174** | **1607** |  |

**Table 2A – Year End Figures IECEx 03 Certified Service Facilities Scheme**

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| **Issue 0 CoCs expressed as % of all CoCs issued in the year** |
| **Issued in the Year of** | **# All CoCs** | **# “Issue 0”****CoCs** | **“Issue 0” as % of all CoCs** |
|  2020 | 26 | 9 | 35% |
| 2021 | 64 | 23 | 36% |
| YTD @ 30 June 2022 | 22 | 9 | 41% |

**Table 2B – Issue 0 CoCs (New Certificates as opposed to up issues)**

**expressed as % of all CoCs (Services Scheme)**

**Figure 4A – Cumulative Total of IECEx Certified Service Facility Certificates at each Year end and to 30 June 2022**

**Figure 4B – Year-By-Year Growth of IECEx Certified Service Facility Certificates at each Year end and to 30 June 2022**

**3.3 IECEx 04 – IECEx Conformity Mark Licensing System**

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| **Total number Conformity Mark Licenses issued**  |
| **Issue in the Year of** | **Licenses** | **Number of CoCs attached to Licenses** | **Total Drafts in System** |
| 2009 | 4 | 10 | 0 |
| 2010 | 3 | 34 | 2 |
| 2011 | 7 | 83 | 3 |
| 2012 | 7 | 71 | 8 |
| 2013 | 2 | 2 | 9 |
| 2014 | 5 | 17 | 9 |
| 2015 | 2 | 2 | 9 |
| 2016 | 4 | 15 | 9 |
| 2017 | 0 | 0 | 9 |
| 2018 | 3 | 14 | 6 |
| 2019 | 1 | 4 | 9 |
| 2020 | 3 | 80 | 0 |
| 2021 | 2 | 65 | 12 |
| YTD @ 30 June 2022 | 0 | 0 | 9 |
| **Totals** | **43** | **397** |  |

**Table 3 – Year End Figures IECEx 04 Conformity Mark Licenses 3.4 IECEx 05 – Certificate of Personnel Competence Scheme**

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| **Total number CoPC Certificates issued** (Scheme commenced late 2010) |
| **Issue in the Year of** | **CoPC & EFOC Certificates** | **Total Drafts in System** |
| 2010 | 16 | 0 |
| 2011 | 82 | 0 |
| 2012 | 122 | 0 |
| 2013 | 203 | 3 |
| 2014 | 471 | 1 |
| 2015 | 313 | 8 |
| 2016 | 370 & 19 | 11 |
| 2017 | 352 & 18 | 17 |
| 2018 | 523 & 4 | 51 |
| 2019 | 795 & 10 | 45 |
| 2020 | 501 & 1 | 22 |
| 2021 | 673 & 22 | 111 |
| YTD @ 30 June 2022 | 509 & 13 | 149 |
| **Totals** | **4930 & 87** | \* Each CoPC has a PCAR\*\* Facility Orientation Certificate introduced in 2016 |

**Table 4A – Year End Figures IECEx 05 Personnel Competence**

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| **Issue 0 CoPCs expressed as % of all CoPCs issued in the year** |
| **Issued in the Year of** | **# All CoPCs** | **# “Issue 0”****CoPCs** | **“Issue 0” as % of all CoPCs** |
|  2020 | 501 | 471 | 94% |
| 2021 | 673 | 625 | 93% |
| YTD @ 30 June 2022 | 509 | 469 | 92% |

**Table 4B – Issue 0 CoCs (New Certificates as opposed to up issues)**

**Expressed as % of all CoCs (CoPC Scheme)**

**Figure 5A – Cumulative Total of IECEx Certified Personnel Certificates (CoPCs) at each Year end and to 30 June 2022**

**Figure 5B – Year-by-Year Growth of IECEx Certified Personnel Certificates (CoPCs) at each Year end and to 30 June 2022**

1. **Surveillance of the IECEx System**

To ensure integrity of the System a range of measures and activities are undertaken within IECEx – these include:

1. Initial Assessment and qualification of all ExTLs and ExCBs seeking to join IECEx
2. Surveillance of all ExTLs and ExCBs (*annual* *confirmation of accreditation for those with accreditation and annual site visits for those without accreditation*)
3. Re-assessment applied to all ExTLs and ExCBs involving assessment on site to review Testing/Certification facilities, capabilities, practices and review of Certificates, ExTRs and QARs files
4. Mid-Term Surveillance Assessments (introduced in 2014) involving sample reviews of ExTRs and QARs
5. In-built security features of the IECEx On-Line Certificate system - ie. ExCBs can only issue Certificates covering Standards within their scope
6. IT Tools to aid in the management control of issued CoCs, ExTRs, QARs, FARs and PCARs
7. “Out of Date” QAR listing to assist ExCBs manage and control the on-going surveillance due dates plus an Administrator feature for the Secretariat to monitor performance of all ExCBs.
8. Training of ExCB in the use of IECEx OD 250 and of the associated tools available in the IECEx OCS (On-Line Certificate System) Back Office for the management of Out of Date QARs
9. Desktop Review (DTRs) by the Secretariat reporting key metrics from IECEx On-line Certificate system for ExCBs and ExTLs and provided to the lead assessor prior to mid-term surveillance assessments and re-assessment.
10. Review of On-Line System for new Certificates issued in 2021 and 2022 YTD – *the results of this review are outlined in 4.1 following.*

**4.1 Review of Online CoCs, ExTRs and QARs for second half of 2021 and 2022 Year to Date (2022 YTD)**

**Introduction**

Separate to the site assessment visits for Initial, Surveillance, Re-Assessment and Mid-Term purposes, the Secretariat also conducts regular reviews of online IECEx Certificates. Since June 2021 random sampling of approximately 15% of all certificates originally issued by ExCBs for the IECEx Certified Equipment, IECEx Certified Service Facility and IECEx Certified Person schemes was conducted as detailed below.

**Objective**

The objective of the Secretariat’s on-line review is to conduct a Quality check that the information on the sampled Certificates is correct and complete as compared to defined criteria which include the following:

For Certified Equipment Certificates:

1. Date of issue appropriate (i.e. not showing in the future)
2. A Test Report number and File Reference included.
3. Manufacturer name detail is consistent with their other certificates
4. Manufacturer’s site street (not a PO Box) address given
5. Any attached Annex has a reference to the CoC number
6. Referenced Annexes are attached
7. Conditions of Certification listed for “X” type Certificates
8. Equipment description is clear and sufficiently detailed
9. No major editorial mistakes (including linking to a draft ExTR)
10. Correct links to valid ExTR and QAR
11. Linked QAR is current
12. Manufacturer on CoC matches ExTR
13. Manufacturer on CoC matches QAR and QAR covers all manufacturing locations
14. Standards listed on CoC matches Standards (including Edition #) on ExTR
15. Scope of Certificate matches QAR and ExTR ExCB capability.
16. Type of Protection Concept on CoC matches standards and QAR
17. Where more than 1 issue exists that they are linked and changes explained on CoC
18. Statement of Limitations is included in CoC for Component certificates (“U” type)
19. Unit Verification Certificates have been denoted with “V” and include Serial #(s)

For IECEx Certified Service Facility Certificates:

1. CoC Date of Issue OK (not into the future)
2. CoC and FAR addresses for applicant are valid (not PO Box)
3. Scope of Services is valid
4. Listed FAR is valid (ie. Is relevant and not expired)
5. FAR Facility same as audited site
6. FAR Details of change are specified (where appropriate)
7. FAR specifies issuing ExCB
8. CoC linked to multiple FARs (with some expired)

For IECEx Certified Person Certificates:

1. Name on CoPC same as on PCAR
2. CoPC is current / valid
3. Scope of Competence Units same on CoPC as on PCAR
4. Listed PCAR is valid (ie. Not expired)
5. Photograph is “recognizable”
6. CoC linked to draft PCAR

**Certificates and Reports reviewed**

The following quantities of IECEx Certificates (representing an approximate sample of 15% of issued Certificates) selected at random from all those published in the second half of 2021 and 2022 YTD were audited against the elements listed above:

* 485 of the 1643 new IECEx Equipment & Component CoCs issued since the 2021 Report Card preparations
* 21 x IECEx Service Facility CoCs (with two incorrectly issued to multiple sites / organisations)
* 406 x IECEx Certified Person CoCs (with issues found with six using incorrect up-issue process))

The detailed results of the audit of new IECEx Certified Equipment Scheme Certificates follow:

|  |  |  |
| --- | --- | --- |
| **Item** | **Previously observed Certificate Deficiency as Review Criteria****for issued Certified Equipment Certificates reviewed.** | **# of CoCs with Deficiency** |
| A | Date of issue NOT appropriate (i.e. showing in the future) | 0 |
| B | A Test Report number or File Reference NOT included | 0 |
| C | Manufacturer name detail NOT consistent with their other certificates | 0 |
| D | Full Manufacturer’s site street address NOT provided (eg. a PO Box used) | 0 |
| E | Attached Annex(es) do NOT reference the CoC number | 0 |
| F | Referenced Annexes are NOT attached | 1 |
| G | “Specific Conditions of Use” details NOT specified for “X” type Certificates | 1 |
| H | Equipment description is NOT clear and sufficiently detailed | 0 |
| I | Major editorial mistakes  | 0 |
| J | CoC is NOT correctly linked to valid ExTR and/or QAR (main issue observed was linking of an issued CoC to a draft ExTR) | 0 |
| K | Linked QAR is NOT current  | 0 |
| L | Manufacturer on CoC does NOT match ExTR details | 0 |
| M | Manufacturer on CoC does NOT match QAR details and/or QAR(s) does NOT cover all manufacturing locations listed on CoC | 2 |
| N | Standards listed on CoC do NOT match Standards (including Edition #) on ExTR (main issue observed was CoC citing later Edition than ExTR) | 2 |
| O | Scope of Certificate exceeds QAR and ExTR issuing ExCB’s capability | 0 |
| P | Type of Protection Concept on CoC does NOT match standards and QAR | 2 |
| Q | CoC Issues subsequent to Issue 0 are NOT linked and/or details of changes between Issues are NOT detailed on subsequent CoC | 0 |
| R | “Statement of Limitations” details NOT included in CoC for Component certificates (“U” type) | 0 |
| S | Unit Verification Certificates have NOT been denoted with “V” and/or do NOT include Serial #(s) for certified units of product | 0 |

In summary:

* Issued IECEx Certified Equipment or Component Certificates with zero issues = **477**
* Issued IECEx Certified Equipment or Component Certificates with one issue = **8**
* Issued IECEx Certified Equipment or Component Certificates with multiple issues = **0**
* % of IECEx Certified Equip /Component Certificates audited with at least one issue = **1.6%**
* % of IECEx Certified Equip / Component Certificates audited with multiple issues = **0%**

**Action by Secretariat:**

The Secretariat have referred issues raised to the respective ExCBs for whom have been responsive to correct the issues raised. Some of the issues raised have led to inclusion for future ExTAG training sessions and also for the IECEx Assessor Training and discussions for 2022.

**Conclusion**

The results of this review show a sustained improvement as compared to previous years and confirms that ExCBs are focused on improvement and staff training. The ExCBs notified as having issues with specific Equipment or Component Certificates have been very responsive in addressing these and proactive in taking action to prevent future recurrence. The new IECEx OCS that was introduced in October 2019 has internal checks that will not allow saving to Current unless key parameters are correct – it is evident that this has assisted in the improvements observed.

In addition, the Secretariat is assisting ExCBs with general housekeeping of the IECEx on-line database including management of out-of-date QARs and deleting obsolete draft certificates and ExTRs. The Secretariat is also providing a Desktop Review Report (DTR) for every ExCB Surveillance audit which reviews the number of CoCs, ExTRs, and QARs, of the ExCB and highlights any issues that may require further investigation by the Lead Assessor. As a result of COVID-19 pandemic, and the introduction of Edition 2.0 and 2.1 of IECEx OD 060 manufacturer auditing for QAR validity has increased from 2021/22. The management of Out-of-Date QARs by the ExCBs will continue to be monitored by the Secretariat and ExCBs notified when it is evident that Out-of-Date QARs need to be reviewed.

1. **2022 series of IECEx Operational Meetings**

The 2021/2022 series of IECEx Operational Meetings were conducted by web conference facilities over the period of December 2021 to June 2022 due to travel restrictions impacting on many members of the respective groups. Outcomes from these meetings serve as input to the 2022 ExMC and ExTAG meetings and are reported on as separate agenda items for these meetings.

1. **Scheme Promotional Activities**

As part of the IECEx promotion and marketing strategy, the IECEx Executive and Secretariat continue in delivering presentations at key events in addition to supporting IECEx experts in their national and regional promotion of IECEx. The following are examples of recent or upcoming promotional activities of the IECEx System:

* Paid advertising in the HazardEx Trade Journal, ½ page advertisement
* Regular news articles in all IEC e-Tech on-line magazines, library maintained at <http://www.iecex.com/news_releases.htm>
* Regular news articles published in HazardEx prepared by IECEx experts including Thorsten Arnhold, Ron Sinclair, Jim Munro and others
* Release of animated IECEx promotional video presentation for the IECEx 02 and 03 Schemes and development underway for a similar format presentation for the IECEx 05 Scheme
* Executive Secretary as Panelist to the June 2022 IRENA (International Renewable Energy Agency) on Quality Infrastructure to support the Green Hydrogen Economy
* Others

During the past year and as part of the ExMC WG17 “Marketing” initiative IECEx have released 2 Animated videos:

* Understanding IECEx – focus on the IECEx Certified Services Scheme; and
* IECEx Certified Services Scheme

A third video is now being finalized to address the IECEx CoPC Scheme.

These 6 min animated videos provide fundamental awareness and understanding of the IEC TC 31 Standards and the operation and deliverables of the IECEx Certified Equipment Scheme.

Since its introduction early in 2021, IECEx has extended this animation to include subtitles in 9 languages as well as tailored versions to IECEx Certification Bodies to include their own corporate branding while promoting the IECEx.

This communication medium is proving to be popular and successful in conveying the message of IECEx which supplements the range of IECEx brochures.

1. **Secretariat and General Technical Administration**

**7.1 Day to day duties of the Technical Secretariat**

These can be broadly categorized as:

* Processing applications and managing assessments of new bodies and re-assessment of existing bodies
* Processing the applications of Scope extensions, for example, new editions of Standards and other changes, for example, name changes of existing bodies along with their maintenance via surveillance and re-assessments
* Support to ExCBs in the day-to-day use of the IECEx On-Line CoC System
* Revision and up-dating of IE-Ex Schemes rules and Operational Documents and forms
* IECEx Schemes development and Growth across all IECEx Schemes
* In conjunction with Chairman and Officers, IECEx System regular reporting to CAB and participation in CAB Working Groups
* Respond to general inquiries coming directly from industry (increasing)
* Day to day management of System finances, in conjunction with Treasurer and Executive

In noting the above, the Secretariat wishes to draw member’s attention to the increased demands on the Secretariat in dealing with inquiries concerning Ex Certification and Approvals being received direct from the market.

The Secretariat Team consists of a mix of both Technical and Administrative Staff to cover the day-to-day management, technical and admin support required to maintain functioning of the IECEx System.

* 1. **Compliance Role of the IECEx Secretariat**

In addition to the General Technical Administration duties, the IECEx Secretariat has in recent years introduced a Compliance Role which covers the following key activities:

* Review the IECEx On-Line system identifying areas of improvement for ExCBs.
* Provide a Desktop Review of the IECEx On-Line System for Lead Assessors in advance of a Surveillance audit highlighting areas to review
* QAR management by ExCBs and associated CoCs that may need to be Suspended, Up-Issued or Cancelled
* Assisting ExCBs with training of their staff on the IECEx On-Line system
* Work closely with and assist the Proficiency Testing Program coordinator ensuring that all ExTLs, Applicant ExTL, and ATFs participate in the test programs as per IECEx 02 Rules.
* Assist with the development of ODs and Guides for ExCBs
	1. **As an indicator of the IECEx System development and growth, since the first Report card issued in 2008 IECEx Paris meetings, the following additional statistics are provided:**

General items prepared and issued according to the day-to-day management and operation of the IECEx System are provided below with a comparison to the figures reported at past IECEx meeting.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **ITEMS****New or revised** | **2015** (ExMC/1008/R) as updated for full year | **2016** (ExMC/1159/R) as updated for full year | **2017**(ExMC/1234/R) as updated for the full year | **2018**(ExMC/1386/R) as updated for the full year | **2019**(ExMC/1499/R) as updated for the full year | **2020** (ExMC/1607/R) as updated for the full year | **2021** (ExMC/1732/R) as updated for the full year | **2022 @ 30 June** |
| IECEx Scheme Rules  | 2 | 2 | 8 | 2 | 2 | 1 | 2 | 1 |
| IECEx Operational Documents  | 11 | 8 | 21 | 14 | 16 | 1 | 22 | 4 |
| IECEx Guides  | 0 | 1 | 3 | 2 | 1 | 0 | 0 | 0 |
| ExTAG, ExSFC and ExPCC Decision Sheets  | 19 | 2 | 6 | 11 | 6 | 7 | 6 | 3 |

1. **Revised System & Scheme Rules issued since the 2021 ExMC Meeting**

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| --- | --- |
| **Document No.** | **Title** |
| IECEx 01-S | IECEx Supplement to Harmonized Basic Rules IEC CA 01 Edition 2.2 |
| IECEx 02 | IEC System for Certification to Standards relating to Equipment for use in Explosive Atmospheres (IECEx System) IECEx Certified Equipment Scheme covering equipment for use in explosive atmospheres – Rules of Procedure, Edition 8.0 |
| IECEx 03-4 | IECEx Certified Service Facilities Scheme – Part 4: Ex inspection and maintenance – Rules of Procedure, Edition 3.0 |

1. **New and Updated IECEx Operational Documents and Guides issued since the 2021 ExMC Meeting**

|  |  |
| --- | --- |
| **Document No.** | **Title** |
| IECEx OD 009-2, Ed4.4 | Operational Document - Procedures for the Issuing of IECEx Certificates of Conformity, IECEx Test Reports and IECEx Quality Assessment Reports. |
| IECEx OD 011-1, Ed6.3 | Guidance on Use of the IECEx Internet based “On-Line” Certificate of Conformity System, Part 1: General Information for IECEx On-line Certificate System (OCS) – Second Generation |
| IECEx OD 011-2, Ed5.8 | Guidance on Use of the IECEx Internet based “On-Line” Certificate of Conformity System Part 2: Creating IECEx Equipment Certificates of Conformity CoCs |
| IECEx OD 012, Ed3.0 | ExTAG Guide for Application of Uncertainty of Measurement to conformity for laboratory tests carried out under the IECEx System |
| IECEx OD 026, Ed3.0 | Guidelines for the qualification of Lead Auditor and Auditors, in accordance with the IECEx System. |
| IECEx OD 060, Ed2.1 | IECEx Guide for Business Continuity - Management of Extraordinary Circumstances or Events Affecting IECEx Certification Schemes and Activities |
| IECEX OD 202, Ed4.0 | IECEx Proficiency Testing Scheme |
| IECEx OD 314-4, Ed3.0 | IECEx Certified Service Facilities Scheme – Part 4: Ex inspection and maintenanceQuality Management System requirements for IECEx Service Facilities providing Ex installations related services |
| IECEx OD 314-5, Ed2.0 | IECEx Certified Service Facilities Scheme –Part 5: Repair, overhaul and reclamation of Ex equipment - Quality Management System requirements for IECEx Service Facilities involved in the repair, overhaul and reclamation of Ex equipment IECEx |
| IECEx OD 315-5, Ed2.0 | IECEx Certified Service Facilities Scheme – Part 5: Repair, overhaul and reclamation of Ex equipment, Additional requirements for IECEx Service Facilities involved in the repair, overhaul and reclamation of Ex equipment |
| IECEx OD 316-4, Ed3.0 | IECEx Certified Service Facilities Scheme –Part 4: Ex inspection and maintenance Assessment procedures for IECEx acceptance of Candidate Certification Bodies (ExCBs) for the purpose of issuing IECEx Certificates to Ex Service Facilities providing Ex installations related services |
| IECEx OD 502, Ed3.2 | IECEx Scheme for Certification of Personnel Competence for Explosive Atmospheres – Application for an IECEx Certificate of Personnel Competence (CoPC) and an IECEx Ex Facility Orientation Certificate (EFOC) - documentation and information requirements |
| IECEx OD 503, Ed4.2 | IECEx Scheme for Certification of Personnel Competence for Explosive Atmospheres - ExCB Procedures for issuing and maintaining IECEx Certificates of Personnel Competencies |
| IECEx OD 504, Ed4.0 | IECEx Scheme for Certification of Personnel Competence for Explosive Atmospheres – Specification for Units of Competence Assessment Outcomes |
| IECEx OD 508, Ed1.0 | IECEx Scheme for Certification of Personnel Competence for Explosive Atmospheres – Preparation and publication of IECEx Personnel Certification Committee (ExPCC) Decision Sheets |
| IECEx OD 521, Ed4.1 | IECEx Scheme for Certification of Personnel Competence for Explosive Atmospheres - IECEx Recognised Training Provider Program |

**7.4 E-mail Traffic, handled by Secretariat (excluding those dealt with by IECEx Chairman, Officers, WG Conveners, Members and Assessors):**

The following level of e-mail traffic was handled by the IECEx Secretariat and does not include additional mails dealt with by the IECEx Chairman, Officers and Assessors. These figures are provided as a guide to IECEx Members of the levels of IECEx activity and show a constant level of increase of e-mails in comparison with 2016, 2017, 2018, 2019, 2020 and 2021 figures.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **ITEM** | **2016**  | **2017**  | **2018** | **2019** | **2020** | **2021** | **2022 @ 30 June** |
| Total E-mail Traffic of the IECEx Sectariat | 24,872 | 26,783 | 27,131 | 27,945 | 28,420 | 20,806 | 16,162 |

\* Out of office or other miscellaneous e-mails have been filtered and are excluded from above figures

* 1. **Management of Assessments + Applications for Scope extensions – *all IECEx Schemes.***

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **ITEM** | **2015** (ExMC/1008/R) as updated for the full year | **2016** (ExMC/1159/R) as updated for the full year | **2017** (ExMC/1234/R) as updated for the full year | **2018**(ExMC/1386//R) as updated for the full year | **2019**(ExMC/1499/R) as updated for the full year | **2020** (ExMC/1607/R) as updated for the full year | **2021**(ExMC/1732/R) as updated for the full year  | **Since 2021 ExMC** |
| **Assessments\*** **(on-site & remote)** | 31 | 12 | 53 | 57 | 31 | 20 | 24 | 31 |
| **Remote assessments\*** |  |  |  |  |  | 14 | 15 | 25 |
| **Mid-term Surveillance****Audits** | 13 | 4 | 17 | 11 | 12 | 6 | 13 | 8 |
| **Scope extensions** | 188Standards/ Units104Applications | 28Standards/ Units14Applications |  206Standards/ Units 67Applications | 202Standards/ Units87Applications | 79Standards/ Units47Applications | 91Standards/ Units52Applications | 48Standards/ Units26Applications | 149Standards/ Units74Applications |

\* = includes Mid-term surveillance audits

The above Table outlines the number of IECEx site & remote Assessments conducted on Ex Certification Bodies and Ex Test Laboratories for Initial, Surveillance, Re-assessments and Mid-term purposes.

Following the ExMC Decision during the 2013 Fortaleza meeting to introduce a “mid- term” surveillance audits of ExCBs and ExTLs, the IECEx Secretariat commenced the implementation of this decision during 2014 using procedures and criteria detailed in IECEx Operational Document IECEx OD 003-2. However, for 2021 and first half of 2022 the focus for assessments has been the application of Remote assessment provisions of new IECEx OD 060 to deal with application assessments and those related to scope extensions, surveillance and mid term assessments.

The Secretariat is pleased to report on the excellent cooperation with ExCBs and ExTLs along with the tremendous support of the IECEx Assessors in undertaking the assessments using remote provisions requiring considerably more time for preparation and challenging process of remote assessments. From assessments conducted to date there are no issues raised that require notification to ExMC.

1. **Finances**

**8.1 Overview**

The sound financial performance of IECEx is reported in the 2021 Audited Accounts, **ExMC/1833/DV**. In summary income and expenditure were generally according to the approved 2021 Budget, with a final result to achieve an operational Surplus of CHF 192’328 being 137% above budget predictions. The IECEx Reserves at end of 2021 comprise Free Capital Reserves of CHF 2,574,125 which includes CHF 300,000 as designated Reserves to cover Innovation and Promotion. A full report will be provided by the IECEx Treasurer during the 2022 ExMC meeting.

**8.2 Invoices Issued / Processed since 2021 ExMC Meeting**

The day-to-day management of financial management activities for the IECEx system are detailed in the following table of invoices and statements being issued as well as monitoring the receipt of payments

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Documents** | **Reported for 2018**  | **Reported for 2019** | **Reported for 2020** | **Reported for 2021**  | **Reported for 2022 YTD** |
| Invoices issued – MB Annual Fees | 40 | 40 | 42 | 42 | 42 |
| Statements Issued – CoC Fees | 119 | 112 | 115 | 127 | 63 |
| Invoices Issued – CoC Fees | 112 | 98 | 101 | 109 | 56 |
| Invoices Issued – Application Fees | 11 | 17 | 5 | 5 | 6 |
| Invoices Issued – Assessment Fees | 49 | 42 | 20 | 61 | 8 |
| Invoices Issued – Conference Sponsor | 9 | 0 | 0 | 0 | 0 |
| Invoices Issued – RTP Annual Fees | 16 | 29 | 33 | 33 | 33 |
| Invoices processed / Central Approval – Assessor Charges | 57 | 68 | 24 | 66 | 9 |
| **TOTAL Invoices issued and processed** | **413** | **406** | **340** | **443** | **217** |

We are pleased to advise that there are no specific issues concerning finance at this time and note that the overall response to on-time payment of invoices by Members is generally good.

A further update report will be given during the ExMC meeting by the Treasurer.

**9 IECEx Executive – Activities and Decisions between meetings**

**9.1 General**

Members of the IECEx Executive are shown at <https://www.iecex.com/information/executive/> in accordance with the IECEx Basic Rules (IEC CA 01 + IECEx 01-S).

The IECEx Executive provide immediate support to the IECEx Executive Secretary and Secretariat in the day to day operation of the IECEx System and its Schemes along with making operational decisions as delegated to them by the ExMC. Their task and responsibilities are detailed in IECEx Operational Document OD 002.

Matters dealt with by the IECEx Executive since the 2021 ExMC meeting are covered by a separate report from the IECEx Executive to the ExMC Annual meeting.

**9.2 Extraordinary Circumstances and Events**

As noted previously, during January 2020 well ahead of the declared COVID-19 pandemic announcement by the World Health Organization, the Secretariat was notified that certain organizations were imposing travel restrictions for both staff and visitors. This action had the potential to severely affect IECEx operations in a negative way. In response, the Secretariat assisted by the IECEx Executive compiled a new Operational Document, OD 060 to ensure Business Continuity by addressing alternative ways of to fulfil elements of the IECEx Schemes that normally require travel of personnel, e.g IECEx Peer Assessment, Auditing of Manufacturers etc.

OD 060 now sits at edition 2.1 and remains in use till the end of 2022, during which time the IECEx Executive will consider the global situation, noting that various countries and regions are at differing stages of the post COVID pandemic.

A separate issue to the current pandemic, being addressed by ExAG are considering proposed use of elements introduced by OD 060 to enable use of remote assessments in certain situations.

**10. Concluding Remarks**

The continued solid position and success of the IECEx can be attributed to its mature suite of Rules and Standard Operating procedures resulting the many years of active participation by various sectors of industry in the day to day management of the IECEx System via participation in ExMC, its Committees and the various Working Groups. Over recent years we have seen a growing level of this industry participation, especially from end-users and also regulators as well as manufacturers and Ex repairers and the Conformity Assessment Bodies themselves. This participation and contribution are key ingredients to the success that the IECEx community continues to enjoy.

To this point the Secretariat acknowledges, with gratitude, the diligent leadership of the IECEx Chair, supported by the IECEx Executive along with Expert Assessors, Conveners and of the many experts serving on the IECEx Committees and Working Groups all of whom are vital to enable IECEx to continue in its quest to serve the international Ex community.

**Chris Agius**

**IECEx Executive Secretary**

**July 2022**