

## Welcome to IPC Newsletter

## IPC Meetings Transformed to Remote During COVID Era



Last IPC Board of Directors meeting took place remotely on April 27th 2021. In the photo you can see Dr. Gilbert Gong (Chairman), Mrs. Vicky Karvela (Secretariat), Mr. Frode Evrik Pettersen (Director), Dr. George Anastopoulos (General Secretary), Mr. Osman Vural (Director), Dr. Tommy Lo (Director), Mr. Thomas Votsmeier (Director), Mrs. Gabriella Guenzi (Director), Mrs. Anni Koubek (Director).

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Editor's note: Please, feel free to forward this newsletter to your colleagues, business associates and any other party that might be interested. If they are wishing to join our mailing list, and for any additional questions please don't hesitate to contact us at: secretary@ipcaweb.org.

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## "Third-party marks of conformity" standard, work in progress!

The revision process of the international standard ISO/IEC 17030:2003, "Conformity assessment — General requirements for third-party marks of conformity" is in progress. The new draft version of ISO/IEC DIS 17030:2021, has been recently approved by ISO members.

The prime purpose of this standard is to enable a uniform approach to the use of third-party marks of conformity, to fill relevant gaps in existing ISO, IEC, ISO/IEC Standards and Guides and to address potential problems arising from different uses of third-party marks of conformity. It concentrates on third-party marks of conformity but may also be used as guidance for other applications of marks of conformity.

Marks of conformity have different uses and can take different forms in various media such as employing QR codes, public ledger technology (e.g. blockchain) or other electronic means. They are found on products, certificates and publications denoting the conformity to specified requirements of a product, management system, service, process, person or an organization. Marks of conformity used on product convey to the user that the product fulfils the requirements for characteristics such as its safety, quality, performance, reliability or impact on the environment. Most important for all marks of conformity is to gain the confidence of the market, including consumers, in products and other objects of conformity assessment to which these marks have been applied.



The standard is addressing issues related to the object of conformity assessment and provides answers to questions like which conformity assessment body is providing the third-party mark of conformity, who requires the third-party conformity assessment activity, why is this third-party mark of conformity required and how is the information of conformity best transmitted to the interested parties, e.g. customers, users, government authorities?

The net step is to issue the final-draft version of the standard, and if possible, finalize the process by publishing it by the end of 2021.

IAS experts participate actively in many ISO technical committees, including ISO/CASCO, providing to all of us the latest updates for all developments related to conformity assessment issues.

## The Revision of ISO/IEC 17000

Generally, speaking, the ISO 17000 series of standards and documents (any document starting with 17xxx) are meant to be used for conformity assessment. These would include <u>ISO/IEC 17024:</u> Conformity Assessment – General requirements for bodies operating certification of persons;



ISO/IEC 17011: Conformity assessment – Requirements for accreditation bodies accrediting conformity assessment bodies; and ISO/IEC 17021: Conformity assessment – requirements for bodies providing audit and certification of management systems. All of these 17000 series standards and documents have a common structure and are based on a common vocabulary. ISO/IEC 17000 is the vocabulary document associated with all of ISO's 17000 series documents. It's formal name is ISO/IEC 17000: Conformity Assessment – Vocabulary and general principles.

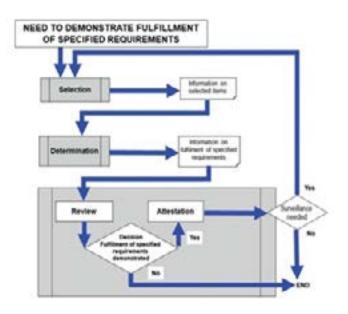
Last published in 2004, ISO/IEC 17000 is currently undergoing revision. An ISO/IEC working group (WG49) has been working on this revision for the past year. The revision will likely be finalized this year (2019) or early next year (2020). ISO/IEC 17000 contains conformity assessment terminology intended to be used by all of the ISO/IEC 17000 series of standards. ISO/IEC 17000 is designed to be a consistent framework within which conformity assessment concepts are defined. The terms included in 17000 are terms that are consistent with all 17000 standards. Terms where the dictionary definition suffices are not included.

If there are terms that are related only to a specific standard, then they are defined in that standard and not in ISO/IEC 17000. For example, the term "invigilator" is unique to ISO/IEC 17024 and so it is not defined in 17000. Additionally, 17000 describes the functional approach to conformity assessment. The functional approach is a series of activities (functions) that the auditor/assessor follows when conducting an audit/assessment to determine if specific requirements in a standard are being met. The functional approach consists of five major functions (selection, determination, review, decision and attestation). The graphic provided illustrates the process of the functional approach. Person Certification Bodies can relate to the functional approach because they do the same thing when certifying people. They select what they are going to assess (in this case a person).

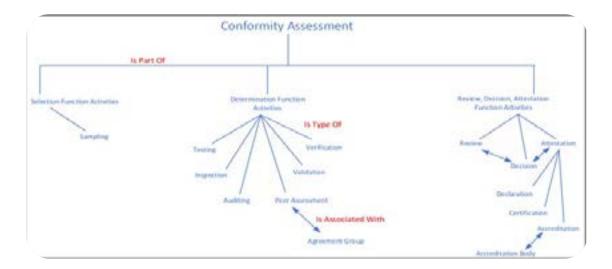


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Then they determine what specifically they are going to evaluate (the competencies). Next they review the data they have gathered (test results, etc.) and they make a decision as to whether or not the person meets the standard. And if the person does, they attest (award a certificate) that the person meets the standard. Similarly, when an accreditation body such as ANSI conducts an accreditation assessment of a certification body to ISO/ IEC 17024, they select, determine, review, take a decision, and then attest. The functional approach has been the basis for all conformity assessment and certification activities for a long time.



Before revision of the standard could begin, the working group created concept maps for all of the terms it believed should be included in the revised standard. A concept map is a diagram showing how the terms related to one another. This helps the members of the WG ensure they are thinking about the same "concepts" when talking about a particular term. Below is an example of a concept map for functional approach terms.



In the diagram you can see that **Selection, Determination, Review, Decision** and **Attestation** function activities are part of **conformity assessment**. Under selection, you can see that **Sampling** is a type of Selection. Similarly, **Testing, Inspection, Auditing, Verification, Validation** and **Peer Assessment** are types of determination function activities. You can see that an **Accreditation Body** is associated with **Accreditation**.



## Training and Certificate Program Recognition. Options and Possibilities

by Dr. George Anastasopoulos, IPC Secretary

The recognition of Training and/or Certification Programs remains a common requirement for Training Providers and Personnel Certification Bodies (PCBs). In this paper, we'll explore some options for such recognition and their applicability.

It is important to note that this paper is only referring to training and/or certification programs excluding traditional education degrees that are usually regulated by Education Departments and Ministries. This training can be offered by private or public organizations, institutions, unions, government agencies, employers, independent training organizations, community colleges, universities, professional and trade associations.

This paper presents three distinct recognition options for training and/or certification programs. The key differences between the three programs are presented in Table 1.

**Option 1:** Utilizing ISO/IEC 17024, "Conformity assessment — General requirements for bodies operating certification of persons";

The first option is only applicable to Personnel Certification Bodies (PCBs) that are operating a personnel certification program that includes "certified training" as a requirement.

Recognition of such training programs is limited only to the ones aiming at achieving personnel certification. This certification is provided under a scheme (certification program) that is included in the PCB's scope of accreditation. A sole training provider cannot be recognized/accredited under this option.

**Option 2:** Utilizing IPC SC-11-002 "Specification on Recognition of Training Courses and Training Providers"

The second option is available to Training Providers, Certificate Program Developers, Certificate Issuers and/or Personnel Certification Bodies (PCBs) that wish to approve their Training Programs. This option provides more flexibility since it doesn't limit the fields of the training programs and doesn't interrelate them to personnel certification scheme(s), which, by the way, remains an option, if applicable.

**Option 3:** Utilizing ASTM E2659-18: "Standard Practice for Certificate Programs". This option is available to Training Providers,

Certificate Program Developers and Certificate Issuers. It doesn't limit the fields of the training programs and doesn't interrelate them to personnel certification scheme(s).

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Table 1. Key differences between the three programs

Recognition Standard	For organization types	For certificate program types	Internationally recognized?	Recognized by who?
ISO/IEC 17024	PCBs	Competence Based personnel certification	Yes	IAF
IPC SC-11-002	PCBs and/or Training Agencies	Competence Based personnel certification	Yes	IPC
ASTM E2659-18	Training Agencies	Knowledge based personnel recognition	Yes*	Accreditation Bodies that operate such program

<sup>\*</sup>Not supported by IAF MLA.



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Those three options are presented in more detail below:

## ISO/IEC 17024, "Conformity assessment — General requirements for bodies operating certification of persons"

International Standard ISO/IEC 17024 contains principles and requirements for Personnel Certification Bodies (PCBs) that wish to develop and operate a certification scheme for persons. This standard has been developed by ISO, the International Organization for Standardization, an international standard-setting body composed of representatives from various national standards organizations. Founded on 23 February 1947, ISO promotes worldwide proprietary, industrial, and commercial standards. ISO is limited to standardization activities and doesn't provide certification or accreditation services.

ISO/IEC 17024 does not require PCB's to include successful completion of a prerequisite training course as a requirement in the personnel certification process. However, it recognizes that training may be a requirement depending on industry context and needs.

More specifically, according to clause 5.2.1 of ISO/IEC 17024 "Completion of training may be a specified requirement of a certification scheme." The recognition/approval of training by the personnel certification body is permitted under specific conditions described in the standard and must not compromise impartiality or reduce the assessment and certification requirements. In cases where training is identified as a scheme requirement, the training may take many forms and may serve various purposes.

Therefore, ISO/IEC 17024 allows variation in how competence is demonstrated, and consequently, different PCB's will interpret and apply this in different ways. Developing a customized certification scheme of persons is the only realistic way for a PCB to accommodate the flexibility of ISO/IEC 17024 while at the same time is encouraging good practice.

ISO/IEC 17024 does not mandate any specific way that PCB's must design their certification schemes or, where required, introduce training course requirements.

It is important for interested parties to understand that under ISO/IEC 17024 the training and the certification examination are two independent processes. While the training is helping an individual to achieve knowledge, an examination utilizing a valid test is measuring in a fair, valid, and reliable way whether an individual has the necessary competencies for the job. Although competence is related to demonstrated knowledge, it is also frequently extended to include skills and experience.

To conclude, this option (ISO/IEC 17024) is only applicable to PCBs operating personnel certification programs that require "certified training" as a prerequisite for personnel certification. Therefore, recognition of those training programs is limited to only those that they are included in schemes featured in a PCB's scope of accreditation.

PCBs can be accredited to ISO/IEC 17024 by several Accreditation Bodies (ABs), that are typically signatories of the Multi-Lateral Arrangement (MLA) of regional and/or international associations such as Asia Pacific Accreditation Cooperation (APAC), European Accreditation (EA), International Accreditation Forum (IAF), etc. Non-internationally recognized accreditation bodies exist as well; however, they do not provide the same recognition as the above-mentioned signatories.

ABs are developing their own explicit programs that describe the rules for PCB accreditation to ISO/IEC 17024. One example of such an accreditation program is IAS AC474 "Accreditation Criteria for Bodies Operating Certification of Persons" developed by the US based Accreditation Body IAS (International Accreditation Service). More information and guidance can be found at: <a href="https://www.iasonline.org/services/personnel-certification-bodies/">https://www.iasonline.org/services/personnel-certification-bodies/</a>

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# IPC SC-11-002 "Specification on Recognition of Training Courses and Training Providers"

The IPC specification describes the fundamental principles for the design, provision and approval of training courses offered by training providers, certificate program developers, certificate issuers and PCB's. This specification has been developed by IPC, the International Association of Personnel Certification Bodies and Training Providers. Starting in 1995 (previously known as IATCA) IPC has been actively involved in improving the quality and credibility of professional personnel certifications. IPC is a US registered non-profit organization and together with its signatory members has developed specifications related to certification of persons and training providers. IPC is an association, not a certification body; all activities associated with examination and certification are executed by its members. IPC is also the scheme owner of the globally accepted and operated "IPC Management System Auditors certification scheme"; the first personnel certification scheme endorsed by IAF as a sub-scope of the International Accreditation Forum Multilateral Recognition Arrangement (IAF MLA). This means more consistency and integrity for Management System Auditors certificates issued around the world. As such, it is used as the common competency-based personnel certification scheme for Management System Auditors.

IPC specification SC-11-002 offers alternate approaches and methodologies for Training Providers, Certificate Program Developers, Certificate Issuers and/or Personnel Certification Bodies (PCBs), along with the relevant stakeholder groups. It can be applied both to standalone training programs and/or to training programs that are a prerequisite for an accredited personnel certification scheme (Under ISO/IEC 17024). IPC SC-11-002 requires that training providers establish learning objectives and identify training methods that suit the learning objectives. It also contains the requirements for approval of training providers, certificate program developers, certificate issuers and PCB's.

Annex I of IPC SC-11-002 includes good learning and training practices that can be utilized by interested parties.

The training providers, certificate program developers, certificate issuers and PCB's that comply with IPC requirements are recognized by IPC after becoming signatories of the IPC MLA on Recognition of Training Courses. This way they can use the IPC logo on approved training program certificates which demonstrates their compliance and provides global recognition. In order to achieve the IPC MLA signatory status, the interested organizations must first become either Associate or Full IPC members, then apply for IPC MLA status which is achieved through the process of peer evaluation.

More information and guidance can be provided by IPC secretariat at <a href="mailto:secretary@ipcaweb.org">secretary@ipcaweb.org</a> and at <a href="mailto:sww.ipcaweb.org">www.ipcaweb.org</a>.

## ASTM E2659—18: Standard Practice for Certificate Programs

Standard practice ASTM E2659 provides guidance to certificate issuers for developing and administering quality certificate programs and to stakeholders for determining the quality of certificate programs. It was developed by ASTM in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee. ASTM International, formerly known as American Society for Testing and Materials, is an international standards organization that develops and publishes voluntary consensus technical standards for a wide range of materials, products, systems, and services. ASTM E2659 includes requirements for both the entity issuing the certificate as well as requirements for the specific certificate programs provided.

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It also provides the foundation for the recognition or accreditation, or both, of a specific entity to issue a certificate or certificates to persons after successful completion of a certificate program.

It is important to note that this standard does not provide guidance pertaining to certification of persons nor does it provide guidance pertaining to education or training programs in general.

The standard is considering "Certificate programs" as the ones that are typically offered by community colleges and universities, government agencies, employers, independent for-profit training organizations, and professional and/or trade associations. It is complimentary to standardization documents regarding continuing education and training providers in general (such as IACET 1-2013) and for entities offering personnel certification programs (such as ISO/IEC 17024).

### ASTM E2659 aims to:

- Provide certificate program developers and certificate issuers guidelines for quality program development and administration;
- Form the foundation for a recognition or accreditation system, or both, that enable consumers, employers, government agencies, and others who rely upon a skilled workforce to distinguish between qualified workers and those with fraudulent or less-than-quality credentials;
- Assist stakeholders in differentiating between certificate programs from personnel certification;
- Assist stakeholders in differentiating certificate programs from other programs that confer certificates, including but not limited to certificates of attendance or certificates of participation.

Accreditation to ASTM E2659 can be provided by Accreditation Bodies (AB's) that are offering such programs. One example of such accreditation programs is IAS AC371 "Accreditation Criteria for Training Agencies for Workforce Qualification Programs," developed by IAS (International Accreditation Service., a US based AB.

More information and guidance can be found at: <a href="https://www.iasonline.org/services/training-agencies/">https://www.iasonline.org/services/training-agencies/</a>

In conclusion, it is important for organizations desiring to operate personnel certification programs or training programs to be aware of the abovementioned differences and variations. Clarity will ensure that certifiers have clear objectives and defined measurable outcomes for their programs or schemes of choice. Further such understanding will lead them to select the appropriate certification standards for operation and the correct accreditation standards, if they choose to be accredited.

## ISO published the revised Annex SL – the common framework for any MS standard

Annex SL is the code name for the common structure and text applicable to any ISO management system standard (MSS) – which has been adopted by almost all concerned standards like 9001, 14001, 22000, 27001, 45001, ...

The previous (and first) version of Annex SL was published in 2012, almost 10 years ago. After a revision process initiated in 2018, the revised version has now been published early May 2021.

What are the changes and what is going to be the impact on the existing MSSs?

Here a summary of the changes we identified:

- · General: "continual" improvement is back
- 4.1 & 9.3 deletion of "to its strategic direction"
- 4.2 addition of "which of these requirements will be addressed through the XXX management system."
- 6.2 objectives new shall "be available as documented information"
- 7.2 new "Appropriate documented information shall be available as evidence of competence."
- 9.3 the management review shall new include "changes in needs and expectations of interested parties that are relevant to the XXX management system"

Short: minor changes & no significant impact on the existing MSSs to be expected – i.e. any revision, like the pending decision whether to revise 9001 or not, will have to find another justification!



## THE ISO SURVEY OF MANAGEMENT SYSTEM STANDARD CERTIFICATIONS

#### **Background**

The ISO Survey of Certifications is an annual survey of the number of valid certificates to ISO management system standards worldwide. The providers of data are the certification bodies accredited by the IAF MLA Members.

#### **Results**

The table below displays the total number of valid certificates and the total number of sites for each standard covered by the survey. The detailed results for each standard are available on <a href="ISO">ISO</a> website. For each of the standard, the number of certificates and the number of sites are displayed next to each other to give a more comprehensive picture of the situation. A certificate is the document issued by a certification body once the client has demonstrated conformity to the standard and a "site" is a permanent location where an organization carries out work or a service.

	Total valid certificates	Total number of sites	
ISO 9001	003 521	1 217 972	
150 14001	312 580	487 950	
ISO/IEC 27001	38 382	68 765	
ISO 22000	33 502	39 651	
150 45001	38 654	62 889	
150 13485	23 045	31 508	
ISO 50001	18 227	42 216	
ISO 22501	1 693	6 231	
ISO 20000-1	6 047	7 778	
ISO 20000	1 874	2 403	
ISO 37001	672	4 098	
ISO 39001	864	1 852	

## **Results highlight**

- The collection of data for the Survey was launched around the time of the start of the outbreak of the COVID 19 pandemic across the world. However, despite the challenges faced by the certification bodies to adapt to the new situation, the participation to the survey was good and comparable to the previous year.
- The overall results show an increase, from 2018, of 3.8% of the total number of valid certificates for the 12 ISO management system standards covered in the standard. Part of this is due to the increase in the certification to ISO 45001 that was published in 2018 and consequently having limited number of certifications in the previous edition.
- All the standards covered have seen their number of certifications increase with for the 2 biggest ones an increase of 0.5% for ISO 9001 and of 2% for ISO 14001.
- Thanks to the adjustments and clarifications made to the Survey methodology in the 2018 edition, the latest results are consistent with the previous year which allows some comparison to be made again. The latest results show that the adjustments have improved the survey's data quality and reliability.
- Similarly to the previous editions of the survey, the results show some fluctuations at the country level that are explained by factors related to the participation such as the non-participation of the some important certification bodies for those specific countries. In the 2019 survey this is the case for Bosnia, Korea, Japan, The Netherlands, Turkey, the UK and the US.

Editor's note: Please, feel free to forward this newsletter to your colleagues, business associates and any other party that might be interested. If they are wishing to join our mailing list, and for any additional questions please don't hesitate to contact us at: secretary@ipcaweb.org.

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## IPC Specification on Performing Online Examinations

Online examination systems are becoming increasingly popular and widespread. Many educational institutes, examination centers and certification bodies of persons are replacing their traditional examination methods by online testing technologies. The COVID-19 pandemic increased the need for such credible online examination systems and verification processes. The introduction of new technological approaches on online testing where followed by serious concerns about security issues. The validity of such examinations for certification and accreditation purposes was strongly debated. Is was clear that an international rule setting the requirements for the acceptance of such examination systems was needed.

IPC, the International Personnel Certification Association, responding to those requests, released on July 2020, its new specification IPC-BD-20-001, titled "IPC Specification on Performing Online Examinations".

The IPC Specification on Performing Online Examinations has been developed to address the essential elements that should be considered during the development of any online examination application. It aims to provide the base for the use of a secure, reliable and sustainable evaluation tool utilized during online examinations.

The IPC Specification considers the On-Line Examination System as a tool for remote assessment that measures knowledge, skills and abilities of a person. This examination can be used just to evaluate a candidate's knowledge, skills, abilities and/or for certification purposes.

While implementing online examination technology, it is essential to take into consideration a series of security aspects and requirements as described in detail in the following units of the Specification:

- Security of examination information displayed on the candidate screen
- Server / Cloud Server
- · General Data Protection
- Question Bank
- Examination Security
- Other Considerations

In addition to the main requirements the Specification is providing guidance through its 2 Annexes:

Annex 1 describes some of the techniques that can be used in order to enhance the security of the online examination systems like Secure Browser, Online Proctored Examination/Test, Data Encryption, Audit Logging, IP based Authentication & Authorization.

Annex 2 refers to the fundamental question types used in examinations such as Multiple-choice, Open-Ended/Essay, Closed-End, and Fill-In type questions.

The full version of the Specification can be downloaded at <a href="https://rb.gy/flrgu8">https://rb.gy/flrgu8</a>.

## **Requirements to IPC Inclusion and Diversity Manager**

New requirements for Inclusion and Diversity managers have been introduced to IPC-PL-14-04, "IPC Certification Scheme for IPC Management System Managers". The competence requirements have been defined as following:

- Understanding and application of key concepts and models.
- Overview of legislation and relevant standards.
- · The process

- · Management systems
- Impact assessment
- Be able to analyze diversity in terms of diversity composition and diversity types.
- Apply methods to reduce attitudes, organizational culture and behaviors that hamper the potential of diversity.
- Application of diversity policy and action plans in projects and the company's other operations.
- Organization and management that promotes or inhibits diversity.
- Apply methods to uncover systematic frameworks that can create an imbalance in access to opportunities.
- Prevent loss of reputation / Build reputation.
- Apply systems that facilitate and drive diversity.

The full version of the Specification can be downloaded at <a href="http://www.ipcaweb.org/ipc\_documents/IP-c-PL-14-04%20issue%204.pdf">http://www.ipcaweb.org/ipc\_documents/IP-c-PL-14-04%20issue%204.pdf</a>



## Digital transformation in the higher education sector: How to get it right



By Martin Searle\*

Universities – by and large – embody a traditional and conservative culture. They often focus on academically oriented objectives rather than commercial ones and (if publicly funded) approach the spending of public money with caution. It has created a sector that values knowledge, learning and teaching excellence but critically, makes change – particularly digital – a challenge.

This is a growing issue for higher education institutions. Students increasingly want a learning and study experience that is dynamic and engaging, and importantly, aligned to their expectations of a digital world.

With competition for student numbers at an all-time high, it is no longer enough to send a pdf of lecture notes to a course 'discussion board' and call it a digital experience. Universities need to meet the expectations of a digitally native student cohort who finds switching between the digital and physical world as easy as breathing.

As a partner to Australia's higher education sector providing academic change leaders, we are well-versed in the challenges universities face in trying to transform digitally. I recently spoke to Chris Patton, one of our interim executives with multiple HE digital transformation programmes under his belt, about how universities can overcome the tough challenges in transforming digitally:

## 1. Have a clear roadmap and end-goal

Start by identifying what you really want to achieve – whether it's growing student intake numbers, improving online learning platforms or increasing staff engagement – and work back from that. "You need to determine what success looks like to the end user when preparing your business case for senior management and the council," Chris explained.

If you have a clear roadmap of costs and a timeline that outlines when key milestones will be achieved then this helps mitigate what can often be immediate reservations around cost and spending of public funding. What's more, it avoids the project over-spending on unnecessary 'nice-to-haves' that can crop up on digital transformation projects.

A detailed plan will also reveal your internal skills gaps. For example, universities will need to negotiate with technology vendors and private investors but may need to bring in a commercial professional to negotiate with these parties and ensure the public asset isn't taken advantage of.

#### 2. Appoint a champion of change

"The larger the change, the more senior that person must be," Chris told me. "Appoint an executive project sponsor from the chancellery and a number of project directors within senior management and academia – individuals who are closer to the 'coalface'."

"Within the cross-matrix of staff required to monitor and implement the change, find as many of them to also serve as champions within and across the organisational matrix to rally for change and to be the extended, embedded team owning the vision, the challenge, the hurt and the worry." These internal change champions will filter the transformation journey throughout the organisation, helping to avoid resistance at then ground-level and mitigate the break-down of communication that can occur from top to bottom.



## Digital transformation in the higher education sector: How to get it right (continued)

#### 3. Engage the workforce

In any transformation programme, key individuals throughout the structure of the workforce should be consulted about why the change is happening and how it will be achieved. This not only helps the change team identify any flaws in the plan (as front-line employees will often have a better idea of problems and challenges) but also ensures the workforce feels as if they are contributing to the change.

This is particularly true of academic staff who are often siloed into niche research or teaching areas and are individual 'knowledge workers', making it challenging to 'on board' them in organisation-wide initiatives. "Get people on board by consulting very early on and engage them by providing channels for participation and feedback," Chris advised.

### 4. Consider partnerships and collaboration

Partnerships – whether they are cross-academic or with commercial enterprises – can lead to increased innovation, increase revenue from research and act as a competitive advantage when attracting students.

Before setting your digital transformation roadmap in stone, it's worth engaging a consultant to scope out the market for partnership opportunities that could reap rewards in the long run. For example, Chris pointed out that, "universities are about developing intellectual property in the form of knowledge content and research. However, they are not always the best at identifying a means of projecting or applying that IP." This is where partnerships and collaboration can be particularly beneficial.

## 5. Align technology with the end-goal

Universities need to be clear on what they want to achieve and then choose the technology that will enable them to achieve it, not the other way around. Change leaders can often become 'distracted' by new technologies and 'add-ons' that might offer a unique capability but only loosely help achieve the digital transformation's objectives. This is where overspending and extensions of the projected implementation timeline occur.

If your aim is to improve the learning experience, then a technology like LINC, an online facilitation service that augments the academic course delivery by making 'live' individual student interactions, is probably something worth considering. On the other hand, a technology like Keypath which monitors and extracts information to create a more engaging experience for students to travel through their study journey, may improve the student experience but isn't necessarily aligned to the goal of improving the learning experience. Have a clear goal and then choose the technology that will facilitate that goal.

Whilst digital transformation is a challenge for the higher education sector, the opportunities that result from it are significant. As Chris explained; "from the student perspective, it creates an innovative educational experience that enables supportive progression through studies. Staff can create an immersive learning experience and overall, universities can increase their market share, increase enrolments and increase their margin."

<sup>\*</sup>Martin Searle is a Director at Odgers Interim, Australia and former IPC Director.



## Utilizing Remote Assessments as a tool in the Accreditation Process

By Dr. George Anastasopoulos, IPC Secretary

#### A. Introduction

Organizations around the world have pivoted to remote work amid the COVID-19 pandemic. And to a remarkable extent, many of them have been able to successfully carry out much of their business operations. Among those organizations are accreditation bodies that have chosen to replace a significant part of their onsite assessments by remote assessments. IAS had already implemented such practices in extraordinary circumstances for more than 5 years, accumulating significant experience. Still it was only the last few months, during the COVID-19 pandemic, that IAS systematically utilized remote management system assessments as a standard practice for a considerable number of carefully selected assessments, based on the complexity of the scope of accreditation.

A remote management system assessment is when electronic means are used to collect assessment evidence by utilizing electronic communication tools. A remote assessment means assessing from a remote location. According to IAF ID 12:2015, remote assessment is defined as "...the facilitation of assessment of a Conformity Assessment Body from a location other than that being physically present".

The methods used to converse from a remote location may include one or a combination of technologies such as telephone communication, videoconferencing, e-mailing, online chat rooms etc. The new ISO 19011:2018 "Guidelines for auditing management systems" has already incorporated language to address remote management system audits.

The obvious benefit of remote assessments is more efficient use of resources. Remote assessment techniques can save assessor travel time and expenses. It will also facilitate situations where a site is not easily accessible, or when there is an urgent need for assessment, and in extraordinary situations such as medical emergencies-quarantines, pandemics, etc. On the other hand, onsite assessments need more time for preparation and implementation and in many cases, they don't provide the same flexibility as the on-site assessments.

### B. Collecting data, information

It is IAS primary concern that when performing remote management system assessments, it is ensured that whatever means are used, the credibility of the assessment results is maintained. The outcomes/deliverables of the remote assessment are expected to be the same as the ones collected by an assessment in which on-site or direct means are used to identify evidence. The same agenda assessment report and checklist documents are also completed by IAS assessors and are submitted to IAS for review.

During the remote assessment appropriate data is collected to verify conformity to the assessment criteria. The data must be enough to verify conformity, free of bias and representative of the current status of the area/activity being assessed.

During remote assessments and in order to achieve assessment efficiency by recording and analyzing information provided electronically the client is required to provide more information in advance of the assessment.



In that case the client is required to complete checklists and submit specific records, before the assessment, reporting on the controls in place or recent changes in their system or process.

Three elements of an assessment are affected when the assessment is performed remotely:

#### 1. Interviewing

This can be conducted remotely using teleconference technology. In preparation for the remote interview, the lead assessor must communicate with the interviewees in order to agree on the arrangements, including software to be utilized, dates, time etc. Time difference is always considered. When the assessor is planning to perform the interview from his home then additional arrangements are expected to avoid possible distractions.

The assessor needs to check in advance to ensure that both he and the client have access to compatible operational instrumentation, software/apps, microphones, speakers, video camera etc.

Assessors also need to submit a specially developed questionnaire for the client to answer prior to the interview. Based on the answers to the pre-interview questions, the assessor prepares the actual interview questions and they are determining the tools needed to collect assessment evidence.

Remote assessing issues to be taken under consideration by the assessment team members include the following:

- Preparation needs to ensure that interviews are punctual.
- The room to be used for the interview is suitable.
- · Become familiar with the communication equipment/software/app.
- Beware of weak or unstable internet connection. (Assessor and client should be prepared to use telephone if internet connection is not stable).
- Considerations regarding usage of cameras and video equipment that could be banned due to security issues. (Assessor must be sure beforehand that the client will agree to use video image capturing technologies).

### 2. Reviewing and verifying documents and records

This process can be performed off site if the assessor has access to any kind of electronic document control system. Records can be forwarded to the assessor, as requested, using different methods like email, skype, WebEx etc. The electronic document control system/app to be used must be agreed with the client before conducting the remote assessment.

The assessor will need to be prepared and able to select records to be verified during the interview, such as test reports, inspection reports or calibration reports, certificates, personnel files etc. In this way, off-site verification of documents and records could be as effective as on-site assessment and could save assessing time.

The potential issues to be considered and resolved before the remote assessment are the need for scanning equipment for paper copies, if any, gaining remote access to the documents used by the client, and the time it takes to be trained on accessing and navigating the document control software/app.



#### 3. Witnessing

Remote assessment practices for actual witnessing (of a process such as a test, or inspection, or audit) can be used to collect data online. Collecting data remotely is more demanding when performed remotely in real time. It is possible to use a camcorder or a digital camera to observe the process and review related evidence. Surveillance cameras could be used, but they should be avoided because their quality or functionality could be inadequate.

Each situation should be evaluated based on data access and importance of the process or assessment risk. For some remote assessments, data collection may need to be skipped or verified during a later on-site assessment.

For remote assessments, observing specific processes may not be important for certain areas. For example, setting up cameras to watch the human resources or purchasing department at work is not going to yield new information than asking the required data directly by the auditee. But watching the lab's specimen conditioning area or observing the testing area surroundings could be important because there may be physical signs effecting testing implementation. Similarly, when process implementation, ongoing process controls or process outputs need to be observed, appropriate real-time video surveillance may be needed.

#### C. Remote assessment considerations

The following questions should be answered when preparing a remote assessment:

#### Assessment scope and objectives or purpose.

Can the remote assessment be performed during an initial accreditation, a surveillance, a reassessment and/or scope expansion?

In IAS the assessors are expected to consult the respective program manager for instructions per case.

## • Nature of the processes to be assessed.

Does the process to be assessed involve oral communication or documentation, retrieval of records and document control?

IAS assessors are trained on how to understand the client processes before conducting the remote assessment (using checklists, client's Quality Manual and/or other MS documentation).

- Type of instrumentation, equipment and materials involved in the process to be assessed. Which parts of the (testing/calibration/inspection etc.) process should be demonstrated? IAS assessors are expected to define which parts of the operation, that need to be observed, are critical for verification of conformity.
- Number of client facility areas that the assessor wishes to observe.

Which areas should be covered?

IAS lead assessor is expected to define and agree with the client, in advance, the areas to observe.

#### Scheduling

What is the preferable time to schedule the remote assessment?

IAS lead assessor is expected to acknowledge and manage time zone issues and try to coordinate reasonable and mutually agreeable convening times.



#### Time management

How long does will the remote assessment take?

IAS has performed a series of pilot remote assessments in the past. It was found that additional time is required to perform a remote assessment at the same level of quality as a regular assessment. Therefore, it is recommended to schedule for additional time and be prepared well, before the on-site assessment, addressing the issues noted above.

#### Communication tools

Will the communication tools be adequate?

The IAS lead assessor is considering the availability of appropriate electronic communication equipment, as well as the capability of the IAS team assessors and client to operate electronic communication equipment and address any applicable security requirements.

A trial meeting with the client using the agreed upon media platforms could be conducted to ensure that the scheduled assessment will perform as planned.

#### Conclusion

A remote assessment, for accreditation purposes, can be considered in many cases (depending on the applicable accreditation standard and the scope of accreditation) as an acceptable alternate to on-site assessments during extraordinary circumstances such as a pandemic. Accreditation bodies around the world have implemented such assessments during the COVID-19 pandemic, carrying out, successfully, much of their accreditation operations. During that period IAS had also replaced a significant part of its onsite assessments of selected clients' management systems with remote assessments. The experience of this process indicates that its success is heavily dependent on the availability of the appropriate instrumentation and software, the careful preparation and the adequate training of involved staff. It is opinion of IAS personnel involved in this process, that the on-site assessments are, still, a superior auditing tool, for accreditation purposes.

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