2023 Annual Report

PHARMACEUTICAL INSPECTION CONVENTION

PHARMACEUTICAL INSPECTION CO-OPERATION SCHEME

Our vision is to enable one inspection per site that is fit for all regulatory authorities in the benefit of public health.

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PS/W 5/2024
11 September 2024

2023 Annual Report

The Pharmaceutical Inspection Co-operation Scheme (PIC/S) was established in 1995 as an extension to the Pharmaceutical Inspection Convention (PIC) of 1970 (see Annex 1). PIC/S is a non-binding co-operative arrangement between Regulatory Authorities in the field of Good Manufacturing Practice (GMP) of medicinal products for human or veterinary use. It is open to any Authority having a comparable GMP inspection system. On 31 December 2023, PIC/S comprised 56 Participating Authorities (PAs) from all continents. For the list of PIC/S PAs, see Annex 2.

PIC/S' vision is to enable one inspection per site that is fit for all regulatory authorities in the benefit of public health.

PIC/S' mission is to strive to improve public health by leading development and implementation of inspection frameworks for human and veterinary medicines through harmonisation of standards and offering world class training to regulatory inspectors around the globe.

A Committee of the PA representatives (the PIC/S Committee) supervises the operation of the Scheme. All decisions are taken unanimously. The Committee is assisted in its task by (i) various Sub-Committees; (ii) an Executive Bureau, which steers the Organisation in-between meetings; and (iii) a Secretariat, which assists PIC/S bodies in their duties.

This is the Annual Report of PIC/S' activities in 2023.

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ANNUAL REPORT 2023

1. Main Features of the Year

1.1 Continuity in the PIC/S Chairmanship

2023 was the second year of the chairmanship of Mr Paul Gustafson from Health Canada / Regulatory Operations and Enforcement Branch (ROEB), who was elected PIC/S' twenty-fifth Chairperson in 2022 for a 2-year term (2022-23). Under his dynamic leadership, the PIC/S Committee met twice during the year: first in Geneva (Switzerland) on 11-12 May 2023 and then in Bangkok (Thailand) on 6-7 November 2023.

Photo: Mr Paul Gustafson, PIC/S Chairperson

The first Committee meeting in Geneva was attended by 97 representatives of 46 PIC/S Participating Authorities (PAs), 2 (Pre-)Applicant Authorities and 6 Associated Partner Organisations. It was the first meeting in Geneva since 2019 and the end of the Covid-19 pandemic.

The second meeting in Bangkok was attended by 79 representatives of 38 PIC/S Participating Authorities (PAs),3 (Pre-)Applicant Authorities, 4 Associated Partner Organisations. This meeting took place back-to-back with the PIC/S Annual Seminar – see section 14.2.

1.2 Expansion of PIC/S

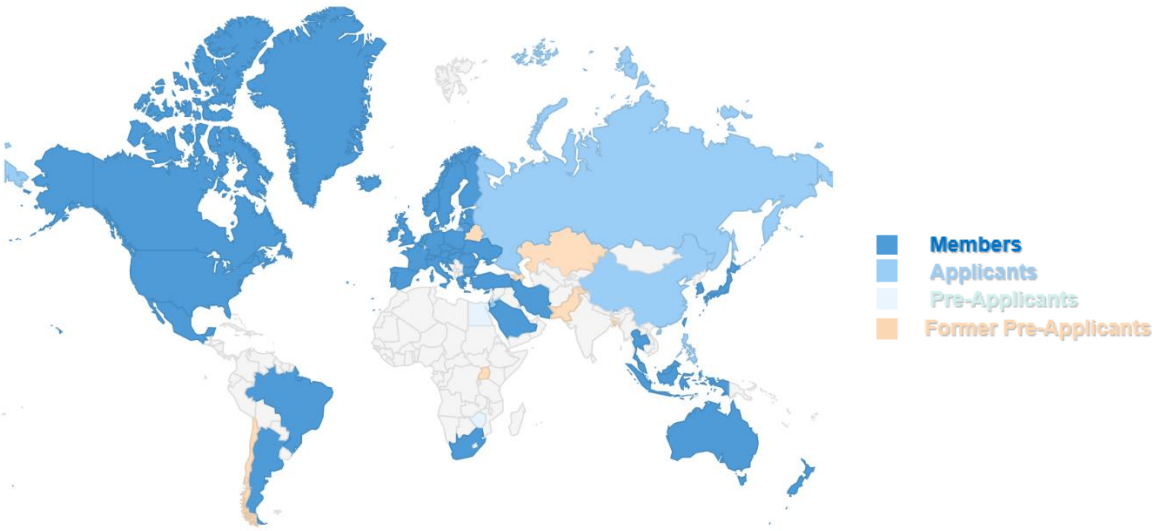
In 2023, PIC/S continued to expand:

- On 1 July 2023, Bulgaria / BDA became PIC/S 55th Participating Authority and Saudi Arabia / SFDA became PIC/S 56th Participating Authority.

- Philippines Food and Drug Administration (FDA PH) and China's National Medical Products Administration (NMPA) submitted their membership applications to PIC/S on 2 May and 22 September 2023, respectively. See Section 4.

- Pre-accession applications were also received from the Egyptian Drug Authority (EDA) on 22 September 2023 and the Medicines Control Authority of Zimbabwe (MCAZ) on 20 October 2023. See Section 5.

The continuous expansion of PIC/S (see map on the next page) shows that the organisation is viewed as a key organisation by more and more Medicines Regulatory Authorities worldwide.



1.3 A mix of virtual and in-person training events

In 2023, PIC/S organised the following in-person and virtual training events:

- A joint virtual PIC/S Expert Circle Meeting on Human Blood, Tissues, Cells and Advanced Therapy Medicines Products (ATMPs) as well as a Webinar on the new Annex 2A (on ATMPs) were virtually hosted by Austria / AGES on 14-16 March 2023. The events were attended by 253 participants from 66 Authorities (for more information, see section 19.5).

- The 2023 PIC/S annual seminar was organised by Thailand / Thai FDA in Bangkok on 8-10 November 2023. The topic was the "Soft Skills that Make a Good GMP/GDP Inspector in 2023". The seminar was opened by Dr. Narong Aphikulvanich, Secretary-General of Thai FDA, and consisted in presentations, panel discussions and workshops. Over 129 inspectors from 46 Regulatory Authorities around the world took part (for more information, see section 14.2).

- The 6th Expert Circle on GDP was virtually hosted by Hong Kong SAR, China / PPBHK on 29 November – 1 December 2023. The Expert Circle focused on GDP and Supply Chain Integrity and was attended by over 200 participants from 47 Agencies (for more information, see section 19.4).

1.4 New Annex 1 on "Sterile Manufacturing"

Following its successful revision and adoption, the new Annex 1 on sterile manufacturing of the PIC/S GMP Guide entered into force on 25 August 2023 and published on the PIC/S website. At its meetings in Geneva and Bangkok, the Committee discussed a proposal to establish a new Joint Implementation Working Group (IWG) between PIC/S, EMA and WHO, which will work on the interpretation of the revised Annex 1; support the organisation of training events such as the PIC/S 2024 Annual Seminar on Annex 1; and revise Annex 1-related PIC/S guidance documents. For more information, see section 9.1.

1.5 More training modules for the PIC/S Inspectorates' Academy (PIA)

The PIC/S Inspectorates' Academy (PIA) is a PIC/S training initiative to set up a web-based educational centre in order to provide harmonised and standardised GMP training to inspectors as well as to set up a standardised qualification process of inspectors. PIA continued to unfold in 2023. Following the establishment of a PIA Learning Management System (LMS), e-learning modules have been developed for inspectors in the following fields:

- Soft skills;
- Quality Risk Management (QRM) based on ICH Q9 (R1);
- ICH Q12 (Pharmaceutical Lifecycle Management);
- ICH Q10 (Pharmaceutical Quality System (PQS);
- ICH basic principles;
- Auditors training (based on joint EU – PIC/S Auditors Training).

These modules have been financed by ICH and Health Canada. For more details, see Section 17. In parallel with the development of training modules, new training materials are published on a continual basis on PIA.

1.6 Inspection Reliance

The PIC/S Inspection Reliance Working Group (IRWG) has conducted a survey in order to identify barriers to inspection reliance. 35 replies have been received from PAs and then assessed by the IRWG. The main barrier to inspection reliance remains the national law. Other barriers are: information availability, language, the absence of dedicated contact points, the scope of the inspection, the inspection frequency, and the format of GMP certificates. Based on the survey's outcome, the WG has proposed short to medium-term and longer-term recommendations (see section 21.3).

In the context of increased inspection reliance, the EMA IWG on GMDP and PIC/S have agreed on an inspection reliance pilot on the exchange of inspection reports between selected EU MS Competent Authorities and selected non-EU PAs of PIC/S (see section 22.1).

1.7 Draft Guidance on Remote Assessment

The PIC/S Working Group on Remote Assessment has developed a guidance document, which covers both remote assessments as well as hybrid assessments (PI 056-1: Guidance on Remote Assessments). It has also prepared an Aide Memoire (PI 057-1) on the preparation and conduct of remote / hybrid assessments as well as post-inspection activities. The two draft guidance documents were circulated to Members for comments in 2023 (see section 21.4).

1.8 Revision to the PIC/S Inspection Report Format

In 2023, a Working Group to Propose Revision to the PIC/S Inspection Report Format (PI 013-3) was established with a mandate to discuss the development of a structured data format – to be integrated into an electronic system – and made available under a new PIC/S inspection report template. For more information, see section 21.5.

1.9 New Expert Circles

Two new Expert Circles were successfully established in 2023: the Expert Circle on Clinical Practices (GCP) and the Expert Circle on Good Pharmacovigilance Practices (GVP) – see also section 19.3.

1.10 Changes in the Executive Bureau

Members of the Executive Bureau (EB) met in Geneva (Switzerland) and Bangkok (Thailand) on 11 May and 6 November 2023, respectively, to discuss financial issues, PIA operation & funding; the move of the Secretariat to new premises; and staff issues – in particular the succession plan to recruit a new PIC/S Secretary.

Following the retirement of Ms Susan Laska (US FDA), PIC/S Deputy Chairperson and Chair of the Sub-Committee on Strategic Development (SCSD), the Committee elected at its meeting in Geneva a new Deputy Chairperson, Mr Jacques Morénas (France / ANSM), and a new SCSD Chair, Ms Jennifer Burnett (Australia / TGA).

From May to December 2023, the EB consisted of:

- Mr Paul Gustafson (Canada / ROEB), PIC/S Chairperson;
- Mr Jacques Morénas (France / ANSM), PIC/S Deputy Chairperson and Chair of the Sub-Committee on Training (SCT);
- Ms Anne Hayes (Ireland / HPRA), immediate past PIC/S Chairperson;
- Dr Andreas Krassnigg (Austria / AGES), Chair of the Sub-Committee on Expert Circles (SCEC);
- Mr Ger Jan van Ringen (Netherlands / IGJ), Chair of the Sub-Committee on Budget, Risk and Audit (SCB);
- Mr Ian Jackson (UK / MHRA), Chair of the Sub-Committee on GM(D)P Harmonisation (SCH);
- Dr Kentaro Hara (Japan / PMDA), Chair of the Sub-Committee on Communication (SC COM);
- Mr Henning Willads Petersen (Denmark / DKMA), Chair of the Sub-Committee on Compliance (SCC); and
- Ms Jennifer Burnett (Australia / TGA), Chair of the Sub-Committee on Strategic Development (SCSD).

A new PIC/S Chairperson, Mr Jacques Morénas (France / ANSM), and a new Executive Bureau were elected at the Committee meeting in Bangkok for the period 2024-2025. For this period, the full Executive Bureau will consist of:

- Mr Jacques Morénas (France / ANSM), PIC/S Chairperson;

- Ms Kathleen Sinninger (US FDA), PIC/S Deputy Chairperson and Chair of the Sub-Committee on Expert Circles (SCEC);
- Mr Paul Gustafson (Canada / ROEB), immediate past PIC/S Chairperson;
- Dr Kentaro Hara (Japan / PMDA), Chair of the Sub-Committee on Communication (SC COM);
- Mr Henning Willads Petersen (Denmark / DKMA), Chair of the Sub-Committee on Compliance (SCC);
- Ms Jennifer Burnett (Australia / TGA), Chair of the Sub-Committee on Strategic Development (SCSD);
- Dr Theresa Mullin (US FDA), Chair of the Sub-Committee on Budget, Risk and Audit (SCB);
- Mr Boon Meow Hoe (Singapore / HSA), Chair of the Sub-Committee on Training (SCT); and
- Ms Ying-Hua (Ellen) Chen (Chinese Taipei / TFDA), Chair of the Sub-Committee on GM(D)P Harmonisation (SCH).

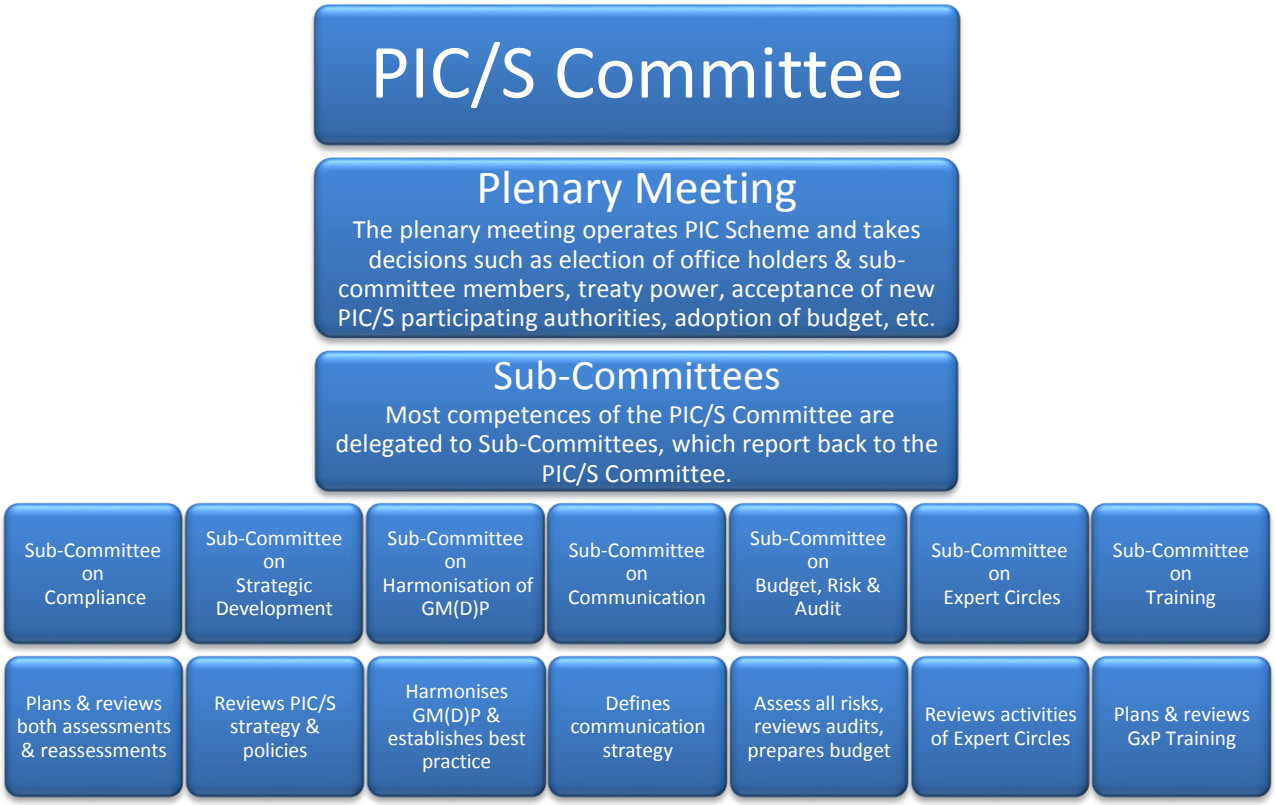
Photo of new PIC/S Executive Bureau

2. PIC/S Sub-Committee Structure

PIC/S has established seven Sub-Committees (SC) in the following fields: Training (SCT); Expert Circles (SCEC); Strategic Development (SCSD); Compliance (SCC); GM(D)P Harmonisation (SCH); Budget, Risk and Audit (SCB) and Communication (SC COM). See also organisational chart below.

The activities of the PIC/S Committee and the seven Sub-Committees are summarised in this Annual Report.

Overview of PIC/S Sub-Committee Structure



3. Compliance

One of the essential requirements to join PIC/S is that Competent Authorities must have *"the arrangements necessary to apply an inspection system comparable to that referred to in this Scheme and whose requirements and procedures could ensure the proper implementation of the Scheme and contribute to its effective operation"*, as stipulated in the PIC Scheme. Being equivalent is not only required for accession but all the time and duly verified during reassessments. This is why the compliance to the PIC Scheme is one of PIC/S' most important and critical activities.

This task has been entrusted to the Sub-Committee on Compliance (SCC). For the complete mandate, see box below.

The mandate of the SCC is to:

1. Co-ordinate, plan and monitor all assessments, pre-assessments, re-assessments, etc.
2. Co-operate with the Secretariat on the validation (i.e. completeness) of (pre)applications
3. Plan and review (i) the assessment of Applicants and Pre-Applicants; and (ii) the re-assessment of Participating Authorities (PA)
4. Review and assess communications from Inspectorates, which could trigger a reassessment
5. Pre-select Rapporteur / Team Leader and auditors who are appointed by the CO
6. Review reports and recommendations by Rapporteur / Team Leader
7. Monitor and review corrective actions by Applicants and Re-Assessed PA and ensure that they are followed up and fully implemented
8. Ensure consistency of assessments and re-assessments (and between them)
9. Ensure that Accession, Pre-Accession & Re-Assessment Guidelines (including Questionnaire and Checklist) are implemented / adhered to and make proposals for their amendment
10. Define and review the tools used for assessment and re-assessment of PA (e.g. the audit checklist) in close co-operation with interested parties such as the EMA Compliance Group and EU MRA Partners (in particular Health Canada)
11. Co-operate with EU Joint Audit Programme, the European Heads of Medicines Agency network and other similar initiatives in order to avoid duplication of work
12. Report back to the PIC/S Committee, as provided for in the Terms of References, and summarises discussions on on-going applications
13. Make proposals / recommendations

The Chair of the SCC is Henning Willads Petersen (Denmark / DKMA) while the Deputy Chair is Virginie Waysbaum (France / ANSM). The SCC held four virtual meetings in 2023: on 23 February, 30 June, 22 September and 6 December. During these meetings, it discussed membership applications, pre-accession applications, as well as contacts with non-Members, as detailed below. With the end of Covid-19 related travel restrictions, PIC/S was able to resume on-site visits. Together with the European

Medicines Agency (EMA), PIC/S contributed to a training course for new auditors, organised and virtually hosted by the European Commission (EC), on 22-23 March 2022. Over 180 participants from 40 different countries participated. The course was recorded and uploaded on PIA.

4. Membership Applications

In 2023, PIC/S continued the assessment of 6 membership applications (see below in alphabetical order). The membership application by the Russian Competent Authorities remained frozen – see section 4.6 below.

4.1 Armenia / SCDMTE

Armenia's Scientific Center of Drug and Medical Technologies Expertise (SCDMTE) applied for PIC/S membership on 8 September 2017. The application was formally completed on 13 April 2018. Due to various changes, notably in the legislation, the documentation was updated by SCDMTE. In 2021, the Rapporteur, Michel Keller (formerly Switzerland / Swissmedic), and the Co-Rapporteur, Mark Cilia (Malta / MAM), finalised their review of the updated documentation.

In 2022, a high-level report, prepared by the Rapporteur, was tabled to the SCC for discussion. In 2023, the report was discussed by the Committee at its meeting in Bangkok (Thailand), where it agreed to inform Armenia / SCDMTE that due to the existence of other competent authorities involved in the GMP Regulatory Compliance Programme, Armenia / SCDMTE should work on a new membership application jointly with other GMP-competent authorities of Armenia.

4.2 Bulgaria / BDA

The Bulgarian Drug Agency (BDA) submitted a complete membership application on 27 August 2018. As BDA went through an audit under the EU Joint Audit Programme (JAP) in 2017 and the report was shared with PIC/S, its application process was abridged and consisted in a partial assessment taking into account the EU JAP audit. The assessment was also combined with an MRA assessment by Health Canada.

The appointed Rapporteur, Jacques Morénas (France / ANSM), and the Co-Rapporteur, Ana Rita Martins (Portugal / INFARMED I.P.), reviewed the JAP report as well as updated documentation submitted by BDA with the support of Esther Ing (Health Canada) as well as Kathleen Sinninger (US FDA). Due to the Covid-19 pandemic and related travel restrictions, the on-site assessment visit was postponed and eventually took place on 20-24 February 2023.

At its meeting in Geneva on 11-12 May 2023, the Committee endorsed the report on the joint tripartite PIC/S – EMA - Canada MRA on-site assessment visit and invited BDA to join PIC/S. On 1 July 2023, Bulgaria / BDA became PIC/S' 55th Participating Authority.

4.3 China / NMPA & Provincial Authorities

Following the successful completion of its pre-accession, China's National Medical Products Administration (NMPA) – on behalf of the Chinese Competent Authorities involved in the GMP Regulatory Compliance Programme (GMPRCP) – submitted a membership application on 22 September 2023, which was completed on 3 November 2023. The Committee appointed Jacques Morénas (France / ANSM) as Rapporteur, who will lead the PIC/S Audit Team, which will manage and oversee the accession process.

4.4 Philippines / FDA PH

On 2 May 2023, Philippines Food and Drug Administration (FDA PH) submitted a membership application to PIC/S, which was completed on 20 June 2023. A call was issued to Members for the nomination of the audit team, which needs to be completed yet. FDA PH is the 5th Listed Inspectorate of ASEAN MRA on GMP Inspection.

4.5 Jordan / JFDA

Following the closure of the pre-accession process on 31 December 2020, the Jordan Food and Drug Administration (JFDA) lodged a membership application on 20 January 2021. The audit team, appointed on 10 September 2021, comprises a Rapporteur, Henning Willads Petersen (Denmark / DKMA), a Co-Rapporteur, Ferenc Lukács (Hungary / NIPN) and a Team Member, Patricia Serpa (Brazil / ANVISA).

The on-site assessment visit to JFDA has been postponed in order to await the finalisation of the accreditation process of Jordan's official medicines control laboratory.

4.6 Russian Federation / Minpromtorg, Roszdravnadzor, FSI "SID & GP" and FSBI "SCEMD"

The Competent Authorities of the Russian Federation, as listed below, jointly submitted a complete membership application to PIC/S on 22 December 2020:

- Ministry of Industry and Trade of the Russian Federation (Minpromtorg Russia);
- Federal Service for Surveillance in Healthcare (Roszdravnadzor), including Federal State Budgetary Institution "Information and Methodological Center for Expertise, Accounting and Analysis of Circulation of Medical Products" (FGBU "IMCEUAOSMP" of Roszdravnadzor);
- Federal State Institution "State Institute of Drugs and Good Practices" (FSI "SID & GP");
- Federal State Budgetary Institution "Scientific Center for Examination of Medical Devices" of the Ministry of Health of the Russian Federation (FSBI "SCEMD").

Due to security and travel restrictions to Russia in relation with the war in Ukraine, the membership application was frozen in 2022 until conditions allow for an on-site assessment visit.

4.7 Saudi Arabia / SFDA

The Saudi Food & Drug Authority (SFDA) applied for PIC/S membership on 17 February 2020. The Rapporteur, Jacques Morénas (France / ANSM), the Co-Rapporteur, Ferenc Lukács (Hungary / NIPN), and a Team Member, Gülşen Yilmaz (Turkey / TMMDA), were appointed on 26 March 2021. The Rapporteur submitted his report on the completed paper review to the SCC in November 2022.

The on-site assessment visit to Saudi Arabia / SFDA took place on 5-9 March 2023. At its meeting in Geneva on 11-12 May 2023, the Committee endorsed the related report and invited SFDA to join PIC/S. On 1 July 2023, Saudi Arabia / SFDA became PIC/S' 56th Participating Authority.

5. Pre-Accession Applications

In 2023, the following three pre-accession applications were under review (in alphabetical order):

5.1 Azerbaijan / AEC

The Analytical Expertise Center (AEC) of the Ministry of Health of Azerbaijan applied for PIC/S pre-accession on 18 August 2020. The Rapporteur, Nataliya Takhtaulova (Ukraine / SMDC), was appointed on 12 March 2021 and started with the review of the pre-accession application. Although Ms Takhtaulova left SMDC at the end of 2021, she was asked by PIC/S to continue the review at the request of PIC/S.

Several videoconferences were organised in 2021-22 and the draft high-level report by the Rapporteur was shared with the SCC in November 2022. The report was endorsed by the Committee at its meeting in Geneva on 11-12 May 2023. Azerbaijan / AEC then submitted a Corrective and Preventive Action Plan (CAPA) and the pre-accession process was closed on 31 December 2023.

5.2 Egypt / EDA

A full pre-accession application was lodged by the Egyptian Drug Authority (EDA) on 22 September 2023 and a call made for the appointment of the Rapporteur and Co-Rapporteur.

5.3 Zimbabwe / MCAZ

On 20 October 2023, the Medicines Control Authority of Zimbabwe (MCAZ) applied for PIC/S pre-accession. The pre-accession application was considered complete by the SCC on 6 December 2023.

6. Reassessment of Participating Authorities

In order to ensure that both new members and existing members of PIC/S fulfil the same requirements, high quality standards are maintained and GMP Inspectorates remain equivalent, a Joint Reassessment Programme (JRP) was introduced in 2000, which provides for the regular reassessment of existing PIC/S members. The JRP is run in parallel with the EU's Joint Audit Programme (JAP) and uses the same tools. JAP assessments and JRP reassessments are deemed equivalent. The JRP assessments and reassessments are sometimes combined with the MRA maintenance program of Health Canada, which is following a similar approach, thus contributing to saving resources for regulators and reducing the burden for the audited party.

The reassessment process usually stretches over several years starting with a decision by the Committee to reassess a PA and finishing with the endorsement of the reassessment report.

In 2023, the Committee reviewed the following reassessment processes (in alphabetical order):

6.1 Reassessment of Chinese Taipei / TFDA

The reassessment of Chinese Taipei / TFDA was agreed by the Committee by written procedure, which appointed Rosmarie Neeser (Switzerland / Swissmedic) as Rapporteur. Initially, the reassessment was planned to take jointly with the EC API Whitelisting Process. However, due to procedural reasons, the joint assessment could not be organised and the PIC/S on-site reassessment visit took place at the end of October / beginning of November 2023. The report will be discussed in 2024.

6.2 Reassessment of Indonesia / Badan POM

The reassessment of Indonesia / Badan POM was due to take place in 2020 and then put on hold due to the pandemic and related travel restrictions. The audit team was formally appointed at the Committee meeting on 6-7 November 2023. It comprises Ying-Hua (Ellen) Chen (Chinese Taipei / TFDA), Rapporteur; Patricia Serpa (Brazil / ANVISA), Co-Rapporteur; Greg Orders (Australia / TGA), team member, and Graham Carroll (UK / MHRA), team member. The on-site visit is expected to take place in 2024.

6.3 Reassessment of Japan / MHLW, PMDA and Prefectures

The audit team for the reassessment of Japan / MHLW, PMDA and Prefectures was appointed at the Committee meeting in Bangkok and comprises Ian Jackson (UK / MHRA), Rapporteur; Ger Jan van Ringen (Netherlands / IGJ), Co-Rapporteur; Nor Hafizah Mohd Potri (Malaysia / NPRA); Luis-Ignacio Pérez-Ordoyo Garcia (Spain / AEMPS); and Jeffrey Meng[1] (US FDA) as team members. The on-site visit is expected to take place in 2024.

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[1] Replacing Kathleen Sinninger (US FDA)

6.4 Reassessment of Korea (Republic of) / MFDS

The audit team for the reassessment of Korea (Republic of) / MFDS was appointed at the Committee meeting in Bangkok and comprises Roel Op den Camp (Switzerland / Swissmedic), Rapporteur; Kathleen Sinninger (US FDA), Co-Rapporteur; Hng Kim Mi (Malaysia / NPRA); Sia Chong Hock (Singapore / HSA); and Gwylim Janssens (Netherlands / IGJ) as team members. The on-site visit is expected to take place in 2024.

6.5 Reassessment of South Africa / SAHPRA

The reassessment of South Africa / SAHPRA has been postponed several times since 2019, partly at the request of SAHPRA and partly due to the pandemic. In 2020, SAHPRA and PIC/S agreed to start the reassessment process remotely. In September 2021, SAHPRA submitted all reassessment documents. Due to other engagements, the Rapporteur Jacques Morénas (France / ANSM), stepped down from his position in 2022.

A new Rapporteur, Henning Willads Petersen (Denmark / DKMA), was nominated by the Committee at its meeting in Geneva on 11-12 May 2023. The audit team was completed at the Bangkok meeting. It comprises, in addition to the Rapporteur, a Co-Rapporteur, Rachel Shimonovitz (Israel / ISCP), and two teams Members: Bahar Dal (Türkiye / TMMDA) and Virgilio Donini (Italy / DGSAF). The date of the on-site reassessment visit has not been determined yet.

6.6 Reassessment of US FDA

The PIC/S reassessment of US FDA has been combined with a MRA audit by the EC. The audit team for the PIC/S reassessment comprises Esther Ing (Canada / ROEB), Rapporteur; Henning Willads Petersen (Denmark / DKMA) and Bjørn Egil Olsen (Norway / NOMA) as team members. The joint assessment visit, initially planned in October 2023, has been rescheduled to April 2024.

6.7 Corrective Action / Update by recently acceded PAs or PAs under Reassessment

The SCC continued to monitor corrective actions by recently acceded PIC/S PAs or PIC/S PAs under reassessment.

7. Non-Members

In 2023, PIC/S continued to reach out to Non-Member Regulatory Authorities, which are interested to join PIC/S. This was notably the case of Pakistan's Drug Regulatory Authority (DRAP), which submitted a partially incomplete membership application on 10 April 2023, and Kazakhstan's National Centre for Expertise of Medicines (NCEM), which completed its pre-accession process back in 2017 and which is now considering PIC/S membership.

8. GMDP

The harmonisation of Good Manufacturing Practice (GMP) is at the very heart of PIC/S. More recently, good practices were also harmonised in other fields such as Good Distribution Practice (GDP) and Good Practices for Blood Establishments. The main reasons for adopting common standards are:

- to maintain high standards of quality in the development, manufacture and control of medicinal products;
- to promote uniformity in licensing decisions;
- to promote consistency and uniformity of inspections; and
- to facilitate the removal of barriers to trade in medicinal products.

The main instrument for harmonisation has been the PIC/S GMP Guide, which PIC/S is striving to keep equivalent in terms of GMP requirements with the EU GMP Guide. Close co-operation with the EMA is thus essential.

The mandate of the Sub-Committee on the Harmonisation of GM(D)P (SCH) is to harmonise GMP, establish best inspection practices, and harmonise the interpretation of GMP to ensure consistency in inspection / audit practices. For the complete mandate, see box below.

The mandate of the SCH is to:

1. Harmonise GM(D)P and establish best inspection practices

2. Ensure the harmonisation and the equivalence of the PIC/S GMP Guide with the EU GMP Guide

3. Encourage the uniform interpretation and application of GM(D)P

4. Co-operate and work closely together with the EC, EMA (GMDP IWG), EDQM and WHO in the field of GM(D)P harmonisation and best practices

5. Co-ordinate with the PIC/S – EMA Liaison Officer and the EMA representative the involvement of PIC/S Experts in EMA GMDP IWG on revision of the GMP Guide, Annexes, Q&A and other relevant guidance documents

6. Make proposals for the drafting of new guidance documents (Aide-Memoire, recommendations, etc.) on the basis of best inspection practices and co-ordinate their revision

7. Review activities, mandates, etc. of Working / Drafting Groups dealing with the harmonisation of GM(D)P – in particular Joint Drafting Groups working on the revision of the EU-PIC/S GMP Guide

8. Harmonise the interpretation of GMP to ensure consistency in inspection / audit practices

9. Supervise the finalisation of guidance documents arising from PIC/S Seminars

10. Identify possibilities for promoting international harmonisation in the field of GM(D)P

11. If the Chair of the SCH is not attending EMA GMDP WG meetings, appoint a Liaison Officer

12. Report back to the PIC/S Committee, as provided for in the Terms of References, and make proposals / recommendations

In 2023, the SCH was chaired by Ian Jackson (UK / MHRA), who was assisted by Jennifer Maguire (US FDA), Deputy Chair. It held four virtual meetings: on 2 February, 27 April, 27 July and 26 November 2023. During these meetings, it discussed revisions to the PIC/S GMP Guide as well as new or revised guidance documents. The drafting (or revision) of all guidance documents normally follows the same 3-step process (see box below).

Adoption Process of PIC/S guidance documents

Step 1: PIC/S internal consultation of Members on a draft guidance, which has been prepared by a dedicated PIC/S Working Group, with the aim of reaching a consensus amongst all PIC/S PAs. In a few exceptional cases, the draft guidance can also be applied on a trial basis by PAs.

Step 2: external public consultation of stakeholders, mainly industry and other associations located in the jurisdictions of PAs as well international professional or industry associations. The consultation may be limited in some cases, either in terms of stakeholders or scope. There is no public consultation for guidance documents, which are intended for inspectors only.

Step 3: adoption by PIC/S of the guidance document, followed by its publication and entry into force.

The SCH also monitored and reviewed the work carried out by a number of Working Groups, operating under the SCH, as detailed below.

9. Revision of the PIC/S and EU GMP Guides and Annexes

One of the main duties of the SCH is to harmonise GM(D)P guidance documents with the EU, in particular the PIC/S GMP Guide and Annexes. PIC/S experts are involved in EMA Drafting Groups on the revision of Chapters and Annexes of the PIC/S-EU GMP Guide in line with the PIC/S-EMA Joint Consultation Procedure.

The following Chapters and Annexes of the PIC/S-EU GMP Guide are in the process of being drafted / revised:

9.1 Annex 1 (Manufacture of sterile medicinal products)

Following its successful revision and adoption, the revised Annex 1 on sterile manufacturing of the PIC/S GMP Guide entered into force on 25 August 2023, which is the same day as the entry into operation of the revised Annex 1 of the EU GMP Guide. PIC/S Annex 1 is identical to EU Annex 1 with some minor differences. PIC/S Annex 1 is applicable with the exception of paragraph 8.123, which will enter into force on 25 August 2024 (same as EU Annex 1). PIC/S Annex 1 was published on the PIC/S website as part of the PIC/S GMP Guide (PE 009-17). The interpretation of the former Annex 1 (PI 032-2) has been withdrawn from the PIC/S website.

At its meetings in Geneva and Bangkok, the Committee discussed a proposal to establish a new Joint Implementation Working Group (IWG), following the departure of several members of the former Joint PIC/S – EMA – WHO Working Group on Revision of Annex 1, led by Abdelaali Sarakha (France / ANSM). Subject to the approval of its mandate, the new joint IWG will work on the interpretation of the revised Annex 1; support the organisation of training events such as the PIC/S 2024 Annual Seminar on Annex 1; and revise Annex 1-related PIC/S guidance documents, in particular: Recommendation on sterility testing (PI 012-3); Isolators used for aseptic processing and sterility testing (PI 014-2); and Validation of Aseptic Processing (PI 007-6).

9.2 Annexes 4 & 5 (Veterinary Medicinal Products)

The PIC/S Working Group on Veterinary Medicinal Product (VMP), chaired by Grégory Verdier (France / ANSES-ANMV), has merged with the EMA Drafting Group on the revision of Annexes 4 & 5 of the EU-PIC/S GMP Guide (manufacture of veterinary medicinal products other immunological veterinary medicinal products, and manufacture of immunological veterinary medicinal products).

Following the adoption of the concept papers, the Working Group has started with the revision process of both Annexes. A first draft skeleton of the revised Annexes has been prepared and presented to PIC/S and EMA in 2022. The related documents were endorsed by both the PICS WG on VMP and the EMA GMDP IWG. The work of the drafting groups was, however, put on hold in early 2023 due to the implementation of new EU regulation on veterinary medicine and related clarifications to avoid the possible duplication of work.

9.3 Annex 6 (Medicinal Gases)

Following a written consultation successfully completed on 6 December 2022, the SCH has agreed to support a proposal by the EMA IWG on GMDP to jointly review Annex 6 of the EU-PIC/S GMP Guide. The aim of the review is to clarify provisions of Annex 6 and correct errors such as the one identified by the European Industrial Gases Association (EIGA) in paragraph 14 of Annex 6. There is no plan to substantially revise Annex 6 and its provisions. A drafting group will be established under the IWG, to which PIC/S will be invited to participate.

9.4 Annex 11 (Computerised Systems) & Chapter 4 (Documentation)

PIC/S is represented in the EMA IWG Drafting Group on the revision of Chapter 4 (documentation) and Annex 11 (computerised systems) of the EU-PIC/S GMP Guide by experts from Australia / TGA and Canada / ROEB. A concept paper on the revision of Annex 11 was jointly issued by EMA and PIC/S for public consultation on 16 November 2022 for a 2-month period. In 2023, the Drafting Group reviewed comments received during the public consultation.

9.5 Annex 15 (Qualification and Validation)

The Committee approved by written procedure, successfully completed on 27 March 2023, the establishment of a common EMA – PIC/S Drafting Group on the extension of Annex 15 in order to cover APIs.

10. Revision of Guidance Documents

Eight Working Groups have been established under the SCH to work on new PIC/S guidance documents or to revise existing ones. The Working Groups are:

- Working Group on Annex 1
- Working Group on the revision of Annex 2
- Working Group on Data Integrity
- Working Group on Harmonisation of the Classification of Deficiencies
- Working Group on Controlling Cross-Contamination in Shared Facilities (CCCISF)
- Working Group on the Revision of PIC/S Guidance Documents for Blood
- Working Group on the revision of PI 006
- Working Group on the Aide Memoire on Tissues and Cellular Therapy Products Inspections

Only those Working Groups, which were actively working in 2023, are presented below.

10.1 Aide-Memoire on Controlling Cross-Contamination in Shared Facilities (CCCISF)

The Working Group on Controlling Cross-Contamination in Shared Facilities has prepared an Aide Memoire, which aims at harmonising and standardising terminology used in relation with the control of cross-contamination in shared facilities while addressing questions which inspectors should ask themselves during inspections – in particular in relation with risk management. The Aide-Memoire on Cross-Contamination in Shared Facilities (PI 043-1) was adopted on 17 April 2018 and entered into force on 1July 2018.

At its meeting in Toyama in November 2019, the Committee mandated a new Working Group on Controlling Cross-Contamination in Shared Facilities (CCCISF) to update the Aide-Memoire PI 043-1. Members of the Working Group were tacitly appointed by written procedure in June 2020. The Working Group, chaired by Simone Pitts (US FDA), operates along with the Expert Circle on CCCISF. It is reviewing comments received

from Members during the PIC/S consultation (Step 1) of the revised Aide-Memoire on CCCISF, which ended on 20 October 2023.

10.2 PIC/S Guidance Documents for Blood

The Working Group on the Revision of PIC/S Guidance Documents for Blood, chaired by Christian Schärer (Switzerland / Swissmedic), has been established in order to revise the PIC/S GMP Guide for Blood Establishments (PE 005-3) and the PIC/S Guide to Inspections of Source Plasma Establishment and Plasma Warehouses (PI 008-3) with a view to harmonise them with the EDQM-EC Good Practices Guidelines (GPG) for Blood Establishments.

The Working Group revised PE 005-3, which was renamed "PIC/S Good Practice Guidelines for Blood Establishments and Hospital Blood Banks" (PE 005-4), and converted PI 008-3 into an Aide-Memoire to Inspections of Blood Establishments and Plasma Warehouses (PI 008-4). Both documents were adopted on 9 April 2021 and entered into force on 1 June 2021.

The Working Group is now working on the revision and merger of "PI 019: PIC/S Site Master File for Source Plasma Establishments" and "PI 020: PIC/S Site Master File for Plasma Warehouses". The revised merge site master file will also be aligned to the PIC/S SMF template.

10.3 Working Group on the revision of PI 006

A full revision of the PIC/S Recommendations on Validation Master Plan; Installation and Operational Qualification; Non-Sterile Process Validation; and Cleaning Validation (PI 006-3) has been initiated by a Working Group, led until 2022 by Norman Gray (UK / MHRA). The aim is to delete repetition with Annex 15 and provide an updated interpretation.

Step 1 (consultation of PAs) was launched on 24 August 2020 and ended on 27 November 2020. The Committee was then consulted on whether to advance the revised recommendations to Step 2 (public consultation). At this occasion, additional comments were received and integrated.

In 2021, the Committee agreed on a focused stakeholder consultation with selected industry and professional organisations. Due to other commitments, this consultation has been put on hold in 2023. The Committee's decision on a stakeholder consultation was rescinded in 2023 and the revised recommendations should be finalised in 2024.

11. Planned Revisions

GMP guidance documents are periodically revised to comply with updated GMP requirements and technological progress. A number of guidance documents are due for revision or undergoing revision. This is notably the case of:

- PI 011-3 "Good Practices for Computerised Systems in Regulated "GXP" Environments";

- PI 023-2: “PIC/S Aide-Memoire on the Inspection of Pharmaceutical Quality Control Laboratories”;
- PI 030-1: “PIC/S Aide-Memoire on the Inspection of APIs”; and
- PE 010-4: “PIC/S Guide to Good Practices for the Preparation of Medicinal Products in Healthcare Establishments (in order to include an EMA / EU Parenteral Nutrition guidance as an appendix).

All PIC/S guidance documents are available on the PIC/S website https://www.picscheme.org/en/publications.

12. PIC/S Library

The PIC/S library is a project to establish a list of all available documents related to GM(D)P inspection drafted by Members and Partner Organisations. A first, partial compilation has been available to PIC/S inspectors on the password-protected website.

In conjunction with the PIC/S library, ECA, ISPE and PDA have continued to share GMP-related guidance documents with PIC/S, which are also made available to inspectors on the password-protected website. These guidance documents contain very useful technical information.

13. Training

Harmonising GMP requirements through the PIC/S GMP Guide is not sufficient to ensure a uniform interpretation and application of GMP. The training and qualification of GMP inspectors are essential tools to achieve this goal. This is why the training of GMP inspectors is a core activity, essential in terms of PIC/S meeting its goals. PIC/S has also opened its training programme to inspectors active in other areas such as Good Practices for Human Blood, Tissues, Cells & ATMPs, Good Distribution Practice (GDP), Good Clinical Practices (GCP) and Good Pharmacovigilance Practices (GVP).

The Sub-Committee on Training (SCT) is the oldest Sub-Committee and was initially established as a Working Group under the PIC/S Committee. Its mandate has remained by and large the same over the past decades – see box below.

The mandate of the SCT is to:

1. Identify training needs

2. Co-ordinate and monitor PIC/S training activities

3. Review the planning and organisation of annual training seminars, in particular:
   - propose and validate the seminar topic,
   - review the seminar programme,
   - assess the seminar report,
   - make recommendations for future seminars,
   - propose amendment to the Aide Memoire on the Organisation of Seminars (PI 003).

4. Monitor the Joint Visits Programme and the Coached Inspection Programme and carry out a review of reports in order to identify divergences on GMP interpretation and inspection practices

5. Ensure the rotation of training between the various regions, taking into consideration the expansion of PIC/S

6. Consider proposals for co-operation with professional organisations (e.g. ISPE, PDA) in the field of training

7. Report back to the PIC/S Committee, as provided for in the Terms of References, and make proposals / recommendations

In 2023, the SCT was chaired by Jacques Morénas (France / ANSM); the SCT Deputy Chair was Y-H (Ellen) Chen (Chinese Taipei / TFDA). The SCT met three times by videoconference: on 30 January, 11 April, and 13 September 2023. It discussed the development of the PIC/S Inspectorates' Academy (PIA) as well as the planning and organisation of PIC/S training events.

The following training events were successfully organised by PIC/S in 2023 (in chronological order):

Date	Place	Activity	Organised by
14-16 March 2023	Virtually in Vienna, Austria	Joint virtual PIC/S Expert Circle Meeting on Human Blood, Tissues, Cells and Advanced Therapy Medicines Products (ATMPs) and Webinar on new Annex 2A (on ATMPs)	Austria / AGES & PIC/S Expert Circle on HBTCA
8-10 November 2023	Bangkok, Thailand	PIC/S 2023 Seminar on "Soft Skills that Make a Good GMP/GDP Inspector in 2023"	Thai FDA
29 November – 1 December 2023	Virtually in Hong Kong SAR, China	6th Expert Circle meeting on GDP and Supply Chain Integrity.	Hong Kong SAR, China / PPBHK

14. Annual Training Seminar

PIC/S arranges an annual Training Seminar for inspectors, with each Seminar dealing with a specific topic and hosted by a different PIC/S PA. The SCT, jointly with the PIC/S Committee, reviews the organisation and outcome of annual seminars in line with the PIC/S Aide Memoire on the Organisation of Seminars.

14.1 2022 Seminar

At its meeting in Bangkok, the Committee reviewed the evaluation report by Ireland / HPRA on the 2022 Seminar on "Inspection of the Pharmaceutical Quality System (PQS) held on 5-7 October 2022 in Dublin (Ireland) in conjunction with the PIC/S 50th Anniversary.

The seminar was attended by over 190 inspectors, who reviewed best practices to PQS.

14.2 2023 Seminar

The 2023 seminar was hosted by Thailand / Thai FDA on "Soft Skills that Make a Good GMP/GDP Inspector in 2023". This seminar took place on 8-10 November 2023 in Bangkok (Thailand) and was attended by 129 inspectors from 46 agencies. All continents were represented.

The seminar was opened by Dr. Narong Aphikulvanich, Secretary-General of Thai FDA. It consisted in presentations, panel discussions and workshops. Presentations and panel discussions focused on the definition of soft skills, the use of soft skills to identify falsification and detect deception, cultural aspects, how to translate data into knowledge, and the harmonisation of inspectors training and qualification.

Four workshops were organised on the following topics:

- Listening skills,
- Questioning skills,
- Difficult behaviour, and
- Interview / investigation skills.

Bangkok Seminar Group Photo

14.3 Future Seminars

In 2023, the SCT and the Committee reviewed the preparations of the 2024 Seminar on the “New Annex 1 on Sterile Products”, which will be organised by Brazil / ANVISA and take place in Brasilia on 6-8 November 2024.

The Committee accepted an invitation by Hong Kong SAR, China / PPBHK to host the 2025 Annual Seminar.

Saudi Arabia / SFDA signalled an interest to host a future annual seminar, subject to the approval by its government and the PIC/S Committee.

15. Joint Visits Programme

The PIC/S Joint Visits Programme (JVP) – see box below – was partially restarted in 2023, following its suspension during the Covid-19 pandemic and related travel restrictions. Priority was given to Joint Visits Groups operated by the Expert Circles on GCP, GVP and Human Blood, Tissues, Cells and ATMPs, which are responsible for setting-up new Joint Visits groups in their respective fields. Subject to the availability of human resources at the Secretariat, the JVP will resume in other GxP fields.

The JVP is open to PIC/S inspectors specialised in specific fields. The participation in the JVP has been progressively extended from GMP inspectors to GDP, GCP and GVP inspectors. Joint Visits Groups for GCP/GVP are co-ordinated by the PIC/S Working Group on GCP/GVP.

In order to participate in the JVP, inspectors must be employed by PIC/S PAs. Non-Member inspectors cannot join joint visits groups with the exception of GCP/GVP inspectors from either PIC/S Applicant Authorities or PIC/S jurisdictions, where the competence for GCP/GVP is not with the PA.

PIC/S Joint Visit Groups

Another means of training inspectors of the PIC/S countries has been devised in the form of joint visits to manufacturers by inspectors of different countries. Groups of three inspectors are set up on the basis of applications sent to the PIC/S Secretariat. Each inspector is assigned within his/her group to act in turn as host for one year and guest for the other two years.

Visits are carried out in English or in a language commonly agreed by inspectors. Joint reports are drafted after each visit and sent to the Committee for evaluation.

The organisation of the joint visits has proved an excellent means for the further training of inspectors through mutual exchange of experience and a useful contribution to the maintenance of mutual confidence between competent authorities. Participants have also the possibility to discuss and compare their inspection methods and their interpretation of GMP rules.

16. PIC/S New Inspector Training Course

From 2011 to 2019, Ireland / HPRA has run, on behalf of PIC/S, a "New Inspectors Training Course" (NITC) in Dublin (Ireland). This course is essentially designed for newly recruited inspectors. It is very popular amongst PIC/S inspectors and always well attended. A "Train the Trainer" course was also organised back in 2014 in order to complement the NITC. Following a request by the SCT, Ireland / HPRA has agreed to conduct the NITC on a regular basis every 18 months with the support of trainers of other PIC/S PAs. NITCs have been put on hold due to the pandemic and related travel restrictions and should restart in 2025.

17. PIC/S Inspectorates' Academy (PIA)

The PIC/S Inspectorates' Academy (PIA) is the most prominent project under development in PIC/S. It is a global capacity building initiative in the field of training and qualification, developed by PIC/S PAs, which aims at delivering harmonised and standardised training to GMDP inspectors and establishing a uniformed qualification process of inspectors in order to ensure that high quality standards for medicinal products are met worldwide in the interest of public health (see box below). The PIA motto is "Inspection Excellence through Harmonised Training".

THE PIC/S INSPECTORATES' ACADEMY (PIA)

PIA aims at delivering:

- Training to improve inspection expertise in the manufacturing of medicines and of their distribution
- for regulators by regulators, developed on the basis of PIC/S recognised GMP training experience and expertise since 1971
- supported by 56 PIC/S Participating Authorities from all continents
- for 1,500+ inspectors worldwide
- offering currently 1,550+ GM(D)P training materials (415+ videos, 860+ presentations and 270+ guidance documents useful for inspectors (e.g. ECA, ISPE, PDA)
- 25+ PIC/S Training Events uploaded
- webinars, on-line learning tools, forum which are in development
- a library of relevant GMP references.

This web-based educational centre, placed under the PIC/S umbrella, will not only deliver general or advanced training but also serve as a platform for discussion and sharing among regulators thus contributing to global harmonisation and interpretation of GMP. It offers a single point of access to all PIC/S training activities. The initiative already benefits from a strong support from Head of Agencies, PIC/S Members (and non-Members) as well as interested Partner Organisations and Third Parties. It is an ambitious project which will span several years and be implemented in stages. It is run and monitored by the Sub-Committee on Training.

The idea to establish a professional "Inspectors' Academy" delivering a variety of courses ranging from general training to highly specialised training for inspectors was

presented for the very first time at PIC/S' 40th Anniversary in 2011. The harmonisation and calibration of training as well as the standardised qualification of GMP Inspectors are key to a consistent interpretation and uniformed application of GMP by inspectors worldwide. This is key to mutual trust, which in turn will allow for mutual reliance between Competent Authorities (in line with the PIC/S Guidance on GMP Inspection Reliance). This will allow not only to maximize inspectional resources but also to strengthen the protection of public health by ensuring effective, high-quality and comparable GMP inspections for the quality of regulated pharmaceutical products.

PIA will also help pool together training resources for PIC/S PAs and thus contribute to cost savings for Agencies while strengthening co-operation, harmonisation and resource sharing in the field of training.

PIA was officially established at the PIC/S Committee meeting in Paris (France) on 20-21 October 2014. It will be developed in 3 stages: Stage 1 of the Academy, which has been successfully completed, consisted in the launching of the PIA website and the incorporation of all existing PIC/S training. Stages 2 & 3 are in progress and will encompass a fully integrated learning management system extending the current training resources available, on the basis of a harmonised training curriculum. The latter provides for 3 levels: basic, specialised and ongoing. Delivery and monitoring are to be optimised and the training curriculum steps to result in recognised certification.

Over the past few years, thanks to a generous grant by Chinese Taipei / TFDA, a Learning Management System (LMS) has been successfully developed to include e-learning modules. The LMS is the backbone for the management of PIA's training tools and content.

In parallel, a harmonised PIA Training Programme has been developed, including a training curricula and cycle (see chart below) as well as a qualification process. The PIA Training Programme aims to define harmonised minimum requirements for the training of inspectors in specific fields (e.g. API, sterile, biologicals, etc.). Training is based on high quality training materials focusing on GMP requirements and inspection skills, to be delivered through various formats. The formats are provided either through training tools offered by PIA or by the PIC/S PAs or both. While PIC/S establishes a PIA Training Programme, PAs remain responsible for the training and is exclusively responsible to determine the training for each inspector.

Outline of PIA Training Cycle

Since 2022, the PIC/S Secretariat, assisted by relevant Working Groups or Expert Circles and with the generous financial support of Health Canada and ICH, has developed the following training modules:

- Training modules on Quality Risk Management (QRM) based on ICH Q9 (R1), has been prepared with the support of the Expert Circle on QRM with the financial support of ICH. These modules were revised in 2023 to integrate changes with the revision of Q9.
- Basic and advanced training modules on soft skills have been financed by Health Canada and prepared with the support of two ad hoc groups (Support Group on Soft Skills and Working Group on PIC/S 2023 Seminar Programme).
- A training module on auditors training based on the joint EU – PIC/S Auditors Training, which took place on 22-23 March 2022 and recorded by EMA, has been published with the financial support of Health Canada.
- A training module on ICH Q12 (Pharmaceutical Lifecycle Management) for inspectors has been prepared with the support of the PIC/S Working Group on Q12 Training Materials and financed by ICH. The training module was updated in 2023.
- Training modules on ICH Q10 (Pharmaceutical Quality System (PQS)) were developed in 2023 by the ad-hoc Working Group on PQS with the financial support of ICH.
- A training module on ICH basic principles was created with the financial support of ICH.

Other deliverables linked to ICH earmarked funding relate to ICH Q7 and Q13 for which preparatory work was initiated in 2023. In addition, a dedicated new PIA – ICH portal was developed in 2023 to provide access to ICH-funded-training materials to ICH Members and Observers.

A dedicated PIA webpage with a series of recorded presentations by the Chair of the Joint Working Group on Annex 1 on differences between the old and the new versions of Annex 1 has been made available to PIC/S inspectors and, exceptionally, to inspectors

from non-PIC/S Authorities from EU and WHO Member States, as part of a first stage of a common PIC/S-EC-EMA-WHO training plan for inspectors on revised Annex 1.

In parallel with the development of training modules, new training materials are published on a continual basis on PIA. As of 31 December 2023, over 1,550 PIC/S training materials and videos were available on PIA of which a large number have been rated according to their relevance and level (e.g. for new inspectors) with respect to a future training curriculum.

The increase of human and financial resources to ensure the successful development of PIA remains a constant priority for PIC/S. A project plan on PIA has been developed to ensure the adequate and timely planning of the project alongside a 5-year Budget Plan (2020-2024). Calls for voluntary contributions from PAs are made on an annual basis but remain insufficient to cover the developments costs of PIA. Other sources of financing are actively explored, in particular from other organisations such as the Bill & Melinda Gates Foundation (BMGF) (see section 22.2) and ICH (see next section).

18. Co-operation in the field of training

A Memorandum of Understanding (MoU) with ICH (see also section 22.2) was signed in October 2023. The MoU lays down the basis for future co-operation in the area of training on ICH guidelines. The MoU will enable PIC/S and ICH to work more efficiently.

The 2023 edition of the annual GMP Training Course, organised by Japan / PMDA and the Asia Training Center (ATC) with the support of PIC/S, was postponed to 2024.

The 2023 edition of the Korea-ASEAN Inspector Training, organised by Korea (Republic of) / MFDS with the support of PIC/S, took place in-person on 18-19 September in Seoul and attended by 44 GMP inspectors from 12 countries. The event focused on the contamination control strategy and consisted in a mix of presentations, case studies and onsite manufacturing tours (pharmaceuticals & biologicals).

19. Expert Circles

PIC/S Expert Circles have been set up by the PIC/S Committee to facilitate the discussions and the exchange of information among inspectors specialised in a specific area of GMP such as blood, computerised systems, active pharmaceutical ingredients, quality risk management, etc. Expert Circles meet regularly to develop draft guidance, recommendations, etc. and offer training in their respective fields of specialisation.

The main task of the Sub-Committee on Expert Circles (SCEC) is to review the composition and functioning as well as the various mandates of the Expert Circles. The mandate of the SCEC is detailed in the box below.

The mandate of the SCEC is to:

1. Identify the need to create / terminate Expert Circles

2. Co-ordinate and monitor activities and meetings of Expert Circles

3. Ensure that activities of Expert Circles are in line with their respective mandates, as approved by the PIC/S Committee, as well as with the Guidelines for PIC/S Expert Circles (PI 022)

4. Review the planning and organisation of Expert Circles meetings, in particular:
   - validate the yearly objectives as well as meetings' objectives
   - review the programme
   - assess the meeting report
   - make recommendations for future meetings
   - ensure that Guidelines on Expert Circles are implemented / adhered to
   - propose amendment to the Guidelines on Expert Circles

5. Report back to the PIC/S Committee, as provided for in the Terms of References and make proposals / recommendations

In 2023, the SCEC was chaired by Andreas Krassnigg (Austria / AGES) with the assistance of Marisa Delbò (Italy / AIFA), Deputy Chair. The SCEC met twice during the year: on 29 March and 12 September 2023. Seven Expert Circles and two Working Groups operate under the SCEC – their activities (in the alphabetical order of the Expert Circle) are described below.

19.1 Expert Circle on API

The Expert Circle on Active Pharmaceutical Ingredients (APIs) was established by PIC/S in 2005. It meets on average every two years. The Expert Circle last met in Madrid on 7-9 October 2019.

At its meeting in Geneva, the Committee endorsed a SCEC proposal to disband the Co-ordinating Committee (CC) while allowing current CC Members, who wish to continue, to reapply to join the new CC. A call will be issued by the Secretariat.

19.2 Expert Circle on Controlling Cross Contamination in Shared Facilities

The Expert Circle on Controlling Cross Contamination in Shared Facilities (CCCISF) was established in 2017. First led by Graeme McKilligan (UK / MHRA), it is chaired by Vimal Sachdeva (WHO) since 2020.

The 1st Expert Circle meeting was hosted by Chinese Taipei / TFDA in Taipei on 19-21 June 2019. The 2nd Expert Circle meeting was virtually hosted by WHO on 14-15 December 2021 and the related report was reviewed by the SCEC and the Committee in 2022. The Expert Circle is chaired by Vimal Sachdeva (WHO) and the Expert Circle's mandate is currently under revision.

19.3 Expert Circles on GCP & GVP

The Expert Circle on Clinical Practices (GCP) and the Expert Circle on Good Pharmacovigilance Practices (GVP) were established in 2023 but their history stems back to 2014, when a Working Group on Clinical Practices (GCP) and Good Pharmacovigilance Practices (GVP) was established. The WG has been very active in the field of training through the PIC/S Joint Visits Programme (JVP) and prepared JVP specific guidelines for conducting GCP and GVP Inspections.

In 2021, the Committee endorsed a proposal by the Working Group to establish two distinct Expert Circles: one on GCP and one on GVP. A call was issued in 2022 for volunteers. At its meeting in Bangkok in November 2023, the Committee adopted the mandate of the new Expert Circles on GCP and GVP.

The Expert Circle on GCP is led by Jason Wakelin-Smith (UK / MHRA) as Acting Chair. The Expert Circle has a Working Group on ICH M10 (multidisciplinary) as well as a Working Group for computerised systems.

The Expert Circle on GVP is chaired by Sherry Bous (US FDA). It has a WG on artificial intelligence and machine learning.

19.4 Expert Circle on GDP

The Expert Circle on Good Distribution Practice (GDP) was established in 2013 and is chaired by Karen Ford (South Africa / SAHPRA). The Expert Circle organised five meetings between 2013 and 2018. It was supposed to meet Kyiv (Ukraine) in May 2020 but the meeting was cancelled due to the pandemic.

On 29 November – 1 December 2023, Hong Kong SAR, China / PPBHK virtually hosted the 6th Expert Circle meeting. This meeting focused on GDP and Supply Chain Integrity. Two sessions were organised to accommodate the various time-zones. The programme (see extract below) was based on a mix of presentations and workshops. Over 200 participants from 47 Agencies registered to this event.

PIC/S

衛生署
Department of Health

6th PIC/S Expert Circle Virtual Meeting on Good Distribution Practice
Hong Kong, China

Good Distribution Practice and Supply Chain Integrity: PIC/S Training 2023
Meeting Agenda

Day 1 Wednesday 29 November 2023, 08:00 to 12:00 (UTC) [Live]/ Thursday 30 November 2023, 00:00 to 04:00 (UTC) [Video-recorded materials]			
29 Nov 2023 [Live]	**30 Nov 2023 [Duplicated]**	**Topic**	**Speaker**
16:00 – 16:05 (HKT) [08:00 – 08:05 (UTC)]	08:00 – 08:05 (HKT) [00:00 – 00:05 (UTC)]	Welcome remarks by Chairman of the Pharmacy and Poisons Board of Hong Kong	Dr Ronald Lam
16:05 – 16:10 (HKT) [08:05 – 08:10 (UTC)]	08:05 – 08:10 (HKT) [00:05 – 00:10 (UTC)]	Welcome address by Chairperson of the PIC/S EC on GDP	Karen Ford

Two guidance documents, prepared by the Co-ordinating Committee of the Expert Circle, entered into force on 1 February 2023. These are (i) a PIC/S Aide-Memoire on the Inspection of Good Distribution Practice for Medicinal Products in the Supply Chain (PI 044-1); and (ii) Questions & Answers regarding the PIC/S GDP Guide (PS/INF 22/2017).

19.5 Expert Circle on Human Blood, Tissues, Cells & ATMPS

The Expert Circle on Human Blood, Tissues and Cells is the oldest Expert Circle in PIC/S. In 2015, the Expert Circle expanded the scope of its mandate to include Advanced Therapies Medicinal Products (ATMPs). The Expert Circle is led by Marisa Delbò (formerly Italy / AIFA).

A joint virtual PIC/S Expert Circle Meeting on Human Blood, Tissues, Cells and Advanced Therapy Medicines Products (ATMPs) and a Webinar on the new Annex 2A (on ATMPs) were virtually hosted by Austria / AGES on 14-16 March 2023 (see extract of programme below). The events were attended by 253 participants from 66 Authorities. Different sessions were organised covering the fields of blood, tissues and cells, and ATMPs. Training was provided on the new Annex 2A of the PIC/S GMP Guide on ATMPs. There was a session with industry and academia.

PHARMACEUTICAL·INSPECTION·CONVENTION··
PHARMACEUTICAL·INSPECTION·CO-OPERATION·SCHEME¶

PS/INF·103/2022¶
·12·December·2022¶

¶

**Joint·Virtual·26th·PIC/S·EXPERT·CIRCLE·MEETING·ON··
HUMAN·BLOOD,·TISSUES,·CELLS·AND·ADVANCED·THERAPY·MEDICINAL·
PRODUCTS·(ATMPs)·/·TRAINING·ON·ANNEX·2A¶**

13-16·March·2023·¶

¶

**"Blood,·Tissues,·Cells·and·ATMPs:·updates·and·sharing·experience·on·
inspections.·Training·on·Annex·2A"¶**

The Expert Circle has also developed three PIA draft training curricula for inspectors:

- Draft training curriculum for inspector for Advanced Therapies Medicinal Products (ATMPs);
- Draft training curriculum for inspector for Blood Establishments, hospital blood banks and plasma warehouses (BE);
- Draft training curriculum for inspector for Tissues & Cells Establishments (T&CE).

The Expert Circle Chair participated, on behalf of PIC/S, in the 2023 meeting of the International Society for Cell and Gene Therapy (ISCT), held in Paris (France) on 31 May 2023. She has also prepared a draft concept note on the establishment of a 'Working Group to prepare an Aide Memoire for the inspection of ATMPs", which is in the adoption process.

The next in-person meeting will be hosted by Malaysia / NPRA in Kuala Lumpur on 20-22 August 2024.

19.6 Expert Circle on QRM

The Expert Circle on Quality Risk Management (QRM) was initially established in 2007 and has since organised a series of Advanced QRM Training Courses in line with its mandate, which was revised in 2017 and 2021.

The Expert Circle on QRM is chaired by Dr Kevin O'Donnell (Ireland / HPRA). It is planning to run a meeting on the revision of Q9(R1) in 2024 and did not hold any meeting in 2023, due to the fact that it organised two events in 2022:

- A QRM training webinar was hosted virtually on 2 March 2022 by UK / MHRA.
- A hybrid Expert Meeting and Advanced Training on QRM was organised by Brazil / ANVISA in São Paulo (Brazil) on 29 November – 2 December 2022.

For details on these two events, see 2022 AR.

A dedicated Working Group, chaired by Rick Friedman (US FDA), is working on the revision of the PIC/S Aide Memoire on Assessment of Quality Risk Management Implementation (PI 038).

19.7 Working Group on Medicinal Products for Veterinary Use (VMP)

In 2016, the Committee established an ad hoc group in order to assess the need to have a specific platform in PIC/S on Veterinary Medicinal Products (VMP). It was succeeded by a Working Group on VMP, which was formally established in April 2019. It is chaired by Grégory Verdier (France / ANSES-ANMV) with Jason Todd (UK / VMD) acting as Deputy Chairman.

The Working Group prepared two concept papers on the revision of veterinary specific GMP guidelines (Annex 4 on Manufacture of Veterinary Medicinal Products other than Immunological Veterinary Medicinal Products and Annex 5 on Manufacture of Immunological Veterinary Medicinal Products) through a joint EMA-PICS drafting group. For the revision process of Annexes 4 & 5, see section 9.2.

19.8 Working Group on Computerised Systems

The Working Group on Computerised Systems, chaired by Ib Alstrup (Denmark / DKMA), has been mandated to revise the PIC/S Good Practices for Computerised Systems (PI 011), which is partially outdated. The Working Group has been put on hold following the launching of the revision of Annex 11 (Computerised Systems) of the EU-PIC/S GMP Guide, which will impact on the PIC/S guidance. The revision process started in 2022 and the related EMA Drafting Group, in which PIC/S is represented, is in the process of reviewing comments received during the public consultation of the joint EMA-PIC/S concept paper.

19.8 New Working Groups

At its meeting in Bangkok, the Committee supported in principle a proposal by Netherlands / IGJ to establish a Working Group on Radiopharmaceuticals. It also discussed the possible establishment of a Working Group or Expert Circle on Artificial Intelligence but postponed its establishment, subject to further discussions on the exact scope to be covered by this new Working Group or Expert Circle.

20. Strategic Development & Co-operation

The Sub-Committee on Strategic Development was set up in 2009 in order to discuss, the outcome of a survey on how to improve the operation of PIC/S. It proposed to establish a sub-committee structure under the PIC/S Committee, which was implemented in 2014.

The mandate of the SCSD has since then been widened to define PIC/S' strategies and future policies and to make proposals on how to improve the structure and the operation of PIC/S as well as co-operation with PIC/S Associated Partner Organisations. For the full mandate, see box below.

The mandate of the SCSD is to:

1. Define and review PIC/S strategy and (future) policy
2. Make proposals / recommendations on how to improve the structure and the operation of PIC/S
3. Ensure the implementation of strategical policies (e.g. roadmaps such as the Blueprint) as well as strategical decisions
4. Discuss new projects for PIC/S and make proposals on the possible "expansion" of PIC/S' mandate to other areas
5. Address implementation of new projects and resource management – in particular funding (e.g. external) – in consultation with PIC/S PA and Heads of Agencies
6. Review co-operation with Partners and make proposals / recommendations for the possible improvement of the co-operation
7. Promote the participation of authorities interested in the PIC Scheme
8. Report back to the PIC/S Committee, as provided for in the Terms of References and make proposals / recommendations

The SCSD has taken a number of initiatives aiming at strengthening international regulatory co-operation in the field of GMP. The objective of these initiatives is to improve the sharing of GMP information between PIC/S PAs as well as to facilitate mutual reliance on a voluntary basis.

The SCSD is chaired by Jennifer Burnett (Australia / TGA), who was elected at the Committee meeting in Geneva on 11-12 May 2023. Ms Burnett has been leading the SCSD in an acting capacity since 1 January 2023 following the retirement of PIC/S Deputy Chair and SCSD Chair, Susan Laska (US FDA) at the end of 2022.

The SCSD met virtually on 5 April 2023 and 12 October 2023.

The activities of the Working Groups operating under the SCSD are listed below with the exception of the Working Group on Informants and the voluntary Pilot on Compliance Management, which were both terminated by the Committee on 30 September 2023 due to a lack of interest.

21. Working Groups operating under the SCSD

21.1 Unique Facility Identifiers (UFI)

The PIC/S Working Group on the Unique Facility Identifiers (UFI) for drug establishments was established in 2016 following a survey by US FDA showing that PIC/S PAs use different systems to identify the location of a drug manufacturing site. The purpose of the Working Group is to create a harmonised and consistent system in order to localise a manufacturing site. The Working Group consists of representatives of Canada / ROEB, EDQM, EMA, Spain / AEMPS, UK / MHRA and US FDA. It is chaired by Jennifer Maguire (US FDA),

In 2022, the Committee endorsed a proposal by the WG to collect, verify, and use WGS84 geographic coordinates (geocoordinates) in a specific format, along with name and address of a facility, as well as the existing national identifier, to aide in the identification of global pharmaceutical manufacturing facilities, for both national and third country inspections. The proposal was then revised in order to include geocode precision fields. In order to implement the proposal, other steps will be taken, amongst others, a survey to ensure that the geocodes can be included in the databases of all inspectorates; a revision of the PIC/S inspection report format as well as the Site Master File (SMF). Through the SMF, companies will provide geocodes, which will then be verified and validated by inspectors during on-site inspections.

In 2023, the WG on UFI developed a survey on the implementation of the UFI proposal and related challenges. The survey was sent to PAs with a deadline to complete. 36 PAs have completed the survey, in full or in part. The outcome of the survey will be shared with the Committee in 2024.

The Chair of the Working Group on UFI also serves on the ICMRA P[Q] KMS Unique Identifier Follow-up Working Group, where PIC/S supports the UFI implementation under P[Q] KMS – see Section 21.5.

21.2 Inspector Safety

The Inspector (Travel) Safety Working Group (ISWG) was established following the 2016 Seminar in Manchester. Its mandate was approved at the Committee meeting in Chicago in September 2018. The aim of the ISWG is to consider means to mitigate health, security or site-related risks affecting inspectors.

The ISWG, which was first led by Tracy Moore (formerly UK / MHRA) until November 2021, is chaired since early 2023 by Angela Glenn (US FDA). The ISWG met virtually on 20 June 2023 and discussed which activities to relaunch and prioritise. The WG, whose composition was renewed in 2023, counts 15 Members from 13 PAs and Partner Organisations.

21.3 Inspection Reliance

Although the Working Group on PIC/S Inspection Reliance was only established in 2020, inspection reliance has a long history in PIC/S – see box below.

In the context of increased foreign inspections, PIC/S adopted in 2009 a procedure for team inspections (PI 031-1). In 2012, it established an annual list of planned foreign inspections to be carried out by PIC/S PAs and Partner Organisations with the aim of reducing duplicate foreign inspections. In 2015, PIC/S adopted a "Procedure to inform Foreign Regulatory Agencies of Foreign Inspections to be conducted in their Jurisdiction" (PI 039-1). The same year, a survey was conducted on how PAs addressed the issue of "same scope inspections", i.e. GMP inspections, which have the same scope and which are thus redundant. The outcome of the survey identified similarities and differences between PAs in accepting (or refusing) information on GMP inspections from other PAs.

In 2017, the Committee accepted an offer from the International Coalition of Medicines Regulatory Authorities (ICMRA) to adapt an ICMRA draft Guidance on Inspection Reliance for PIC/S purpose. The aim of this guidance is to maximise inspection resources by relying on other trusted Regulatory Authorities for the GMP compliance of overseas facilities. The PIC/S network provides a strong foundation for this process by ensuring the capability of PAs via the PIC/S accession process and Joint Reassessment Programme. The PIC/S Guidance on Inspection Reliance (PI 048-1) was adopted by the Committee in April 2018 with an entry into force on 1 June 2018.

In order to measure the efforts made by PIC/S PAs to rely on each other in line with the inspection reliance initiative, PIC/S PAs were invited in 2019 and 2020 to collect statistics on the number of desk-top assessments made by PAs. These assessments are made on the basis of an already existing GMP certificate or GMP inspection report and allow agencies to waive a foreign inspection. The survey showed that over 7,000 inspections are waved annually by PIC/S PAs. It also showed that some PAs do not rely on PIC/S inspection reports from other PAs.

In order to identify barriers that prevent PAs to rely on already existing inspection reports, the Committee, based on a proposal by the SCSD, established an Inspection Reliance Working Group (IRWG) on 6 October 2020. The Working Group, led by Stephen Farrell (Australia / TGA), comprises 7 Agencies, namely Australia / TGA, Canada / ROEB, EMA, Switzerland / Swissmedic, UK / MHRA, UK / VMD and US FDA.

The IRWG has prepared a survey to identify barriers to inspection reliance. The survey was circulated to PAs in 2022. The deadline to complete the survey has been extended to early 2023. The IRWG assessed a total of 35 replies and presented its outcome at the Committee meeting in Bangkok. The main barrier to inspection reliance is the national law. Other barriers are: information availability, language, the absence of dedicated contact points, the scope of the inspection, the inspection frequency, and the format of GMP certificates. All barriers can be overcome.

Based on the survey's outcome, the WG has proposed short to medium-term and longer-term recommendations (see below).

PIC/S IRWG Recommendations

Short to Medium Term

- ✓ Update PI-048 GMP Inspection Reliance Guidance incorporating defined Inspection Reliance definitions and feedback received from the IR Survey
- ✓ Develop an Aide Memoire to assist regulators performing inspections intended to be used for inspection reliance
- ✓ Development of a centralised live contact list for PA Inspection Reliance contacts
- ✓ Establish a small pilot to explore PIC/S Single Inspection Program (SIP)
- ✓ Develop case-study/arrange presentation on confidence building practices & how active inspection reliance works
- ✓ Establish specific operational PIC/S forums on Inspection planning to promote greater inspection reliance

Long-Term

- ✓ Establishment and ongoing maintenance of a centralised database containing GMP Certificates, Inspection Reports and Inspection Plans
- ✓ Develop and implement processes to incorporate inspection reliance indicators into the PIC/S Accession and re-assessment programs
- ✓ Review findings from PIC/S Single Inspection Program (SIP) Pilot

The Committee has endorsed the IRWG's short to medium-term recommendations. Long-term recommendations should be reviewed and re-discussed, once short to medium-term recommendations have been implemented, taking the following into consideration:

- PAs should be given sufficient time to address legal barriers and data security-related constraints.
- Potential duplications with other programmes or initiatives should be avoided (e.g. EudraGMP database, inspection reliance project with EMA (see section 22.2), etc.).
- Expectations from industry on reducing duplicate inspections should be addressed.
- Other avenues for sharing GMDP information such asking companies to share inspection reports with other inspectorates, as foreseen under the ICMRA-PIC/S Inspection Reliance, should be promoted.

21.4 Remote Assessment

Following the PIC/S Seminar on "Distant Assessment of GMP Compliance", organised by Finland / FIMEA on 8-10 December 2020, the PIC/S Committee agreed to establish a Working Group on Remote Assessment. The Working Group was formally established on 1 October 2021. It is chaired by Jenny Hantzinikolas (Australia / TGA) and comprises 25 WG Members from 16 PAs and 2 Partner Organisations (EDQM and EMA).

On the basis of its mandate, which was adopted by the PIC/S Committee on 4 February 2022, the Working Group has developed a guidance document, which covers both remote assessments as well as hybrid assessments (PI 056-1: Guidance on Remote Assessments). It includes definitions as well as specific guidance, including on risk

management. The WG is also working on an Aide Memoire (PI 057-1) covering the preparation and conduct of remote / hybrid assessments as well as post-inspection activities.

In 2023, the two draft guidance documents were circulated to Members for comments (step 1) on 14 August 2023 with a deadline until 30 September 2023. Related comments are in the process of being reviewed by the Working Group.

21.5 Revision to the PIC/S Inspection Report Format

In order to align the PIC/S SOP on Inspection Report Format (PI 013-3) with the PIC/S Guidance on the Classification of Deficiencies (PI 040-1), in particular with regard to the definitions of critical, major, and other deficiencies, the SCH started a revision of PI 013-3. A first draft was advanced to Step 1 on 4 April 2019 with a deadline for comments until 31 May 2019. In 2020, the revision of the SOP was put on hold due to other priorities.

In 2021, the SCH reviewed and integrated comments received during Step 1. A revised draft SOP (PI 013-4, Draft 2) was advanced to Step 3 (adoption) on 8 December 2021.

In 2022, the revision was put on hold due to parallel discussions by the Committee on the 'Joint Reflection Paper on Pharmaceutical [Quality] Knowledge Management System' (P[Q] KMS) – see box below – and the need to fully harmonise the PIC/S Inspection Report format with the inspection report format used in the EU (as per Compilation of Community Procedures).

In 2023, a Working Group to Propose Revision to the PIC/S Inspection Report Format (PI 013-3) was established on 13 March and its mandate approved on 4 August. It comprises 17 Members from 14 PAs and Partner Organisations, in particular EMA and WHO. It met three times in 2023: the first two meetings were led by the PIC/S Chairperson, Paul Gustafson (Canada / ROEB); at its third meeting on 6 December 2023, the Working Group elected a new Chair in the person of Catherine Neary (Ireland / HPRA).

The Working Group is discussing the development of a structured data format – to be integrated into an electronic system – and made available under a new PIC/S inspection report template. This work is also done in relation with PIC/S' involvement in the ICMRA-led project on the Pharmaceutical [Quality] Knowledge Management System' (P[Q]KMS), which was agreed by the Committee at its meeting in Dublin in November 2022 – see box below.

PIC/S has co-operated on the drafting of a 'Joint Reflection Paper on Pharmaceutical [Quality] Knowledge Management System' (P[Q] KMS), which was published by the International Coalition of Medicines Regulatory Authorities (ICMRA) on 19 August 2022 on its website. The aim of the P[Q]KMS project is to provide greater regulatory reliance by allowing the use of common documents (e.g. marketing authorisation, inspection report) through a secure remote cloud environment. PIC/S will be involved in the project, which stretches over a period of 5 to 10 years, and share its experience regarding the inspection report format, the Unique Facility Identifier (UFI), PQS assessment, risk assessment of companies, inspection reliance and training through PIA. The related PIC/S Working Groups (e.g. WGs on UFI, on Q12 Training Materials, on Remote Assessment, on Reliance, etc.) will be actively involved.

22. Co-operation with Associated Partners and other Organisations

22.1 Associated Partners (EC, EDQM, EMA, OIE, UNICEF and WHO)

In 2023, PIC/S continued to co-operate closely with Associated Partner Organisations, namely:

- European Commission (EC) – Directorate General Health and Food Safety (DG SANTE),
- European Directorate for the Quality of Medicines & HealthCare (EDQM),
- European Medicines Agency (EMA),
- United Nations International Children's Emergency Fund (UNICEF),
- World Health Organization (WHO), and
- World Organisation for Animal Health (WOAH).

Co-operation with Associated Partner Organisations normally covers fields such as the harmonisation of GMP guides and guidance documents, the exchange of audit reports on the (re)assessment of Competent Authorities, the sharing of information on foreign GMP inspections, and the participation in training events and expert discussions.

PIC/S was represented by the former PIC/S Chairperson, Helena Baião, Portugal / INFARMED, at the 57th meeting of the WHO Expert Committee on Specifications for Pharmaceutical Preparations in Geneva, Switzerland, on 9-12 October 2023.

The PIC/S-EMA Liaison Officer, Christina Meissner (Austria / AGES), represented PIC/S at all EMA IWG Meetings on GMDP in Amsterdam, Netherlands.

The EMA IWG on GMDP and PIC/S also agreed on an inspection reliance pilot on the exchange of inspection reports between selected EU MS Competent Authorities and selected non-EU PAs of PIC/S through the intermediary of the PIC/S Secretariat and EMA. The pilot with PIC/S, which started in 2023, will run until the end of 2024.

For the joint EC – EMA – PIC/S training course on new auditors, hosted by the EC on 22-23 March 2023, see Section 3.

22.2 Other organisations

AMA

The Sub-Committee on Strategic Development (SCSD) and the PIC/S Committee have discussed future co-operation with the African Medicines Authority (AMA), once it has been officially established. For the time being, four PIC/S Participating Authorities are supporting the establishment of AMA. These are: Belgium / AFMPS, France / ANSM, Sweden / MPA and US FDA.

ASEAN

In 2023, Malaysia / NPRA acted as PIC/S - ASEAN Liaison Authority and reported on GMP-related activities of ASEAN, in particular the Pharmaceutical Product Working Group (PPWG), with whom PIC/S signed an exchange of letters back in 2019 on GMP-

related matters, and the Traditional Medicines Health Supplements Product Working Group (TMHS PWG).

At its meeting in Bangkok, the Committee appointed Indonesia / Badan POM as new PIC/S - ASEAN Liaison Authority, for the period 2024-25.

BMGF

Several meetings were organised in 2023 with the Bill & Melinda Gates Foundation (BMGF) in connection with possible funding in the area of PIC/S pre-accession and sharing of inspection-related information and with a particular focus on selected African authorities and the African Medicines Agency (AMA). Further to these meetings, PIC/S submitted a grant proposal for funding for the period 2024-27.

DIA

The PIC/S Chairperson participated both as speaker (on "Global CMC/GMP Harmonisation") and moderator ("How Covid-19 has Changed the World of GMP Inspections") in a DIA Europe meeting on 22-24 March 2023 in Basle (Switzerland).

Heads of EEA Medicines' Agencies

Under the framework of a letter of agreement between PIC/S and EU/EEA Heads of Medicines Agencies (HMA), which entered into force on 15 August 2016, PIC/S and HMA co-operate in exchanging information in the context of the EEA Joint Audit Programme (JAP) of GMP Inspectorates and the PIC/S Joint Reassessment Programme (JRP) of PAs, which ensures that both new and current PIC/S PAs meet the same requirements. PIC/S and HMA also recognise that in the EEA context the EEA JAP and the PIC/S JRP are deemed equivalent. Audit schedules are also exchanged between the two parties with a view to avoid any duplication and foster mutual acceptance and recognition of audits as well as maintain equivalent auditing tools and programmes, including joint training of auditors.

In 2023, PIC/S and EMA continued to shared audit reports as well as information on upcoming (re)assessments under the framework of the PIC/S-HMA agreement.

ICH

Since June 2017, PIC/S enjoys an observer status with the International Council for Harmonisation of Technical Requirements for Pharmaceuticals for Human Use (ICH). It normally attends ICH Assembly meetings and take parts in ICH Expert Working Groups (EWG), in particular E6(R3) (on GCP); M10 (Bioanalytical method validation), Q9(R1) (on QRM), Q12 (Pharmaceutical Product Lifecycle Management) and Q13 (Continuous Manufacturing).

Co-operation has intensified since 2020 with a pilot on closer co-operation between the two organisations covering co-operation on ICH Q Guidelines, in particular ICH Q9 and Q12 and a signing of Memorandum of Understanding on training in 2023 (see Section 18).

Following a first grant to develop ICH Q12 training material in 2021, PIC/S has been mandated to develop other ICH-funded training material for inspectors in relation with ICH Quality documents such as Q9 or Q10.

In 2023, the PIC/S Chairperson represented PIC/S at the ICH General Assembly in Vancouver, Canada, on 12 - 13 June 2023. The PIC/S Deputy Secretary, Jeffrey Hodgson, represented PIC/S at the ICH General Assembly in Prague, Czech Republic, on 31 October - 1 November 2023.

ICMRA

PIC/S regularly exchanges with the International Coalition of Medicines Regulatory Authorities (ICMRA) on regulatory collaboration. In 2023, exchanges focused on the 'Pharmaceutical [Quality] Knowledge Management System' (P[Q] KMS) – see preceding section. The former PIC/S Chairperson, Anne Hayes, Ireland / HPRA, presented virtually on PIC/S' involvement in the P[Q] KMS project at the ICMRA/Industry P[Q] KMS Workshop on 20-21 July 2023.

ISPE

The PIC/S Chairperson gave a presentation on PIC/S on 8-10 May 2023 to the GPMLF (Global Pharma Manufacturing Leadership Forum) and PMF (Pharma Manufacturing Forum) in conjunction with the ISPE Europe Annual Conference 2023 in Amsterdam (Netherlands). He also presented on inspection reliance and PIC/S' involvement in the ICMRA P[Q] KMS project at the 2023 ISPE Annual Meeting in Las Vegas (USA) on 15-18 October 2023.

PDA

The PIC/S Chairperson took virtually part in two PDA events: the first was a workshop on Annex 1 in Raleigh, NC, USA, on 27-28 February 2023; the second was a conference on Annex 1 organised by the PDA India Chapter on 16-18 August 2023.

The SCSD Chair, Jennifer Burnett, Australia / TGA, gave a presentation on PIC/S at the PDA/APAC Regulatory and Quality Conference in Melbourne, Australia, in November 2023.

23. Budget, Risk & Audit

The Sub-Committee on Budget (SCB) was established back in 2004. Its mandate was widened to encompass issues related to risk and audit in 2014. For the full mandate, see box below.

The mandate of the SCB is to:

1. In line with good governance:

1.1 Assess regulatory risk, financial risk, reputational risk and risk management and make proposals / recommendation to minimise such risk

1.2	Appraise the performance, efficiency, effectiveness and adequacy of internal and external controls
1.3	Evaluate internal and external audits and the implementation of their recommendations
1.4	Ensure that PIC/S adheres to good governance practices
2.	In line with PIC/S' Financial Rules (PS/W 1/2004):
2.1	Establish a budget proposal to the PIC/S Committee
2.2	Propose updates and amendments of the Financial Rules to ensure effective financial administration, the exercise of economy and consistency in financial reporting
2.3	Maintain an internal financial control and examine financial transactions in order to ensure: (i) the regularity of the receipt, custody and disposal of all funds and other financial resources of PIC/S; (ii) the conformity of commitments and expenditures with the budget voted by the PIC/S Committee; (iii) the efficient and economic use of the resources of PIC/S.
2.4	Avoid any duplication with the external auditor
3.	Report back to the PIC/S Committee, as provided for in the Terms of References and the Financial Rules, and make proposals / recommendations

In 2023, the SCB was chaired by Ger Jan van Ringen (Netherlands / IGJ); the Deputy Chair was Kathleen Sinninger (US FDA). The SCB held two virtual meetings: on 26 April and 25 October 2023. During these meetings, it reviewed the 2022 financial report, monitored the 2023 accounts, prepared the PIC/S and PIA budgets for 2024, and discussed a proposal on introducing a tiered membership fee, as detailed below.

24. 2022 Accounts

The SCB reviewed the report on the 2022 accounts by the external auditor, Moore Stephens Refidar S.A. as well as the 2022 financial report ('Statement of Accounts for the Financial Year 2022'). In line with the SCB's recommendation, the Committee approved by written procedure the 2022 financial report. It also agreed to transfer the 2022 bank interests to the PIC/S Reserve Fund and to discharge the Secretary of his responsibility for the 2022 accounts.

	CHF
Total income	1,038,494.16
Total expenses	-1,267,053.68
Net deficit	-228,559.52
Allocations from/to restricted funds	228,619.01
Appreciation/Depreciation of assets	-59.49
Balance	0.00

The SCB also reviewed separate financial reports detailing:

- PIA Activities & Accounts for the Financial Year 2022;
- Income and expenses for the Precious Metals Convention (PMC) in 2022;
- PIC/S' 50th Anniversary Accounts, hosted by Ireland / HPRA on 3 October 2022.

The review of the financial report on the 2022 Seminar on the "Inspection of the Pharmaceutical Quality System (PQS)", hosted by Ireland / HPRA on 4-7 October 2022, was postponed to 2024.

25. 2023 Accounts

The SCB reviewed the status of income and expenditures of the 2023 accounts for both PIC/S and PIA while the Committee appointed the external auditor, Moore Stephens Refidar S.A., for the financial audit of the 2023 accounts, which will take place in early 2024.

Due to lower-than-expected funding for PIA, the SCB anticipated a financial loss by the year-end and recommended to the Committee to partially unfreeze the PIC/S Reserve Fund. An urgent call for voluntary contributions to PIA was also issued by the Secretariat. In addition, the Executive Bureau agreed on some cost-saving measures in order to keep the loss within reasonable limit. This resulted, amongst other things, in the freeze of recruitment and of some Secretariat activities. However, the Secretariat's planned move to larger premises, which was long overdue, was approved by the Executive Bureau.

26. 2024 Budget

As recommended by the SCB, the Committee approved the 2024 PIC/S Budget at its meeting in Bangkok. The 2024 budget is based on an increase of 5% of PIC/S fees to compensate for inflation. The annual membership fee in 2024 will be CHF 10,400 (CHF 8,600 for Applicants & Pre-Applicants). A fee exemption has been introduced for Ukraine / SMDC until the war is over.

Considering the lack of secured funding for PIA in 2024, the 2024 budget proposal is partial and covers PIC/S for the whole year but PIA for the first quarter of 2024 only. A supplementary budget for PIA will need to be presented in 2024. Another urgent call for PIA funding in 2024 was issued by the Secretariat.

27. Tiered Membership Fee

The SCB presented to the Committee in Bangkok a proposal on the introduction of a tiered membership fee system as from 1 January 2025. PIC/S annual fees are relatively low compared with those applied in other organisations. The fees are also the same for all Members. As PIC/S are expanding, the size of the Secretariat must expand and this can only be achieved through a tiering of the annual fee, where larger PAs, employing more inspectors, pay higher fees.

The proposal will be fine-tuned based on Members' comments. A written consultation will be organised by early 2024.

28. Communication

Good internal communication between PAs through PA representatives is one of PIC/S' recognised benefits, which derives from membership. External communication has also become an important tool to promote the organisation. PIC/S regularly communicates on its activities on the PIC/S website www.picscheme.org by publishing news, press releases, annual reports and other information documents. Considering the growing importance of communication, the PIC/S Committee has decided to establish a specific Sub-Committee on Communication (SC COM).

The mandate of the SC COM is to (i) monitor PIC/S' public relations and the exchange of information; and (ii) to define a communication strategy in order to better promote PIC/S and its key role in the field of inspections. In 2020, the scope of the mandate was expanded in order to cover the overall co-ordination with ICH. For the amended mandate, see box below.

The mandate of the SC COM is to:

1. Monitor PIC/S' public relations and the exchange of information

2. Define a communication strategy to better promote PIC/S

*[3. Represent PIC/S in the International Council for Harmonisation of Technical Requirements for Pharmaceuticals for Human Use (ICH). Co-ordinate PIC/S relations with ICH in co-operation with other involved Sub-Committees and disseminate relevant ICH information and guidelines to PIC/S PAs.]**

4. Monitor and propose changes to the PIC/S web site

5. Work on improving communications with PA, in particular with Heads of Agencies, as well as PIC/S Partners

6. Identify the most suitable speakers for (regional or international) conferences where PIC/S has been invited to speak

7. Report back to the PIC/S Committee, as provided for in the Terms of References and make proposals / recommendations

* *These tasks are now under the responsibility of the Executive Bureau and will be formally removed from the SC COM's mandate at the next revision.*

The SC COM is chaired by Kentaro Hara (Japan / PMDA), who is assisted by H-Y (Rachel) Wang (Chinese Taipei / TFDA), SC COM Deputy Chair. The SC COM virtually met on 23 March and 2 October 2023. For the SC COM's activities, see below.

29. Foreign Inspections

A call to PIC/S PAs and Partner Organisations to contribute to the confidential 'List of Planned Foreign Inspections' was made in late 2022 and a first list was issued in January 2023. The list was continuously updated during the year to include more than 1,200 planned inspections. The list has been circulated to all PIC/S PAs in the interest of mutual reliance, as recommended by the SC COM, irrespective of whether they have contributed to the list.

The SC COM, which has been mandated to improve the sharing of information on planned foreign inspections, has also presented a proposal on revising the PIC/S List of Planned Foreign Inspections, taking the API inspection programme as a model and focusing on solid dosage forms only. To avoid any potential duplications with the proposal made by the Inspection Reliance Working Group (IRWG) on the Single Inspection Programme (SIP, see section 21.3), the SC COM and the IRWG will work together.

30. Communication & Social Media (LinkedIn)

To increase PIC/S' visibility and share news more efficiently, the SC COM has agreed to start publishing news on LinkedIn. In a first phase, this will be news, which is already published on the PIC/S website, and then other news, subject to the recruitment of a SC COM Officer at the Secretariat.

In parallel, Participating Authorities and Partners continue to share communications within the PIC/S Committee in order to keep each other updated on e.g. reorganisations or changes in legislation. In 2023, Germany / ZLG reported on organisational changes in three Laender (Bremen, Hesse and Mecklenburg-Western Pomerania) in the field of drug supervision. Hungary / NCPHP informed on the merger of the National Institute of Pharmacy and Nutrition (NIPN) and the National Public Health Center into the 'National Center for Public Health and Pharmacy' (NCPHP). New Zealand / Medsafe reported on the adoption by its Parliament of the Therapeutic Products Act. Following a change of the country's official name, "Turkey / TMMDA" became "Türkiye / TMMDA" in line with established practice in international organisations.

31. PIC/S Website

The PIC/S website https://www.picscheme.org was regularly updated throughout the year. This was also the case of the password-protected Members' Area as well as the PIA sub-site.

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FROM THE PHARMACEUTICAL INSPECTION CONVENTION TO THE PHARMACEUTICAL INSPECTION CO-OPERATION SCHEME

The Convention for the Mutual Recognition of Inspections in respect of the Manufacture of Pharmaceutical Products (Pharmaceutical Inspection Convention) entered into force in 1971.

The Convention applies to inspection of the manufacture of medicinal and related products intended for human use, which are subject to control under health legislation. It provides that the Contracting States will exchange, on the basis of inspections, such information as is necessary for the health authorities in an importing Contracting State to be able to recognise inspections carried out in the Contracting State of the manufacturer.

In 2000 the Convention was operating between eighteen countries, namely, Australia, Austria, Belgium, Denmark, Finland, France, Germany, Hungary, Iceland, Ireland, Italy, Liechtenstein, Norway, Portugal, Romania, Sweden, Switzerland and the United Kingdom.

The Convention's Contracting States realised in the early 1990s that because of an incompatibility between the Convention and European law, it was not possible for new countries to be admitted as Members of PIC. Australia was the last country which was able to become a Member of the Convention in January 1993.

Consequently, a new arrangement called "Pharmaceutical Inspection Co-operation Scheme" (or PIC Scheme) was established on 2 November 1995. This is an arrangement between the inspectorates of the present Contracting States to the Convention but also open to the participation of the inspectorates of other countries.

The Pharmaceutical Inspection Convention and the Pharmaceutical Inspection Co-operation Scheme are run concurrently by one joint Committee and one Secretariat. The common logo for both is PIC/S.

LIST OF PIC/S PARTICIPATING AUTHORITIES AND PARTNER ORGANISATIONS
(as of 31 December 2023)

in the alphabetical order of the jurisdiction's name in English
in which they are located

	PARTICIPATING AUTHORITY	ACRONYM
Argentina	Instituto Nacional de Medicamentos *(National Institute of Drugs)*	INAME
Australia	Therapeutic Goods Administration	TGA
Austria	Austrian Agency for Health and Food Safety	AGES
Belgium	Agence Fédérale des Médicaments et des Produits de Santé *(Federal Agency for Medicines and Health Products)*	AFMPS
Bulgaria	Bulgarian Drug Agency	BDA
Brazil	Agência Nacional de Vigilância Sanitária *National Health Surveillance Agency*	ANVISA
Canada	Health Canada - Regulatory Operations and Enforcement Branch (ROEB) (*Santé Canada - Direction générale des opérations réglementaires et de l'application de la loi (DGORAL)*)	ROEB
Chinese Taipei	Taiwan Food and Drug Administration	TFDA
Croatia	Agency for Medicinal Products and Medical Devices of Croatia (*Agencija za lijekove i medicinske proizvode*)	HALMED
Cyprus	Pharmaceutical Services	CyPHS
Czech Republic[2]	Státní Ústav pro Kontrolu Léčiv *(State Institute for Drug Control)*	SÚKL
	Ústav pro Státní Kontrolu Veterinárních Biopreparátů a Léčiv *(Czech Institute for State Control of Veterinary Biologicals and Medicines)*	ISCVBM
Denmark	Danish Medicines Agency	DKMA
Estonia	State Agency of Medicines	SAM
Finland	Finnish Medicines Agency	FIMEA
France [3]	*Agence nationale de sécurité du médicament et des produits de santé (French National Agency for Medicines and Health Products Safety)*	ANSM
	Agence nationale de sécurité sanitaire de l'alimentation, de l'environnement et du	ANSES

[2] SÚKL and ÚSKVBL count as two distinct Participating Authorities.
[3] ANSM and ANSES count as two distinct Participating Authorities.

	travail (*French Agency for Food, Environmental & Occupational Health Safety*)	
Germany [4]	Bundesministerium für Gesundheit *(Federal Ministry of Health)*	BMG
	Zentralstelle der Länder für Gesundheitsschutz bei Arzneimitteln und Medizinprodukten *(Central Authority of the Laender for Health Protection regarding Medicinal Products and Medical Devices)*	ZLG
Greece	Εθνικός Οργανισμός Φαρμάκων *(National Organization for Medicines)*	EOF
Hong Kong SAR, China	Pharmacy and Poisons Board of Hong Kong	PPBHK
Hungary	National Center for Public Health and Pharmacy	NCPHP
Iceland	The Icelandic Medicines Agency	IMA
Indonesia	Indonesian Food and Drug Authority	Badan POM
Iran	Iran Food and Drug Administration	IFDA
Ireland	Health Products Regulatory Authority	HPRA
Israel	Institute for the Standardization and Control of Pharmaceuticals	ISCP
Italy[5]	Agenzia Italiana del Farmaco	AIFA
	Directorate General for Animal Health and Veterinary Medicinal Products (Direzione generale della sanità animale e dei farmaci veterinari)	DGSAF
Japan[6]	Ministry of Health, Labour and Welfare	MHLW
	Pharmaceuticals and Medical Devices Agency	PMDA
	Japanese Prefectures	-
Korea (Republic of)	Ministry of Food and Drug Safety	MFDS
Latvia	Zāļu Valsts Aģentūra *(State Agency of Medicines)*	ZVA
Liechtenstein	Amt für Gesundheit *(Office of Healthcare)*	AG
Lithuania	State Medicines Control Agency	SMCA
Malaysia	National Pharmaceutical Regulatory Agency	NPRA
Malta	Malta Medicines Authority	MMA
Mexico	Federal Commission for the Protection Against Sanitary Risks *(Comisión Federal para la Protección contra Riesgos Sanitarios)*	COFEPRIS

[4] BMG and ZLG count as one Participating Authority. All German Medicinal Authorities, which are listed on the ZLG web site, are considered as PIC/S Participating Authorities and are represented in PIC/S by ZLG.

[5] AIFA and DGSAF count as two distinct Participating Authorities.

[6] MHLW, PMDA and the Japanese Prefectures count as one Participating Authority. The Japanese Prefectures are represented by MHLW.

Netherlands	Inspectie voor de Gezondheidszorg en Jeugd *(Health and Youth Care Inspectorate)*[7]	IGJ
New Zealand	Medicines and Medical Devices Safety Authority	Medsafe
Norway	Norwegian Medicines Agency	NOMA
Poland	Chief Pharmaceutical Inspectorate	CPI
Portugal	Autoridade Nacional do Medicamento e Produtos de Saúde IP (*National Authority of Medicines and Health Products IP*)	INFARMED IP
Romania	National Agency for Medicines and Medical Devices of Romania	NAMMDR
Singapore	Health Sciences Authority	HSA
Slovak Republic	State Institute for Drug Control	SIDC
Slovenia	Agency for Medicinal Products and Medical Devices	JAZMP
Saudi Arabia	Saudi Food and Drug Authority	SFDA
South Africa	South African Health Products Regulatory Authority	SAHPRA
Spain	Agencia Española de Medicamentos y Productos Sanitarios *(Spanish Agency for Medicines and Medical Devices)*[8]	AEMPS
Sweden	Swedish Medical Products Agency	MPA
Switzerland	Swiss Agency for Therapeutic Products	Swissmedic
Thailand	Food and Drug Administration	Thai FDA
Turkey	Turkish Medicines and Medical Devices Agency	TMMDA
Ukraine	State Service of Ukraine on Medicines and Drugs Control	SMDC
United Kingdom[9]	Medicines and Healthcare Products Regulatory Agency	MHRA
	Veterinary Medicines Directorate	VMD
United States of America	United States Food and Drug Administration	US FDA

[7] The competence for GMP/GDP inspections in the Netherlands is allocated to the central authority, the Health and Youth Care Inspectorate (IGJ). IGJ is the PIC/S Participating Authority representing GMP/GDP for human as well as veterinary medicinal products. IGJ performs national and international GMP/GDP inspections representing the Health and Youth Care Inspectorate - Pharmaceutical Affairs as well as the Medicines Evaluation Board - Veterinary Medicinal Products Unit, which is mandated to issue GMP certificates on behalf of the Ministry of Economic Affairs.

[8] The competence for GMP/GDP inspections in Spain is shared between the central authority, Spanish Agency for Medicines and Medical Devices (AEMPS), and the Spanish regional authorities, which count as one PIC/S Participating Authority. All Spanish Medicinal Authorities, which are listed on AEMPS' web site, are considered as PIC/S Participating Authorities and are represented in PIC/S by AEMPS.

[9] MHRA and VMD count as two distinct Participating Authorities.

PARTNER ORGANISATIONS	ACRONYM
European Commission	EC
European Directorate for the Quality of Medicines & HealthCare	EDQM
European Medicines Agency	EMA
European Commission	EC
United Nations Children's Fund	UNICEF
World Health Organization	WHO
World Organisation for Animal Health	WOAH