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TISCs Report  
2023

# Cultivating expertise to empower local innovators

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# Foreword

Technology and Innovation Support Centers (TISCs) and Technology Transfer Offices (TTOs) in developing countries, least developed countries and transition countries play a key role in enabling local innovators to reach their innovation potential.

Typically located in patent offices, universities, research centers, and science and technology parks, TISCs enable researchers and inventors to get local support in accessing and using technological information from more than 150 million published patent documents and scores of scientific and technical publications. In recent years, many TISCs have started developing additional innovation support services in patent analytics, technology transfer, intellectual property (IP) management and commercialization to adapt to the needs of innovators.

TTOs and other technology transfer structures such as techno-parks and IP hubs facilitate connections between innovation stakeholders by bridging the gap between research and practice and by supporting the transfer of knowledge and technology from academia to industry.

Created and managed by the IP for Innovators Department (IPID) in the WIPO IP and Innovation Ecosystems Sector (IES), the TISC program and technology transfer projects support WIPO's mission to help member states develop their IP and innovation ecosystems and to support researchers and innovators in using the IP system for innovation promotion, technology transfer and economic growth.

With the vision to evolve continuously and adapt to the needs and challenges of innovators, the program also strives to expand its portfolio of resources to support TISCs and TTOs in building their capacities to meet the demands of the innovators they serve. Examples of such resources that will gradually be added and offered to TISCs and TTOs include support for patent drafting, support for IP commercialization and valuation, and advice on how to use IP as collateral to secure financing.

“South Africa started its TISC journey in 2014 with WIPO as our dedicated partner, leading us toward a future where we experience and think of innovation in our daily lives. Our TISC journey has not just been about accessing resources, it has been about inspiring everyone on the endless possibilities of IP, unlocking the potential of our people and ultimately playing a catalytic role in the transformation of ideas into tangible assets that will make an impact in our communities!”

**Jetane Charsley**

Head, National Intellectual Property Management Office (NIPMO), Department of Science and Innovation, South Africa

# Key developments

A TISC Arab Regional Meeting was held in Algiers in collaboration with the Algerian National Institute of Industrial Property (INAPI) in May to explore opportunities for strengthening regional cooperation among representatives from nine TISC networks (Algeria, Djibouti, Egypt, Jordan, Mauritania, Morocco, Oman, Palestine and Syrian Arab Republic) and the League of Arab States. A bilateral agreement to exchange experiences in the development of their TISC networks was signed between Algeria and Djibouti in this context.

With 1,494 TISCs in 93 countries by the end of 2023, the TISC Project and Performance Management Platform (TPPM) developed by WIPO to support the growing global TISC network in managing national TISC networks more effectively was rolled out in 14 countries. The platform will especially help TISC coordinators manage their national projects, and coordinate, evaluate and report on their activities.

A WIPO TISC staff certification program was also developed to professionalize TISC management and increase the standardization of TISC operations, raise the quality of services across TISCs, improve client confidence, and improve career development pathways for TISC staff to increase retention of highly skilled TISC personnel. The certification program, which comprises a foundation level and specializations with associated competency frameworks, was launched as a pilot course in collaboration with the WIPO Academy in six countries (China, Kenya, Madagascar, Peru, Philippines and Saudi Arabia) in November. The course includes distance learning and in-class components, and assessments. The TISC staff foundation certification is expected to be rolled out globally, and certification on TISC staff specialization in novelty/patentability search is expected to be piloted in 2024.

In an effort to continuously update existing tools and develop new resources for TISCs, a toolkit for identifying and using inventions in the public domain, complementary to the WIPO guides, was finalized. This contains practical tools that help collect and analyze data and support decision-making in the development of new products and services based on inventions in the public domain. A new modular blended-learning training package to build knowledge and skills in using these tools was also piloted in selected TISC host institutions in Malaysia and the Philippines.

The Patent Register Portal, which acts as an interactive directory and gateway to online patent registers and gazettes to guide users to relevant sources of legal status information, also underwent a comprehensive review. As a result, all jurisdiction files and links to national online registers and gazettes were reviewed and updated.

In the area of patent analytics, a second edition of the 2022 patent landscape report (PLR) on COVID-19-related vaccines and therapeutics was published, alongside two further PLRs on graphite and ilmenite and their related applications. The [WIPO patent analytics website](#) was also completely revamped, with new interactive visualizations and key findings accompanying our latest reports.

In November, WIPO launched a Patent Analytics Community of Practice as a thought-leadership initiative designed to formalize and support the global patent analytics practitioners' community. WIPO aims to establish a committed and engaged community, which will be achieved through systematic knowledge and resource sharing, international cooperation,

collective learning, and the creation of common understanding, best practices and advancements in the field of patent analytics.

A package of resources and capacity-building programs to support TISCs and technology transfer structures in enhancing their knowledge and strengthening their capacities in life sciences also continued to be developed, including guides and training materials on patent searches, IP management, IP valuation and technology transfer in the field of biotechnology. Two regional conferences on accelerated life sciences innovation were also organized in Asia (Philippines) and Latin America (Mexico) for TISC and technology transfer professionals in these regions to support them in developing skills and capacities in IP identification, protection and management, and technology transfer strategies for health technologies.

In the Association of Southeast Asian Nations (ASEAN) region, WIPO and the ASEAN Secretariat (ASEC) implemented two projects with the aim to provide an enabling framework for the efficient identification, management and commercialization of research outcomes and the resulting IP, and to strengthen the capacities of technology transfer structures in the region. These projects, supported by the Japan Industrial Property Global Funds-In-Trust, included the development of a regional institutional IP policy model for academic and research institutions in ASEAN member states. It also included an IP valuation toolkit containing a set of regionally agreed principles and practices to enable the creation of more transparent IP market relations and an environment of trust in IP transactions in the region.

To help universities create innovative incentive programs for their academic researchers and encourage them to participate in technology transfer and knowledge exchange activities, a new guide – *Incentives in Technology Transfer: A guide to encourage, recognize and reward researchers and professionals* – was also published.

In the Southern African Development Community (SADC) region, a pioneering on-the-job training program was launched by WIPO in cooperation with the Southern African Research & Innovation Management Association (SARIMA) within the framework of a new partnership between the two organizations. This tailored program, supported by the Japan Patent Office (JPO) and NIPMO, provided an opportunity for 12 professionals actively involved in technology transfer activities in academic and research institutions in Botswana, Malawi, Namibia, Zambia and Zimbabwe to work closely with experienced technology transfer professionals across six TTOs in South Africa, and gain firsthand experience of the daily operations, processes and strategies of TTOs (see the Special Feature of this report for more on this initiative).



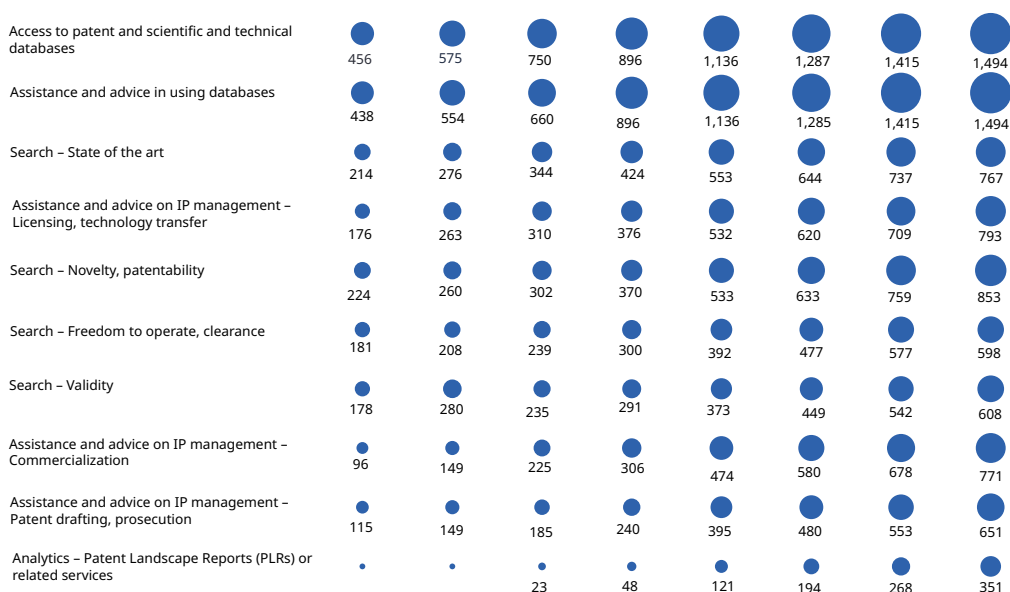
On-the-job training program participants. See Video: Technology Transfer in Action in Southern Africa <https://www.wipo.int/technology-transfer/en/stories/tech-transfer-southern-africa.html>

# TISC/TTO network developments

TISCs and technology transfer structures play an important role in strengthening the innovation ecosystem where they are established, by fostering innovation and encouraging technology transfer.

In 2023, the global TISC network continued to grow, with 1,494 TISCs in 93 countries. TISCs provide a diverse range of services to researchers, inventors and entrepreneurs in these countries, supporting them at different stages in the innovation cycle – from assistance with using patent databases and performing patent searches to advice on IP management and commercialization.

**Figure 1. Number of TISCs providing different types of services**



Source: Directory of Technology and Innovation Support Centers, 2023

Since the TISC program was launched in 2009, 93 countries, of which 32 are least developed countries, have signed service-level agreements (SLAs) with WIPO to develop national TISC networks. There are also four regional TISC networks for member states of the African Regional Intellectual Property Organization (ARIPO), the Association of Southeast Asian Nations (ASEAN), countries in Central America and the Dominican Republic (CATI-CARD) and certain countries in the Arab region. In 2023, three countries – Sudan, Tajikistan, and Trinidad and Tobago – joined the TISC program. TISC networks also continued to expand and are becoming increasingly sustainable.

In **Algeria**, the TISC network coordinated by the Algerian National Institute of Industrial Property Ministry of Industry (INAPI), focal point of the national TISC network, grew significantly, with 17 new TISCs established in universities and research centers across the country – bringing the total number of TISCs in Algeria to 125.

In **Argentina**, two new institutions joined the national TISC network, bringing the total number of institutions in the network to 33 (with one institution pending renewal).

In **Belarus**, there were 30 TISCs (six new ones were established during the year) that processed around 4,000 queries, providing information and support to researchers in higher educational institutions and science and technology parks. As part of its national IP strategy, the National Center of Intellectual Property (NCIP), focal point of the national TISC network, intends to continue to expand the network to further support regional innovation activities and increase IP use and awareness in Belarus.

The TISC network in **China**, which comprises over 100 institutions, expanded to cover 31 provincial-level administrative regions in the country.

In **Colombia**, the Superintendence of Industry and Commerce (SIC), focal point of the national TISC network, signed agreements with 10 new host institutions, including seven universities and three chambers of commerce. Four additional universities also initiated the steps to become members of the network. In total, the national network currently consists of 32 institutions, including SIC. There are regional TISCs affiliated to SIC in 10 regions, and 20 cities with at least one TISC.

In **Cuba**, the TISC network grew to 22 institutions with the addition of the Fundación Universitaria para la Innovación y el Desarrollo, Universidad de La Habana. The network is coordinated by the Cuban Industrial Property Office (OCPI).

In the **Dominican Republic**, the National Office of Industrial Property (ONAPI) signed agreements with three new TISCs in the Universidad Nacional Pedro Henríquez Ureña, the Instituto Técnico Superior Comunitario and the Universidad Autónoma de Santo Domingo.

In **The Gambia**, a third TISC was established in the University of The Gambia, and the university used this opportunity to also review its institutional IP policy.

In **India**, the Cell for IPR Promotion and Management (CIPAM), Department for Promotion of Industry and Internal Trade (DPIIT), focal point of the national TISC network, reported the addition of 22 new institutions in 2023, bringing the total number of TISCs in India to 34.

In **Jordan**, there were 20 TISCs established by the end of 2023.

In **Kazakhstan**, five universities joined the TISC network in 2023, bringing the total number of TISCs to 23. TISCs were established in four regions where there were previously no TISCs (Akmola, Almaty, East Kazakhstan and Turkestan) in an effort to bring technology and innovation support services closer to local users.

Since the establishment of a national TISC network in **Liberia** in 2021, the Liberia IP Office (LIPO), focal point of the network, has signed agreements with six institutions to establish TISCs. While five of them will provide services to the public, the TISC established within the Division of Alternative and Complementary Medicines at the Ministry of Health will serve mainly to support internal research activities.

In **Morocco**, five institutions joined the national TISC network, which now consists of 59 TISCs and 70 individual focal points managing the operations of these centers.

In **Peru**, the TISC network which was established in 2016 has grown to comprise 56 members in academic and research institutions, covering 21 out of the 25 regions of Peru, with 75 trained TISC staff.

In the **Philippines**, the network's membership continued to grow from 77 to 85 institutions. The network is composed of 57 state universities and colleges, 22 private higher education institutions, two research and development institutions, three support institutions, and one local university and college. A new program entitled Generators of IP (GeneIP) was launched to expand the network with the objective to capacitate and help establish fully operational IP management and TTOs within the institutions, on the way to becoming full-fledged TISCs



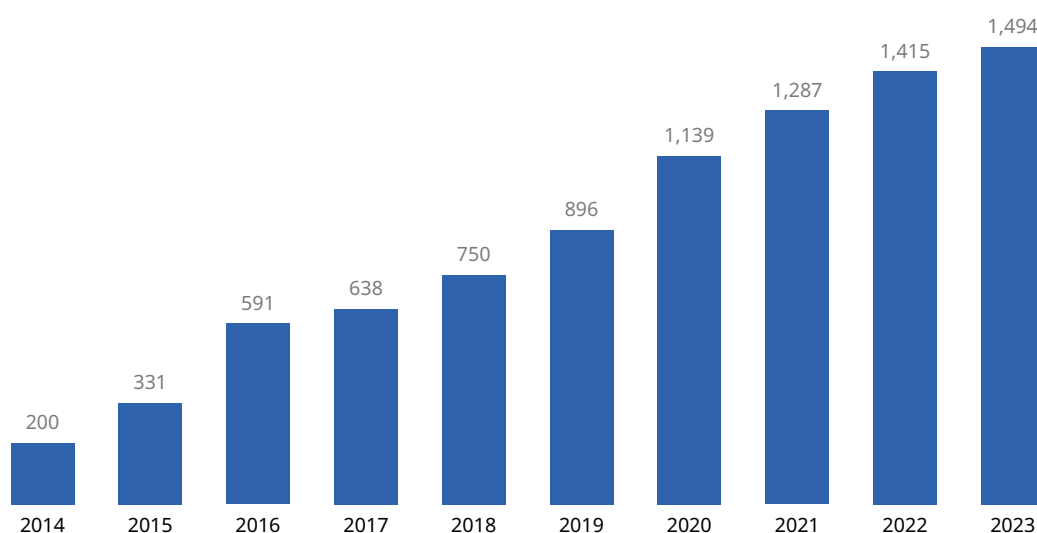
(or ITSOs, as they are known in the Philippines). Under the Intellectual Property Office of the Philippines (IPOP) ITSO 2.0 scheme, which clusters ITSOs by number and types of services provided, IPOP reported an increase in all categories, from bronze (55 percent increase with 62 institutions) to silver (70 percent increase with 51 institutions), gold (61 percent increase with 42 institutions) and platinum (the largest increase – 106 percent – with 35 institutions). Platinum-level institutions should draft and file at least seven patents, successfully commercialize IP assets and document their projected/actual income.

In **Saudi Arabia**, there was a significant increase in applications to join the national TISC network, with 16 new centers. By the end of the year, there were 64 TISCs operating in 12 out of 13 administrative regions in Saudi Arabia, representing diverse sectors, including academia, government, the nonprofit sector and the private sector. The Saudi Authority for Intellectual Property (SAIP), focal point of the national TISC network, also launched the Numo program, an initiative to increase the maturity and sustainability of TISCs in Saudi Arabia with a tiered system consisting of basic, technical, advanced and expert levels. The program encompasses various elements including knowledge transfer to staff, implementation of performance enhancement initiatives, provision of high-quality services, support to technology and innovation initiatives, and expansion of patent and IP portfolios. Key performance indicators include the number of training courses completed, the number of awareness-raising services provided, the number of technical and specialized services provided, and the number of IP rights filed or registered in a year.

In **South Africa**, 13 new institutions joined the TISC network.

In **Ukraine**, a Memorandum of Understanding between the Ministry of Economy of Ukraine and WIPO was signed in July to support Ukraine's innovative and creative ecosystem, including support for the further development and effective operation of its national TISC network coordinated by the Ukrainian National Office for Intellectual Property and Innovations (UANIPIO). In 2023, 16 new TISCs were established in Ukraine, bringing the total network to 30 TISCs, and special attention was given to supporting regional cooperation initiatives within the network. For the first time in Ukraine, a TISC was established within a regional chamber of commerce and industry with the signature of an agreement with the Vinnytsia Chamber of Commerce and Industry.

**Figure 2. Number of TISCs and growth over time**



Source: Directory of Technology and Innovation Support Centers, 2023

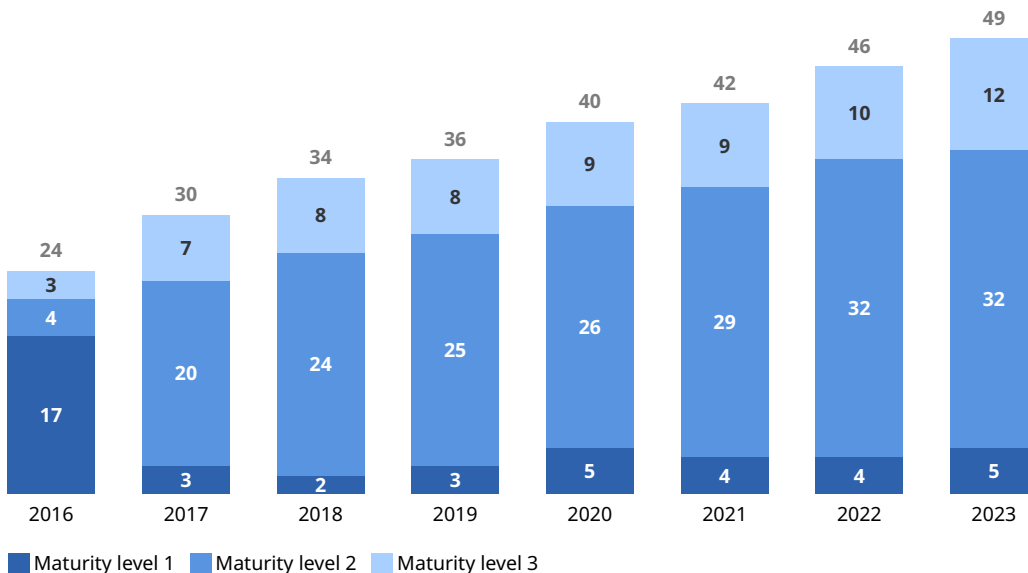
Because sustainability and the impact of national TISC networks is critical to their continuous development, maturity levels have been defined to reflect each national network's development status and the level of services it provides. These levels also provide insights into future development requirements to increase impact, as follows:

- **Maturity level 1:** Countries that have signed an SLA with WIPO, have signed institutional agreements at a national level between the TISC national focal point and TISC host institutions, and which report at least annually on national TISC activities.
- **Maturity level 2:** Countries that meet maturity level 1 standards and which provide basic patent information searches, e.g., state-of-the-art patent searches.
- **Maturity level 3:** Countries that meet maturity level 2 standards and which provide value-added IP services, e.g., patent analytics and drafting PLRs.

Ultimately, TISCs are financially and technically self-supporting institutions to which WIPO provides advice on demand.

Out of the total of 93 TISC national networks, 49 were considered to have reached at least maturity level 1 at the end of 2023, with five networks at maturity level 1, 32 networks at maturity level 2 and 12 networks at maturity level 3.

**Figure 3. TISC networks by maturity level**



Source: WIPO IPID, 2023

Technology transfer structures globally also continued to expand, playing a vital role in promoting innovation. Initiatives in Africa, Asia, the Baltic states and Latin America promoted the development of collective communities of technology transfer professionals and strengthened knowledge sharing on specific topics such as technology transfer strategies in life sciences and health-related technologies during regional conferences in support of accelerated life sciences innovation held in Mexico and the Philippines. In Mexico, 12 IP and technology transfer professionals from selected institutions in Argentina, Brazil, Chile, Costa Rica, Cuba and Peru participated in the regional conference on accelerated life sciences innovation hosted by the Mexican Institute of Industrial Property (IMPI) in May, and a similar event was hosted by IPOPHL in September with over 100 participants from Brunei Darussalam, Cambodia, China, India, Indonesia, the Lao People's Democratic Republic, Malaysia, Pakistan, the Republic of Korea, Thailand and Viet Nam.

In the SADC region, a pioneering technology transfer on-the-job training program initiative, led by WIPO in collaboration with SARIMA, JPO and NIPMO, paved the way for the development of a technology transfer community within the region, with the participation of technology transfer professionals from six SADC member states (Botswana, Malawi, Namibia, South Africa, Zambia and Zimbabwe). On October 19, WIPO and SARIMA formalized their partnership by signing a Memorandum of Understanding, which outlines joint initiatives in this area.



Photo: SARIMA



Photo: WIPO

Andrew Bailey, President, SARIMA, and ADG Marco Alemán, WIPO, signing the Memorandum of Understanding at the SARIMA Biennial General Meeting on October 19, 2023

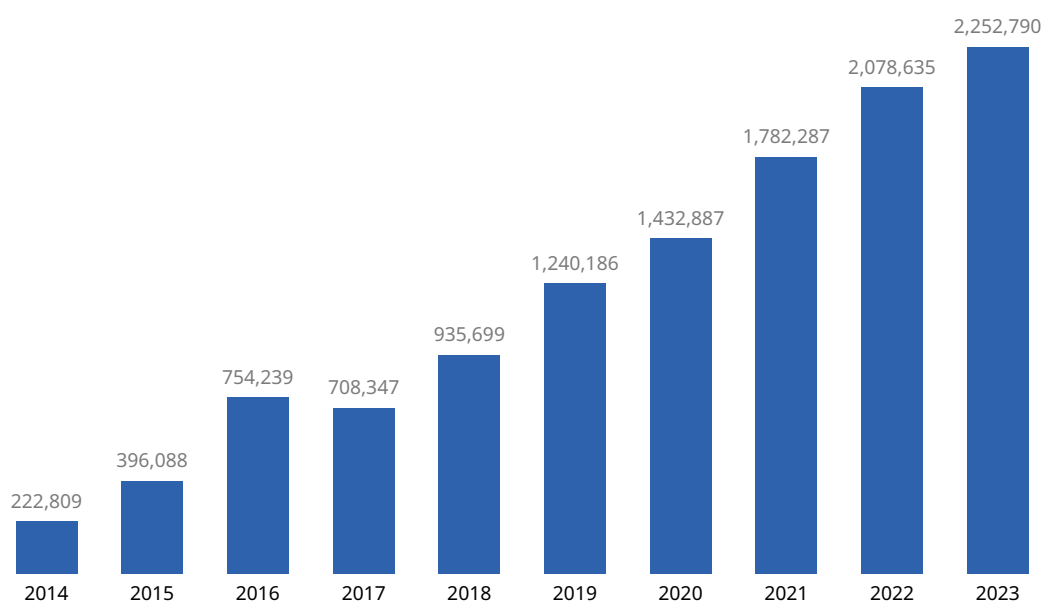
Among member states of ASEAN, two initiatives led by WIPO and ASEC, supported by the Japan Industrial Property Global Funds-In-Trust, were also implemented to strengthen capacities of technology transfer structures in the region in line with the ASEAN IPR Action Plan 2016–2015. These initiatives aim to establish common standards in IP valuation and to develop a regional IP policy model for academic institutions to provide an enabling framework for the efficient identification, management and commercialization of research outcomes and the resulting IP in the ASEAN region.

## Continued increase in demand for TISC services

The worldwide growth of TISC networks and their increasing maturity and sustainability continue to be accompanied by a surge in demand for TISC services from local researchers, inventors and entrepreneurs, who are the main beneficiaries of TISC support.

Following the annual end-of-year survey completed by TISCs around the world, TISCs received over 2.2 million inquiries in 2023.

**Figure 4. Number of inquiries received by TISCs**



Source: Questionnaire on Progress and Needs Assessment, December 2023

In **Algeria**, the TISC in INAPI supported more than 1,000 inventors in their patent searches (in particular prior art searches), patent drafting and the filing of their applications.

In **Chile**, the National Institute of Industrial Property, focal point of the national network, which comprises five institutions, reported that TISCs responded to 261 inquiries and provided 31 technology watch reports and PLRs.

In **China**, TISCs fulfilled over 195,000 IP service requests, issued over 20,000 IP search and analysis reports, and delivered over 700 industrial sector analyses to support policymaking by local and national government agencies. The TISC hosted by the Chinese Academy of Sciences Documentation and Information Center for example supported policymaking by government agencies in the Guangdong–Hong Kong–Macao Greater Bay Area by issuing a patent analytical report highlighting the situation and trends in scientific and technological innovation in this region.

Digital IP platforms developed by TISCs in China also received over 400 million visits in 2023 alone. The TISC hosted by the Tianjin Institute of Scientific and Technical Information for example established a dedicated information platform on seawater desalination, contributing to improved information discovery in this area of technology.

TISCs in **Colombia** provided 726 services on patent and industrial design searches to 559 researchers and entrepreneurs, with 46 percent of state-of-the-art searches and 42 percent of novelty searches, 12,785 consultations on IP to 6,476 users, with a large percentage of those (76 percent) about trademarks. They also helped identify 620 inventions eligible for patent or industrial design protection.

The Registry of Intellectual Property, focal point of the TISC network in **Costa Rica**, responded to over 22,000 requests (of which over half came from women, and over 70 percent were received either by phone or by email). To respond to the growing demand for TISC services, the Registry of Intellectual Property recruited two additional staff members. The majority of inquiries concerned trademarks (over 16,000), followed by copyright and related rights (over 2,000), patents, utility models and industrial designs (over 300). Special assistance was also provided to the Business Development Center of the National Learning Institute as part of an inter-institutional collaboration initiative to support entrepreneurs in Costa Rica.

The TISC network in **Cuba** provided a total of 168 technology and innovation support services in 2023, including many on patent and trademark searches, PLRs and technology alerts.

In the **Dominican Republic**, a total of 113 patent information searches were conducted for inventors and entrepreneurs, of which 44 were done by the TISC at ONAPI and 69 by other TISCs in the country. The TISC network also provided 586 advisory services on patents, support to patent drafting and the filing of industrial property rights.

In **El Salvador**, TISCs provided 1,534 advisory services to both the public and the private sector. Most of the services concerned distinctive signs (76 percent), and the rest concerned patents (11 percent) and copyright (13 percent). TISCs also provided six technology watch services and supported the drafting of five patent applications. The number of TISC services and demand for such services in 2023 grew considerably with a reported increase of 42 percent in advisory services and 51 percent in additional requests in comparison to 2022.

In **Kazakhstan**, TISCs received around 800 requests for support, with approximately one third of these on accessing patent information resources.

In **Kyrgyzstan**, TISCs provided 1,447 services, distributed as follows: inquiries on IP legislation (803), access to patent information resources and databases (255), access to non-patent information (299) and consultations on general issues related to the filing and registration of IP rights (90).

In **Pakistan**, the Intellectual Property Organization of Pakistan, focal point of the national TISC network, reported that TISCs had responded on average to 480 inquiries per month related to patent information search and the filing of patents and other IP rights.

In **Peru**, TISCs have provided a total of 40,530 services since 2018, of which over 30 percent (13,158) were provided in 2023. By 2023, 65 percent of TISCs in Peru provided basic services, and 61 percent also provided value-added services.

Over 45,000 requests for support in accessing or using patent databases were fulfilled by the national TISC network in the **Russian Federation**.

In **Saudi Arabia**, SAIP reported a 52 percent increase in requests for TISC-related services, with 377 services provided in 2023, and an increase in the diversification of services provided.

In **Ukraine**, TISCs provided 704 consultations on IP, from access to patent and non-patent databases (23) to general information on IP protection (300), advice on IP management, IP enforcement and technology transfer (238) and support to IP commercialization (143).

In **Uzbekistan**, TISCs provided a total of 2,633 consultations on general IP issues, 543 consultations on working with patent documents, 2,623 consultations on IP protection, 927 consultations on the conclusion of license agreements and technology transfer agreements, 2,414 services to assist users in submitting IP filings and 1,293 patent searches.

## TISCs as catalysts for filing patent and other IP rights applications

Many TISC networks reported a steady growth in patent applications filed with the support of TISCs, thanks to the increased number and quality of services provided to local researchers and innovators, demonstrating how IP creates value and promotes innovation.

In **Algeria**, 60 percent of the 1,170 patent applications filed by universities in 2023 were done through the TISC network. This represented 800 more filings than in the previous year. The TISC at INAPI also supported inventors in filing 40 patent applications, and 12 of them received support to file applications through the Patent Cooperation Treaty (PCT) system.

Innovation support services provided by TISCs in **Colombia** led to 2,500 new IP rights applications at the Superintendence of Industry and Commerce, including 64 patent applications, 304 industrial design filings and 2,132 trademark applications.

OCPI, focal point of the national TISC network in **Cuba**, reported a continued increase in IP rights filings thanks to the support provided by TISCs throughout the country, with one institution that stood out in particular (the Fundación Universitaria para la Innovación y el Desarrollo, Universidad de La Habana) with two patents filed in 2023, one patent in the drafting process, five patent and trademark licensing agreements concluded with Cuban companies and one patent licensing agreement concluded with a Canadian company.

In the **Dominican Republic**, events were organized by ONAPI, focal point of the national TISC network, to award patents, utility models and industrial designs to eight independent inventors and two TISC host institutions: the Loyola Polytechnic Institute in San Cristóbal, which obtained its first patent, and the Santo Domingo Institute of Technology.

As a result of the 1,534 services provided by TISCs in **El Salvador** during the year, 522 IP rights applications were filed, of which 54 percent were for distinctive signs, 28 percent for copyright protection and 18 percent for patents.

In **India**, CIPAM organized a special event on the occasion of World IP Day to celebrate women and their contribution to IP. It was reported that initiatives taken by the Indian government to promote innovations by women resulted in a fourfold increase in patent filings by women inventors over the last four years.

In **Kyrgyzstan**, TISCs supported inventors in filing 16 patent and nine utility model applications, 24 copyright registrations, three software registrations and one trademark registration.

In **Pakistan**, 461 patent applications were filed by local inventors, of which 162 were filed through TISCs. In addition to patents, TISCs also assist researchers and entrepreneurs in the

filing of other IP rights such as trademarks, designs, plant breeders' rights and copyrights. In 2023, TISCs assisted with the filing and registration of 79 IP rights other than patents. Four TISCs have also been established in women-only universities, which have supported 17 women inventors in filing patent applications in the same year.

In **Peru**, the establishment of a national TISC network and promotion of the use of scientific and technological information in research and innovation activities has resulted in a significant increase in patent filings, from 302 filings in 2016 to 803 in 2023. To promote patent-based technology transfer and the commercialization of IP, the National Institute for the Defense of Competition and Protection of Intellectual Property, focal point of the national network, now intends to place more emphasis on training in technology transfer, IP commercialization and technology marketing.

In the **Philippines**, IP filings from TISCs (or ITSOs) reached an all-time high of 2,056 filings since 2014, compared to 1,854 filings in 2022. These included 427 patent applications, 736 utility model applications, 200 industrial design applications, 172 trademark registrations and 521 copyright registrations.

Nearly 2,500 patent applications and over 3,300 trademark and copyright applications were filed with support from the national TISC network in the **Russian Federation**.

In **Saudi Arabia**, increased IP awareness and use of TISC services led to a significant increase in national filings, with over 662 registered IP rights in 2023 as reported by SAIP.

In **South Africa**, patent and industrial design applications by residents continued to increase beyond expectations as a result of the country's efforts in raising IP awareness through the TISC network and associated programs such as the WIPO Inventor Assistance Program (IAP).

In **Uganda**, IP applications increased significantly, with a rise in the number of applications from TISC host institutions as a result of increased engagement with universities and research and development institutions, and a growing interest in commercializing research results (43 percent of patent applications were filed from TISC host institutions). The Uganda Registration Services Bureau (URSB), national TISC focal point, also increased efforts to build the capacity of institutions and applicants in drafting patents, which resulted in improvements in the quality of patents and utility models filed in Uganda.

In **Uzbekistan**, the awareness-raising and training activities carried out to improve IP protection in the country resulted in an increase in IP filings with the support of TISCs: in 2023, there were 213 patent applications, 2,616 applications for trademarks and computer software registration certificates, and 241 registrations for copyright and related rights.

In **Zambia**, the Patents and Companies Registration Agency (PACRA), focal point of the TISC network, reported that five out of 14 patent applications filed in 2023 originated from TISC users, who benefited from the support and guidance of TISCs in preparing their applications. To continue to expand the national network, PACRA also organized a dedicated workshop in October to reach out to other prospective TISC host institutions, in particular Mulungushi University, Zambia University College of Science and Technology, and Copperbelt University.

## Expanding the depth and range of innovation support services

To help inventors and entrepreneurs better exploit their innovation potential and create value from the IP they generate, TISCs around the world also continued to expand the range of services they offer to accompany inventors on their journey from idea to market.

In **Bhutan**, TISCs provided support to their users on searching technical information in patent databases and scientific journals such as *Scopus*. They also supported students at the Royal University of Bhutan in developing five inventions as part of their final-year projects.

TISCs in **China** supported technology transfer between academic and research institutions and industry, organizing over 3,000 networking opportunities and contributing to over 12,000 IP

transactions in 2023. Sixteen TISCs were selected by the China National Intellectual Property Administration (CNIPA), focal point of the national TISC network, as “outstanding intellectual property service cases” in 2023, out of the 40 institutions awarded this distinction. The TISC hosted by the Gansu Science and Technology Information Research Institute for example supported the Institute of Vegetables and Flowers under the Chinese Academy of Agricultural Sciences to develop an agricultural facility in the Hexi Corridor in the Gansu Province of China, contributing to the development of over 3,400 hectares of agricultural land and an additional agricultural output of CNY 200 million (approximately USD 27.5 million). The TISC hosted by the Guangzhou Zhongxin Intellectual Property Service also developed a new four-in-one service model to support the promotion of geographical indications, contributing to the promotion of the Lianping Yingzui peach as a geographical indication of Heyuan in the Guangdong Province of China.

In **El Salvador**, five out of 10 TISCs hosted in higher education institutions (Universidad de El Salvador, Universidad Dr. José Matías Delgado, Escuela Nacional de Agricultura “Roberto Quiñónez,” Universidad Salvadoreña Alberto Masferrer and Universidad Evangélica de El Salvador) updated their institutional IP policies, and an additional 19 institutions participated in a training program organized by the National Center of Registries, focal point of the national TISC network, to support them in developing their institutional IP policies.

In **Morocco**, the Moroccan Industrial and Commercial Property Office (OMPIC), focal point of the national TISC network, supported the Université Sultan Moulay Slimane in establishing a technology transfer office, with the active involvement of the TISC already established in the university. Thanks to the WIPO IAP in Morocco where the 11 experts involved in this program that support local inventors in drafting and filing patent applications are also TISC staff, seven inventors benefited from this type of support in 2023, two patent applications were filed and one patent was granted.

In **Pakistan**, TISC staff worked with other officials of TTOs and incubation centers to enable the licensing of technologies to third parties or to commercialize these as spinoffs or startups. In 2023, the TISC network supported the commercialization of 40 technologies developed by inventors in TISC host institutions.

To promote IP protection and commercialization in the **Philippines**, IPOPHL, focal point of the TISC/ITSO network, supported the elaboration of institutional IP policies in 103 out of 113 state universities and colleges, drawing on the WIPO IP Policy Toolkit to guide the drafting process. Seventy ITSOs already have an IP policy, and 35 ITSOs have integrated IP into their curriculum. IP and technology commercialization activities also continued to grow, with 40 ITSOs having successfully commercialized their IP assets, representing a 54 percent increase from 26 ITSOs in 2022. Most commercialized IP assets were trademarks (35 percent), followed by utility models (31 percent) and patents (28 percent), and the most common modality for commercialization was through licensing. In 2023, the commercial transactions of licensed and sold IP assets owned by ITSOs were documented. It was reported that the aggregate amount earned by all ITSOs in royalties, licensing fees and sales amounted to over PHP 38,000,000 (approximately USD 646,000).

In **South Africa**, a number of training events were organized for TISC staff to strengthen skills in the area of trademark and industrial design searches and technology transfer, with the objective to develop new services specifically designed to support entrepreneurs and SMEs.

In **Uganda**, three institutions received support from URSB to draft institutional IP policies to promote the commercialization of research results. URSB reported an increase in the commercialization of registered IP rights by TISC host institutions in 2023, through the issuance of licenses for inventions protected mainly by utility models and trademarks. The National Agricultural Research Organization, a TISC host institution, also reported the distribution of royalties from IP to innovators under its 16 research units.

In **Ukraine**, UANIPIO, focal point of the network, provides information and advisory services on IP, acting as the national IP and innovation hub, and offers assistance in IP management and commercialization and support to technology transfer initiatives. It also provides access to and support in using specialized patent databases and non-patent scientific literature through the

Access to Specialized Patent Information (ASPI) and Access to Research for Development and Innovation (ARDI) programs. In 2023, UANIPIO supported many TISCs in getting access to and using these programs and organized a series of dedicated training courses on these resources for the TISC network. The Ukrainian TISC network is also looking at strengthening its knowledge and skills in trademarks and industrial design searches.

## Training and awareness-raising: supporting local innovators

In addition to expanding their innovation support services for local users, TISCs continued to dedicate significant resources to self-development and awareness-raising activities, indicating increased levels of sustainability and maturity.

In **Algeria**, INAPI dedicated 46 days to awareness-raising activities and organized 25 specialized training events for TISC staff, students and researchers on patent information and patent searches, reaching over 5,000 participants in total. To support TISC staff in accessing scientific and technical publications available through the ARDI program, INAPI also made available around 2,000 resources on its dedicated TISC platform. Over 100 TISC staff also participated in distance learning courses of the WIPO Academy on patent drafting and patent information search to strengthen their skills in these areas.

In **Argentina**, the National Institute of Industrial Property, focal point of the national network, organized eight training activities on IP rights, patent searches and patent drafting for TISC staff. Ten TISC staff also enrolled in advanced distance learning courses of the WIPO Academy. TISC staff at the Centro Científico Tecnológico (CONICET Salta-Jujuy), which is active in the northern provinces of Corrientes, Chaco, Formosa, Jujuy, Misiones and Salta, dedicated substantial efforts to strengthening their skills in patent information search, technology watch and IP management, and building the skills of researchers and entrepreneurs in this area, training over 100 participants on these subjects. They also supported three inventors in conducting patent searches to determine the patentability of their inventions and provided support in the patent application process.

In **Belarus**, 79 TISC staff were trained by NCIP, and six staff completed WIPO Academy distance learning courses on patents, patent drafting, IP management, and copyright and related rights. NCIP also organized the second TISC Assembly on November 28 in cooperation with the State Committee on Science and Technology and the Belarusian State University.

In **Bhutan**, there are two TISCs established in the Royal University of Bhutan (in the College of Science and Technology and in Jigme Namgyel Engineering College) and one TISC in the Thimphu Tech Park. In 2023, the Department of Media Creative Industry and Industrial Property, focal point of the TISC network, reported on five training and awareness-raising activities organized by and for TISCs that reached over 800 people. One of these was jointly organized with the National University of Computer and Emerging Sciences of Pakistan to strengthen skills and knowledge on IP management and technology transfer.

In **Chile**, the five TISCs in the national network organized 42 training workshops on IP rights (the majority on patents and trademarks) and awareness-raising events, reaching over 900 participants in total.

In **China**, over 3,000 awareness-raising events and nearly 4,000 training events were organized by the national TISC network, reaching over 950,000 participants in total and contributing to increased IP awareness and more effective use of IP throughout the country. Fourteen thousand five hundred participants also took part in events organized by CNIPA for TISCs to exchange experiences and best practices.

In **Colombia**, TISCs organized 472 workshops and awareness-raising activities on patent information and industrial property rights, reaching 13,547 participants in total. The network also organized 169 outreach activities to promote TISC services around the country. TISC staff also continued to strengthen their skills to deliver services in patents, patent information search, patent drafting, IP management and technology transfer.



In **Costa Rica**, the Registry of Intellectual Property conducted 45 online and onsite workshops on IP in collaboration with the IP Academy, focusing on training researchers and entrepreneurs in the provinces of Limón, Alajuela and Puntarenas. In total, they reached out to 2,227 participants. TISC staff also followed the WIPO Academy distance learning courses on IP management to strengthen their skills and services in this area.

In **Cuba**, a total of 364 people were trained by TISCs on how to access and use patent databases and conduct patent searches, with seven workshops dedicated to prior art searches.

To disseminate knowledge on industrial property and promote its use in the **Dominican Republic**, 138 seminars and workshops were given by the National Academy of Intellectual Property (ANPI) in ONAPI to different audiences, including students, teachers, researchers, innovators, enterprises and the general public, reaching over 5,600 participants. Of these events, 62 covered distinctive signs, 50 covered industrial property in general, 22 covered patents and four covered industrial designs. ANPI also organized a program on IP management for 20 academic institutions in the Dominican Republic in cooperation with the Universidad del Bosque of Colombia and expert speakers from the university's Legal Office of Innovation and Technology Transfer. TISC staff from ANPI also continued to participate in an important initiative of the Ministry of Industry, Commerce and Mipymes, which supports small and medium-sized enterprises in different regions of the country in their innovative activities (Ruta Mipymes project). TISC staff in the Dominican Republic also continued to train and strengthen their knowledge and skills to ensure quality services.

In **El Salvador**, TISCs provided 97 training seminars on IP (half of them onsite, the other half online) to a total of 3,835 participants from academic and other public institutions (65 percent) and the private sector (35 percent).

In **The Gambia**, the TISC at the Gambia Chamber of Commerce and Industry hosted a special event on World IP Day targeting women inventors to raise awareness of the role of IP in promoting innovation and creativity. Several other awareness-raising and capacity-building activities were organized throughout the year, including a workshop for policymakers and small and medium-sized enterprises and a workshop on patent, trademark and design searches for TISC staff. The IP office in the Ministry of Justice, focal point of the national TISC network, also trained traditional medical practitioners throughout the country on how to conduct patent searches in PATENTSCOPE.

In **Honduras**, the TISC hosted in the Directorate General of Intellectual Property, focal point of the national TISC network, organized over 20 workshops and awareness-raising activities for TISCs in the national network to support TISC staff in strengthening their skills – including on technology transfer and IP management – and to raise IP knowledge among their users. Specific TISCs in the national network such as the TISCs hosted in the Escuela Agrícola Panamericana, Zamorano, the Instituto Hondureño de Ciencia, Tecnología y la Innovación, Universidad José Cecilio del Valle and Universidad Metropolitana de Honduras also reported having organized and participated in numerous activities to promote creativity and innovation and to increase the awareness and use of IP by the students, researchers and innovators they support. Dedicated resources such as TISC brochures were also developed to help disseminate their activities and services and increase their outreach.

In **Jordan**, the Industrial Property Protection Directorate, Ministry of Industry, Trade and Supply, focal point of the national TISC network, organized an annual meeting and launched a dedicated website for TISCs to foster communication and networking among them.

In **Kazakhstan**, a new division was created within the National Institute of Intellectual Property (Qazpatent), focal point of the national TISC network, to coordinate TISC activities in Kazakhstan. A new website was developed to promote the TISC project and to disseminate TISC-related learning resources and materials.

In **Kyrgyzstan**, the State Agency of IP and Innovation under the Cabinet of Ministers of the Kyrgyz Republic (Kyrgyzpatent), national TISC focal point, developed a new training program that started in January to build IP knowledge and capacities throughout the country and train new patent attorneys from the pool of regional TISC coordinators. In total, 90 participants

benefited from this training program, four TISC coordinators applied for patent attorney accreditation and registration, and two of them successfully received their accreditation.

In **Lesotho**, the Office of the Registrar General, focal point of the national network, conducted visits to selected TISCs to support them in identifying their training needs and include these in the plans for the development of the national network.

Following a training needs assessment conducted by LIPO, focal point of the TISC network in **Liberia**, TISC staff enrolled in distance learning courses of the WIPO Academy and participated in hybrid workshops on patent, trademark and industrial design searches and patent search techniques and strategies. In total, at least 75 representatives from TISC host institutions have been trained since the establishment of the network in 2021, and two institutions are looking at adding IP to their teaching curriculum.

The Scientific and Technical Documentation and Information Centre, focal point of the TISC network in **Madagascar**, organized numerous awareness-raising and training events on IP, patent information, patent searches, and the protection and commercialization of research results, training over 130 TISC staff on these topics. Five TISC staff followed WIPO Academy advanced distance learning courses on patents, trademarks, industrial designs, geographical indications, and the collective management of copyright and related rights. The TISC network of Madagascar was also selected to participate in the pilot session of the WIPO TISC staff certification program, and eight TISC staff are currently following the training to get certified.

TISC staff in **Morocco** continued to dedicate a significant amount of their time to strengthening their knowledge and skills, with 404 participations in advanced distance learning courses of the WIPO Academy (of which 60 percent followed the advanced courses on patents, patent information search and patent drafting), and participation in a series of webinars organized by OMPIC for TISCs.

In **Namibia**, the national focal point conducted field visits to all the TISCs in the network to identify their training needs and support them in developing their range of services. As a result, a training event was organized in December on patent search tools and on the WIPO ARDI and ASPI programs.

In **Pakistan**, 116 training sessions were organized by TISC host institutions for their students, researchers and entrepreneurs, covering diverse subjects related to IP protection and commercialization.

In the **Philippines**, in addition to regular training activities conducted by IPOPHL to support the development of knowledge and skills of TISC staff in areas such as patent drafting, patent searches, IP valuation and IP enforcement, 15 TISC staff are participating in the WIPO TISC staff certification pilot program. Selected institutions also participated in a pilot training on new product development and inventions in the public domain.

Over 4,200 conferences, seminars and other events were organized by the national TISC network in the **Russian Federation**, reaching over 60,000 participants.

In **Saudi Arabia**, SAIP implemented a training program for TISCs in cooperation with two leading institutions in Saudi Arabia: King Fahd University of Petroleum and Minerals, and Saudi Aramco. The program aims to equip TISCs with the necessary skills and knowledge to enable them to provide high-quality services. It comprises three modules covering the fundamentals of IP, IP assessment and commercialization, and licensing. In 2023, 64 training activities were organized under the program, a 41.5 percent increase from training offerings in 2022, and more than 3,000 people were trained. SAIP also launched a series of newsletters to encourage the sharing of knowledge, experiences and success stories among TISCs.

In **South Africa**, NIPMO, together with WIPO and SARIMA, organized a pioneering intensive eight-week on-the-job training program at South African TTOs for 12 professionals from Botswana, Malawi, Namibia, Zambia and Zimbabwe.

In **Ukraine**, UANIPIO launched new communication channels, including a group on WIPO's eTISC platform, to disseminate information about TISC-related events and strengthen communication among members of the network. It organized and participated in 29 training and awareness-raising activities to enhance the IP knowledge and skills of researchers and entrepreneurs in Ukraine, attracting over 1,000 participants. A strong emphasis was also placed on building a network of expert speakers from TISCs and on strengthening their capacities. TISCs in Ukraine also organized and contributed to 29 events, attracting on average 35 to 50 participants per event.

In **Uzbekistan**, 60 training events were held, focusing mainly on improving the protection of IP assets in TISCs. The Intellectual Property Center under the Ministry of Justice of the Republic of Uzbekistan, focal point of the TISC network, organized the second national conference for TISCs in November, and awarded the most active TISCs and their staff on this occasion.

## Regional initiatives scale up worldwide impact and reach

Regional cooperation has been important in strengthening national TISC networks and increasing their impact and reach. Initiatives facilitating the exchange of experiences and best practices to help TISC networks become more efficient and deliver targeted services have continued to flourish globally.

Regional TISC networks have been established in Africa, Asia and the Pacific, and Latin America and the Caribbean.

In the Arab region, the first TISC Arab Regional Meeting was held in Algiers in May in collaboration with INAPI to explore opportunities for strengthening regional cooperation among representatives from nine TISC networks (Algeria, Djibouti, Egypt, Jordan, Mauritania, Morocco, Oman, Palestine and Syrian Arab Republic) and the League of Arab States. An action plan was agreed upon by the participating countries to follow up on proposed activities in the region and review the progress achieved in the next annual meeting. Algeria and Djibouti also signed a bilateral agreement during this event to exchange experiences in the development of their national TISC networks and to establish a first regional TISC among the two countries.



Photo: Raoufak Kebairia

Participants of the TISC Arab Regional Meeting, Algiers, May 23 and 24, 2023

In the ASEAN region, TISC network focal points and representatives from TISC host institutions met in Surabaya, Indonesia to exchange experiences and identify best practices in TISC management and outreach. An ASEAN TISC Network Advocacy Pledge was signed, expressing the intention of the attending national TISC networks to cooperate in: (i) exchanging experiences and good practices in raising awareness; (ii) integrating good practices in raising awareness; and (iii) identifying opportunities for joint action in raising awareness, with respect to services, activities and programs for IP, innovation and development. A follow-through ASEAN TISC Interim Regional Meeting was then held in December 2023, with a focus on identifying avenues for exchanging experiences, integrating good practices and identifying joint opportunities. The regional group benefited from this meeting with the identification of action points and proposals for the next annual TISC ASEAN Regional Meeting in 2024.

In addition to the ongoing regional cooperation established among TISC networks in the ASEAN region, a Regional Meeting was also held in Shenzhen, China, in November, in cooperation with CNIPA, for certain TISC networks in the Asia-Pacific region. Representatives from the national TISC networks of China, Georgia, Indonesia, Kazakhstan, Kyrgyzstan, Malaysia, Mongolia, Pakistan, Philippines, Sri Lanka, Uzbekistan and Viet Nam shared experiences and best practices in establishing and developing TISCs and in integrating TISCs into their national and institutional strategic frameworks. They also explored ways in which regional cooperation could help them leverage the strengths of their networks and address some of the challenges they face.

In Africa, TISC network focal points from member states of ARIPO met in Harare, Zimbabwe, in February, to discuss and share experiences in the effective management of their TISC networks and the promotion of TISC services among users in their respective countries. A similar meeting was held in Yaoundé, Cameroon, in September, for TISC focal points of the national TISC networks of member states of the African Intellectual Property Organization (OAPI) to establish a regional TISC network to improve networking, knowledge sharing and resource leveraging among OAPI countries.

In Central Asia, representatives of the TISC networks of Kyrgyzstan, Tajikistan and Uzbekistan participated in the Second TISC Congress of the national TISC network of Kazakhstan, hosted by Qazpatent in Astana in October, to share experiences and good practices in the establishment of their national networks and strengthen regional cooperation for the effective management of their networks.

Bilateral cooperation also plays an important role in supporting the further development of national TISC networks and in contributing to the regional initiatives described above. In 2023, the Moroccan TISC network for instance shared its experiences and lessons learned with Oman, and other similar examples include the support provided by the focal point of the TISC network in Kyrgyzstan to the national TISC network of Kazakhstan.

# WIPO resources supporting TISCs and TTOs

As TISC and TTO networks expand and provide more services to local innovators, WIPO continues to support them with knowledge and learning resources as well as effective management resources.

WIPO has developed a range of initiatives and resources to empower TISCs and technology transfer structures. These include public-private partnerships to facilitate access to technological information; the [WIPO INSPIRE](#) open digital knowledge center, which provides researchers and innovators with access to a unique blend of information and knowledge in the area of IP and innovation, in particular on patent databases, patent registers, patent analytics, technology transfer and institutional IP policies; and dedicated training activities and publications in these areas.

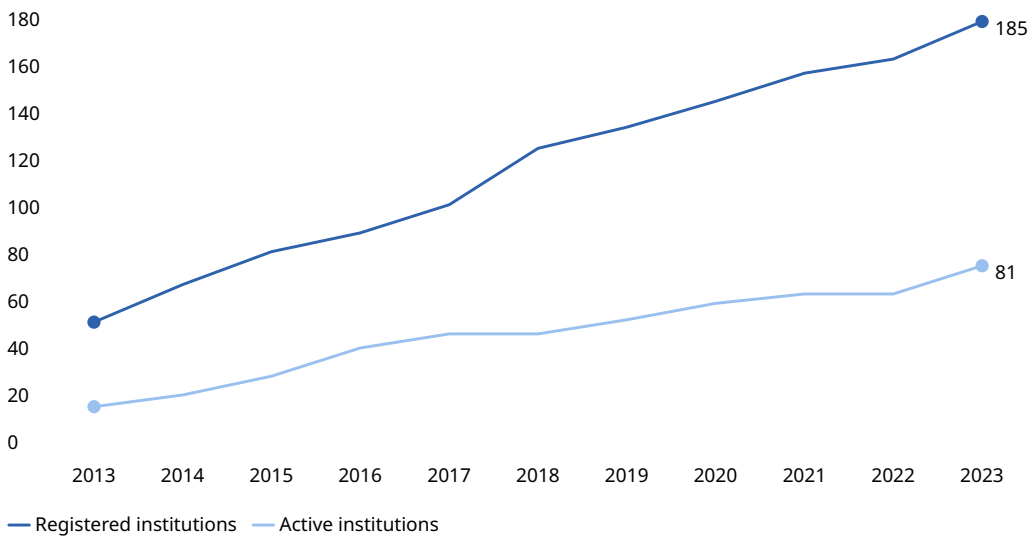
The [IP and technology transfer webpage](#), accessible through WIPO INSPIRE, also offers a unique reference point for information on technology transfer and institutional IP policies and provides access to the [WIPO database of institutional IP policies](#), with links to existing IP and related policies (such as [policies on consulting](#), [copyright](#), [conflict of interest](#), [software](#), [open access](#) and [spinoffs](#)) of universities and research institutions worldwide.

## Digital platforms and tools for access to information and knowledge

### Access to Specialized Patent Information (ASPI)

ASPI facilitates free or low-cost access for academic and research institutions in developing countries to commercial patent database services that offer advanced tools and services for retrieving and analyzing patent data. It is made possible through a unique public-private partnership with nine leading patent database providers.

The ASPI registration rate has been steady in recent years, with a notable increase in 2023. There has been a significant improvement in the user administration and communication processes due to the assignment of dedicated personnel.

**Figure 5. Number of registered and active institutions in ASPI**

Source: ASPI database

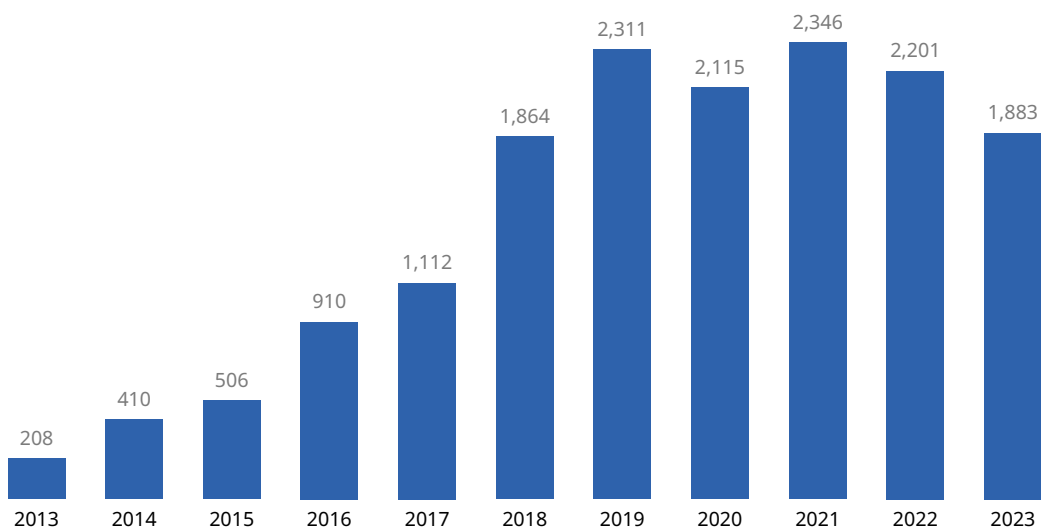
## Access to Research for Development and Innovation (ARDI)

Through a partnership with the publishing industry, ARDI strives to bridge the knowledge gap by increasing the availability of scientific and technical information for eligible institutions in developing countries. ARDI facilitates free or low-cost access for academic and research institutions in developing countries to over 60,000 resources including peer-reviewed journals, books and other information publications in diverse fields of science and technology.

The program is also part of Research4Life, a partnership of five United Nations agencies, private-sector enterprises, non-governmental organizations and academic institutions.

Research4Life provides researchers in 125 developing countries and least developed countries with free or low-cost access to up to 203,000 journals, books and other information resources in the fields of health, food and agriculture, the environment, applied sciences, law and social sciences. More than 11,000 institutions are currently registered with Research4Life.

A consistent growth in the availability of open access publications through different sources and platforms has resulted in a noticeable fluctuation in the number of ARDI logins in recent years.

**Figure 6. Number of ARDI logins**

Source: Research4Life

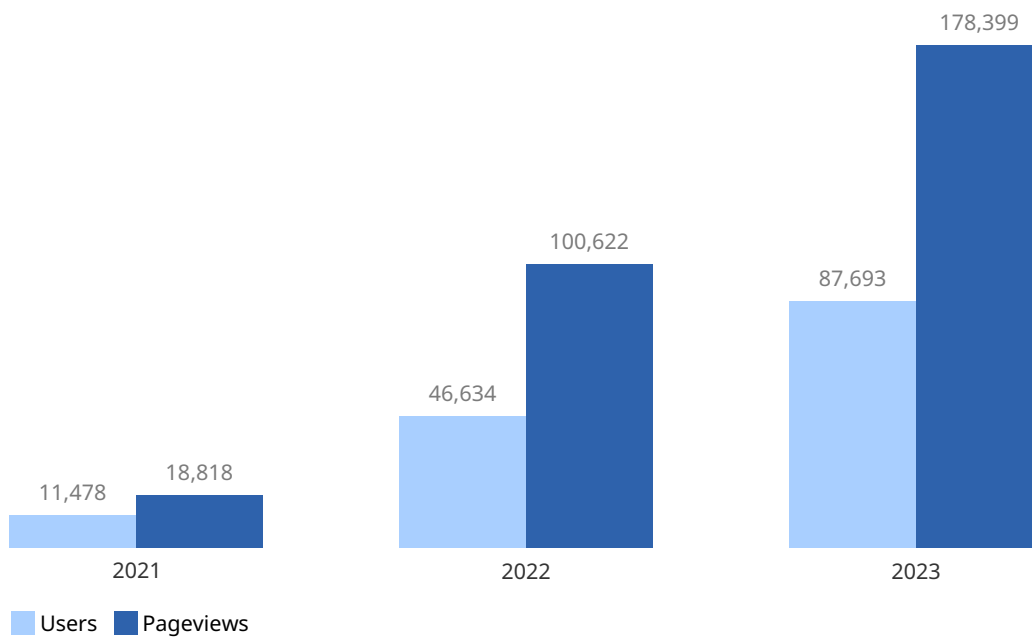
## WIPO INSPIRE

WIPO INSPIRE is a global knowledge platform to assist innovators, entrepreneurs, patent professionals, TISCs and TTOs in their innovation support activities.

It is a one-stop platform that provides a unique blend of information and knowledge on patent databases, patent registers, patent analytics, technology transfer and institutional IP policies, combining reference data with expert insights into resources, tools and good practice recommendations.

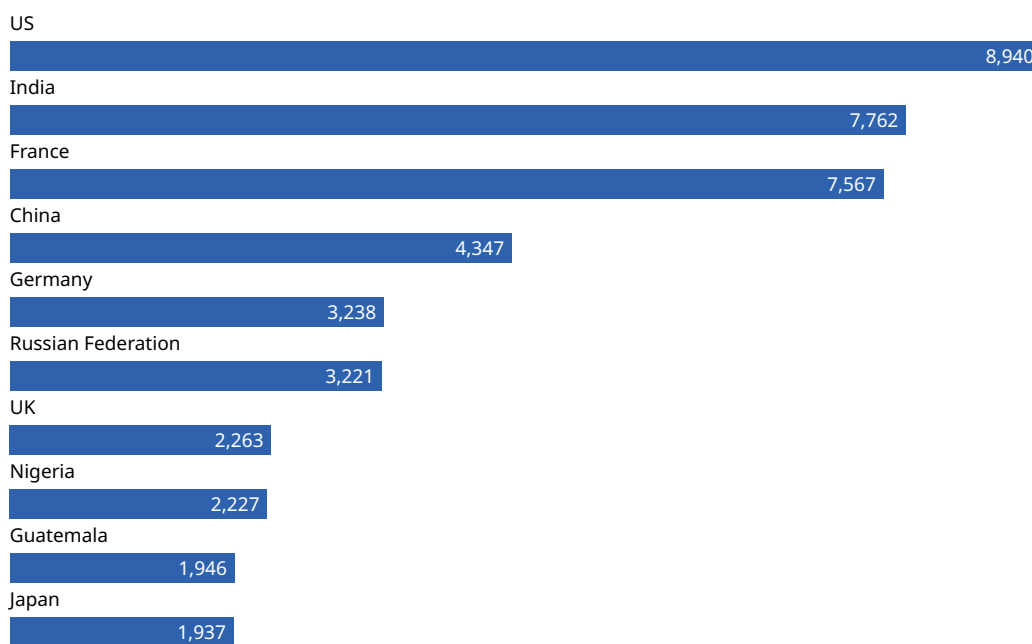
WIPO INSPIRE was accessed by over 87,000 users in 2023, compared to 46,634 users in 2022, representing an 88 percent increase in use.

**Figure 7. WIPO INSPIRE use**



Source: WIPO Web Analytics

**Figure 8. Top 10 countries with the highest number of visitors to WIPO INSPIRE in 2023**



Source: WIPO Web Analytics

## Patent database reports

The patent database reports portal within WIPO INSPIRE provides access to the reports on national and commercial patent databases and their features. Innovators, researchers and patent professionals can find clear, accurate and unbiased information about patent databases and assess which database is best for their needs. In 2023, there were 46 detailed reports on the content and features of a wide range of patent databases. These reports were accessed by 38,640 users.

## Patent registers

The Patent Register Portal in WIPO INSPIRE is an interactive directory of online patent registers and gazettes to guide users to relevant sources of legal status information when researching the validity of a patent. As a gateway to legal status-related information from over 200 jurisdictions and patent information collections, the Patent Register Portal contains a searchable map and table as well as detailed jurisdiction files with useful legal-status-related information and search tips. The jurisdictions files and associated links to nation online registers and gazettes have been revised and updated in 2023. The portal was accessed by over 11,000 users.

## Patent analytics

WIPO INSPIRE also offers a reference point for access to patent analytics resources, in particular PLRs and WIPO Technology Trends (WITT) reports, which track the development of technologies through the analysis of data on innovation activities that help inform policy discussions, strategic research planning and technology transfer.

Through the platform, users can access 18 PLRs prepared by WIPO and 265 PLRs prepared by other organizations, as well as the WITT reports on artificial intelligence (AI) and assistive technology, which were downloaded more than 193,000 times between 2019 and the end of December 2023.

## Technology transfer and institutional IP policies

Specific activities and resources on technology transfer and institutional IP policies are accessible through WIPO INSPIRE on a dedicated IP and technology transfer webpage, which serves as the primary repository for information and resources in these areas.

## eTISC

Through WIPO INSPIRE, users can access eTISC, a virtual knowledge-sharing platform that provides a dedicated space for the TISC community and IP professionals to interact and share knowledge and ideas.

Main features of the platform include:

- “Ask the Expert” sessions for interacting with experts in fields such as patent information and technology transfer;
- Group and forum discussions for sharing knowledge and experiences; and
- News and events to help users stay up to date with the latest IP information.

2023 saw a substantial increase in eTISC platform use, due to new activities and news items and articles being added to the platform. The thematic webinar series and Ask the Expert discussions continued in 2023, with the theme being “IP and Life Sciences.” Topics covered included: Pathway to Licensing Patents: A Step-by-Step Overview of Agreements; Patenting and Disclosure Requirements of Healthcare Innovations; Inventing in Collaboration: The Allocation of Patent Ownership in R&D Partnerships; and Deal Structuring: Negotiating IP Terms in Development Agreements. The webinar series brought together many individuals including IP professionals, researchers, students and entrepreneurs, among others.

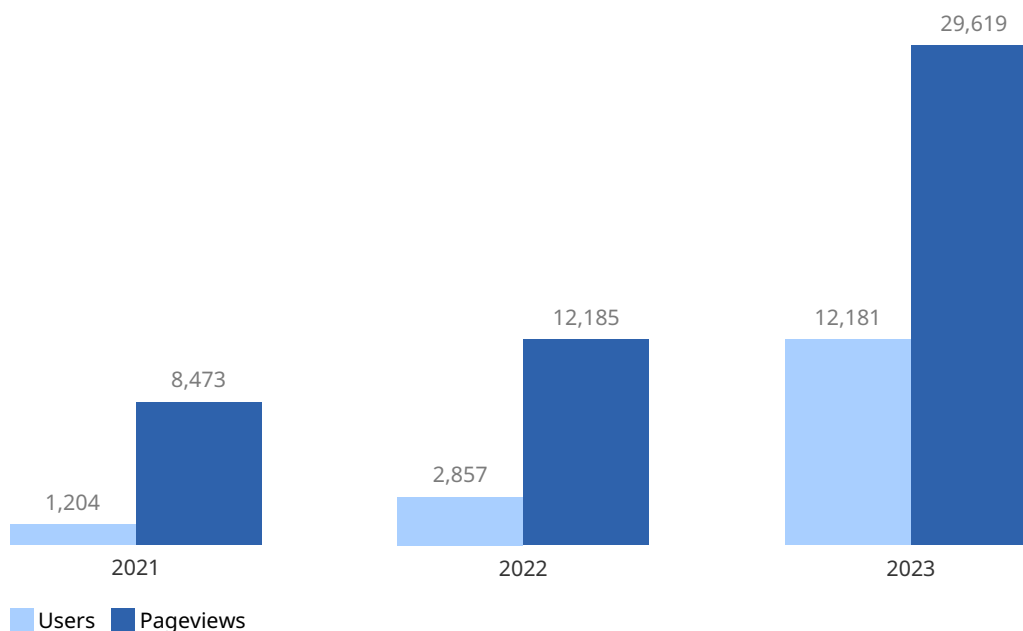
The eTISC platform was also used to facilitate the sharing of knowledge and resources and to strengthen networking among participants of various capacity-building and training activities, such as participants in the on-the-job training in the SADC region, technology transfer



professionals who participated in the accelerated life sciences innovation regional conferences in Mexico and the Philippines, and TISC staff from Malaysia and the Philippines who followed the pilot training on the toolkit on new product development and inventions in the public domain.

In 2023, eTISC was accessed by 12,181 users; a significant increase compared to previous years.

**Figure 9. eTISC use**



Source: WIPO Web Analytics

## TISC Project and Performance Management Platform (TPPM)

Launched by WIPO in 2022, the platform was developed to support the growing global TISC network in managing national TISC networks more effectively. The platform was designed especially to help TISC coordinators manage their national projects, and coordinate, evaluate and report on their activities. After being piloted in six countries in 2022, the platform was rolled out to eight additional countries in 2023. The feedback collected from the pilot countries is being used to further improve the platform before rolling it out globally.

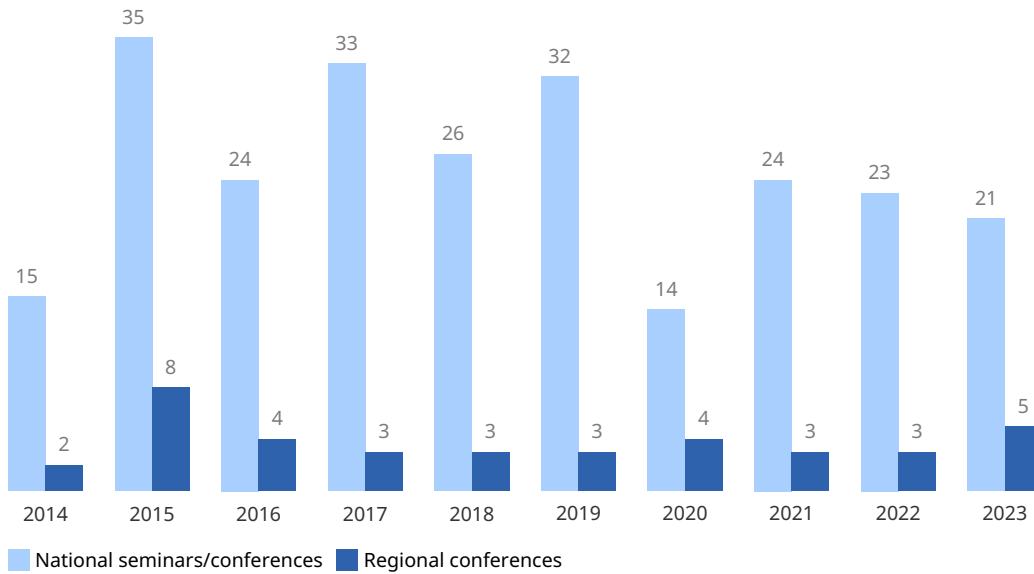
## Training to expand knowledge and skills

To increase the capacities, knowledge and skills within TISCs and technology transfer structures, WIPO provides training through onsite and online workshops, WIPO Academy distance learning courses and specialized learning resources on patent searches, including state-of-the-art, novelty and freedom-to-operate searches, patent analytics and technology transfer.

In the area of technology transfer, IP management and IP commercialization, training programs focus on the development of human capital regarding pillars of the innovation ecosystem, such as institutional IP policies, the establishment and management of technology transfer structures, and capacity building in IP marketing, licensing and valuation.

## National and regional training for TISCs

To support TISCs in developing the technical skills needed to provide high-quality innovation support services to local innovators, 21 workshops were organized for national TISC networks, and five Regional Meetings were organized for ARIPO, ASEAN and OAPI member states and for certain TISC networks in the Arab region and in Asia.

**Figure 10. Number of national and regional conferences organized for TISCs**

Source: WIPO IPID, 2023

To increase the standardization of TISC operations, raise the quality of services across TISCs and improve career development pathways for TISC staff, a WIPO TISC staff certification program, which aims to establish a curriculum-based professional certification for TISC staff, was developed. The first pilot session of the TISC Foundation Course was launched with 48 participants from six countries (China, Kenya, Madagascar, Peru, Philippines and Saudi Arabia). The course includes three phases: a distance learning phase, an instructor-led training course, and practical on-the-job experience in providing TISC services. This first pilot run will continue in 2024 before being rolled out to all TISC networks.

### Training on technology transfer and IP commercialization

Eight training sessions were also organized specifically for technology transfer structures in six member states of the Eurasian Patent Organization (EAPO) – Belarus, Kazakhstan, Kyrgyzstan, Russian Federation, Tajikistan and Turkmenistan – as well as in Colombia, Egypt, Mexico and Philippines, to enhance the knowledge of researchers, TTO staff and managers in these countries on different aspects of technology transfer and IP commercialization. Hands-on training sessions were also organized on the practical application of IP valuation methods in different contexts (licensing, valuation of equities, litigation) for specific sectors (biotechnology and pharma, agroindustry) and regions, such as for member states of ASEAN to reinforce the capacity of innovation stakeholders to recognize risks and opportunities in technology transfer negotiations and to be able to value their intangible assets.

In the SADC region, a pioneering program was launched to provide on-the-job training in technology transfer to 12 selected practitioners from Botswana, Malawi, Namibia, Zambia, and Zimbabwe, with an eight-week experience in South Africa. [\(See the Special Feature of this report for more on this initiative.\)](#)



Photo: William Mulders

Lien Verbauwheide Koglin (Counsellor, IPID, WIPO) with Chrispin Kaphaika (Lilongwe University of Agriculture and Natural Resources) and Livison Msonthe (Malawi University of Business and Applied Sciences), participants from Malawi in the on-the-job-training, at University of Cape Town

“It was just one of the best trainings ever. The skills that I have acquired, I didn’t have them before. The networks that I have established, I didn’t have them before.”

### **Livison Msonthe**

Malawi University of Business and Applied Sciences

In the ASEAN region, WIPO launched two regional projects – the first related to IP valuation, and the second on the development of a regional IP policy model for academic institutions (see below) to contribute to the development of TISCs and other technology transfer structure services and support, and to support ASEAN member states to achieve the objectives as defined in the ASEAN IPR Action Plan 2016–2025. Both projects are supported by the Japan Industrial Property Global Funds-In-Trust and have been implemented in close collaboration with ASEC as well as national IP offices and other relevant government institutions, academic and research institutions, practitioners, industries and financial communities, with the support of regional and international experts. The ASEAN IP valuation project aims to assess current regional practices and to provide complementary specialized resources in the form of an IP valuation toolkit containing a set of regionally agreed leading principles and practices that will enable the creation of more transparent IP market relations and an environment of trust in IP transactions. In the first phase of the project, a survey was conducted with interviews of nearly 400 practitioners, financial experts, technology managers and enterprises from 10 ASEAN member states, containing direct feedback to identify the status of IP valuation in the region, potential challenges, impeding factors and recommendations. Building on the first phase, the IP valuation toolkit is being developed to facilitate application of common standards in the ASEAN region. It contains relevant processes, useful references and best reporting practices and will also be used as a specialized resource for capacity building of professionals in the region.



Photo: WIPO

Participants at the ASEAN Regional Meeting in Jakarta, June 26 and 27, 2023



Photo: WIPO

ASEAN Regional Meeting in Jakarta, June 26 and 27, 2023

In response to the global challenges posed by the COVID-19 pandemic, specific resources and training initiatives were also established by WIPO to enhance awareness and comprehension of the intricate interplay between global health, access to medical technologies, innovation, technology transfer and trade. The focus on life sciences has been a direct result of WIPO's continuous efforts to deliver customized, targeted and impact-driven support to address country-specific needs and priorities during the post-pandemic period, to harness the potential of IP as a tool that not only addresses the consequences of such pandemics but also meets the most urgent healthcare needs worldwide.

Two regional training events were organized in Asia and Latin America to support participating countries in developing skills and capacities in IP identification, protection and management, as well as technology transfer strategies for health technologies. The Asian Regional Conference for Accelerated Life Sciences Innovation took place in Manila, Philippines, from September 11 to 15 and was hosted in cooperation with IPOPHL. The event gathered over 100 participants, from Brunei Darussalam, Cambodia, China, India, Indonesia, the Lao People's Democratic Republic, Malaysia, Pakistan, Philippines, Republic of Korea, Thailand and Viet Nam. Beneficiaries also included TISC and TTO staff specializing in life sciences, with 48 percent of the participants coming from academia, 45 percent from government institutions, and 7 percent from industry and the private sector. Training topics included risk finance for life sciences innovation, IP valuation as an IP management tool, patent valuation in life sciences, and dispute resolution in life sciences. The conference highlighted the shared need for robust innovation ecosystems in this area and the important role of IP rights in technology transfer and investment in scientific research and innovation.



Photo: Courtesy of the Intellectual Property Office of the Philippines (IPOPHL)

Asian Regional Conference for Accelerated Life Sciences Innovation, Manila, September 11 to 15, 2023



Photo: Courtesy of the Intellectual Property Office of the Philippines (IPOPHL)

Participants at the Asian Regional Conference for Accelerated Life Sciences Innovation, Manila, September 11 to 15, 2023

A similar training program was organized in cooperation with IMPI for the Latin America region from May 9 to 12 in Mexico City. The Regional Conference in Support of Accelerated Life Sciences Innovation – Skills Development and Capacity Building was attended by participants from Argentina, Brazil, Chile, Costa Rica, Cuba, Mexico and Peru and included managers from various institutions and research centers involved in IP and technology transfer in life sciences. The event highlighted the need for better collaboration among biopharmaceutical industries, biotechnology firms, universities, research centers, and government entities to enhance IP and technology transfer capabilities.



Photo: Courtesy of the Mexican Institute of Industrial Property (IMPI)

Regional Conference in Support of Accelerated Life Sciences Innovation – Skills Development and Capacity Building, Mexico City, May 9 to 12, 2023



Photo: Courtesy of the Mexican Institute of Industrial Property (IMPI)

Participants at the Regional Conference in Support of Accelerated Life Sciences Innovation – Skills Development and Capacity Building, Mexico City, May 9 to 12, 2023

At the regional level, a specialized WIPO–EAPO training program to boost IP commercialization in techno parks across the Central Asian, Caucasus and Eastern European Countries (CACEEC) region was organized in Astana, Kazakhstan, on March 14 and 15. This was followed by another training for techno parks in EAPO member states held in Bishkek, Kyrgyzstan, in July, where the focus was on enhancing IP commercialization capacities through training on IP valuation.

In the Baltic States TTO Network, established in October 2022, a tailored mentorship program was developed, which targets the development of IP commercialization professionals and support for spinoffs and startups in the region.

At the national level, a number of training activities were also implemented to support TISCs and TTOs in enhancing their IP commercialization, IP management and technology transfer capacities, such as in Colombia, Cuba, Egypt, India and Samoa, with the support of resources and tools such as WIPO's technology transfer model agreements and resources in IP licensing and IP valuation.

In Cuba, a bespoke intensive training event was organized to build the capacities of staff at the Science and Technology Park of Havana and other selected institutions, in partnership with two Turkish technology parks, Bilisim Vadisi and Entertech İstanbul Teknokent, to exchange expertise in research and innovation policies and to share knowledge on how to enhance efficiency in technology park operations. The last phases of this project include the implementation of a mentoring process for four companies selected by the Science and Technology Park of Havana, and support toward the development of a technology transfer and IP commercialization institutional policy for the Science and Technology Park of Havana.

On November 6 and 7, the International Knowledge and Technology Transfer Leadership Summit, jointly organized by WIPO and AUTM in collaboration with Hub-Tech, Chile's national agency for technology transfer, also convened in Santiago, Chile. Approximately 40 global leaders in technology transfer gathered for the summit, with WIPO facilitating the participation of 10 technology transfer leaders from developing countries. Following the successful model from the previous summit in 2022, the event began with discussions on "hot topics" and progressed to address key issues such as the future landscape of technology transfer, and strategies for training the next generation of professionals. The summit reinforced the enduring partnership between WIPO and AUTM, emphasizing their joint dedication to driving advancements in technology transfer on a global scale.



Photo: AUTM

WIPO-AUTM International Knowledge and Technology Transfer Leadership Summit, Santiago, Chile, November 6 and 7, 2023

## Training on institutional IP policies

For more than 10 years, WIPO has provided specific support to universities and research institutions to help them create institutional policies for effective IP management and technology transfer. The IP Policies for Universities and Research Institutions initiative has three main components: a WIPO IP Policy Toolkit, national customized versions of the WIPO IP Policy Toolkit, and project-based coaching and technical assistance to individual academic and research institutions.

The WIPO IP Policy Toolkit was created as the starting point for universities to help them deal with issues such as ownership of IP and rights of use, IP disclosure, IP management, IP commercialization, incentives for researchers, recording and accounting, and conflicts of interest. The toolkit comprises an IP Policy Writer's Checklist, an IP Policy Template for Academic and Research Institutions, and Guidelines for the Customization of the IP Policy Template.

A draft Policy Template for Use of Copyrighted Works at Universities and Public Research Institutions was further developed to complement the toolkit. The template is expected to be available in 2024.

National customized versions of the WIPO IP Policy Toolkit have been developed for 11 countries, with additional versions in development. The national versions integrate local laws, regulations and practices, reflect the countries' socioeconomic environments, and facilitate the adoption of IP policies at the institutional level and their harmonization for coordinated academic and industry collaboration. In 2023, WIPO completed the development of national versions for Algeria, El Salvador and Panama. These national models of institutional IP policies are expected to provide significant support to higher education institutions and research institutions in these countries in drafting comprehensive IP policies and in streamlining the writing process.

WIPO also provides project-based coaching and technical assistance to individual universities/institutions to support them in the formulation of effective IP policies calibrated to the local context, needs and mission. Since its establishment, the IP Policies for Universities and Research Institutions initiative has assisted more than 600 institutions in formulating IP policies. IP policies from universities and research institutions worldwide can be downloaded from the [WIPO IP Policy Database](#).



“I joined Sol Plaatje University as the first Innovation and Technology Transfer Manager at the Research Office. This entailed an enormous amount of effort to work toward creating an IP policy for the university. The WIPO IP Policy Template for Academic and Research Institutions together with the WIPO Database of IP Policies helped us gain momentum with concluding our policy within a very short period.”

**Ms. Tharusha Naidoo**

Innovation and Technology Transfer Manager at the Research Office, Sol Plaatje University, South Africa

“Over the past seven years, I have been advising dozens of public sector research institutions in developing countries around the world, on the importance of establishing a sound IP policy for building an effective IP/tech transfer system. The WIPO IP Policy Template, Guidelines and Checklist have been the foundational tools in that effort, in every instance.”

**Dr. Richard S. Cahoon**

Professor-adjunct, Department of Global Development, Cornell, and Senior Advisor, Commercial Law Development Program, US Departments of Commerce & State

“I recommend the WIPO IP Policy Toolkit – the template, the checklist and the guidelines for customization of the template – when I am advising institutions around the world on creating or updating their IP policy. The documents are thoughtful, comprehensive and clearly written, and are the only resources the institution will need.”

**Ashley J. Stevens**

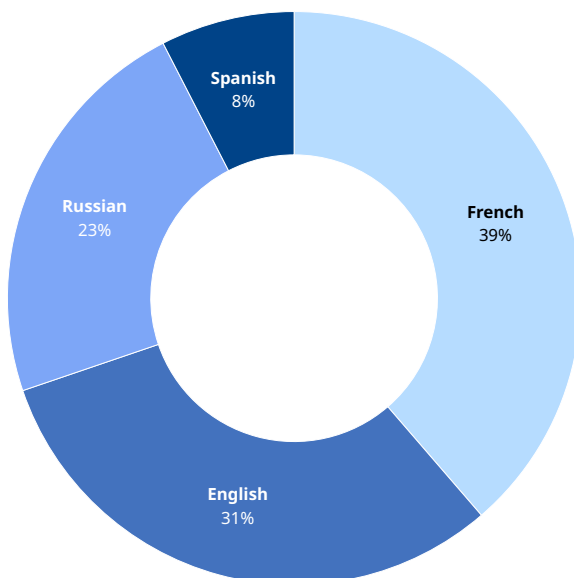
D.Phil (Oxon), CLP, RTTP, President, Focus IP Group, LLC

The WIPO IP Policy Toolkit has also been used to support specific regions in developing tailored IP policy models, for example in the ASEAN region. In 2023, an ASEAN Institutional IP Policy Model was developed as a result of a project implemented by WIPO in collaboration with the ASEAN Secretariat and supported by the Japan Industrial Property Global Funds-In-Trust. The model, which was developed based on an assessment of national legal frameworks and current technology transfer practices in the region, will assist universities and research institutions in the ASEAN region in developing institutional IP policies that provide an enabling framework for the efficient identification, management and commercialization of research outcomes and the resulting IP.

**Distance learning**

The e-Tutorial on Using Patent Information, which was launched in 2020 as a distance learning course (DL177) through the WIPO Academy platform, is a self-paced course specifically developed for TISCs that comprises three learning modules: patent basics, patent search and retrieval, and patent analysis.

**Figure 11. e-Tutorial registrations from TISC staff, by language**



Source: WIPO Academy, 2023

In addition to the e-tutorial, nearly 3,000 TISC staff also participated in other distance learning courses offered by the WIPO Academy in 2023.

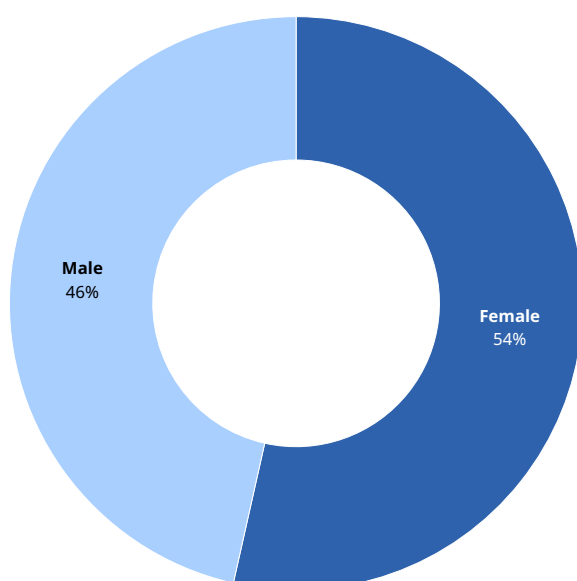
The participation of TISC staff in advanced courses on IP management, trademarks, industrial designs and copyright, in addition to their participation in courses on patents, patent search and patent drafting, reflects the need for TISCs to increase their knowledge and skills in other innovation support areas to respond to the demand from local innovators and entrepreneurs.

**Figure 12. TISC staff participation in advanced courses of the WIPO Academy, by course**



Source: WIPO Academy, 2023

**Figure 13. TISC staff participation in WIPO Academy training, by gender**



Source: WIPO Academy, 2023

## Publications to support training and reinforce learning

Training is supported by publications developed for TISCs and technology transfer structures to reinforce learning. These publications are key reference sources on a range of subject areas such as patent documentation and databases, patent searches, patent analytics, technology transfer, IP management and commercialization. They are available in multiple languages.

Following the publication of the WIPO guides on identifying and using inventions in the public domain, a complementary toolkit was developed. The toolkit supports the concepts and processes introduced in these guides with a set of practical tools that help collect and analyze data to evaluate a new product development initiative and support decision-making in the development of new products and services based on inventions in the public domain. A new modular blended-learning training package to build knowledge and skills in using these tools was also developed and piloted in selected TISC host institutions in Malaysia and the Philippines.

### Publications on technology transfer

A new guide, *Incentives in Technology Transfer: A guide to encourage, recognize and reward researchers and professionals*, was developed to help universities create innovative incentive programs for their academic researchers and encourage them to participate in technology transfer and knowledge exchange activities. The guide also supports technology transfer professionals to help the university TTOs expand, thrive and reduce staff turnover.



“The new WIPO guide [on incentives in technology transfer] is the first global collection of approaches used to motivate, inspire and reward creativity at the beginning stages of the innovation pathway. This is an important part of understanding our innovation ecosystems and how best to assure strong commitments toward bringing new products and services to market.”

#### Todd Sherer

Associate Vice President for Research, Executive Director, Office of Technology Transfer, Emory University, United States of America

## Publications on patent analytics

The WITT reports are flagship publications that track technology trends through the analysis of patent and other data to provide empirical evidence on innovation in specific fields. The resulting knowledge helps business leaders, researchers and policymakers in their decision-making. The first report in the series was published in 2019 and focuses on trends in patenting of AI innovations. The second report, published in 2021, is the first large-scale overview and analysis of patenting and technology trends in the field of assistive technology, and provides information about the state of play in technologies that assist people living with physical or cognitive impairments. In 2022, preparatory work started on the third report, which will focus on the future of transportation. The WITT reports were downloaded more than 193,000 times between 2019 and the end of December 2023.

PLRs prepared by WIPO over the years have covered topics of particular relevance to developing countries such as public health, food security, climate change and the environment. In 2023, three new PLRs were published: the first, “COVID-19 vaccines and therapeutics,” was the second edition of a report first published in 2022. The first report (2022) examined related patent filings from January 2020 to September 2021, whereas the second report (2023) examined related patent filings up to September 2022, providing a comprehensive review of patenting activity and building on insights from the first COVID-19 PLR. The other two PLRs were “Graphite and its applications” and “Production of titanium and titanium dioxide from ilmenite and related applications.”

In addition to these reports, WIPO also provides access to over 250 PLRs prepared by other organizations.

### PLRs published by WIPO in 2023



Several learning resources and tools to help build capacity and develop the patent analytics skills of researchers and innovators in developing countries have also been developed over the years. Methodological guidelines for preparing PLRs have been formalized in the *WIPO Guidelines for Preparing Patent Landscape Reports*, the *WIPO Manual on Open Source Tools for Patent Analytics* and the *Handbook on Patent Analytics*, with the latter two being revised and updated in recent years.

# Special Feature: Technology transfer in action – empowering southern African technology transfer with an on-the-job training program

WIPO, in collaboration with the Southern African Research & Innovation Management Association (SARIMA), the Japan Patent Office (JPO) and South Africa's National Intellectual Property Management Office (NIPMO), successfully concluded a technology transfer on-the-job training program. This pioneering initiative, designed to enhance technology transfer within the Southern African Development Community (SADC) region, serves as a practical and impactful example of technology transfer in action.

Between August 15 and October 31, an eight-week needs-based experiential pilot on-the-job training program, based at South African TTOs, was offered to 12 individuals who are actively involved in technology transfer activities at public research universities or institutions in six SADC member countries, namely Botswana, Malawi, Namibia, South Africa, Zambia and Zimbabwe, following a competitive selection process facilitated by WIPO and SARIMA. The selected individuals were given the opportunity to work closely with experienced technology transfer professionals at South African TTOs, gaining firsthand experience in the daily operations of TTOs, processes and strategies.

## Host institutions

1. North-West University (NWU)
2. Stellenbosch University (SUN)
3. University of Cape Town (UCT)
4. University of Johannesburg (UJ)
5. University of South Africa (UNISA)
6. University of the Western Cape (UWC)



Photo: William Mulders

The Namibian technology transfer delegates with the UWC TTO team, from left to right: Nadia Jansen (NUST), Luan Africa (UWC TTO), Leonard Imene (UNAM), Oko Lwana (UWC TTO), Monique Heystek (UWC TTO), Njabulo Kubheka (UWC TTO), Aisha Mahomed Ali (UWC TTO) and Ana Casanueva (UWC TTO)



Photo: William Mulders

Nadia Jansen (NUST) and Leonard Imene (UNAM), from Namibia



Photo: William Mulders

Chrispin Kaphaika and Livison Msonthe (participants from Malawi), with Doug Sanyahumbi, project coordinator

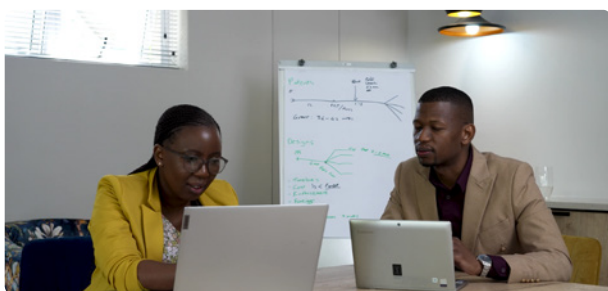


Photo: William Mulders

Mathogonolo Ntutu and Lame Ramaloto (participants from Botswana)



Photo: William Mulders

Chrispin Kaphaika and Livison Msonthe (participants from Malawi)

This pioneering initiative was implemented within the framework of a new partnership established between WIPO and SARIMA, a stakeholder organization dedicated to advancing the management of research and innovation and to fostering social and economic development within the SADC region. The Memorandum of Understanding signed between the two organizations on October 19 aims to enhance the management of IP in the SADC region and outlines joint initiatives including raising awareness, providing training, and strengthening technology transfer structures in the SADC region.

## Key benefits and value

The experiential learning program has delivered significant benefits and value, including:

1. **Mentorship:** Host TTOs served as mentors, providing participants with guidance and support. Drawing on their extensive experience in TT, they offered practical advice on navigating challenges, making informed decisions, and understanding the complexities of TT processes and activities.
2. **Mutual knowledge exchange:** The program facilitated a mutually beneficial exchange of knowledge between the experienced technology transfer practitioners at host institutions and visiting participants from the SADC.
3. **Real-world application:** Participants gained exposure to real-life technology transfer challenges and successes by actively participating in technology transfer activities at established host TTOs and sharing experiences. This hands-on experience provided invaluable practical insights.
4. **Networking opportunities:** Participants were introduced to extensive networks within host TTOs' technology transfer communities, connecting them with professionals such as patent attorneys, members of the Regional TTO Forum in the Western Cape and SARIMA members. These networking opportunities should pave the way for future collaborations.
5. **Benchmarking and exposure to diverse perspectives:** Host TTOs offered diverse perspectives based on their varied experiences. This exposure broadened the participants' understanding of different TTO structures and policies, as well as various aspects of technology transfer, including industry engagement, negotiation of agreements and IP management.
6. **Hands-on assignments:** Participants undertook practical benchmarking exercises, comparing institutional IP policies, researcher incentives, TTO staff incentives, and funding opportunities between their home institutions and host institutions. Additionally, they collaborated with host TTOs to develop case studies, further enhancing their learning experience.

## Impactful initiative for capacity development

This program provided participants with a transformative learning experience, allowing them to delve into various aspects of the technology transfer process guided by the extensive expertise available at South African host TTOs. Participants expressed newfound confidence in their ability to lead IP-related initiatives, formulate institutional strategies, and raise awareness about IP and technology transfer within their organizations. Furthermore, collaboration with host institutions and the comparative analysis of IP policies were viewed as valuable opportunities for enhancing IP management and protection. Ultimately, participants believed that the program would have a tangible impact by fostering IP awareness and technology transfer, thereby supporting researchers and innovators within their institutions and beyond.



“As a participant, I have gained greater insight into managing technology transfer and IP ecosystems, which is crucial in establishing the TTO at [my institution]. I highly recommend similar training opportunities to other professionals in the TTO sphere in Southern Africa.”

**Leonard Imene**  
Namibia

“This program has been very different in the sense that it’s a hands-on program.”

**Christopher Liswaniso**  
Zambia

“I now have multifaceted skills at my fingertips, and I can do my job with confidence.”

**Jephias Gwamuri**  
Zimbabwe

“The biggest benefit for me of this program was the networking that I made, the contacts that I’ve built up.”

**Nadia Jansen**  
Namibia

“I’m at the stage where I can actually pick up the phone and call someone to just offer assistance or if I’m lost or stuck with something.”

**Tharusha Naidoo**  
South Africa

“Through this program we are going to have quite a lot in terms of capacity building by rolling out similar training workshops within my institution and within the country as a whole.”

**Wilbert Mtangi**  
Zimbabwe

“It was just one of the best trainings ever.”

**Livison Msonthe**  
Malawi

“I wanted to see how established TTOs like Innovus operate, so that I can determine what I can implement in our institution back home.”

**Matlhogonolo Ntutu**  
Botswana

### Moving forward and ensuring sustainability

The impact of this groundbreaking program extends beyond merely equipping the 12 participants with skills; it also encompasses the establishment of a networked community within the region.

The program’s vision entails ongoing support, networking and engagement among organizers, host TTOs, participants and their respective home institutions, even after the program concludes. The aspiration is that this inaugural on-the-job program will serve as a beacon of innovative capacity building in technology transfer, fostering a renewed sense of collaboration and knowledge exchange among technology transfer stakeholders across borders in the SADC region.

To support this progression in future, WIPO envisions two main facets of the initiative:

- **Replication:** There is considerable interest in exploring the potential to replicate this on-the-job training model in other contexts and regions, with the aim of enhancing technology transfer skills and ecosystems on a global scale.
- **TTO network:** The overarching objective is to cultivate a sustainable community where participants can rely on each other for guidance, resources and collaboration long after the program’s conclusion. To achieve this, efforts are underway to introduce a mentoring program and an online TTO networking platform, modeled on WIPO’s TISC platform.

# Looking ahead

WIPO's support for TISCs and TTOs will continue to evolve and respond to local needs. New resources being developed to reinforce and expand the capabilities of TISCs and technology transfer structures will help create and strengthen innovation ecosystems, encouraging innovators to use IP for business growth and bring their innovations to market.

Looking ahead, the following activities are foreseen in 2024:

Patent search and analytics:

- Publication of guides on patent searches in biotechnology, disclosure requirements, and the protection of inventions related to pharmaceuticals and biotechnology.
- Publication of new PLRs in areas such as generative AI and agrifood.
- Launching game-based learning on patent analytics through a newly developed interactive and fun board game, and the launch of a new distance learning course introducing patent analytics.

Technology transfer and institutional IP policies:

- Implementation of a regional training and mentoring program to assist selected universities and public research institutions in the ASEAN region to develop or upgrade their institutional IP policies based on the ASEAN Institutional IP Policy Model.
- Compilation of good practices and effective institutional policy frameworks for innovation collaboration, and development of a related training program, including associated reference and training materials, within the context of the Development Agenda Project on IP and Innovation Collaboration as a Foundation for Technology Transfer and Bringing Research Output to Market.
- Launch and implementation of a mentoring program on the creation of spinoffs for Baltic States TTO Network professionals.
- Development of a database of incentives for researchers.
- Publication of a WIPO Policy Template for Use of Copyrighted Works at Universities and Public Research Institutions.
- Publication of a general guide to IP valuation and booklets on IP valuation in biotechnology and pharma, and IP valuation of spinoffs.
- Implementation of a capacity-building program on IP valuation for the ASEAN region and further development of an IP Valuation Toolkit to be used as reference material for training.
- Publication of a biotech technology transfer primer and development of a distance learning course on the subject.

#### Digital platforms and tools:

- Updating of the WIPO Database of Institutional IP Policies, expanding its search capabilities to include a broader range of policy types (such as conflict of interest policies, open access policies, consulting policies, etc.). This update will also enhance the search functionality, enabling users to conduct more targeted searches for examples of policies addressing specific areas within IP policy (such as course materials, disclosure, dispute resolution, traditional knowledge, software, etc.).
- Improvements to the eTISC platform to enhance user-friendliness, interactivity, and facilitation of knowledge sharing and networking. This entails introducing new functionalities such as multimedia upload, follow and share options, machine translation and optimizing existing features through platform redesign. The goal is to drive increased use and engagement among its user base, comprising TISCs, TTOs and IP information users.
- Redesigning of the Patent Register Portal to ensure seamless accessibility, intuitive navigation and alignment with the recently updated appearance of the WIPO website. This endeavor involves a thorough overhaul of the portal's interface, functionality and user experience to meet modern standards.

#### New training areas:

- Development of a training program in trademark and industrial design search, including associated reference and training materials, to enable TISCs to expand their service offering into these areas.
- Publication of a toolkit on new product development and inventions in the public domain and integration into regular training offerings for TISCs and similar stakeholders.

# TISC program milestones

2009

- Launch of TISC project
- Launch of ARDI

2010

- Launch of ASPI
- Conclusion of first SLAs to implement a TISC network

2011

- ARDI joins Research4Life partnership
- Publication of the first WIPO PLR

2012

- Launch of interactive e-tutorial on patent information and search
- Inauguration of eTISC knowledge management platform

2013

- First TISC ASEAN Regional Meeting
- First Ask the Expert session on eTISC

2014

- TISC and PLR projects become regular WIPO activities
- First use of open-source tools in a WIPO PLR

2015

- Publication of *Guidelines for Preparing Patent Landscape Reports*

2016

- Launch of Development Agenda Project on the Public Domain
- Launch of the Inventor Assistance Program (IAP)
- Launch of TISC training on patent analytics
- Online publication of *WIPO Manual on Open Source Tools for Patent Analytics*

2017

- First TISCs start providing patent analytical services
- Approval of new Development Agenda Project on Technology Transfer and IP Management

2018

- First workshops on guides for identifying and using information in the public domain
- Launch of the Patent Register Portal

2019

- Launch of *WIPO Technology Trends 2019: Artificial Intelligence*
- First training courses on technology transfer and IP management based on a new methodology for targeting training

2020

- 1,000 TISCs established worldwide
- Launch of WIPO INSPIRE
- Publication of guides on identifying and using inventions in the public domain
- Launch of redesigned eTISC platform
- Launch of e-tutorial as a certified WIPO Academy distance learning course
- Completion of Development Agenda Project on Intellectual Property Management and Technology Transfer

2021

- First online Global TISC Conference
- Integration of specialized technology transfer resources into the TISC program
- New WIPO INSPIRE platform integrating the Patent Register Portal and eTISC
- Comprehensive review and update of the Patent Register Portal
- Development of new tools to support the management of national TISC networks
- Launch of WIPO Technology Trends 2021: Assistive Technology
- Update of the *Manual on Open Source Tools for Patent Analytics*

2022

- Launch of the TPPM platform
- Development of a new package of resources on knowledge and technology transfer for sustainable economic recovery after pandemics
- Launch of PLRs on COVID-19 vaccines and therapeutics and on hydrogen fuel cells in transportation
- New IP and technology transfer webpage
- Establishment of a Baltic States TTO Network and signing of Memorandum of Understanding with WIPO

2023

- Launch of a pioneering on-the-job training program for technology transfer professionals in the SADC region
- Launch of a TISC staff certification scheme
- Establishment of a Patent Analytics Community of Practice
- Publication of PLRs on COVID-19-related vaccines and therapeutics, and graphite and ilmenite and their related applications
- Launch of new WIPO patent analytics website
- Development of an ASEAN regional IP policy model and an IP valuation toolkit
- Publication of the guide *Incentives in Technology Transfer: A guide to encourage, recognize and reward researchers and professionals*

# Useful links

WIPO Technology and Innovation Support Centers  
[www.wipo.int/tisc/](http://www.wipo.int/tisc/)

WIPO Directory of Technology and Innovation  
Support Centers  
[www.wipo.int/tisc/en/search](http://www.wipo.int/tisc/en/search)

WIPO INSPIRE  
[inspire.wipo.int](http://inspire.wipo.int)

Intellectual Property and Technology Transfer  
<https://www.wipo.int/technology-transfer>

IP Policies for Universities and Research Institutions  
<https://www.wipo.int/technology-transfer/en/ip-policies.html>

ASPI – Specialized Patent Information  
[www.wipo.int/aspi](http://www.wipo.int/aspi)

ARDI – Research for Innovation  
[www.wipo.int/ardi](http://www.wipo.int/ardi)

WIPO eTISC  
<https://etisc.wipo.int>

Patent Register Portal  
[www.wipo.int/patent\\_register\\_portal](http://www.wipo.int/patent_register_portal)

WIPO Patent Analytics  
<https://www.wipo.int/web/patent-analytics/index>

WIPO Technology Trends  
[www.wipo.int/tech\\_trends](http://www.wipo.int/tech_trends)

Explore patent analytics reports by technology  
<https://www.wipo.int/web/patent-analytics/explore-reports-by-technology>

Technology Transfer Training Needs Assessment Manual  
and Toolkit  
[www.wipo.int/publications/en/details.jsp?id=4586](http://www.wipo.int/publications/en/details.jsp?id=4586)

WIPO Academy Distance Learning Courses  
[www.wipo.int/academy/en/courses/distance\\_learning](http://www.wipo.int/academy/en/courses/distance_learning)

TISC Webinars  
[www.wipo.int/meetings/en/topic.jsp?group\\_id=327](http://www.wipo.int/meetings/en/topic.jsp?group_id=327)

Database of Intellectual Property Policies from  
Universities and Research Institutions  
<https://www.wipo.int/technology-transfer/en/database-ip-policies-universities-research-institutions.html>

Technology Transfer Agreements  
[www.wipo.int/technology-transfer/en/agreements.html](http://www.wipo.int/technology-transfer/en/agreements.html)

Inventor Assistance Program  
[www.wipo.int/iap](http://www.wipo.int/iap)

Time- and Cost-Efficient Alternative Dispute Resolution  
of R&D and Technology Transfer Disputes for TISCs  
[www.wipo.int/amc/en/center/tisc](http://www.wipo.int/amc/en/center/tisc)

This annual report of Technology and Innovation Support Centers (TISCs) highlights the main developments and milestones in 2023, with a focus on how TISCs in 93 countries and technology transfer structures continued to expand their services to meet the needs of local innovators, and how WIPO supports them with new resources.