Indecopi

REPORT ON THE TECHNOLOGY AND INNOVATION SUPPORT CENTERS (TISC) IN PERU:

THE FIRST EIGHTEEN MONTHS

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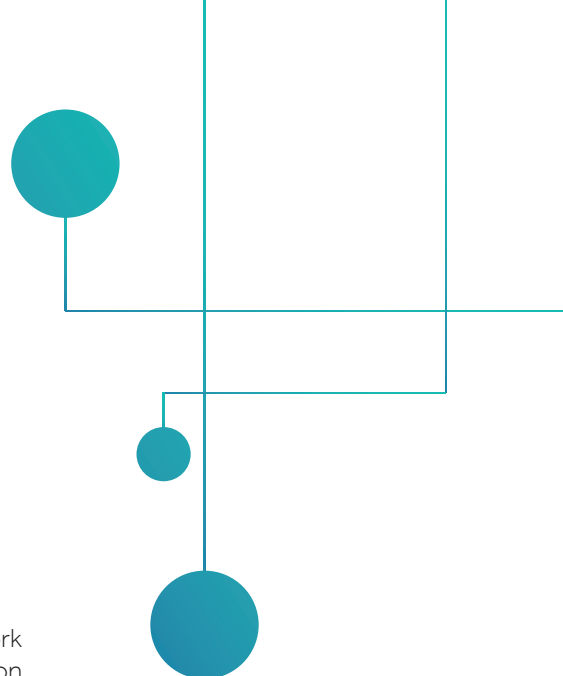
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Introduction _

This report has been prepared with the purpose of revealing and sharing the work that is being led by Indecopi through the support of the Technology and Innovation Support Centers' (TISC) Peruvian Network, within the context of an outreach and capacity building strategy nationwide based on intellectual property.

TISC in Peru are made up of local institutions belonging to the academic, research and business field, which as part of their mission regularly stimulate creative and inventive activity within their community. These institutions, on their own initiative, have assumed commitments by signing specific bilateral agreements with the National Institute for the Defense of Competition and the Protection of Intellectual Property (Indecopi), which in turn has partnered with the World Intellectual Property Organization (WIPO) through an agreement on the provision of services for TISC. The TISC commitments primarily include active participation on internal IP capacity building, in order to create abilities to offer, directly to their target audience basic and advanced services related to patents, industrial design, trademarks, among others.

In that sense, the report presents statistical data and results about the organization and operation of the TISC Network eighteen months after being established by Indecopi. This means in January 2018. Thus, the information provided in the document allows to know, for example, how many TISC are distributed at a regional level, as well as certain demographic data corresponding to the operational and administrative staff that is in charge of these specialized centers.

On the other hand, information is also presented regarding TISC's staff training, such as workshops conducted, the number of professionals trained and institutions that collaborated with this capacity building programs. With regards to intellectual property assets registration, comparative data is collected on patent applications filed by TISC before and after their forma acceptance to the Network.

Finally, the report shares some ideas that are being considered as main activities and challenges for the upcoming months concerning the further strengthening of the TISC Peruvian Network. It is expected that in the near future, these institutions will be sufficiently autonomous to provide basic and value-added services, not only in the area of intellectual property but also on innovation issues.

GLOSSARY __

Patent analysis: Process by which novelty, inventive level and industrial application criteria of a certain invention is evaluated in a preliminary way, for the case of patents. In the case of utility models, evaluation considers novelty and technical advantage criteria (for the scope of the report, patents and utility models are referred to as patents indistinctively).

Basic sciences: This report understands as basic sciences all natural sciences such as: chemistry, physics, biology and mathematics.

State of the art (prior art): It is all that has been made accessible to the public in written or through any other form, before the filing date of a patent or its priority, if applicable.

Patent technological information: Technical and bibliographic information contained in a patent document.

Innovation: Successful introduction into the market or into the society of a new or significantly improved product (good or service), process, marketing or organizational method.

Patentable elements: It is referred to the elements of a certain project or new creation that would be most likely to be protected by a patent.

Protectable elements: It is referred to the elements of a certain project or new creation, which would be most likely to be protected by any modality of the intellectual property system: copyright, trademarks, patents, breeder certificates, among others depending on the regulations in force.

PCT: The Patent Cooperation Treaty, PCT for its English acronym, is an international system for patent applications.

Basic services: It is referred to intellectual property main services provided by TISC for free to their target audience. Services include intellectual property support, technical assistance on patent and scientific information search, among others.

Value-added services: It is referred to services provided by TISC to their target audience that require more complex and further information analysis of a certain project or new creation, either to evaluate the state of the art, apply for intellectual property protection or to deliver support for technology commercialization, among others.

Technology transfer: Process of transferring scientific and/or technological discoveries or creations from one organization to another, in order to promote its development and marketing.

Plant variety: Set of plants that present certain common characteristics, which are maintained from generation to generation regardless of their reproduction or multiplication system.

Technological surveillance: Organized, selective and permanent process conducted to capture science and technology information from outside and from the own organization to turn it into knowledge for making decisions with lower risk and be able to anticipate changes.

Freedom-to-operate analysis: Evaluation performed to determine whether the use or expiration of a new product or procedure would not infringe patent rights of third parties.

TISC IN PERU 1.

1.1 TISC per type of organization

PUBLIC UNIVERSITIES

14

As of June 30, 2019, Indecopi has signed specific arrangements for establishing TISC with 32 national institutions, half of these belonging to the public sector. Of the total TISC that has been conformed, 14 correspond to public universities, 14 to private universities, 2 to research centers belonging to the public sphere and 2 to business associations.

Regarding the formalization of the TISC Peruvian Network, in 2018 Indecopi close agreements creating this type of centers with 23 institutions nationwide, which represented more than 70% of the TISC that has been established until the issuance of this report. So far in 2019, Indecopi has already signed agreements with 9 Peruvian institutions.

PRIVATE UNIVERSITIES

14

2

PUBLIC RESEARCH CENTERS

2

BUSINESS ASSOCIATIONS

Number of TISC offices, per type of organization

Following is the complete list of TISC operating in Peru:

N°	TISC	TYPE OF ORGANIZATION	AGREEMENT DATE
1	Universidad Nacional Hermilio Valdizan (UNHEVAL)	Public university	30/01/2018
2	Instituto Le Cordon Bleu (ILCB)	Private university	30/01/2018
3	Instituto Nacional de Salud (INS)	Research center	30/01/2018
4	Universidad de San Martín de Porres (USMP)	Private university	30/01/2018
5	Universidad Nacional Federico Villarreal (UNFV)	Public university	30/01/2018
6	Universidad Continental (UC)	Private university	09/02/2018
7	Pontificia Universidad Católica del Perú (PUCP)	Private university	14/02/2018
8	Universidad Católica de Santa María (UCSM)	Private university	21/02/2018
9	Cámara de Comercio de Lima (CCL)	Business association	21/02/2018
10	Instituto Tecnológico de la Producción (ITP)	Research center	21/02/2018
11	Universidad Nacional Agraria La Molina (UNALM)	Public university	21/02/2018
12	Universidad Nacional del Callao (UNAC)	Public university	21/02/2018
13	Universidad ESAN (ESAN)	Private university	23/02/2018
14	Universidad Peruana Cayetano Heredia (UPCH)	Private university	28/02/2018
15	Universidad Nacional de San Antonio Abad del Cusco (UNSAAC)	Public university	20/03/2018
16	Universidad Nacional del Santa (UNS)	Public university	06/04/2018
17	Universidad Nacional del Centro del Perú (UNCP)	Public university	06/04/2018
18	Universidad Nacional de San Agustín de Arequipa (UNSA)	Public university	30/05/2018
19	Universidad Nacional de Ingeniería (UNI)	Public university	12/06/2018
20	Universidad Peruana de Ciencias Aplicadas (UPC)	Private university	13/06/2018
21	Universidad Nacional Mayor de San Marcos (UNMSM)	Public university	25/06/2018
22	Universidad de Piura (UDEP)	Private university	09/08/2018
23	Sociedad Nacional de Industrias (SNI)	Business association	06/12/2018
24	Universidad Tecnológica del Perú (UTP)	Private university	01/03/2019
25	Universidad Nacional de San Martín - Tarapoto (UNSM)	Public university	01/03/2019
26	Universidad Nacional de Trujillo (UNT)	Public university	01/03/2019
27	Universidad Nacional de Tumbes (UNTUMBES)	Public university	12/03/2019
28	Universidad Tecnológica de los Andes (UTEA)	Private university	05/04/2019
29	Universidad José Carlos Mariátegui (UJCM)	Private university	29/04/2019
30	Universidad San Pedro (USP)	Private university	14/05/2019
31	Universidad Nacional de Ucayali (UNU)	Public university	20/05/2019
32	Universidad Privada del Norte (UPN)	Private university	10/06/2019

1.2 TISC by geographical location

TISC are located in 14 of the 25 regions in which Peru is divided, covering 58% of the total national territory. Out of these, Lima (the capital of the country) accounts for 50% of TISC. The remaining 50% are distributed among other regions. Those regions in which more TISC have been constituted so far are Arequipa, Ancash and Junín, with two centers each.

TISC number, per region

Tumbes 1
Piura 1
San Martín 1
La Libertad 1
Ancash 2
Huánuco 1
Ucayali 1
Lima 16
Junín 2
Callao 1
Cusco 1
Apurímac 1
Arequipa 2
Moquegua 1

1.3 Growth of the TISC Peruvian Network

Currently, there are 11 new agreements in process of being signed between Indecopi and institutions that have expressed interest in integrating the TISC Peruvian Network; out of them, 8 are located outside Lima, five of these coming from new regions. Therefore, it is expected that by the end of 2019, the Network will be constituted of 43 organizations, covering 76% of the Peruvian national territory (with a total of 19 regions).
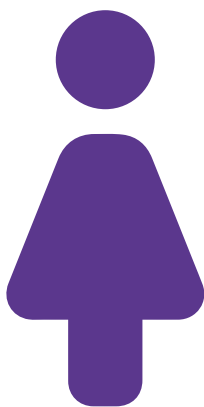
Amazonas **1**

1 Piura

1 Cajamarca

1 La Libertad

Number of TISC in progress, per region

3 Lima

Huancavelica **1**

1 Ayacucho

1 Moquegua

1 Tacna

STATISTICS ON TISC STAFF 2.

2.1 Gender and professional profile of TISC staff

TISC in Peru include two types of professionals. On the one hand, administrative staff, who carry out TISC planning, management and monitoring tasks; and on the other, operational staff, who are in charge of the direct provision of TISC services to their target audience. In this sense, all 32 organizations that are part of the TISC Peruvian Network have assigned a total of 97 professionals to perform administrative and operational duties within their centers. Out of these, 41% are women and 59% are men.

Women: 41%
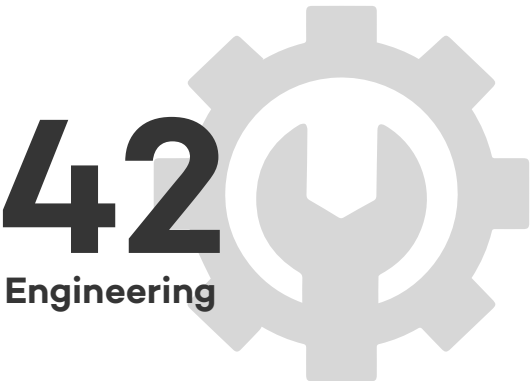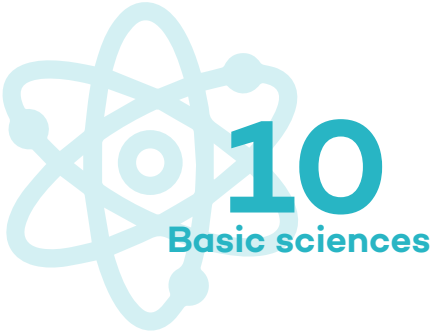
Men: 59%

Professional men and women performing in TISC

Number of people who perform in TISC, per professional areas

4
Law

The professional profile of TISC administrative staff, for the most part, is composed of people with management, economy or law background; while the TISC operational staff is basically composed by professionals from the area of basic sciences, sciences of health and engineering.

to the nature of the basic services that will be provided by the TISC linked to the use of patent technological information.

It should be noted that the coordination of the TISC Peruvian Network is performed by Indecopi, which plays an important role in suggesting (prior to signing TISC agreements) that the operational staff must have at least one professional coming from the science or engineering field, due

10
Health sciences

10
Basic sciences

12
Management & economics

19
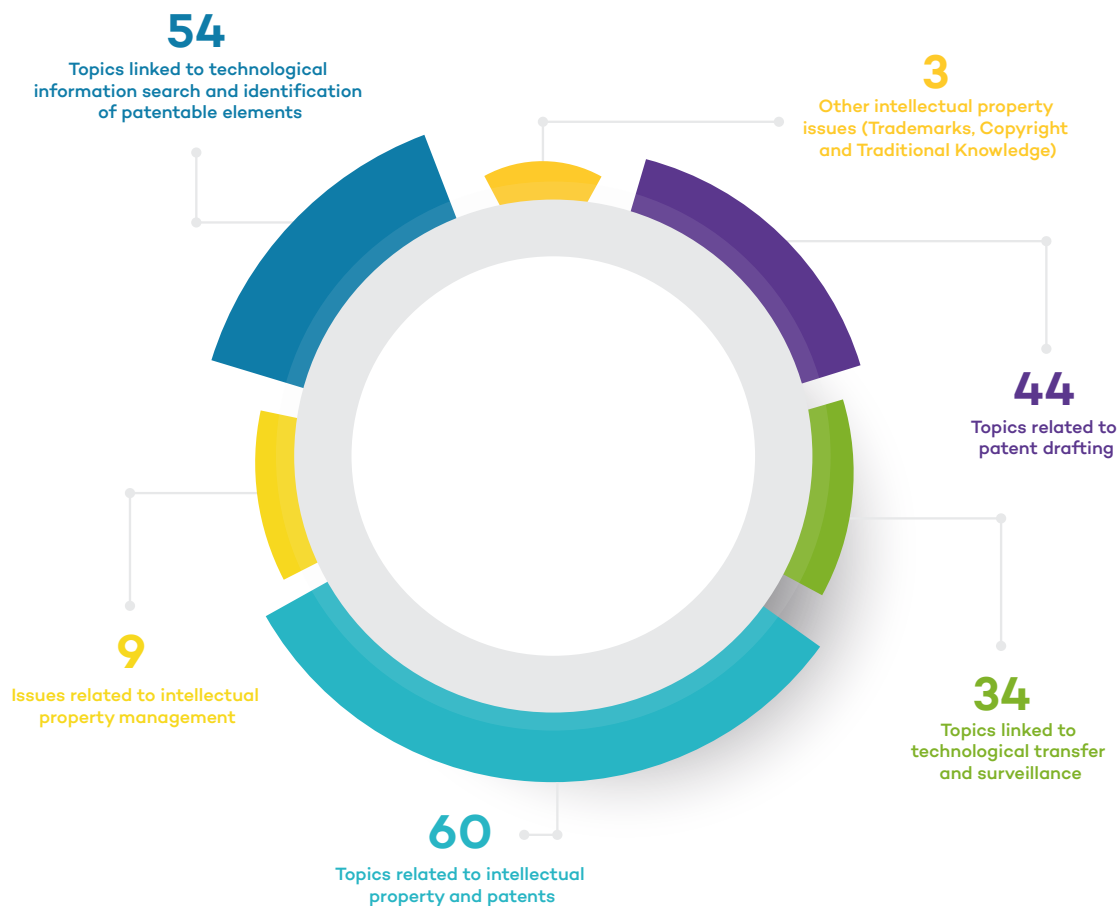**Others**

42
Engineering

2.2 Capacity building and technical assistance to TISC staff

One of the fundamental pillars for the right operation of TISC is training those professionals who will perform providing services in such centers. This will allow them to obtain the necessary intellectual property skills to attend their community.

In that sense, in order to reduce the learning gaps among the TISC Peruvian Network members' staff, both operational and administrative, Indecopi has strategically designed face-to-face programs for creating gradual competences in intellectual property. In addition, Indecopi has made available an online self-developed patent course, and promoted access to online courses provided by the WIPO Academy.
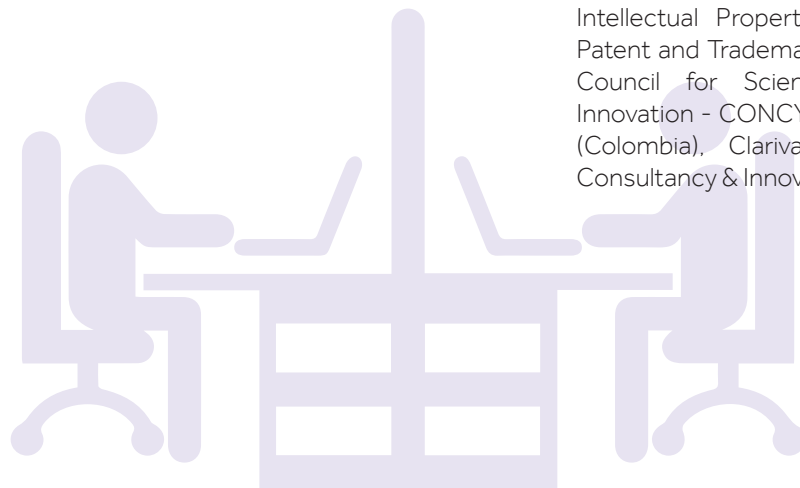
Therefore, throughout the first eighteen months of TISC operations, a total of 84 professionals (representing 87% of total people assigned to these centers) have received training on at least one of the following key topics: introduction to intellectual property, technological information search, identification of patentable elements, patent drafting, intellectual property management, technological surveillance, among others.

54
Topics linked to technological information search and identification of patentable elements

3
Other intellectual property issues (Trademarks, Copyright and Traditional Knowledge)

44
Topics related to patent drafting

9
Issues related to intellectual property management

34
Topics linked to technological transfer and surveillance

60
Topics related to intellectual property and patents

Number of professionals trained, according to thematic areas

For the development of training programs, it has been very important the existing link between the TISC Peruvian Network and the public and private institutions that are part of the local innovation ecosystem, and more specifically of the patent-related environment. Hence these capacity building initiatives have covered a wide range of different issues around the exploitation of patents and intellectual property in general, for the benefit of research and innovation projects.

Institutions that have actively collaborated with Indecopi in training TISC representatives are the following: the World Intellectual Property Organization (WIPO), the Spanish Patent and Trademark Office - OEPM (Spain), the Peruvian Council for Science, Technology and Technological Innovation - CONCYTEC (Peru), Olarte Moure & Asociados (Colombia), Clarivate Analytics (USA) and Mertz IP Consultancy & Innovation Management (Peru).

INTELLECTUAL PROPERTY SERVICES PROVIDED BY TISC

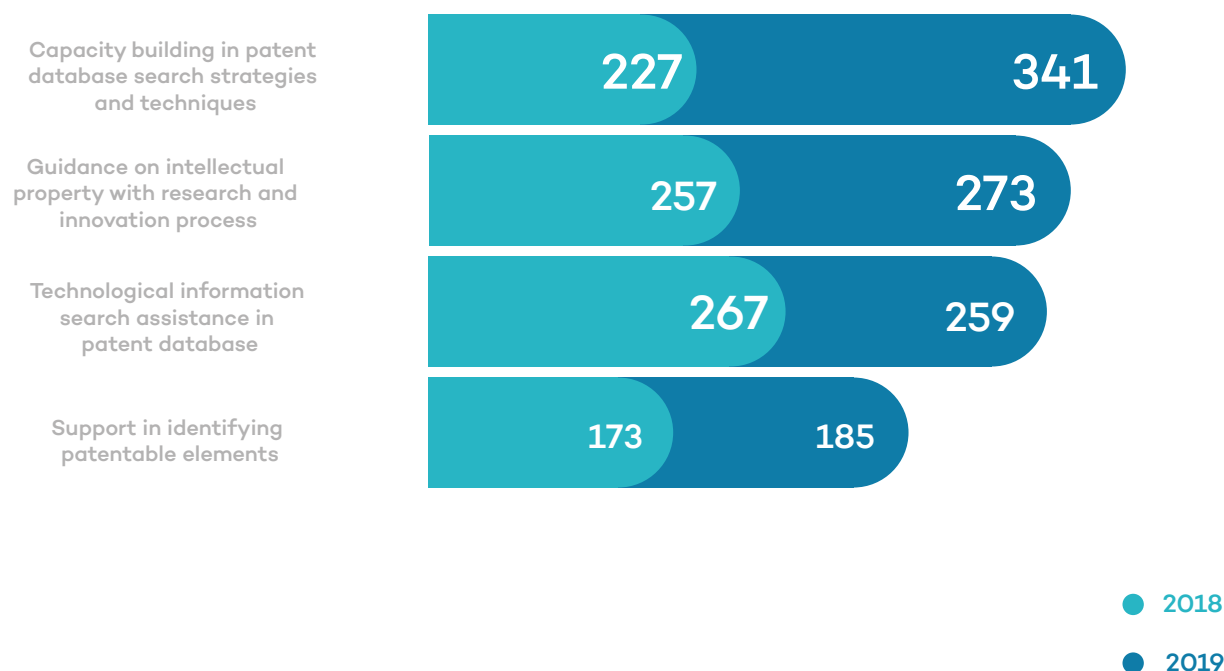## 3.1 Free basic services provided by TISC

According to TISC agreements signed with Indecopi, these support centers must provide four free basic assistance and guidance services on issues related to intellectual property, aimed at their target community. These are the following:

a. Assistance in technological information search in patent databases;
b. Capacity building in patent database search strategies and techniques;
c. Assistance in identifying of patentable elements;
d. Guidance on intellectual property issue within research and innovation processes

Thus, between January 2018 and June 2019, all TISC Peruvian Network members provided a total of 1,982 basic services, with a clear positive trend (the first six months of 2019 had a 14.5% growth rate compared to the year 2018).

	2018	2019*	TOTAL
BASIC SERVICES	924	1,058	1982

* Information as of June 30

Capacity building in patent database search strategies and techniques — 227 | 341

Guidance on intellectual property with research and innovation process — 257 | 273

Technological information search assistance in patent database — 267 | 259

Support in identifying patentable elements — 173 | 185

● 2018
● 2019

Number of basic services provided during the first 18 months of the TISC Peruvian Network (as of June 30, 2019)

TISC that reported the provision of a greater amount of basic services were Universidad Nacional de San Agustin de Arequipa (UNSA) with 447 services, Universidad Nacional San Antonio Abad del Cusco (UNSAAC) with 165 services, the Universidad Nacional del Callao (UNAC) with 147 services, Universidad Nacional Agraria La Molina (UNALM) from Lima with 144 services and Universidad Católica de Santa María (UCSM) from Arequipa with 127 services. These five institutions together accounted for 52% of total basic services offered by the TISC Peruvian Network.

It should be noted that, as of the date of this report, 8 TISC organizations have not yet informed on services being delivered to their respective community. However, seven of these institutions have recently signed TISC agreements with Indecopi during the first semester of 2019. Therefore, it is expected that in the near future they will start providing intellectual property assistance gradually.

Basic services provided
per TISC institution
(as of June 30, 2019)

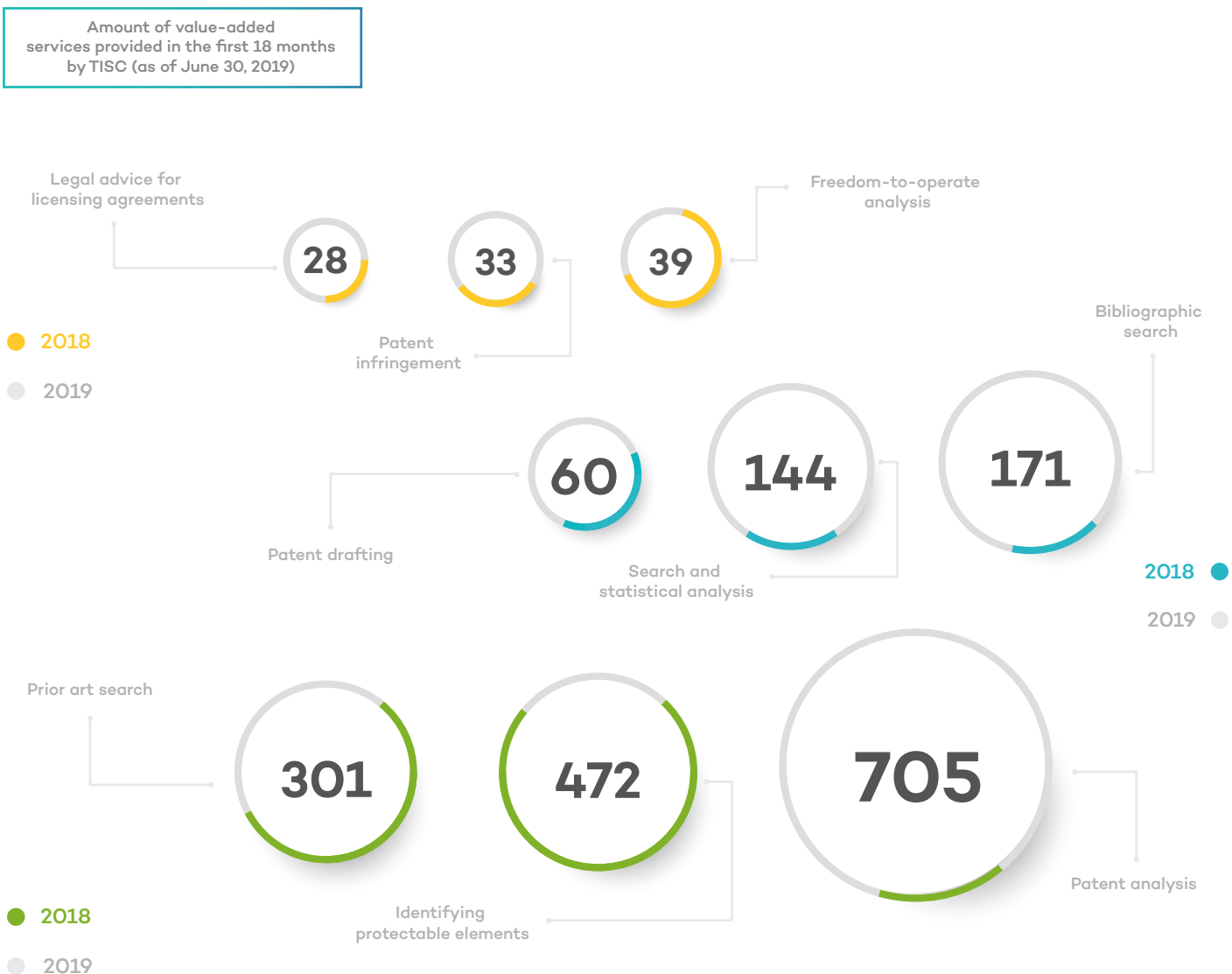| 300 | | | | | | | | | | | | | | | | | | | | | | | UNSA |
200																							
100																		UNMSM	UCSM	UNALM	UNAC	UNSAAC	
UNFV	UDEP	UNT	UNSM	ILCB	UNCP	ESAN	INS	UNU	PUCP	UC	UNI	USMP	ITP	UNS	UNHEVAL	UPCH	UPC						
0	5	12	14	19	20	24	28	31	40	46	52	56	59	75	75	76	87	112	121	127	144	147	165	447

14

3.2 Value-added services provided by TISC

In addition to the free services provided by TISC to their community, these centers can also offer services considered as of "added value". This means, services that imply greater complexity in terms of information analysis for a particular project, either for the purpose of evaluating the state of the art, protecting a new creation or commercializing technologies, among others.

Precisely, in the first eighteen months, the TISC Peruvian Network has delivered a total amount of 1,953 value-added services, divided in 9 categories, of which the three services most frequently were: i) prior art search, ii) identifying protectable elements and iii) patent analysis. All of them related to exploring and assessing the possibility of patenting the results of research, innovation or entrepreneurship processes linked to the TISC institution.
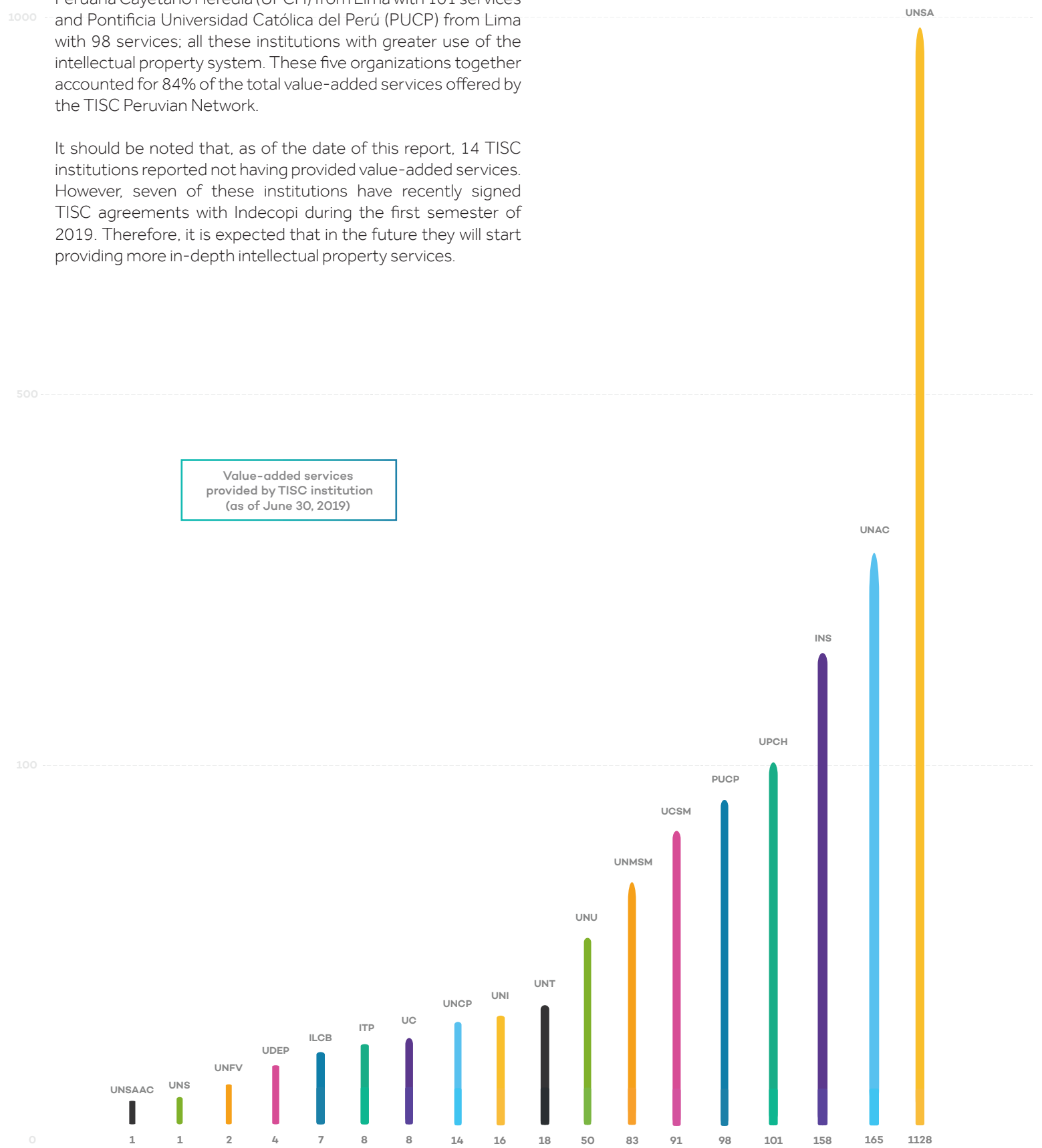
	2018	2019*	TOTAL
VALUE-ADDED SERVICES	747	1,206	1953

* Information as of June 30

Amount of value-added services provided in the first 18 months by TISC (as of June 30, 2019)

Legal advice for licensing agreements

Freedom-to-operate analysis

Patent infringement

Bibliographic search

2018
2019

28   **33**   **39**

Patent drafting

Search and statistical analysis

60   **144**   **171**

2018
2019

Prior art search

301   **472**   **705**

2018
2019

Identifying protectable elements

Patent analysis

The TISC that reported the delivery of a greater amount of value-added services were the Universidad Nacional de San Agustín de Arequipa (UNSA) with 1,128 services, Universidad Nacional del Callao (UNAC) with 165 services, the Peruvian Health Institute (INS) from Lima with 158 services, the Universidad Peruana Cayetano Heredia (UPCH) from Lima with 101 services and Pontificia Universidad Católica del Perú (PUCP) from Lima with 98 services; all these institutions with greater use of the intellectual property system. These five organizations together accounted for 84% of the total value-added services offered by the TISC Peruvian Network.

It should be noted that, as of the date of this report, 14 TISC institutions reported not having provided value-added services. However, seven of these institutions have recently signed TISC agreements with Indecopi during the first semester of 2019. Therefore, it is expected that in the future they will start providing more in-depth intellectual property services.

Value-added services provided by TISC institution (as of June 30, 2019)

Institution	Value
UNSAAC	1
UNS	1
UNFV	2
UDEP	4
ILCB	7
ITP	8
UC	8
UNCP	14
UNI	16
UNT	18
UNU	50
UNMSM	83
UCSM	91
PUCP	98
UPCH	101
INS	158
UNAC	165
UNSA	1128

3.3 TISC services per region

Basic and value-added services provided by the TISC Peruvian Network reached 3,935 in their first eighteen months of operations. From these 1,569 (40%) services were provided to target audience located in Lima and Callao, while 2,366 (60%) services were offered in regions outside Lima.

The three regions with the highest amount of TISC services delivered were Arequipa, Cusco and Junín, two of which have more than one TISC constituted. As of the date of this report, the regions of Apurimac, Moquegua and Tumbes have not yet reported any type of TISC services aimed at inventors, innovators or entrepreneurs.
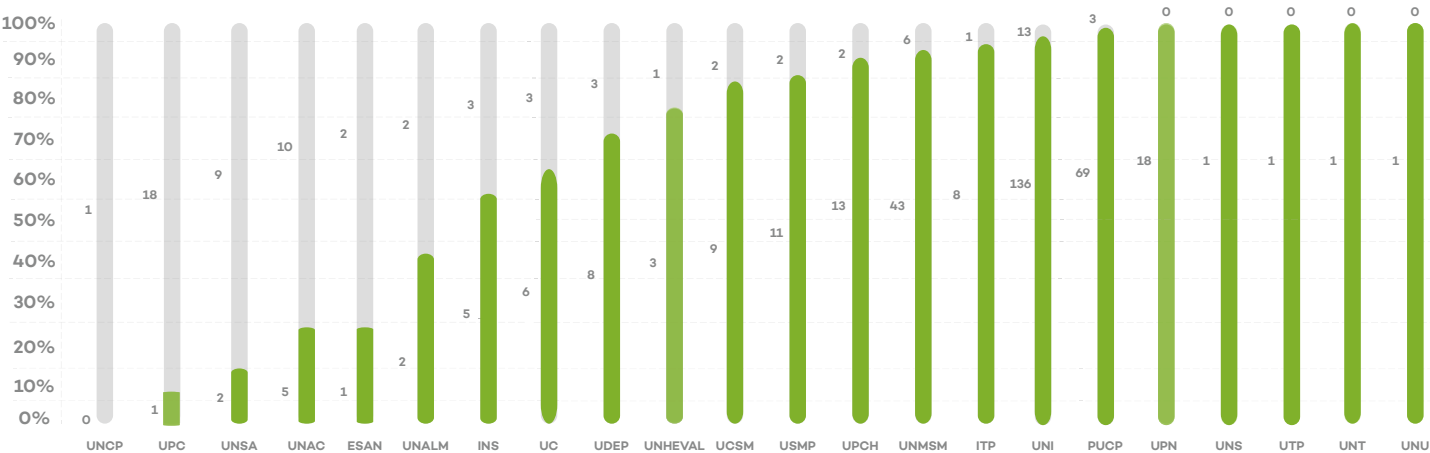
Amount of TISC services
provided, per region
(as of June 30, 2019)

Piura 16
La Libertad 32
San Martín 19
Ancash 76
Huánuco 76
Ucayali 90
Lima 1257
Junín 98
Callao 312
Cusco 166
Arequipa 1793

INTELLECTUAL PROPERTY PROTECTION BY TISC

4.

While TISC are established mainly to provide intellectual property services to their target community (students, inventors, researchers, entrepreneurs, teachers, among others), part of their objective is also to improve knowledge and intellectual property skills so as to benefit as an institution from the research and innovation projects that are developed within their boundaries (in particular, universities and research centers).

Therefore, the number of patent applications (patents and utility models) are usually a very important indicator that measures the approach and performance of a certain organization with regards to intellectual property. In that sense, there is an interesting group of institutions that after being part of the TISC Peruvian Network have seen a remarkable growth in patenting. Such would be the case of

Universidad Peruana de Ciencias Aplicadas (UPC) from Lima, that before belonging to the Network had only 1 patent application, while after establishing the TISC has reached 18 applications (an increase of 1700%). Similar situation has been observed with Universidad Nacional de San Agustín de Arequipa - UNSA (350% growth), Universidad Nacional del Callao - UNAC (100% growth), Universidad ESAN from Lima (100% growth), Universidad Nacional Agraria La Molina – UNALM from Lima and Universidad Nacional del Centro del Perú – UNCP from Junín.

● **Before being TISC**

● After being TISC

Patent applications
(patents and utility models)
before and after belonging to TISC

5. TISC CHALLENGES

- Promote local and PCT patent applications by TISC, in order to increase opportunities for technology transfer processes originated in research and academic centers.

- Encourage a greater use of industrial designs as a tool that can protect new products in the market in a fastest way than patents.

- Promote and disseminate the protection of plant varieties in TISC institutions that perform this type of investigations.

- Encourage or implement activities for linking companies with TISC organizations for the purpose of transferring intellectual property (innovations) originated in the research and academic field.

- Involve other institutions from the local innovation ecosystem on TISC training in their own competencies with the purpose of providing members of the TISC Peruvian Network current innovation tools and knowledge that may complement intellectual property issues.

FUTURE PLAN 6.

- Universidad Nacional del Santa (UNS) from Ancash, will be organizing the 1st TISC Congress in Peru, which seeks to share experiences with international TISC peers as well as to strength collaborative ties with the purpose of highlighting intellectual property value within the context of innovation.

- During 16th, 17th and 18th September of 2019 is scheduled the third roundtable organized by CONCYTEC called "Market and business intelligence". In this event will participate 19 members belonging to 15 institutions of the TISC Peruvian Network.

- In November 2019, members of TISC will join the Patent Week 2019, the main event of Indecopi on patents, in which they will have the opportunity to attend the 6th International Congress on Patent and Inventions, the Expo Patenta 2019 (more than one hundred inventions in exhibition) and

the Patented Invention Recognition Ceremony (RACIP) to be carried out in Lima. These events will help in providing new knowledge on intellectual property and innovation issues to TISC staff, as well as in encouraging or inspiring the replication of similar activities inside their institutions for the benefit of their community.

7. FINAL REMARKS

- The initiative to foster a national network to look after the development of intellectual property issues for supporting and optimizing research and innovation processes in Peru has widely exceeded expectations initially planned by Indecopi. This in part is because the field of intellectual property is becoming more attractive and important for institutions in the country, both public and private. Hence the TISC model represents a very interesting way for institutions to approach towards this field.

- Based on the expression of interest that is receiving Indecopi from different institutions as well as on the pending TISC agreements, it is expected that by 2020 the TISC Peruvian Network will cover 100% of Peru's territory.

- 60% of total services provided by TISC in the first eighteen months of operations were offered in regions (outside Lima) and 40% in Lima and Callao. This means that the TISC model can become a powerful tool to move towards decentralization of knowledge and intellectual property services in Peru, thus contributing to a more equitable and inclusive development of the country.

- Taking into account the amount and type of services that have been provided up to date by TISC, as well as the nature of the institutions that are part of the TISC Peruvian Network, it is inferred that the staff of these centers are acquiring greater specialization in activities related to patent registration and utility models.

- The TISC Peruvian Network is a valuable and efficient channel that allows to inform on a national level intellectual property related activities and programs administered by Indecopi.

- TISC represents the most important network that has been constituted so far in Peru linked not only to intellectual property, but also to different topics related to this field: research, innovation, technology transfer, among others. This has raised the interest of a number of organizations and key actors of the innovation ecosystem that have approached Indecopi in order to combine efforts for strengthening TISC institutions.

- It has been observed that, in several cases, establishing a TISC has contributed in addressing or reinforcing intellectual property issues in the agenda of the respective organization. The evidence is the increase in the number of patent and utility model applications filed at Indecopi for some organizations belonging to the Network.

Indecopi

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