World Intellectual Property Day – April 26 – offers an ideal opportunity to promote, inform and teach the importance of intellectual property as a tool for economic, social and cultural development. The theme of World Intellectual Property Day 2004 will be “Encouraging Creativity.” WIPO urges its Member States to participate in the event and organize activities on a national level.

To assist them in their outreach activities for World Intellectual Property Day, the Organization will send its Member States and all organizations with observer status at WIPO the three new posters pictured here before the end of the year. A CD containing print-ready versions of each of the posters in the six official UN languages will be enclosed with the posters. This CD and the CD containing the WIPO comics (sent to Member States for World Intellectual Property Day 2003) may be used to print as many copies of the material as needed for outreach activities.

WIPO will also send a new kit containing more outreach material for World Intellectual Property Day in early 2004.

WIPO invites its Member States and all the organizations receiving its outreach material to inform the Organization of any activities planned at the national level. Such information will be published on a special page on the WIPO website. The broad participation and support received during the previous observations of World Intellectual Property Day has helped make the event a success worldwide. For more information on past activities, please visit www.wipo.int.
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29 |  Schedule of Meetings
The WIPO Assemblies concluded on October 1 following a review of activities and agreement on the agenda of the Organization for the next year. Ambassador Bernard Kessedjian of France chaired the meetings of the Assemblies, which bring together the 179 Member States of the Organization as well as representatives of a number of intergovernmental and non-governmental organizations. Ms. Dorothy Angote, Registrar-General, Department of the Registrar-General, Attorney-General's Chambers of Kenya and Mr. Wang Jingchuan, Commissioner, State Intellectual Property Office of China, served as Vice Chairs.

In his closing remarks, Ambassador Kessedjian welcomed the positive outcome of the Assemblies and the successful review of the Organization’s activities and its future direction. He applauded the spirit of consensus that characterized the decision-making process at the Assemblies.

"Intellectual property, a powerful catalyst of growth and progress, should be increasingly put at the service of development, that is, at the service of all, as a universal tool whose benefits are equally shared," said Ambassador Kessedjian. He thanked WIPO Director General Kamil Idris and the staff of the Organization for consistently offering the Member States comprehensive programs, in spite of budgetary constraints. He commended Dr. Idris for his leadership of the Organization saying "thanks to his sense of balance, justice and his willingness to listen, we are able to respond to the most difficult questions without anyone feeling sidelined." Ambassador Kessedjian said WIPO is executing its mandate in an "exemplary" manner.

The highlights of the meetings, which took place from September 22 to October 1, include:

Program and Budget 2004-2005

The General Assembly approved by consensus the 2004-2005 Program and Budget, which proposes a slight decrease as compared to 2002-2003, owing to the completion of major infrastructure projects in the area of information technology and buildings during that financial period. Member States approved a budget amounting to 638.8 million Swiss Francs (CHF). This reflects a decrease of 30 million CHF, or 4.5 percent as compared with the revised budget for 2002-2003 of 668.8 million CHF.

Member States also endorsed Dr. Idris’ strategy and mid-term plan for the next six years, which stresses the development of an intellectual property (IP) culture as a strategic goal to help all stakeholders realize the potential of IP as a tool for economic, social and cultural development. The plan affirms that the economic health of a country - as well as its success in meeting development challenges such as bridging the knowledge divide and reducing poverty - will depend on an ability to develop, utilize and protect its national creativity and innovation. An effective and well-balanced IP system, allied to pro-active IP policymaking and focused strategic planning, will help nations to promote and protect intellectual assets, drive economic growth and generate wealth.

WIPO Patent Agenda

The Assemblies considered four studies on the effect of the patent system on developing countries by experts with various backgrounds from Africa, the Arab region, Asia and Latin America. The studies were commissioned by WIPO within the context of the WIPO Patent Agenda to help identify issues which need to be taken into account to ensure that the patent system generates the maximum benefit for states at varying levels of development. A number of
Many comments highlighted the fact that the IGC’s work to date has already led to a much greater understanding of the concepts and issues addressed, and has clarified how to deal with concerns about inadequate recognition and protection of TK and Traditional Cultural Expressions (TCEs). The discussions highlighted the expectation of a number of countries that specific steps should be taken to strengthen protection, including the development of specific new international instruments. Other countries stressed that the significance of the issues, and their complexity, require further analysis and clarification before reaching formal outcomes. Still other countries held the view that more work needs to be done in exploring the full potential of existing IP rights and systems to protect TK and TCEs.

The program and budget approved by the current session of the Assembly included a range of complementary activities, such as continued capacity-building, legislative assistance and cooperation with a range of national, regional and international initiatives in the areas of TK, folklore, and genetic resources.

The Madrid System

Member States agreed that companies and individuals seeking to protect their trademarks in multiple countries could file their applications in the Spanish language as of April 1, 2004. Currently, international trademark applications under the Madrid Protocol for the International Registration of Trademarks are required to be submitted in English or French. Inclusion of Spanish will be a strong incentive for Spanish-speaking countries to join the Madrid Protocol, as it promises to facilitate their accession process and will pave the way for the Madrid system to become a truly global registration mechanism. Participation in the Madrid system of the 18 Spanish-speaking countries that are currently outside the system is of significant interest for existing as well as potential users of the system.

Member States also decided to amend the Common Regulations under the Madrid Agreement and Protocol in order to make the Madrid system fully compatible with the European Community trademark system. In view of these changes, the European Community (EC) delegate said that it was likely that the EC would submit its instrument of accession to the Madrid Protocol within one year. The accession of the EC to the Madrid Protocol will be the first time that the EC, as a regional body, adheres to a WIPO treaty.
PCT Reform

The Assembly of the Patent Cooperation Treaty (PCT) Union made a number of amendments to the PCT Regulations following previously adopted major changes designed to streamline and rationalize the PCT system, and agreed on a future work program for PCT reform. The Assembly also modified certain fees in connection with the processing of PCT applications. The international filing fee was fixed at 1,400 Swiss francs and the handling fee was reduced from 233 to 200 Swiss francs. Fee reductions for applicants from least developed countries were expanded and a new scale of fee reductions was adopted for international applications filed in electronic format.

The National Board of Patents and Registration of Finland was appointed by the Assembly as an International Searching Authority and International Preliminary Examining Authority under the PCT, with likely effect in 2004. The Assembly took note of status reports on two major IT projects relating to the PCT: the IMPACT (Information Management for the PATent Cooperation Treaty) Project and the PCT-SAFE (Sécurité Applications Fichiers Electroniquement) Project.

Audiovisual Performances

Member States reiterated their support for convening an ad hoc informal meeting in Geneva on the protection of audiovisual performances on November 6 and 7. The meeting, open to all Member States and interested intergovernmental and non-governmental organizations, is designed to renew the international dialogue on the protection of audiovisual performances with a view to clarifying and resolving outstanding issues. Delegates agreed that the meeting is necessary and timely given the importance of the question for all stakeholders. A number of countries urged for the early resolution of the outstanding issues so that a new treaty could be established. The Member States also agreed to keep the subject under review at their September 2004 meetings.

The Second WIPO Internet Domain Name Process

Member States were briefed about the status of recommendations made by the General Assembly last year in following-up on the Second WIPO Internet Domain Name Process. The General Assembly had recommended that the Uniform Domain Name Dispute Resolution Policy (UDRP), which is currently limited to trademarks, be extended to protect country names and the names and acronyms of intergovernmental organizations against their abusive registration as domain names. WIPO has transmitted these recommendations to the Internet Corporation for Assigned Names and Numbers (ICANN), the body responsible for amending the UDRP. ICANN has set up a working group to deal with technical issues of implementing WIPO’s recommendations, in which WIPO will participate.

Constitutional Structure

Member States formally adopted three specific amendments aimed, among others, at streamlining and simplifying WIPO’s governance and constitutional structure to reinforce the transparency, efficiency and effectiveness of the Organization. These changes include the abolition of the WIPO Conference and the formal adoption of a unitary contribution system and changes in contribution classes to reflect the current practice, which more equitably takes into account the different economic circumstances of WIPO Member States. The third amendment to the relevant WIPO-administered treaties makes provision for holding ordinary sessions of the WIPO Assemblies on an annual rather than a biennial basis. Under current arrangements, the Assemblies meet once a year, but each alternate year is considered an extraordinary session. The three amendments will enter into force one month after written notifications of acceptance, effected in accordance with their respective constitutional processes, have been notified to the Director General by three-fourths of WIPO’s Member States.
Program Performance

In approving the Program Performance Report for the year 2002, the General Assembly noted WIPO’s achievements during the first six-year term of Dr. Idris, as documented in the consecutive and comprehensive Program Performance Reports submitted to Member States on an annual basis since 1998. These documents – part of WIPO’s results-based management system – inform Member States of results achieved by the Organization in line with the criteria established in the program and budget. Member States in particular underscored WIPO’s achievements in becoming a more transparent, open and forward-looking Organization and in promoting IP as a tool for social, economic and cultural development worldwide.

Many Member States expressed appreciation for WIPO’s wide range of technical and legal assistance in the modernization of IP infrastructure and implementation of international treaties. They requested that WIPO continue to support their IP development and provide expertise to contribute to their national capacity-building and the integration of developmental aspects into intellectual property policies. They further expressed their confidence in future achievements during the Director General’s second term in office. Member States also noted the Program Implementation Overview, which contained information on the implementation of major activities during the first six months of 2003.

Exhibition: Traditional Costumes and Music

WIPO hosted the exhibition “Traditional Costumes and Music from Albania, Bulgaria, Croatia, Greece, Hungary and Romania” from September 22 to October 3. The exhibition provided an insight into the rich culture and traditions of these six countries, featuring a sampling of the hundreds of costumes in varying colors and materials from the region. Two musicians from Romania performed at the opening of the exhibition on the first day of the WIPO Assemblies, and music from the region played through its duration.

Both the music and costumes represent a great variety of styles, illustrating the power of human creativity to enrich our environment, making it more interesting and enjoyable. WIPO and its Member States actively encourage a broader understanding and appreciation of the value of creativity and innovation as natural resources common to all nations.
INTELLECTUAL PROPERTY AS A LEVER FOR ECONOMIC GROWTH
The African Experience, Part II

“The real voyage of discovery consists not in seeking new lands but in having new eyes”. — Marcel Proust

Seeing things differently – spotting the potential in an object or idea, imagining new or better ways to tackle a problem, wanting to share a vision of life in words, art or music – that is the start of the creative and innovative process. This article is the second in a series that examines how the intellectual property (IP) system can transform the fruits of that process into valuable assets which can be used as building blocks for economic growth, while contributing to social well-being and cultural enrichment.

The first article, in last month’s issue, identified certain key elements that need to be in place at the national level to enable the effective creation and identification of IP assets and their subsequent transformation into useful and effective tools for wealth creation. It examined specific instances of IP use – including the development of an anti-HIV vaccine and a treatment for sickle-cell disease – to highlight potential benefits in leveraging the IP system. This article continues that examination with the story of a plant – a cucumber-like succulent – growing in the harsh earth of the Kalahari Desert in South Africa, home to the San people for thousands of years.

Knowledge, IP and benefit-sharing

The San have used the bitter flesh of the Hoodia plant (Hoodia gordonia) for centuries to block feelings of hunger and give them energy when hunting or on long trips across their inhospitable land. This practice was brought to the attention of the South African Council for Scientific and Industrial Research (CSIR), based in Pretoria, which began to take an interest in the properties of the Hoodia. The innovative environment in which the CSIR functions allows it to carry out much important research and development. The work resulted in this case in certain properties of the Hoodia and of their potential as an appetite-suppressant and anti-obesity drug. The market potential of such a new drug is considerable, particularly as it is derived from a natural product and, seemingly, does not have the side effects of many such treatments. Thus the CSIR was able to license its patented technology1 to Phytopharm, a UK-based company, for the necessary investment needed to further test, develop and commercialize this new IP asset.

Importantly – although after a controversial start involving some legal negotiation – the role of San ancient knowledge and innovative activity in the initial discovery and development of the properties of the Hoodia was recognized, explicitly acknowledged by the CSIR, and set out in a memorandum of understanding (MoU) between the CSIR and the San. The MoU was followed by a benefit-sharing agreement, providing for the San to obtain 8 percent of all milestone payments2 received from the licensee by CSIR as well as 6 percent of any royalties CSIR receives on sales of the final product. Reports estimate that the milestone payments will amount to some US$1 to $1.5 million, while royalty payments could bring additional millions to the economically poor San.

1 The CSIR filed an international patent application through the Patent Cooperation Treaty (PCT) (WO98/46243, filed on April 15, 1998, covering more than 100 countries) on the basis of its national application (national application number 97/3201, filed on April 15, 1997).

2 Milestone payments are paid during the clinical development stage on the successful completion of certain technical performance targets.
The development of this Hoodia-derived product has had several important consequences for the San. It has resulted in the 100,000-strong San population organizing and setting up the San Hoodia Benefit Sharing Trust, which will ensure that the monies received are used for “the general development and training of the San community.” Immediate plans include buying land, building clinics and investing in education and development projects.

At a workshop on benefit-sharing held last year “it was decided that the relationship between the CSIR and the San should involve not only monetary ‘sharing’ but also the sharing of knowledge.” Thus the San are now involved in sharing their expert knowledge and ability to identify and pinpoint the properties of the flora of their arid land with the CSIR.

The lawyer representing the San in the Hoodia case, Roger Chennells, says the ground-breaking, benefit-sharing agreement “represents enormous potential for future bio-prospecting successes based on the San’s extensive knowledge of the traditional uses of indigenous plants of the area. We are optimistic that this case will serve as a sound foundation for future collaboration, not only for the San but also for other holders of traditional knowledge” (see www.csir.co.za).

Thus, the San have been key participants in an agreement that has been called a turning point for indigenous people fighting to protect their role in the development of potentially economically valuable products. Other benefits include possible San involvement in the commercial cultivation of Hoodia – if a botanical “crop” is required for future production of the potential drug.

The San and the CSIR, as well as development organizations and the drug companies, seem satisfied with the agreement:

- Petrus Vaalbooi, Chairman of the San Council – “We see this as an opportunity to engage with a partner in a way that will achieve benefits that will permeate to the very poorest people within our communities” (see observer.guardian.co.uk/international/story/0,6903,676735,00.html). (As early as 1998, a WIPO fact-finding mission on IP and traditional knowledge met with Mr. Vaalbooi and other members of the San community to discuss their IP needs and expectations.)

- Dr. Petro Terblanche, CSIR Bio/Chemtek Director – “We are proud to be working in domains which require us to enter maiden territory in terms of how indigenous knowledge and science interact and how this interaction can best unlock the economic and social benefits inherent in the country’s biodiversity” (see www.csir.co.za).

- Richard Dixey, CEO of Phytopharm – “I have always believed that this type of knowledge is the most valuable asset of indigenous tribes... royalty payments from medicines could transform their prospects” (see education.guardian.co.uk/higher/medicalscience/story/0,9837,508790,00.html).

- Kxao Moses, Chairman of the Board of Trustees of The Working Group for Indigenous Minorities in Southern Africa (WIMSA) – “The international interest that the agreement...has aroused has helped...to raise awareness of the need to protect and control San intellectual property...”

Lessons learned

The Hoodia story illustrates many of the elements necessary in constructing an effective IP strategy that impacts positively on national economic growth and is of benefit to all the protagonists:

- Recognition of existing and potential national intellectual assets – here, traditional phyto-pharmaceutical use of Hoodia: many countries would profit from an “IP audit” to identify and assess their competitive sectors to enable targeting and clustering of innovative activity in those areas;

- Strong government support for research and development (R&D) and innovation creation: CSIR has government support and partial government funding; it is also the owner of patents it takes out on the fruits of its research and has gained experience in using these
to obtain financial return to fund further research. The percentage of government funding has dropped considerably over the years as the CSIR harvests the return on the IP it has created;

- Importance of an IP management strategy: for example, the filing of a patent application through the PCT (see footnote 1) for technology and products potentially profitable in the global market. In this case, the international application under the PCT has already resulted in patents in several countries, which allowed the CSIR to ensure the maximum benefit from the technology, covering the most promising markets for the end product, and contributing to the successful conclusion of a patent licensing agreement with a UK-based company;

- Partnership building between the public and private sectors as well as with foreign companies, using patents as a catalyst;

- Expertise in creatively leveraging IP—here, negotiating the licensing agreement, although this could also involve joint ventures, outright sale, etc.;

- Benefit-sharing for all those contributing to the creation of the IP asset—in this case, helping to cement a partnership with the knowledge asset holders to ensure further collaboration;

- Spin-off benefits, such as job creation (potential Hoodia farming by the San), enhanced respect for the collective knowledge of traditional communities, and the encouragement of innovation on a wider national level, which helps contribute to the creation of an IP culture.

The Hoodia example shows how an indigenous knowledge asset can be developed and commercialized in the interests of national wealth creation. It also underscores the role of IP rights—in this case, patents—in the benefit-sharing process. It is this development of an economically exploitable asset that allows the creation of an income stream to be distributed among beneficiaries such as the San.

**Sharing the riches of cultural heritage**

Using patents to give economic value to national innovation and invention is only one means of exploiting the IP system; copyright, performers’ rights, designs, trademarks and geographical indications can also be extremely effective means of leveraging a financial return on intellectual assets, particularly in relation to cultural heritage. Using these IP tools, African musicians, performers, craftsmakers and designers can contribute to economic development in the form of job creation, skills training, tourism and foreign exchange earnings. The marketing of cultural products and services is also a way for communities to reduce poverty and to strengthen their cultural identity. This also contributes to cultural diversity and enriching the lives of those outside the traditional communities themselves.

These themes underpin WIPO’s ongoing program on the IP protection of traditional cultural expression/expressions of folklore.

Many African countries’ copyright laws provide for the protection of expressions of folklore in recognition that traditional creations merit protection as intellectual assets. The Bangui Agreement of the Organisation africaine de la propriété intellectuelle (OAPI) provides a regional system for folklore protection. African countries and organizations are leading participants in the work of the WIPO Intergovernmental Committee (see page 18) exploring how to effectively protect, among other things, expressions of folklore and traditional or cultural expressions.

Governments are increasingly aware of the importance of the IP system in relation to the cultural industries and as a revenue-generating tool, and are constructing the necessary national infrastructure to enable the benefits of the system to be realized. For example, the Copyright Society of Malawi (CO SOMA)—which, among other things, collects and distributes royalties to its membership of over...
1,000 authors and composers – was funded by the government from its creation in 1992 until 1998, when it was able to become self-financing. Using its distribution figures for the banderole stickers (see WIPO Magazine July-September 2002) used to distinguish between genuine and pirated music cassettes as a basis for an estimate on domestic music sales, COSOMA calculates that, between 1999 and 2001, over three-quarters of a million US dollars was distributed to rightsholders in this sector.

**Targeting partnerships**

Partnerships are a major element in the successful leveraging of IP in many developing countries. Collaboration can be between the public and private sectors (see article page 10), such as government support for R&D and assistance to small and medium-sized enterprises (SMEs) in their efforts to commercialize national innovation, as well as with international and regional bodies. This includes support from international governmental organizations for national initiatives as well as joint ventures, licensing agreements and other forms of collaboration with international private sector companies.

Other activities designed to create a favorable environment for innovation to flourish, include such initiatives as the Fond d’aide à la promotion de l’invention et de l’innovation (FAPI) set up by OAPI to promote innovation among African SMEs and to assist them in the protection of their IP assets. FAPI currently operates within OAPI and caters to SMEs and inventors from the 16 OAPI member States. It seeks to contribute to the economic development of OAPI Member States by supporting the commercialization of innovation and providing specialized services, both technical and financial, for potential investors, inventors, researchers and start-ups. FAPI is now fully functional with national focal points in each of the OAPI Member States (see www.oapi.wipo.net.projetfapi.html).

Similar organizations, concerned with creating a fertile environment for the economic exploitation of IP assets, have also been set up on a national basis; Senegal’s Agence sénégalaise pour l’invention technologique (ASIT), is a notable example.

**Conclusion**

Throughout the African region, innovation and invention are receiving increasing recognition for their ability not only to ease and enhance daily living but also to function as an effi-

**Public outreach – explaining the “why” and the “how”**

Public outreach to increase awareness of the potential of the IP system, allied to an infrastructure that provides a user-friendly system – plus a good dose of individual determination – can help innovators themselves bring their products to market.

Mr. Abdellahi Ally, a Mauritanian inventor, did just that. Mr. Ally asked for information on how to protect and commercialize his invention, a novel procedure for making date preserve, and received assistance from the Mauritanian Ministry of Industry, OAPI and professional advisors that enabled him to patent his invention.

Patent protection boosted the confidence of potential investors and helped him to obtain financial support from banks and find partners interested in marketing his product. This led to a continuous increase in production, as well as his receipt of several prizes, including the first prize in the National Invention Fair in 2000, a gold medal from the Food and Agriculture Organization of the United Nations (FAO) on World Food Day that same year and the prize for the “best invention likely to interest the international market” at the second African Invention and Technological Innovation Fair. Mr. Ally is now planning to market his product abroad, in particular in date-producing countries such as Morocco, Algeria and Tunisia. He is considering granting licenses to allow production to be undertaken by companies already established in these countries. He is currently working on creating a suitable trademark for his product.
cient tool for economic growth. From a pilot silk project based on the cocoons of various subspecies of Gonometa worms, which has triggered a return to the dying art of hand spinning, to production of a pump powered by children at play, via the invention of an efficient cost-effective way of obtaining accurate CD4 white T cell counts - the people of this vast continent are leveraging ancient knowledge and skills to create and innovate in new fields.

In looking with “new eyes” at their intellectual assets, which often have been left untapped for commercialization, African countries are increasingly recognizing why and how it is important for them to protect and exploit these assets through the IP system.

The case studies in this article indicate that the mere existence of an IP system does not bring immediate results. Economic growth through the strategic use of the IP system will happen only if governments, partners and other stakeholders work together with creators and innovators to integrate IP into development policies and into individual business and economic activities. WIPO, along with its own partners and stakeholders, seeks to ensure that, through informed and skilful use of the IP system, its benefits are made available to all.

Technological innovation, fueled by government-led research and development (R&D), is a driving force for industrial growth and enhances a nation’s competitive advantage. Universities are among major players in the innovation system – both in research and in training skilled personnel. They have the potential to act as strong drivers of growth in the knowledge economy. Consider one example: in the United States of America (U.S.) 73 percent of the research papers cited in bio-industry patent applications were written by scientists working in universities or government or non-profit organizations (source www.bio.org/laws/impact.html).

To enhance economic growth, it is crucial to transfer the knowledge generated in universities and government-funded research institutions to business and industry for commercial exploitation. Such transfer usually requires industry to license the patents granted to universities and research institutions. The resulting university-industry partnership through the transfer of intellectual property (IP) rights can result in significant economic benefit for countries and their people.

Governments are increasingly recognizing that it is not enough to fund public research organizations (PROs) and allow the research to be placed in the public domain. Private ownership and commercial interests provide a strong incentive to research. Technology transfer from universities to industry is encouraged when universities are allowed to patent and license the results of their research to industry. This results in a “win-win” situation for both PROs and governments. For PROs such transactions yield licensing and royalty revenues, more resources for research, and greater exchanges be-
between industry and academic institutions. For government, the benefits include better use of research for social benefit and expanded employment in industry and start-up companies.

**Legal Framework**

The primary business of universities is teaching and research, but the extent to which the rich intellectual activity at universities and research centers is also applied to solving practical problems supports and feeds the cycle of creation and economic development. As an incentive to universities, government must set up the necessary legal framework for the ownership and transfer of technology.

The U.S. Bayh-Dole Act of 1980 re-shaped university-private sector partnership and promoted a substantial increase in technology transfer from universities to industry, and ultimately to the public. The Act allows U.S. universities to patent inventions funded by federal grants and retain the royalties that these patents generate. This has become a significant incentive for the commercialization of the results of public sector R&D activities, and has led to a tremendous acceleration in the introduction of new products through university technology transfer activities. Between 1986 and 2000, the increase in U.S. university patents was phenomenal. In 1986 only 619 university patents were granted, by 2000 the figure had jumped to 3,661. Between 1993 and 2000, U.S. universities were granted some 20,000 patents. In 1999 alone, some US$ 862 million in royalties was earned from patents and licensing activities at universities and the research institutions connected to them. In the same year 344 new companies were formed based on licenses from academic institutions. In 1997, US$ 27.8 billion of the country’s economic activity could be attributed to academic licensing, supporting 245,930 jobs.

Encouraged by the success of the Bayh-Dole Act, the Japanese Government in 1998 enacted the Law for Promoting University-Industry Technology Transfer. Japan has included significant measures to encourage patent activity in universities in developing recent IP strategies on the national level.

A number of academic institutions in other countries are also pursuing IP strategies. Oxford University uses Isis Technology Innovation as its technology transfer company. Cambridge University has a Technology Transfer Office (TTO) to manage all of its IP. The TTO formed six companies and consultancies from August 2001 to July 2002 and earned some US$ 5.90 million through royalties and software sales during that period.

**Options for Developing Countries**

What are the policy options available for developing countries? Turning Science into Business, a study on patenting and licensing at PROs by the Organisation for Economic Co-operation and Development (OECD), has documented different practices in 13 member countries and highlighted the policy options available to developing countries. These include emulation of Bayh-Dole (Germany, Japan and Korea), reform of employment laws (Austria, Denmark, Germany and Norway) or issuance of national codes of practice or IP guidelines (Canada and Ireland).

The experience of the developed countries has revealed that there is no ‘one-size-fits-all’ policy approach to manage the IP assets generated by PROs. Such IP management should be tailored to the kind of research engaged in, the type of institutional structures existing, the overall amounts available for R&D, and the country’s culture and the type of specialization. These are all country-specific factors that need to be taken into account by policymakers. The policy framework should also channel public resources towards government’s policy priorities for science, technology, education and development of indigenous technological capacity in priority areas. Therefore, the OECD study shows that importing policy solutions without adapting them to the national context would result in sub-optimal policy outcomes. Broadly, the policy framework should:

- Maximize the social benefits from government investment in R&D and ensure that the commercialization of that R&D generates economic growth. The imperative for policy-

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3. Association of University Technology Managers (AUTM).
makers is to create a policy space, which would balance support for commercially-funded research and entrepreneurship at PROs, on the one hand, and the protection of public access to IP generated with public research funds on the other. Policymakers need to ensure that the entrepreneurial spirit of PROs does not compromise the fundamental research and the academic obligations of researchers. There are legitimate concerns that universities may shift from fundamental science to more applied work, which would damage and distort the educational and research missions of the universities and their role in the development of research talent. The right balance is needed for the proper management of IP generated with government funding.

Create a coherent and consistent policy on publicly-funded research. There is an urgent need for governments to create the legal framework that will allow the ownership of IP by publicly-funded research organizations. Generally, ownership should not belong to the government agency which funded the research as lack of market exclusivity and uncertainties of ownership (danger that competitors could acquire licenses and manufacture similar products) would make industry reluctant to invest in and develop new products from federally-owned research. Government interests could be preserved through a provision to reserve certain rights for the funding agency.

Allow each university or research institution to develop its own policy on commercialization of research and distribution of benefits from patenting within the larger national policy framework. A model that permits these institutions to own patents could be an optimal way to address the question of ownership. Countries that follow this model have several available alternatives regarding the ownership of patents and the sharing of royalties between the PROs and inventors. One could argue a case for individual ownership of patents in a system that recognizes incentives, but this could also lead to excessive fragmentation of IP rights and the danger of licensing to a foreign entity for personal profit. As several models of ownership exist, policymakers should consider specific national situations while making a determination.

Reconcile the “publication versus protection” dilemma. The university researcher’s priority to publish results as soon as possible, motivated by the fact that publications are generally perceived as the main measure of performance and scientific credibility for academic researchers, often results in early disclosure of the invention, thus compromising its patentability. To address this issue, governments need to address the question of the grace period for filing of a patent.

Technology Transfer Offices

An equally important role of IP management in PROs is the support of spin-offs, taking equity in start-ups, supporting SMEs and steering research to key competitive areas. A direct consequence of deliberate policies in this direction is the creation of technology transfer offices (TTOs) - such as those at Oxford and Cambridge Universities (mentioned above) - in public research institutions with knowledgeable IP asset management professionals. The nature of the TTO, whether on-site or regional, would depend on the kind of research undertaken and the total financial support available.

Experience with TTOs, even in developed countries, has been relatively brief. The OECD study shows that most TTOs are less than ten years old, have less than five staff members and are integrated into the university.

Initiatives from Developing Countries

Overall government expenditure on R&D in developing countries - around one percent of GDP - is limited when compared with that of developed countries, which allocate some three percent of GDP. Yet, in spite of limited resources, developing countries have been quick to realize the critical role of R&D investment and adopt policies designed to convert the innovative capacities of
their research organizations into commercially viable inventions.

Realizing the potential, the Council of Scientific and Industrial Research (CSIR) of India created Patestate, a collaborative effort between its Intellectual Property Management Division and the Department of Biotechnology, Government of India, to facilitate the process of licensing and to help laboratories leverage full value of their IP. Patestate assists CSIR with the commercialization of technology, by deriving income from its R&D and by finding industrial partners that can improve their products, processes and business through use of CSIR patented technologies. Currently, there are some 6,000 CSIR patents worldwide.

Significant scientific knowledge and innovation in Uganda lies in the hands of public research institutions and individuals. Extensive potential to design and generate products and processes remains unexploited, because the research capacities of the highly-skilled manpower in these scientific, research and academic institutions is not adequately linked to the productive industrial sector. The mission of the Scientific and Industrial Research and Development (SIRD) Unit, established by the Uganda National Council for Science & Technology, is “to create an enabling policy environment for the conduct of research and experimental development of social and economic significance to Uganda so as to improve the quality of life and generate wealth.”

In Jamaica the National Council on Science and Technology (NCST) is promoting national networking of science and technology institutions through the coordination of bi-monthly meetings with Jamaica’s R&D and testing institutions. These meetings facilitate dialogue among the academic and public and private sector science and technology institutions to solve problems, share information on work programs and develop collaborative programs for national development.

The University of Stellenbosch in South Africa has created an Office of Intellectual Property responsible for the protection and commercial application of IP developed by the staff and students. The office has been successful to date in encouraging commercial exploitation through the outright sale of IP, licensing or joint ventures. The university has also started Unistel Holdings as a holding company for spin-offs. It has a combined turnover of around US$ 11.14 million a year and has led to the creation of 138 jobs. The University of Cape Town (UCT) recently started UCT Innovation as a wholly-owned company and the commercializing of UCT’s research has already earned about US$ 1.78 million. The University of the Witwatersrand has started an official commercialization channel called Wits Enterprise, owned by the university and staff.

The South African Council for Scientific and Industrial Research (CSIR) (see article on page 6) is backed, and partially funded, by the government. The South African framework policy permits CSIR to own and license patents, such as for medical applications derived from the Hoodia plant. CSIR is “the premier technology and research organization in Africa committed to innovation, sustainable development and economic growth and creating value for clients, partners and stakeholders.”

Conclusion

It is now widely accepted that technological progress contributes to economic growth. The rapid development of some economies in the 1990s through knowledge creation, R&D investment and the building of human capital shows that promotion of university and public research institution partnerships with industry is a critical policy tool available for governments.
Importance of Franchising to the Economy

Many leading international businesses have grown through franchising. The franchise model enables business owners to expand their business in partnership with independent entrepreneurs while retaining control of the business model. It is estimated that franchises account for 14 percent of the world’s total retail sales. In Europe, there are some 170,000 franchising units, providing employment to approximately 1.5 million people and accounting for a total turnover of approximately 160 billion Euros. In the U.S., approximately one in every twelve new businesses is founded on a franchising agreement. In developing countries, over the last decade, the expansion of franchising has also been significant. For example, in Malaysia, the total franchise sales were recently estimated at about US$ 5 billion, providing employment to 80,000 people and creating over 6,000 franchisees.
Processing franchises. Often referred to as “manufacturing” franchise, the franchisor supplies technical knowledge to a processor or manufacturer. The franchisor grants the franchisee authorization to manufacture and sell products under the trademark(s) of the franchisor and often provides training and information on marketing, distribution and servicing of the product. This type of franchise is most common in the restaurant and fast-food industry.

Service franchises. Here the franchisor develops a certain service that is then provided by the franchisee, under the terms of the franchise agreement, to the customer. The most common example is the provision of after-sale automobile repair services.

Distribution franchises. In this case the franchisor manufactures a product and then sells it to the franchisees. The franchisees in turn sell these products to customers, under the franchisor’s trademark, in their respective geographical sales territories. The sale of electronic goods of various brands by specialized retail outlets is a good example of this type of franchise.

The Franchise Agreement

At the core of the franchising arrangement is a license agreement, granted by the franchisor to the franchisee, to use the franchised system. Amongst other things, the license agreement requires that the franchisee conducts the business in the manner prescribed by the franchisor.

In a franchising relationship, the parties (franchisor and generally many franchisees) have a close working relationship defined by the terms of the franchise agreement. The income of each party is dependent on the combined efforts of both parties. The more successful the franchisee’s business becomes, the greater the income for all parties. The franchisee’s success is also dependent on the franchisor’s ability to develop a profitable system, train the franchisee in the proper operation of the system, improve or promote the system, and support the franchisee throughout the life of the franchise agreement to achieve continued success.

IP Issues in Franchising

IP rights are at the heart of any franchising agreement. Therefore, it is necessary to clearly identify and list all types of IP, for example the trademark, trade names, copyright, patent, trade secrets or know-how, which the franchisor will be licensing to the franchisee. The most vital part of IP in a franchise is the trademark, since the whole idea is to manufacture, deliver or distribute a product or service under a certain brand, which has already proved to be successful in the marketplace. Before entering into a franchising agreement, a prospective franchisee must ensure that any IP rights being licensed under the agreement exist, are owned by the franchisor, and that the franchisor is competent to license the IP rights. Equally, the franchisor has to ensure that the IP will not be misused by the franchisee.

Franchising establishes a business relationship between the franchisor and the franchisee lasting for a number of years. Therefore, it must be built on a solid foundation, for which having a clear understanding of the terms and conditions of the license (franchise) agreement is crucial. Understanding the legal language of the agreement can be daunting, so the advice of an experienced franchise attorney should be sought by a prospective franchisee to fully grasp the legal issues and to avoid making costly mistakes.
prevent the loss or theft of any of the know-how or trade secrets of the franchisor.

Business Issues

Before entering into a franchising relationship, an entrepreneur (a prospective franchisee) should take into account the benefits and costs of entering into such an arrangement. The franchisee should consider the deal from every possible angle, taking into account, for example, personal expectations, financial capacity and local circumstances. An entrepreneur has to decide whether this is the right approach for his business aspirations.

Some potential benefits for the franchisee include the following:

- **Lower risk of failure.** The most vulnerable phase for a business is the start-up phase during which the failure rate is high. A franchisee, however, benefits from a system with a proven track record for products and services that have already done well in the marketplace.

- **Benefit from brand reputation.** The franchisee benefits from the image, reputation and goodwill already attached to the brand, thus the cost of advertising will be significantly lower. In addition, the franchisee may benefit from the collective advertising effort of all franchisees (as well as the franchisor).

Franchisable Businesses

Franchises are common in a wide variety of sectors. The best known are probably fast-food restaurants; however, franchising is common in accounting and tax services, business and management consultancies, education and training, fashion, clothing and shoe stores, drug stores, hotels, insurance companies, leisure and sports, travel agents and even laundry and dry-cleaning businesses. For a business to be franchisable, it must be a credible business, with an identity that is clearly differentiated from that of its competitors (brand image), a standardized operating system which is properly documented, and which can be learnt by a new franchisee within a short period of time and, above all, it must be capable of providing a much above average return on the franchisee’s investment.

Many countries have national franchising associations, which provide information about franchising opportunities.

- **Collective purchasing power.** Franchisees may sometimes benefit from the collective purchasing power of all franchisees, obtaining supplies at a lower cost thus increasing the profit margins. However, it is not uncommon that franchisees are contractually limited to buying their supplies through the sources authorized by the franchisor.

- **Training and technical support.** Franchisees often benefit from training and technical support, for example, how to conduct their business successfully and ensure that it conforms to the standard operating procedures of the franchising system. This may include support on accounting procedures, management of human resources, and marketing and financial administration.

- **Easier to obtain financing.** A franchisor may support the request of a franchisee for funding from lending institutions, thus increasing the likelihood of obtaining funds for developing the business.

- **Research and development.** As the franchisor develops new or better techniques for the operation of the franchised units, this information is shared with the franchisees. This gives the franchisees access to the results of research and development that they may not be able to afford on their own.
On the other hand, some of the drawbacks of franchising for an entrepreneur may include:

- **IP rights.** All IP rights relating to the franchising agreement are owned by the franchisor regardless of how much the franchisee has contributed, for example, to increase the value and enhance the reputation of a mark.

- **Payment of franchising fee and royalties.** On entering into a franchising relationship the franchisee is required, invariably, to pay an initial fee for the grant of the franchise. Thereafter, royalty fees are to be paid at a rate stipulated in the franchising agreement. For the franchisee, these amounts may represent significant costs that it may not be able to afford or that may limit its ability to obtain sufficient returns on its initial investments. In addition, the permanent liability of making payments often brings with it a feeling that the franchisee does not own the business but is merely renting it.

- **Limited freedom to operate the business.** The standard operating procedures generally provide the blueprint of how things must be done by franchising units; therefore the franchisee is very limited in his actions. A franchisor may, for example, limit the franchisee to selling only the products or services that he has approved. Sometimes, the standard operating procedures may prove to be inadequate in international franchises where foreign methods may not be suitable for local circumstances and the overall local business environment. The franchisee is often unable to vary, modify, adapt or improve the system to suit local conditions.

- **Innovations often assigned to the franchisor.** If the franchisee develops certain innovations, within the limited freedom to operate, a franchise agreement would generally require the innovation to be contractually assigned to the franchisor so that it may be made available to all other franchisees.

- **Dependence on franchisor’s success.** If the franchisor is successful, it is likely - though by no means certain - that the franchisees will also prosper and benefit from the success of the franchisor. However, if the franchisor is not successful or encounters any problem it is more than likely to have a negative effect on the franchisees.

**Look Before You Leap**

Bearing in mind the factors mentioned above, an entrepreneur has to decide whether franchising is really the right form of business for him before entering into a franchising agreement. Once an entrepreneur has decided that a franchise arrangement is the most suitable form of business for him, a careful examination and study must be made to consider the entire franchise agreement, in the light of business trends, personal considerations and local circumstances. Franchisees should take special care in deciding whether the overall “system” recommended by the franchiser is suitable for their local market conditions.

For more information on various practical aspects of the IP system of interest to business and industry, please visit the website of the SMEs Division at [www.wipo.int/sme/](http://www.wipo.int/sme/). The next article in the IP for Business series will discuss enforcement of IP rights.
The questions above can be best approached and illustrated through an example: In South India the tribal medicinal knowledge of the Kani tribe led to the development of a sports drug named Jeevani. Jeevani is an anti-stress and anti-fatigue agent, based on the herbal medicinal plant *arogyapaacha*. Indian scientists at the Tropical Botanic Garden and Research Institute (TBGRI) used the tribal know-how to develop the drug. The knowledge was divulged by three tribal members, while the customary rights to the practice and transfer of certain traditional medicinal knowledge within the Kani tribe is held by tribal healers, known as Plathis. The scientists isolated 12 active compounds from *arogyapaacha*, developed the drug Jeevani, and filed two patent applications on the drug. The technology was then licensed to the Arya Vaidya Pharmacy, Ltd., an Indian pharmaceutical manufacturer pursuing the commercialization of Ayurvedic herbal formulations. A trust fund was established to share the benefits arising from the commercialization of the TK-based drug.

This example illustrates several intellectual property (IP) issues in the field of TK and genetic resources: What kind of legal protection should be given to the Kani’s TK? How should benefit sharing be structured between the company that developed the product and the Kani tribe which conserved and cultivates the plant and held the knowledge about it? If the Arya Vaidya company had been located in another jurisdiction should access to the genetic resource *arogyapaacha* have been subject to regulation? How should such access be regulated and what should be the role of the community and the state? What might be the role of the customary laws of the Kani?

Similar kinds of research and access to TK and associated genetic resources often occur across national boundaries. Thus, questions like these are frequently raised in international discussions about the appropriate policy concerning research activities involving TK and genetic resources.

**Definitions and use of Terms**

The term ‘traditional knowledge’ is generally used at two levels. In the broad sense TK includes both the ideas and the expressions of the ideas which were developed by indigenous and local communities in a traditional way. In the narrow sense, TK refers only to knowledge as such, that is only to the ideas and not to their expression. For example, the Kani know-how of using the *arogyapaacha* plant would be considered TK in the narrow sense, irrespective of whether it is expressed in a folksong, a ritual practice, or a written story. In the narrow sense TK therefore describes those elements that may be protected by IP rights which focus on the use of the knowledge, rather than the expressions of the knowledge. Some traditional knowledge touches simultaneously upon both these aspects, however this article will deal only with tradi-
tional knowledge in the narrow sense as well as the related genetic resources.

Those elements of TK which are most intensely debated are often linked to the use of biological diversity and its components, such as medicinal plants, traditional agricultural crops, animal breeds, extracted substances, etc. Such genetic and biological resources are linked to the knowledge and traditional practices through the utilization and conservation of the resource, which has often occurred over generations, and through their common use in modern scientific research (such as in the Kani case). In the example from India, the traditional know-how of the tribal members was linked to the use of a medicinal plant as well as the use of certain other organic compounds. In this context, the term “biological resources” means genetic resources, organisms, their parts, or any other biotic component of ecosystems of use or value. Genetic resources thus form one category of biological resources. Genetic resources are defined as any material of plant, animal, microbial or other origin which contains functional units of heredity and is of value. For example, the plant aroyapaacha is a genetic resource, whereas the 12 active molecules are biological resources but not genetic resources.

In the case of the Kani, these resources and certain TK elements were referred to in the patent application and in the benefit-sharing arrangements based on the granted patent. The question then arises, what kind of protection should be available for the TK and what role should IP rights have in benefit-sharing arrangements for the genetic resources associated with TK?

TK in the narrow sense - knowledge such as traditional technical know-how, or traditional ecological, scientific or medical knowledge - is to be distinguished from expressions of folklore or traditional expressions of culture (TCEs). Distinct, but complementary legal tools can be used to protect these distinct elements, and this choice has been made in some cases. But the traditional linkages between these elements should be recognized by policymakers and respected as far as possible in the design and implementation of new legal mechanisms. For example, many handicrafts have a utilitarian function, which gives effect to a technical idea, but they also have important aesthetic aspects, which express a certain culture. In this vein, handicrafts may embody both TK in the narrow sense and a traditional cultural expression. This lack of a clear distinction about the application of different legal regimes to the same underlying subject matter is not new in IP law. For example, designs may be protected under the law of industrial property, the law of copyright, or both.

A fundamentally important aspect of TK is that it is “traditional” only to the extent that its creation and use are part of the traditions of communities or nations. Traditional, therefore, does not necessarily mean that the knowledge is ancient. Traditional knowledge is being created every day, it is evolving as a response of individuals and communities to the challenges posed by their social environment. In its use, TK is also contemporary knowledge. This aspect is further justification for legal protection. It is not only desirable to develop a protection system that documents and preserves TK created in the past, which may be on the brink of disappearance, it is also important to envisage a system that contributes to the promotion and dissemination of innovations that are based on continuing use of tradition.

What kind of legal protection for TK?

Protection of TK should be primarily undertaken for the benefit of its holders. In our example this would be the Kani tribe and its members. It should respect their cultural and community values, and should be based on consultations with the tribe(s) concerned.

In past discussions a distinction has been made between two types of protection for TK: positive protection which describes the protection of TK through the recognition of rights in TK and defensive protection which refers to the safeguarding against illegitimate third party IP rights over TK. In most cases, in order to be ef-
effective, TK protection would have to be practically feasible and easily accessible to the traditional communities in both these aspects of protection.

A comprehensive strategy for the protection of TK might have dimensions pertaining to the community, national, regional and international levels. The stronger the integration and coordination between these dimensions, the more likely the overall effectiveness. Many communities, countries and regional organizations are working to address these levels respectively. National laws are currently the prime mechanism for achieving practical benefits for TK protection. For example, the African Union, Brazil, Costa Rica, India, Peru, Portugal and Thailand have all adopted sui generis measures which address TK and associated genetic resources (sui generis measures are specialized measures aimed exclusively at addressing the characteristics of specific subject matter, such as TK and associated genetic resources). In addition, a number of regional organizations, such as in the South Pacific and in Africa, are working on defining the specific rights in TK and how they are administered. In cases such as the Kani example, various TK holders and other stakeholders in different countries have already found existing IP rights useful and their TK protection strategies focus on the IP system.

Agricultural Innovation

The wealth and diversity of local knowledge systems surrounding traditional agriculture includes traditional knowledge about the uses of plants, plant conservation strategies, pest and disease management, environmental monitoring for ecological change, and traditional selection and breeding methods. For example, such methods allowed Dhularam Mondal, a small innovative farmer from India, to develop a new broad bean variety with larger pods than the previous varieties. Furthermore, the UN Food and Agriculture Organization (FAO) has documented that women cultivators of the Aguaruno J iaro community in northern Peru identify and select the cassava cultivars on the basis of characteristics that show the greatest phenotypic variation. Panicle harvesting by Mende farmers in Sierra Leone has allowed them to select rice varieties of short, medium and long duration. The same FAO Report found that differences between Cuban and Mexican maize are linked to maize being prepared and eaten in different ways in the two countries, which has led farmers to select varieties for different properties in the two countries.


The protection of TK is important for communities in all countries, particularly in developing and least developed countries. First, TK plays an important role in the economic and social organization of those countries, and placing value on such knowledge is a viable means of promoting a sense of national cohesion and identity. Second, developing and least developed countries are engaged in implementing international agreements that may affect the manner in which knowledge associated with the use of genetic resources is protected and disseminated. 1 In the agricultural area existing instruments already recognize farmers’ rights and international instruments that will provide for certain genetic resources in the agricultural sector to be managed through a multilateral system may soon enter into force. 2 The international instrument establishing this system will be the International Treaty on Plant Genetic Resources for Food and Agriculture.

1 For example the Convention on Biological Diversity (CBD) and the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement).

2 Relevant instruments in the agricultural sector include the International Treaty on Plant Genetic Resources for Food and Agriculture (2001) and the International Undertaking on Plant Genetic Resources (1983).
Challenges Confronting TK Holders

TK holders are currently facing various difficulties. A serious problem is the reluctance of the younger generation to learn the “old ways.” The rejection of traditions by the young and the encroachment of modern lifestyles often result in the decline of TK and practices. Either through acculturation or diffusion, many traditional practices are lost. Thus, a primary need is to document and preserve the knowledge that is held by elders and communities throughout the world. While such documentation raises important IP questions, which should be decided and managed by TK holders, documentation of TK in itself is an issue that goes beyond IP policy and cannot be fully addressed through IP mechanisms.

Another difficulty facing TK holders is the lack of respect and appreciation for such knowledge. For example, when a traditional healer provides a mixture of herbs to cure a malady, the healer may not describe the effects on the body as molecular interactions in the terms of modern biochemistry, but the healer bases his “prescription” upon generations of “clinical” trials undertaken by healers before him. Thus, sometimes the true understanding of the value of TK may be overlooked within a purely scientific approach to natural resource utilization and management.

Yet another problem confronting TK holders is the commercial exploitation of their knowledge by others, which raises the question of legal protection of TK. Cases involving natural products all bear evidence to the value of TK in the modern economy. A lack of experience with existing formal systems, economic dependency, lack of a unified voice, and, in many cases, a lack of clear national policy concerning the utilization of TK, results in these populations often being placed at a decided disadvantage in using existing IP mechanisms. At the same time, the lack of clear rules protecting TK creates risks for companies, which prefer closing deals under well-established, reliable and enforceable rules.

For all these reasons, WIPO is undertaking extensive work on IP aspects pertaining to the protection of TK and access and benefit-sharing for associated genetic resources. Extensive documentation on this work can be obtained from WIPO and can be found on the WIPO website (www.wipo.int/globalissues). The immediate work ahead requires that the international dimension of the protection of TK and benefit-sharing for associated genetic resources be addressed, learning from existing national experiences. Only through the participation of communities and countries from all regions can this work go forward to produce effective and equitable outcomes that are acceptable to all stakeholders.

Conclusion

Traditional knowledge is naturally cherished as an important part of the cultural heritage and historical identity of many local and indigenous communities, as well as many nations and regions with a shared cultural history. It is also increasingly recognized as a key element for the future well-being as well as the intellectual and cultural vitality of those traditional communities that have developed, nurtured, and passed knowledge on to their descendants, and whose way of life and cultural and legal values are rooted in their traditional knowledge heritage. The challenge for policymakers is to find ways of strengthening and nurturing the roots – cultural and legal – of traditional knowledge.

It has been argued that genetic resources, and the TK associated with using them in a sustainable manner, are a comparative advantage of those countries that are biodiversity-rich, enabling them to participate more effectively in global markets and thus rise above current levels of poverty and deprivation. If this is so, then protection of TK at the national and the international levels can be seen as a potentially powerful tool for advancing a bottom-up approach to development.
A modified Patent Cooperation Treaty (PCT) request form will be made available for use as of January 1, 2004. The new form will reflect some of the changes to the Rules of the PCT that will enter into effect on that date. Further, to accommodate these changes, PCT-EASY will be upgraded into WIPO’s PCT electronic filing software, PCT-SAFE, which will be made available before January 1, 2004.

As PCT-SAFE incorporates full PCT-EASY functionality — allowing for the creation and printing of the validated PCT-EASY request form and the PCT-EASY diskette—the distribution of PCT-EASY as separate software will be discontinued. Consequently, as of January 1, 2004, all PCT-EASY users are requested to upgrade their current software to the new PCT-SAFE software.

The PCT-SAFE software will be made available for download from the PCT-SAFE website (www.wipo.int/PCT-SAFE) and as a CD installation. If you would like to order a copy of the PCT-SAFE, please send an e-mail (pcteasy.help@wipo.int) or fax (+41-22 338 80 40) to the PCT-EASY Help Desk, indicating clearly your name, full postal address and the mention “Request for PCT-SAFE CD”.

Fully Electronic PCT Applications

Earlier this year Koninklijke Philips Electronics N.V. became the first to file a fully electronic international application under the PCT with the WIPO Receiving Office (RO/IB) using PCT-SAFE software. The availability of the upgraded PCT-SAFE secure electronic filing facility means that all PCT users will soon be able to file their international applications with RO/IB either online or using physical media such as CD-R.

PCT-SAFE allows for applicants to prepare fully electronic applications as well as PCT-EASY applications. The possibility to file fully electronic applications is expected to be available to all users of the PCT in early 2004 and will offer PCT applicants significant benefits. Users will be able to submit validated applications without the printing, copying and mailing normally associated with such a transaction. PCT-SAFE will also allow users to receive almost immediate notification that their application has been received and is being processed. The PCT-SAFE development was made possible through the adoption by the industrial property offices of the PCT Contracting States of a legal framework and technical standard necessary for the implementation of electronic filing and processing of international applications, and their subsequent...

Sustained growth in the use of the PCT system, which is now handling over 100,000 international applications per year, and the increasing complexity of applications, in particular, from the biotechnology sector, prompted WIPO to look for business solutions to handle such large amounts of data while still providing a value for money, quality service to users. PCT-SAFE will play a key role in ensuring the timely receipt and processing of international applications filed under the PCT.

WIPO will continue to provide information about developments in the PCT-SAFE project through the Internet at www.wipo.int/PCT-SAFE, the PCT Newsletter and the WIPO Magazine. A WIPO publication entitled “What is PCT-SAFE?” (publication number 496) is also available at the address indicated on the back cover of the magazine.

WIPPO Director General Kamil Idris welcomed the accession by Spain to the Hague Agreement Concerning the International Deposit of Industrial Designs, a landmark agreement that will enhance and broaden the geographical scope of the existing system for the international registration of industrial designs. On September 23 Spain became the 11th country to join the Geneva Act of the Hague Agreement, triggering its entry into force on December 23.

“Entry into force of this important multilateral agreement paves the way for wider use of the Hague system for the international registration of industrial designs by introducing features which will make the system more attractive to those countries which have so far remained outside the system,” said Dr. Idris. He expressed confidence that it will help fulfill the tremendous potential of the Hague system by offering an even more flexible, cost-effective and user-friendly means for companies and individuals across the globe to protect their industrial designs.

The Geneva Act will enter into force on December 23 for the following countries which have, so far, acceded to it: Estonia, Georgia, Iceland, Kyrgyzstan, Liechtenstein, Republic of Moldova, Romania, Slovenia, Spain, Switzerland, and Ukraine.

Benefits of the System

The Hague system offers users a simple and cost-effective way to obtain protection for their industrial designs in any or all of the states which are party to the agreement by making a single international deposit. Without the system, separate applications would have to be filed in each of the countries in which protection was sought. This is because, as a general rule, industrial design protection is limited to the territory of the country where protection is sought and granted.

The new Act introduces a number of important changes to the Hague system for the registration of industrial designs. To date, this has been governed by the Hague Act (1960) and the London Act (1934) concerning the International Deposit of Industrial Designs. The Geneva Act enhances the existing system by making it more compatible with the registration system in countries such as the United States and Japan where protection of industrial designs is contingent on examination to determine the acceptability of an application. The Geneva Act seeks to broaden the geographical scope of international design registrations.

Under the new Act, contracting parties have a period of six months to examine whether a new international registration can be granted protection in their territory. This period may be extended by a further six months for those contracting parties whose law requires examination of the novelty of the registered design. It also introduces a modified fee system, the possibility of deferring publication of a design for up to 30 months and the ability to file samples of the design rather than photographs or other graphic reproductions. The latter features are of particular interest to the textile and fashion industries.

The number of international applications for industrial design protection has increased progressively in recent years. One of the main advantages of using the Hague system is that users are able to include up to as many as 100 designs in each international application. In 2002, WIPO received about 4,300 applications containing some 20,700 designs. Each application covered on average 11 countries. This is equivalent to about 47,000 national applications having the effect of protecting a total of some 230,000 designs. In spite of this positive trend, the system is still under-utilized, particularly compared with the large number of such designs that are created and used globally. At present, only 34 States are party to the Hague Agreement.
A key element of WIPO's outreach program is the Organization's work in creating a broader awareness among the general public of the value of intellectual property and the role played by the IP system in encouraging and rewarding creativity. As part of this effort, WIPO is producing a series of short films for television called Creative Planet. The series explores, through portraits of artists, musicians, inventors, designers, and other creators, how the creative process works for them, how they view their own creative efforts, and how the intellectual property system has helped them achieve success.

Several pilot films have been produced in six-minute versions for broadcast on national and international television networks. Shorter one-minute versions will be produced as well. The subjects include, among others, a medical doctor in Nigeria who has invented and patented a blood transfusion device used in local hospitals, a Tunisian glass artist, and a Peruvian singer-songwriter. This issue introduces Halter Vianney, a Swiss watchmaker, the subject of the final of the four pilot films in the Creative Planet series.

Watches have become an integral part of our lives. Finely-crafted wristwatches have been collectors' items since Patek Philippe first invented them in 1868. Many appreciate the precision work and creative design that goes into these miniature works of art. They are viewed as jewelry with a function. From graduation to retirement the finely-crafted watch is a valued gift to show appreciation.

Halter Vianney is a maker of such highly-valued, creative watches. Each watch produced in his workshop in Switzerland is a precise instrument for measuring time and is a creative achievement. The quality of his work - the imagination of the design, the perfect balance and timing - are testimony to his dedication. His words reflect his devotion to his work.

On being innovative

I create watches because gears, mobiles and mechanisms fascinate me. I make them the way I imagine them, the way I feel they should look. You have to innovate, not just re-do - in a mechanical way, I'd say - what's already been done by others. In watch-making, it's not always easy to innovate or create specific things, but you have to come up with your own ideas, something which will be remembered for years to come.

I think it's necessary, as in any work or activity, to be able to live off your ideas. If you can't afford to live off your job - because coming up with ideas IS a job - then your ability to come up with new ideas won't last long.

In my world, I find it hard to be surrounded by copies. I'd rather be around original models, things I'd be extremely happy to live with, things that remain unique. If I were to come across copies of a watch, identical to the original model, but lacking its quality and contrary to the goals we're pursuing here, then I would tend to become aggressive and try to get rid of those copies.
On his passion

I’ve been a watchmaker, or working exclusively as such, for just over 28 years. I’ll retire when they bury me.

Passionate people are everywhere: cinema, computing, literature, music... I believe that people whose work is moved by passion, [as] in any field, share the same feelings or sensations. Every now and then, it makes you feverish, because it’s a very demanding job, in terms of effort and work. But at the end of the day, it’s very soothing and relaxing to live off one’s creations.

On his inspiration

Certain films and novels made me dream of a world where living beings no longer existed. Machines had taken over instead. So I imagined a sci-fi object which wouldn’t be organic, but completely mechanical and mineral, or even metallic. My goal is to create... violent objects, in terms of feelings. I create them the way I imagine them, the way I feel they should look, and I hardly ever compromise.

On intellectual property

I consider myself to be the heir to the history of technological development in watch-making. As such, I wanted to perpetuate some of this collective memory and knowledge in my own life. I create watches because gears, mobiles and mechanisms fascinate me. My creations are the witnesses of what humankind has developed so far. They are made of what others have passed on to us: their pain and their suffering, their joys and their laughter. My watches are a historical legacy.

In the future, we might all have an integrated circuit in our brain, thanks to which we won’t have to rely on watches to know the time or get information about it. But wearing a watch on your wrist, for the pleasure of it, I don’t think that will ever disappear, since I believe that kind of pleasure should be eternal.

On creativity in general

Creativity is fundamental for humankind to go forward. It’s the essence of our development, our past and our future. I would say that our societies are based on creativity, and it’s very hard to imagine living without it today. We would be leading unbearably motionless lives...

Our existence is powered by creativity, as is everything else in the Universe.
Women constitute approximately 55 percent of the world’s population. More and more women are also furthering their education, contributing to the arts and sciences and starting their own businesses. But what role are women playing in the world of intellectual property (IP)?

One very visible sign of progress for women is their increasing number in IP administrations, within both the public and private sectors, and at the national, regional and international levels. This development is reflected in the growing number of women representatives who participate in WIPO meetings and other events as well as in the high proportion of women who benefit from various WIPO training and other educational programs.

Targeting Women

It is widely acknowledged that small and medium-sized enterprises (SMEs) form a robust business sector that provides economic growth, increased productivity and employment. What is less known is that many such enterprises are owned and run by women – women who are actual or potential owners of trademarks, service marks, trade names as well as of industrial designs, patents and copyright. It is critical that women are targeted through outreach programs to build awareness about the importance of IP and its protection, especially in developing countries.

Women make important contributions in the visual and performing arts, in music and in literature. In certain areas of traditional knowledge and folklore, such as health and nutrition, it is frequently women who have been and continue to be entrusted with safeguarding and transmitting the knowledge from one generation to the next. It is important that these contributions be recognized and protected where appropriate.

New Web Page

WIPO has created a new web page (www.wipo.int/women-and-ip) intended primarily to provide information about IP issues and WIPO activities of interest and concern to women. The new web page also links to other related websites and is aimed at facilitating networking among women in the IP field. The site gives tribute to some of the numerous women around the world, of all nationalities, races, religions, ages and social backgrounds, who have, are, and hopefully will continue to make significant contributions in the IP field.
WIPO Director General Meets with President of Bulgaria

The strategic importance of intellectual property (IP) as a tool for economic, social and cultural development was the focus of discussions between Bulgarian President Georgi Parvanov and WIPO Director General Kamil Idris during an official visit to Sofia on October 13. In the course of their discussions, President Parvanov expressed his appreciation of WIPO’s work in promoting the protection of IP in Bulgaria and said that he looked forward to his country’s continued cooperation with WIPO. Dr. Idris applauded the Bulgarian authorities for their progress in bolstering the Bulgarian IP system and pledged WIPO’s continued support in promoting full use of the IP system in Bulgaria.

President Parvanov and Dr. Idris inaugurated a new center on IP in the National University of National and World Economy. Dr. Idris called it an historic occasion that reflected Bulgaria’s commitment to the use of IP to promote the country’s wider economic development goals. He also expressed his commitment to further assist Bulgaria in this respect. The new center will have close links with WIPO’s Worldwide Academy. Following the inauguration ceremony, the University awarded both Dr. Idris and President Parvanov with a medal, symbolizing an honor of the first degree, in recognition of their efforts in promoting economic development and social well-being in Bulgaria.

WIPO and Trilateral Offices Agree to Reinforce Ties

WIPO and the Trilateral Offices - the European Patent Office (EPO), the Japan Patent Office (JPO), and the U.S. Patent and Trademark Office (USPTO) - have agreed to reinforce collaboration to ensure delivery of more efficient services to users and to promote the benefits of the patent system. WIPO Director General Kamil Idris, meeting in Geneva on September 25 with EPO President Ingo Kober, JPO Commissioner Yasuo Imai, and US Deputy Under-Secretary of Commerce for Intellectual Property and Deputy Director of the USPTO Jonathan Dudas, stressed the need to move ahead with international efforts to promote reform of the patent system to ensure easier access for all users and to ensure that the system continues to serve the public interest.

Participants agreed on the important role of patents in stimulating technological progress, economic development and wealth creation. They noted that the growing number of patent filings around the world was indicative of the vital role of patents in stimulating growth and development. The meeting participants also expressed concern over efforts by some interest groups to undermine the patent system. Such efforts, they noted, impede constructive debate on how to best reform the patent system so that it continues to serve the public interest while preserving the rights of inventors and acting as an incentive for research and development.

The meeting participants also suggested that WIPO further engage Member States in a policy dialogue on the
At the conclusion on September 17 of the first public conference on the use of patent statistics to analyze economic and technological trends hosted by WIPO, the Organization pledged to boost its activities relating to patent statistics. WIPO also announced the development of a web portal for patent statistics with links to institutions with long-standing experience in generating information in this area. The conference, attended by some 200 specialists from 35 countries and designed to foster communication among policymakers, national and regional intellectual property (IP) offices, patent attorneys, statisticians and research institutions, sought to identify ways to more effectively use IP statistics as indicators of technological development and economic growth.

WIPO Assistant Director General Francis Gurry said that the increased centrality of IP within the knowledge economy had fuelled a variety of claims about the role of IP in general. The conference, he said, was an important step towards establishing an empirically-based understanding of the role of the IP system generally and patents, in particular. “We think it is particularly important to move away from anecdote and rhetoric towards empirical data to properly understand the role of intellectual property and the purpose of this conference is to gain insights into this question,” said Mr. Gurry. WIPO is committed to collecting clearer, more accurate and more complete international industrial property statistics.

The Conference covered three principal uses of patent statistics - by IP offices for strategic planning, by private sector companies in performing competitive market analyses and formulating patenting strategy and by economists and government policymakers in understanding innovation, economic growth and in analyzing potential changes to the legal system. Users of patent statistics stressed the need for data that is accurate, uniform, easily accessible and available in a timely manner. The conference further called for greater coordination between patent information specialists and professionals from the business, IP and economic spheres to establish, for example, best practices in categorizing and analyzing data.

Dr. Idris noted the invaluable contribution of the Trilateral Offices - the three offices process over 90 percent of all applications submitted through the PCT. In addition, these three offices grant most of the world’s patents. Dr. Idris pledged WIPO’s continued close cooperation with the three offices to ensure delivery of more efficient services to the PCT user community.
WIPO Launches Cyber-Learning Course in Arabic

WIPO has extended access to its flagship distance-learning course on intellectual property (IP) to Arabic-speaking students. The course is currently available in Chinese, English, French, Portuguese, Russian and Spanish.

This innovative online IP teaching technique, which is in its fifth year, has enabled some 20,000 students from 179 countries to learn about copyright and related rights, patents, trademarks, geographical indications, industrial designs, WIPO-administered international registration systems, unfair competition and the protection of plant varieties. It has brought teachers specializing in IP issues closer to students and other interested parties in all corners of the world through virtual means.

The distance-learning initiative offers new teaching methodologies, customized course materials, evaluation tools, and mechanisms for tutor-student interaction. The “General Course on Intellectual Property” takes about 50 hours of study time spanning a six-week period. It includes self-assessment questions, tests, a glossary with links to the 23 WIPO-administered treaties, and a full range of other IP information materials. Students who successfully complete the course are awarded a WIPO certificate. Regular sessions are held twice a year and registrations are made online at the Academy website (academy.wipo.int).

In recent years the course has been integrated in the official academic curriculum of a number of universities, including in Chile, Italy, Slovenia, and Uruguay. Translation of the general course into a range of other languages, including Bulgarian, Hindi and Ukrainian is also planned.

CALENDAR of meetings

JANUARY 26 TO 30
GENEVA
Standing Committee on Information Technologies (SCIT) - Standards and Documentations Working Group (SDWG) (Fourth session)
The Working Group will continue its work in the revision of WIPO standards and will receive reports from the different SDWG task forces that have been established for that purpose.
Invitations: As members, the States members of WIPO and/or the Paris Union; as observers, certain organizations.

FEBRUARY 23 TO 27
GENEVA
Standing Committee on Information Technologies (SCIT) (Eighth Plenary session)
The Plenary will receive reports from its Working Groups on Standards and Documentation and Information Technology Projects, and will review other activities related to the IT program.
Invitations: As members, the States members of WIPO and/or the Paris Union; as observers, certain organizations.

MARCH 1 TO 5
GENEVA
Committee of Experts of the IPC Union
The Committee will consider amendments to the seventh edition of the IPC proposed by the IPC Revision Working Group and will discuss remaining tasks of the IPC reform in preparation for the publication of the next edition of the IPC.
Invitations: As members, the States members of the IPC Union; as observers, States members of the Paris Union, which are not members of the IPC Union, and certain organizations.

MARCH 4 AND 5
GENEVA
Seminar on the Madrid System of International Registration of Marks
This Seminar, in English, aims to increase awareness and practical knowledge of the Madrid system amongst trademark agents who use or will use the system, whether in industry or in private practice. These Seminars are held regularly every year, both in English and in French.
Invitations: Registration is open to all interested persons, subject to the payment of a registration fee.