MOEA

The 1st R.O.C. (Taiwan)

Presidential Innovation Award Report


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Award
Report
R.O.C. (Taiwan) Presidential Innovation Award

Foreword I

The Presidential Innovation Award was established in 2013. After more than a year of rigorous deliberations, in 2014 the judging panels revealed four winners of the inaugural awards: The U-Theatre Culture and Arts Foundation (U-Theatre), the Industrial Technology Research Institute (ITRI), Mr. Franz Chen, and Mr. Yu-chen Yu. All of the winners have been tirelessly devoted to their respective fields and the pursuit of innovation and excellence. They have also spared no effort in nurturing talent, pursuing technological research and development, strengthening value-added while incorporating cultural and creative themes into their work, and building exemplary models that feature exceptional service and innovation. Their efforts have significantly contributed to this nation's social and economic development. Therefore, the recipients of the awards indeed deserve the recognition and applause they have finally earned.

The motivation to innovate comes from the desire to excel, and pursue what seems impossible without self-imposed limitations. The U-Theatre is a good example. Its unremitting efforts to revive drumming arts while integrating elements of rich Oriental culture into its performances has allowed the U-Theatre to shine in the international arena and move countless audiences worldwide. The U-Theatre has also engaged in local arts education, becoming a positive force bringing vitality to a wider public. The Industrial Technology Research Institute, on the other hand, has played a crucial role in leading the nation's industries to innovate. Their

Building an Innovation Powerhouse to Ensure a Sustainable Taiwan

June 12, 2015

achievements include putting enormous effort into technological research and development and driving industrial transformation, resulting in higher economic value and greater benefit to society. There is no doubt that the ITRI has had a decisive influence on the development of our high-end technology and cultivation of high-tech talent.

Mr. Franz Chen, the CEO of the Franz Collection, has revived the Chinese porcelain heritage by bringing modern technology to traditional arts and integrating cultural and historic esthetics to give the ceramic arts a new life and spirit. Characterized by its exquisite design and fine quality, the Franz Collection has truly put Taiwan porcelain on the global map.

Another excellent example is Mr. Yu-chen Yu, who has persevered to overcome the difficulties that Taiwan previously faced in the application process for global patents, eventually developing an innovative strategy—the "Dynamic 3D Patent Layout Methodology + Patent Positioning Analysis." This unique solution has effectively helped our nation's industries reduce patent application risks while providing a practical service model, thus significantly enhancing our competitiveness.

It is hoped that the success stories presented in this publication will serve to inspire us all and change our mindset, helping us understand that innovation is a form of "soft power" that can penetrate all areas of life.

In this competitive age of globalization and liberalization, Taiwan's economic model must shift from "efficiency-driven" to "innovation-driven." This will be a powerful driving force to optimize our industrial structure and help us establish an unassailable position in the global economy. I proposed to establish the Presidential Innovation Awards because we need to encourage a culture of innovation and value-added ideas on all fronts, which will ultimately spur national economic development and strengthen our global competitiveness. The awards are just a beginning. However, it has been this government's priority to strengthen the country through innovation, and we will definitely continue our efforts to do so. We sincerely hope that the public and private sectors can work hand in hand to take advantage of breakthrough opportunities for economic development and make innovation the key to our national strength. By so doing, Taiwan can continuously move forward and ultimately achieve sustainable development in a fiercely competitive and changing world. I hope the publication of these inspiring stories will stimulate all of us to embrace innovation and creativity and make a difference in the world.

Ma Ying-jeou

President, Republic of China (Taiwan)

Foreword II

Innovation is the driving force behind the sustainable development of industries and the key to a nation's economic prosperity. Governments around the world have in recent years been focusing their energies on innovation as a response to global development trends. Faced with the challenges of globalized competition in trade and commerce as well as rapid changes in industry internationally, the opportunity now exists for industrial transformation and restructuring in Taiwan. We must embrace innovation to change the current economic structure and engage in diversified innovation to realize industry transformation. Only then can we keep pace with the rest of the world.

In support of the President's national vision of "innovation powerhouse," the Ministry of Economic Affairs has encouraged industry, government, academia and the research sector to actively engage in industry innovation. "The Presidential Innovation Award," in the planning since 2013, has also been established to recognize innovation and encourage benchmark learning. The example set by the award winners will hopefully accelerate the formation of a high-quality culture of innovation in Taiwan, with the spirit of innovation running through and combining soft and hard powers across different fields and helping to raise Taiwan industry's competitiveness to new heights.

Innovation and Sustainability Ushering in a Brighter and More Prosperous Future

"Innovation" is not just about innovative technical or non-technical achievements. Judges also looked at the energy for sustainable growth as well as the value of innovations in terms of the public good. A total of 321 entries were received for the initial "Presidential Innovation Award." The four winning entries were selected after a rigorous and impartial evaluation process over six months. The winners of the group category were the U-Theatre Culture & Arts Foundation for combining "Zen and Art" to create a holistic educational system for life, arts and culture; and the Industrial Technology Research Institute, which has been engaged in inter-disciplinary integration and pioneering research for more than four decades, while also playing a critical and influential role in technological innovation and industry development in Taiwan. In the individual category, Mr. Franz Chen, founder and CEO of Franz Collection Inc., was named the winner for making porcelain a lifestyle art and returning porcelain to the world stage of boutique goods. In the youth category, aimed at recognizing the innovative achievements of individuals below 40 years of age and encouraging the development of their potential, Mr. Yu-Chen Yu, general manager of Wellsey International IP Consulting Co. Ltd., received the award for his "Dynamic 3-D Patent Layout Methodology."

This award report was compiled over a period of several months. It contains the inspiring stories behind the innovations of the award-winning organizations and individuals, which we hope will serve as model examples in leading industry toward greater innovation. Looking forward, the Ministry of Economic Affairs will continue to stand by the public and business. Through efficient and effective administration, we will strive to boost the dynamism of Taiwan's economy, enhance the competitiveness of Taiwan industry, and expand Taiwan's business reach in markets around the world. In the face of a new wave of industrial and economic transformation, we hope to harness technological innovation, R&D, and cultural and creative energy to promote sustainable and inclusive economic growth in order to create a brighter and more prosperous future for all the people.

Minister, Ministry of Economic Affairs, Chen-Chung Deng

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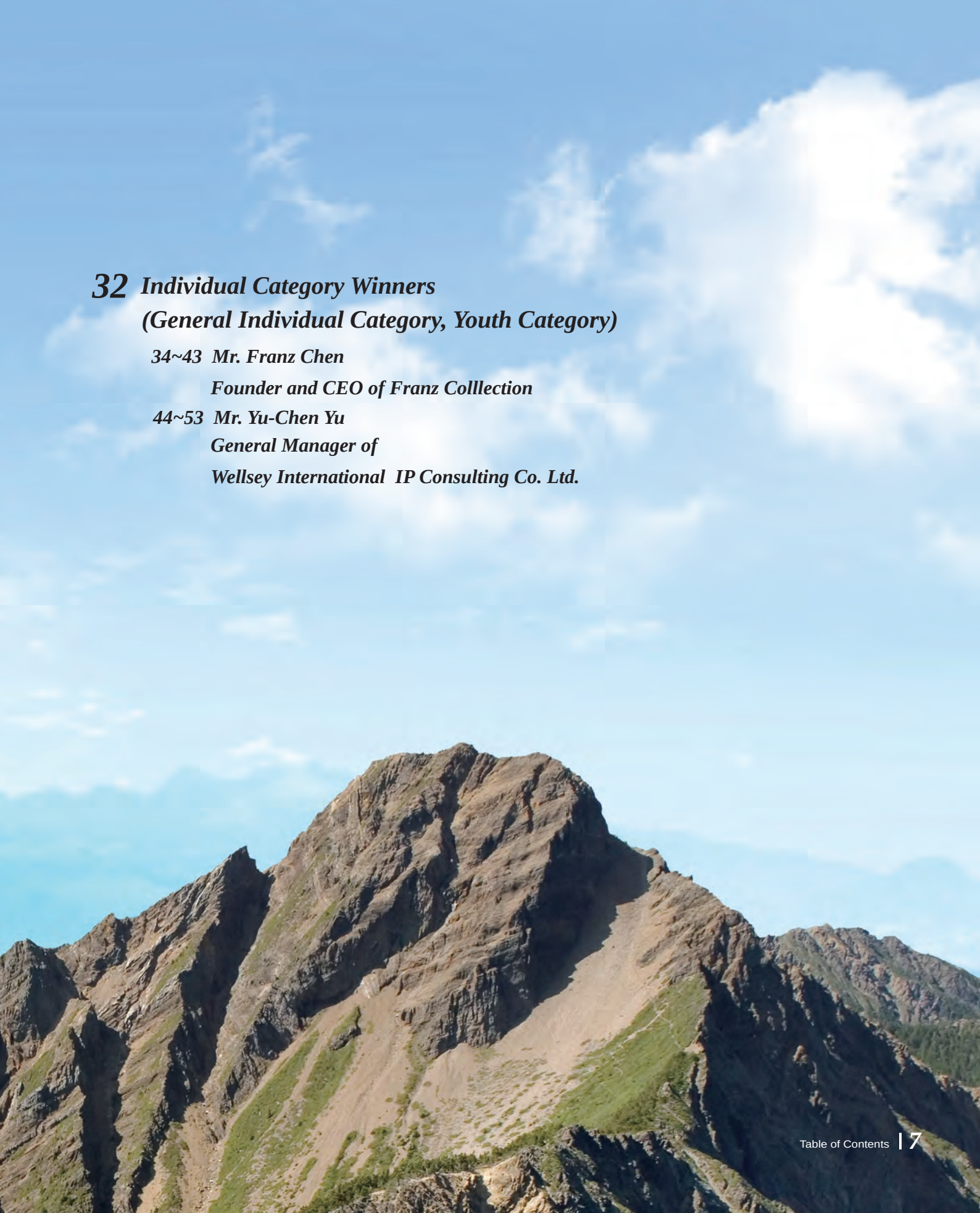

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General Manager of
Wellsey International IP Consulting Co. Ltd.

Introduction of the R.O.C. (Taiwan) Presidential Innovation Award

To support the vision of the "Innovation Powerhouse" for national development proposed by the President Ying-Jeou Ma of the R.O.C., the "Republic of China (Taiwan) Presidential Innovation Award" recognize individuals or groups in the industrial, government, academic or research sectors for outstanding innovation that has made a tangible contribution to national economic development in different fields, such as products, technologies, management, services, or culture. By assisting with the structural transformation of industry through "innovative" and "enterprising" thinking and energy, these individuals or groups become role models for realizing an innovative economy in Taiwan. This, in turn, will help Taiwan move from an "efficiency-driven" economy to an "innovation-driven" economy. The building of a complete national innovation system will in turn create a competitive advantage for economic development.

The "Presidential Innovation Award" ceremony is held every two years. Each time, five recipients are selected from the fields of technology R&D, culture & creativity added-value creation, service innovation, and talent cultivation. This includes two in the group category, two in the individual category, and one in the youth category. Nominations for the 1st Presidential Innovation Award began to be accepted in August 2013. Following initial, secondary and final review of the 321 entries, the winners were selected. These include U-Theatre Culture & Arts Foundation and the Industrial Technology Research Institute in the "Group Category," CEO Franz, Chen of the Franz Collection Inc. in the "General Individual Category," and General Manager Yu-Chen Yu of Wellsey International IP Consulting Co., Ltd. in the "Youth Category."

About the Medal：

Growth is a miracle of life. Innovation is like a chrysalis. Layer after layer of challenges must be overcome for the butterfly to emerge, be reborn, and take to the sky.

Taiwan has long been known as the "Butterfly Kingdom." The numerous butterflies of all colors are like the diverse culture of Taiwan. The soft power formed by their convergence shine on the international stage like iridescent butterfly wings.

The world is a circle, and the wings of innovation fly across the sky. The butterfly wings extend downwards to the "Mt. Jade" motif to imply "Innovation from Taiwan." This highlights the outstanding groups and individuals who remember their roots and make a contribution to this land.

Group Category Winners

- **U-Theatre Culture & Arts Foundation**
  An Innovative Social Movement Built Upon the Power of Art

- **Industrial Technology Research Institute**
  The ITRI as a Beacon for Economic Transformation

Group Category

U-Theatre Culture & Arts Foundation

An Innovative Social Movement Built Upon the Power of Art

Author: Cai-Yun Lin

U-Theatre is a world-renowned performing group from Taiwan. As it has made its mark in the world, U-Theatre has also forged closer links with Taiwan over the years to create its own unique, artistic language. Under the leadership of Ruo-Yu Liu, the artistic director, U-Theatre can be found not only in the halls of art, but also in any corner of society and nature as its stage. Through its actions, U-Theatre has brought performing arts to the education system and juvenile correction system, which has created new possibilities for society.

"I am not some sort of philanthropist. All I saw was a group of outstanding artists." Liu said on the topic the Changhua Prison Program.

The relationship between U-Theatre and Changhua Prison has only grown closer since 2009. "Jinshi U-Performer" was formed as a stage to help former inmates return to society. In the "Above Taiwan" concert held at the Taipei Arena on October 4, 2014, Jinshi U-Performer was tasked with leading the Changhua Prison Percussion Troupe in performing in front of over 10,000 people.

"Innovation is setting aside prejudices and showing tolerance;
Innovation has no goal and is about living in the present.
Innovation is not fearing the darkness and living in the light!"

Ruo-Yu Liu, **Founder and Artistic Director of U-Theatre.**

Matchmaking Program Launches Collaboration with Changhua Prison

Jinshi U-Performer currently consists of six members, all of whom are ex-inmates. They had once gone astray, but drumming and U-Theatre gave them the chance to turn over a new leaf. They call Liu their "Mom" even though they are not related to her by blood. To Liu, being called "Mom" is a sweet burden because "U-Theatre is one big family anyway."

The artist-in-residence matchmaking program of the Council for Cultural Affairs led to U-Theatre visiting the Yuanlin Performance Hall in 2009. At the invitation of Tianfu Lin, the Changhua County Director of Cultural Affairs at the time, U-Theatre began teaching at the prison on a weekly basis. It all took off from there.

Changhua Prison is a juvenile corrections center. All of the inmates are youths in their twenties, so they broke the law almost as juvenile offenders. The education system has difficulty with offering people opportunities that suit these individuals' talents. Youth at this age are also quick-tempered and often make terrible mistakes on sheer impetus. What they need is someone to help them understand themselves and find a direction in life.

Hearing the Star of the Stage in the Drums

Director Liu said with a smile that these kids are always full of energy. Apart from always being willing to work and train hard, some of the students surprised her with their excellent pitch. "It must be the result of listening to MP3s and singing karaoke all the time," was her guess. A month later, the hurriedly-formed Changhua Prison Percussion Troupe began drumming in the Yuanlin Performance Hall. It was just a basic drumming demonstration, but Liu could see the endless possibilities. "There was not a beat out of

place. All 16 drummed as one, proof that they felt absolutely no uncertainty and stayed perfectly calm throughout."

Two months later, their performance in the Changhua County Stadium and the standing ovation of more than ten thousand people brought tears to Liu's eyes as she watched: "To my surprise, they managed to master the whole piece." To protect the inmates, the prison authorities had them wear face paint. This made Liu think: "I hope that one day they can perform on stage even without face paint."

For Liu, the past five years have been about perseverance. She humbly said that there was nothing particularly great in what she did. All she

did was to open her heart, fulfill her promises and discover and cherish new talent. What she saw in these inmates as a theater director were actors full of potential. "When they stand on stage, all I see are great artists. What I should do then is to give them that stage."

Core Mission -Improving Quality of Life

What will this stage be? It may be a repertory theater. Preparations for a creative park on art and life education in Jinguashi are now underway for U-Theatre. This will become the home of U-Theatre and for Jinshi U-Performer as well. There is a rocky outcrop about six stories in height near the art district that may become the perfect natural stage for the repertory theater. Faced with a challenge by nature, Jinshi U-Performer decided to conquer it before their first performance. Even while Liu was wondering how to scale the cliff, one of her "sons" started climbing up the rocks without even saying a word. This action scared her a little, but also showed her how "real" these kids were.

"If you are going to do anything, you must do it for real". This is Liu's philosophy in life. Over the past 26 years since the founding of U-Theatre, everything has been accomplished one solid step at a time. What happened at Changhua Prison and in Jinshi U-Performer was all due to doing what came naturally. The bond itself was a result of what she calls "faith."

Liu noted that the core mission of U-Theatre is combining "Zen and Art" and enhancing the quality of life through art. The theater is intended as a sanctuary away from a society filled with unrest and conflict. In Liu's opinion, the source of all stress, anxiety and delinquency in society is the over-emphasis on intellect development of individuals and the lack of understanding of "body "and "soul." So, through the arts, U-Theatre works to remind the general public to look back to their hearts.

In 1988, Liu completed a year of professional training with Polish theatre director Jerzy Grotowski and returned to Taiwan from California. She combined the physical training techniques she had learned in the United States with traditional Oriental martial arts, drumming, meditation, Tai Chi Daoyin, and sacred dance. Using music, theater, dance and ritual as the elements, she created "Zen and Art," a unique performance format that blends aspects of both Western and Oriental culture.

Building an International Stage on Mt. Laoquan

In order to strip the life of the troupe members down to its essence, Liu made her base Degaoling on Mt. Laoquan in Muzha. There, on the mountain, they practice meditation, martial arts and drumming in pursuit of endurance, strength and spiritual tranquility. Liu often thinks of what her teacher Grotowski once said: "Do the most important thing in your life." "The most important thing" here should not be limited to just being creative. It must also reach out to people in society.

U-Theatre's reverberations have been felt throughout Taiwan, and many of its performances have graced the international age. In 1998, Sound of the Ocean traveled to Avignon and was rated as the "Best performance of the Avignon Festival" by Le Monde, a French newspaper. In 2000, it was the named the "Audience Choice at the Biennale de La danse de Lyon," and in 2002,

Meeting with Bodhisattva won the "1st Taishin Art Awards - 1st Place in the Performing Arts Category" and was subsequently invited to perform in France, Japan and Hong Kong; in 2007, A Touch of Zen was invited by the Chinese Festival of Arts to perform at the Esplanade in Singapore; in 2014, U-Theatre and Rundfunkchor Berlin performed together in Berlin the premiere of LOVER, a Taiwan-German co-produced music-dance-theatre production.

In its search of original art, U-Theatre not only plants the seeds of art but also keeps them company. In 2003, U-Theatre compiled more than 10 years of training courses and began working on passing on its knowledge. "U-Junior" in elementary and junior high schools was invited to undergo full training. The training courses focused mainly on drumming and martial arts because these two types of training make use of children's thinking, sporting and emotional centers, and through this process their ability to coordinate mind and body are developed and strengthened.

Partnering with Jinwen High to Create the U-Theatre Performing Arts Class

As "U-Junior" grew up, the sticky problem of education reared its head. When a mother expressed her reluctance to let her children return to the conventional education system, Liu began thinking, "What can I do about this?" In September 2007, U-Theatre and Jinwen Senior High School in Muzha, Taipei City, set up the U-Theatre Performing Arts Class, a breakthrough in the existing educational system. Liu recalled how limited funding was in the beginning. At one point the 20 children in the class had to take turns playing a single piano. The money for purchasing further musical instruments was mostly earned through their drumming performances.

The students of the performing arts class not only studied the standard subjects but also other fields such as music, choreography, theater and meditation. In such a liberal yet rigorous performing arts learning environment, the youngsters did very well and all entered performing arts-related departments at universities. This proved that there is more than one way of effective learning.

Graduates from the first three classes were recruited to form "Youth U-Theatre" in May, 2010. Blooming Enlightment became their opening performance in 2012 followed by Good Morning in 2014. Liu emphasized that Youth U-Theatre is not just the youth troupe of U-Theatre but also an independent creative entity. She expressed the hope that Youth U-Theatre would live up to the spirit of U-Theatre and create a new lexicon that belongs to young people.

Youth U-Theatre Gives Rise to Young Offshoots

From Youth U-Theatre and Jinwen Senior High School's U-Theatre Performing Arts Class to U-Junior, Liu worked from the "heart" and turned imagination into reality. Challenges were overcome and problems worked through. This approach allowed the "Anderson" program to take shape. When U-Theatre entered the Changhua Prison in 2009 a whole new world ripe for cultivation was found. In 2011, the decision was made to redouble the investment of effort and extend the training system to juveniles. The "Young People's School in Motion" was therefore set up in partnership with the Liang-shean Tang Foundation in Nantou, Beidou Junior High School in Changhua and Yunlin Country's Education Department.

Fifty youths requiring "high-support" were taken on a month-long trek combined with meditation-martial arts-drum training throughout western Taiwan. During the trek, Liu showed them how to calm their minds and live in the present. Through the drumming performances, she taught them how to listen to other people and think beyond themselves. The applause from the audience also helped them to regain their long-lost confidence. The "long walk" led to many of the youths finding a new life. They may have been ordered by their teachers to join the trek but in the end, they found a new purpose in life and went on to further their education through the U-Theatre Performing Arts Class.

"If you plant a seed in the hearts of those who need it then don't give up on them, it will naturally sprout and flower when the time is right." Because she has faith, no matter how worn down by having to juggle her artistic, theatre management and educational commitments all around Taiwan every day, Liu never forgets to smile because she knows that it is "worth it." Liu picks up her mobile phone and picks out the photo of one of her "precious sons." He was the first member of Jinshi U-Performer. Sounding like a proud mother, she exclaimed, "Doesn't he look like a star?"

During the presentation ceremony for the Presidential Innovation Award, Ruo-Yu Liu gave her interpretation of innovation: "Innovation is setting aside your prejudices and showing tolerance for other people. Innovation is about living for the present when you have no purpose. Innovation is to walk fearlessly into the darkness and shine forth. Starting with love, Liu led by example and gave innovation its "U-Theatre" definition.

U-Theatre Culture & Arts Foundation

Unit Milestones:

Year	Event
1988	U-Theatre Troupe established
1994	Huang Chih-chun joins as percussion director. "Meditation" course launched and name officially changed to "U-Theatre."
1998	Sound of the Ocean named best performance at the Avignon Festival in France. Overseas tour wins international fame and has so far been performed more than 160 times in Taiwan and overseas.
2000	"U-Theatre Culture and Arts Foundation" established
2003	Meeting with Bodhisattva presented with the first prize in the performing arts category of the 1st Taishin Art Awards
2007	Took over the running of the "Performing Arts School 36 - Yong An Art Center" and set up the "U-Theatre Performing Arts Class" in partnership with Jin Wen Senior High School to train and educate professional performing artists.
2009	Entered Changhua Prison to set up the "Changhua Prison Percussion Theater Group," a first in the history of Taiwan's correctional system. Inmates took part in public art performances to realize the "power to make a start." Free traveling tour of five Taiwanese cities.
2011	Launched the "Young Anderson Mobile School" trekking program. For the 100th anniversary of the Republic of China, nearly 50 youths from juvenile centers, temples and school drop-out classes completed a 36-day trek through western Taiwan. Every day represented a new trek and another drumming session.
2014	Performed the premiere of Lover, a joint Taiwan-German musical production in Berlin. U-Theatre also launched another "Beautiful Heart of Taiwan" trek with youths throughout Taiwan. A total of 37 students from rural junior high schools in Hsinchu County trekked 450 km over 38 days, giving 21 performances along the way.

Chairman：Hui-Chun Liu
Founder：Ruo-Yu Liu
Address： No. 156-1, Sec. 2, Muxin Rd., Wenshan Dist., Taipei, Taiwan 116
Date established：February, 2000

Phone：+886-2-2938-8188
Fax：+886-2-2938-8189
Website：www.utheatre.org.tw
Employees：52 people

Business activities：

1. Organizing art performances: The performance of original works, domestic/overseas road tours or free indoor road tours, environmental theater performances in the mountains.

2. Education/Operation of Educational Facilities - Commissioned by the Taipei City Government's Culture Department to operate the "Performing Arts School 36 - Yong An Art Center." Performing arts education chosen as the theme for the U-Theatre performing arts class at Jinwen Senior High School. The class serves as a training ground for professional performing artists.

3. Social welfare: Drumming program at Changhua Prison and Hsinchu Chengcheng Junior High School. Inmates chosen to form the "Percussion Theater Group" and undergo U-Theatre's training in meditation, choreography and drumming. By honing the ability to listen and concentrate, each inmate is helped to achieve the oneness of existence and motion and be inspired with positive energy.

Group Category

Industrial Technology Research Institute

The ITRI as a Beacon for Economic Transformation

Author: Ye-Lan Yi

The touch of the Industrial Technology Research Institute (ITRI) can be seen everywhere in Taiwan, from high-tech to traditional industry. As the largest technology R&D institution in Taiwan, the ITRI has always been there, working quietly behind the scenes to support upgrades to Taiwan's industry. Forty years since its creation, the ITRI continues to serve as the engine of innovation. It creates high-value emerging industries through technological innovation and industrialization while also promoting the transformation and upgrading of existing industries by enhancing their technological capabilities.

There are always a number of great stories worth retelling behind every successful enterprise.

Hearing the Star of the Stage in the Drums

On a chilly day in February 1974, hot steam was rising up from the steam baskets at the Xiaoxinxin Soya Milk Shop on Taipei's Huaining Street. Several important people were sitting in the shop engrossed in conversation.

Ching-Kuo Chiang , who was the premier at the time, wanted Secretary-General Hua Fei to conduct an evaluation on the technological development of the Republic of China.Hua Fei spoke with Yun-Suan Sun, and then met with Director-General Hsien-Chi Fan of the Directorate-General of Telecommunications and Wen-Yuan Pan, the research director of the Radio Corporation of America (RCA). They decided to focus on developing the electronics industry.

Thus, taking advantage of Pan's return to Taiwan, Hua Fei invited him and Yun-Suan Sun, Hsien-Chi Fan, Minister of Transportation and Communications Yu-Shu Kao, ITRI President Chao-Cheng Wang, and Institute of Telecommunications Director Pao-Huang Kang to a breakfast meeting in the soya milk shop. This group of seven individuals then began hashing out the "Electronics Roadmap."

"Continuing to cultivate pioneering talent and technology, driving industry transformation through innovative technologies, and working to make Taiwan an innovation startup center."

Jyuo-Min Shyu, **ITRI Former President**

During the meeting, Wen-Yuan Pan took the lead by voicing his opinion and analysis. He felt that the integrated circuit (IC) industry was well worth developing to accelerate the development of the electronics industry in Taiwan. The fastest way to do this was to introduce technologies from the United States. Pan also pointed out three advantages to IC development:

1.If successful, it would have a massive impact on Taiwan's economy in the 1980's.

2.If successful, the technology would represent a breakthrough and achieve worldwide recognition.

3.Whether or not successful, it would ultimately enhance the standards of Taiwan's electronics industry.

At the time, many people thought that Taiwan's backward industry made the development of this high-tech sector a pipedream. There was a group of people who were itching to give it their best shot to prove them wrong.

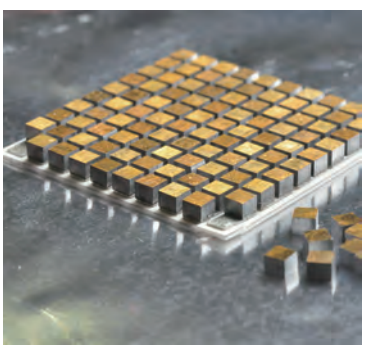
In April 1976, the first group of 19 engineers chosen for training in the United States was ready to go. Most of these men were under 30 years old, with the fires of ambition still burning brightly within them. They were filled with confidence about their journey. This was also the start of a very intense and exciting period of training.

A Complete Blueprint for the Semiconductor Industry

The RCA project was very carefully planned and had very clear goals. The acquired technology would be used to build the first IC demonstration plant in Taiwan with the ultimate goal of achieving independent production. This was reflected in the assignments within the RCA team. There was someone assigned to study every step, from design all the way through to manufacturing, so the blueprint was quite comprehensive.

Ming-Kai Tsai, chairman of Mediatek, later said during a media interview that one of the most important contributions made by the RCA project to Taiwan was the inclusion of R&D and design in addition to manufacturing. "At the time, Taiwan industry was all about manufacturing. This project, however, took a different path that involved paying attention to R&D, and this proved very influential," Tsai said. At the same time, he also wondered what would happen if RCA had followed the path of domestic appliances. "It may have ended up as a case of technology transfer and manufacturing, and nothing more," Tsai said. "This small difference gave Taiwan's semiconductor industry its competitive edge."

The decade between 1974 and 1984 gave birth to Taiwan's semiconductor kingdom, and technology began to take root at the ITRI as well. Up until the 1990's, the ITRI focused on developing homegrown technology for industry automation



to help Taiwan's traditional industries move beyond labor-intensive production methods and engage in advanced research. It also successfully cultivated the PC, optoelectronics and mechanical automation industries even as it transferred the technology and expertise to domestic companies. This planted the seed for Taiwan's domination of the IT market, spurred the creation and development of emerging industries, and made Taiwan the world's top notebook manufacturer.

In the early 1990's, private companies began to develop their own R&D capabilities. Even as the ITRI started working on next-generation technologies, private enterprises were thinking hard about next-generation products. In order to seize the initiative in the market, these companies did not want to see the ITRI develop new technologies ahead of them that could be transferred to other firms or spun off into new companies.

By 2000, Taiwan's technology R&D was still stuck in the "me-too products" phase and failed to achieve industry leadership. When an industry and technology is still maturing, a follower mindset and me-too strategy is an inevitable part of the development process. Globalization means that Taiwan's industrial focus is now gradually moving beyond upgrading to specialized manufacturing technologies to include value-adding and creative technologies. This has made it even more important for the ITRI to accumulate intellectual assets through "pioneering, innovative R&D and innovation models" in order to create value for industry.

At the 19th meeting of the Advisor for Science and Technology, Executive Yuan, held in 1998, it was agreed that, "a part of the research funding (roughly 20%) for technology development projects should be directed towards pioneering research and development tasks." At the 5th Board of Science and Technology meeting in January 1999, the Executive Yuan also passed the resolution stating that, "it should be government policy to increase funding for pioneering and innovative research when appropriate in order to increase the international competitiveness of industrial technologies." This showed that the authorities had recognized the urgent need for innovative R&D into pioneering technologies.

The Department of Industrial Technology, MOEA complied with the above directions issued by the Executive Yuan by developing a plan for innovative and pioneering technology development programs. The "Action Plan for Increasing the Proportion of Innovative Pioneering R&D in Technology Development Programs" was completed and submitted to the Executive Yuan's Board of Science and Technology on July 5, 1999. Work also began on the corresponding budget and preparations. Innovative pioneering R&D projects were then officially introduced in 2001.

The ITRI invested in innovative pioneering research that helped drive advances in industrial technology. From materials, machinery and ICT, to LED, flexible displays and green energy, the ITRI won numerous international awards with its original technologies. At the same time, it helped these industries gain an international competitive advantage and created new value through industrial innovation.

Interdisciplinary Integration Creates Technology Synergies

"I believe that industrial technology in Taiwan should play a more proactive role in solving the problems faced by human society," former ITRI president Jyuo-Min Shyu said. To fulfill its mission and social responsibility, technology R&D must not be limited to individual technologies. It should use interdisciplinary innovation and integration to generate greater synergies that benefit human society.

The ITRI has actively worked to incorporate this mindset into its interdisciplinary innovative R&D in order to fulfill the mission of "using technology R&D to drive industry development, create economic value and promote social welfare." To fulfill this mission, Shyu added that technologists must look at problems from a higher plane. They must look at the challenges faced by society as a whole and think about changes in the overall environment, such as sustainable development globally or the needs of an aging population. None of these are problems that can be solved by a single technology or in one single step. Interdisciplinary integration is necessary to realize the synergies of technology.

In recent years, the ITRI has been an active proponent of interdisciplinary integration and innovative technology R&D. Particular emphasis has been placed on green energy and biomedical development, as well as the integration of systems, software and services. For example, the emergence of green transportation has meant the harnessing of mechanical engineering, materials, chemistry, ICT, electronics, optoelectronics and measurements in the development of autotronics systems for smart electric vehicles;

while the development of high-end medical devices in response to the medical needs of an aging society spans biomedicine, electronics and optoelectronics; and the trend towards digitization has meant the development of emerging cloud industry applications, such as high-performance computing and big data applications based around ICT technologies. All of these require the interdisciplinary integration of technologies through innovative, pioneering technologies in order to realize the synergies of interdisciplinary partnerships.

The ITRI considers itself to be a trailblazer in industrial innovation. Innovative, pioneering technology R&D was used to drive waves of industrial development in Taiwan, and its milestone achievements have so far included the semiconductor, PC and machine tool industries. Intense competition in the global economy and environment, however, has meant that the resources of individual enterprises are no longer sufficient for sustaining "innovation," making the optimization of limited research resources and transformation in pursuit of sustainable development all the more critical. One must keep an open mind and connect with the energies of multiple sources in order to realize their synergies and generate economic value for industry.

Shyu noted that the fact each industry is at a different level of technical maturity means that they also vary in terms of their R&D investment. If businesses can set up a collaborative R&D mechanism with technology R&D organizations, they can generate huge windfalls from limited resources. In order to assist industry, the ITRI not only engages in industrial R&D but also actively works to establish a mechanism for research collaboration between the industry, academic and research sectors. This mechanism can complement industry's own efforts. Connections with international R&D resources are also strengthened with an emphasis on the "organization to organization" cooperation model that promotes collaboration between local universities and research organizations and the overseas academic community. "We must stay ahead of industry and constantly adjust our research focus amidst the push and pull between the academic community and industry before industry attempts to engage in even more advanced innovative R&D." Through connections and cooperation among multiple parties, Taiwan's industries can be helped in reorganizing themselves and building a bright new future.

Guiding Sustainable Development through Pioneering Innovations

In the future, the speed of technological advances will far exceed past experience. Whether it be advanced manufacturing, healthcare, green energy or the service industry, the development strategies and industrialization capabilities of the new growth industries will inevitably impact future national development. Shyu noted that, "the reason why the ITRI engages in the long-term development of key pioneering innovative technologies is to help industries prepare early for their development needs at different phases and overcome bottlenecks in international competition." These preparations take time, and industry must assume the torch to expand in international markets.

The solid R&D capability accumulated by the ITRI over time not only assists industry in engaging in pioneering research into key technologies needed for the future but also helps to cultivate high-tech talent and supports new businesses. To date, it has already incubating more than 225 companies. The R&D capability is also spread and disseminated throughout industry. The ITRI has continued to make its presence felt in international awards over the last 10 years. It has emerged from the field of top global enterprises and research institutions by winning the Wall Street Journal Technology Innovation Awards for four straight years and being named an "R&D 100 Awards" winner for seven consecutive years. The awards are proof that the ITRI's innovative pioneering R&D capability is now among the best in the world.

Shyu offered the example of "Lignin-based Polymer Technology" that was named as one of the top seven next-generation materials by Scientific American in its May 2013 issue. This was one of the key innovations made by the ITRI in recent years. This technology can be derived from wood that is available anywhere. A total of 25% of wood's composition consists of lignin, and this is what is contained in the black liquid discharged by paper mills. The ITRI decided to "turn waste into a

resource" and developed a way of replacing the Bisphenol A (BPA) content of food containers with lignin to greatly increase food safety. Used as an inner liner for metal cans, BPA may dissolve into the can's contents. When drunk by young children, it may affect their development. By using plant-derived lignin for a can's inner coating, the health hazards of BPA can be removed while ensuring the preservation of food.

The great difficulty in the research and application of biomaterials is in their complex, mixed structure. The lack of uniformity in structure and properties is the greatest difference between bio-materials and petrochemical materials. "Lignin-based Polymer Technology" does not just represent a successful adjustment of a substance's properties. The other major technical breakthrough was in finding a way to control the water solubility of lignin. This was

something no other research organization in the world had managed, and it was recognized by the R&D 100 Awards in 2012. Another breakthrough technology, the "ButyFix Near No-carbon Cellulosic Butanol Production Technology" is the world's first technology using "lignocellulose from agricultural and forestry waste" for producing bio-butanol. Butanol is an alternative fuel that is more suitable than ethanol as a petrol additive for carbon reduction. This development may allow ethanol makers to directly retrofit their existing production equipment for butanol production, reducing costs while increasing their competitiveness. The eco-friendly waste-reclamation process of this technology is carbon neutral over its lifecycle, making it a true representative for green energy. It was also recognized by the 2013 R&D 100 Awards in the energy technology category, and it is a critical, innovative technology that not even top international companies have managed to crack. In keeping with its philosophy of spinning good technologies into new startups, the ITRI formed the Ding Tang Company in February 2014, which is expected to eventually become the “TSMC of Taiwan's energy industry.”

Throughout its history, the ITRI has supported industry upgrading through pioneering technologies, while also guiding the direction of industry innovation and transformation. It has cultivated countless talent for industry while also spreading the energy of pioneering, innovative R&D to help industry grow and prosper in a sustainable way.

Jyuo-Min Shyu stressed that the ITRI is leading by example in terms of sustainable development. Green technologies have been used to turn the ITRI into a model campus for sustainable and low-carbon applications. Its technology is used for the good of society, and the ITRI hopes that it can work with industry to use its technological innovations and integrated applications to create new opportunities and realize a future of sustainable living for human society. (References provided by the ITRI)(Former ITRI President Jyuo-Min Shyu was promoted from ITRI president to minster of science and technology in January 2015. The current ITRI president is Jonq-Min Liu)

Industrial Technology Research Institute

Unit Milestones:

Year	Event
1970s	**The beginning of technology development** Due to the urgent need to transition domestic industry from a labor-intensive to a technology-intensive model, the government established the ITRI to serve as a beacon for industrial technology. The ITRI subsequently sent elite engineers to the U.S. to learn and then introduce advanced Western technologies into Taiwan. The effort eventually became the foundations of the semiconductor and precision industries in Taiwan.
1980s	**Industry growth and emerging industries** The ITRI focused on developing homegrown technology for industry automation to help Taiwan's traditional industries move beyond labor-intensive production methods and engage in advanced research. It also successfully cultivated the PC, optoelectronics and mechanical automation industries even as it transferred the technology and expertise to domestic companies. This planted the seed for Taiwan's domination of the IT market, spurring the creation and development of emerging industries.
1990s	**Global strategy for key technologies** The ITRI developed key technologies and core capabilities. These included strengthened strategic partnerships as well as international technical partnerships among industry, academia and the research sector. The ITRI also extended its reach overseas to establish four international sites. International resources were effectively used to form global connections that strengthened technological prowess and brought tangible industry benefits.
2000s	**Engine of innovation creates value from technology** The ITRI invested in innovative pioneering research that helped drive advances in industrial technology. From materials, machinery and ICT, to LED, flexible displays and green energy, the ITRI won numerous international awards with its original technologies. At the same time, it helped these industries gain an international competitive advantage and created new value through industrial innovation.
2010s	**Pioneering in sustainability shows the way to a better future** To realize the vision for sustainable development, the ITRI strengthened inter-disciplinary R&D partnerships, with a focus on green energy, bio-medicine, and the strategic direction for systems, software and services. Innovative technology was used to forge the ITRI into a demonstration site for green technology. Technology was applied to social welfare. The power of technology has been committed to driving industrial development, creating economic value, enhancing social welfare and making the future better for all of society.

Business activities：

The ITRI is an inter-disciplinary applied research organization. In its 40-year history, it has always strived to focus on R&D and industry services. It also works in line with the government's industrial technology policy. This serves to cultivate Taiwan's prowess in industrial technology and promote industry development. Since its founding, the ITRI has always focused on industry-related R&D and worked to improve the technical mastery of domestic industries. The ITRI has drawn up plans for six key technologies: information and communications, electronics and opto-electronics, machinery and systems, material chemistry and nanotechnology, biomedicine and medical devices, and green energy and the environment. A convener of technology planning commissions brings together experts from inside and outside to develop long-term development directions and strategies. This helps drive the fusion of inter-disciplinary technologies. We have continued to move in the direction of new

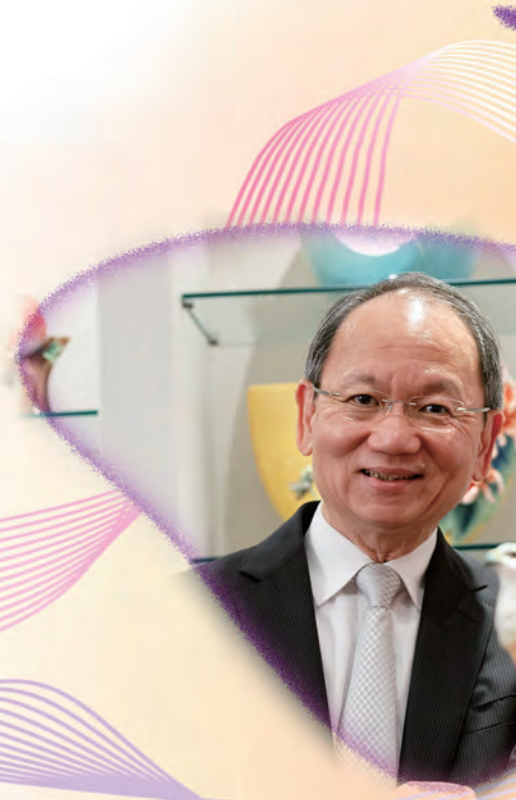
enhancements in technology and used this to create a huge integrated robot design. In recent years, the ITRI has been an active proponent of interdisciplinary integration and innovative technology R&D. Particular emphasis has been placed on green energy and biomedical development, and the integration of systems, software and services.

Chairman：Ching-Yen Tsay
President：Jong-Min Liu
Address：195, Sec. 4, Chung Hsing Rd., Chutung, Hsinchu, Taiwan 31040, R.O.C
Date established：1973
Phone：+886-3-582-0100
Fax：+886-3-582-0045
Website：www.itri.org.tw
Employees：5,566 people

Individual Category Winners

- **General Individual Category**
  - Mr. Franz Chen
  Forging New Cultural Value from the Classics

- **Youth Category**
  - Mr. Yu-Chen Yu
  New Weapon in Patent Strategy Breaks through Encirclement

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The United States of America
federal Circuit

淬煉

Refineing

"Franz Collection is the result of constantly embracing values and continuously making adjustments."
Franz Chen, Founder and CEO of the Franz Collection Inc.

General Individual Category

— Mr. Franz Chen, Founder and CEO of Franz Collection

Forging New Cultural Value from the Classics

Author: Ru-Yi Chen

Franz Chen, founder of the Franz Collection, possesses over thirty years of cultural creative experience. The story of how he progressed from distributor to contract manufacturer and then brand owner serves as a model example of how the soft power of Taiwan's culture shines on the international stage. Franz Collection now has over 6,000 stores in 56 countries worldwide, including nearly 200 direct-owned stores in Taiwan and mainland China. Porcelain "China" was the greatest symbol of traditional China. Franz Collection has surpassed old traditions and created a new form of aesthetic economy.

Chen founded the Franz Collection in 2001 to use the traditional porcelain craftsmanship of China to create fine international giftware. Starting out as an OEM (original equipment manufacturer) for top international giftware companies, Franz Collection got involved in ODM (original design manufacturer) in response to customer demand. Realizing that the contract manufacturing industry would "always be like an invisible man," Chen decided to create his own brand -- (Own Branding and Manufacturing) "Franz." The combination of design, manufacturing and sales with service management and branding created a value chain that maximized cultural creative competitiveness.

Chen's unique vision and courage enabled "Franz" to rise in just ten short years to rub shoulders with century-old foreign porcelain brands such as Germany's Meissen, England's Wedgwood, France's Bernardaud, Denmark's Royal Copenhagen, Spain's Lladro, as well as Japan's Narumi and Noritake. This was all made possible through his continued focus on porcelain, technological breakthroughs and constant innovation.

A Life of Creativity and a People-oriented Business Philosophy

Creative thinking was second nature to Chen back when the creative industry had little traction in Taiwan. With a degree in German and a love for Western rock music, he opened a music restaurant called "Idea House" to chase his musical dream when he was a little over 20 years old.

At that time, the people in Taiwan were quite conservative, and there was no place like "Idea House" where you could listen to music, sing songs, and enjoy good food. "Idea House" became a popular gathering place for the music community back then, with even Director Stan Lai being a regular customer. "Idea House" could be said to be the first "cultural creativity" test bed of Chen's life.

Whether serving as an OEM for top international giftware companies in the early years, as an ODM in response to customer needs, or as a creator of his own brands, Chen always embraced the "spirit of humanities" in his business. The "humanities" form the root of cultural creativity.

Joseph Pai, chairman of Ogilvy & Mather Group in Taiwan, said in Chen's latest book, RefineING, "the CEO Chen that I know always had three roles: In his youth, he was an "artist" who played around with music. After starting his business, he became a practical "entrepreneur." When he founded Franz and entered his sixth decade, he became more like a "philosopher," exploring ideas and seeking out truths. Throughout all of these periods and roles, however, his passion for creativity and his interest in culture always remained the same."

The "Franz" team led by Chen is a "people-oriented" organization. Under the philosophy of "Porcelain carries the Way, and Nature is its guide," the Franz Collection expressed the spirit of "respect for creation" in its porcelain artworks. The beauty of flowers, plants, insects and birds in nature are brought to life through three-dimensional craftsmanship. Franz Collection's artworks interpret human values such as the love for heaven, the love for the Earth and the love for humankind, and reach out to the consumer's inner desire for goodness and beauty to generate a sense of resonance and emotional connection.

A Gift that Touches the Heart

Looking back on why he decided to enter the giftware industry, Chen said that, "when I first entered the international giftware industry 30 years ago and faced the constantly changing international market, I was always thinking about how to create the perfect gift, and what the key to this was."

Eventually he discovered that the ideal gift must contain the power to "move people." It must come from the "heart" and be appreciated by the "heart" as well. How can the magic of moving people be imbued during the creation of a gift?

Chen stated that good gifts must not only move individual hearts, they must also serve as a bridge among people to express their emotions. This is why he often encourages his designers to create "moving" artworks.

Guided by Chen's spirit of humanity, Franz Collection used the boutique designs to convey 5,000 years of rich heritage of Chinese culture. Injecting new life through innovative techniques elevated porcelain into the embodiment of the eternal values of Chinese culture. Chen's business success with Franz Collection depended not only on the pursuit of technical mastery, but more importantly, on the creation of new values inspired by Chinese culture.

Chen went on to lead Franz Collection in winning the "Top 100 Taiwan Brands" and the "Exceptional Innovation Enterprise Award" at the National Industrial Innovation Awards presented by the Ministry of Economic Affairs. At the 2010 Shanghai World Expo, Franz Collection was invited to exhibit in the "Zero-Carbon Pavilion". In 2012, Chen was personally named as one of Forbes magazine's "25 Influential Chinese in Global Fashion". In the same year, Chen was also named "Culture Foresight Entrepreneur" and the "2012 Entrepreneur of the Year in Taiwan" by Ernst & Young. Also, Chen was the first cultural creative entrepreneur to win the "Culture Foresight Entrepreneur" award.

In Cultural Creativity, Having No Brand Means You are Replaceable

Chen has a story of his own to share about the importance of branding in the cultural creative industry. "A renowned 3C company once contacted us about using one of our company's techniques to produce the displays for all of their specialty outlets around the world. In the end, I decided to decline this order, which was worth nearly NT$100 million."

"The reason was simple. They refused to let our Logo appear on the product." This seems like an easy decision to make, but it was the result of Chen's three decades of business acumen. After 30 years in the contract manufacturing business, he knew quite well how ODMs and OEMs prevented businesses from achieving independence and building up their own international markets. The only way to create true value was to create your own brand.

Chen successfully leveraged "soft power" in converting intangible culture into tangible product designs, and he can thus be considered the representative of the "Innovator of Soft Economy" in Taiwan. His unique business management model - "round table management" and "amoeba organization" are two sides of the same coin. Under the "round table management" philosophy, the coalescing of values creates a common vision. The "amoeba organization" adapts in a flexible manner to the business' size and depth. People can be re-assigned from different departments to form multiple task forces. Such a flexible management model effectively increases the competitiveness and sustainability of the company.

Franz Collection has recently begun emphasizing social participation by bringing in the influence of the brand – humanity and the concern for local culture to people's everyday life. Chen believes that a knowledge economy built upon R&D and technology is not enough, aesthetics education for the whole population must also be improved in order to excel in the age of an "aesthetic economy."

No matter how good an idea is, if it can't become a part of everyday life, then it has nothing to do with the industry of economy. Chen therefore considers the promotion of aesthetic education a form of feedback for brand participation and social welfare. He now hopes to make a difference in enhancing aesthetic education for all.

I Come from Taiwan, I Embrace my Chinese Heritage

Chen said that when he stopped contract manufacturing for foreign brands and started developing his own cultural creativity brand, he immediately set a theme for the brand: "I come from Taiwan, I embrace my Chinese heritage and I am heading out to the world."

Chen believes that the Chinese-speaking world should not try to forcibly split the "boundless" Chinese cultural heritage into Taiwan, mainland China, Hong Kong and overseas compatriots. If a cultural creative concept or product with Chinese elements cannot move the entire Chinese community, then how could it speak to the world?

Finally, he mentioned how he was once a musician in his youth. In those years, he loved the Beatles so much that he worked to overcome the barriers of language, culture and life experience to learn English, as well as the guitar. It was not just him. At that time, millions of youths from non-English speaking cultures hammered away at their English dictionaries just to learn a song. After half a century, he finally realized that this was the true power of "cultural creativity".

With sincerity, Chen said that he hopes there will come a day when millions of youths in non-Chinese speaking cultures are studying Chinese dictionaries. They won't be doing this because of China's rising military, technological and industrial might, or its huge market. They will do it because of a Chinese song, novel, movie or some other creative work that moves them. This is what Chen hopes to see in the future of Chinese cultural creativity.

Realizing this dream, according to Chen, depends on cultural assets and infrastructure, which includes the integration of aesthetic awareness, the spirit of humanity, innovative thinking and morality. In other words, it will be a "philosophy with Chinese characteristics." Philosophy shall drive literature, literature shall drive the arts, the arts shall drive industries, and industries shall drive culture.

The future of the Chinese cultural creativity industry hinges upon the internalization of aesthetic awareness, the spirit of humanities, innovative thinking and morality into the shared values of every person, family, school and society. If people can learn how to revitalize existing Chinese cultural assets and look beyond barriers, Chen is certain that the Chinese people will be able to bring back the glory of "Chinese cultural creativity."

Brand Secret

The cultural creativity industry is about "possession, creativity, enjoyment." Chen believes that the "study of human nature, appeal to reason, and creation of sense" is fundamental to all cultural creative efforts. The "study of human nature" in particular is the starting point for all design and manufacturing.

This is because all "inspiration" must begin with an awareness of how to care about other people. The outcome of "creativity" is to create value for other people. If you can touch the need within, then it is an idea with merit.

The Franz Collection uses Chinese culture as its foundation and searches for inspiration in tradition before re-interpreting it through new techniques. By making creativity its core, technology its shield, the humanities and arts its mission, and the market its guide before combining them all with production, marketing and services, the Franz Collection has been able to forge the most competitive value chain.

Key to Success

Chen has decades of experience in the cultural creativity industry and has achieved international fame by successfully incorporating Chinese culture into the Franz Collection. With the spirit of "Porcelain carries the Way and Nature is its guide," the Franz Collection has achieved a perfect interpretation of the truth, goodness and beauty that exists between heaven, earth and humankind. Through a business management and innovative mindset based around "study of human nature, appeal to reason, and creation of sense," the Franz Collection has successfully forged a "brand value chain" that conveys porcelain aesthetics fusing the arts of the East and the West for the whole world.

Mr. Franz Chen
Founder and CEO of Franz Collection

Mr. Franz Chen

Year of birth: 1951

Education:

Department of German,
Fu Jen Catholic University

Individual Milestones:

Year	Event
2001	Created the Franz brand. Established Franz Collection Inc. in the U.S. to tap international markets.
2002	The Franz Collection launched in the U.S. and received well at trade shows and exhibitions throughout America. Papillon Butterfly series named the "Best in Gift" ahead of more than 30,000 other products at the New York International Gift Fair.
2007	Granted audience with Benedict XVI with the collection "The Perfection: Cherry Tree and Grosbeaks" presented as a gift to the Vatican. Hosted the first "Franz Award" competition to create an incubation platform for design talent.
2010	Co-organized the "Manet to Picasso: Masterpieces from the Philadelphia Museum of Art" exhibition with the Philadelphia Museum of Art in the U.S. and the Taipei Fine Arts Museum. A series of Philadelphia Museum of Art pieces was also released. The Franz Collection was invited to become an exhibitor in the Zero Carbon Pavilion at the Shanghai World Expo. The Franz Award is elevated to an international design competition.
2011	The first autobiography, entitled "I am Franz," is released. The Franz Collection is named a Top 100 Taiwan brand.
2012	Hosted the first Franz charity program - Project Imagination; named in the "25 Influential Chinese in Global Fashion" rankings by Forbes magazine. Received the "Culture Foresight Entrepreneur" and "Entrepreneur of the Year" awards from Ernst & Young; received the 14th Technology Management Medal.
2014	Franz Collection named a Famous Trademark in China.

Resume:

- Founder and CEO of Franz Collection Inc.
- Founder and founding president of the Asia-Pacific Cultural Creative Industry Association
- Member of the Cultural Committee of the Taipei City Government Cultural Department
- Member of the Executive Yuan's cultural creative industry promotion task force
- Industry development counselor, MOEA, Executive Yuan
- Culture advisory committee and project review member, Council for Cultural Affairs
- Team leader, service promotion task force, Council for Economic Planning and Development, Executive Yuan, Taiwan
- Director, Institute for Information Industry
- Director, Taiwan Design Center
- Consultant to the brand information center of the Business College, National Chengchi University
- Standing director of the Chinese Porcelain Association
- Convener of Cross-strait Entrepreneurs Summit for Cultural Creative Group

Special honors:

- Global Views Magazine survey: Most effective manager in Taiwan's cultural creative industry
- Led Franz Collection to gain one of the "Top 100 Taiwan Brands"
- Led Franz Collection to win the "Distinguished Enterprise Innovation Award" at the 1_{st} National Industry Innovation Awards organized by the MOEA
- 2008 Chinese Creative Industry Awards - Leader Award
- Outstanding entrepreneur from China's porcelain industry
- Support for cultural creative enterprise proved successful and was granted audience with Pope Benevolent XVI
- Led Franz Collection obtain more than 50 prizes at the "Taiwan Excellence" awards. This included winning the "Taiwan National Excellence Gold Medal Award" twice, which was unprecedented in the industry.
- Franz Collection's entry into the Shanghai World Expo's "Zero-carbon Pavilion"
- 100 Most Influential Person in the Porcelain Industry of China
- Named among top ten Chinese authors
- Named one of "25 Influential Chinese in Global Fashion" by Forbes in 2012
- Presented with the "Entrepreneur Award of the Year" by Ernst & Young, the first cultural foresight award winner to receive the honor. Subsequently represented Taiwan at a conference for other entrepreneur of the year award winners from around the world held in Monte Carlo, Monaco.
- Winner of the "Technology Management Award"
- Named one of the 10 leaders of China's cultural creative industry (only person from Taiwan named.)

Breakthrough

Youth Category

— Mr. Yu-Chen Yu

New Weapon in Patent Strategy Breaks through Encirclement

Author: Yu-Feng Chen

Taiwan is a global leader in innovation and was ranked 5th in the world for the amount of U.S. patents awarded in 2013. Taiwan even leads the world in terms of the number of patent applications submitted per million people. With this being the case, one would assume that Taiwan would be an intellectual property powerhouse. The reality is quite the opposite. The actual situation, however, stands in contrast to such achievements. Taiwanese enterprises have to pay high royalties as well as costly patent application and maintenance fees, adding to their financial burdens. Taiwan urgently needs to stop using 20th century weapons to fight the 21st century arsenal used by foreign companies. The "Dynamic 3D Patent Layout Methodology + Patent Positioning Analysis" concept pioneered by Yu is the sort of combined art of war that the industry urgently needs.

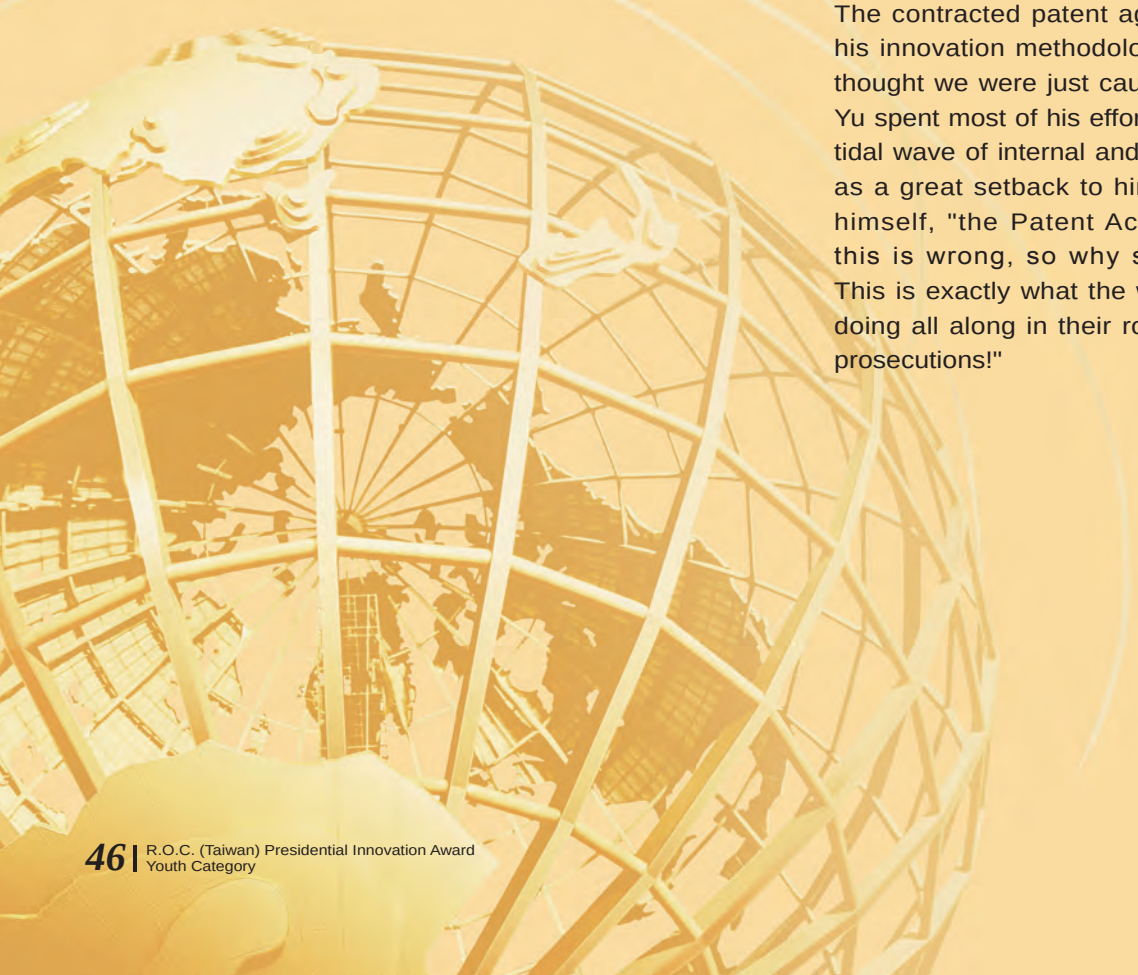
"Innovation is often a product of sheer desperation. The twisted path shall be revealed through quiet contemplation."

Yu-Chen Yu

General Manager of Wellsey International IP Consulting Co. Ltd.

For Taiwan industry and the longstanding patent difficulties it faces, Yu's "Dynamic 3D Patent Layout Methodology + Patent Positioning Analysis" offers a ray of hope. In the beginning, though, Yu was not an expert in this field.

After graduating from the Graduate Institute of Electronics Engineering at National Chiao Tung University, Yu joined the Industrial Technology Research Institute (ITRI), where he worked as a researcher for eight years. His experiences in technical R&D gave him a keen awareness of how critical intellectual property (IP) rights are to the development of Taiwan's high-tech industry. In 2007, he switched to the IP field by becoming the IP manager of the ITRI Electronic and Optoelectronics Research Laboratories. His main responsibility involved patent analysis and strategy execution for the light emitting diode (LED) industry, and he was able to help local companies reduce their international patent risks.



Insisting on the Right Path of Bold Innovations

"In switching from R&D to patent services, I came to realize that the real difficulty was changing people's mindsets," Yu remarked.

This difficulty came from both inside and outside of the organization. After careful observation, he concluded that the traditional approach favored by industry, academia and research organizations, as well as the way in which services were provided to industry, would run into bottlenecks. This was why he made sweeping reforms and adjustments once he took over, but this naturally led some to voice doubts.

"Many of the managers within the organization felt that conforming to the "existing process" was enough. There was no need to make patent affairs and processes so complicated, according to them," Yu shrugged.

The contracted patent agents constantly opposed his innovation methodology as well. "They always thought we were just causing trouble." At the time, Yu spent most of his efforts on communication. The tidal wave of internal and external opposition came as a great setback to him, but he kept reminding himself, "the Patent Act doesn't explicitly state this is wrong, so why should I hobble myself? This is exactly what the winning teams have been doing all along in their routine international patent prosecutions!"

In international patent litigation, the key to success of winners of such cases is in the depth and scope of one's patent portfolio coverage. In contrast, the patent portfolio coverage of Taiwan's companies has remained at the level of point coverage instead of plane coverage. Besides, the aforementioned winners also continue to monitor their opponents' patents, products and trends in order to actively adjust their patent claims during the patent prosecution process (before patent granting). The thinking of Taiwan's companies in patent application is too traditional and too passive to face the global patent war nowadays.

Innovative Patent Strategy Ends 7-case Losing Streak

The most painful period of time for the LED industry was undoubtedly just prior to 2007, when Taiwan's manufacturers lost seven consecutive cases and came under concerted attack from the top five international companies after they signed cross-licensing deals with one other. It was in this year that Yu's patent career began.

To prove his viewpoint, Yu often continued working after office hours compiling legal precedents and studying complicated patent legislation. It is not easy to change other people's processes. In large organizations, your position must be very strong and unassailable in order to make changes happen.
After analyzing countless domestic and foreign case studies, Yu eventually proposed the "Dynamic 3D Patent Layout Methodology + Patent Positioning

Mr. Yu-Chen Yu
General Manager of Wellsey International IP Consulting Co. Ltd.

Analysis" concept. This gradually gave Taiwan's LED industry a fighting chance. He then continued to actively promote this new strategy to other industries, allowing Taiwan to fight back in the patent wars and put an end to its string of defeats.

"In the past, once a business bought a technology patent from a university or research unit, it usually didn't know how to expand its application. This was very unfortunate." Being aware of this blind spot, Yu was determined to overcome the problem. Hence, when expanding patent strategies and foundations for AC LED technologies, he not only led the team in satisfying the basic expectations of domestic industry on the patent application, but also assisted the companies in using their existing developments to build a patent advantage. This created an atmosphere that supported cross-licensing, allowing them to thrust into the international supply chain. Even more importantly, the formation of an impression of the strength of the Taiwan LED industry's patent portfolio had an enduring impact on the sector.

Taiwan has, in fact, secured many victories in international patent battles since 2009, and it no longer has its hands tied behind its back. Customers have been very satisfied with the results of the projects led by Yu. "We regained the customer's trust and showed them that the patent capabilities of academic and research units can really make a difference," Yu remarked.

Precision Strikes with GPS-Guided Missiles

What exactly is the "Dynamic 3D Patent Layout Methodology?" First, we must understand the dynamic strategy used by foreign companies. Yu illustrated a lively analogy of Sidewinder and EMP missiles to describe the respective techniques used by Apple and Philips, leaving a strong impression amongst his listeners.

Yu gave the following description: Apple's patent strategy is like a Sidewinder missile that keeps homing in on the target until it hits. The key is to use familiarity with patent laws and continue to change the patent coverage until a lock-on is achieved on the target. No matter how the target tries to design around it, Apple just keeps trying to incorporate the changes made by the target into its own original patent.

Philips, on the other hand, manages its patent portfolio like an EMP missile that covers all possible products in the field. It also exploits patent laws by continuing to expand its patent coverage until its patent covers practically every product in related fields. This makes it even more dangerous.

Both Sidewinder and EMP missiles serve to create powerful patent defense networks for these international companies. In comparison, Taiwan's weapons are like anti-aircraft guns. In other words, domestic universities and research organizations usually think it's enough to develop a killer technology that can shoot further and higher in order to bring down incoming enemy aircraft. What usually happened was that the shells ended up flying off into space without hitting their target.

"If you compare our simplistic patent application strategy to how they do things overseas, it's like trying to fight an enemy with nuclear bombs armed with just rocks and a slingshot." Yu's description of the weakness of Taiwan's patent strategy was straight and to the point.

To help local companies turn the tide, Yu drew on the strengths of Apple and Philips' patent strategies, and then combined them with the actual R&D environment in Taiwan in order to formulate the "Dynamic 3D Patent Layout Methodology." Technologies, products and regulations were brought together under centralized control. Conventional patent analyses, with their shallow graphs, were also improved to become "Patent Positioning Analyses."

"Applying for a patent is like launching a missile. You must combine it with the accuracy of GPS (Patent Positioning Analysis) in order to hit the target in the most cost-effective manner." This method was first applied in full to the ITRI AC LED project. Once it proved effective, it was expanded to other industries as well.

Top Bridge Player Takes on the Challenge

Yu encountered many challenges from within and without along the way. "I must give special thanks to Director Mu-Dao Chu at ITRI EOL for his support. By overruling all opposition, he allowed us to gradually realize our innovations and achieve results." Yu also believes that he is doing the right thing, and so he continues to encourage himself and his colleagues.

His ITRI colleague Chia-Fen Hsieh said: "He was very patient in introducing us to his thinking and encouraged us to communicate with the technical people. What really impressed me was that he never once lost his temper when facing the doubts cast upon him or complaints made by his colleagues."

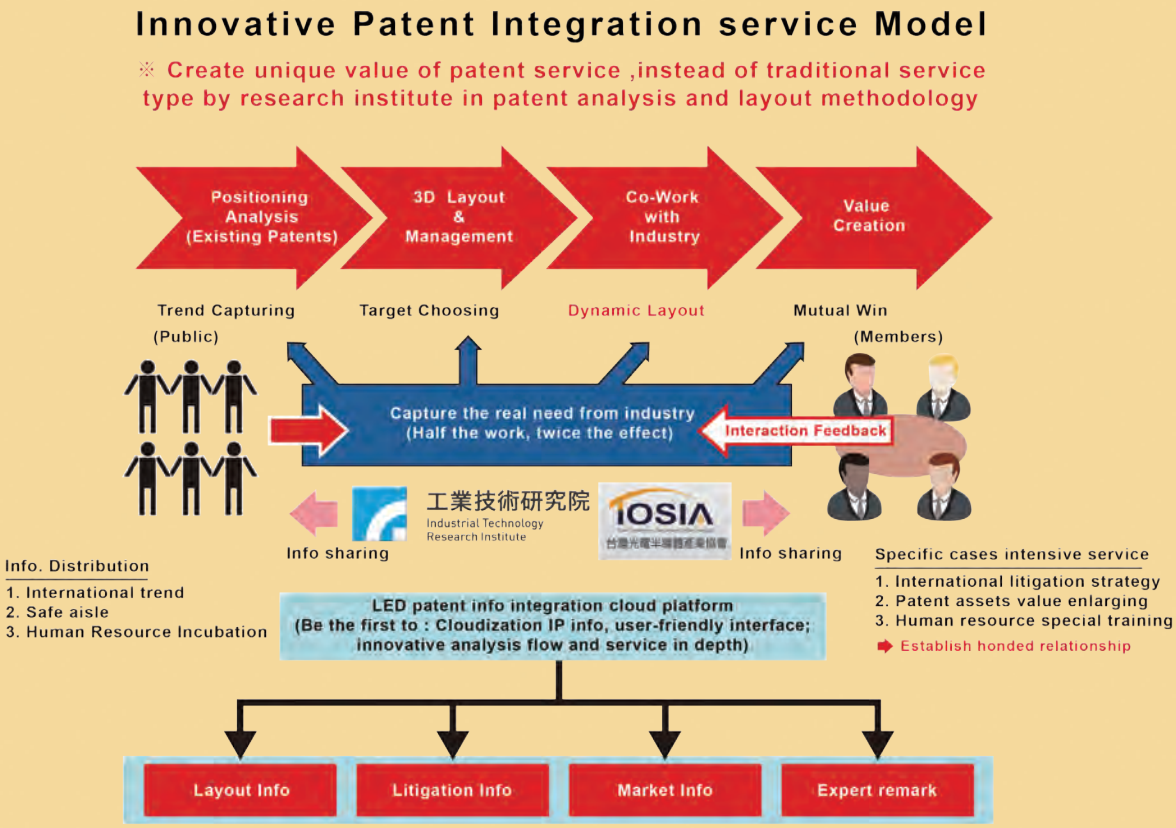
Yu's wife and teammate Jui-Ying Lin knew this better than most. "He always listened quietly to other voices and was able to communicate with them in their own language." Yu was able to look at the situation from both perspectives of an R&D engineer and patent practioner, find

common ground between them, and persuade the other party to join forces and head towards the innovative direction. "Whenever we rushed up to him with an urgent problem, he always helped us find the solution without being perturbed at all."

The calm exuded by Yu during the time-consuming process of introducing the innovative patent strategy was like an anchor in the storm. Lin said, “His ability to tackle various problems may have something to do with his favorite pastime, namely playing bridge." Top bridge players know how to control the pace of the game and use a hand worth 30% to secure 60% odds of winning. This meant nothing could ever faze him. Yu had been on the university bridge team in the NCTU-NTHU Plum and Bamboo competition.

Doubters of the innovative patent strategy did not just come from within. The realities of Taiwan meant that industry acceptance was initially low, as well. Most companies in Taiwan are small and medium-sized enterprises that lack people and resources. For these companies, patent investments represented a significant burden. Taiwanese investors also tend to adopt a short-term speculative mindset, making it impossible for company management to think about long-term competitiveness.

Mr. Yu-Chen Yu
General Manager of Wellsey International IP Consulting Co. Ltd.



Despite these obstacles, Yu continued to forge ahead and used different methods to communicate his philosophy to industry. This included the hosting of a study group where he invited patent specialists from within industry to join him in studying cases from overseas.

Guan-Wen Hu had been the head of IP management at Lextar and is now the president of the Edison International Patent & Trademark Office. Hu stated that, "Yu's spirit of perseverance left a strong impression. He patiently communicated with businesses again and again. The lively language he used also led people to feel his passion. I could see his sense of mission during my conversations with him. He really wanted to help Taiwanese companies escape from patent predicaments."

In order to have greater flexibility in serving a large variety of fields, Yu chose to leave the ITRI and build a more agile platform. He now seeks to become an evangelist for educating industry about "Dynamic 3D Patent Layout Methodology + Patent Positioning Analysis" and applying it to actual patent affairs. His goal is to help ambitious customers become top international companies and allow patents to provide actual support for these companies as they expand their businesses across the globe. Yu plans to continue to fight shoulder-to-shoulder with businesses in the months and years ahead.

Mr. Yu-Chen Yu

Year of birth: 1975

Education:

Graduate Institute of Electronic Engineering, NCTU

Key to Success:

When Yu took over his patent role, there was a large gulf between Taiwan and places overseas in terms of their patent strategy concepts. Domestic academic and research units lacked a "systematic solution," so their contribution to industry were limited. To overcome this problem, Yu set up a patent team that adopted novel approaches in patent strategic arts compared to the conventional method used by the ITRI. Research colleagues, external experts and industry representatives were closely integrated to channel their resources and develop the "Dynamic3D Patent Layout Methodology + Patent Positioning Analysis." When these were combined, the effectiveness of the overall framework was revealed.

During the promotion of the "Dynamic 3D Patent Layout Methodology + Patent Positioning Analysis," Yu insisted on "doing the right thing and creating value for customers and myself by adopting a systematic approach." He continued to encourage his colleagues and himself; he sat down to calmly listen to other people's opinions and communicated with individuals from different fields in their own language. In this way, he found common ground with the other parties and persuaded them to embrace his approach.

Individual Milestones:

Year	Event
2008	R&D-100 Awards winner
2009	Named Outstanding Youth
2010	Environmental hero award, Global Views Monthly
2014	Presidential Innovation Award Winner

Resume:

- Patent manager,
  Electronic and Electro-optical Research Laboratories, ITRI
- Vice Chairman, IP Committee,
  Taiwan Optoelectronic Semiconductor Industry Association

Special honors:

- 2008 R&D-100 Awards
- 2009 Named Outstanding Youth
- 2010 Environmental hero award, Global Views Monthly.

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