

Arrow Electronics, a Pioneer to Guide Technology Innovation Forward

艾睿电子：引领科技创新

—— Interview with Mr. Simon Yu, President of Arrow's Asia-Pacific components business

—— 访艾睿电子亚太区元器件业务总裁余敏宏先生

□记者 李莉

全球知名的美国艾睿电子公司，从成立的那一天起，就为电子科技领域树立起了一个创新、领先、精益求精的企业形象。艾睿电子成立于1935年，在超过80多年的发展历程中，本着不断研发创新、不断提高方案的高技术含量，更快捷、更高效地服务全球客户的理念，目前已经发展成为电子科技领域的全球翘楚。

2018年，中国改革开放40周年之际，本刊记者有幸再次回访了艾睿电子亚太区元器件业务总裁余敏宏先生。这是一个十年后的回访，十年光阴弹指一挥，在老友重逢的喜悦中，余敏宏先生在一个多小时的访谈里详细介绍了艾睿电子在华所取得的发展成就。

“能够接受你们10年后的回访，我很开心。这些年艾睿电子在华发展很快，10年来，我们从18个办公室发展到30多个办公室，员工也从数百名翻了几倍，我们亚太地区销售额在2017年达到67亿美元，业务增长两倍多。目前，中国的发展速度比全球快。我们的业务已经覆盖到中国三四线城市。我们为客户提供技术解决方案，引导他们创新，共同取得成功。”余敏宏先生思维敏捷，睿智大气，性格爽朗，从他的介绍中，我们不难看出，这10年来，艾睿电子的发展取得了令人满意的成绩。

据了解，艾睿为工业和商业市场的客户及供应商提供电子和企业计算解决方案。80多年来，艾睿电子始终致力引领驱动创新，帮助超过150,000家世界领先的科技制造商，在商业、家居及日常生活等范围推陈出新，2017年的全球营业额高达266亿美元，在美国《财富》杂志排名113位。服务范围遍及80个国家，业务网络超过345个点，艾睿电子每天都在和千千万万个工程师和科技人员并肩努力，为世界带来创新产品、方案和服务。一家卓越的公司



艾睿电子亚太区元器件业务总裁余敏宏先生 Mr. Simon Yu, President of Arrow's Asia-Pacific components business

必定是推动人类社会不断进步的公司，必定是不断创新科技让人类享受美好更便捷生活的公司。

艾睿其中一个利用科技改善人类生活的创新项目是“半自动驾驶车”Semi-Autonomous Motorcar (SAM)，该项目获得英国工程与技术学会奖。为了让在18年前一次赛车事故中四肢瘫痪的前印地赛车联盟车手萨姆·施密特先生(Sam Schmidt)重返赛道，艾睿电子将一部Corvette跑车改装，加入先进的电子设备，智能感知人机界面和物联网传感器等技术，使车手施密特仅需利用头部动作安全地驾驶跑车。项目经过9个月的研发，在2014年，这位赛车手施密特成为第一个四肢瘫痪的驾驶者，在印第安纳波利斯赛车场(Indianapolis Motor Speedway)以时速高达每小时172公里奔驰，艾睿电子不断提高SAM半自动跑车的性能和可控性。在2016年5月22日，

施密特在印第安纳波利斯赛车场驾驶最新设计的SAM，创出每小时245公里的高速，刷新速度纪录。车手施密特驾驶艾睿SAM车，并于2016年成为美国第一位四肢瘫痪的人取得驾驶执照。这不是一个关于赛车的故事，而是一个关于如何利用创新的智能技术去帮助人们解决他们的问题。消除伤残带来了物理限制，帮助一个虽有残疾的人重新获得独立能力和成就感。

艾睿电子就是这样的卓越公司，它见证了全球主要科技经济区的发展并参与他们的创新科技发展旅程，不论是在美国硅谷、日本筑波科学城还是德国工业4.0。而中国粤港澳大湾区和长江三角洲经济区发展，以及中国“一带一路”国策，艾睿电子一直都积极参与，为客户，供应商，技术合作伙伴创造更多提升创新科技的价值和机会。

改革开放40年来，中国电子市场的需求越来越大。艾睿电子有效地把握了中国发展的契机，和中国经济同步繁荣壮大。谈到改

革开放40年的发展，余敏宏先生总结说：“我们是1994年进入中国市场。24年来，我们伴随着国际以及本地科技产品客户，供应商，技术合作伙伴的成长，业绩可以说已经翻了十几倍。而过去的10年里，中国科技走向国际化多元化，产业也迈向中高端的发展阶段，无人机、人工智能、物联网等发展很快。到2020年，物联网会有1.9万亿美元的规模，这个数字比手机市场要大15倍。未来的发展就是智能化、物联网的世界。我们始终会是生态链其中的一位积极分子，相信未来会越来越好。”

艾睿电子积极为客户创造价值，其方案和技术服务覆盖整个科技产品生命周期，从概念孵化、设计验证和优化、快速制造样板、技术测试、软件系统集成，到产品量产、供应链无缝连接管理等，以至科技产品回收、翻新、物料循环再造，创造重用价值。艾睿电子80多年来不仅服务跨国企业，同时也帮助中小型初创公司取得成功，在助力他人成功的同时，艾睿电子也取得了非凡的成就。

采访中，记者一直很好奇，余敏宏先生所谈到的助力他人成功是如何做到的呢？

据了解，初创及科技企业一般缺乏专业的工程技术支援，特别是在无线连接科技、传感控制及系统集成等领域。艾睿电子的目标正是帮助企业克服这些困难，加快他们将创新理念转化为商业项目，并进一步推向国际市场。2016年6月艾睿电子在香港科学园建立“艾睿电子技术应用开放工作间”(Arrow Open Lab)，面积



艾睿电子董事会主席，总裁和首席执行官罗明高先生（左二）、萨姆·施密特先生和艾睿SAM项目团队

约6,000平方尺，配备最先进的工程设备及测试工具，同时，10余位经验丰富的专家和工程师将入驻工作间，他们的专业领域涵盖电脑运算、传感连接技术、系统集成技术等，他们可以为使用者提供最专业的意见和指导。艾睿Open Lab所提供的服务可将所需时间大幅减少最多达四个月，从而节省高达25%的工程设计开支。此外，艾睿电子作为资深技术顾问，同时会指导开发人员如何改善系统设计，并在整个研发过程中为他们提供全面支援。2017年艾睿电子为香港科学园首个传感器测试平台(Sensor Hub)提供Sensor-to-Cloud-to-Analytics物联网(IoT)技术，共同促进本初创企业及科技公司在IoT和智慧城市的创新发展。

艾睿24年来在华成功发展的背后究竟蕴藏着怎样的战略眼光？

记者在采访余敏宏先生后找到了答案。“我们打造的是一个具有协同效应的科技平台，让全世界初创人共享，在这个平台里，让人才联动并可以不断擦出智慧的火花。这个协同效应平台，不光是为供应商、制造商、研发中心，也和大学联合起来，培养未来的创客人才。如果要总结我们的竞争优势，可以概况为四点：一是永不停步，不断创造。帮助我们的客户、合作伙伴、供应商和制造商了解科技应用的可能性，并帮助他们实现这些可能性为可行性。二是增加客户‘科技应用的实力’。三是利用科技将世界变得更美好。从新产品设计以至产品生命的终止，我们在科技应用历程中扮演着不可或缺的角色。四是新技术、新材料、新思路的运用。新的电子产品不仅将使人们的生活发生变化，而且使生活更美好；不只是更便宜，而且更智能；不只是更便捷，而且获得更多的启发。”



艾睿电子公司总部位于美国科罗拉多州

在采访中，余敏宏先生笑声爽朗，让记者时刻能感受到他自身的活力和热情。余敏宏先生告诉记者，他喜欢跑步，业余时间会跑马拉松，不仅他自己跑，还会带动公司员工一起跑。马拉松是需要毅力和坚持的运动。余敏宏先生的人格魅力里也一定具有“毅力”和“坚持”这两项优秀的品质，而这两项品质也一定根植于艾睿的团队之中。在谈到他对企业文化以及管理思维这个话题时，余敏宏先生说：“我的座右铭是：‘见贤思齐焉，见不贤而内自省也’。这是出自《论语·里仁》。意思是说见到贤能的人，我就要加把劲，见到不贤德的人就自省，只有这样就会不断进步。我常常对自己说，我要做好ABC这三件事，A就是 Articulate，意思是善于解说战略；B就是 Bonding，要有凝聚力；C就是 Consistent，意思是持续一致。我在1987年就来到艾睿，一干就是31年。艾睿是创新的公司，每天都接触新鲜的事，人在进步的时候不会觉得累，每天都充满着契机和新鲜的想法。我很享受工作，每天都很开心。”

快乐工作，享受生活。余敏宏先生对事业的激情、对生活的热情不断感染着他的团队，也带动着艾睿的事业不断向前发展。在谈到未来艾睿发展还有哪些蓝图时，余敏宏先生充满信心地说：“艾睿的理念是：我们希望透过创新技术展示平台，为创客和创业家提供实践、交流、学习、发展的机会，体现跨界产业深度融合，驱动产业协同创新。2017年是艾睿历史上最成功的一年，我们实现了20%的增长。展望2018年，我们将持续优化和完善我们的价值链服务，为客户解决问题，创造价值，引领技术应用，使他们继续创新，成为客户值得信赖的长期技术伙伴公司。艾睿电子正积极考虑如何在国内其他城市设立 Open Lab，最能帮忙推动协同创新，体现我们的技术能力。”

我们相信，在中国现代化、智能化进程中，艾睿必将发挥更加积极的作用。未来，在物联网、互联网时代，艾睿将有更为优异的表现，必将为人类生活的更美好、更便捷做出更卓越的贡献。



艾睿电子亚太区元器件业务总裁余敏宏先生（中）与来自大湾区的创业家和学生工程师分享如何推动产业的协同创新

Since its establishment in 1935, Arrow Electronics has shown the world an image of striving for leading innovative and sustainable technologies in the electronics industry. In its development in the past over 80 years, Arrow has focused on fostering innovation, improving high-tech value, and providing its customers with better and more efficient services.

This year, the 40th anniversary of China's reform and opening-up, the journalist has a repeated talk with Mr. Simon Yu, president of Arrow's Asia-Pacific components business. In such a one-hour return interview, Yu shares more information about the development and achievements of Arrow in China.

"It is a great pleasure to have this opportunity to reconnect with you. In the past 10 years, we grew our Asia-Pacific business by more than 2.5 times, reaching US\$6.7 billion in sales in 2017. We have expanded our footprint in China, our office locations increased to over 30 from 18 and our employee size doubled. Now, China is growing in a relative faster pace in the world. Meanwhile, we have extended our presence to tier 3 and 4 cities to better serve our customers and suppliers. We guide and help our customers



超过 1300 位创新者、企业家、顾客及供应商相聚于年初在深圳举办的“艾睿电子创科论坛及解决方案展示会”

and partners innovate and succeed by connecting them to the right technology, at the right place, at the right time, and at the right price," said Yu. Arrow has over 150,000 clients all over the world. In the past 80 years, Arrow has been committed to leading and driving innovation and helping these high-tech manufacturers release more innovative products for commercial use, households, daily-life and other fields. In 2017, its sales revenue was US\$26.6 billion, ranking the 113th in the Fortune 500. Arrow has 345 office locations and distribution centers and thousands of engineers and technicians in over 80 countries, providing electronics and enterprise computing solutions. A great company must be a company that promotes the continuous advancement of human society and constantly innovates technologies, benefiting humanity.

For instance, Arrow launched Semi-Autonomous Motorcar (SAM), an innovative project to improve human life with science and technology in 2014. Since then, the SAM project continues to advance. It was awarded "Best Car Innovation" by Business Insider in 2016 and the 2014 Institution of Engineering and Technology Award in London. Arrow added advanced electronics and smart technologies such as intelligent human-to-machine interface and IoT sensors and platform for data display and analysis to a Corvette race car, which enabled Sam Schmidt, a former Indy racecar driver who suffered from quadriplegia in a car race accident 18 years ago, to return the race track, driving a car with only head movement. Schmidt became the first quadriplegic driver who could drive at speed of 172 km/h at the Indianapolis Motor Speedway in 2014. Arrow's technology in this aspect is improving the driving and control performance of SAM semi-autonomous race car. On May 22, 2016, Schmidt drove the newly designed SAM car at the Indianapolis Motor Speedway, setting a record speed of 245 kilometers per hour. In 2016, Schmidt became the first



艾睿与香港科学园合作，推出首个传感器测试平台（Sensor Hub）促进本地初创企业及科技公司在 IoT 和智慧城市的创新发展



产业领军者、企业家、创投专家和艾睿高管在“艾睿电子创科论坛及解决方案展示会”上共同探讨 IoT 时代大湾区创科企业的机遇和挑战

Delta Economic Zone as well as "the Belt and Road" initiative. Since the reform and opening-up, China has boosted great demands. "We entered the Chinese market in 1994. We have been working closely with our international and well as local technology customers, suppliers, and business partners to capture growth opportunities. Especially in the latest 10 years, the Chinese technology market has become more diversified

quadriplegic person who was issued a driver's license in the United States. But this is not a story about racing car, it is a practice how to use innovative and smart technologies to help people actually. In such practice, a physical constraint due to disability is relieved from the disable while making them regain independence and a sense of accomplishment.

Like many long-standing technology companies, Arrow has witnessed the development and transformation of some of the world's major technology and economic zones, such as US Silicon Valley, Japan Tsukuba Science City and "Industry 4.0" in Germany. Along with many renowned technology enterprises, it has also been playing an active role to fuel the growth of technology sector in China's Guangdong-Hong Kong-Macau Greater Bay Area, Yangtze River



“艾睿电子技术应用开放工作间” (Arrow Open Lab) - 创科“技术摇篮”



艾睿 Open Lab 配备先进的工程设备及测试工具

and internationalized and the industries have evolved to be more high-end and value-driven, for example, drone, artificial intelligence and IoT. By 2020, IoT will boost a market scale of 1.9 trillion US dollars, 15 times larger than the mobile phone market. Intelligence and IoT will be the trend of the future development. With respect to such a trend, we continue being an active player in the ecosystem and strive to create more value and opportunities for customers, suppliers and technical partners." says Mr. Yu.

Arrow actively helps clients add and create value by providing a comprehensive set of engineering offerings and services covering the whole life cycle of technology products, from concept incubation, design verification and optimization, fast prototyping, technical testing and software system integration, to optimization for mass-production stage, seamless management of supply chain, even to recycling, refurbishment, and material



艾睿助创新者获得科技工程的资源，将他们的创意转化为具有社会影响力的发明

Arrow sets a target to help these companies to overcome such puzzles, enhance them to transform the innovative ideas into commercial projects and further to the international market. In 2016, Arrow set up "Open Lab" in Hong Kong Science Park with an area of 6000 square feet and equipped it with state-of-the-art-engineering equipment and testing tools; over 10 experienced experts and engineers specialized in computing, sensor connection and system integration work here and give professional advice and guidance to users. Open Lab service significantly reduces the project design cycle by at least 4 months, namely, cutting 25% the design cost. In 2017, in support of Sensor Hub, a project led by Hong Kong Science and Technology Park (HKSTP) to accelerate smart city innovation, Arrow provided a sensor-to-cloud-to-analytics IoT technology

reuse for sustainable development. In its development, Arrow helps small and medium-sized startups while serving multinationals; makes outstanding achievements while helping innovators succeed.

How does Arrow Electronics help innovators succeed?

As far as I know, start-ups and technology companies mostly lack of professional engineering and technical supports, especially in the fields of wireless connection technology, sensor control and system integration. So,



艾睿打造的 IoT 技术体验中心提供 300 多 IoT 解决方案和超过 14,000 个传感器产品，帮助初创企业加强产品设计、加快研发速度及节省开支



经验丰富的艾睿工程师为用户提供免费技术指导

platform to help local start-up and technology companies innovate in the aspect of IoT and smart technologies.

And, what strategic vision does Strategic Vision has when it succeeds China? Yu gives the journalist the answer. "We strive to create a synergistic technology platform which enables the global start-up talents to share ideas and collaborate with each other. Such platform is built not only for serving suppliers, manufacturers, research centers, but also cultivating future talents in the cooperation with universities and colleges. We hope to contribute in the following aspects: firstly, with fostering innovation, we help clients, partners, suppliers and manufacturers stay abreast of latest electronics technology. Secondly, we help customers increase their 'capacity for rapid technology deployment'. Thirdly, we make good use of technology to make the world a better place. We play an indispensable role in in the whole process of technology application from product design to life cycle ending. Fourthly, widen the application of new technologies, materials and new ideas, we are working for making our lives better, cost-efficient, smarter, and full of convenience and inspiration," says Yu.

In the talk, Yu gives us an impression of vitality and enthusiasm. He tells the journalist that he likes to run marathons and encourages his team members to take part in athletic exercises with him. Marathon is a sport that requires perseverance and persistence. He hopes to integrate these two excellent characters to his team. "My motto is that 'Seeing another better than oneself, one tries to equal him/her; seeing another worse than oneself, one tries to improve

oneself.' This saying is quoted from 'Confucian Analects - Li Ren'. We should do better in the three aspects: articulate (A) (goods at making strategies easy to understand and resonate), bonding (B) (with bonding power), and Consistency (C), namely, being consistent in what we do and say. I have been with Arrow for 31 years now. Arrow is such an innovative company, I encounter new things every day and find new ideas, opportunities and challenges, so I seldom feel bored or tired. I enjoy my work and I am so happy every day." says Yu.

Yu lives and works with full vitality and enthusiasm every day. His vitality and enthusiasm affect his staff members and motivate his team to advance sustainably. "At Arrow, we strive to guide today's innovators to a better tomorrow by helping them transform their ideas into real and influential inventions and technological breakthroughs 2017 was unquestionably the most successful year in Arrow's history. We will continue to optimize and improve our value chain services, keep guiding technology innovations forward, and help out clients create value as their long-term trustworthy technology platform partner. We are currently exploring to establish more open labs in other cities in China to foster a more collaborative environment for advancing innovation and technologies." says Yu.

We believe that Arrow will continue to play an active role in the Chinese modernization and digital transformation process. In the future IoT and Internet age, it will make more contributions to our better and convenient lives.



艾睿团队连续 3 年参加北京站“要跑·24 小时城市接力赛”，通过个人的努力和团队的协力，体现企业公益关爱社会精神。