



Turner & Townsend

Capability statement 执行能力陈述书

**Life Science and
Healthcare**
生命科学和健康

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Making the difference 创造与众不同的价值

Market-leading

引领市场

We are a market-leading capital programmes professional services company trusted to drive better business outcomes for our clients across all sectors. With a heritage rooted in cost and commercial management we have a deep and tacit understanding of capital programmes, and apply this expertise to drive industry best practice and innovation.

作为深受信任的市场领先的资本项目专业化服务公司，我们旨在帮助所有领域的客户取得更佳的商业表现。我们深耕于成本和商业管理，深谙资本项目的运行之道，并运用专业知识推动行业最佳实践的发展，实现变革。

Independent

独立机构

With complete independence from the supply-chain, we put client's interests first, protecting you by providing an un-conflicted and uncompromised service to solve your specific challenges.

作为一家完全独立于供应链之外的公司，我们将客户利益放在第一位，提供非冲突性和非折中性的服务，确保解决您的具体问题。

Trusted partners

值得信赖的合作伙伴

We turn data into insights to confidently make informed decisions faster, achieving higher levels of performance and minimising risk for our clients.

我们在数据中得出见解，所以有信心能很快地做出明智的决策，从而将客户的风险最小化并实现更好的业绩。



Where we work 我们的足迹

Global expertise delivered locally

全球专业 服务本地

We are one global business providing a consistent quality of service to deliver great outcomes for your projects, wherever they are.

我们是一家全球化的公司，可为全球各地的客户提供始终如一的服务，交付优质的项目成果。

Operating in over 130 countries around the world, our teams work together to tackle projects collaboratively to a common set of high standards to make sure you see results quickly.

业务范围覆盖全球 130 多个国家，我们的团队相互协作，共同按照统一的高标准处理项目，确保您在短时间内就可以看见成效。

As we continue to grow our footprint we transfer knowledge between people, regions and sectors. This extensive knowledge and global experience helps us to think and innovate ahead of the market to deliver the best outcomes for our clients.

随着我们不断地扩大业务版图，我们在不同的人、地区及领域间传递知识。丰富的知识及全球化的经验可以让我们采取领先于市场的思维，并率先开始变革，向客户交付最佳的成果。

North America (19) Calgary, Chicago, Denver, Edmonton, Fort Worth, Houston, Los Angeles, Miami, Mountain View, Nashville, New York, Ottawa, Phoenix, San Francisco, Seattle, Tampa, Toronto, Vancouver, Washington DC

北美 (19) 卡尔加里，芝加哥，丹佛，埃德蒙顿，沃斯堡，休斯敦，洛杉矶，明尼阿波利斯，山景城，纳什维尔，纽约，渥太华，凤凰城，旧金山，西雅图，坦帕，多伦多，温哥华，华盛顿特区

Latin America (7) Bogota, Buenos Aires, Lima, Mexico City, Rio de Janeiro, Santiago, São Paulo

拉丁美洲 (7) 波哥大、布宜诺斯艾利斯、利马、墨西哥城、里约热内卢、圣地亚哥、圣保罗

UK and Ireland (18) Aberdeen, Bath, Belfast, Dublin, Birmingham, Bristol, Cambridge, Cardiff, Edinburgh, Glasgow, Leeds, London, Manchester, Newcastle, Nottingham, Reading, Sheffield, Teesside

英国 (18) 阿伯丁、巴斯、贝尔法斯特、伯明翰、布里斯托尔、剑桥、卡迪夫、都柏林、爱丁堡、格拉斯哥、利兹、伦敦、曼彻斯特、纽卡斯尔、诺丁汉、雷丁、谢菲尔德、提塞德

Europe (20) Amsterdam, Atyrau, Basel, Berlin, Frankfurt, Hamburg, Istanbul, Krakow, Madrid, Milan, Moscow, Munich, Paris, Rome, St Petersburg, Stavanger, Stockholm, Vienna, Warsaw, Zurich

欧洲 (20) 阿特劳、阿姆斯特丹、巴塞尔、柏林、汉堡、法兰克福、伊斯坦布尔、克拉科夫、马德里、米兰、慕尼黑、莫斯科、巴黎、罗马、圣彼得堡、斯塔万格、斯德哥尔摩、维也纳、华沙、苏黎世

Africa (9) Cape Town, Dar es Salaam, Durban, Gaborone, Harare, Johannesburg, Kampala, Nairobi, Maputo

非洲 (9) 开普敦、达累斯萨拉姆、德班、哈博罗内、哈拉雷、约翰内斯堡、坎帕拉、马普托、内罗毕

Middle East (6) Abu Dhabi, Doha, Dubai, Muscat, Dammam, Riyadh

中东 (6) 阿布扎比，达曼，多哈，迪拜，马斯喀特，利雅得

Asia (16) Bangalore, Beijing, Ho Chi Minh City, Hong Kong, Jakarta, Kuala Lumpur, Macau, Manila, Mumbai, New Delhi, Seoul, Shanghai, Shenzhen, Singapore, Tianjin, Tokyo

亚洲 (16) 班加罗尔、北京、胡志明市、香港、雅加达、吉隆坡、澳门、马尼拉、孟买、新德里、首尔、上海、深圳、新加坡、天津、东京

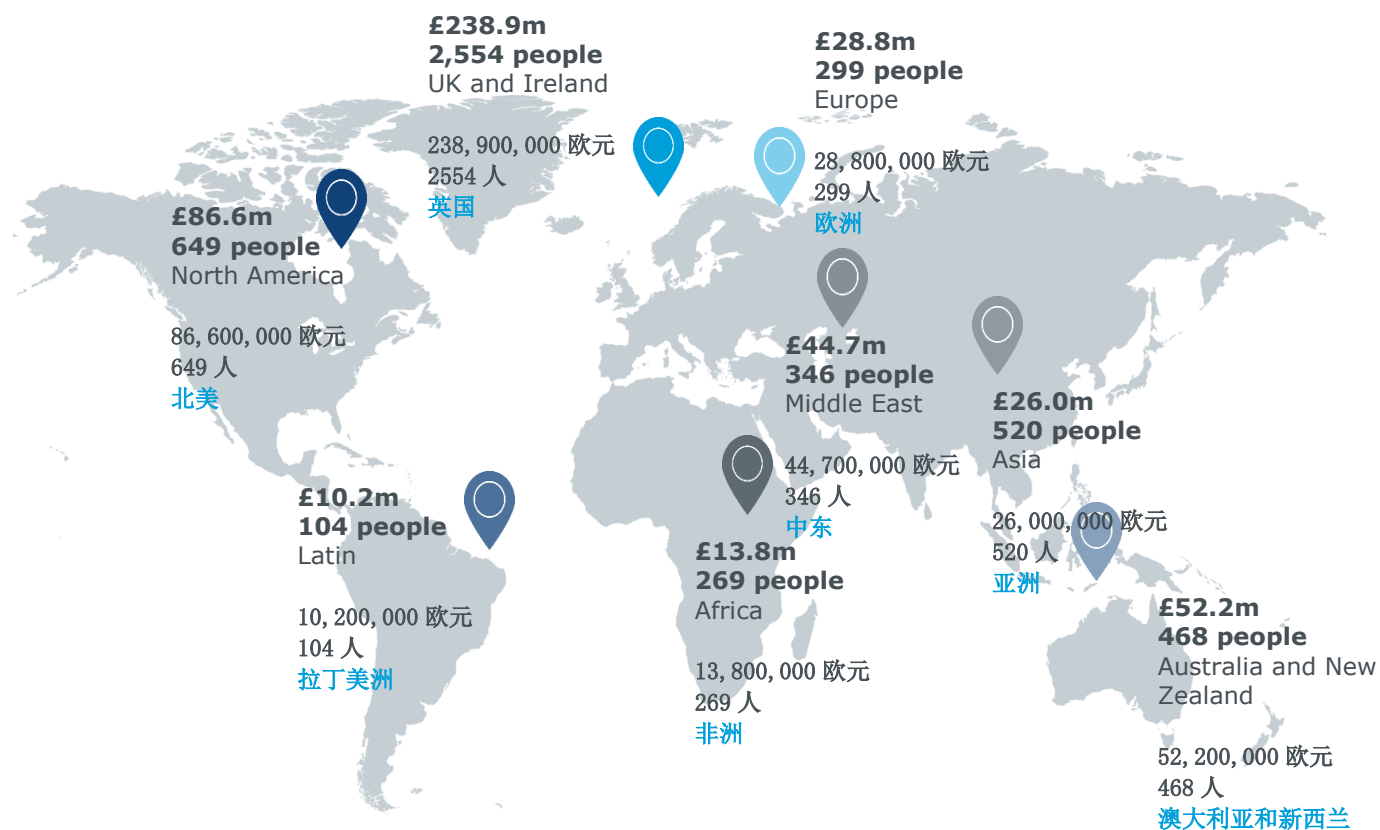
Where we work 我们的足迹

Australia and New Zealand (13) Adelaide, Auckland, Brisbane, Cairns, Canberra, Christchurch, Darwin, Gold Coast, Melbourne, Perth, Nadi, Sydney, Townsville

澳大利亚和新西兰(13) 阿德莱德、奥克兰、布里斯班、凯恩斯、堪培拉、基督城、达尔文、黄金海岸、墨尔本、珀斯、纳迪、悉尼、汤斯维尔

Total (108)

总计 108 个城市



Where we work 我们的足迹

Our China footprint

中国区足迹

Turner & Townsend has been active in China since 1996 and have offices in Shanghai, Beijing, Shenzhen, Macau, Tianjin and Hong Kong. We have delivered more than 1000 projects in over 81 locations across China, including Haikou, Hong Kong, Urumqi, and Harbin.

特纳唐逊自 1996 年进军中国市场以来，一直在积极发展业务，并且已经在上海、北京、深圳、澳门、天津和香港设立办事处。我们已经在海口、香港、乌鲁木齐和哈尔滨等 81 个中国城市完成了 1000 多个项目。

We help clients to deliver inward investment projects as varied as hi-rise commercial and/or mixed use developments, automotive and food retail roll-out programmes, semiconductor plants, manufacturing facilities, warehouses, head office buildings, rare earth metals foundries, research and development campuses, and consulate and embassy buildings. We also work on large scale development projects in China and overseas with Chinese multinationals.

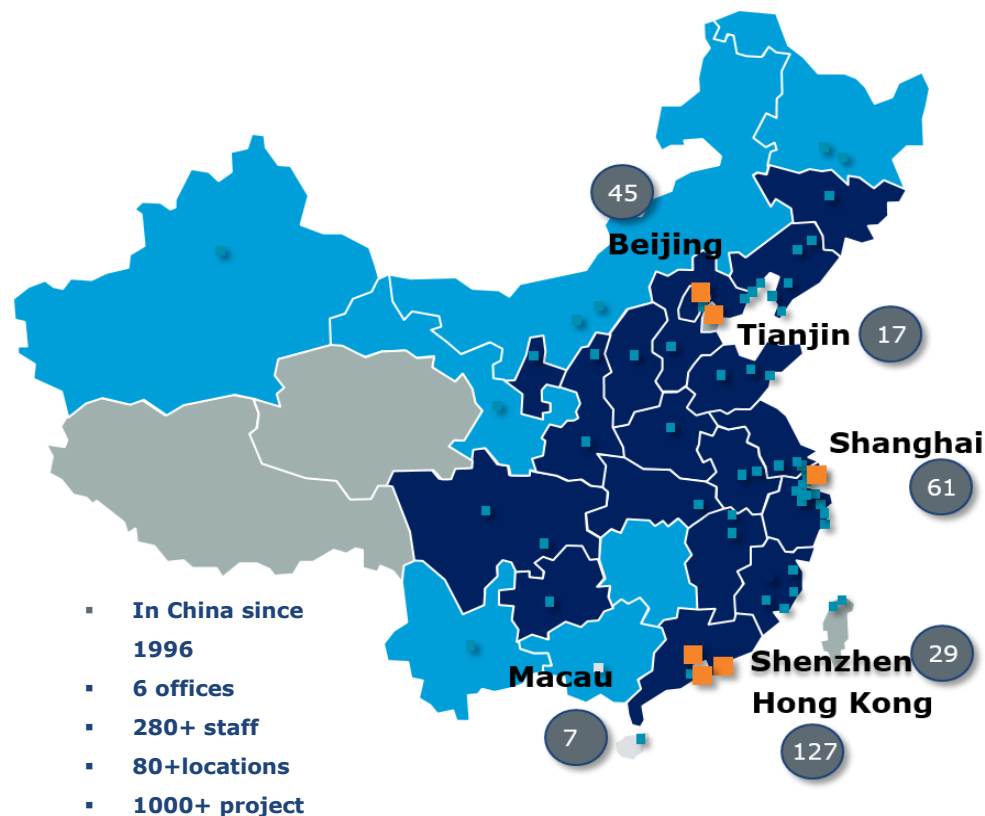
我们帮助客户完成各种对内投资项目，如商业及综合大楼开发、汽车及食品零售推广项目、半导体工厂、生产设施、仓库、总部大楼、稀土金属铸造厂、研发园区、领事馆和大使馆建筑。我们还与中国的跨国公司合作完成中国和海外的大型开发项目。

The breadth and depth of this experience has given us a comprehensive understanding of the complexities of investment and development in China, and an equally invaluable database of supply chain, cost benchmark data and other construction industry information across China.

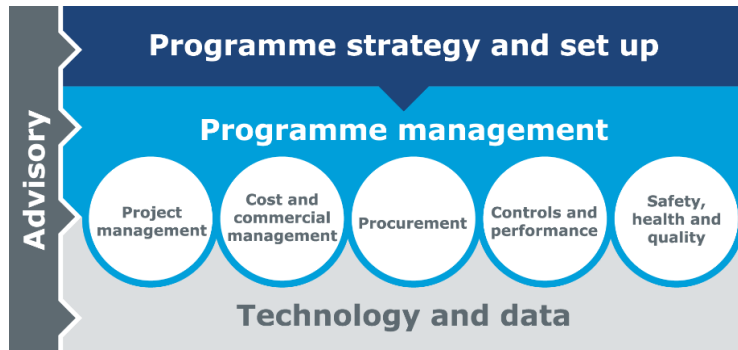
广泛和深入的经验使得我们更加全面地了解在中国进行投资和开发的复杂性，同时我们还建立了有关供应链、成本基准数据和中国其他建筑行业信息的宝贵的数据库。

We are one global business providing a consistent quality of service to deliver great outcomes for your projects, wherever they are.

我们是一家全球化的公司，可为全球各地的客户提供始终如一的服务，交付优质的项目成果。



What we do 我们的业务领域



Our services cover the full spectrum of programme management requirements, from advisory to project delivery to post-project operational readiness, and support the full range of stakeholders in complex programmes.

我们的服务囊括了项目管理各方各面的要求，从咨询、项目交付到后期运营准备，并且可以为综合项目中的所有利益相关方提供支持。

We take ownership of the performance agenda throughout, always looking for better ways to improve our client's financial and contractual position.

我们全程掌握项目履行进度，坚持不懈地寻找更好的方法，改善客户的财务及合同状况。

Our depth of experience enables us to fully understand the challenges, plan for the desired outcomes, access the right capability, manage ambiguity, and continually apply data and insights to inform decision-making.

丰富的经验将有助于我们充分理解问题，规划预期成果，获得相匹配的能力、管理分歧，并且持续运用数据和理论来指导决策过程。

Programme strategy and set up

项目战略和启动

Setting up for success – building the right capabilities and execution plan to drive clear programme outcomes.

成功启动——建立正确的能力和执行计划，形成明确的项目成果。

Programme management

项目管理

Looking at the big picture, driving better overall outcomes, and having real confidence your programme is under control.

从大局出发，推动更好的整体成果，对项目的掌控有十足的把握。

Project management

专案管理

Delivering project success through effective planning, the right team and rigorous controls.

通过有效的规划、合适的团队和严格的控制实现项目的成功。

What we do 我们的业务领域

Cost and commercial management

成本和商业管理

Driving and safeguarding your commercial interests from start to finish.

自始至终确保并提升您的商业利益。

Procurement

采购

Developing and delivering procurement and supply chain strategies that get the best results from the market.

开发和交付可从市场中获得最佳成果的采购及供应链战略。

Controls and performance

控制和绩效

Applying robust and pro-active controls from a clear baseline to deliver confidence in programme and project performance.

基于明确的基线标准，应用稳健和前瞻性的控制，树立客户对方案和项目履行的信心。

Safety, health and quality

安全、健康和质量

Embedding the strategies and culture that support effective operations and maintain a safe and healthy environment.

采纳能够支撑有效运作并维持安全健康的环境的战略和文化。

Technology and data

技术和数据

Unlocking the potential of technology, data and information modelling to drive performance, support great decision-making and create collaborative working environments.

挖掘技术、数据和信息模式的潜能，推动项目履行，支持重大决策制定，并创造协同工作环境。

Advisory

咨询服务

Independent advice to help make your business and investments a success.

独立的咨询服务帮助您企业和投资取得成功。

Life Science and Healthcare Statement 生命科学和健康领域陈述

Putting health first

健康第一

With the world's population growing at an unpredicted rate the demands on providing world class healthcare have never been more challenging.

随着世界的人口以不可预测的速度增长，全球化医疗的需求受到前所未有的挑战。

Everyone should have access to affordable health services irrespective of location and wealth. This requires the world's healthcare system to be strong, efficient and well run focusing on priority health needs through people centred integrated care. The healthcare sector needs to be able to deal with the societal challenges ahead which, combined with rising costs and constrained financial resources, threaten the long-term sustainability of the health service. There have already been major changes in recent times to improve the safety and quality of patient care which may decline under pressures of resource and financing. This may mean that high quality services are not available to future generations. To healthcare providers need to look at how, why and where services are delivered as well as the assets (built or otherwise) needed to sustain the service. Then, in collaboration with the wider health economy, identify the most efficient way of delivering a quality service which is not detrimental to patient care without constraining the development and growth of healthcare providers. I believe that Turner & Townsend's experience leaves us perfectly placed to support healthcare providers, in the UK and around the world, on this journey.

不论高低贵贱，每个人都应该能够平等地享受到医疗服务。这就要求全球的卫生保健系统能够高效运行，并且通过以人为本的综合护理，关注重点的卫生需求。卫生保健领域必需能够应对未来的社会挑战，以及成本提升和有限的资金来源问题，这些都对健康服务的长期可持续性构成威胁。在资源和财政的压力下，病人护理的安全和质量会下降，近期已进行了重大转变，以改善这种情况。这就意味着未来几代人都得不到高质量的服务。医护服务提供者需要知道如何、为什么以及在何处提供服务，还要了解维持服务所需要的资产（已建或其他用途）。然后，结合更广泛的卫生经济环境，在不限限制医护服务提供者的发展和增长的前提下，发现可以提供优质服务（对医护不构成损害）的最有

效的方式。我相信特纳唐逊的经验会让我们在这条路上，很好地支持英国及全世界的医护服务提供者。

Having worked on health projects with a combined value of USD 3.95bn annually for the last ten years, and currently a combined experience and data net of 35bn. Being a truly global business means that all people and their families live and work throughout the globe and we want to make a real difference in increasing the world's ability to provide for its people.

过去十年间的卫生项目的总价值可达到每年 39.5 亿美元，目前拥有价值 350 亿美元的综合经验和数据网络。要成为真正的全球化企业，意味着所有人和家庭在全球范围内工作和生活，我们希望在提高世界为人们提供服务的能力方面做出真正的贡献。



Our understanding

我们的运作流程

In most countries, health systems are under enormous pressure caused by an ageing population, and the global financial crisis the impact of new technologies, escalating global workforce shortages and increasing consumer demands. These increased demands are evident in the healthcare environment; hospitals are running at near capacity for increasing periods of time, high bed occupancy rates, access block, extended elective surgery waiting times, overcrowded emergency departments and workforce shortages.

在大多数国家，卫生系统都面临着人口老龄化、全球金融危机和新技术影响的巨大压力，这加剧了全球劳动力的短缺，同时增加了用户的需求。这些增加的需求在医护系统里更为明显。由于治疗时间的延长、高床位占用率、通道拥堵、预约手术等待时间延长、急诊拥挤和人手短缺等问题，医院正以接近满负荷的状态运行。

Healthcare systems adopting new technology and changing models of care are in the process and planning and delivering new ways of working. They are providing new ways of managing chronic disease, of keeping people out of hospital through health promotion and prevention, at home

monitoring, electronic consultation or emergency outreach, and different ways of providing post hospital care such as community-based supports or step up/step down facilities are all being explored. In order to achieve these changes, frontline health staff need considerable support to deliver cutting edge health services by providing them with access to emerging technologies and optimal capital infrastructure.

医护系统正在采用新的技术，改变医护模式，并正在规划和实施新的工作方式。他们将提供新的慢性病治疗办法，通过健康改善和预防措施让人们不进医院，在家检测，电子咨询或紧急就医，并且正在研究提供后期医护的不同方式，如社区支持，增加/减少设施。为了实现这种变化，一线卫生人员需要很多支持，让他们掌握最新技术和成本最优的基础设施，提供尖端的卫生服务。

If you chose to work with Turner & Townsend our objective at every stage will be to develop solutions that maximise the value of your investments in these improvements. Key success factors for delivery of healthcare projects are:

如果您选择与特纳唐逊合作，我们会针对各个阶段开发不同的解决方案，使您在这些改进上的投资价值最大化。医护项目交付的关键成功因素包括：

- Understanding of working practice 洞悉工作实践
- Experience working funding regimes 深谙融资体系
- Familiarity with regulatory measures 熟悉监管措施
- Adherence to project governance 服从项目管理
- Robust definition of scope and requirements 准确地识别范围和要求
- Reducing capital, operational and maintenance cost 降低资金、运营和维护成本
- A culture of ownership within the delivery teams 交付团队的文化归属
- Effective risk management 高效的风险管理
- Cost, time and safety impacts of a live environment 成本、时间、安全对生活环境的影响
- Recognition of performance requirements 对业绩要求的认知



Our healthcare expertise

我们在医护领域的专业知识

The expertise we can offer you extends into every area of project delivery and service improvement, and we can add value for you at every stage of your project or business lifecycle.

我们能够在项目交付和服务改进的每个领域为您提供专业知识，并且能在项目或业务生命周期的各个阶段为您增加价值。

Full Design Team Services

一站式设计服务

We are able to offer clients a single Turnkey approach which encompasses a full range of services covering the design and management of construction and technology requirements for new builds, refurbishments and fit outs.

我们能够为客户提供一站式交钥匙服务，包括建筑工程及新大楼的技术要求的设计和管理、翻修和装修。

Collaboration

协作

We continue to work in collaboration with many of the world's leading Healthcare Architects, Engineers and Healthcare Planners, including:

我们与许多世界一流的医护设计师、工程师和医护规划师保持合作，包括：

- | | |
|------------------------------|--------------------|
| ▪ Fosters & Partners | ▪ Penoyre & Prasad |
| ▪ Richard Rogers Partnership | ▪ Arups |
| ▪ Hopkins | ▪ Mott McDonald |
| ▪ HKS Architecture | ▪ BDP |
| ▪ Devereux | ▪ Scott Wilson |

- RMJM
- Devereux
- MAAP
- Aecom
- RMJM
- Tribal Partnership

Estate Utilisation & Management

不动产开发和管理

Supporting managers in maximising the estate, providing asset utilisation assessments in conjunction with hard and soft facilities management procurement, and guidance through statutory compliance obligations.

帮助管理者将不动产价值最大化，提供资产开发评估和软硬件设备采购管理，并按照法定合规义务提供指导。

Cost Consultancy, Procurement & Market Testing

成本咨询、采购和市场检测

Comprehensive expertise including cost modelling, benchmarking, budget definition, cost management, value management/engineering and procurement support.

全面的专业知识包括成本建模、确定基准、制定预算、成本管理、价值管理/工程和采购支持。

Business Case & Estate Strategy

商业案例和不动产战略

Full support and management expertise to produce Business Cases and Estate Strategies to aid in the development of realistic and achievable property and intelligent technology solutions aligned with clinical need.

全面的支持和管理专业知识，创建商业案例和不动产战略，助力开发满足临床需求的，切实可行的不动产智能技术方案。

Project & Programme Management Consultancy

项目和方案管理咨询

Complete Project and Programme Management support and delivery using best practice methodologies including programme office, risk and opportunity management, communications planning and stakeholder management.

运用最佳实践方法完成项目方案管理的支持和交付，包括项目办公室、风险机会管理、通信规划和利益相关方管理。

Healthcare Strategy & Clinical Design

医护策略和临床设计

Supporting key clinical decision makers in strategic and organisational planning, healthcare planning, development of new initiatives, restructuring, service rationalisation and implementation planning.

在战略和组织规划、医护规划、新措施开发、重组、服务合理化和计划执行等方面为临床关键决策者提供支持。

Environmental Advice

环境建议

Comprehensive expertise covering global priority issues including climate change, carbon and energy efficiency, waste management, biodiversity and sustainability appraisal.

涉及全球重要问题的综合专业知识，包括气候变化、碳和能源效率、废物管理、生物多样性和可持续性评估。

Meeting the healthcare challenges

应对医护挑战

Adding measurable value to the benefits you gain from your investment is our absolute priority in every aspect of the service we offer you. Our specialist staff understands the issues within the health sector, and our

Life Science and Healthcare Statement 生命科学和健康领域陈述

teams are backed by all resources of our global consultancy to help you achieve results that exceed your expectations.

为您的投资收益增加可量化的价值是我们提供的各方面服务的重中之重。我们的专业人员了解健康领域的问题，我们的团队得到所有全球咨询机构资源的支持，帮助您实现超出预期的结果。

Expertise with understanding

专业知识

Working with Turner & Townsend, you will gain the support of a team of highly experienced project delivery and business improvement specialists, many of whom are former healthcare professionals. This means that you will achieve outcomes that have a long lasting impact and benefits to the facilities provided.

与特纳唐逊合作，您可以获得专家团队的支持，他们中的许多人以前都是医护专业人员，在项目交付和业务改进方面经验丰富。这意味着您获得的成果将对所提供的设施产生长远的影响和益处。

User Consultation

用户建议

User experience and knowledge is one of the advantages of any health care development, because users know the site, its constraints and opportunities. We are committed to regular user workshops as they are integral in creating and refining a facility that meets the needs of the staff and the requirements of the community it serves.

用户体验信息是医疗开发的一项优势，因为用户了解现场，清楚存在的问题和机会。我们定期举行用户研讨会，因为他们在构建和改善满足员工需求和所服务社区的要求的设施方面，起到了不可或缺的作用。

Commitment to innovation

致力于创新

You need to innovate to stay ahead. The procurement route adopted by the Client is probably one of the single most important decisions governing the way in which the development will be undertaken. It exerts considerable influence over the project team's ability to achieve a balance between the objectives of cost, time and quality and exceeding the Clients expectations.

只有创新才能保持领先客户使用的采购路线是影响开发实施的最重要的决策之一。这直接关系到项目团队是否能够在成本、时间和质量之间取得平衡，并超出客户的预期。

We have helped to pioneer all of the major new procurement methodologies in the healthcare sector, including PPP/PFI, and in the UK ProCure 21 and NHS LIFT. We will bring the same commitment to find the best ways to deliver the best possible outcomes from your project.

我们已帮助医疗领域的客户开创了所有主要的采购新方法，包括 PPP/PFI，还有英国的 ProCure 21 和 NHS LIFT。对于您的项目我们同样会能找到最好的办法，实现最佳的结果。

Our combined experience

我们的综合经验

We can offer you all the benefits of the experience we have gained helping to deliver a huge portfolio of healthcare commissions. In many cases this includes supporting major service change initiatives, working on projects ranging from estates rationalisations and Rural Primary Care facilities to the some of the biggest PPP/PFI hospital developments currently underway in Australia and Europe.

我们可以利用所获得的所有经验，交付大额资产的医护项目。通常包括支持重大的服务变革措施，以及澳大利亚和欧洲正在进行的不动产合理化、农村基层护理设施，以及一些大型的 PPP/PFI 医院开发的项目。

Design and Facilities Management

设计和设施管理

Good design may initially cost a little more in time and thought, although not necessarily in money. But the end result is more pleasing to the eye and more efficient, costs less to maintain and is kinder to *environment*.

好的设计在刚开始时可能会花费较多的时间和思考，不一定是更多的费用。但最终结果会更加赏心悦目，效率更高，维护成本更低，对环境影响更小。

90% of Directors of Nursing say that patients behave better towards staff in well-designed wards and rooms.

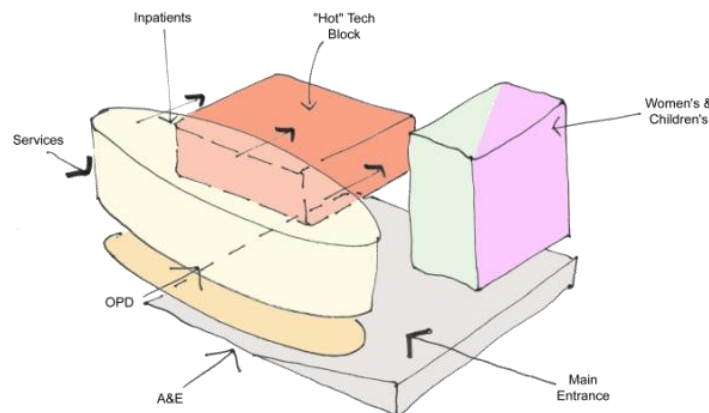
90%的护理主管表示在精心设计的医院和病房里，病人更加配合医护人员的工作。

74% of nurses say that the quality of the hospital buildings, setting and interiors make a significant difference when looking for a new job, rising to 84% for 18-29 year old nurse

74%的护士表示找工作时非常看重医院建筑、环境和内部的质量，而 18-29 岁的护士中的比例达到了 84%。

Value for money

物有所值



Securing value for money

资金保值

Change programmes and capital developments in healthcare are coming under increasing pressure from competing demands. The challenge is to deliver solutions that achieve optimum value for money, with the best balance of quality, cost and time. In delivery terms this means:

医疗保健的变革计划和资本发展正受到来自竞争性需求的越来越多的压力。问题在于交付的方案能否达到最优化的资金价值，实现质量、成本和时间的最佳配置。在交付层面，这就意味着：

- Health service networks operating across public and private providers, so that patients and consumers experience a comprehensive and integrated service;

提供跨越公共和私营服务的卫生服务网络，让病人和消费者体验全面综合的服务；

- Information systems enabling effective information sharing within service networks;

可以在服务网络中高效地共享信息的信息系统；

- Health infrastructure meeting demand in population growth areas

满足人口增长区域的需求的卫生设施

- Changes to health services based on evidence of what works well and what is sustainable;

基于运行良好且可持续的方案，改变卫生服务；

- Systems and processes monitor scope and compliance of clinical practices in health services in a comprehensive manner;

系统和流程全面监测卫生服务临床实践的范围和合规性；

- Technology supports remote service delivery and clinical practice;

可支持远程服务交付和临床实践的技术；

- Systems implemented that improve patient safety.

实施可提升病人安全的系统。

- Making a sound investment: Be efficient and effective, Be safe, Be flexible and adaptable, Be sustainable, Have resilient systems.

做出合理的投资：高效、富有成效、安全、灵活可变、可持续，具有弹性系统。

Making a sound investment through effective health planning

通过有效的卫生规划进行合理的投资

Effective health service planning provides clear direction for service development and resource investment and, as such, underpins the effective functioning of the health system. Because of its wide-ranging impacts, health service planning should not occur in isolation. Health service planning is the process of aligning health service delivery with changing patterns of need, making the most effective use of available resources. It involves:

有效的卫生服务规划为服务开发和资源投资提供了明确的方向，是卫生系统有效运行的基础。卫生服务的作用广泛，因此不应该孤立地进行规划。卫生服务规划是将卫生服务交付与不断变化的需求模式进行结合的过程，以便最有效地利用现有资源。包括：

- Analysing current and projected demand for health services within a given area
分析特定地区卫生服务的当前和预期需求
- Critically reviewing the capacity and existing arrangements for health service delivery and identifying key issues in terms of the ability to respond to changing patterns of demand
严格审查提供卫生服务的能力和现有布局，并发现在应对需求模式变化方面的关键问题
- Determining the kind of changes that are required to improve health service delivery so that those issues are addressed
确定改进卫生服务交付需要做出的改变，以便解决这些问题。

- Deciding how to make the best use of available resources to achieve those changes

决定如何充分利用现有资源来实现这些变化

- Setting an agenda for change, including defined service goals

制定改变日程，包括明确的服务目标

- Objectives and strategies

目标与战略

The investments you are making are crucial to your future, Turner & Townsend can provide you with the support of dedicated and passionate people who can deliver outstanding results for you.

您正在进行的投资对于您的未来至关重要，特纳唐逊可以为您提供全心全意和充满激情的支持人员，他们能为您带来卓越的成果。

Changing World

改变中的世界

A growing population-the world is changing fast. We are living longer, consuming more and increasing in population size. Today, there are seven billion people on earth, a figure predicted to rise to ten billion by 2100. The challenge of providing sustainable sources food, healthcare and medicines in the future is enormous.

世界正在发生日新月异的变化。我们的寿命越来越长，消费越来越多，人口规模也越来越大。当今世界共有 70 亿人口，到 2100 年预计会达到 100 亿人。提供可持续的食物资源、卫生护理和药品是未来所面临的巨大挑战。

Facing the challenge

应对挑战

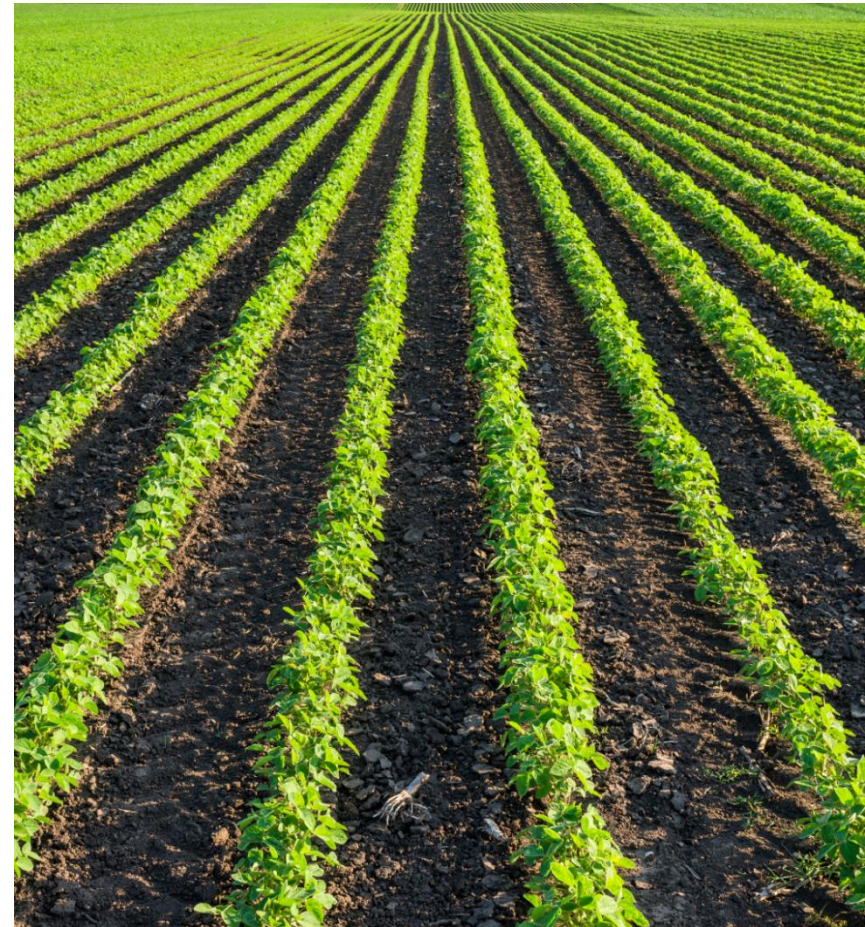
Life Sciences comprise the fields of science involving the scientific study of living organisms such as plants, animals and people. Our growing life sciences portfolio of clients encompasses many disciplines within the sector including pharmaceuticals, agribusiness, research and development, food science, veterinary science and healthcare consumables.

生命科学领域包括有关生命体的科学研究，如植物、动物和人。我们的生命科学领域的客户日益增长，分布于众多学科，包括医药、农业经济、研究与开发、食品科学、兽医科学和保健消费品。

Increased scientific complexity-there are in excess of 5,000 diseases for which there is no known cure, and not all patients respond to existing treatments. Improved science is needed at molecular level to create a better understanding of diseases and develop ways of improving the certainty of treatments. Rising consumer expectations-people everywhere are demanding a better quality of life, placing increased pressure on healthcare providers and scrutinising the predictability and value of medicines more carefully. Consumers want therapies that are clinically and economically superior, and they want data to substantiate it.

更加复杂的科学知识——有超过 5000 种疾病没有已知的治愈方法，而且不是所有患者的现有治疗都已见效。需要在分子级别进行进一步的科学研究，以便更好地了解疾病，并开发

出提高治疗准确性的方法。不断提高的消费者期望——世界各地的人们对生活质量的要求越来越高，这给卫生保健服务提供者带来了更大的压力，并且需要更加仔细地检查药物的可预测性和价值。消费者需要更加经济的临床治疗方法，他们需要数据来加以证实。



Life Science and Healthcare Statement 生命科学和健康领域陈述

An inflexible business model-most "big pharma" have traditionally done everything themselves, from research and development to commercialisation of products. Future prosperity will depend on an ability to improve productivity, reduce costs and tap into emerging economies. To achieve this resources must be optimised.

僵化的商业模式——多数“大型制药公司”一般都是独立完成所有工序，从研发到产品商业化。未来的繁荣将取决于提高生产率、降低成本和开发新兴经济体的能力。要实现这一目标必须进行资源优化。

Our understanding

我们的理解

Life Sciences comprises the fields of science that involve the scientific study of living organisms such as plants, animals and human beings. Our growing portfolio of Life Science clients touches many disciplines within the sector such as pharmaceuticals, agribusiness, research and development, food science, veterinary science and healthcare consumables. Changing stakeholder expectations, emerging markets, impending patent expiries and pressure from the generic market are all rapidly changing the pharmaceutical landscape.

生命科学领域包括有关生命体的科学研究，如植物、动物和人。我们的生命科学领域的客户日益增长，分布于众多学科，包括医药、农业经济、研究与开发、食品科学、兽医科学和保健消费品。不断变化的利益相关方的预期、新兴市场、专利即将到期以及来自仿制药品市场的压力都在迅速改变着制药业的格局。

As companies are looking to boost shareholder values there is a continuing shift in the markets with companies looking to increase growth the business portfolios are diversifying and realigning as drug pipelines shrink, competition increases and patents expire.

随着公司寻求提高股东利益，市场不断发生变化，而公司希望提高增长，由于药品渠道紧缩、竞争加剧和专利到期，业务组合正面临多元化和重组的局面。

To survive and thrive, companies have flexible strategies and innovative business models with movement between the pharmaceutical, consumer healthcare and medical nutrition sectors.

为了生存和发展，公司拥有灵活的战略和创新的商业模式，能够在医药、消费者医疗保健和医疗营养部门之间转换。

The asset strategies must also flex to support these changes and the increased drive to lower cost.

资产策略也必须灵活地支持这些变化和降低成本的压力。

Turner & Townsend has seen and resolved the asset related issues to help these business achieve their goals.

特纳唐逊已经发现并解决了与资产相关的问题，帮助这些企业实现他们的目标。

Some of the projects we have worked on include:

我们完成的项目包括：

- Novartis Zhangjiang research & development centre.
- NuSkin Shanghai PC Plant project
- Astra Zeneca Wuxi & SH project
- Johnson & Johnson Suzhou miles project.
- Johnson & Johnson safe pilot project.

We provide support at every stage of a project lifecycle, from strategic business and project delivery objectives to meeting the specific challenges.

我们在项目生命周期的每个阶段提供支持，从战略业务、项目交付目标到解决具体问题。

Changing asset requirements

不断变化的资产要求

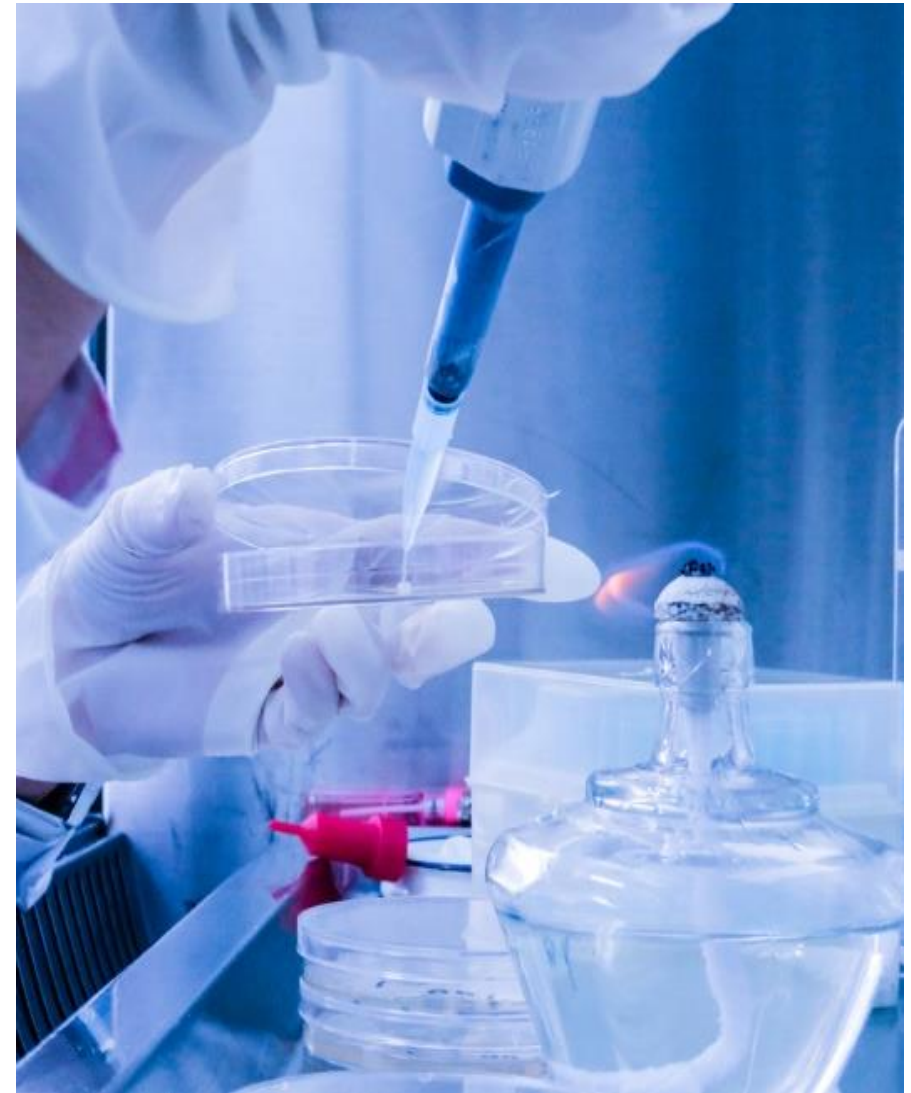
Patent expiry, rise of the generics, shifting regulatory demands, pricing pressure and biotechnology development have all impacted the life science industry's business model.

专利到期、仿制药的兴起、监管需求的转变、定价压力和生物技术的发展对生命科学产业的经营模式都产生了影响。

These pressures have a knock on effect on the Corporate Real Estate teams, creating issues such as:

这些压力对企业不动产团队产生了连锁效应，导致如下问题：

- Changing use of existing facilities. 改变现有设施的使用。
- Development of designs which meet the business plan in capital and whole life terms. 设计开发符合资本和整体生命周期的规划。
- Maximizing available funding to ensure affordability and value for money. 最大限度地利用现有资金，以确保负担能力和资金价值。
- Supply chain conformity with corporate goals, missions, values and ethics. 供应链符合公司目标、愿景、价值观和道德准则。
- Regulatory compliance, adaptation of best practice guidance. 遵守法规，采用最佳实践指南。
- Communication and reporting to suit stakeholder and funding agents' requirements. 通过沟通和汇报来适应利益相关方和资金代理人的要求。
- Management, procedures and processes which will guarantee delivery of the project on time, to the highest specified quality within the



available budget.管理、流程和过程能确保项目按时交付，达到可用预算内的最高质量规格

- Achieving a balance between architectural merit and functionality while providing effective and flexible design arrangements 在建筑设计价值和功用之间实现平衡，同时提供有效和灵活的设计安排
- Aligning individual projects within the wider corporate real estate and facilities strategy. 在更广泛的企业不动产和设施战略中调整单个项目

Typically these challenges have led to pharmaceutical organisations to respond with:

通常，这些挑战将导致制药机构作出以下回应：

- Business change programmes. 业务变更方案。
- Outsourcing of 'non-core' functions.外包“非核心”职能。
- Rationalisation of worldwide operations. 全球运营的合理化。
- Embedding operational excellence techniques such as lean sigma processes. 采用卓越运营技术，如精益西格玛流程。
- Prioritisation of capital expenditure and increased project justification scrutiny. 资本支出的分级，同时更加严格地审查项目的正当性。
- The introduction of line extensions, pack rationalisation and device development. 引入产品线延伸、包装合理化和设备开发。

Project implementation strategy

项目实施战略

Turner & Townsend has an established reputation for delivering life sciences projects, working with industry-leading companies based all over

the world. Our experience has allowed us to develop expertise in a variety of services, at any stage of project delivery. 特纳唐逊与全球的领先企业合作，在交付生命科学项目方面享有盛誉。在项目交付的任何阶段，我们的经验都能帮我们研发各类服务的专业知识。

Engineering 工程
Project Management
Design Review
Cost Estimating
Cost Validation
Schedule Preparation
Tender Preparation (engineering)
Change Control
Risk Assessment
专案管理
设计审核
成本评估
成本核算
时间安排
投标准备（工程）
变更控制
风险评估

Procurement 采购
Procurement Strategy
Tender Preparation
Tender Management
Expediting
PO Management/SAP
Contractor Negotiation
Contract Preparation
Risk Assessment
采购策略
招标准备
招标管理
催交
PO 管理/SAP
承包商谈判
合同编制
风险评估

Construction 建造
Project Management
Site Supervision
Cost and Schedule Control
Performance Reporting
Document Control
Contract Administration
Tender Preparation (CMV)
Claims Management
Change Control
专案管理
现场监督
成本和进度控制
执行情况报告
文件控制
合同管理
投标准备（CMV）
索赔管理
变更控制

Case studies

Johnson & Johnson Suzhou Miles



Client 客户

Johnson & Johnson 强生

Value 价值

RMB 42 Million
4.2 亿元人民币

Programme 工期

February 2012 – March 2012
2012 年 2 月到 2012 年 3 月

Client's requirements 客户需求

Johnson & Johnson wish to conduct a risk analysis to identify and quantify all key risks to construction and process installation of a new manufacturing and office building, this project also includes expansion works to a warehouse building, central utility building and other supporting area.

强生公司希望进行风险分析，以识别和量化新制造和办公楼的建设和流程安装的所有主要风险，该项目还包括仓库建筑，中央公用设施建筑和其他支持区域的扩建工程。

Our contribution 特纳唐逊的贡献

Turner & Townsend provided risk assessment service to this project, one of our senior consultants based in the UK visited China to work with our local consultants in order to incorporate global knowledge and best practice with China specific experience.

特纳唐逊为该项目提供风险评估服务，我们在英国的一位高级顾问访问中国，与当地顾问合作，将全球知识和最佳实践与中国特定经验相结合。

We fully understood that initial risk management workshops enable the development of a robust risk register, identifying the current level of financial and schedule risk exposure to this project, as well as identifying actions to potentially mitigate this level risk, in order to achieve this, we undertook:

我们完全理解，初始风险管理研讨会能够开发健全的风险登记册，确定当前的财务水平和计划风险，以及确定可能降低此级别风险的行动，为实现这一目标，我们承诺：

- Pre assessment evaluations with key members of the project team
与项目团队的主要成员进行评估前评估
- Attendance at a cost estimate review
参加成本估算审核
- Facilitation of risk identification workshops
促进风险识别研讨会

Johnson & Johnson Suzhou Miles

- Facilitation of cost risk assessment and schedule risk assessment workshops

促进成本风险评估和安排风险评估研讨会

- Production of risk registers

生成风险登记册

delivering such projects in China, from an initial design and approvals standpoint, right through the project implementation, hand over and occupation phase.

我们在这些项目上的项目管理经验使我们能够准确地说明在中国交付此类项目的相关风险，从最初的设计和审批角度，到项目实施，交接和占用阶段。

Making the difference 创造非凡的价值

Turner & Townsend were able to put real costs against risks to create a full picture relevant to risks and mitigating circumstances identified during the workshops.

特纳唐逊能够将风险投入实际成本，以创建与研讨会期间发现的风险和缓解情况相关的全貌。

We were able to do this from our experience providing cost management services on manufacturing projects in China, considering location, project similarities and like for like equipment and installations.

我们能够根据我们在中国制造项目提供成本管理服务的经验，考虑到类似设备和装置的位置，项目相似性等。

Our Project Management experience on these projects allowed us to provide accurate accounts of associated risks of

Case study

Oriflame Suzhou New Wellness Project



Client 客户

Oriflame Cosmetics (China) Co., Ltd
中国欧瑞莲美妆有限公司

Value 价值

RMB 42 Million
4200 万元人民币

Programme 工期

July 2013-Dec 2014
2013 年 7 月到 2014 年 12 月

Client's requirements 客户需求

The requirement for this project is driven by the growing market for wellness products and Oriflame's strategy to strengthen the market role globally. The new factory will serve as a global manufacturing center that supplies the wellness products to both locally to China and globally through Oriflame's distribution channels.

该项目的需求受到健康产品市场的增长和欧瑞莲加强全球市场角色的战略的推动。新工厂将作为全球制造中心，通过欧瑞莲的分销渠道向中国和全球提供健康产品。

The following four products will be manufactured in the new building:

新建筑将用来生产以下四种产品：

- Calcium tablets
- Hard Capsule
- Soft Capsule
- Protein Powder

The 2,852m² project is a one-floor workshop with a commitment to achieve both cGMP and Gold level of LEED 2009 NC.

2,852 平方米的项目是一个一层的研讨会，致力于实现 LEED 2009 NC 的 cGMP 和金级。

Our contribution 特纳唐逊的贡献

Turner & Townsend is engaged in the project as the Project Management and Cost Consultant to manage the whole project from the project conception through to completion, the scope covers:

特纳唐逊作为项目管理和成本顾问参与该项目，从项目构思到完成管理整个项目，范围包括：

Oriflame Suzhou New Wellness Project

-
- | | |
|--|--|
| <ul style="list-style-type: none">■ Programming
编程■ Developing URSs to comply with cGMP requirements, planning and managing validation works and supporting the GMP certification application process
开发 URS 以符合 cGMP 要求，规划和管理验证工作并支持 GMP 认证申请流程■ Managing all design stages
管理所有设计阶段■ Project budgeting and cost control
项目预算和成本控制■ Contractor procurement
承包商采购■ Construction management and acceptance management.
施工管理和验收管理。■ Planning the LEED realization approaches and managing the LEED application
规划 LEED 实现方法并管理 LEED 应用程序 | <p>background, Turner & Townsend has achieved significant project benefits through integrated approaches, including functional optimization and options analysis, building constructability and local material availability review with cost/benefit analysis.</p> <p>通过部署具有丰富经验和专业知识背景的利基目标交付团队，特纳唐逊通过集成方法实现了显着的项目效益，包括功能优化和选项分析，构建可构造性和本地材料可用性审查以及成本/收益分析。</p> |
|--|--|

Making the difference 创造非凡的价值

By deploying a niche target delivery team with strong experience and know-how

Case study

Johnson & Johnson Project Controls



Client 客户

Johnson & Johnson China
强生中国

Value 价值

Confidential 保密

Programme 工期

September 2013 – June 2014
2013 年 9 月 - 2014 年 6 月

Client's requirements 客户需求

Johnson & Johnson China required support to implement and manage project controls across a range of projects. The position required

强生中国需要在一系列项目中实施和管理项目控制的支持。

Our contribution 特纳唐逊的贡献

Turner & Townsend provided a secondees to work within Johnson & Johnson World Wide Engineering & Technical Operations department as an APAC project control director from Sep. 2013 to end of May 2014.

2013 年 9 月至 2014 年 5 月底，特纳唐逊作为亚太区项目控制总监，在强生全球工程技术运营部门内提供了借调人员。

Her responsibility is: lead the project control team including consultants to review Executive Summary Report monthly, produce WWE APAC projects portfolio list every 6 weeks, produce and maintain the cost plan for planning projects, support project controllers who work for individual projects, and facilitate Johnson & Johnson process for project control.

我们的的职责是：带领项目控制团队，包括顾问每月审查执行摘要报告，每 6 周制作一次 WWE APAC 项目组合清单，制定和维护规划项目的成本计划，支持为个别项目工作的项目控制人员，并为强生提供便利，对流程进行项目控制。

Involved Projects:

有关项目：

- SJJP Renaissance project SJJP
文艺复兴项目
- One J&J Shanghai project
强生上海项目
- Xian-Janssen Pharmaceutical Relocation project
西安杨森制药搬迁项目
- Suzhou Miles Project

Johnson & Johnson Project Controls

苏州万里行项目

- Guangzhou Bioseal QAQC LAB Project

广州 Bioseal QAQC 实验室项目

- Tokyo Science Center

东京科学中心

- JKKK Fuji Site Expansion Project

JKKK 富士网站扩建项目

- Tasmanian Extraction Capacity Expansion

塔斯马尼亚提取能力扩张

- One J&J Mumbai Office

强生孟买办事处

- Mumbai Blue Mountain Project

孟买蓝山项目

Making the difference 创造非凡的价值

Turner & Townsend's professional service help Johnson & Johnson manage to implement a range of projects on schedule and make sure all projects are in control.

特纳唐逊的专业服务帮助强生公司按计划实施一系列项目，确保所有项目都得到控制

Case study

AstraZeneca Taizhou Manufacturing Project



Client 客户

Confidential (European Pharmaceutical Company)
阿斯利康

Value 价值

Confidential 保密

Programme 工期

May 2014 – August 2015
2014 年 5 月到 2015 年 7 月

Client's requirements 客户需求

The project retrofits a newly built facility in Taizhou. The facility was designed and constructed to manufacture sterile products.

该项目改造了台州新建的工厂。该设施的设计和建造是为了制造无菌产品。

The existing building is a two storey with concrete structure frame building, and was constructed to house sterile fill finish operations using a strategy of ground floor for production space and 1st floor for technical services and laboratories. This project is internal retrofitting works in existing building which involves approx 7,304m² includes production area, warehouse area and sampling area on ground floor approx 3,697m² and laboratory area, office area on first floor with an area of 3,607m².

现有建筑是一幢两层混凝土结构框架建筑，采用底层生产空间策略和一层技术服务和实验室进行无菌填充完成操作。该项目是现有建筑内部改造工程，占地约 7,304 平方米，包括生产区，仓库区和底层采样区约 3,697 平方米，实验区，一楼办公区，面积 3,607 平方米。

The project is procured in multi-packages including one general contractor and over 10+ work packages for nominated subcontractors, suppliers and process equipment.

该项目采用多包装采购，包括一个总承包商和 10 多个指定分包商，供应商和工艺设备的工作包。

Our contribution 特纳唐逊的贡献

Turner & Townsend is appointed to perform cost and commercial management supporting services.

特纳唐逊被任命为执行成本和商业管理支持服务。

Commercial services performed include:

商业服务包括：

- Procurement strategy in order to accommodate the large number of packages and long lead items
采购策略，以适应大量包裹和长铅项目

AstraZeneca Taizhou Manufacturing Project

- Value engineering

价值工程

- Concept estimate

概念估计

- BOQ production and tender document for each of the work packages

每个工作包的 BOQ 生产和招标文件

- Tender process management, tender evaluation, report and final recommendation for each of the work packages

每个工作包的投标流程管理，投标评估，报告和最终建议

- Prepare questionnaires for tender clarifications and attend the tender clarification meetings

准备调查表以进行投标澄清并参加投标澄清会议

- Post contract administration including change control and management, work completed verifications and payment recommendations, cash flow projections, project cost reporting, final account settlements for each of the work packages

合同后管理，包括变更控制和管理，工作完成的验证和付款建议，现金流量预测，项目成本报告，每个工作包的最终结算

Making the difference 创造非凡的价值

Turner & Townsend established and implemented a robust change management process which allowed all consultants, contractors and the client to understand their roles and responsibilities in the process. This resulted in changes being assessed and agreed in a speedy and transparent manner.

特纳唐逊建立并实施了一个强大的变更管理流程，允许所有顾问，承包商和客户了解他们在流程中的角色和职责。这导致变化得到评估并以快速和透明的方式达成一致。

Case study

AstraZeneca Campus Project



Client 客户

AstraZeneca 阿斯利康

Value 价值

90m USD
9000 万美元

Programme 工期

2014-2017

Appointment duration 预计工期

2014-2017

Client's requirements 客户需求

The project comprises an additional standalone seven level commercial office building with an estimated 2750m² footprint for approximately 600 office employees, includes functions such as a cafeteria, clinic, fitness centre, meeting space and office space are not only sufficiently serving the needs of this new building but also demands from other buildings. Under the new office building, two levels underground basement parking space with an estimate GFA of 12,392m². Above ground estimate GFA of the new office building 16,108m²; a standalone Power Supply Bureau Switch Station building with an estimate GFA of 237m²; a new Guardhouse and Visit Centre with an estimate GFA of 101m²; alterations and/or extension to the existing central utility plant and other relevant services; external works including roads and landscaping.

该项目包括一个额外的独立七层商业办公楼，约 600 名办公室员工占地面积约 2750 平方米，包括自助餐厅，诊所，健身中心，会议空间和办公空间等功能，不仅足以满足这座新建筑的需求。但也要求其他建筑物。在新的办公楼下，两层地下室停车位，估计建筑面积为 12,392 平方米。地上估计新办公楼面积 16,108 平方米；独立的供电局开关站建筑物，估计建筑面积为 237 平方米；一个新的警卫室和访问中心，估计建筑面积为 101 平方米；对现有中央电厂和其他相关服务的改建和/或扩建；外部工程，包括道路和景观美化。

Our contribution 特纳唐逊的贡献

- Responsible for cost estimate for potential changes in construction stage of the project.

Work with cost control, package engineer from CM Company, QS consultant on the change estimate to clearly know the whole change story, ensure the necessity and accuracy of the change, follow change control process as stated in contract and some updates through half year change management experience.

负责项目施工阶段潜在变化的成本估算。

与 CM 公司的成本控制，包装工程师，变更估算的 QS 顾问合作，清楚地了解整个变更故事，确保变更的必要性和准确性，遵循合同中规定的变更控制流程以及半年变更管理的一些更新经验。

- Responsible for monthly cost report, VoWD etc. to support the project monthly reports.

AstraZeneca Campus Project

Review the Change Log updated by CM Company, to be familiar with and understand the all the changes to our project, update them into the cost report and VoWD report to reflect the latest cost status. Review the last month VoWD, compare to forecast, when needed, apply the mitigate method in time.

负责月度成本报告，VoWD 等，以支持项目月度报告。

查看 CM 公司更新的更改日志，熟悉并了解项目的所有更改，将其更新为成本报告和 VoWD 报告以反映最新的成本状态。查看上个月的 VoWD，与预测相比，在需要时，及时应用缓解方法。

- Responsible for commercial side of change management.

Lead the commercial team to execute and follow the change control procedure stated in the CM contract, work with CM cost control, engineer, QS consultant, GC and other subcontractors on change activities. Follow up from forecast change, potential change, COI, Variation Order to the final contract closeout commercially.

负责变革管理的商业方面。

引导商业团队执行并遵循 CM 合同中规定的变更控制程序，与 CM 成本控制，工程师，QS 顾问，GC 和其他分包商合作进行变更活动。从预测变化，潜在变化，COI，变更订单到商业最终合同收尾的跟进。

- Provide the capital ABU/RBU forecast for the project.

Work with schedulers from different parties to get the latest schedule plan, have a meeting with cost control, package engineer from CM Company to review if there any risk can be anticipated in the coming months, if there any pending or potential changes raised by contractor that even we don't believe it is a real change. When get these risks information put some contingency on the right month to cover them.

为项目提供资本 ABU / RBU 预测。

与来自不同方的调度员合作以获得最新的进度计划，召开成本控制会议，来自 CM 公司的包装工程师审查是否在未来几个月内可能出现任何风险，如果承包商提出任何待决或潜在的变更即使我们不相信这是一个真正的变化。当获得这些风险信息时，在适当的月份将一些意外情况包括在内。

- Responsible for post-contract administration including payment, change control, contract closure, etc.

Work with CM cost control, package engineer, QS consultant to assess payment value for some construction packages. Work with finance to follow, push and explain the payment status, when needed. Lead contract closeout process, review project final statement to check the committed content, value, warranty period, start date, chop, etc,.

负责合同后管理，包括支付，变更控制，合同关闭等。

与 CM 成本控制，包装工程师，QS 顾问合作，评估一些建筑包装的支付价值。与财务部门合作，在需要时跟踪，推送和解释付款状态。领导合同收尾流程，审核项目最终声明，检查承诺内容，价值，保修期，开始日期，印章等。

- Manage the 3rd party QS Company, and cost control works by CM Company.

Lead cost control works in the post-contract period, systematize and standardize the overall change control procedure, proactively work with QS consultant, and cost control form CM Company, provide the

AstraZeneca Campus Project

effective method when facing some contract dispute or different understanding on some commercial issues.

管理第三方 QS 公司，以及 CM 公司的成本控制工作。

领导成本控制在合同后期工作，系统化和规范整体变更控制程序，积极与 QS 顾问合作，成本控制形式 CM 公司，提供有效的方法面对一些合同纠纷或对一些商业问题的不同理解。

Making the difference 创造非凡的价值

- Fully integrated high cost control requirements into daily works to meet client's expectation
将日常工作中完全集成的高成本控制要求，以满足客户的期望
- Successfully managed cost within approved budget
在批准的预算范围内成功管理成本
- Timely advise PM the cost impact and risk point, provide some mitigation plans
及时告知 PM 成本影响和风险点，提供一些缓解计划

Case study

Johnson & Johnson Safe Pilot Project



Client's requirements 客户需求

This Pilot Facility is to produce product for registration, toxicity test and possible clinical trial material. It may also be used as a launch scale facility for certain products (commercial tendering only for ENDO Echelon and Linear Cutters).

该试验设施用于生产注册，毒性试验和可能的临床试验材料的产品。它也可以用作某些产品的发射规模设施（仅适用于 ENDO Echelon 和 Linear Cutters 的商业招标）。

Project costs will be revised with best available data with every complete update. All control budgets will be reviewed and confirmed, committed and actuals paid to date will be updated, and anticipated future commitments and predicted final costs will be reconciled. Change log and cash flow needs to be developed and maintained.

每次完整更新时，项目成本将根据最佳可用数据进行修订。将对所有控制预算进行审查和确认，承诺并更新迄今为止支付的实际费用，并协调预期的未来承诺和预计的最终费用。需要开发和维护变更日志和现金流量。

Client 客户

Confidential 保密

Value 价值

Confidential 保密

Programme 工期

2015 – ongoing
2015 年至今

Appointment duration 预计工期

2015 – ongoing
2015 年至今

Johnson & Johnson Safe Pilot Project

Our contribution 特纳唐逊的贡献

Cost Control:

成本控制:

Developed 21-tab cost reports and Executive Status Reports (ESR's) and update 21-tab project cost reports, track total (EPC, Owner's costs) commitments, expenditures and forecasts against approved project funding. Provided analysis to PD/PM for evaluation.

开发了 21 个标签的成本报告和执行状态报告（ESR），并更新了 21 个标签的项目成本报告，跟踪了已批准项目资金的总额（EPC，所有者成本）承诺，支出和预测。为 PD / PM 提供分析以进行评估。

Designed cost management system to minimize manual mistake possibly might happen in a spreadsheet and generate different reports for cost analysis.

设计的成本管理系统可以最大限度地减少可能在电子表格中发生的手动错误，并生成不同的报告以进行。

Developed Cost Breakdown Structure (CBS) for the project and this is the first project in JnJ using this method from the very beginning, which helps on identify the estimate into 21-tab and split by capital and expense, and sub categories.

为项目开发成本分解结构（CBS），这是 JnJ 从一开始就使用这种方法的第一个项目，它有助于将估算识别为 21-tab 并按资本和费用以及子类别进行划分。

Change Management:

更换管理层:

Designed the template and process for change management, and implement the budget change and commitment variation order, this helps to control the change on the budget and purchased value.

设计变更管理的模板和流程，并实施预算变更和承诺变更订单，这有助于控制预算和购买价值的变化。

Invoice Review:

发票审核:

Review all the invoices except the ones for Turner & Townsend in POET system to make sure the vendors/suppliers provide the right invoice and correct information, and make sure their invoices are compliant with the contract.

检查除 POET 系统中特纳唐逊的发票之外的所有发票，以确保供应商/供应商提供正确的发票和正确的信息，并确保他们的发票符合合同。

Procurement:

采购:

Review each purchase request before it was uploaded into procurement system – Ariba/SAP, identify the cost breakdown structure to make sure the purchase cost is against the right budget item.

在将每个采购申请上载到采购系统（Ariba / SAP）之前检查每个采购申请，确定成本明细结构，以确保采购成本与正确的预算项目相对应。

Johnson & Johnson Safe Pilot Project

Risk Management:

风险管理:

Helped with designing risk register, and make sure risk and change and variation can talk to each other, attend risk analysis before CAR submission and risk/opportunity analysis for contingency and escalation using Monte-Carlo method.

帮助设计风险登记，并确保风险，变化和变化可以相互交流，参与 CAR 提交前的风险分析以及使用蒙特卡罗方法进行应急和升级的风险/机会分析。

Provide input for the Independent Project Analysis (IPA) to measure where the project's level is for the performance in this industry and within JnJ.

为独立项目分析（IPA）提供输入，以衡量项目在该行业和 JnJ 内的绩效水平。

Making the difference

创造非凡的价值

Turner & Townsend made a pilot for Cost Breakdown Structure in their process to help for the cost control, identifying capital against expense, 21-Tabs, this was agreed by JnJ finance and was highly appreciated by the risk director James Lane.

特纳唐逊在他们的流程中为成本分析结构进行了试点，以帮助控制成本，确定资本与费用，21-Tabs，这得到了 JnJ 金融的同意，并得到了风险总监 James Lane 的高度赞赏。

Turner & Townsend developed the template and process for change management, this sets up a great support for documentation and audit, and is in implementation.

特纳唐逊开发了变更管理的模板和流程，这为文档和审计提供了很好的支持，并且正在实施中。

Case study

Merck New Manufacturing Campus China (NMCC)



Client 客户

Merck Life Science Technologies (Nantong) Co., Ltd
默克生命科技（南通）有限公司

Value 价值

EUR93,900,000
9390 万欧元

Programme 工期

Oct.2016-Oct.2018
2016 年 10 月到 2018 年 10 月

Appointment duration 预计工期

Oct.2016-Oct.2018
2016 年 10 月到 2018 年 10 月

Turner & Townsend

Client's requirements 客户需求

To strength and expand the market in China, especially satisfying the key global customer that has built a new factory in Jiangsu province, PRC. NMCC will deliver facilities for the production of Pharmacy Inorganic Salts (PIS), Cell Culture Media (CCM), and this project is a green field project involves typical Class A chemical reaction and secondary pharmaceutical progress.

为了巩固和拓展中国市场，特别是满足在中国江苏省建立新工厂的全球主要客户。NMCC 将提供生产药房无机盐（PIS），细胞培养基（CCM）的设施，该项目是一个绿色领域项目，涉及典型的 A 级化学反应和二级制药进展。

The new project is located Zhangjiang Road, Nantong, Jiangsu Province, with a gross floor area 44,414.43m².

新项目位于江苏省南通市张江路，总建筑面积为 44,414.43 平方米。

The key requirement from Merck is to manage the total project schedule, costs, buildings, utilities and non-key production equipment by project management consultant then they can focus on key production equipment, which is their know-how.

默克的关键要求是由项目管理顾问管理项目总进度，成本，建筑物，公用设施和非关键生产设备，然后他们可以专注于关键生产设备，这是他们的专业知识。

Our contribution 特纳唐逊的贡献

Turner & Townsend is to be appointed to provide overall Project Management Services for the, include:

特纳唐逊将被任命为其提供整体项目管理服务，包括：

- Work together with Owner to establish the initial project scope and get it approved by project steering board.
与业主合作建立初始项目范围，并获得项目指导委员会的批准。
- Work as Merck project team representative to manage, review and guide EPCM company Jacobs' work on daily basis.

Merck New Manufacturing Campus China (NMCC)

作为默克项目团队代表，每天管理，审查和指导 EPCM 公司 Jacobs 的工作。

- Review & approval design and tendering doc. Clarify issues raised from EDRI & Contractor or Suppliers. Trouble shooting of various specialized technical & commercial problems, ensure design quality and progress, audit/inspect key equipment manufacturing.

审查和批准设计和招标文件。澄清 EDRI 和承包商或供应商提出的问题。解决各种专业技术和商业问题，确保设计质量和进度，审核/检查关键设备制造。

- Bridging Merck European SMEs and EPCM and LDI for all technical communication.

将默克欧洲中小企业和 EPCM 与 LDI 联系起来进行所有技术交流。

- Manage the project scopes in continuous 持续管理项目范围

- Efforts during project implementation. 项目实施期间的努力。

- Develop the project master schedule integrating process, buildings and all important project works in details to direct the project implementation and coordination;

制定项目总体时间表，详细整合过程，建筑物和所有重要项目工作，以指导项目的实施和协调；

- Review regularly on schedule risks and take preventive solutions;

定期审查进度风险并采取预防性解决方案；

- Manage the cost in depth for buildings, utilities, non-key process equipment and cabling & piping works;

管理建筑物，公用设施，非关键工艺设备以及布线和管道工程的深度成本；

- Manage the project in Design Management, Construction & Installation Management, Acceptance and Handover;

在设计管理，施工和安装管理，验收和移交中管理项目；

- Provide recommendations and supports on the integration commissioning and performance acceptance of the entire production line.

为整个生产线的集成调试和性能验收提供建议和支持。

Making the difference 创造非凡的价值

By virtue of professional team, Turner & Townsend has successfully achieved project realization on BD stage and upcoming detail design phase at the 70%, and achieved some local government planning approval. T&T capture all the cost analysis and budget allocation. Balance cost and schedule. Delivery cost report and cash flow on time. Set up WBS and upload into SAP. Provide procurement strategy and solution to And T&T will continues to our service for next stage due to our past excellent performance.

凭借专业团队，特纳唐逊成功实现了 BD 阶段的项目实现和 70% 的即将到来的细节设计阶段，并取得了一些地方政府规划的批准。特纳唐逊捕获所有成本分析和预算分配。平衡成本和进度。交货成本报告和现金流量准时。设置 WBS 并上传到 SAP。提供采购策略和解决方案由于我们过去的出色表现，特纳唐旭将继续为下一阶段提供服务。

Why Turner& Townsend 为什么选择特纳唐逊

Through our unrivalled international experience, we are aware of the many complexities encountered when delivering healthcare projects. Working with an internationally diverse range of health providers, both public and private, we enable and facilitate strategies that are at the forefront of healthcare delivery.

凭借我们独树一帜的国际经验，我们十分清楚在交付医疗项目时遇到的许多复杂问题。我们与全球不同的公共和私人医疗服务提供者合作，支持和促进处于卫生保健项目交付前沿的战略。

We are able to offer insight and perspectives on current best practice. An example of where we can offer added value through our global reach is our involvement in the different procurement methods being adopted in the UK which have been adopted around the world:

我们能够提供有关当前最佳实践的洞见和观点。我们可以通过全球网络提高价值的一个例子是，我们参与了英国正在采用的不同的采购方法，这些采购方法已在世界各地采用

- ProCure 21
- NHS LIFT
- PFI/PF2

Turner & Townsend were involved with the ProCure 21 initiative from the outset, having advised UK NHS Estates in the preparation of the Principal Supply Chain Partners (PSCP's) bidding documentation, particularly in respect of 'best practice' partnering frameworks and whole life cost models.

特纳唐逊从一开始就参与了 ProCure 21 计划，在准备主要供应链合作伙伴（PSCP）的投标文件时为英国 NHS Estates 提供咨询，特别是在“最佳实践”合作伙伴框架和整个生命周期成本模型方面。

We have been appointed to provide project advisory services to a number of ProCure 21 schemes including pilot schemes and are developing a standardised approach that compliments, and interfaces with, the NHS Estates Project Toolkit.

我们被指定为包括试验性计划在内的许多 ProCure 21 计划提供项目咨询服务，并且正在开发一种标准化的方法，以便对 NHS 不动产项目工具包进行补充和配合。

Why Turner& Townsend 为什么选择特纳唐逊

Turner & Townsend have also been closely involved in the UK Government's NHS Local Improvement Finance Trust (LIFT) which presents an innovative procurement process for Primary and Social Care projects. This form of PPP brings together public and private sectors in a true partnership, delivering a framework of schemes.

特纳唐逊还密切参与英国政府的 NHS 地方改善金融信托基金（LIFT），该信托基金为初级和社会护理项目提供了一个创新的采购过程。这种形式的 PPP 将公共部门和私营部门结合在一起，提供了一种方案框架。

We have advised on a large number of major PPP schemes internationally, both for the public and private sectors. Underpinning all of the procurement methods are Gateway Reviews. These processes, developed by the UK governments OGC (Office of Government Commerce) are now being adopted worldwide. Turner & Townsends role in developing and implementing these methods gives clients the benefit of practical application of best practice on projects.

我们已为全球公共和私营部门的众多 PPP 方案 提供建议。所有采购方法的基础是网关审查。这些过程是由英国政府商务办公室（OGC）开发的，现已用于全球范围内的采购。特纳唐逊在开发和实施这些方法中所起到的作用，有助于客户实际应用这些最佳实践。

"Turner & Townsend has been exceptional in providing the necessary expertise to our project. Their extensive experience on health projects has been delivered an unparalleled service to us for over 20 years now."

Mater Hospital, Brisbane

特纳唐逊表现非常出色，为我们的项目提供必要的专业知识。这 20 多年来，他们在医疗保健项目上的丰富经验为我们提供了无与伦比的服务。

布里斯班 Mater Hospital

Our business 我们的生意

We are an independent professional services company specialising in programme management, project management, cost and commercial management and advisory across the real estate, infrastructure and natural resources sectors. 我们是一家独立的专业服务公司，专门从事项目管理，成本和商业管理，以及不动产、基础设施和自然资源领域的咨询服务。

With 108 offices in 45 countries, we draw on our extensive global and industry experience to manage risk while maximising value and performance during the construction and operation of our clients' assets 我们在 45 个国家设有 108 个办事处，利用我们广泛的全球和行业经验，在管理风险的同时，在客户资产的建设和运营过程中实现价值和绩效最大化



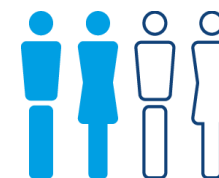
108

offices 办事处



45

countries 国家



5,209

people 人员



£549m

turnover 营业额



94

languages (including sign languages) 语言



1946

established 已完成

Our growth 我们的发展



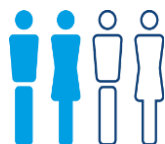
£549m

turnover 营业额



£56m

operating profit 营业利润



5,209

people 人员



Awards

获奖情况

Selected recent international awards include:

近期获得的国际奖项包括:

- **Construction Excellence SECBE Awards 2018**
Innovation Award
阿姆斯特丹创新大奖评选
- **ACE Awards 2018**
2018 年度 ACE 大奖
Best UK business performance for large firms
英国大型企业最佳经营业绩奖
- **MEED Awards 2018**
National Education Project of the Year
年度国家教育项目
- **Association of Project Management Awards 2018**
2018 项目管理协会奖
Project of the Year: Engineering, Construction and Infrastructure
年度工程: 工程、建筑和基础设施
- **Royal Institution of Chartered Surveyors Awards 2017**
2017 英国皇家特许测量师学会奖
Zoe King, Young Surveyor of the Year
Zoe King, 年度青年测量师
- **ACE European Awards 2017**
2017 欧洲 ACE 奖
Patricia Moore, Sterling Award
Patricia Moore, 斯特林奖
- **Building Awards 2017**
2017 建筑奖
Vincent Clancy, CEO of the Year
Vincent Clancy, 年度首席执行官
- **South African Planning Institute Awards 2016**
2016 南非规划研究院奖
Prestigious Planning Award, Ekurhuleni Or Tambo Aerotropolis Master Plan
杰出规划奖, Ekurhuleni Or Tambo Aerotropolis 总体规划
- **Qatar British Business Forum 2016**
2016 卡塔尔英国商业论坛
Organization of the Year
年度组织
- **Hong Kong Quality Building Awards 2016**
2016 香港建筑质量奖
Grand Award for High Standard of Quality for Hong Kong Housing Society
香港房屋协会高质量大奖
- **UK STEM Inspiration Awards 2016**
STEM Ambassador of the Year
Joanne Haskins, Birmingham
STEM 年度最佳大使
乔安娜·哈斯金斯, 伯明翰
- **The 9th South African Construction Awards 2016**
2016 第九届南非建筑奖
Women in Construction Pioneer of Innovation Award and Women in Construction Award, Noluthando Moloo, Johannesburg
建筑先锋女性创新奖和建筑女性奖, Noluthando Moloo, 约翰内斯堡

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DOCUMENT1

文件 1
