

**Contents**

02 2014 at a glance  
03 Introduction  
04 A responsible business  
08 Highlights & challenges  
12 Leaders in industry  
22 Extending our reach  
28 Leadership & innovation  
35 Stakeholder engagement  
36 Workplace management  
40 Our people based performance

# 2014 Sustainability Report

# INTRODUCTION Sustainability efforts are themselves only sustainable when they help enterprise grow and prosper

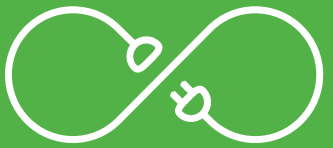







Patrick Bellew  
Principal

An ounce of hope is worth a ton of despair wrote the notoriously pessimistic George Monbiot in an article at the end of 2014. George's Damascene conversion seems to recognise that in an environmentally challenged world there is more to be gained by positive acts than there is to standing in the wings and complaining about the inactivity or failings of others. If there is one thing that I can say about my many colleagues at Atelier Ten without fear of contradiction, it is that they don't just stand around talking about how we can shape a more sustainable world, they are getting on and doing it.

Hope springs eternal and as we celebrate our 25th year of business, we continue to aspire to be a force for good, a force for change and a force to be reckoned with. We recognise our responsibility as custodians of a business that contributes to society in many different ways and we remain committed to being relevant and significant in an exciting and fast-changing world. Our purpose is clear – shaping a more sustainable world. It describes the work we do today, and guides our decision-making for tomorrow. To deliver on this purpose our business needs to continually innovate and invest, and also to make choices aligned with our values.

## 2014 At a glance

 <p><b>5%</b> <b>Power - Electricity</b> In 2014 we achieved a 5% reduction in electricity demand from the previous year</p>	 <p><b>38%</b> <b>Power - Gas</b> In 2014 we achieved a 38% reduction in gas demand from the previous year</p>	 <p><b>100%</b> <b>Production</b> 100% of our carbon emissions from project and office reporting are offset</p>
 <p><b>6%</b> <b>Recycling</b> In 2014 we achieved a 6% increase in the portion of materials recycled</p>	 <p><b>100%</b> <b>Paper</b> 100% of all office paper comes from recycled sources</p>	 <p><b>100%</b> <b>Travel</b> 100% of our carbon emissions from work related travel and staff commuting are offset</p>

From our earliest days, sustainability has been at the heart of our business. And as a business, we know that sustainability efforts are themselves only sustainable when they help our enterprise grow and prosper. Indeed, we believe this work must be not only integral to our mission but also inspire others, create value and make a difference. We know that we don't have all the answers or indeed, all the know-how. On the contrary, we believe that in a world of great challenges and even greater opportunities, we must work side by side with our clients and collaborators. Working together, we can unlock the power of collaborative thinking, making a much greater collective impact than any one organisation or even sector could hope to achieve alone.

2014 saw our full adoption and certification under ISO 14001 which is a very satisfying outcome to the hard work by many enthusiastic and dedicated colleagues. 2014 also saw a dramatic increase in the demand for our expert consultancy services from all parts of the world. I am optimistic that 2015, our 25th Anniversary year will increase this range still further as our newest offices in Sydney, Edinburgh, Singapore and Doha become established and deliver our services to a wider market. We will endeavour to do this as sustainably as possible, ensuring that our carbon impacts are not only managed but offset.

Thanks to all of the staff at Atelier Ten who have contributed to the content and preparation of our 2014 Sustainability Report, but particularly to those instrumental to our achieving the great result with ISO 14001.

Patrick



**How sustainable principles strengthen our business**

As building services and fire engineers, lighting designers and environmental design consultants, we are committed to using our skills and influence to improve the built environment and to maintain the integrity and quality of the natural and cultural environments in which we operate.

As such, we aim to apply the principle of sustainable development, meeting the needs of the present without

compromising future generations. Our environmental mantra is: '...doing more with less.'

At Atelier Ten, we integrate environmental best practice into our business activities while maintaining an appropriate balance between environmental and economic considerations.

Accordingly, our policy is to:

- apply responsible standards in areas not already covered

by existing laws and regulations

- respect the environment and emphasise every employee's responsibility to improve environmental performance
- integrate environmental considerations into all of our activities including considering the environmental impact of products and services in our purchasing decisions
- minimise our use of resources and wastage of materials as far as economically and practicably

possible, undertaking appropriate reviews to measure progress

- save energy through the monitoring of unnecessary use of energy sources and ensuring equipment is kept switched off when not needed
- share experiences with others to foster wider improvements within the community and communicate with our clients, collaborators and suppliers on environmental matters

**Delivering excellence**

Quality is a key driver for Atelier Ten and forms a fundamental part of our company ethos and mission. We have exacting quantitative and qualitative standards: these standards underpin everything that we do and form the basis of our quality assurance systems. Atelier Ten UK is an ISO certified company and operates an integrated quality and environmental management system that meets the requirements of ISO 9001:2008 and ISO 14001:2004.

**Minimising our carbon footprint**

We are a carbon neutral company committed to reducing our overall carbon footprint. We seek to reduce our carbon emissions and offset those that are unavoidable. Within our business operations, key focus areas for us include energy management and working with suppliers to improve their environmental performance, purchasing products with reduced environmental impacts and minimising transport-related emissions.

“The principle of materiality is essential in understanding sustainability priorities, it is used in decision making to define whether an aspect or issue is sufficiently important to warrant attention.”

For us, it's not just about getting better at what we do, it's about striving for the best, creating value for Atelier Ten and our clients and innovating for a better world.

**The importance of materiality**

To better understand the impacts of our business and prioritise the topics of interest to us and our stakeholders, we exert significant energy to identify and address the most material sustainability issues on a continual basis. As it pertains to our sustainability reporting

process, we perform a comprehensive evaluation of material aspects from one year to the next and make adjustments based on changes to our business, the marketplace, and insights collected through activities that foster stakeholder inclusiveness.

During the 2014 reporting period, we identified

numerous material topics that guide the content boundary of this Report.

The selection of specific sustainability aspects reflect Atelier Ten's economic, environmental and social impacts, with consideration toward how these aspects may influence the decisions and interests of the stakeholders we serve.



Photographs from Atelier Ten's London office at Perseverance Works

Our office management system ensures that all unnecessary lighting, heating, cooling and business machines are turned off or have built-in energy saving modes enabled. Our waste management policy observes the hierarchy of 'reduce, reuse, recycle and recover'. We also collect and recycle printer and toner cartridges, batteries, waste electrical equipment and old mobile phones which are managed through our supported charities. To improve the environmental impacts of our own purchasing policy for office supplies and materials, we have embedded environmental principles into our formal relationships with suppliers.

#### **Governance**

By defining our social, environmental, ethical and economic responsibilities and opportunities, we can be judged on how we perform. This ensures

we deliver on our commitments in a manner consistent with our values. We are committed to high standards of corporate governance and believe that effective practices are essential to business integrity, performance and accountability.

Our International Strategic Board leads our efforts to integrate sustainable thinking into our long-term strategic planning and daily activities. With members drawn from the UK, US and Australia, the Board drives our sustainability priorities and is accountable for developing goals and reporting progress.

#### **Health and safety**

The health, safety and well being of our people is critical to us delivering our strategic objectives and is a major constituent of our quality and environmental management system.

#### **Diversity and inclusion**

Our ability to deliver our business strategy while addressing environmental and social challenges depends on the quality and diversity of our people. We promote and support a diverse workforce at all levels.

It is our belief that creating a work environment that enables us to attract, retain and fully engage diverse talents leads to enhanced innovation and creativity in our designs and services.

We are an equal opportunity employer and base employment decisions on merit, experience and potential, without regard to race, colour, gender, sexual orientation, religion or age. We are committed to maintaining a work environment free from discrimination and harassment. Our challenge is to continue to build diversity across our business.

#### **Acting with integrity**

We expect everyone at Atelier Ten, wherever they work, to meet high ethical standards, and we want to do business with clients, collaborators and suppliers we can trust and who share our values. Our extensive framework of policies and systems to manage our responsibilities is well established and continues to evolve as we encounter new issues.

#### **Assessing risk**

It is our aim to manage risk so that we can successfully deliver our objectives, creating value while promoting the interests of our many stakeholders through the safeguarding of our assets and reputation. We have in place companywide risk management processes for the identification, evaluation, response and subsequent monitoring of risks that may

significantly threaten the delivery of our projects, revenue, profits, assets, reputation and long-term strategic aims. At a project level, we adopt rigorous assessment processes regardless of location. The performance measures detailed in our quality management system stipulate that in countries with high or extreme governance risk, proposed new activities that may expose us to a material risk issue, such as a reputation, legal or business conduct impact, are assessed to ensure a tolerable risk profile.

#### **Report scope**

This Report covers the full-year to 31st December 2014 and builds upon our Sustainability Report issued last year. The information contained within this Report relates to our offices in the UK (and US where data protection allows us to share information).

In line with UK-GBC recommendations, our reporting is prepared in accordance with the Global Reporting Initiative (GRI) G4 Sustainability Reporting Guidelines. The principles within GRI provide guidance to determine report content and quality in terms of materiality, stakeholder inclusiveness, sustainability context, balance, comparability, accuracy, timeliness, clarity and reliability. This Report is self-declared GRI level C.

#### **We value your feedback**

We welcome any questions, comments or suggestions that you might have about this Report and our performance. Please send your feedback to Nick Schofield at [nick.schofield@atelierten.com](mailto:nick.schofield@atelierten.com)

# HIGHLIGHTS & CHALLENGES

ISO 14001 certification is an important milestone in our long-term sustainability strategy. It's vital that we have formalised systems in place that support our role as a responsible contributor in the communities in which we operate and help us continuously improve what we do

In 2014 we made significant strides in our sustainability efforts culminating in ISO 14001 certification for our Environmental Management System. This followed rigorous surveillance at our Stage 2 Assessment by our UKAS approved assessment body DNV GL.

Our ISO 14001 certification has been calibrated to ensure that our business operations minimise negative impacts on the environment, comply with all applicable environmental regulations and implement a goal orientated culture of measurable self-improvement. Moreover, by creating an integrated quality and environmental management system (QEMS) we have embedded environmental significance into all our business actions.

It was reported that "there was a clear commitment to the provision of a quality service by all interviewed within the organisation during the Surveillance Assessment." We believe this indicates that the spirit and letter of ISO has been successfully imbued throughout all facets of our business.

We have formulated and articulated a plan to fulfill our Environmental Policy and developed support mechanisms and the capabilities necessary for us to achieve our objectives and targets. With a mandated instruction to continually improve our overall environmental performance, we have established measures together with an audit process to monitor and evaluate how we are doing with a view to always improving our efforts.

We believe that our quality management systems will bring added assurance and comfort to our clients and collaborators, in the knowledge that our quality assurance systems have been subject to robust independent examination.

Our Principal, Patrick Bellew said "I am thrilled by the acquisition of this latest standard. Since 2009 we have worked hard to develop and refine our approach to quality assurance for the benefit of all our clients and stakeholders. Knowing the greater appeal and cachet of these standards, I believe that they better reflect our resolute commitment to excellence for our clients. The timing could not be more prescient, given that we are entering an exceptional and exciting phase of development."

**Working within the 14001 Standard**  
Within the standard, environmental aspects are those elements of an organisation's activities, products or services that can interact with or have an impact upon the environment. Our Aspects and Impacts Register is a documented evaluation of the environmental significance of Atelier Ten's activities over which we can have an influence.

At Atelier Ten, our approach to 'significance' is somewhat unusual, in that we measure it in both negative and positive terms. Where negative, we are seeking to reduce the aspect as well as the significance of the impact on the environment. The reverse is true for positive significance, where we want to maximise the aspect and ensure a higher impact.

## Working with City Academy, Islington

We believe business has an important role to play in partnering with schools and colleges to raise ambition and achievement, improve performance and inform and inspire young people. At a time of high youth unemployment, businesses have a crucial role to play to boost the skills, aspirations and confidence of young people.

In 2014, we worked with City Academy, Islington to deliver a structured programme of activities that encourage and facilitate employability education within the school and develop and refine 'soft skills' within our staff. A significant cohort from our London office worked with students in Year 11 and above to help them recognise, identify and develop workplace skills that may help them in the future.

Through our mentoring programme, we worked with the students to provide guidance on university and college applications, CV building, writing cover letters and completing application forms. We also delivered an interactive workshop on interview techniques followed by a series of mock interviews with the best candidate receiving a two-week work placement with us. Given the success of these sessions our relationship with the Academy continues.

In 2015, we hope to introduce an extra-curricular club, based either around engineering or sustainability that will help primarily with team working skills, provide a different way of problem solving as well as help with CV development.



**Highlights and challenges from Atelier Ten US**

**Carbon neutrality**

Atelier Ten US is committed to providing a comfortable, pleasant working environment for its staff and is likewise committed to being as carbon-neutral as possible in terms of its facilities, operations, purchasing and policies.

In 2014, we continued to work closely with The CarbonNeutral Company to develop carbon reduction strategies including footprint measurement, establishing reduction targets and delivering carbon offset programmes. Our dedication to carbon neutrality results in an active participation from all staff.

Wherever possible, we reduce resource consumption, reuse, recycle or compost, take mass transportation or share transportation and practice sustainability in our daily routine. Each of the US offices have policies, procedures, and structures in place to enable this practice to become routine.

**Daylight observation**

Our US offices have highly energy efficient lighting systems that use long life high efficacy sources and advanced controls with occupancy sensors

and daylight responsive dimming. On average, our office lighting performs 25% better than the required energy codes.

In June, we participated in the National Daylight Hour event and joined hundreds of other organisations by turning off the lights in our office spaces for one hour, from noon to 1:00 pm. Supported by clear bright skies (in all office locations), we extended the 'Daylight Hour' across the remainder of the day in most areas of the office.

As a result, we won the Daylight Empire Award for having the most comprehensive portfolio participation between our offices in New York, New Haven, San Francisco and London.

**Climate march**

Our team is committed to sustainable design not only by developing better buildings, but through active participation in the movement to address the current climate crisis.

In September, our staff participated in the largest climate march in history by joining an estimated 400,000 people in New York City to advocate global action against climate change. This march came at a time when 120 world

leaders convened in the United Nations in New York to discuss the growing threat of carbon pollution.

**LEED Fellows**

Directors Mark Loeffler (in our New Haven office) and Claire Maxfield (in San Francisco) have been awarded one of the highest distinctions in sustainability, and have been named in the U.S. Green Building Council's 2014 Class of LEED Fellows. 48 LEED professionals were appointed through a peer nomination and extensive portfolio review process.

LEED Fellow, the most prestigious professional designation awarded by the Green Building Certification Institute, recognizes Claire and Mark's exceptional contributions to green building.

They now join LEED Fellows Nico Kienzl, Director of New York (Class of 2012) and Paul Stoller, Director of Sydney (Class of 2013), at one of only a handful of firms to have four LEED Fellows on staff.

**Service innovation**

We are committed to remaining at the forefront of global sustainability. Based on our observations in the marketplace and our understanding of the developments in building

capabilities, we have developed new services in order to drive innovation. Our verification service is more than a redefinition of traditional marketing and verification services: we have built new processes that bridge the gap between building design and operations. Likewise, our healthy buildings service, developed in conjunction with our toxicology staff, delivers a comprehensive approach to healthy buildings, including air, water, materials, lighting, daylight and views, comfort and active design.

**Social media**

Sharing knowledge is a key part of our ethos and business practice. We use social media to discuss with a larger audience more than our services: we share our passion for the environment. Starting a conversation on the environment, climate change, healthy buildings or innovative design is the first step to creating solutions.

We also understand that sharing knowledge through technology has a physical environmental impact as it creates data housed by large centers around the world that consume energy. We only share the necessary and fundamental knowledge in support of our mission to reduce our overall environmental impact.

**People's Climate March**  
The world's largest climate march took place in September 2014 ahead of the UN Climate Summit. In addition, there were over 2000 simultaneous global events, spearheaded from New York City.

Global dignitaries and Heads of State including UN Secretary Ban Ki-Moon, US Vice President Al Gore and New York City Mayor Bill de Blasio, were joined by actors and musicians including Leonardo DiCaprio, Edward Norton, Sting and Mark Ruffalo and over 400,000 fellow supporters. Following the march, exhibits, demonstrations and workshops were hosted by a variety of organisations around the City.



**People's Climate March:** Junko Nakagawa, Shivani Shah and Josef Abboud from Atelier Ten's New York Environmental Design Team



**Environmental management programs**

Our most significant impacts are the waste we generate and the energy we use. While these are adverse impacts our waste management procedure and energy saving programs have a beneficial impact on our overall performance.

- Moving and pre-treating waste program: this program reinforces the principles of 'reduce, reuse, recycle and recover'. By designating different storage areas for each waste type e.g. plastics, cardboard, glass,

cans and food waste, we are forced to think about waste and our relationship with it

- Managing waste electrical and electronic equipment program: this program ensures the correct disposal of electrical waste
- Hazardous materials and hazardous waste reduction program: under this program, hazardous material / waste is stored in a centralized, controlled area and screened and tracked for reporting purposes when ordered or ready for collection. This allows us to successfully

manage, distribute and dispose of light bulbs, batteries and toner cartridges

- Waste recycling program: the objective of this program is to achieve a 10% reduction in total waste from a 2010 baseline as well as generate a shift in production from waste to recycling. Each year we undertake a waste and recycling assessment in our London office. A log is kept to determine the average number of bags of waste and recycling produced each day over a two-week period. All data is normalised

- Energy conservation program (electricity, gas consumption): this program was established to ensure that energy consumption does not increase year-on-year, normalised per member of staff based on a 2012 baseline. We use online tracking via our energy provider. Monthly charts of energy usage allow to monitor usage and are posted on company notice boards

- Environmental compliance and audit program: this program was established to conduct annual internal and external environmental compliance audits to improve our overall compliance with regulations
- Toxic release inventory and reduction program: the program oversees the maintenance of our air conditioning units and ensures records are kept about the equipment, including service history
- Carbon management program: we are a carbon neutral company

and offset those emissions that are unavoidable. We use an approved UK Government Quality Assurance Scheme for Carbon Offsetting to ensure our offsets only go to certified carbon reduction projects. This requires an annual audit of all energy usage, travel to and from the office (commuting), all travel related to projects (domestic and international) and project logistics such as couriers, printing and freight

# LEADERS IN INDUSTRY

## Healthy buildings

The sustainable design community has recently turned its attention to the issue of “healthy buildings.” While this term has become common, it hasn’t been well defined. Following Atelier Ten tradition, we decided to add some rigor to this discussion. We embarked on a year-long research project to study the literature, define our approach, and apply our creativity to the critical issue of health.

We committed ourselves to three key principles: protect occupant health, promote occupant wellness, and prevent environmental harm. Protecting occupant health means removing active hazards such as toxins in materials, air, and water. Promoting wellness goes much further: it means creating spaces that are not just healthy but comfortable and delightful; spaces that support effective learning, working, and playing. Preventing environmental harm is the basis of all of our work. We believe a healthy building must improve environmental health as much as human health, by addressing on- and off-site ecological impacts. A healthy building must also go beyond its occupants to improve the health of everyone associated with the building down the supply chain, from construction workers to product manufacturers.

Towards this end, we identified seven design issues that are critical for healthy buildings: air quality; water quality; material assessment; lighting design; access to daylight and views; comfort, including visual, thermal, acoustic, and ergonomic comfort; and active design. We have deep

experience in many of these topics based on decades of work in the areas of daylight design, visual and thermal comfort, ventilation system design, and lighting design. Other topics are emerging based on current research, such as material assessment. We have created a new protocol for assessing health hazards in building materials based on the newest scientific literature and using emerging tools such as Health Product Declarations (HPDs) and the Declare program.

We have long believed that health and sustainability are interconnected, and both must be achieved together. Daylight design is one clear example. For the last two decades there has been a strong push for more daylight in buildings. Unfortunately this often led to over-glazed buildings where visual comfort was neglected. Occupants therefore took it upon themselves to make their environment comfortable: they put up blinds, taped paper to the glass, even used umbrellas as parasols to shade their workstations. All of these ad-hoc alterations blocked daylight, so the lights stayed on and the original purpose of the design - access to daylight and lighting energy savings - was undercut. Lesson learned: you must design buildings for both energy savings and occupant wellness, or you’ll end up with neither.

We can tackle these interconnected daylight and comfort challenges. We understand the interplay of space planning, building skin, interior design, lighting design, and occupant behavior. We can analyze daylight

access, energy savings, and visual comfort with the right level of detail at each phase of design. We can design alongside architects to optimize their facades, while communicating the benefits of better design to owners and occupants.

Material assessment shows the health-sustainable link in a different way. Most people are shocked to learn how few chemical components of building products are regulated. In the United States, of the 80,000 registered chemicals in the building product industry, only five are regulated. Manufacturers often don’t know the full list of chemical compounds in their products,

how they are made, or what harm they pose. These unregulated chemicals may pose health hazards alongside ecological ones, and no one has asked manufacturers to prove the safety of their products - to people or to the environment. This is an ‘environmental justice’ issue as well, because blue-collar communities centered around product manufacturing are exposed continually to these health hazards.

A precautionary approach is therefore warranted: let’s endeavor to avoid chemical hazards wherever possible, and not wait for industry to definitely prove harm. By finding alternative materials free from “red list”

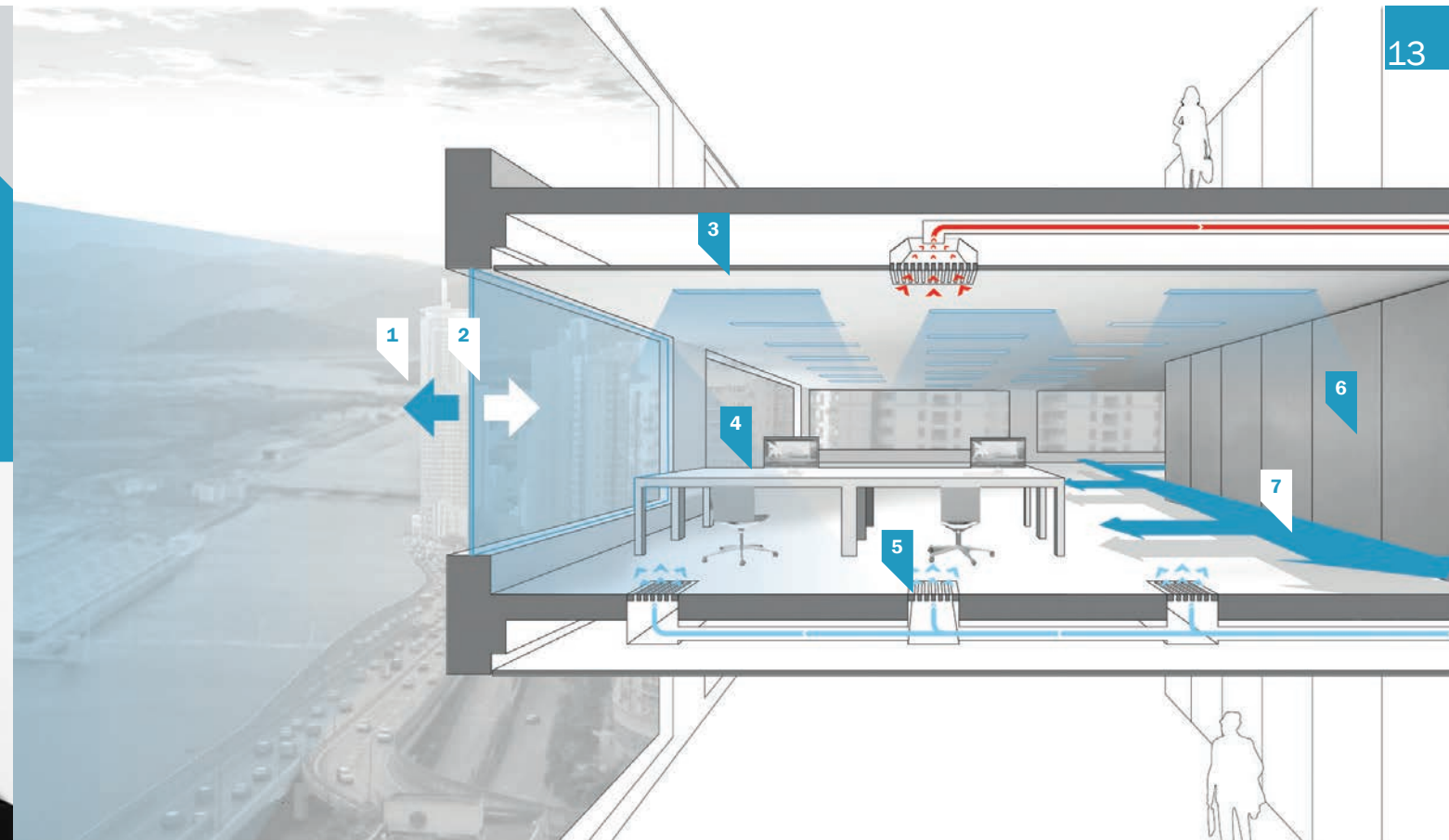
chemicals, we will reduce chemical hazards for occupants, manufacturers, and construction workers. We will eliminate the incentive to manufacture and dispose of these chemicals, which will limit their release into the natural environment.

We can do better. We can assess materials for chemical hazards and align our material choices with the values of each client. We can find alternative products, and in doing so improve the product library for each of our clients. We can use material transparency efforts to educate product manufacturers and advocate for market transformation.

Based on this work, we are now at the forefront of improving the health of people and communities in the built environment through innovative design strategies. Our team includes experts in toxicology, industrial hygiene, environmental health, building science, lighting design, environmental management, and building systems engineering who understand the relationship between the built environment and human health. We are committed to solutions that protect occupant health, promote occupant wellness, and prevent environmental harm. Join us.



**Claire Maxfield**  
Director  
San Francisco



- 1. Access to views
- 2. Penetration of natural daylight
- 3. Lighting levels
- 4. Active design of internal spaces
- 5. Air quality and circulation
- 6. Choice of materials
- 7. Ergonomically designed spaces

# LEADERS IN INDUSTRY

## Raising the bar for sustainable projects around the world

For more than two decades, Atelier Ten has been a leader in green building certifications, a practice that we have named 'benchmarking'. We see benchmarking as a force for change in the industry, because we have seen first-hand how it has motivated teams to do more. Benchmarking encourages project teams to aim higher on sustainability and to back up their performance claims with calculations and documentation. Perhaps most importantly, it has helped to carry the sustainable design vision all the way from concept design through construction, without the typical 'watering down' that occurs as the design gets finalised and value engineered.

Our clients' motivations for benchmarking are varied: commitment to the environment and the well-being of occupants; competitiveness with peers; improving team integration and quality assurance; education of occupants or the public; marketing and public relations; tax credits; expedited permitting; economic payback; and many others. Regardless of the motivation, benchmarking systems have helped us improve the sustainability of hundreds of buildings.

Atelier Ten's benchmarking roots lie in BREEAM and LEED, the two green building certification systems that jump-started the idea of benchmarking around the world. We've expanded beyond these initial systems and are

now working with an impressive list of programs for individual buildings and masterplan developments.

Atelier Ten's approach to benchmarking is not to take the easiest path to certification, but the one that best aligns with the project's true sustainability goals. We begin each project with a discussion of which of the many green design issues are most important for the project at hand and why. We then see how these values align with potential benchmarking systems, and with individual credits or points within those systems.

Over the years we've created a process for benchmarking that assesses progress early and often. As a result, each design team has the information they need to earn the highest possible rating. This often leads our projects to become certified at a higher level than they originally thought possible. The academic, arts, commercial and residential buildings shown are just a small sample of where this approach has succeeded.

As of Autumn 2014, Atelier Ten was proud to work on 108 projects that have earned certification.

As benchmarking systems become more prolific and more challenging, Atelier Ten looks forward to working with them to push our projects farther towards true sustainability.

## Benchmarking

### Building benchmarking programs

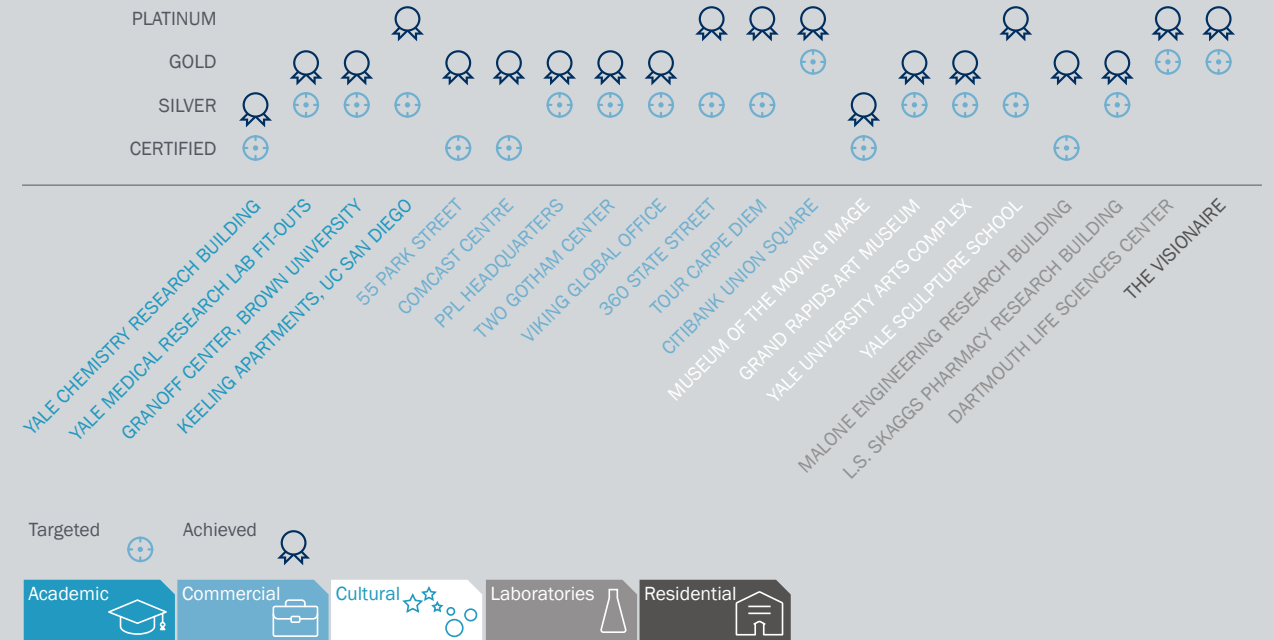
- LEED (BD+C, ID+C, O+M, Homes)
- BREEAM (Other Buildings, Multi Residential, Commercial and Public Buildings)
- Code for Sustainable Homes
- Living Building Challenge
- Net Zero Energy Building Certification
- Green Star (Design & As Built)
- NABERS Energy
- PassivHaus
- Architecture 2030
- AIA 2030 Commitment
- EnergyStar
- Labs 21
- WELL Building Standard
- Sustainable Sites Initiative
- GreenMark
- Thai Rating Energy Environmental Sustainability (TREES)
- Estidama

### Masterplans and communities benchmarking programs

- LEED-ND
- Green Star Communities
- 2030 Districts
- EcoDistrict Protocol

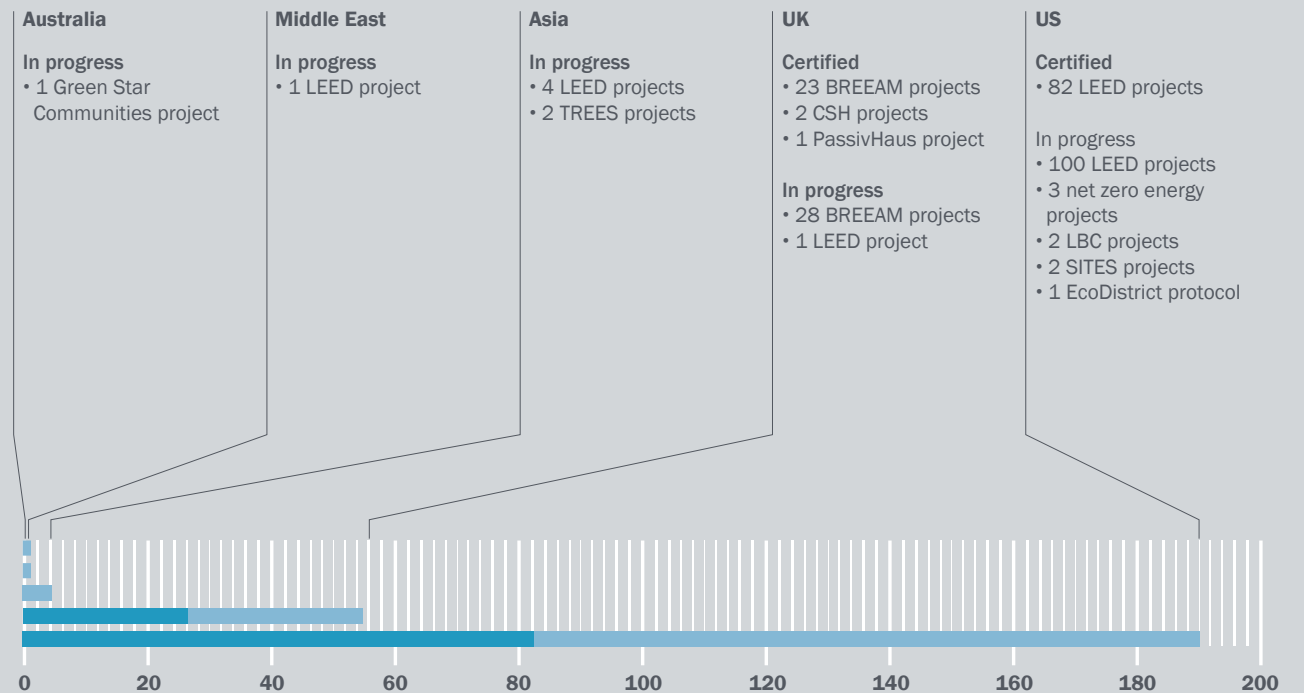
### LEED exceedance

Continually delivering projects over and above the original targets



### Atelier Ten global benchmarking record

International breakdown



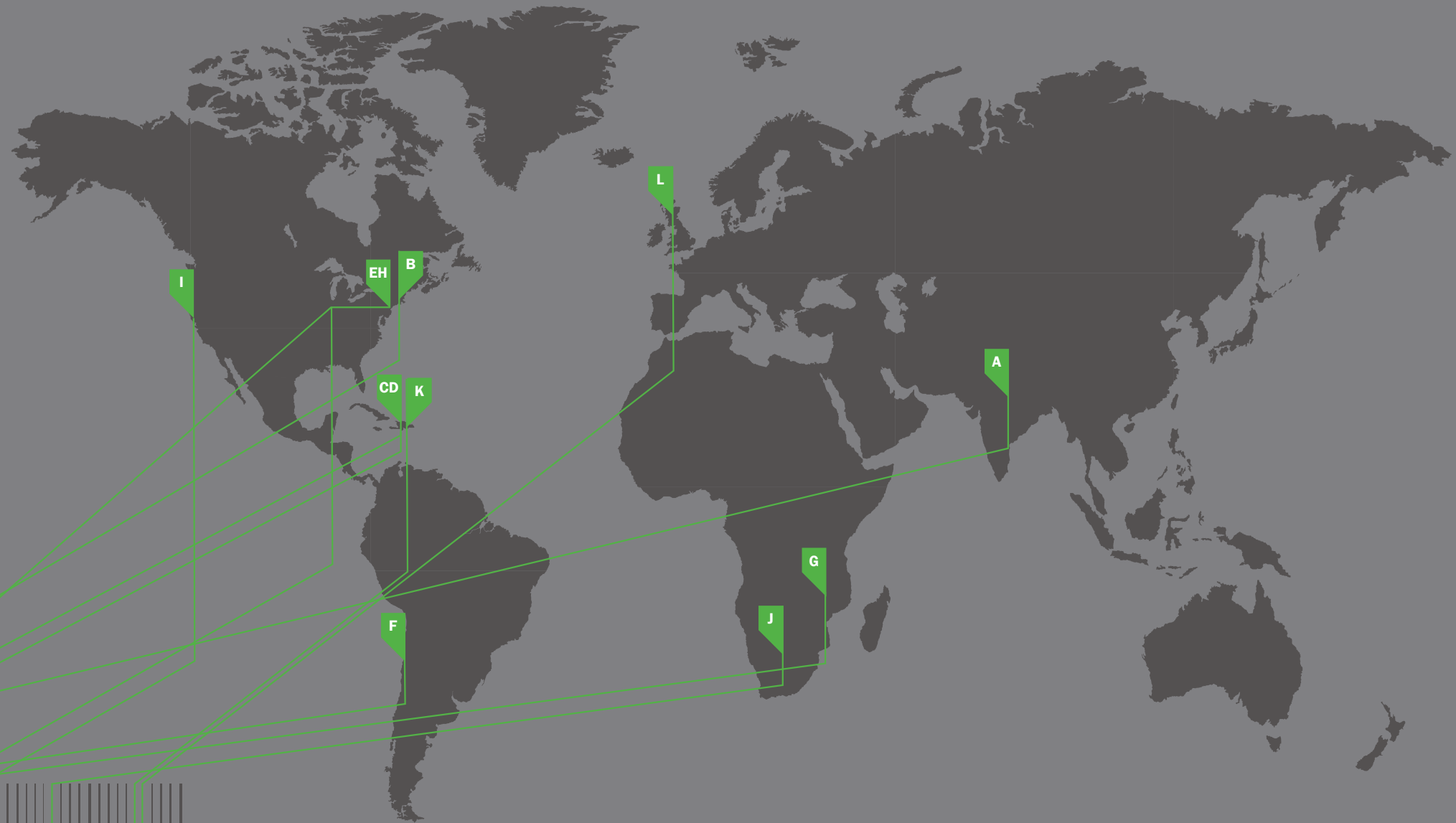


# ATELIER TEN FOUNDATION

## Inspiring others

At its most basic, we make buildings do more with less. For those living and working in regions and communities where resources are scarce, this can be life changing.

Through the Atelier Ten Foundation, set up in 2008, we reinvest a portion of our profits in support of employee initiatives that allow them to apply their skills in the wider world. This can mean lecturing, mentoring and training individuals, groups and communities about sustainability practices. It can also involve working with charities, communities and architectural partners to integrate sustainable strategies into a building project.



**A**  
**Himalayan Light Foundation, Nepal**  
 A grass-roots initiative installing photovoltaic lighting systems in rural Nepal

**C**  
**Roots of Development, Haiti**  
 Provision of a solar power system to feed lighting and computers within a rural community

**E**  
**Community Garden Bed-Stuy, New York**  
 A community greenhouse project in a neighbourhood at risk of diet related diseases

**G**  
**WaterAid, Mozambique**  
 An initiative with WaterAid to dewater human effluent for easier transport and disposal

**I**  
**Urban Tilth, California**  
 Installation of a portable water collection system to expand the farm's growing area

**K**  
**Labs Montserrat, Montserrat**  
 Development of the LABS Montserrat Charity, set up to protect indigenous flora and fauna

**B**  
**New Haven Farms, Connecticut**  
 D&B rainwater collection system for three urban farms to aid sustainable irrigation methods

**D**  
**Housing for HIV, Haiti**  
 Photovoltaics and water system design for a prototype scheme to care for HIV affected families

**F**  
**Conservación Patagonia, Chile**  
 Installation of an electric meter system in aid of making the grid more stable

**H**  
**Van Lease, New York**  
 A youth outreach program to train people for careers in the green economy

**J**  
**Launchpad, South Africa**  
 An eco module designed for children to access global internet mentoring and conferencing

**L**  
**Community Food Initiative, Glasgow**  
 Installation of a PV array to provide power to run courses and community events on healthy eating and well-being



# LEADERS IN INDUSTRY

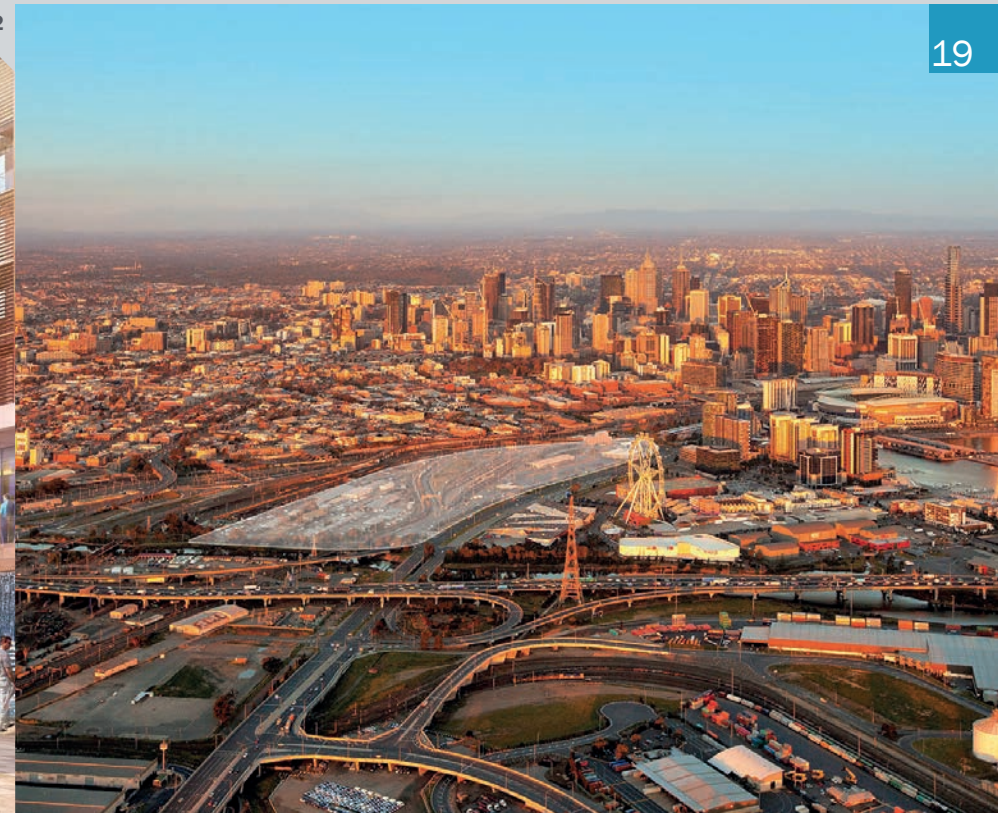
## Understanding the market in Australia

**Paul Stoller**  
Director, Australia

**1**  
The proposed development plan over the rail tracks at Eveleigh Precinct, Sydney draws the surrounding green spaces into the site creating a new and valuable link to the recreational fields

**2**  
Barangaroo, Sydney incorporates green spaces and water features throughout the commercial, residential and cultural quarters of this large regeneration scheme

**Main picture**  
The proposed E-Gate site in Melbourne is typical of the current demand for regeneration sites in Australia



An old cliché of New York City is that polite dinner party conversation rarely strays past sex and real estate. How wide-ranging that feels; in Australia, contemporary conversation is only about real estate. And this should be expected when property values across most sectors and in most regions of the country continue to soar, despite the otherwise slowing economy. Major population growth, plus significant international investment in the relatively safe haven of the Australian real estate market, have together kept the building market humming steadily.

In the past, this kind of growth mostly channelled itself into the sprawling edges of the nation's eight capital cities, where more than two thirds of the population live and work. But the many unsustainable aspects of this kind of sprawl, coupled with the renewed interest in genuine city life, have redirected development patterns in Australia - as they have in the US and the UK - back into underdeveloped areas within

the metros, especially those that offer transit access and walkable communities. While this trend has been underway for some time in Australia, 2014 might be characterized as the year when development - and sustainable design - attention definitively shifted from building to precinct and region scale.

Setting the tone for the year to come, in late 2013 the Green Building Council of Australia (GBCA) released the pilot version of their Green Star - Communities rating tool. Beyond the expected precinct-scale standards for ecological performance, the rating tool sets standards for governance, design, liveability, economic prosperity, and innovation. These topics, while critical to successful and sustainable community, had not previously been included as comprehensively in other district sustainability rating systems. Atelier Ten has been working with Lend Lease to apply the Green Star - Communities rating tool at Barangaroo South, a major waterfront redevelopment in central Sydney.

Bringing our extensive experience in guiding community and campus developments through other rating tool pilot programs, Atelier Ten helped Lend Lease more quickly evaluate the project, more confidently work with the GBCA to shape the tool in response to the project and more efficiently complete the certification process.

How timely the arrival of the Communities tool, as the property industries in Sydney and Melbourne - Atelier Ten's main two markets - spent much of 2014 responding to major urban redevelopment opportunities. In Sydney, the large projects include the Barangaroo Central Precinct (adjacent to Barangaroo South) and the Central to Eveleigh Precinct, which encompasses former rail yards and underused properties along the major railroad corridor into the city centre. Atelier Ten worked closely with international teams in pursuit of both precincts, helping integrate innovative sustainability strategies into the infrastructure, buildings and public realm of these projects. In Melbourne,

Atelier Ten began work on another railroad reuse project, E-Gate, which will extend the CBD and complete an underdeveloped corner of the city centre.

Complementing these development projects, 2014 also witnessed a surge in interest in resilience and climate change adaptation, again often at the community scale. Melbourne and Sydney joined the Rockefeller Foundation's 100 Resilient Cities programs and appointed Chief Resilience Officers; the State of New South Wales launched AdaptNSW, a major climate change mitigation program; and various major research programs tackled the challenges of increasing the resilience of the built environment to the substantial threats posed by climate change. Atelier Ten helped lead this discussion through talks at national conferences and in multiple smaller venues on Resilient Design and the lessons we learned from our earlier work on the NYC Resilience Task Force, and also through our work on the Resilience

Task Force of the Australian Sustainable Built Environment Council. Carrying these efforts forward, Atelier Ten has been charged by the Australian Institute of Refrigeration, Air-conditioning, and Heating (AIRAH) to develop that organization's Resilient Design education and engagement strategy in the first half of 2015, and we will begin serving a three-year term on a national task force to develop Coastal Climate Change Mitigation guidelines.

Even while working on individual building projects, much of Atelier Ten's efforts in 2014 focused on extending sustainable design thinking to the public realm: public plazas and lobbies - which inevitably include a hipster café slowly pouring flat whites - but also bicycle hubs and other end-of-trip facilities, and reactivated corners and cul-de-sacs. This focus on fine-grain, small-space activation is a particularly Australian approach to urban design, one pioneered in the highly successful population of Melbourne's laneways with bars, cafes, and restaurants over

the past decade. The prevalence of laneway thinking among Australian place makers, as urban designers and landscape architects now call themselves here, echoes the semi-serious tendency by their New York City peers to solve any urban activation challenge by proposing a new outlet of the Shake Shack.

Until recently one might have argued plausibly that Australian urban design begins and ends with the laneway, a scale that does not allow some of the most significant environmental infrastructure, water and energy systems especially, to be developed to full sustainable potential.

Happily, the plethora of precinct project work this past year suggests that future Australian development will increasingly be considered at the district, community, and even regional scale, allowing Atelier Ten and our peers to more effectively shape a more sustainable, and more urban, world.

# LEADERS IN INDUSTRY

## Collaborating with the Thai Green Building Institute (TGBI)

King Bhumibol Adulyadej proposes a philosophy of “sufficiency economy”; this principle underpins the sustainability market in Thailand. A market that has seen rapid transformation in the last five years. And since Atelier Ten opened an office in Bangkok in 2012, we have been adding our unique brand of creative engineering to the mix.

We are closely collaborating with the Thai Green Building Institute on developing a shell and core version of the Thai’s Rating of Energy and Environmental Sustainability (TREES). TREES is a sustainability benchmarking system, launched

for new construction buildings in 2009, created specifically for the Thai design and construction industries. Demand within Thailand’s new commercial developments for high performance and exemplar sustainability credentials has created a need for a shell and core version of TREES, which will launch in mid-2015.

I am serving as a member of the TREES shell and core committee which is charged with writing this new version. As a committee member, I bring Atelier Ten’s considerable experience of sustainable benchmarking and my own experience and knowledge

of the Thai construction industry to the discussions. I have contributed to the requirements for energy and atmosphere, indoor environmental air quality, as well as to the creation of a new pre-certification stage.

Pre-certification will require owners to declare performance targets for projects, which will be reviewed on site by a TREES Associate or Fellow, both during and after construction. This will help reduce the energy gap, and provide assurance to occupiers that aspirations for sustainability have been met. Incentives have been implemented by the Bangkok Metropolitan Authority to encourage

developers to target TREES certification; increases in the allowed ratio of total floor area to land area are available for projects that achieve TREES certification. In addition, key Thai government projects are now required to achieve a TREES rating of at least a Silver Level.

Our contributions to TREES are complemented by our prestigious and award-winning project work, which puts into practice the principles we are incorporating into the new version of TREES. We’ve recently been involved in the Magnolias Ratchadamri Boulevard, the ICONSIAM waterfront development on the Chai Phraya River,

and the Sindhorn Langsuan Complex in downtown Bangkok, part of Crown Property. In 2014, the Magnolias Ratchadamri Boulevard won the Best Residential Architectural Design at both the Thailand Property Awards and at the Southeast Asia Property Awards. We worked closely with the design team to develop a high-performance external shading system, resembling twisted petals, along with a high efficiency building system to create a comfortable indoor environment for the residents. Naturally, given our wealth of experience, the project was designed and constructed to meet both local rigorous environmental standards,

and we have targeted certification with LEED new construction.

With offices in Bangkok and Singapore, we are well positioned to capitalise on the newly created ASEAN Economic Community, which will open up free trade between 10 countries in Southeast Asia and bring us exciting new opportunities across the region. With this and the growing demand for sustainable developments in both public and private sectors here in Thailand, as well as the increase in the development of stringent building codes, we are very much looking forward to continuing to shape a more sustainable Southeast Asia.

**Naree Phinyawatana** DDES, MDDESS, M.Arch, LEED AP BD+C, HOMES, TREES-A Director, Asia



**1**  
Iconsiam Tower, Bangkok with Foster + Partners  
The waterfront complex provides mixed-use accommodation with a ground level podium for retail, a luxury hotel tower and an apartment tower

**2**  
Magnolias Ratchadamri Bangkok with Gensler/DI Designs International  
The sculptural Magnolias Tower is a high-performance complex for the Waldorf Astoria Hotel that overlooks the Royal Sports Club in the city centre



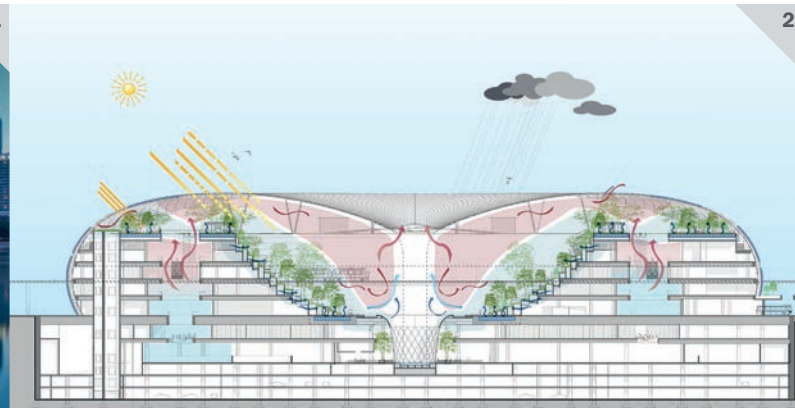
Thai Green Building Inst



1  
The Esplanade, Theatres by the Bay in Singapore's cultural quarter looks out across the bay



2  
Environmental section of the new building at Changi International Airport



3  
WAF 2014 - Atelier Ten Principal Patrick Bellew gives a television interview. The event provided the perfect backdrop for the 'soft launch' of Atelier Ten's office in Singapore



4  
The multi-award winning Gardens by the Bay



Henry Woon CEng MCIBSE, MSc, BEng, LEED AP BD+C Director, Singapore

## EXTENDING OUR REACH Singapore, our new base in Asia

Since the 90s, Atelier Ten has been a regular visitor to Singapore working on some of the island's landmark projects. Our first project was with Michael Wilford and Partners and DPA on the iconic Esplanade, Theatres by the Bay. We developed the unique high performance shading system which gives the building its recognisable 'dorian fruit' shape, helping it to become one of the landmarks of Marina Bay.

In 2006, our focus was on the multi-award winning Gardens by the Bay with Grants Associates, Wilkinson Eyre and Atelier One. Within our brief, we not only designed the zero carbon gardens and biomes, but also

delivered a 'zero carbon in operation' project for our client, National Parks of Singapore.

More recently, we have been working with Safdie Architects on Project Jewel, which will establish a large retail centre at the heart of Changi Airport. The building will have a total gross area of over 121,000m<sup>2</sup> of which 14% has been given over to internal gardens: a series of terraces carved into the building to provide enclosed green spaces for visitors. As a result, the project is dominated by a large glass roof and we were engaged to provide environmental design and analytical consultancy. Drawing on our considerable Singapore

experience and strong design capabilities, we employed thermal and daylight analysis and CFD modelling to optimise the environmental performance of the building to ensure energy efficiency and thermal comfort for visitors.

In China, we recently worked on the Living Lattice, a flagship building for the new £6bn Meixi Lake Eco City. This has been developed as an exemplar masterplan in low carbon design and innovation. Our continued engagement with major developers such as CapitaLand and Franshion on their high-profile development projects, will only serve to strengthen our position as a sector leader in the region.

In 2014, we decided to consolidate our position in Asia with the opening of an office in Singapore. The office, led by Henry Woon (from our London office) and Naree Phinyawatana (from our Bangkok office), allows us to capitalise on the success of Gardens by the Bay and create a foothold to serve the growing demand for our services in the wider region including Malaysia, Indonesia, South Korea and China. The office also forms part of a longer-term strategy to diversify Atelier Ten's geographical operations thereby minimising exposure to regional economic downturns.

We used the backdrop of the World Architecture Festival October 2014

to 'soft launch' the office. Our eye-catching stand at the three-day event at the Marina Bay Sand Expo, Singapore provided a great way to introduce our services to a wider local audience. And with support from Patrick Bellew, our Principal from London and Paul Stoller, Director from Sydney, the office had an auspicious start.

In addition, a launch party was organised at the roof top bar of the Scarlet Hotel, followed by a behind-the-scenes tour of Gardens by the Bay. Both events were very well received and we spent valuable time with people such as Moshe Safdie, Richard Roger, Ken Shuttleworth, Simon Allford

and Paul Monaghan, Nabil Gholam, Emre Arolat (Head of Architecture of the Qatar Foundation), Serena Hijas, Andrew Whalley and Paul Katz. Atelier Ten's exposure during WAF was terrific allowing us to reach out to potential clients worldwide.

While 2015 will be a challenging year for Singapore economically, the Asia Pacific region's economic outlook remains positive. Our strategic locations and diversified market are reasons to be cautiously optimistic about Singapore for the next twelve months. With this in mind, our newly opened office is in a good position to capture the opportunities that lie ahead.

# EXTENDING OUR REACH East meets west in Scotland



**Bill Richie**  
Director, Glasgow

The Glasgow Office enjoyed an exciting year of growth while developing a strong profile across a number of sectors.

The commercial and retail sectors enjoyed continued success by winning a number of new build and refurbishment projects. On the commercial office front, our building services team was engaged in the design of over a million square feet of office space with the majority of the space achieving an A rated EPC. Several projects secured BREEAM Excellent accreditations including the EnSCO office at Aberdeen Gateway. This business park is also home to a new 156,000 ft<sup>2</sup> warehouse and office facility for Total which featured air source heat pumps and photovoltaic array.

Our work was recognised on a number of occasions. Our refurbishment of the Art Deco former BBC Headquarters building in Glasgow was recognised by winning a British Council for Offices regional award while our fire engineering work at Notre Dame School in Glasgow won a Civic Trust Award.

2014 saw strong growth in our tertiary education portfolio undertaken from our Glasgow office. Repeat building services engineering commissions were secured at the University of St Andrews, the University of the West of Scotland and the University of Stirling while our fire engineering team secured their fourth contract for the University of Edinburgh.

We were delighted that Angus Roberts, who worked in the London office for a number of years, accepted an offer to start and lead a new office in Edinburgh with us. The new office on the corner of Hanover Street and

Rose Street is in the heart of the city and will offer us an opportunity to build on a growing reputation in Edinburgh which already spans hotels, retail and university work.

Our fire engineering team continued to grow in numbers securing some high profile work for the Theatre Royal and Citizens Theatre in Glasgow. Commercial activity was strong in Aberdeen where the team added value to no fewer than six major office developments. This was complimented by a number of school, residential, retail and a growing healthcare portfolio with work starting on new health centres in Edinburgh and Glasgow as well as the new pharmaceutical production facility at Nine Wells Hospital in Dundee. Healthcare refurbishment has also featured strongly with development at Monklands in North Lanarkshire and Raigmore in Inverness.

The broad range of experience and expertise of the fire engineering team is reflected in the diverse geography of our projects from the new Bee' Ah sustainable headquarters building in the United Arab Emirates to the refurbishment work for the Tricycle Theatre in London and the new Police Headquarters office in Durham. In the continual development of our fire engineering work, Atelier Ten's advanced computer fire simulation modelling now works in coordination with full BIM standards for projects with architectural REVIT models. Inputting directly into the fire modelling allows for exact replication of the building in fire simulation and evacuation, which further increases the level of fire safety in the building while helping to eliminate over provision through generic application of standards.

One West Regent Street,  
with Ryder Architects

# EXTENDING OUR REACH

## Cementing our Middle East foundations in Qatar

Atelier Ten have been active in the Middle East for over 20 years having completed some high quality projects in Kuwait, the UAE and more recently Qatar. In addition, we have been working with Qatari Diar for the past four years on a significant project in London, Chelsea Barracks.

A site office was established in Doha in 2012 to provide technical support for Phase 3 of the Msheireb Downtown Doha (MDD) project with three Atelier Ten staff members. More recently, we were appointed to design a new 6\* hotel project in Lusail with Zaha Hadid Architects. The UK-based design team has been visiting Doha regularly to support local staff members with the local authority submissions and attending the various technical meetings on site which has been most beneficial. We are also in the detailed design stages for Bee'ah Environmental Headquarters in Sharjah, Abu Dhabi which will require local attendance. With the possibility of an increasing workload in the region, setting up a local office became an attractive proposition.

The market and client demand for high-performance green building design in Qatar is on the increase and the Qatar Green Building Council is at the centre of a mini-revolution in the uptake of green building ideas and systems. As a result of our Gold Leaf level involvement in the UK-GBC and association with the World Green

Building Council, we hope to establish strong links with the Q-GBC. Qatar, with a forecast GDP of 5.4% for 2014 and a country that enjoys the highest per capita GDP in the world, has embarked on a vast spend to move the country towards a non-hydrocarbon economy. Generally insulated from public unrest like other countries in the region, government spending for 2013/14 is reported to be QR 210bn (US\$ 57.8 bn). While the exposure of the World Cup and other global events brings focus on Qatar there is an increasing pressure for new buildings to be delivered in line with international environmental best practice. We hope to pursue such opportunities which would be possible with a local office and a more permanent senior presence in Qatar. We therefore resolved in 2014 to establish an office in Doha in early 2015 to serve the region while supporting the MDD project due to complete in 2016.

The influx of global brands to Qatar brings with it a heightened sense of corporate social responsibility that increasingly is audited and tracked for international businesses. All of which presages a more sophisticated approach to the business of environmental design and performance. This is an area where Atelier Ten has been leading the conversation, or at least responding to the conversation for a long time.



**Anuran Wickramasinghe**  
Director, Middle East



- Our regional services:
- Environmental Design
  - MEP Engineering
  - Masterplanning and Infrastructure
  - Strategic Sustainability Consulting
  - Advanced Energy and Fluids Modelling
  - Lighting Design
  - Fire Engineering
  - Audits and Peer Reviews
  - Benchmarking (GSAS, BREEAM, CSH, LEED, Estidama)



- 1 Qasr Al Muwajji Research & Exhibition Centre, Al Ain UAE
- 2 College of Art, Kuwait
- 3 Bee'Ah Environmental Headquarters in Sharjah, UAE
- 4 Visualisation of Phase 3: the redevelopment of Doha, Msheireb Downtown, Qatar
- 5 On site at Msheireb where Atelier Ten are providing engineering services across Phase III

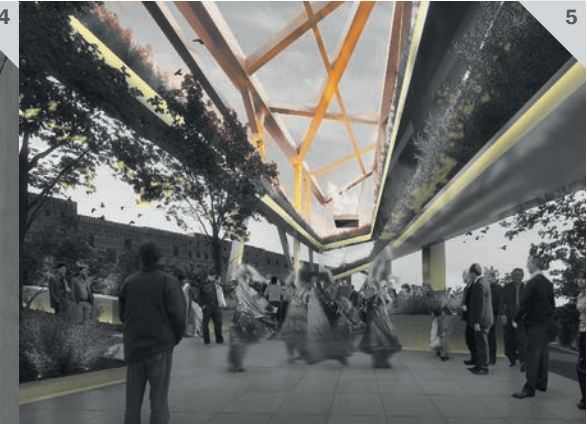
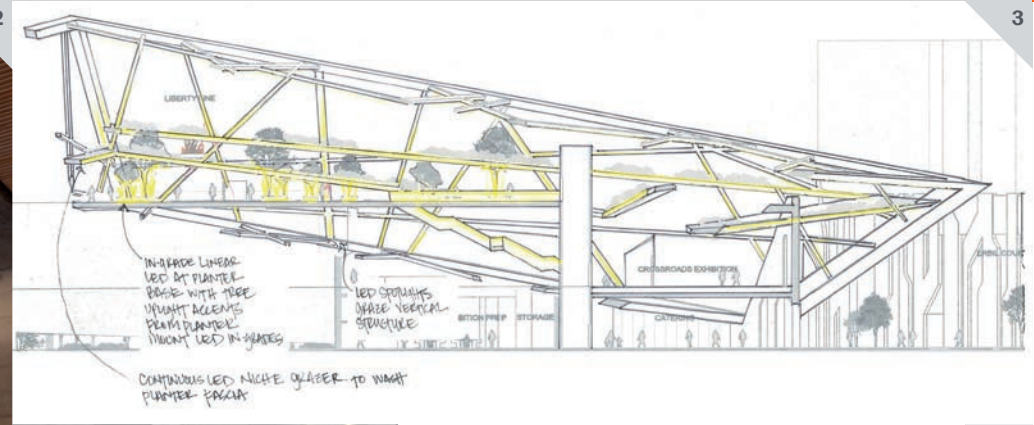
**Mark Loeffler**  
Director, New Haven

**1**  
Audi's retail space in west London is the UK's largest showroom

**2**  
National Theatre entrance foyer to the Dorfman Theatre extension. London

**3**  
Kurdistan National Museum, concept design sketch

**4 & 5**  
Kurdistan National Museum, concept visualisations



## LEADERSHIP & INNOVATION Base zero lighting design

Recently, I needed to consult our jumbo copy of The Lighting Handbook, 10<sup>th</sup> Edition by the Illuminating Engineering Society. It is almost four inches thick and weighs about 10 pounds. It is the accumulated knowledge of the organization that dubs itself 'The Lighting Authority.' It is impressively massive and cumbersome, ironically not a 'handbook' at all.

It is also a metaphor for how lighting design is typically practiced. Conventionally, the emphasis has been on making buildings attractive. This has driven lighting designers to an approach that endeavors to maximize the lighting budget and energy allowance to create beautiful, photogenic architectural compositions while meeting standardized illuminance targets. As energy codes have become more stringent, designers who start with a 'maximum

energy' approach will always be resentful of energy codes as a creative constraint.

Instead, we apply a different design philosophy that comes from the opposite direction that I have dubbed "Base Zero Lighting Design." This means we start from scratch and build up a lighting system from baseline darkness. By beginning from zero light (and zero energy consumption) it is possible to develop a lighting design that serves the visual experience for the building occupants while using the least amount of equipment and energy consumption. By understanding the purpose of the building and the visual needs of its occupants, a designer can start by optimizing daylighting and task lighting, before adding accent lighting and ambient lighting, then finally a judicious application of decorative lighting. By lighting for people first,

then for architectural effect, we can clearly prioritize design strategies. By treating light as a precious environmental resource, the fewest but most effective light sources, luminaires, and controls can be selected for the specific project, contributing to the 'dematerialization' of high-performance buildings.

This approach returns to the basics of building illumination before the advent of electric lighting. It is rooted in a fundamental understanding of 'natural' daylighting, supplemented by 'artificial' architectural lighting. The human visual system is very accommodating. We can adapt to 100,000 lux of sunlight and 0.1 lux of full moonlight and everything in between. We naturally prefer a variation of luminance patterns over uniformity. We tend to like lighting of vertical planes to delineate interior space. Daylight is free, but must

be treated with respect. Windows and skylights are not just simple openings in walls and ceilings. Daylight dynamically combines direct sunlight, indirect skylight, and diffuse cloudy light. It continually shifts – predictably by location, date, and time and unpredictably by climate and weather. Reflective interior finishes and smart space planning improve the effectiveness of daylighting and architectural lighting systems.

By clustering similar visual tasks and taking advantage of perimeter fenestration, lighting can be most efficiently organized and controlled. The smart selection of light sources and luminaires can provide suitable intensity, direction, diffusion, and color to supplement daylight during daytime and to create desirable visual environments after dark. New solid state luminaires and digital lighting control systems make this integrated

design approach more feasible, affordable, and intuitive than ever before.

While this approach may seem obvious, it is sufficiently intriguing for me to be invited to speak at Lightfair in New York City in May 2015 on the topic. I will explore the design opportunities and challenges to putting this philosophy into practice, correlated with green building benchmarking programs and energy code compliance.

# LEADERSHIP & INNOVATION Lux lighting awards 2014: Office and Workplace project of the year

**Jonathan Gittins**  
Head of Lighting, London

**1**  
Environmental section through the building showing the impact of artificial light fittings

**2**  
Low hanging pendant lighting in the double height cafe area provides ambient light when required. A brise soleil fitted to the exterior of the glazed facade prevents glare from direct sunlight and provides significant heat gain reductions

**3**  
Large glazed rooflights running the length of the building bring ambient light into the office areas. The large lightwell ensures that daylight reaches deep into the ground floor

In securing BREEAM Outstanding for the Living Planet Centre, WWF achieved their ambition of using smart design, materials and technology to create a state-of-the-art building with minimal environmental impact. While the curved timber 'diagrid' roof with embedded skylights maximises natural light throughout the building, the lighting scheme was conceived to compliment the stunning architecture. At 5.5W/m<sup>2</sup>, the installed lighting load is considerably lower than a conventional office: this was a significant contributor to the 90.66% BREEAM pass mark.

A key challenge was lighting the open-plan office space at podium level. Pendants clashed architecturally with the clean lines of the curved diagrid roof, which restricted the lighting to a limited number of positions within the diagrid itself. By modelling the space and working closely with the Architect, recessed downlighters emerged as the solution meeting both light requirements and integrating seamlessly with the curved architectural timber roof.

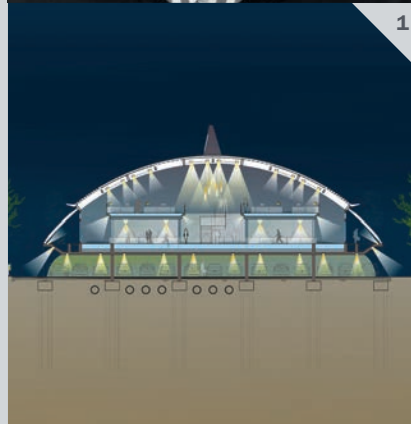
At the time of design, current LED technology could not provide the required lumen package, so compact fluorescent was used: to help future-proof the building, fittings allow for upgrade to LED once technology permits. Bespoke inclination adaptors were developed to match the varying angles of the curved ceiling ensuring

truly integrated lighting within the diagrid. LED up-lights mounted at the springing point of the ceiling provide a soft wash to the diagrid at night.

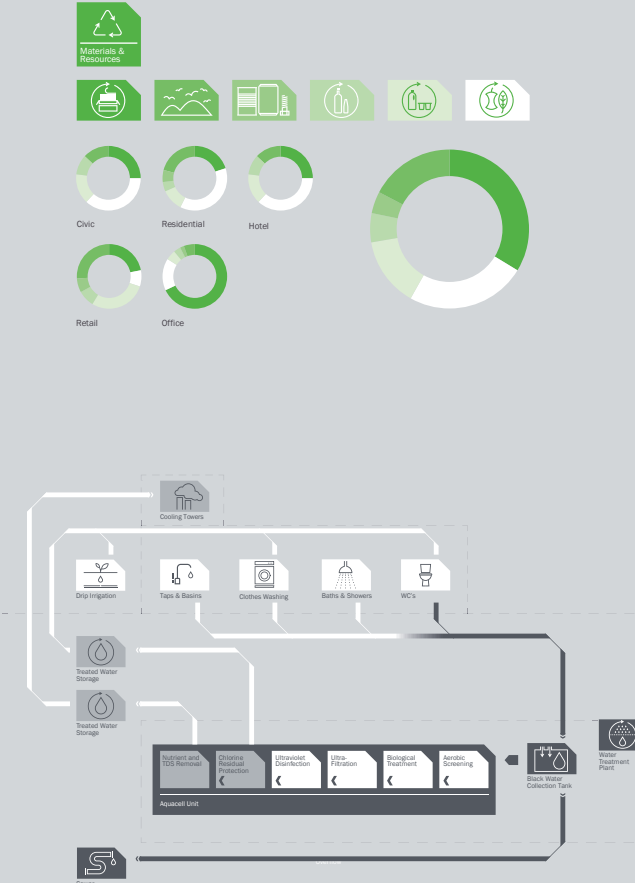
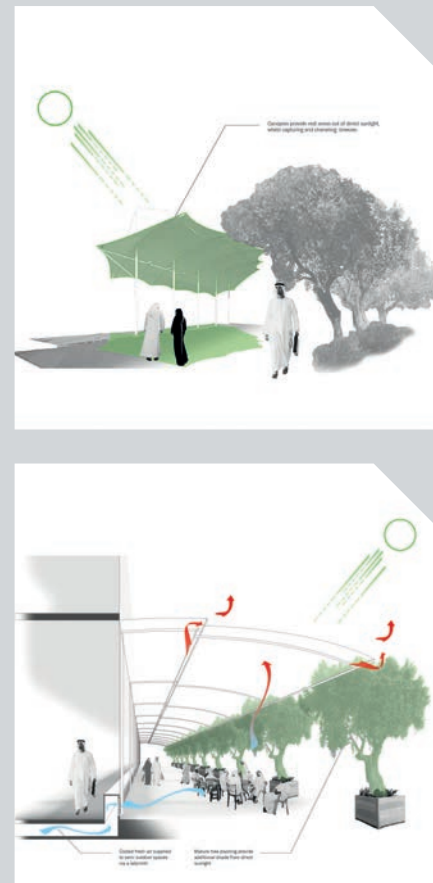
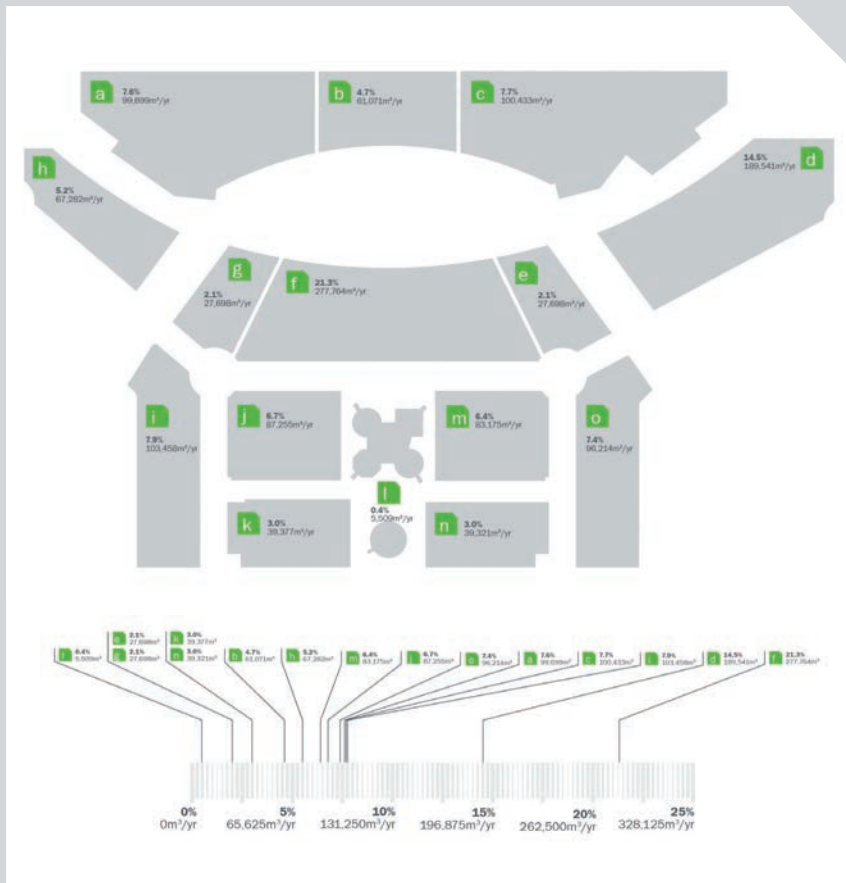
The lower office space had to be sufficiently flexible to allow for alternative patterns of working and use. The result was a grid of linear suspended fittings that reinforce the building's architectural grid. The fittings were custom length utilising 28W T5 lamps to achieve an average illuminance of 300 lux.

All internal lighting is controlled by a dedicated photocell/occupancy sensor that automatically dims local lighting when sufficient daylight is present or if a zone is left unoccupied for an extended period. An 'app' allows users full control of their individual lighting from their PC or laptop while meeting BREEAM requirements. In addition, desk lamps provide individual control over any additional, artificial lighting needs. All the lighting within the building is connected to a lighting control system, making extensive use of DALI dimming.

What sets this scheme apart, is not the lighting sources or equipment choices but the highly integrated nature of the design that not just compliments but reinforces the architectural intent of the building while being highly energy efficient.







CLIENT VISION	STRATEGIES	RESPONSIBLE PARTIES	TRACKER
<b>Energy &amp; CO2 Emissions</b> 45% reduction in building annual energy demand over ASHRAE 90.1 baseline 5% of site wide energy demand is met by renewable energy sources 15% reduction in infrastructure annual energy demand below baseline	Ene 14: Natural Thermal Mass Ene 15: Natural Night-time Cooling Ene 16: Daylighting Ene 17: High Albedo Ene 18: Passive Evaporative Cooling Ene 19: District Cooling Ene 20: Future Connection to District Scheme Ene 21: Chilled Cooling Ene 22: Energy Efficient Internal Lighting Ene 23: Energy Efficient External Lighting		
	<b>Water</b> 50% reduction in building potable water consumption over baseline (LED usage patterns and Building Regulations flow rates) 25% percentage of wastewater is recycled and treated on-site 100% of the irrigation demand is met by non-potable water 70% of planting is formed of native species or drought and/or saline tolerant	Wat 01: Low Water Use Fixtures & Fittings Wat 02: Wastewater Recycling Wat 03: Leak Detection Wat 04: Building Rainfall Harvest Wat 05: Drought and/or Saline Tolerant Planting Wat 06: Low Water Irrigation Wat 07: Building Management System (BMS) & Sub-meters Wat 08: Smart Meters Wat 09: Water Recycling Wat 10: Flood Risk Assessment (FRA) Wat 11: Local Storm Water Management	

# LEADERSHIP & INNOVATION Sustainability Implementation Plans

At Atelier Ten, we have developed a tool that we call Sustainability Implementation Plans (SIP) to ensure that exemplar sustainable design standards are holistically integrated into a scheme rather than artificially bolted on at the end. Our structured process provides a set of metrics that can be tailored to a particular scheme. The metrics are divided into a number of numerical targets within an overall category of environmental impact. These categories typically include metrics for the conservation of energy and carbon emissions, conservation of water, the use of recycled and low-embodied energy materials, biological diversity, atmospheric pollutant impact and elements of social sustainability.

By developing these project guiding principles as bespoke to each project, it allows a number of benefits to be realised. One is that it ensures a consistent approach to the application of benchmarking

standards across multiple sub-project teams within the scope of a larger project. This approach allows multiple benchmarking scheme requirements to be addressed in parallel if desired. In addition to benchmarking schemes, these metrics can also be developed to encompass the requirements of the local planning and regional planning frameworks. This flexible approach also allows for specific client concerns to be developed and incorporated in a clear and consistent manner.

While it is important to generate consistent targets across a scheme, it is also important that they are implemented in a successful and economic manner. At Atelier Ten, our model encourages the use of discipline champions. These champions have the responsibility of delivering sustainable initiatives, with our assistance as the Sustainability Consultant, within their discipline. By encouraging each

of the consultants to take ownership of sustainability issues, we have found there is a greater delivery of tangible sustainable scheme initiatives. While assigning targets to disciplines helps identify what it is hoped can be achieved from a scheme, it is vitally important that sustainability targets are met. To aid this process, we use an integrated management process. This tool provides suggestions of how to meet specific metric targets and a summary of the target itself. SIP's are currently being used to challenge, manage and generally improve the environmental performance of teams working on some high profile projects in the UK including:

- Chelsea Barracks, a super-prime residential scheme in London
- Wimbledon 2020, the long-term masterplan for the All England Tennis Club
- Blossom Street, a mixed-use scheme in the City of London
- Stoke CBD development for gener8

- Vauxhall Bondway, a high rise mixed-use project in SE London
- Wood Wharf, the eastern expansion of Canary Wharf

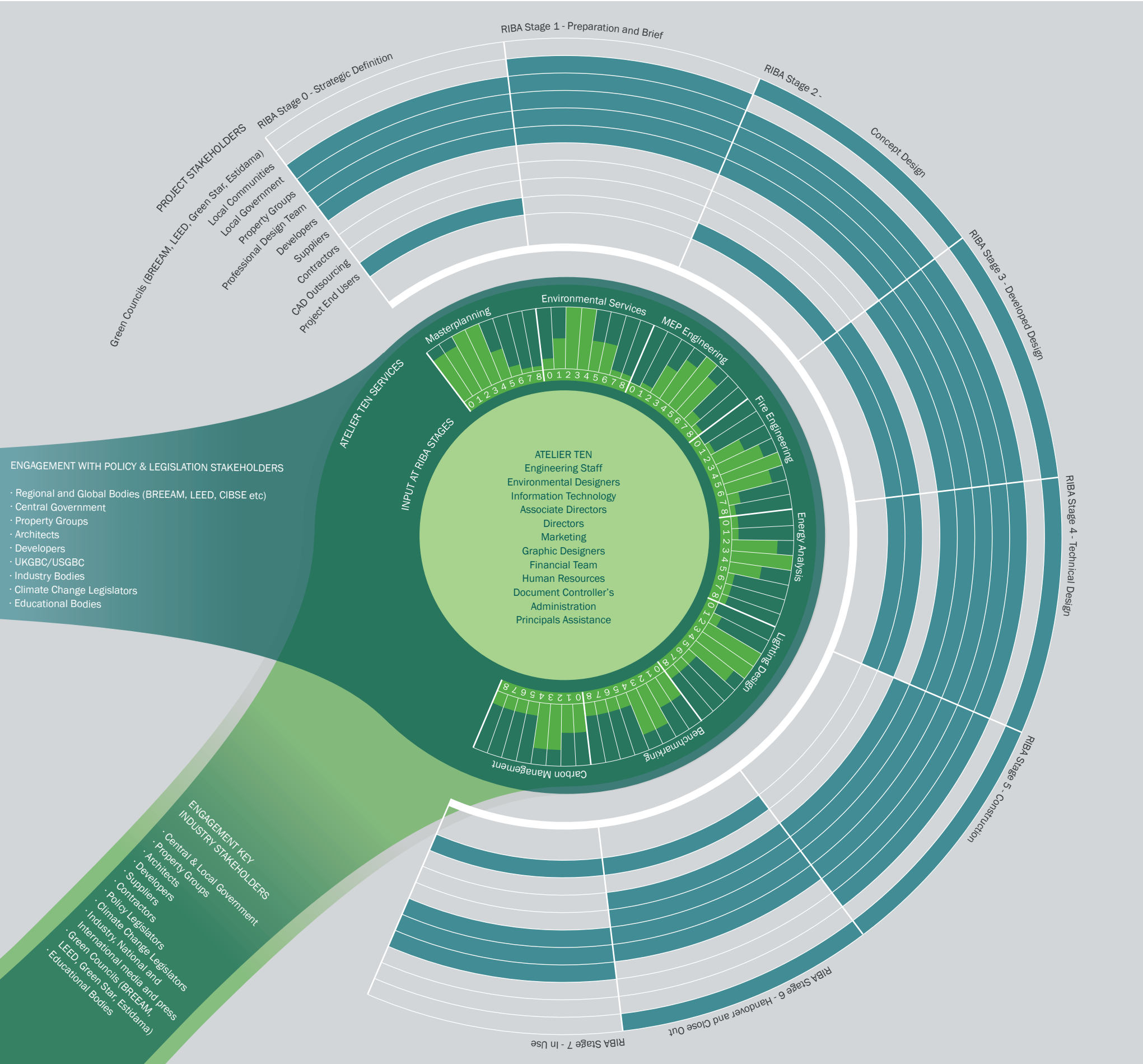
As an extension of this work we were asked by British Land to work with them to develop the latest version of their Sustainability Brief. As one of the UK's largest Real Estate Investment Trusts, they acknowledge their environmental and social responsibilities. This Brief is designed to address these considerations during design and construction, encouraging innovation and inspiring teams to work together to have a positive impact on the areas and environment they operate in. It defines advanced measures of sustainability in the built environment and acts to diminish the gap between current limits and ideal solutions.

It was updated to reflect changing approaches to sustainability and to

ease implementation with enough detail to allow it to work at all scales and across all project types while reflecting the different needs of these projects. Significantly, we advocated for the inclusion of a 'Materials Red List'. Missing from earlier iterations, Version 4 now has a list of 'Recommended Materials', a list of materials 'allowed only with British Land approval' and a list of materials 'prohibited in any case'. Throughout their lifecycle, materials are responsible for many adverse environmental issues including illness, squandered embodied energy, pollution, and resource depletion. The idea of the list is to remove and limit the worst known offending materials and practices.

As with earlier Sustainability Brief for Developments, this updated version will now be applied to all British Land's major property developments, encouraging sustainable outcomes.

# STAKEHOLDER ENGAGEMENT



We are committed to engaging with all of our stakeholders, both internally and externally, to become the most sustainable, responsible company we can. Moreover, our priorities are informed by our stakeholders: by listening to, partnering with and considering the perspectives of our employees, clients, collaborators, affiliated organisations, academic leaders, government, and even our competitors, we can deliver sustainable solutions that add value and help to make a significant difference.

We have robust policies and systems in place to manage the wide range of sustainability issues we encounter in our business activities. Listening to our stakeholders helps us prioritise these issues by identifying those that are most important to them and to us. We want to understand the views of our stakeholders - people who can affect our business or who are affected by it. By understanding, we can account for any differences and explain our perspectives.

We have developed a stakeholder map that identifies both our internal and external stakeholders. Our engagement with each stakeholder group differs and, in an effort to adapt to changing needs and issues, continues to evolve. As we pursue our corporate sustainability goals, we intend to further strengthen these relationships.

Together, we are establishing transparency and enhancing our relevance with the clients, collaborators and communities we serve.



As building services engineers, environmental design consultants, lighting designers and fire engineers, we are committed to using our skills and influence to improve the built environment and to maintain the integrity and quality of the natural and cultural environments in which we operate. As such, we aim to apply the principle of sustainable development in all that we do. Our environmental mantra is '...doing more with less'.

We have an important duty to ensure good environmental performance in all our business operations and to provide the necessary organisation, commitment and training to fulfill this obligation. For this reason, in 2012 we adopted an integrated management philosophy that combines ISO 9001: 2008 (Quality Management Standard) with ISO 14001: 2004 (Environmental Management System).

This approach ensures that all staff are committed to delivering the highest levels of satisfaction and environmental management to clients, collaborators and each other with the greatest of integrity and ethical diligence. Moreover, it ensures that

we apply adequate quality standards across our business operations and project activities, and that we gather objective evidence to demonstrate that we have met these standards.

At an office level, this is achieved by incorporating environmental responsibility into all business operations through a series of policies, procedures and management systems that assess and monitor, on a continuous basis, the environmental impact of our operations. Many of which are recorded in the Report.

At a project level, we work with clients, contractors, professional bodies and the community at large to raise the environmental standards of the industries in which we operate. To deliver this, we aim to be a leader in sustainable development in areas relevant to our business and to promote sustainable practices.

In meeting these objectives, we provide value to our clients by building upon our reputation for integrated design and a holistic approach to projects recognised for their sustainability credentials. It also helps

us achieve performance that ensures our economic, environmental and financial viability and employ and retain staff who have a high degree of awareness and expertise in sustainability.

#### **A culture of innovation**

Every day at Atelier Ten we work together to create smart solutions to all manner of design challenges within the built and planned environment. Building an inclusive culture of innovation begins in our communities and continues through our learning and community programmes. We want to become an employer of choice by 'up-skilling' employees, driving a culture of performance and having a client-focused agenda. By encouraging people from different backgrounds to join our workforce, we can become more responsive to future challenges and opportunities.

Being an innovation leader means applying the right skills to do an outstanding job. By bringing out people's true potential, we are better able to serve our customers, improve employee retention and become

a more attractive employer. We believe that a variety of perspectives, backgrounds and experience will help us build a more innovative and responsive business.

#### **Strategic plan**

While our Environmental Management System was certified in 2014, we strengthened the importance of sustainability within our Strategic Plan back in 2010 with a stated ambition to secure ISO 14001. It was a way for us to acknowledge that economic, environmental and social responsibility are all interconnected. Sustainability is the basic principle that governs our business operations. As such, it forced us to regard our business targets and corporate interests in relation to our stakeholders' expectations and thus prioritise our actions.

Our Strategic Plan is not static: in a dynamic and competitive environment we must continuously adapt to new market conditions. Similarly, the demands expressed within our stakeholder dialogue framework change from year to year. The annual review and resetting of our Strategic

Plan also provides an opportunity for us to undertake a comprehensive materiality review to check that the issues we have identified as material remain valid and what changes (if any) are required to focus on what matters in our future reporting.

#### **Corporate governance**

Each time we open a new office, wherever it is in the world, we review the systems, principles and processes by which the Company is governed to ensure they are relevant and appropriate. In this way, we ensure the guidelines for allocating roles and responsibilities among Directors and other stakeholders are always fair, transparent and deliver accountability.

#### **Responsible procurement**

We want to bring others with us on the journey towards a more sustainable world: our corporate responsibility extends far beyond our own operations. We only want to work with suppliers that meet our social and environmental standards, as laid out in our procurement policy. Wherever possible, we do business with small

local suppliers. And were necessary, we work collaboratively with them to develop action plans to improve their environmental, social and business performance.

#### **Green committee**

We are aware of the environmental impact associated with our business activities and the strategic importance of implementing green management practices. This understanding led to the establishment of the Green Committee. With members drawn from across the business, it meets quarterly to confirm green management policies, assess performance and make decisions on the establishment of improvement measures detailed within our Aspects and Impacts Register.

#### **Putting customers first**

Ensuring our clients and collaborators come first is fundamental to our growth strategy. New business wins, customer retention and industry awards are testament to the innovation and seamless service we offer.

**Waste management**

With respect to waste management, we recognise that many of our waste streams have the potential to be recycled for economic benefit. This reduces the amount of virgin material that needs to be mined or extracted from the natural environment. Thus for the collection and transfer of inert and non-hazardous waste, we ensure all appropriate licences and environmental permits are valid and that we are in receipt of waste transfer notices. This ensures we know how our waste is managed and treated. Additionally for hazardous waste, we check the validity of a proposed carrier's registration, the validity of the proposed disposal facilities' licences and secure consignment notes if necessary. We also ensure that our electrical and electronic equipment is managed under the Waste Electrical and Electronic Equipment Regulations.

**Waste and recycling**

Our waste management policy observes the hierarchy of 'reduce,

reuse, recycle and recover'. As for any office, our key waste streams are office consumables and electronic waste. We reduce the amount of waste we send to landfill by encouraging local arrangements for computer and furniture re-use, and establishing recycling contracts for electronic waste and standard office consumables.

Waste is collected from recycling points within the office and processed centrally by third-party provider Paper Round. As part of BPR Group, Paper Round is London's leading recycling service provider with 20 years experience of managing waste and recycling for companies of all sizes and currently services over 5,500 sites. Dry recyclables are separated mechanically and by hand; non-recyclables incinerated to ensure locked-in energy is reused. BPR Group is a 14001 registered company.

In addition, we have established centralised collection points for toner cartridges, toner, batteries and light bulbs. Toner cartridges are recycled

on behalf of a charity (VICTA), while waste toner bottles are disposed of in contaminated waste bins that are in turn collected by Paper Round. Batteries are recycled through our stationary supplier, Office Team. Light bulbs including fluorescent tubes, are collected and held centrally by the Office Manager and when volumes are large enough these are disposed of using Paper Round. Production, storage and disposal of WEEE such as PC's and monitors is via Perseverance Works' centralised collection facility. This in turn is collected by Paper Round who recycle where possible to local charities.

**Communications**

We place great importance on communicating effectively with our staff. This involves creating opportunities for people to ask questions and express their views, as well as sharing information with them. By maintaining two-way communication, we help employees to understand the challenges we face

and contribute to a successful future for Atelier Ten. We have well-established communications channels in place at both a corporate and team level to keep our staff informed and involved. In London, we meet quarterly as a company, this ensures that everyone has a clear sense of direction, that everyone has an opportunity to question our progress and that people can be inspired about the future of the company.

**Meetings calendar**

We publish an annual calendar of meetings that is posted on our company notice boards. Giving visibility to all Board meetings in this way helps staff to understand how Atelier Ten is managed and provides a touch-point for when they can expect information or an update.

**Transportation**

We are a member of Cyclescheme, a Green Transport Plan initiative which allows employees who cycle to work

to purchase a bike free of tax. We have full shower facilities and secure bike storage within the London office.

**Electronic distribution channels**

In a bid to reduce transport emissions related to traditional postage methods we endeavour, where appropriate, to send all correspondence electronically.

**Videoconferencing**

With an increasingly strong international portfolio, we have strengthened our video conferencing facilities as a way of reducing the need for foreign travel. This capitalises on an earlier strategy and has reduced the incidence of international travel significantly.

**Carbon offsetting**

We are a carbon neutral company committed to reducing our overall carbon footprint. We seek to reduce our carbon emissions and offset those that are avoidable. Clear is approved

under the UK Government's Quality Assurance Scheme for Carbon Offsetting, this ensures our offsets only go to Certified Carbon Reduction projects.



# OUR PEOPLE BASED PERFORMANCE

## Developing our people

At Atelier Ten, we value promoting from within and seek to build a high-performance organisation through fair reward and recognition. This is a focus area for us because we believe attracting, employing and developing people with exceptional skills who share our values provides us with a competitive advantage and is critical to our long-term sustainability. Our people are encouraged to help deliver our strategy and achieve superior business results by applying their functional expertise and stretching their capabilities.

## Recruitment

Recruitment is managed on a local basis by each office and employment is offered and provided based on merit. Every person applying for a job is evaluated according to their job-related skills, qualifications, abilities, aptitudes and alignment with our core values. Where we can, we seek to ensure strong internal candidate representation for roles, supplemented by external recruitment.

## Rewarding our employees

We develop the skills and capabilities of our workforce through regular reviews combined with training and development programs. Our practices and processes are designed to ensure performance is measured on fact-based outcomes and to reward people for their achievements. Accomplishments are measured and rewarded in a transparent process.

Training and development programs are designed and implemented at the operation level to support local requirements. As part of the mandatory induction process all employees and agency contractors receive training on health and safety, our Code of Conduct including our environmental obligations and anti-bribery and corruption.

## Learning and development

Learning and development equips our people to do the best they can and we continue to invest in this. Our learning and development opportunities range from creating bespoke training programmes companywide to individual training on specific software programmes to community engagement. In addition, our training programmes are structured to meet and exceed the requirements demanded by the professional institutes within our industry.

## Ethnic background balance

In 2014 we were able to demonstrate that our ratios met the equal employment opportunity criteria. No affirmative action plans were required.

## Gender balance ratios

We measure the ratio of males to females in our management positions compared to the overall male-female mix. The indications are that the ratios are generally acceptable. We recognise that

at senior level the ratios are not in line with the organisation overall and we will continue to encourage more women to fill these positions.

## Employee turnover

General employee turnover is measured as a function of our success in retaining staff and our ability to attract new employees as needed. This level of turnover is within expected parameters.

## Employee turnover under two years

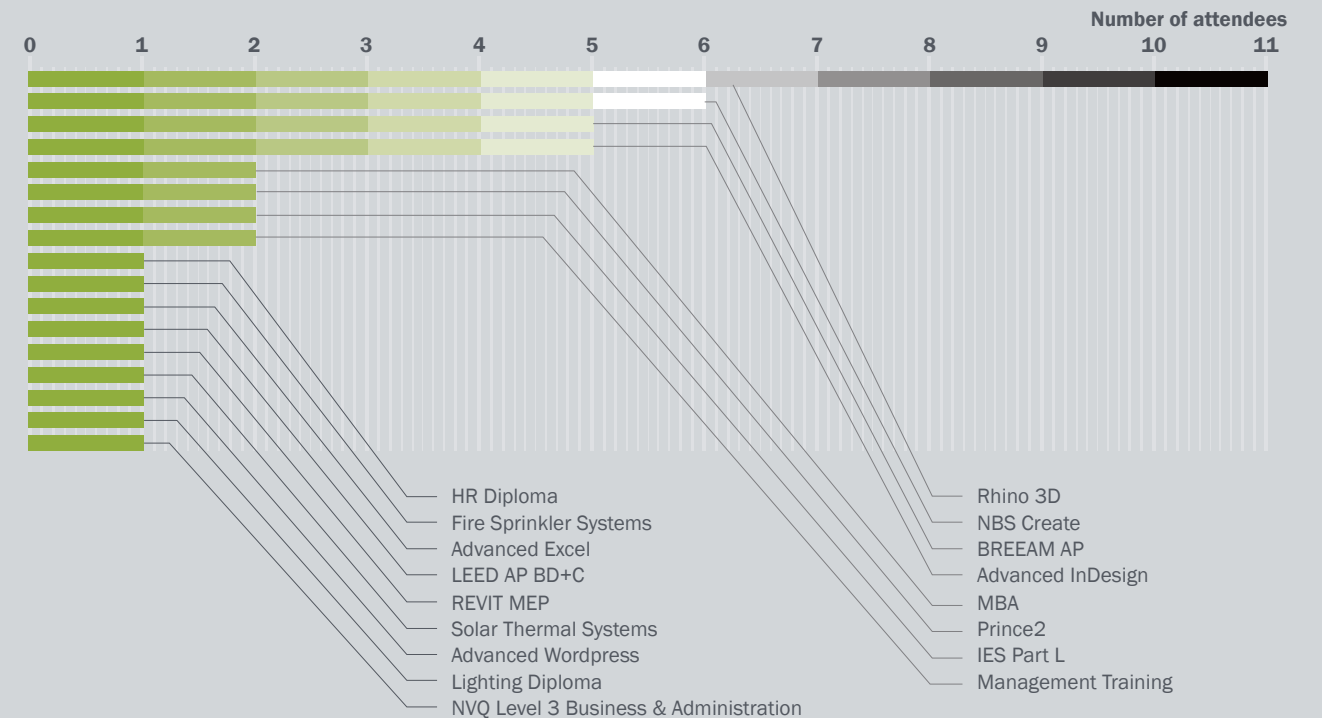
We also measure turnover relating specifically to employees who have been with the business less than two years. This measure is an indication of how well we recruit and then retain our employees so that they can make a contribution to the business. In 2014, only two people left Atelier Ten who had been with us for less than two years and of these one left the UK to return to their native homeland.

## Publications

We managed to generate a fair amount of interest in our work in 2014 and contributed a number of articles to a range of publications including Architects Journal (UK), Building Design (UK), Building Magazine (UK), CIBSE (UK), Gulf Times (Middle East), Ingenia (Royal Academy of Engineering) UK, Konsept Magazine (Turkey), Inch Magazine (Switzerland), Lux Magazine (UK), The Evening Standard (UK), The Telegraph (UK) and the Tyrone Times (Ireland).

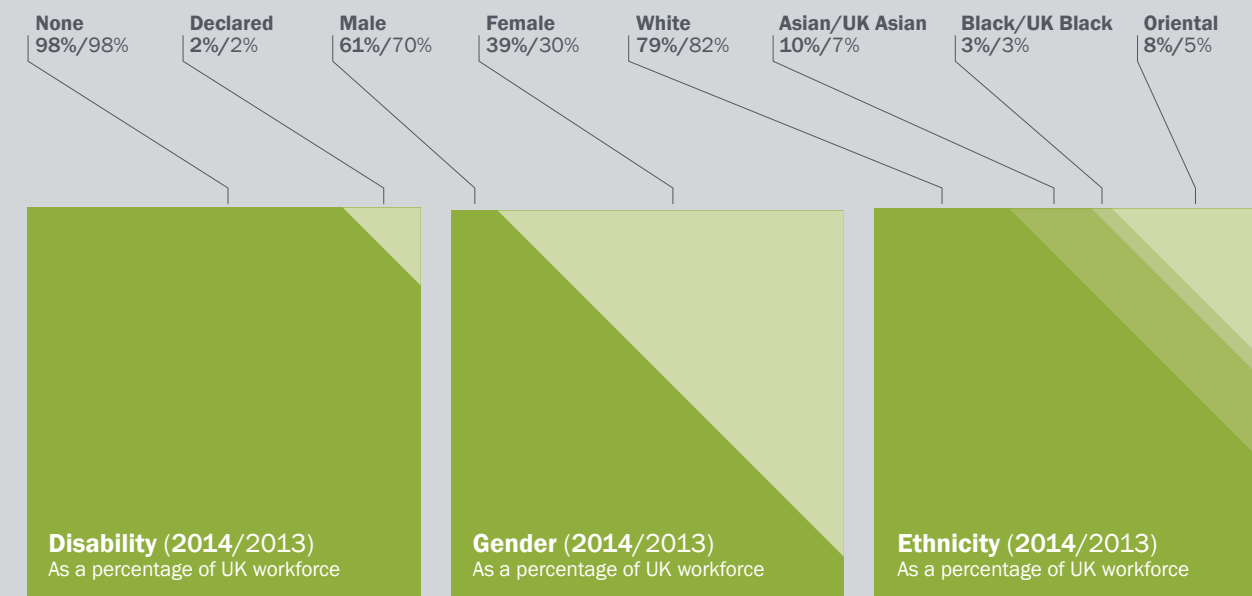
## Teaching and training

Undertaken in London in 2014



## Employee demographics

Across UK offices





## Awards 2014

### Awards

Innovation can be scaleable, and since 1990 Atelier Ten has been winning awards and plaudits not just for our headline-grabbing, large-scale projects, but also for the step change in energy efficiency we can effect in smaller scale buildings.

#### Gardens by the Bay, Singapore

- CIBSE International Project of the Year
- BCA Construction Excellence Award
- MIPIM Best Innovation Green Building
- MIPIM Special Jury Award

#### WWF Living Planet Centre, Woking, UK

- Lux Lighting Office and Workplace Project of the Year
- Concrete Society Awards
- IStructE Award for Education or Healthcare
- IStructE Award for Sustainability (Commended)
- ICE Civil Engineering Award (Highly Commended)

#### TMB Headquarters, Ankara, Turkey

- Building Award

#### Kohler Environmental Centre, Choate Rosemary Hall

- Green Good Design Award
- Chicago Athenaeum, Europe

#### Megafon Pavilion, 2014 Winter Olympics, Sochi, Russia

- Grand Prix, Innovation Category, Cannes Lions
- German Design Award
- Red Dot Communication Design Award
- SEGD Global Design Honour Award
- Best of Best, Iconic Award
- Gold Medal, Golden Award of Montreux
- Swiss ICT Award
- Gold Medal, FAMAB Award
- Golden Drum, International Advertising Award
- Red Apple Innovative Advertisement Award
- Best Project of the Year, Silver Mercury Award

#### Place Lalla Yeddouna, Fes, Morocco

- MIPIM Architectural Review Award

#### Notre Dame Primary School, Glasgow, UK

- Civic Trust Award



### Memberships and affiliations

- AIA COTE Steering Committee, US
- All Party Group for Excellence in the Building Environment Green Deal Committee, UK
- Architecture+Design Sustainable Design Leaders Group NYC, US
- ASHRAE Certification Committee, US
- ASHRAE NYC, US
- British Council for Offices Representative on the Scottish Property Federation's Policy Committee for Sustainability & Building Standards, UK
- British Council for Offices Scottish Chapter Vice Chairman, UK
- British Council for Shopping Centres Scottish Committee Member, UK
- British Expertise, UK
- Chartered Institute of Building, UK
- GSA Green Building Advisory Committee, US

- IBPSA President, US
- Living Building Challenge Ambassador, US
- RIBA Awards Judging Panelist, UK
- Royal Academy of Engineering Fellow, UK
- RSA Student Design Awards Judging, UK
- SoPHE Technical Committee Member, UK
- Thai Green Building Institute, Thailand
- UK-GBC Trustee, UK
- Urban Green Board Member, US
- US-GBC, US
- World Architecture Festival Judging Panelist, Singapore

### Focus on education

Education is a critical driver of progress and opportunity in developing and developed countries alike. Our investment in learning is extensive: a number of key representatives at Atelier Ten teach and lecture at universities, an activity which is promoted and supported by the senior management team. In 2014, representatives have taught and lectured at the following institutions:

- AA School, UK
- Chulalongkorn University, Thailand
- Columbia University, US
- Cornell University, US
- Oxford-Brookes University, UK
- Pratt Institute, US
- Southampton University, UK
- The New School, School of Constructed Environments, US
- University of the Arts (UAL), UK
- University of Nottingham, UK
- University of Pennsylvania, US
- Yale University, US

### Public forums, speaking engagements

Atelier Ten representatives have also promoted sustainable and environmental ideas as key speakers in 2014. The following represents some of the highlights:

- 2014 I2SL Conference, US
- 2014 Fall CBE conference
- 2014 DIVA Day, US
- ABX 14 (Build Boston), US
- AEC symposium 2014, US
- AIA + 2030, US
- AIA Convention, US
- AIA San Francisco Communications Committee Event, US
- ASHRAE 2014 High Performance Buildings Conference, US
- ASHRAE 2014 Winter Conference, US
- ASHRAE-IBPSA Building Simulation Conference, US
- BOMA SF (Building Owners + Managers Association), US
- Brooklyn Navy Yard, Bldg 92 'Making it in NYC', US

- Building Enclosure Council, US
- Facades + Dallas, US
- Facades + PERFORMANCE (Dialog Workshop), US
- Facades Tectonics #14 'Glass, Critical Regionalism, & Sustainability', US
- GSD/IBPSA Boston, US
- Greenbuild International Conference and Expo, US
- IBPSA-NYC Chapter, US
- International Green Building Conference at BEX Asia, Singapore
- LIGHTFAIR International, US
- MIT, US
- New Haven International Festival of Arts & Ideas, US
- NESEA Building Energy 2014, US
- Rural Studio's 20th Anniversary Speaker Series, US
- SCUP North Atlantic, US
- Structural Congress of the Structural Engineering Institute of the American Society of Civil Engineers, US

- The New York Chapter AIA COTE/ASHRAE Integration Series, US
- Urban Green, US
- VERGE Salon, US
- Yale Alumni Speaker Series, US

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