



The business case for sustainable workspace design

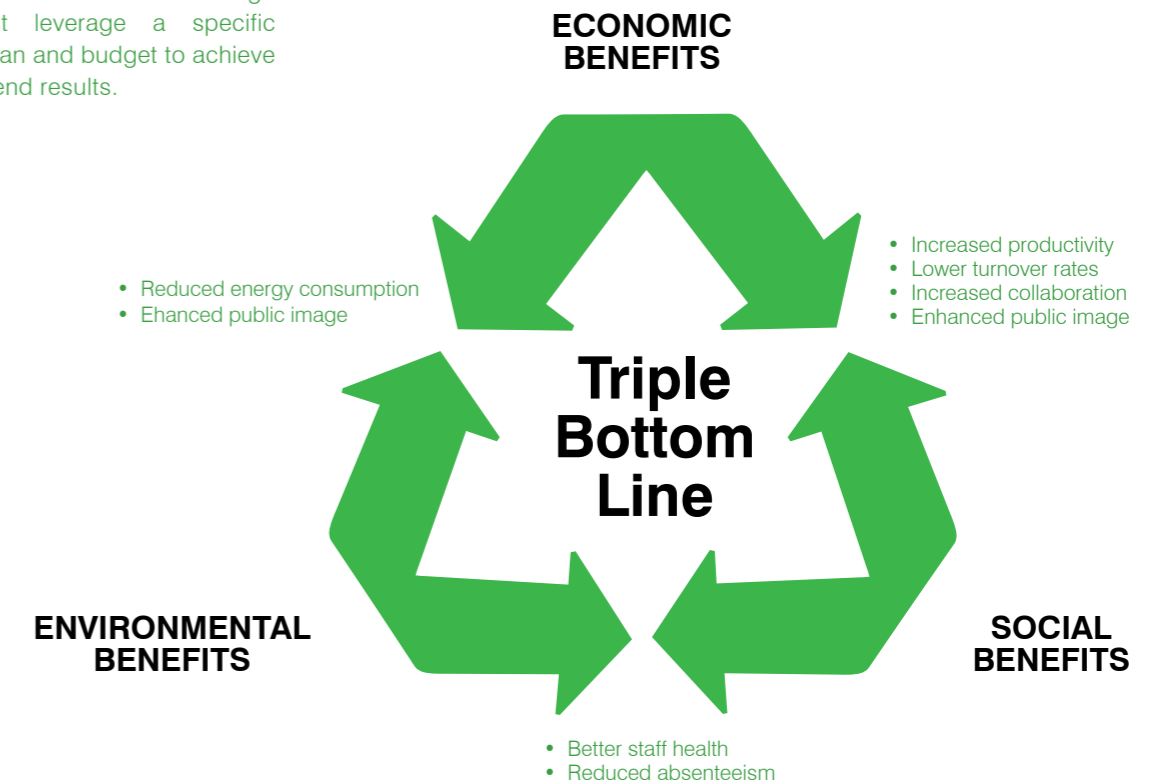
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WHAT IT MEANS, WHY IT MATTERS.

Sustainable design is an increasingly important, highly integrated approach to the development of workspaces. The concept leverages the principles of the "triple bottom line", an expanded spectrum of values and criterion for measuring the economic, environmental and social success of an organization. Sustainable design approaches must leverage a specific client's mission, plan and budget to achieve the best possible end results.



Sustainably designed, healthy and well-planned offices can help:

- Achieve energy savings of between 20% and 40%
- Raise employee productivity and health levels, reduce absenteeism and increase attendance
- Make it easier for employers to recruit and retain the talented individuals they need to drive their businesses forward
- Enhance companies' CSR image within local communities
- In certain countries, qualify organizations for financial grants

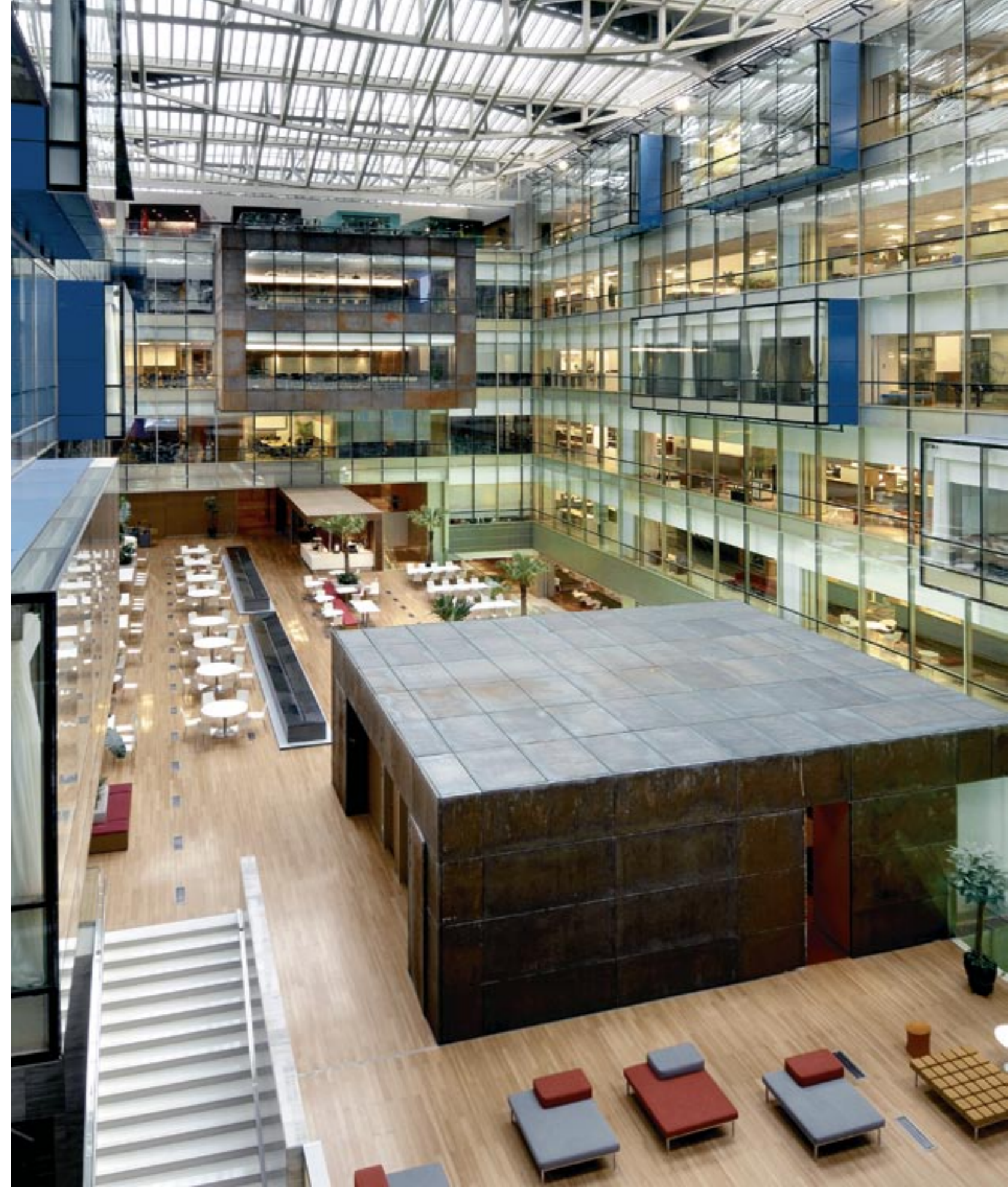
Achieve energy savings between 20% and 40%*

A high-performance, sustainable workspace can cut an organization's energy and utility costs. These savings will directly enhance the bottom line and are achievable through:

- Factoring in the building's exposure to sunlight and winds
- Leveraging natural lighting and natural ventilation conditions available
- Planning workspace in a flexible manner
- Using proximity sensors
- Equipping premises with energy-efficient infrastructure and equipment

** Based on US Green Building Council LEED certification criteria*

The Nokia China Headquarters is among the first buildings in Beijing certified to LEED Gold standard, with quantifiable achievements in categories such as energy savings, materials re-use and recycling, natural lighting conditions and air quality. Designed from the 'inside-out', this 6-floor, 74,000 m² building for Nokia caters for 2300 staff and is both functional and flexible.



Support your greatest asset, support your employees

Research shows that people working in healthy, naturally lit environments are far happier and more productive than those in workspaces with only man-made lighting and high carbon dioxide levels. The measurable benefits of sustainable design include everything from better health, decreased headaches and employ-

ee depression rates to improved sleep patterns, lower eyestrain and better hand-eye coordination. Sustainable design is also shown to cut absenteeism and make it easier for employers to recruit and retain the top quality staff they need to drive their businesses forward.

** Data drawn from statistics and real-life case studies provided by the National Renewable Energy Laboratory, 2002*

Boost productivity by between **5%** and **16%**, increase attendance by up to **47%** and cut absenteeism by up to **15%**.



A sustainably designed workspace can strengthen a company's corporate culture. Break-out spaces help staff to relax but also encourage people to exchange ideas and collaborate. This significantly enhances knowledge sharing, personal performance and job satisfaction.

Achieve sustainable workspaces through flexibility, modularity and durability

As change is a business constant, planning flexibility into the workspace makes sense from a financial, strategic and environmental viewpoint.

In designing to make use of the modularity of the space, a client can easily accommodate change at little cost, minimal disruption to the business and with little waste. By using similar products and systems, a company can also reduce its cleaning, maintenance and replacement schedules and costs. At the end of the day, sustainable design:

- Simplifies change and allows more thought to leveraging the modularity of the floor plate, demountable components and flexible systems

- Reduces renovation cost, as spaces can be re-configured with little disruption
- Reduces the quantity of materials being discarded and used as landfill
- Reduces not only the cost but also the environmental impact of cleaning and maintenance activities
- Prolongs replacement cycles

Flexibility for future growth and sustainability were the primary objectives for this multi-national client. These goals were achieved by using interchangeable furniture configurations that offered maximum flexibility within boundaries pre-set by fixed columns, ceiling grids, window mullions and main circulation routes. The end result is a modular workspace that can easily accommodate change at little cost while causing only minimal disruption and waste.

Note how the different configurations use the same desks, chairs and round meeting tables for all seating arrangements. This approach reduces costs, waste and disruptions and enables clients to accommodate change.



*Here, one module is used to contain 8 standard seats.
By reconfiguring furniture...*



... the same module can quickly and cost-effectively be changed to accommodate seating for up to 4 managers.



When partitions are added, the module can be swiftly transformed into two director's offices or small meeting rooms.



By removing the partition in between the director's offices or small meeting rooms, the space is transformed into a conference room.

Enhance employee attraction and retention levels

The days when all it took to recruit quality staff was a quality remuneration package are fast becoming a thing of the past. In striving to create the “added value” needed to attract new talent and retain valued existing staff, today’s businesses are stressing more intangible benefits. Well-designed, sustainable offices are one way a company can enhance its attractiveness and loyalty levels.

Employee satisfaction is the end product of many factors, several of which can be achieved by leveraging sustainable design in the workspace:

- Use synergies to create efficient workflow configurations
- Ensure greater individual control
- Integrate natural lighting and views
- Enhance indoor air quality and improve employee health levels

Staff who feel supported by their employer and workspace tend to take more pride in being professional and courteous. Such a positive outlook helps build a good word-of-mouth impression among potential employees. Ultimately, sustainable workspaces reduce staff churn and make it easier to recruit staff. This not only reduces costs but also enhances stability and productivity.

To liberate creative or R&D staff, it was decided to physically separate client-intensive and creative spaces into two distinct hubs. An outdoor atrium walkway psychologically liberates staff from daily worries. The free flow of ideas was cocooned into a space that includes a think tank, a chill-out space, a library, and a break-out zone. The result is a continuously stimulating environment.



Promote good corporate citizenship

Good corporate citizenship and social accountability are increasingly important considerations for those choosing employers, business partners and suppliers.

By adopting sustainable design strategies, organizations express their commitment to their communities' economies, growth and well-being in a tangible way.

Ultimately, a good workspace will serve as a goodwill ambassador for a business. Shared pride in a facility helps enhance:

- It's standing in the community staff
- Attraction and retention level





Reduce your carbon footprint

All sustainable design initiatives - the reduction of energy consumption, the reduction of space needs, making use of technology for collaboration purposes as opposed to travelling and other such measures - ultimately help clients to reduce greenhouse gas emissions and therefore their carbon footprint.

- Reduce private offices to reduce the overall footprint of the office
- Make use of natural ventilation and natural light to reduce energy consumption
- Enhance lighting and ventilation efficiency

How to achieve sustainable design

1 Integrated solutions

By using an integrated solutions approach, your business will foster teamwork and encourage relevant stakeholders to identify and implement solutions as a group rather than in self-serving clusters.

2 Design from day one

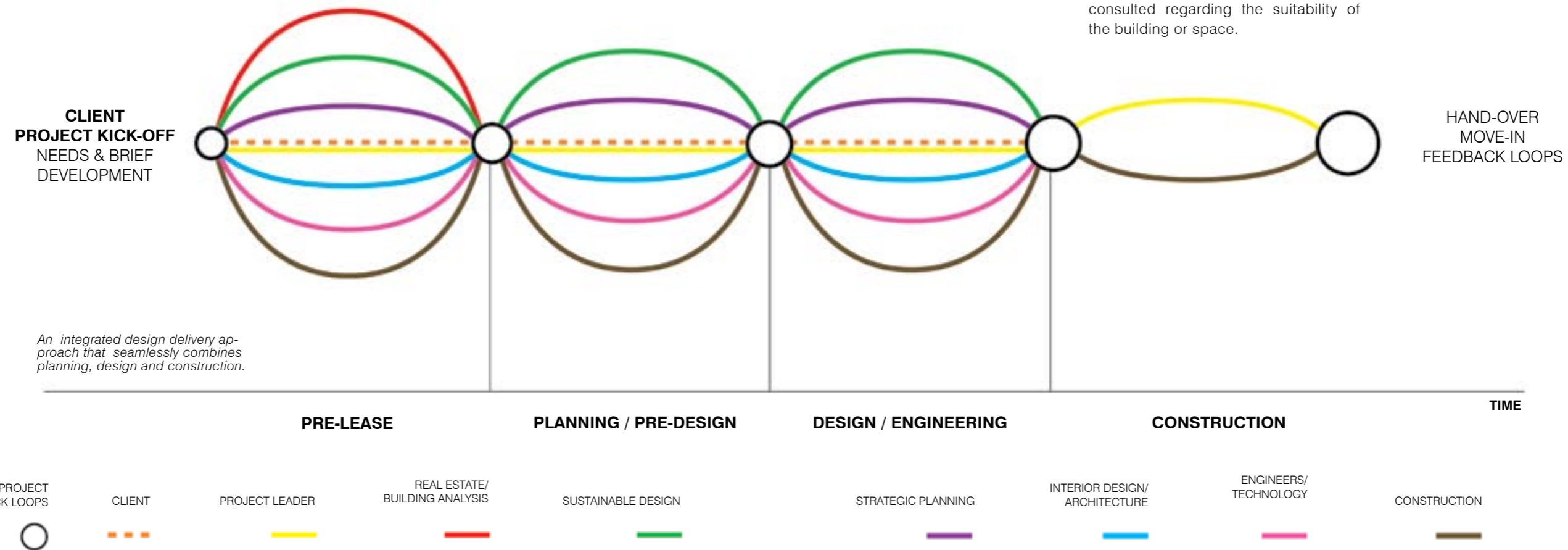
A 'day one' design approach will enable your project team to carefully consider each step in the process before decisions are locked-in and the potential for low-cost, high-value changes is lost forever e.g. committing to a lease before your design, planning, engineering and construction teams have been consulted regarding the suitability of the building or space.

3 Think end-to-end

Leverage potential synergies by carefully evaluating system and departmental interactions.

4 Focus on end-users

Emphasize essential end-user needs such as comfort, light and access and the equipment needed to satisfy them as part of a cost-efficient planning process.



How to deliver integrated sustainable design?

1 Plan ahead!

Use strategic planning to align your 'green' objectives with your design brief and budget:

- Assess building options' feasibility to satisfy your environmental objectives
- Enhance air circulation and implement better natural lighting and zoning at the planning stage
- Utilize energy audits and modelling to optimize environmental benefits

An open-plan workspace will help reduce:

- Material usage
- The need for personal control of M&E provisions such as lighting, heating and ventilation. This will in turn reduce:
 - energy consumption and costs
 - your overall carbon footprint

2 Design to save Energy & Improve indoor quality

Allow natural light to flood your workspace. Natural lighting cuts energy consumption and makes staff healthier and more productive:

- Use energy-efficient light bulbs
- Adopt task lighting
- Install transparent or reflective bright materials
- Fit high-efficiency illuminations
- Install daylight and proximity sensors

Improving air circulation and quality is another way you can save energy while improving your workforce's health and productivity levels:

- Supplement ventilation with fresh air and introduce enhanced filtration
- Include individually-controllable Heating and Ventilation (HVAC) zones
- Employ natural ventilation strategies
- Eliminate toxic volatile organic compound (VOC) materials
- Remove harmful vapours and gases by placing printers and copiers in dedicated areas with exhaust-only ventilation systems
- Optimize your building's orientation

Utilize Energy Star-rated equipment

Approach your landlord about installing retractable shades or solar blinds

3 Environmentally friendly Sourcing

Source materials, fixtures, fittings and furnishings that:

- Are locally made and so reduce transportation-related pollution
- Have a high recycled content
- Are made from durable materials

Also consider re-using existing workstations, cabinets and partitions, etc.

Use carbon-neutral carpets to further reduce your workspace's impact on the environment

4 Save Water!

When negotiating your lease, demand low water-consumption plumbing fixtures, dual-flush systems and sensors on taps

If possible, choose premises with water-conservation features such as closed-loop systems

5 Project Certification

M Moser's in-house LEED, Greenstar and Greenmark Accredited Professionals support project teams can help your company to achieve its targeted certification standard.