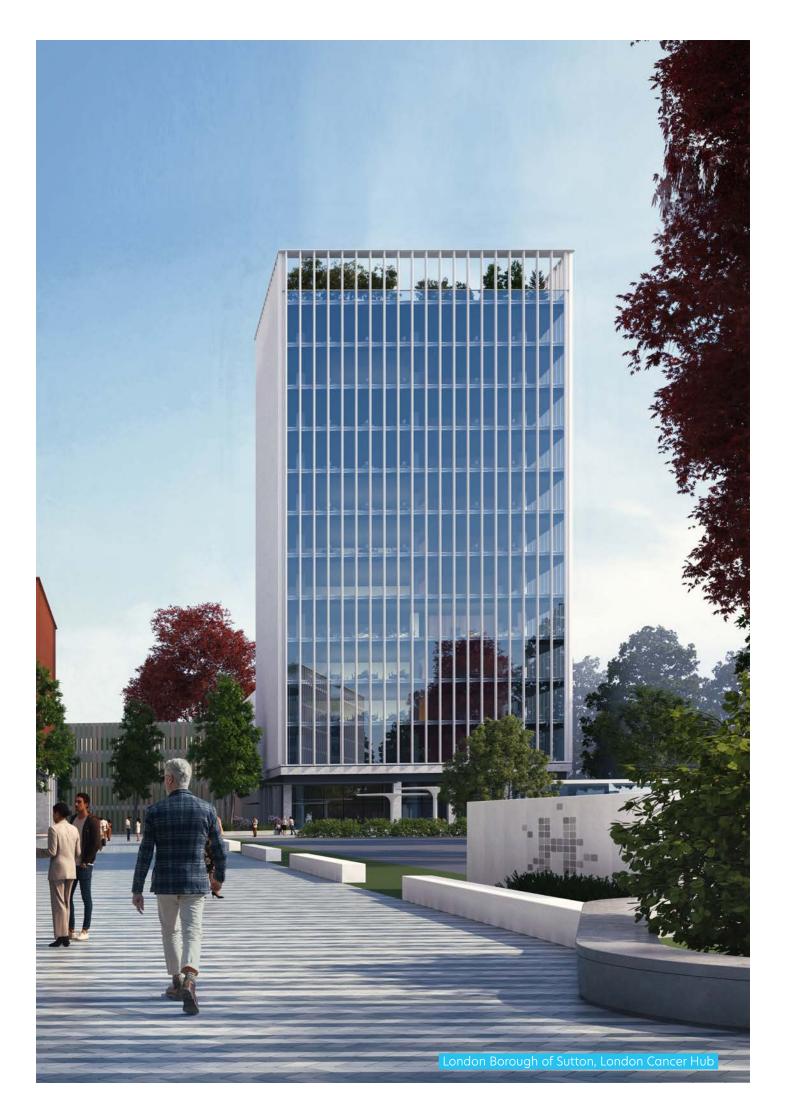


Design Management

NTRE

www.eedn.co.uk



Introduction

EEDN is end-to-end design and project management consultancy for the built environment specialising in technically complex projects, including science and healthcare.

We manage entire projects from prefeasibility right through to delivery and completion – or can simply be brought in to oversee specific project elements.

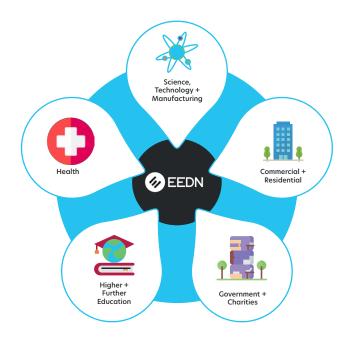
Acting as a single point of contact and responsibility, our combined in-house design and project management capability means we can provide a seamless, joined-up experience, including Client Representation, Project and Programme Management and strategic planning with Design management.

Our leadership brings together sector and industry experts, curating inclusive working cultures and facilitating transparent knowledge transfer within teams – enabling us to drive forward thinking and deliver exceptional outcomes for our clients and their projects.

Choosing EEDN.

Our design management as a standalone service can be engaged for the full project cycle or on a stage-by-stage basis to the project's needs.

We have also built strong connections with a pool of non-construction specialists (such as Clinicians, Logistics specialists, Process Engineers, and Economists) that allow us



to further enhance our offer particularly Strategic planning, programming and concept stages.

Our approach recognises that every project is unique, and we shape our solutions and processes to your distilled drivers. We offer an efficient holistic combined management team to suite your management process and the project needs and maintain a high level of Director involvement and control throughout.



What is Design Management and why?

Design management means different things to different people. The emphasis varies at different stages of the construction process.

The scope of the Design Manager depends on the client - Owner/Users, Developer and Contractors have different requirements from Design Management.

Ultimately, Design Management is about process, function and outcome it is not about aesthetics or style.

The complex nature and specialised requirements of Heavily serviced buildings in disciplines like SciTech, Healthcare and modern manufacturing demand a holistic joint up approach to projects from strategic conception to delivery.

We believe there are advantages to an independent Design Management team to be engaged, throughout the project to ensure the successful execution and delivery of these projects.

The need for Design Management.

Heavily serviced buildings often involve highly specific and complex system design and coordination elements that require more experienced teams and, subject to their end function, often have larger group of specialist consultants than traditional commercial projects.

It is in those projects that traditional standard project delivery methods may struggle to address these unique requirements effectively and where independent Design Management, involved from the beginning, offers a more comprehensive and targeted approach to managing the design process and team, with a view and understanding of the additional challenges to ensure that the end product aligns with the client's vision and project drivers.

The Understanding of functional flows and qualifications process as a route to a successful project

A key responsibility of Design Management in a technically advanced projects setting is to ensure the whole of the project team has a good understanding of the client's processes and building function and resulting service requirements taking place within the facility.

It is then the DM's role to lead the development of an architectural and MEP (Mechanical, Electrical, and Plumbing) strategy and design that combines the drivers and process into the best operable plan.

The Design Manger can ensure the design team does not lose sight of the client/user objectives, whilst at the same time "translating" the intended design solutions to the client, a feature more prominent with first time end-user clients.

Committing the project team to the facility's functional flows and the qualifications process enables an efficient design and delivery flow, while at the same time, internal team communication ensures the knowledge transfer is prioritised correctly to align with programme and vision.



Knowledge transfer and dissemination.

An essential aspect of Design Management is the transfer of knowledge across the project team.

A Design Manager should facilitate the sharing of information between stakeholders, ensuring that everyone understands the project's objectives, requirements, and constraints. This collaborative approach fosters innovation, enhances decision-making, and promotes a shared sense of ownership in the project's success.

The difference between Design Management and Project Management.

While both Design Management and Project Management are crucial to the successful delivery of a project, they cover different but interconnecting functions.

Project Management focuses on the overall coordination and execution of the project, including time, cost, procurement, risk, and resources.

In contrast, Design Management is concerned with the coordinated design process, knowledge transfer and operational process ensuring that the vision and drivers are not lost through the design and delivery stages and that the facility is fit for purpose, meeting the client's needs and complying with statutory, regulatory and industry standards.

The best results for projects come from the intersection of Design Management with Project Management

The intersection ensures that the design is carried out to the relevant requirements, to programme and cost, whilst at the same time 'designing out' risks.

The challenge of multidisciplinary and highly specialised teams.

Technologically heavy projects often involve multidisciplinary teams with highly specialised expertise. At the same time, overemphasis on the Architectural or Engineering designs can result in loss of clarity and deviation from the client's drivers introducing the risk of systematic failures onto the project.

An independent Design Management mitigates these risks by providing a neutral and unbiased perspective, ensuring that all aspects of the project are considered and managed effectively.



Design Management services and scope

The Essentials.

- Review and advise on design quality by going beyond the aesthetic review - by enquiring its support of the contract scope and brief.
- Estimate the quality of design compliance with the relevant RIBA stage.
- Facilitate coordination of design between members of the design and project team.
- Assess design regulatory compliance, identify risks in parallel to the Principal Designer role.
- Assist with design response to site and procurement constraints.
- The design manager (DM) is not a replacement for the Architect/MEP designers. Subject to project the DM can take on board the executive design role.

The wider interpretation.

- Design management as knowledge management, keeping the information flow between all members of the project team and ensuring production is compliant with the client's objectives.
- Interpretation of design information and process for the client and lay members of the project team to tangible construction elements.
- Quality control of the design team's output including design efficiency and compliance.
- Procurement support, assist and coordinate with the cost consultant to ensure a costeffective specification compliant procurement plan.
- Programme Support to the programme manager with compatible design programme and procurement methodologies.

- Construction problem solving either with the design team if available or directly with the Main Contractor.
- Adapt design methodology and support to procurement method e.g. Design and Build, Construction Management, Management Contracting, Traditional etc.
- Support risk management by identifying project risks and advising on methods to design out risk.

End user or Developer offering.

- Strategic planning, URS creation or Business case review.
- As part of a full Project management, Employer's Agent or Client Representative package which maximising project control. This compbines design overview and knowledge transfer with programme, risk, contract, and procurement management, which together with a cost consultant formulates an ideal position for project stewardship.
- A standalone offer in support of the existing team setup, which could be reduced to specific services or a particular stage (e.g. preconstruction).

Contractor offering.

- Preconstruction advice, review of tender and contract information and assist with collation of an efficient contractor offering.
- Construction support, through design problem solving and enhanced rocurement support.

Client Representative

Project Management

Design Leadership

Data integration

The generation, analysis security and storage of data is more important than ever for modern science. From sequencing and computing labs to cloud storage and data centres, establishing the flow of data early on is paramount for integration, whilst future proofing and

CQV

Whether for FDA, MHRA, EMA, or other regulatory bodies, the CQV process needs to be integrated into the project schedule and closely monitored to prevent slippage, using a defined 4Q plan from the outset.

Project Controls

We utilise a data-driven approach to understand, monitor and adjust the project processes. For the programme schedule, we use an analytical review and baselining process to retrospectively understand the progress to date and allow us to be proactive in predicting and making decisions.

Operational Readiness

The process of moving from execution to using the asset requires the alignment of several different disciplines, from distribution and logistics to raw materials, HR, IT and soft landings. Our detailed responsibility plan, coupled with stakeholder management ensures that everyone

Briefing and pre-feasibility

Defining the project requirements at the outset is important to allow for the correct execution of the project. With strong and established relationships with the industry's best consultants, we are able to quickly identify the requirements and develop a robust brief that will serve the project as a reference point and

GMP

With an in-depth knowledge of the Architectural and Engineering implications of a Good Manufacturing Practice (GMP) environment, we drive the project with confidence that the regulatory targets will be achieved, including the CQV process and the Validated EMS system.

Contract Administration

Understanding the procurement environment is key to a successful project. We help identify the best route and administer the terms of the building contract. Our processes are at the forefront of good administrative practices, using the latest tools in the together with proactive monitoring, ensuring early mitigation.

Stakeholder management

Communication between all the different groups of the project is key. We understand the science, from how it gets done to the equipment used, which allows us to support our clients in making the best decision. Our stakeholder communication plan is developed with buy-in from the outset and a route for stakeholder



SCIENCE

EEDN is a founding member of the Constructing Science consortium, the leading consortium in the UK to define the design and project delivery, standardise the nomenclature and offer guidance for the design and delivery of science projects.



www.constructingscience.com



Design Leadership

Proactively ensuring alignment of all aspects of design back to the business case and corporate objectives.

The process of controlling the design process and outcome is paramount in the delivery of complex science projects. At EEDN we take design leadership to the next level, way beyond design controls and into alignment of design with the rest of the business functions, the masterplan and the project objectives.

Our robust quality control process has been trialled and tested and together with our stakeholder engagement process sets the expectations from the outset. We actively promote our teams to use the latest digital design tools to allow for 3D coordination prior to physical construction, thereby identifying issues early and resolving them ahead of time.

Fostering an environment of sharing and innovation, supporting knowledge sharing.

Through a robust responsibility matrix we develop an exhaustive list of all the project deliverables and inputs, not just for design but also from a stakeholder input perspective, keeping the team focused.



Masterplanning

The most crucial part of the lifecycle, a successful masterplan should align the design and programme with business targets and KPIs.

In leading the masterplan team, we begin with the end in mind: the need to support the specific development aspirations of the institution; those that are currently known whilst also providing a robust, coherent yet agile framework to support future requirements which may not currently be identified.

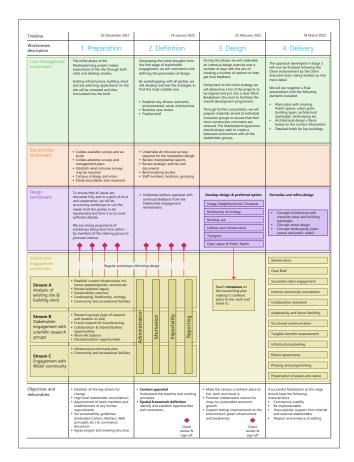
The development planning for sites requires the management of multidisciplinary teams, multiple workstreams and inputs from multiple internal and external stakeholders. It also requires a good collective understanding across the full team as to the key drivers and purpose of the study.

EEDN have extensive experience leading and managing multi-disciplinary teams and have facilitated several workshops to control the critical stakeholder engagement process. Our methodology relies on an iterative process capturing the requirements and developing the plan according to the vision:

01. Information gathering & baseline Workshop phase with the team and stakeholder groups, synchronising process with clients' expectations.

02. Develop strategic vision

Work further with the team to develop a Vision Document encompassing the review of existing facilities, pipeline projects and blue/green infrastructure including delivery routes and other requirements



03. Phasing plan

Ensuring that the development can take place in an orderly fashion without locking in any areas and allowing flexibility to accommodate some of the ad hoc nature of development.

04. Feedback and implementation

We complete the report, seeking final feedback and implementing the changes. We review the flexibility of the masterplan and carry out stresstesting to review possible scenarios.



Briefing and pre-stage 0 feasibility

Pre-Stage 0 is the valuation of a business case from first principles.

When reviewing the history of complex building sectors such as SciTech and Healthcare we encounter numerous examples of spaces requiring refurbishment or even repurposing shortly after occupancy. Why is this the case?

Short-term planning.

Organisations are reacting to immediate and near future needs, pressure points and funding streams. Time frames for the design and execution of heavily serviced buildings and the speed of technological evolution tend to be ignored. The utilitarian nature of the space is also neglected and the question of 'what it will be in five to ten years' time?' is missed, rushing to push projects into the 'Built Box'.

Introducing a new level of futuregazing.

The pre-stage zero (referring to RIBA Stages) is an organisational inward-looking process. This stage is not about the building but about the distillation of the targets, drivers and aspirations of the project.

EEDN tailor expert teams to support organisations in assessing their drivers.

We believe the conversation should be as pluralistic as possible. It should represent a convergence of disciplines that will supplement the core organisational expertise.

The pre stage zero process must be of strategic importance. The deep-dive evaluation of

aspirations leads to an uninhibited view into the mid- to long-term future.

It provides an alignment of the existing strengths as well as future needs. Most of all, it's a view which is constantly evolving. The pre-stage zero process validates the business case and will define whether a building project is necessary or whether its typologies are relevant.

Once committed to a project, we believe in reviewing the strategic decisions at agreed project milestones, minimising unplanned postoccupancy updates.

We believe in simple and adaptable design where decision making is based purely on organisational drivers such as product.

User briefing

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Get in touch



ELAD LEVIN DIRECTOR

BSc Arch Dip Arch RIBA BREEAM AP, LEED GA

E ■ elad.levin@eedn.co.uk T ■ +44 (0)7771 636 861





EEDN Ltd Suite G 70 St John's Hill London SW11 1SF United Kingdom

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