

transport facility development

operations-focused design expertise and support through all facility development stages

o&i consulting helps transport and logistics organisations to plan, design and optimise their operations. For new facility developments, we provide specialist, independent operations advice and support, helping transport facility operators, engineering companies and architects to create, from an early stage, plans and designs that will function effectively from an operational perspective.

Terminal developments, whether expanding and modernising existing buildings or constructing brand new facilities, need to satisfy the complex and conflicting requirements of a large number of stakeholders. With many demands on available space - retail, operations, logistics, passengers and baggage to name a few - and many flows moving around this space in varying numbers across the day, we appreciate the challenge in delivering design plans that meet the requirements of all parties while realising opportunities to create effective, future-oriented facilities and maximising investment.

Working with clients from early strategic planning phases and supporting throughout RIBA and international equivalent design stages, o&i consulting employs a broad spectrum of operations planning, design and analysis skills. Through our fact-based approach, we establish how the facility will be used by all people, goods, waste, logistics and vehicle demand to determine capacity requirements over time. We look at proposed and potential layouts, processes and equipment, considering interdependencies between functions and flows. With the outputs of our analysis and assessments, we identify where changes are necessary and recommend operations design solutions that satisfy design objectives and are viable, flexible, functional and efficient. If construction activities encroach on live operation, our team helps clients to temporarily redesign and manage demand during evolving development phases.

From our experience, a key element in achieving successful operations solutions in multi-stakeholder projects is engaging in a collaborative manner from project inception and maintaining regular, structured communications with all involved parties.



Benefits of early involvement in the design process

- Bringing multiple stakeholders, often with opposing views, together from the outset
- Operational input in the strategy development phase, therefore reducing rework in latter design stages
- Early identification of missing operations data and information necessary for robust operational planning
- Clear view of interdependencies between functions and flows, ensuring secondary flows and process changes are planned and integral rather than 'add ons'
- Consideration of the impact of development on businessas-usual, with structured plans for the continuation of live operation.



our offering: transport facility design

- Operations design support and analysis for RIBA and international equivalent design stages
- Assessment of existing facility plans and designs from an operational perspective and improvement recommendations
- End-to-end operations planning and management strategies
- Early information and data gathering, ensuring plans are based
 on a robust data set
- Data analysis and scenario modelling, including the development of bespoke Excel-based models for project analysis
- Capacity and demand planning for different design options over time
- Determining user requirements and how these impact design
- Modelling and optimisation of people, baggage, logistics, goods-in waste-away, vehicle, cargo and parcel flows and processes for horizontal and vertical terminal circulation

- Facility sizing and functional layout planning and design
- Solution options for future layouts, flows and processes and identification of preferred design solutions
- Trialling and testing of recommended layouts, processes and equipment offline and in live operation
- Routine stakeholder workshops to understand the view points of individual parties and support decision-making, therefore avoiding confusion and rework later in the project
- Concept of Operations development and advice
- Analysis of the impact of construction activities on BAU operations at different development phases, and strategies to reduce the effect on live operation
- Independent advice to all development project stakeholders: including transport facility operators, terminal planners, architects, engineering companies and consultancies.

o&i consulting has an impressive track record of working on national and international transport facility development projects. Our clients in this field have included: Al Maktoum International, Athens, Brussels International, Budapest, Heathrow, Manchester, Muscat and Stansted airports; Asendia, Crossrail, Eurotunnel, St Pancras Station, various UPS parcel hubs; and HSI, Jacobs, PA Consulting and Pascall + Watson.

about o&i consulting

o&i consulting is a niche operations consultancy, specialising in the transportation and logistics sectors. We apply industrial engineering and operational research skills, project management expertise and broad industry experience to help our clients to fully understand their operation, improve the performance of their existing operations, develop efficient new facilities and create a positive customer experience.

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