Role summary

The Sustainability Group offers a wide range of transformational sustainability skills to our clients and projects at corporate, national, regional, city, infrastructure, masterplan, building and product scale and leads F+P CSER work. You will work from the London office to lead development of applications for whole life carbon impact of buildings, masterplans, and cities using advanced computational techniques. You will support and report to the Leader of the Technical Development Team within the Sustainability Group and ultimately to Head of Sustainability.

Your work will contribute to the development of sustainable architectural designs and help inform decision-making processes to reduce carbon emissions in the built environment.

Role Definition

Job title: Sustainability Computational Designer
Reporting to: Leader of the Technical Development Team

Responsibilities

- Utilize computational design tools and methodologies to visualize and simulate the carbon impact of buildings, masterplans and cities at various stages of design and construction.
- Develop and implement computational models and algorithms to analyze building performance metrics, including energy consumption, greenhouse gas emissions, and resource utilization.
- Collaborate with architects, engineers, and sustainability experts to integrate computational design strategies into the building design process.
- Conduct research and stay up-to-date with the latest advancements in sustainable design, computational design, and carbon analysis techniques.
- Generate compelling and informative data visualizations, graphics, and interactive tools to communicate the carbon impact of buildings to stakeholders and clients.
- Provide technical expertise and guidance to junior team members, assisting with their professional growth and development.
- Participate in interdisciplinary meetings and contribute to the development of sustainable design strategies and initiatives.
- Assist in preparing proposals, reports, and presentations related to computational design and carbon analysis.
- Assisting to develop the sustainability group, its capabilities and project inputs
- Responsibility for the capacity building of F+P staff with regards to sustainability in projects
- To raise the external profile of Foster + Partners in the above issues
- To cultivate mutually beneficial links with clients and other industry collaborators and organisations
- To conduct continuing research into techniques to improve the approach
- To produce, reports, presentations, technical information, prototypes, digital and physical models to support the responsibilities
- To monitor progress on projects against the Foster + Partners Responsibility Framework and focus improvement
- Contribute, or otherwise assist, as required
- Equity, diversity & inclusion (EDI) is a core priority. To support and champion the embedding of this focus as a collective workforce responsibility, EDI should be integrated, where relevant, into all workstreams.
- Thorough knowledge of and compliance with F+P procedures and standards

Qualities and Skills required

- Able to demonstrate ability to undertake the above responsibilities
- Legally able to work in the country in which the position is based
- Bachelor's or Master's degree in Architecture, Engineering, Computer Science, or a related field.
- Proven experience (8+ years) in computational design, parametric modelling, or similar roles.
- Strong proficiency in computational design software such as Rhino, Grasshopper, Dynamo, or similar tools.
- Unreal Engine experience would be an advantage.
- Solid understanding of sustainable design principles and practices, particularly in the context of the built environment.
- Experience in visualizing and analyzing building performance data, including carbon emissions, energy consumption, and environmental impacts.
- Proficiency in programming languages such as Python, C#, or JavaScript.
- Excellent analytical and problem-solving skills, with the ability to translate complex data into clear and compelling visualizations.
- Strong communication skills, both written and verbal, with the ability to effectively communicate technical concepts to non-technical stakeholders.
- Experience working in multidisciplinary teams and collaborating with professionals from different backgrounds.
- A passion for sustainability and a drive to make a positive impact on the environment through computational design.
- Ability to work independently and as part of a team.
- Having proven organisational, leadership and management skills
- Building networks for effective and impactful relationships at all levels, internally and externally
- Ability to lead the training of other members on the team
- Excellent organisational skills
- Able to manage sensitive and sometimes confidential information
- Self motivated and able to take responsibility
- Able to demonstrate initiative and a proactive approach to daily tasks
- Good interpersonal skills and able to work independently and as part of an effective team
- Flexible attitude
- Able to build good relationships at all levels, internally and externally
- Resilient to cope with conflicting demands, able to prioritise duties and work effectively under pressure.
- Able to work as part of an effective team assisting and supporting team members

This description reflects the core activities of the role but is not intended to be all-inclusive and other duties within the group/department may be required in addition to changes in the emphasis of duties as required from time to time. There is a requirement for the post holder to recognise this and adopt a flexible approach to work. Job descriptions will be reviewed regularly and where necessary revised in accordance with organisational needs. Any major changes will be discussed with the post holder.