

## Project Specification

### Tender details – the opportunity

Company name	David Miller Limited – trading as David Miller Architects
Company address	41-42 Foley Street, London W1W 7TS
Description of company activity/SIC code	Providers of General Architectural Services. SIC code 71111
Objective of the proposed innovation project– this MUST involve activity that results in the development of or introduction to the market of a new product or service (max 300 words)	<p>As we move from an analogue to a digital workflow, our design output sits within the computer. Because the digitisation of the design process has accelerated it, it is now less viable to make physical models due to the cost and time required. However, although it opens up all sorts of possibilities of working in three dimensions, viewing the digital model is still an abstracted experience – we still generally find it easier to understand a design idea by looking at something real rather than something virtual.</p> <p>Our objective, therefore, is to develop techniques to produce physical prototypes of our design ideas that are a natural extension of our established digital workflow. By identifying techniques where this can be done in an efficient, cost-effective way rather than an expensive, time-consuming process, physical models will become viable, not just for one-off special projects, but also for everyday projects like schools and housing, to improve the quality of outcome for our clients and the buildings’ end users.</p> <p>New techniques would be incorporated in to our workflow to enable the seamless application of the digital information to produce the physical representations to develop the design. These would not be physical models to “sell” finished buildings, but aids to better explain and refine ideas and details with our clients, design team partners and supply chain.</p>
Company’s current situation – existing project team and innovation project development stage (max 400 words)	David Miller Architects (DMA) are recognised as an SME at the forefront of digital design and construction techniques including DfMA (Design for Manufacture and Assembly) both in the UK and overseas. The practice adopted BIM (Building Information Modelling) techniques on all of our projects since 2010 and worked with the Government’s BIM Task Force to support adoption throughout the UK to meet their 2016 BIM mandate. We now work with their Digital Built Britain group that is focused on establishing a smart digital economy for the future to transform the UK construction industry’s approach to the way we plan,



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	<p>build, maintain and use our social and economic infrastructure.</p> <p>As a result, at DMA we have an established digital workflow that we have structured our practice around. To date we've addressed the challenge of the design sitting in the computer, by extracting flat virtual information and projecting it onto our white board using interactive projectors. We have purposefully avoided physical 3D models to concentrate on these virtual models. Our proposed project will take us into the next phase as we re-imagine the physical model in a virtual workflow. It will only work if the techniques are cheap, rapid and disposable.</p> <p>DMA's project team has senior level commitment and participation: David Miller – Director and Principal Architect Andrew de Silva – Director and Head of R&amp;D. The project will become part of our rolling 3 year R&amp;D programme.</p> <p>In terms of resource, techniques will be piloted and evaluated on live projects with the involvement of the relevant project team members.</p> <p>With our reputation as leaders in digital design, DMA's team have both the high level technical capability to undertake this work and the innovative mind set to take the project from concept to realisation.</p>
<p>Business need – what expertise and support is required from a Knowledge Base to reach the objective(s) above? (max 400 words)</p>	<p>DMA require a Knowledge Base partner to help us to understand the full and true potential of the range of rapid prototyping tools that are available in the market place. They will have access to these tools in-house, as well as a range of suitable materials, so that tests can be readily and cost effectively undertaken and turned around within a reasonable time frame to ensure timely project progression.</p> <p>We require Knowledge Base staff with expertise in how each of the available tools and systems work, knowledge of how they can be adapted to varying degrees so that we can work together to produce the physical models and potentially push techniques beyond their current types of output. Our Knowledge Base partner would therefore interface with the means of production to help us evolve the project.</p>



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	<p>We envisage that Knowledge Base staff will split their time between being embedded within our team in our central London studio and then producing the physical models in their workshops. This way the staff will gain first hand insight into DMA's projects and how we are developing our digital design information, and in turn this will ensure that their choice of production method will be fully informed.</p> <p>DMA will provide the detailed knowledge of the digital architectural workflow from the RIBA (Royal Institute of British Architects) Work Stages 0 to 7, but it is preferable that our Knowledge Base partner has high level understanding of the architectural design and delivery processes. A Knowledge Base partner that includes senior level staff with understanding of the Government led construction industry strategy and the imperative to modernise would be valuable in ensuring that we are all aligned in our thinking and commitment to finding new solutions.</p>
Please list six key words that describe your potential project, i.e. ICT, engineering, biotech etc.	Architecture Construction Physical models Rapid prototyping Digital workflow
Required timescales (if any) for Project Start and duration, and if applicable anticipated product launch date	Start date – ASAP. Duration – to have proven new techniques incorporated into our workflow by end September 2019
Optional - company budget available to match fund KEEP+ grant (if known) please see 'Further details' for maximum funding amounts	TBC
Company Contact for further information	Fiona Clark Practice Director – David Miller Architects <a href="mailto:f.clark@david-miller.co.uk">f.clark@david-miller.co.uk</a> 0207 636 4318 <a href="http://www.david-miller.co.uk">www.david-miller.co.uk</a>
Required tender response date (min 20 working days from posting of advert)	20 days from posting advert
Responses are sought from organisations classified as Knowledge Bases, defined under the ERDF Definition of the Knowledge Base: Higher Education, Further Education and Research Entities	

which are: UK Public Sector Research Establishments, Research and Development Organisations, Research and Technology Organisations.

The Company is seeking a Knowledge Base partner to work with them to develop a project which, dependent on a successful Grant Application, will be supported by the KEEP+ ERDF project using one of the three types of intervention described below. Please also see KEEP+ website – link.

The Company would like to work with a Knowledge Base partner under a two stage contract.

In Stage 1 they need the expertise of a Knowledge Base partner to develop and design the project which will deliver the solution for their business need and support their grant application to KEEP+. The Company have already secured a Grant from KEEP+ of up to £1k to fund 50% of the cost of this activity, subject to them procuring a suitable KB partner.

In Stage 2, if the grant application to KEEP+ is successful, the Company requires the expertise of the Knowledge Base partner, to work with them to deliver the solution i.e. the project intervention supported by the KEEP+ grant.

Criteria for Decision making	Assessment criteria are as follows <ul style="list-style-type: none"> <li>• Expertise fit</li> <li>• Timing fit</li> <li>• Suitability of proposed methodology</li> </ul> Weighting is determined by the SME partner
Date for Contract Decision	Minimum of 20 working days from date of advertisement
Tender response templates	Please approach the company for the exact format of your response.

### Further details for potential respondents

You are responding to a tender for an activity which is eligible for part funding by the European Regional Development Fund, specifically under the KEEP+ Programme.

The KEEP+ Programme aims to support SMEs to develop new products and services by fostering long term collaborative relationships between Knowledge Bases – Universities and research institutions – and SMEs who need expertise and support for innovation.

Please see KEEP+ website for further information [www.KEEPplus.co.uk](http://www.KEEPplus.co.uk) or contact the KEEP+ project team 0845 196 4310 [carole.randall@anglia.ac.uk](mailto:carole.randall@anglia.ac.uk) or 0845 196 4207 [cheryl.cook@anglia.ac.uk](mailto:cheryl.cook@anglia.ac.uk)

KEEP+ provides maximum allowable grants for its specific types of intervention. Those intervention types and maximum grant levels are as follows;

- Innovation Internship (max 12 week duration) – this intervention involves a graduate intern working on a relatively short term activity, they are based within the beneficiary company - grant allowance 50% of eligible costs to a maximum of £2,828.00 (please note, NO stage 1 grant).



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- KEEP Knowledge Exchange Embed Partnership (12 month duration) - this intervention involves a graduate working on a mid- to long-term activity with the support of a specific academic staff member, the graduate is based within the beneficiary company - grant allowance 50% of eligible costs to a maximum of £30,275.00 revenue (including maximum Stage 1 grant) and £6,000 capital.
- KEEP Research and Innovation Collaboration (no fixed duration) this intervention involves an academic colleague working on a short- to long-term activity, they are based at the Knowledge Base but with regular face-to-face interaction with the beneficiary company - grant allowance 50% of eligible costs – these grants have an average cost of £19,250.00 revenue (but may range from £5,000-40,000, including maximum Stage 1 grant) plus a strict maximum of £6,000 capital.
- Capital grants are only available for the KEEP or Research and Innovation Collaboration projects, not Innovation Internships and any capital items must be procured separately.

The following is a guide to the types of cost that you should expect to occur should your application be successful;

- Innovation Internship (max 12 week duration) – intern wage, administrative support
- KEEP Knowledge Exchange Embed Partnership (12 month duration) – project development, associate wage, academic wage, administrative support, training and travel (on the part of the knowledge base employees), minor equipment (please note there is a potential separate grant for major capital purchases), recruitment
- KEEP Research and Innovation Collaboration (no fixed duration) – project development, academic wage, administrative support, consumables (please note there is a potential separate grant for major capital purchases)