Network Plus: Industrial Systems in the Digital Age

Feasibility Studies – Call for Proposals

Closing date: 09 December 2016

Background

Industry and manufacturing are changing with the advent of smart digital, autonomous and intelligent technologies. Values for manufacturers are changing from production to technological knowhow and design; ownership models are changing from outright ownership to collaborative and long term partnership; media are continuing their shift from physical to digital; there is an increasing focus on distribution of work and service; and the partnership between the manufacturing sector and the technology sector is increasingly key. This shift is taking place in the societal and business context of the UK in the 21st Century. In order to harness the potential from this shift, the changes in human skills, capabilities and working environments needs to be considered, alongside the development and change in business models that underpin industry and innovation.

Changes to future industrial systems in the digital age demands funded research in order to ensure that the UK is well placed within an international context to respond to the challenges presented from industry and to implement new science and engineering into real world systems as quickly and effectively as possible.

The Network Plus: Industrial Systems in the Digital Age is funded by the EPSRC Manufacturing the Future challenge theme, addressing the area of Digital Manufacturing. There will be a particular focus on ensuring that challenges addressed within the Network Plus are driven by the current and future industrial context. The Network Plus is bringing together core colleagues from the Manufacturing, Digital Economy, Design, Human Factors and Business communities to build new collaborations between leading academics and industry partners. It will:

a) Identify relevant elements from these existing activities to conduct international benchmarking and establish the UK lead in specific elements of relevance to Future Industrial Systems in the Digital Age;
b) Enhance cross-sectorial learning and fertilisation; and
c) Identify new, discipline-bridging, agenda-setting opportunities for feasibility studies leading to scientific insight and future platforms and funding applications from national and international funders.

Feasibility study funding call

£600,000 of this Network Plus project has been allocated to funding a series of feasibility studies. Projects can be between 6 and 24 months in length, and should complete by June 2019. Due to the ongoing development of key thematic areas for the Network, it is likely that not all funding will be allocated during this call and that a second call may take place later in 2017.

The Network Plus is currently developing a set of thematic areas and at its recent launch event, the following initial suggestions were identified:

- Industrial Internet of Things
- People and automation
- Cyber / physical systems
- Data analytics and decision making
- Skills and jobs
- Service design and customisation
- Sustainability
- Cybersecurity
- Design for future manufacturing

Whilst these can be used as a guide, this is not an exclusive list and proposals do not need to fall within these areas.

What is the aim of the funding?

The aim of the feasibility studies is to enable cross-disciplinary, foresight, speculative and risky early-stage research, although building a demonstrative prototype is also welcomed. We are looking at funding pre-Responsive Mode proposals. Applications from early career researchers will be particularly encouraged, and projects will also be asked to collaborate with industry partners where possible. We are keen to support collaborations that would otherwise not happen.

Application Process

Awards will be made via short written application, followed up by a "Dragons' Den" style pitch, reviewed by a multidisciplinary panel including representatives from industry. Each feasibility study will be expected to deliver a discipline-bridging state-of-the-art review, early stage concept development, or demonstrator technology focussing on highlighting the transferability of technology concepts from other domains to manufacturing and industry.

Successful applicants will be expected to attend network events and will be required to present project updates at the three network annual conferences. In addition, there is a requirement that presentations on the successful projects are made at the "Digital Technologies for Manufacturing Innovation: Embracing

Industry 4.0" conference being held at The University of Nottingham on 6th and 7th March 2017.

Selection criteria

Applicants should consider that the following criteria will be considered by the review panel when assessing the proposal:

- Multidisciplinary and clear demonstration of "discipline-bridging" through activity;
- Involvement of industry stakeholders;
- Involvement of early career researchers;
- Potential for development of future funding applications from EPSRC (responsive mode), Innovate UK or Horizon 2020;
- Demonstration of transfer of concepts from other domains to manufacturing;
- Potential to lead to strong dissemination materials;
- Paths to accelerate impact of research to ensure rapid transfer to industry.

(Note: not all criteria will be relevant to all)

Key dates

26 October 2016	Call for proposals goes live
18 November 2016	Virtual Q&A information session
09 December 2016	Deadline for submissions
18 January 2017	Dragons' Den Day
01 February 2017	Successful proposals announced
06 March 2017	Present study outline at "Digital Technologies for Manufacturing Innovation: Embracing Industry 4.0" conference (University of Nottingham)
March – June 2017	Feasibility studies begin

All feasibility studies should have completed by June 2019.

Eligibility

Guidelines on eligibility can be found here. Eligible organisations include all UK Higher Education Institutions that receive grant funding from one of the UK higher education funding bodies, along with research institutes for which the Research Councils have established a long-term involvement as a major funder. Other independent research organisations (IROs) may also be eligible and a list of such organisations is available here.

What can the funding be used for?

The budget outline for the proposed feasibility studies can include investigator/researcher time, travel and subsistence appropriate to delivery of the project, and small scale consumables. Equipment is eligible following EPSRC standard conditions: http://www.epsrc.ac.uk/research/facilities/equipment/

As the grant holder, the University of Nottingham is responsible for allocating funding to successful proposals and will reimburse subcontracting organisations at 80% full economic costing. Academic institutions will be required to itemise bills based on 100% FEC and then invoice at 80% FEC.

Submitting proposals

Feasibility study applications should be submitted by email to moira.petrie@nottingham.ac.uk by 12:00pm on Friday 09 December 2016. They should be no more than four sides of A4 in 11 point font.

Proposals for feasibility studies should include, but are not limited to, the following content:

- Project Title
- Lead organisation
- Details of the project team, including industry partners. Please indicate which members of the academic team are early career researchers.
- Start date and duration.
- Context, aim and objectives and benefit of the work.
- A statement of the novelty of the proposed work.
- An outline project plan
- What are the tangible deliverables of the feasibility study?
- How could further funding in this area be obtained?

A breakdown of the allocation of the funds with a short justification for each category is also required. The categories are:

- Directly Allocated
- Directly Incurred
- Indirect Costs

Further Information

If you have any questions regarding this call for proposals, please contact the Network Plus Manager, Moira Petrie (email: moira.petrie@nottingham.ac.uk, telephone: 0115 82 83077).