



Future of Project Management

A forward looking, inspiring vision for the project management profession



Today.....

Introduction

Trends and drivers

Future client stories

What next and how can you get involved?



ARUP

Our core values

quality of work
holistic approach - total design
humane organisation
straight and honourable dealings
social usefulness
reasonable prosperity

aims

a diverse membership of quality
efficient organisation
solvency
unity and enthusiasm

means

satisfied members
satisfied clients
good reputation and influence

results

Publications

We encourage sharing and collaboration. The below publications are the result of projects delivered together with internal and external partners. They showcase our focus on thought-leadership, forward thinking, and innovation. Please [contact us](#), if you would like to receive a hard copy of any of the reports, require additional information, or would like to deliver a similar project with the team.



Download pdf —25 MB

Blockchain Technology

This report offers extensive industry-specific insight into the technology. It presents potential use cases relating to BIM, Smart Cities, Supply



Download pdf —5 MB

Future of Project Management

Best practice, emerging trends, and forward thinking on the future of project management



Download pdf —4 MB

Future of Retail

Report exploring a range of trends impacting the future of the retail sector



Download pdf —2 MB

Technology Timeline 2017

20 emerging technologies with a high disruption potential for the AEC industry



Download pdf —9 MB

Future of Libraries

Trends shaping the future of libraries in terms of the social infrastructure they provide and the services they offer



Download pdf —12 MB

Living Workplace

Trends shaping the future design, utilisation and operation of commercial offices



Download pdf —14 MB

Introduction to Corporate Foresight

Introduction to corporate foresight, including key principles and methods



Download pdf —6 MB

The Circular Economy in the Built Environment

A new approach to sustainable supply chains and resource flows



Download pdf —7 MB

Future Transport: UK

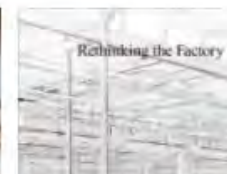
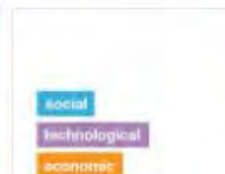
A set of fifty informational cards describing trends and issues shaping the future of transport in the UK



Download pdf —16 MB

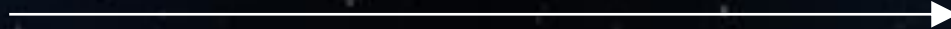
Towards a Walking World

Social, economic, environmental and political benefits of walking in cities



Project Management as history

Singularity



Singularity

A Project Management Journey to 2040

Glossing over the Pyramid of Giza, the Great Wall of China and Henry Gantt, modern project management has its roots in the aerospace, construction and defence industries of the 1960s and 1970s. It wasn't until the 1990s when standardised procedures and approaches were formalised and project management as a client-focused, continually improving profession emerged.



1990

Arup launches Programme and Project Management business

First public access to the internet

1995

Prince 2 published by CCTA

The Project Management Body of Knowledge (PMBok) becomes a standard

2000

Agile Project Management manifesto written

2005

Heathrow Terminal 5 opens

Project management named as one of the top five in-demand skills

2010

The London 2012 Olympics and Paralympics Games

Number of mobile devices and connections surpasses the number of people on the planet

2015

APM become the Chartered body for the project profession



2020

Frugality of resources peaks

Blockchain of project data emerges

2025

Social Responsibility becomes a chapter of the PMBoK

First domestic installations of 1TB/s fibre

2030

Every top-100 firm has a project management professional in at least one C-suite role

2035

Project management becomes part of the UK National Curriculum

Neurotechnologies common in project environments

2040

Smart algorithms proven to be better than expert judgement

2045

Virtual telepathy dominates personal communications

5th October 1992



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Trends and drivers

that will have global impacts on the way we deliver change through projects



1 Globalisation and Virtual Teams



2 Open Innovation Culture



3 Diversity of Workforce



4 Gig Economy



5 Changing Corporate Culture



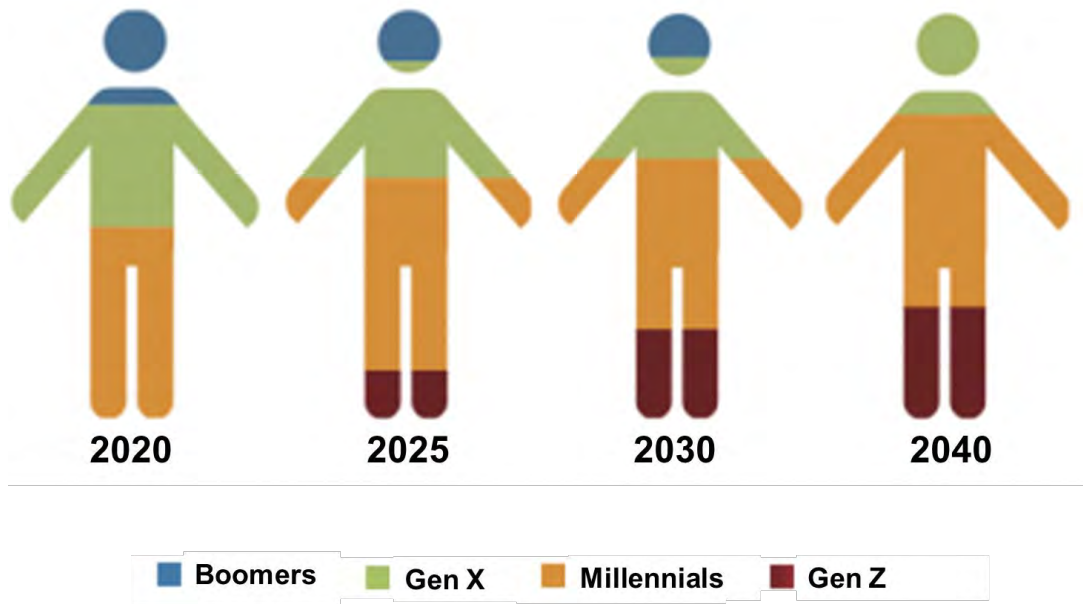
6 Automation and Human-Machine Collaboration



7 Digital Constuction and Project Complexity



1. Diversity of Workforce



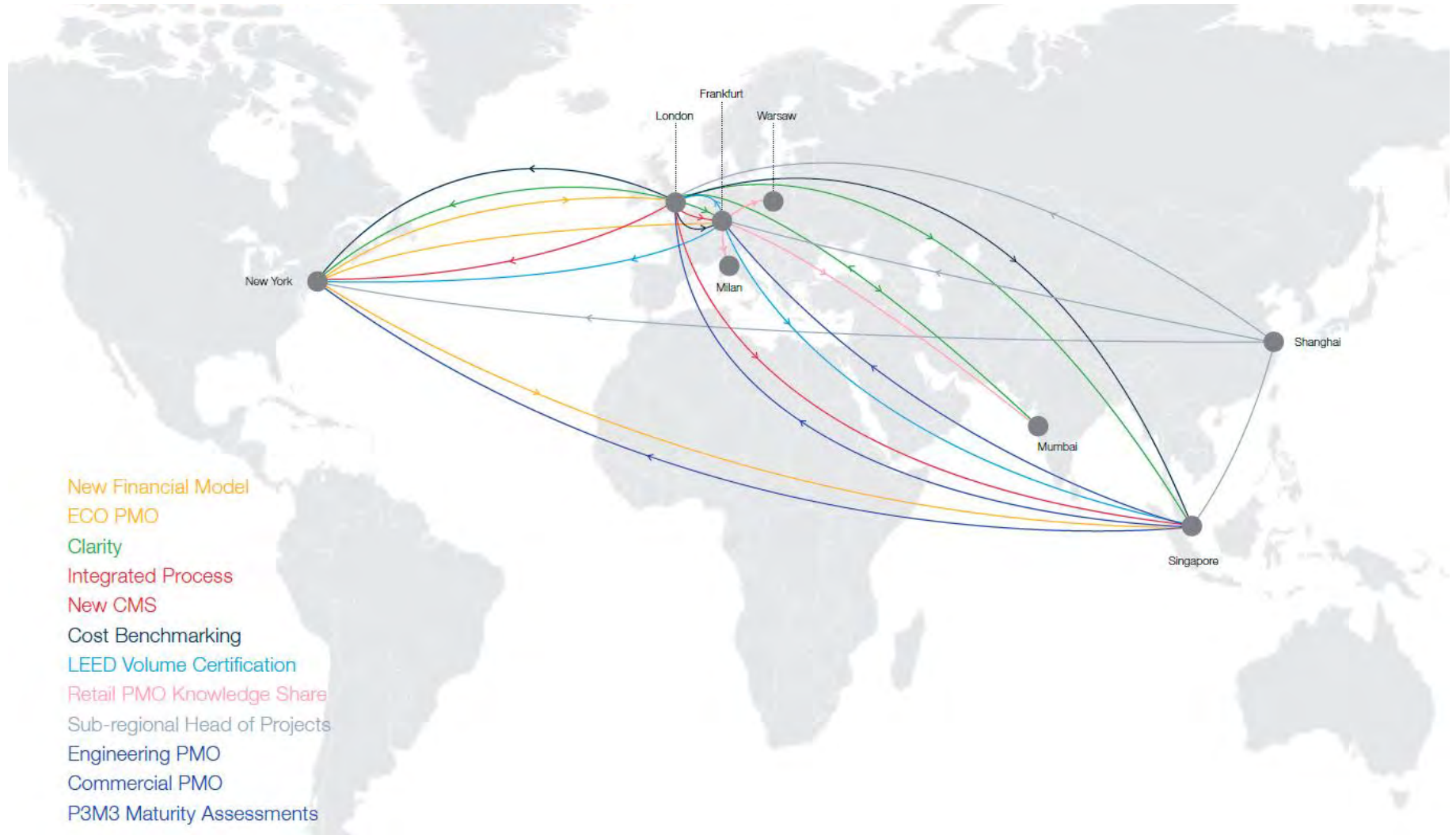
How long until gender parity?



WEF Global Gender Gap Report 2018

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2 Globalisation vs Fragmentation



2 Globalisation vs Fragmentation

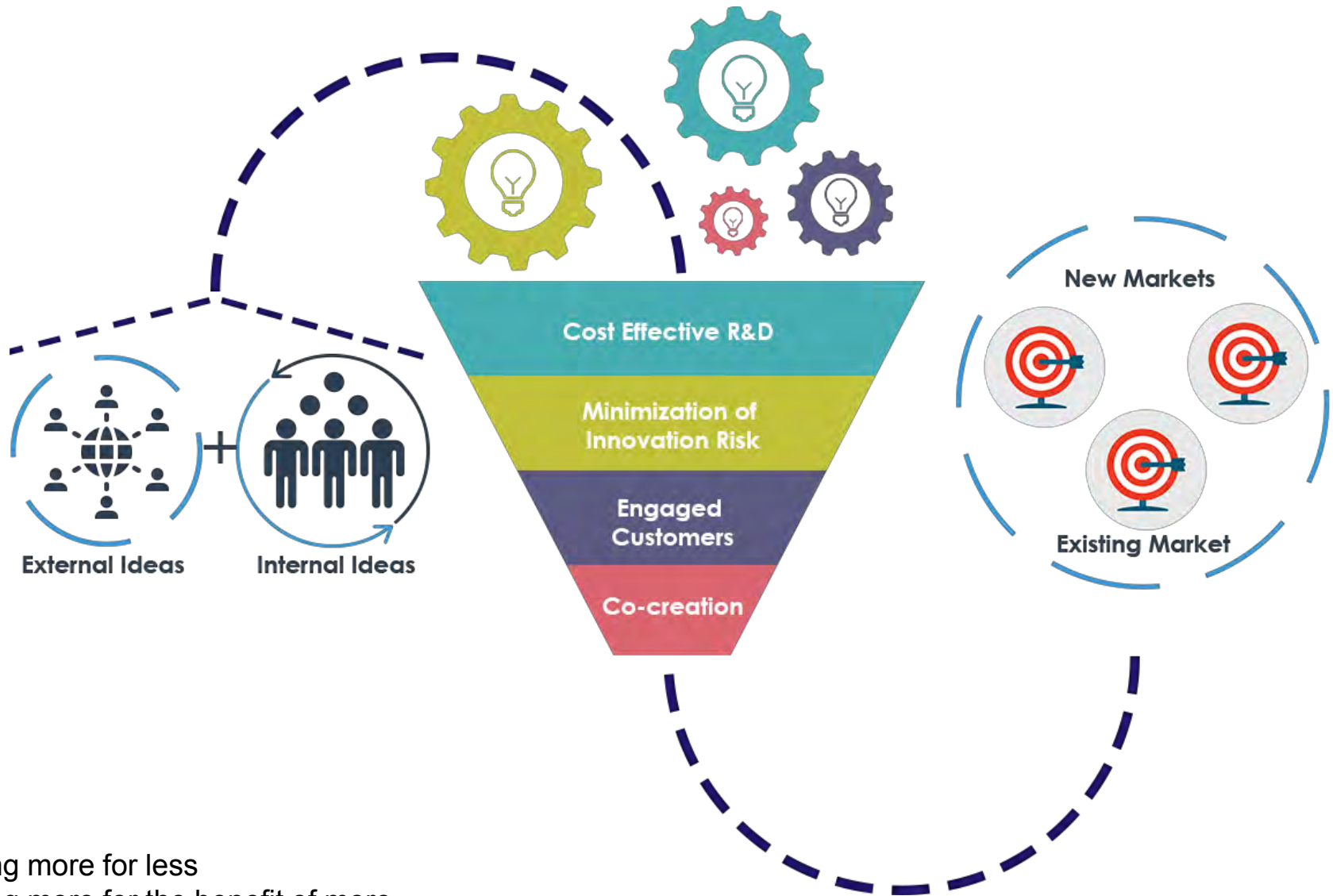


3 The Gig Economy



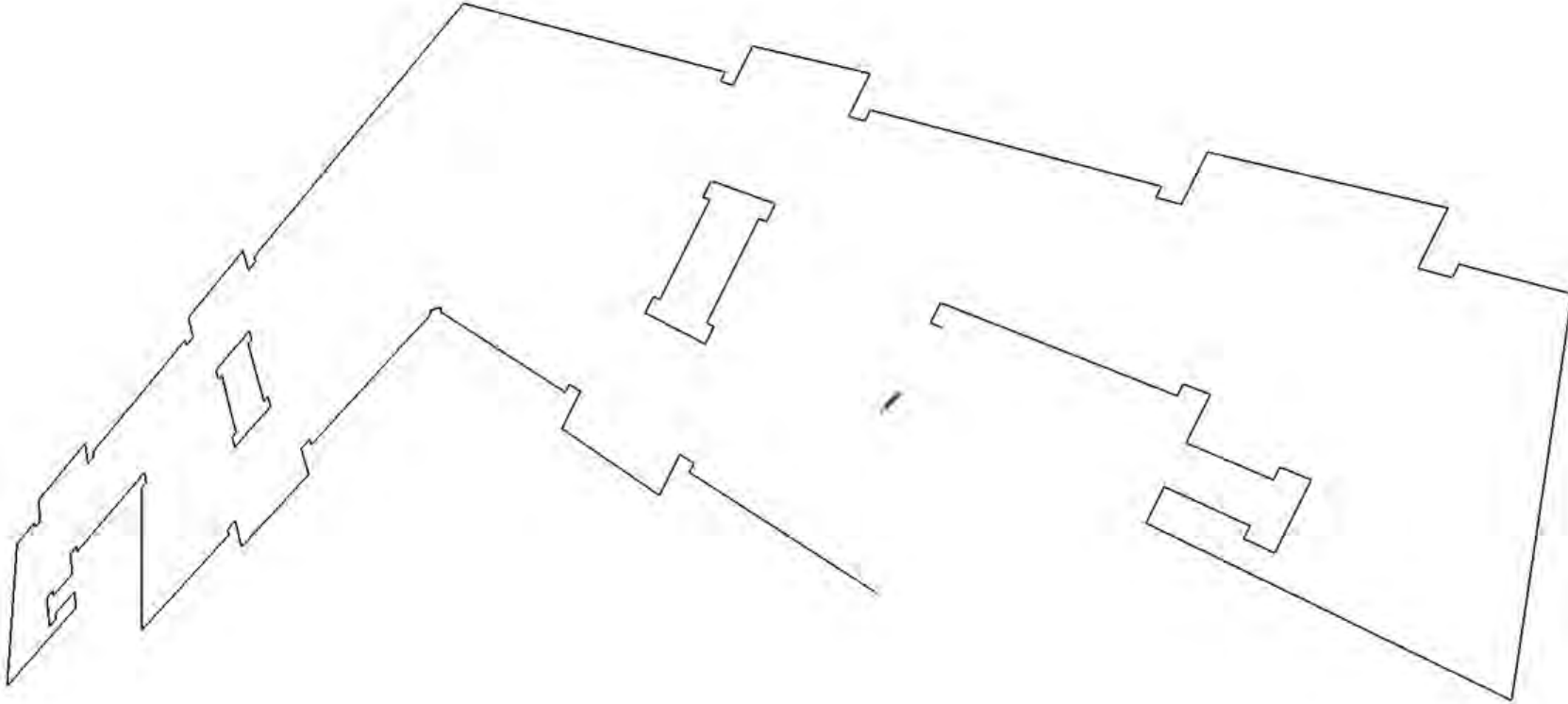
“ Digital work platforms and gig talent add yet another layer of complexity and opportunity to project team models ”

4. Open Innovation and Sharing



Doing more for less
Doing more for the benefit of more

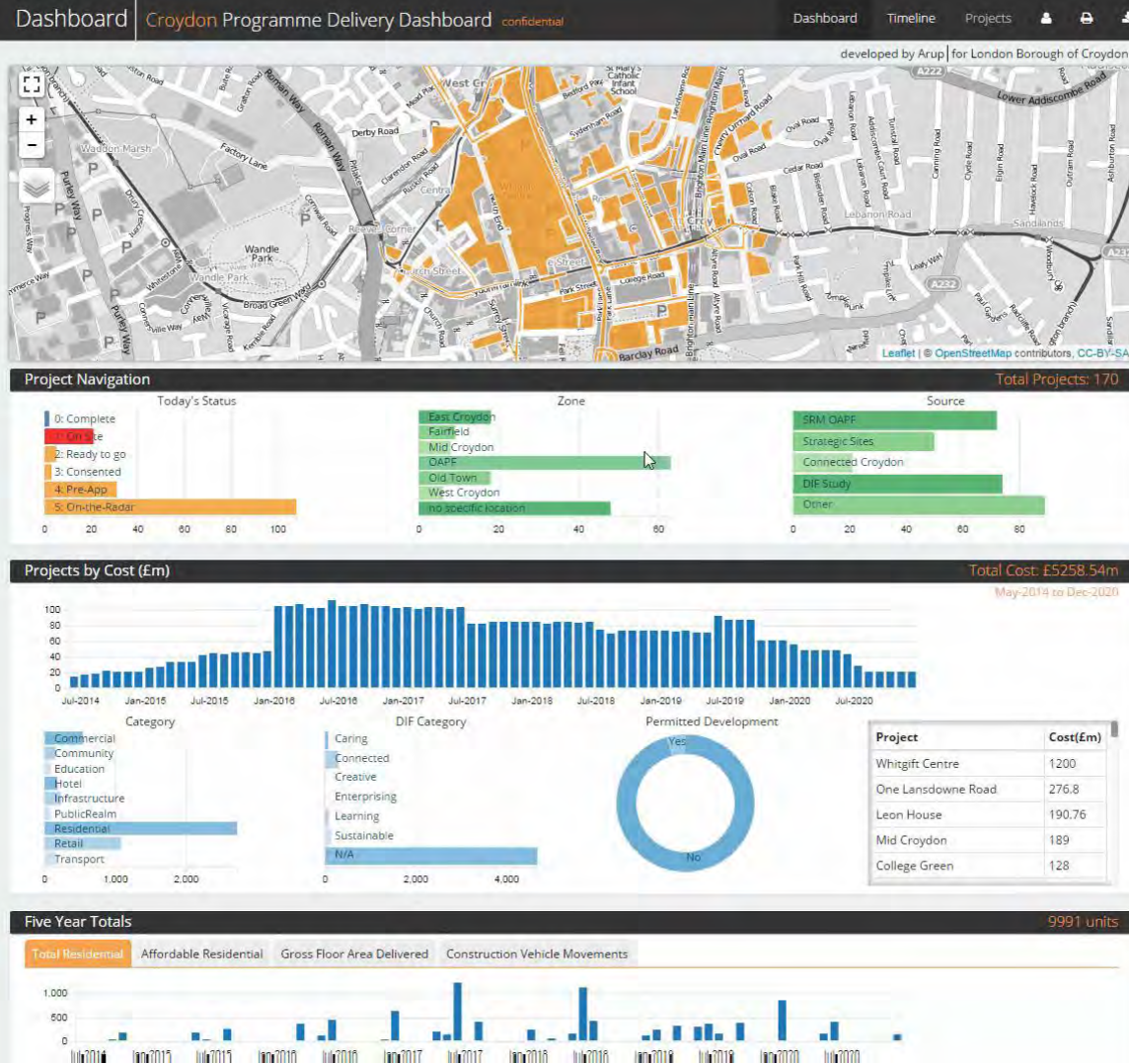
4. Open Innovation and Sharing



5 Digital Transformation

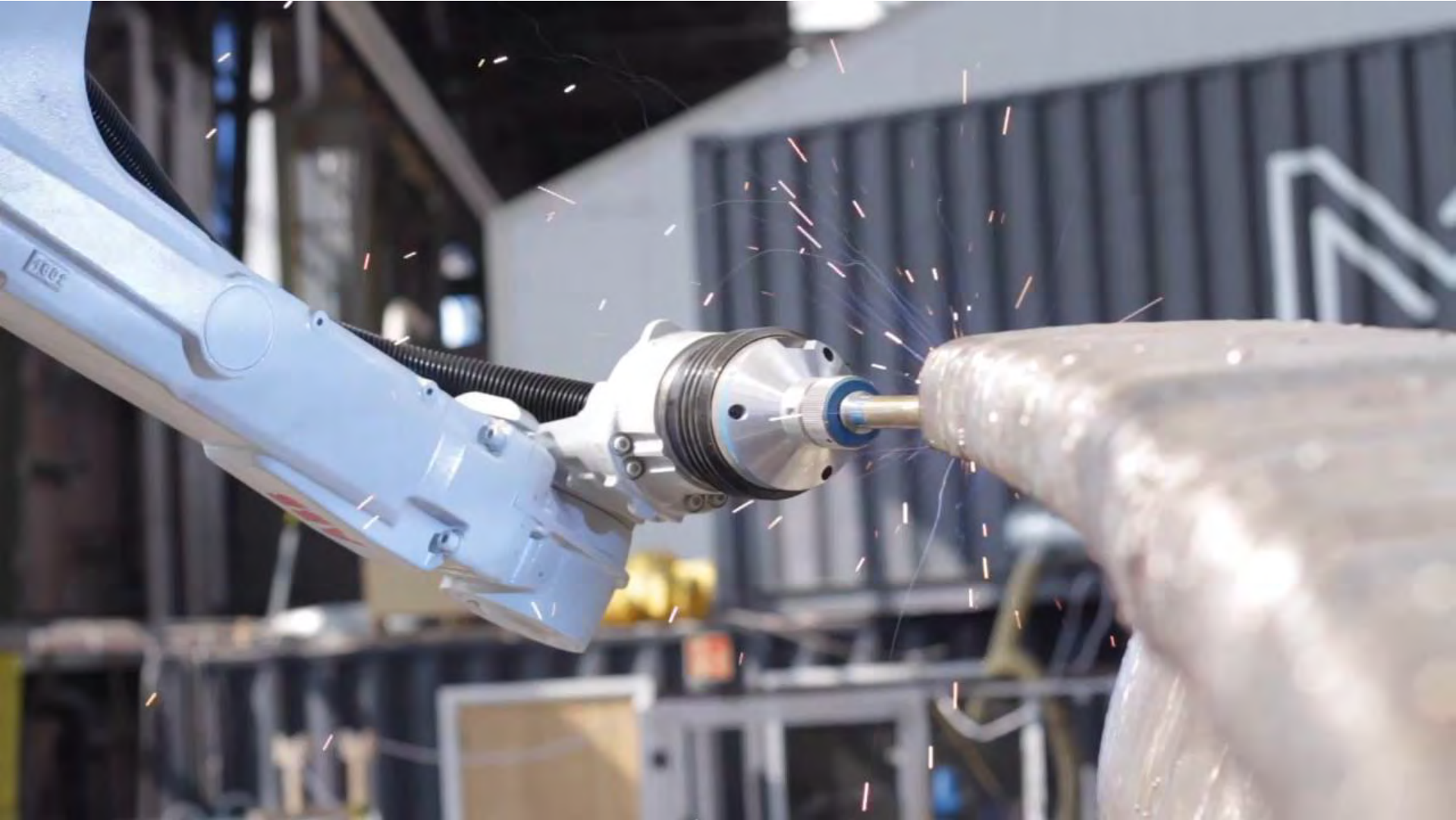


5 Digital Transformation



reset filters

6 Automation



7. Changing Corporate Culture

Shaping a better world

We are an independent firm of designers, planners, engineers, consultants and technical specialists working across every aspect of today's built environment.

7. Changing Corporate Culture



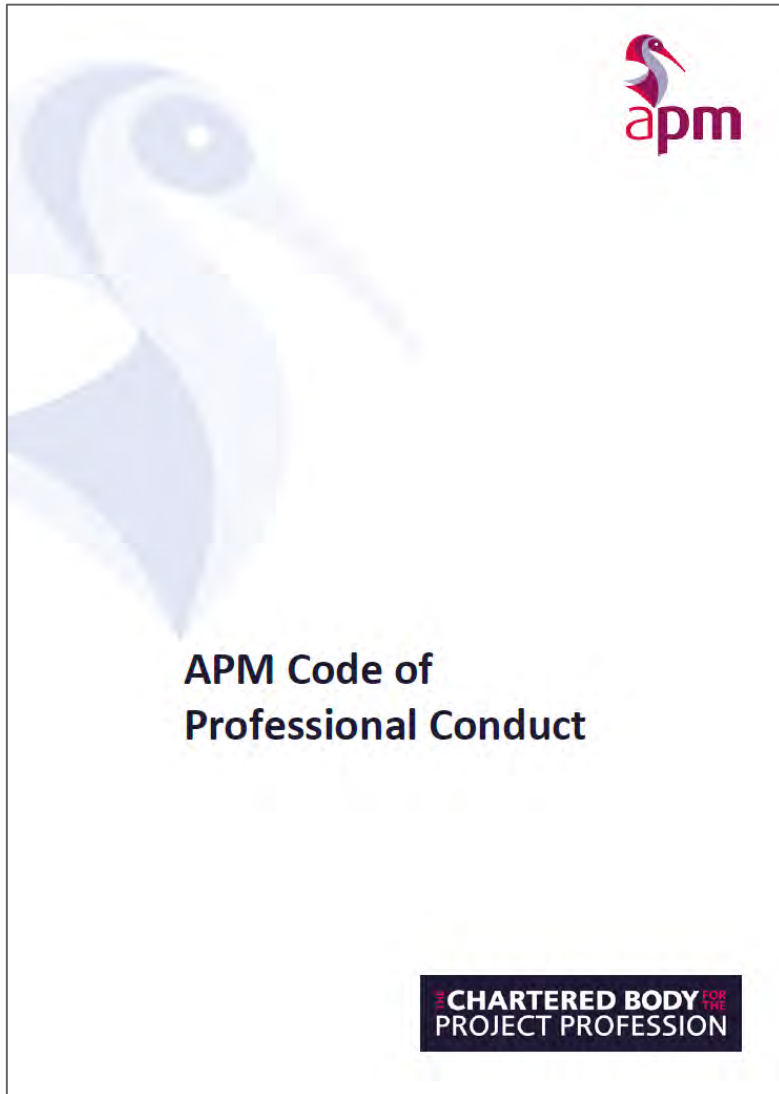
A focus for our future



Outputs to outcomes

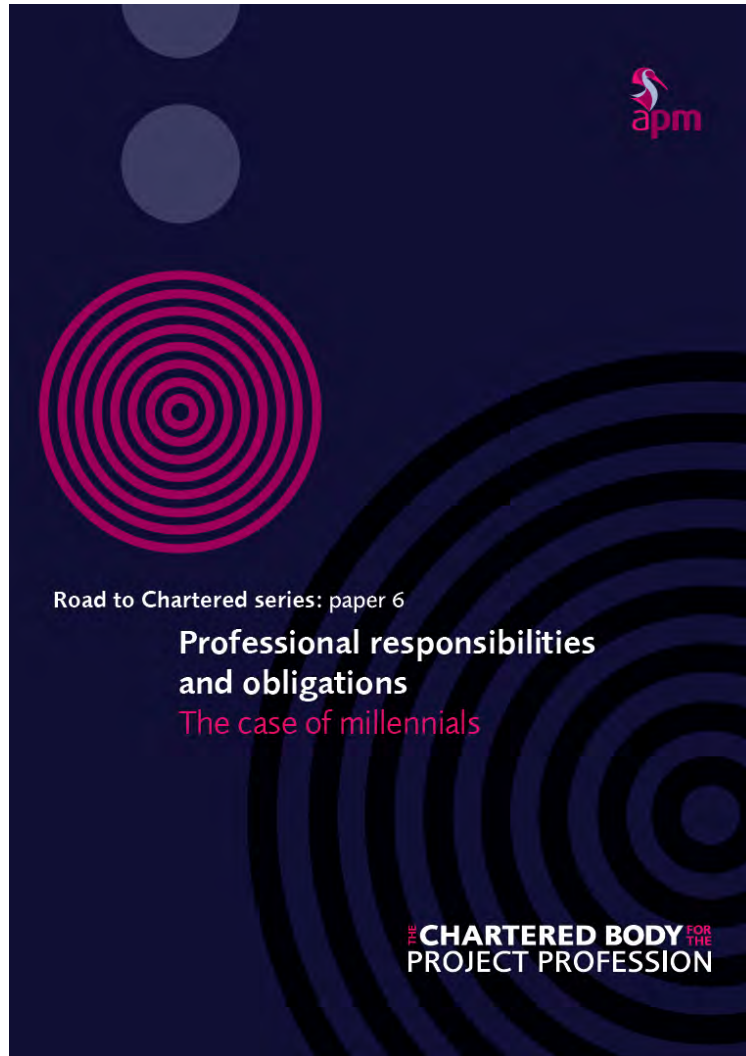


A code of professional conduct about doing the right things?



‘Professional ethical behaviour is about doing things ‘right’ so that it complies with the norms of ethical behaviour and public interest such that it could, if necessary, withstand intense public scrutiny.’

Three ways PMs can be fundamentally irresponsible



Political irresponsibility or ‘not knowing what is happening’.

We must understand context!

Intellectual irresponsibility or ‘not knowing any different’ .

We must engage in understanding and future development of PM practice!

Moral irresponsibility or ‘not knowing the difference between right and wrong’.

What will you be known for?

Project Managers Declare (projectmanagersdeclare.com)



Future Client Stories



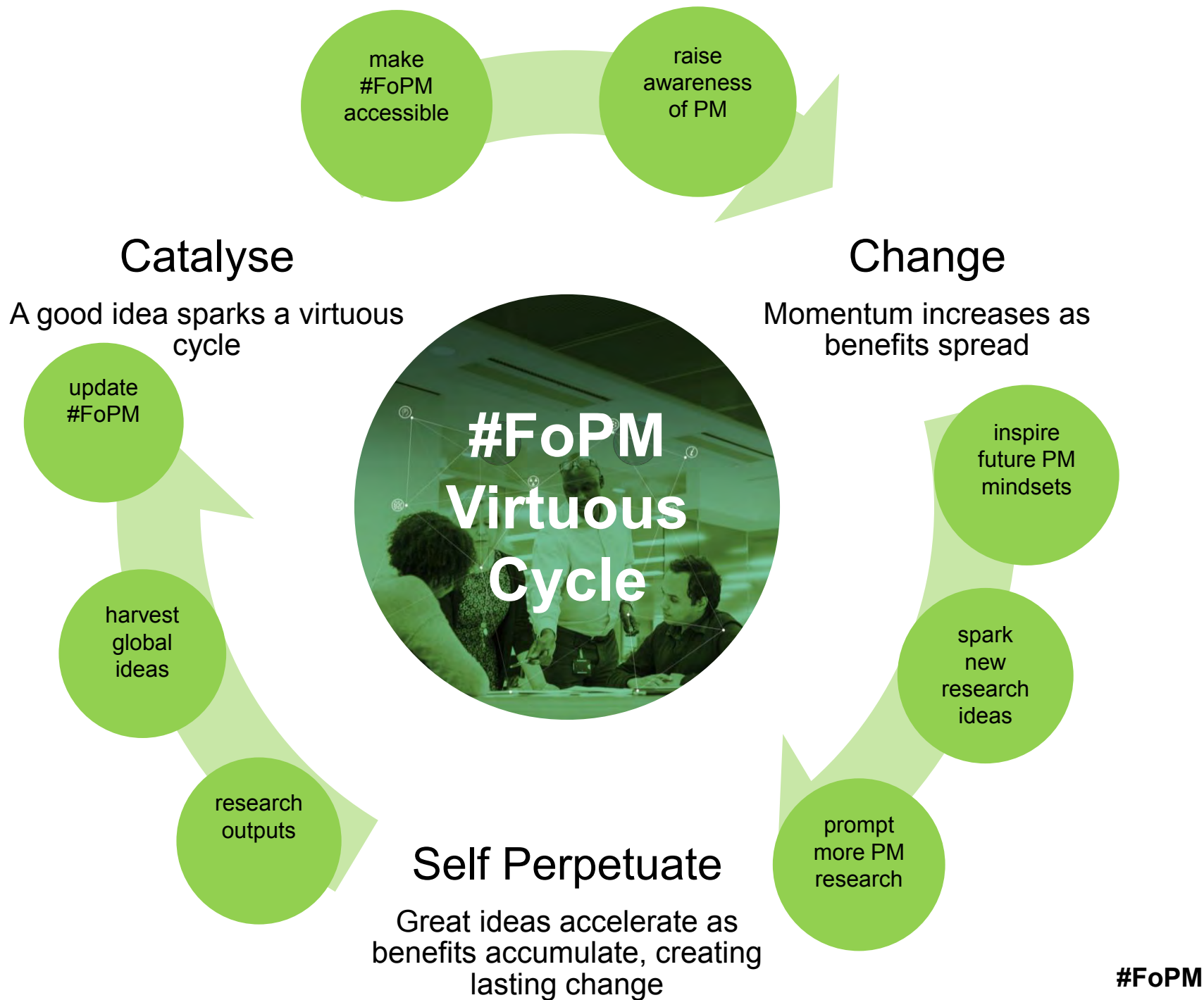




What next and how can
you get involved?



*There are no passengers on the
spaceship #FoPM
- we are all crew!*



Impact and Reach of FoPM

>6,000

face-to-face presentations

>4,000

#FoPM downloads

- Contributors
- Case Studies
- Presentations



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Responsible Project Management

A Guide to Responsible Project Management



Eight Principles

1. Purpose. Understanding the intentions underpinning a project from different perspectives.
2. Awareness. Exploring possible impacts and implications that may otherwise remain uncovered and little discussed.³
3. Curiosity. Uncovering ethical complexity, surfacing conflict and unintended consequences.
4. Uncertainty. Recognising unknowns and responding to change. Planning to the next point of uncertainty.
5. Anticipation. Facilitating the evaluation of options and informed decision-making that anticipate different future scenarios.
6. Creativity. Recognising the need for new ideas and innovation. Providing space and opportunities for imagination.
7. Stewardship. Curating the experiences of all stakeholders. Nurturing/ protecting/ replenishing natural resources.
8. Balance. Striving to combine short-term and long-term goals, and triple win for people, planet and profit.



Team

Dr Karen Thompson
<https://staffprofiles.bournemouth.ac.uk/display/kthompson>

Dr Mehdi Chowdhury
<https://staffprofiles.bournemouth.ac.uk/display/mchowdhury>

Dr Nigel L. Williams
<https://staffprofiles.bournemouth.ac.uk/display/nwilliams>

Tilak Ginige
<https://staffprofiles.bournemouth.ac.uk/display/tginige>



Sustainable

Our intent is to develop researchers and practitioners who incorporate responsible management principles: social impact, environmental impact, and economic sustainability in project planning. These practitioners will work to develop projects based on the requirements of their specific context in the living present rather than a purely rational/ technical competence of following a set of universally applicable instrumental rules and standards.

Here is a link to other communities that may be of interest: <https://tinyurl.com/yd7j3m5>



Aware

Project managers need to develop awareness of environments that in which there are multiple value systems, competing agendas and competing expectations. The process of developing and delivering these projects involves a collective social learning process with stakeholders to jointly frame and define problems, determine boundaries and intra team interactions.

Managing the Grand Challenges

THE BARTLETT SCHOOL OF CONSTRUCTION AND PROJECT MANAGEMENT

UCL

INVITATION TO PARTICIPATE IN RESEARCH ON GRAND CHALLENGES MANAGEMENT OF PROJECTS

Arup sponsor

Rob Leslie-Carter

Research Team

Dr Vedran Zecic

Dr Effie Konstantinou

Dr Kate Gasparro

Research funded by:

PMI

1. RESEARCH AIMS

Arup and UCL are currently undertaking a joint piece of research about the Grand Challenges and Management of Projects. At the heart of this work is the realisation that the practices of project, programme and portfolio management should be revisited before we can start effectively addressing the Grand Challenges the world is facing. Addressing the Grand Challenges, such as those adopted by world leaders in the 17 United Nations Sustainable Development Goals (SDGs), requires a thorough rethink of our approaches to not only collaboration and teamwork but also the fundamental ethical principles underpinning the profession of project delivery, which has been unchallenged for the good part of the history of project management and delivery professions. Our work draws extensively on the Management of Projects (MoP) tradition of thinking, and its emphasis on the strategic importance of projects (doing the right things), as opposed to an exclusive focus on implementation efficiency (doing things right) as in the conventional project management toolbox. We combine our understanding of projects and their strategic features with recent interdisciplinary work on the Grand Challenges which we summarise as the following four key priorities:

1. the identification of key global issues impacting poverty, inequality and climate change, while ensuring that no one is left behind.
2. the development of evidence-based interventions and strategies that will address these key, global issues in a coherent and systematic manner
3. the development of teams and collaboration that extend beyond all disciplinary, professional and national boundaries, and bring together the stakeholders who can develop impactful solutions to key, global issues
4. the development of education priorities, systems and programmes that prepare future generations to address global issues and learn the skills that they need to contribute to collaborative efforts that extend all over the world.

In this important new piece of work, we are aiming to understand how the SDGs agenda has the potential to transform not only how cities influence their development policies but also how this new constellation affects business priorities and practices of organisations who plan, design, engineer and help implement key built environment projects.

To this end, we are keen to engage with the global Arup community both to learn from and jointly co-create exciting new insights and strategies for transforming the existing MoP practices into Grand Challenges-driven practices for MoP. We believe the greatest transformational opportunity is in the project initiation area and in particular understanding trade-offs across the SDGs both when selecting options for projects to pursue and when considering the implementation options for those projects. Some examples include contractual and supply chain considerations, defining what success looks like for the project, and very importantly the selection and development of competences for team members. In this way, we are going to unpack project, team, and individual level considerations leading to the development of firm-level project capabilities that will allow organisations to design, select and implement the right projects addressing the SDGs in a coherent way. We believe this work will contribute to the Arup current initiative of integrating the SDG agenda into the business practices both at the project and policy implementation level (e.g., in C&O initiative).

Key Priorities

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Stanford
University



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Projectizing Net Zero

INVEST IN ARUP

24069 Projectizing Net Zero



Project Overview

Details of a contribution

Aims

This research is to produce a scoping study defining an approach, opportunities and benefits of an Arup Programme Management Office (PMO) to define and manage Arup's approach to the external portfolio of projects delivering Net Zero in the UK. It will form a two-way bridge between emerging UK policies, the projects those policies will drive, and the contribution Arup wants to make to those projects. The PMO will be internal to Arup - managing the portfolio of project opportunities we are targeting and delivering - and will create and maintain 'the big picture' overview across the breadth of Net Zero project workstreams (i.e. power and hydrogen, buildings, industry, surface transport, aviation and shipping, agriculture, waste, F-gas emissions, and greenhouse gas removals). Specific aims include: (i) to break down the Net Zero project workstreams into a pipeline of external projects, programmes and change initiatives with timelines (i.e. what projects actually need to be delivered to achieve Net Zero in the UK by 2050); (ii) to simplify a complex programme of unprecedented scale (with an investment equivalent to 10 x HS2s), to make it more tangible, inclusive and accessible to Arup staff; (iii) to give agency to Arup businesses, groups and skills to take action; (iv) to scope a scaleable programme management (PMO) framework for Arup's response (i.e. identifying the programme, defining the programme, managing the programme tranches/hubs, delivering the capability, and realising the benefits). As an example of part of a typical PMO framework - a benefits management approach will allow ongoing identification, definition, planning, tracking and realisation of business benefits and Arup's contribution to Net Zero - a key for Arup to set targets, measure performance and celebrate success.

Context

Context 1: Making Net Zero Meaningful The climate crisis has already been solved, we already have all the facts and solutions, all we have to do is wake up and change. Facts mean nothing to our society. In line with this Green Thursday quote, Arup staff are increasingly looking at ways to take ownership or find some agency and representation in the way they respond to the climate crisis or the UK GDSs. The recently announced Net Zero target is an opportunity to translate the UK Government policy into a tangible and recognisable project pipeline driven by our clients and future clients, and actionable by Arup's businesses, groups and skills. 2. UK Net Zero Emissions Target On 11 June 2019 the government agreed to bring forward legislation to set a Net Zero target for all greenhouse gases to a parliamentary vote and into law. The target will need to be reinforced by credible UK policies, across government, inspiring a strong response from business, industry and society as a whole. The 2050 net zero target - one of the most ambitious in the world - has been estimated to cost more than £118 between now and 2050. The Committee on Climate Change (CCC) will now move to the task of providing advice on the detailed path to net zero. CCC's statutory advice to government on the UK's Carbon Budgets to 2037 is due in 2020. 3. An Arup Internal PMO for 'Net Zero' Recognised good practice in project management is to have a single point of accountability where all actions relevant to achieving the project's or programme's objectives are focused. This single point provides integration of plans and coordination of actions. At a minimum, a PMO is the function that keeps information on the

FINANCIAL YEAR **2019/20**

APPROVED TO DATE **£0 GBP**

OPENED TO DATE **0%**

STATUS **Draft Application**

LAST UPDATED **21 Jun 2019**

FUNCTION **Global Research**

SUMMARY **Name**

ASSESSMENT AREA **Programme & Project Management**

PROJECT MANAGER **Rob Leslie-Carter**

LOCATION **LONDON OFFICE**

PERSON **UNKNOWN**

REFERENCE **UNKNOWN**

TOTAL REQUESTED **£9,882 GBP**

FROM - TO **21 Aug 2019 - 30 Nov 2019**

TOTAL REQUESTED IN APPLICATION **£9,882 GBP**

BY **17 Jun 2019 - 17 Nov 2020**

FROM - TO IN APPLICATION BY **17 Jun 2019 - 17 Nov 2020**

TOTAL ALLOCATED IN APPLICATION **£2 GBP**

BY **0-0**

SUBMITTED BY **Rob Leslie-Carter**

CREATED **17 Jun 2019**

SUBMITTED

APPROVED

CLOSED

REPORT SUBMITTED

REPORT SUBMITTED

REVISION SUBMITTED

REVISIONS

DATING

Key Priorities

1. to break down the Net Zero project workstreams into a pipeline of external projects, programmes and change initiatives with timelines i.e. what projects actually need to be delivered to achieve Net Zero in the UK by 2050.
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Department for
Business, Energy
& Industrial Strategy

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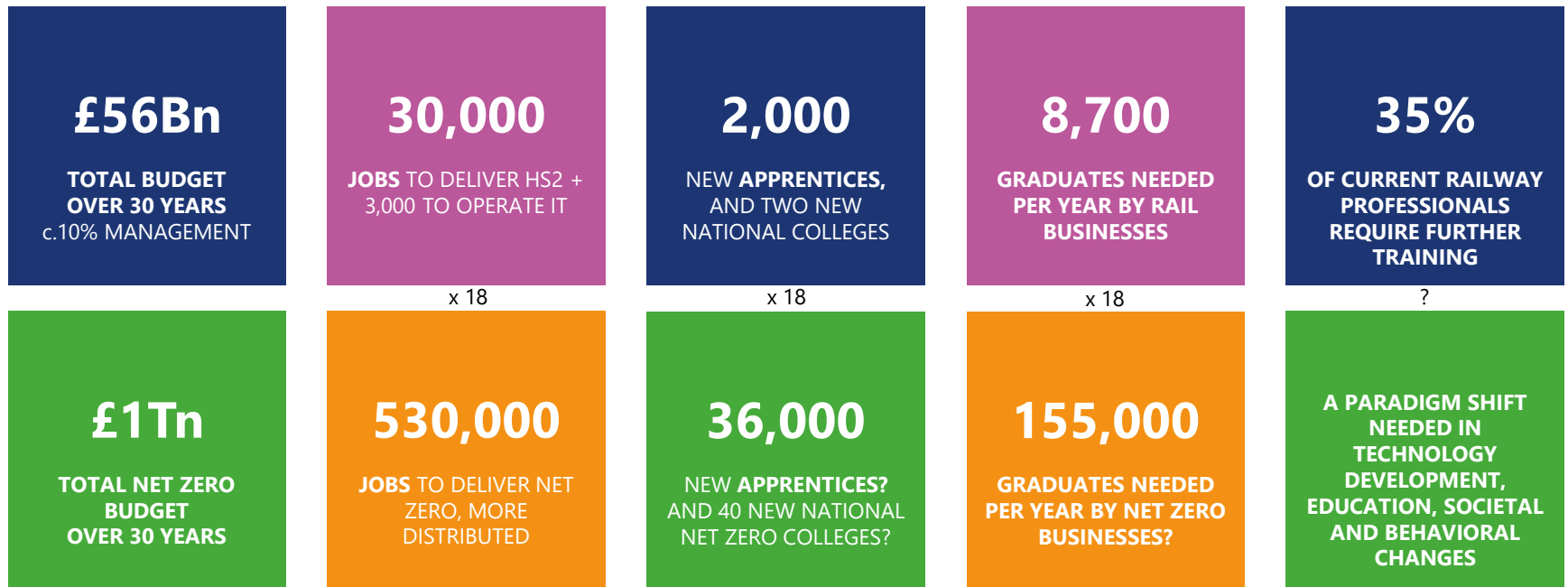
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Projectizing Net Zero

"We already have all the facts and solutions. All we have to do is to wake up and change."

Greta Thunberg, Dec 2018

HS2 – mega-project resources



Net Zero - meta national resources

How you could get involved in #FoPM

- ✓ Search [Future of Project Management](#), download and read it. Reflect on the Future Client Stories. www.arup.com/FoPM
- ✓ Research the future of work, automation and the changing employer/employee relationships. Follow [@ForesightFoPM](#) and #FoPM.
- ✓ Apply future thinking to your work and your day to day decisions. How can you proactively deal with these trends and what are the ways of integrating them into your projects, teams and organisations?
- ✓ Think about some potential 'future based' research.
- ✓ Get in touch so we can support
 - ✉ james.doran@arup.com
 - ✉ rob.leslie-carter@arup.com



Thank you!

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Please enjoy, spread the word, join the conversation and share your ideas.

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