

# Futures Framework

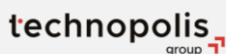
## Prospectus

We are a consortium led by **University College London (UCL)**, together with **Technopolis Ltd** and **TPXimpact Ltd**.



**UCL** is a multidisciplinary university with more than 16,000 staff across 11 academic faculties. UCL has a world-class reputation for impactful research and analysis - being ranked 2<sup>nd</sup> in UK for research power (REF 2021), consistently in top 10 QS World University Rankings (2010-2022), and 30 Nobel Laureates to date. UCL's core mission is to contribute knowledge that changes the world for the better. Our futures research and education span all our faculties, with a considerable history of policy engagement and innovation with futures and foresight.

<https://www.ucl.ac.uk/steapp/ucl-steapp>



**Technopolis** is one of Europe's leading **specialist policy consultancies** with more than 200 consultants working internationally on policy questions ranging from climate change to education and skills. Technopolis combines rigorous technical and analytical expertise with 30 years' experience in delivering policy studies and independent advice to decision-makers, supporting the entire policy lifecycle from foresight through to strategy development, programme design, implementation, and evaluation.

<https://www.technopolis-group.com/>



**TPX (formerly FutureGov)** was founded in in 2021, with the aim of identifying and acquiring best-of-breed specialist information technology, design and innovation consulting businesses across Europe. TPXimpact provide full end-to-end digital transformation to deliver the technology outcomes clients are looking for at the pace that they expect and demand. Our multidisciplinary teams use technology, user centred design, data and highly collaborative approaches to drive innovation and deliver better results.

<https://www.tpximpact.com/>



Combined we bring expertise in **futures and research** (UCL), **science and technology** analysis (Technopolis) and public **service transformation and digital innovation** (TPXimpact).

Our **shared vision for UK government futures** work is that it serves to open up our imaginations of what futures could be possible, anticipating future risks and opportunities to better inform decisions and action, and expanding the knowledges and expertise available to the policy process. We are deeply committed to supporting the Government's agenda to strengthen utility, impact, equity, and inclusiveness of policy futures.

For all enquiries contact: [info@uclconsultants.com](mailto:info@uclconsultants.com)

## OUR FUTURES SERVICES

We work collaborative with our partners to ...	Case studies
<b>conduct foresight research</b> for multiple UK, EU and international policy units, generating description and explanation of a policy area	A, B, C
<b>analyse</b> the <b>risk and opportunity</b> implications of anticipated change and identify options for policy and strategy development	D
<b>design strategic foresight</b> processes to develop and test policies and related decisions for robustness	E
<b>evaluate futures evidence</b> across all stages of the policy cycle, including visions, rationale, options, etc.	F, G
<b>engage</b> and include <b>diverse stakeholders</b> in knowledge exchange and policy debate	H
<b>develop</b> individual competencies and team capabilities and institutions through <b>training</b> , tools, databases, etc	I

## OUR STRENGTHS AND SPECIALISMS

Our distinctive strengths and capabilities for policy futures are:

<b>Diverse expertise</b>	across futures, technology, data-led transformation.
<b>Experience</b>	with all techniques in the Government's Futures Toolkit.
<b>Commitment</b>	to rigour, integrity, and quality of work.
<b>Subject-specific</b>	expertise for wide range of policy domain futures.
<b>Flexibility</b>	to mobilise expertise rapidly across consortium.
<b>Sensitive</b>	to what works in policy contexts.

Our service expertise	Subject expertise (deep)	Additional subject expertise
Futures	Science and innovation	Health
Multi-method designs	Technology	Environment
Co-development	Digital transformation	Health
S&T appraisal	Security and crime	Civil Society
Data-led design	Communities and place	Transport
	Diplomacy	International development
	Public administration	Higher education

## FUTURES LITERACY

Across the consortium we have extensive experience with traditional, as well as more experimental and emerging futures methods. We have used all techniques in the Government's Futures Toolkit on public policy projects and a wide range of additional analytical techniques from associated fields.

Visioning	Scenario development	Serious games
Futures wheel	Computational modelling	Backcasting
Driver analysis	Uncertainty	Roadmapping
Projections	characterisation	Wind tunnelling
Delphi panels	Axes of uncertainty	Speculative design
Forecasting	Deductive scenarios	Prototyping
	Inductive scenarios	

## POLICY EXPERIENCE

All members of the core team have all worked within government departments, or in close partnership with policy partners, and bring first-hand sensitivity to the realities of policy futures work. In just the past 3 years, we have engaged with over 200+ policy partners, including: DCMS, BEIS, Cabinet Office, HMT, DLUHC, NCSC, DH, OAI, DEFRA, ONS, and DoE, LAs, LEPS.

## RESEARCH

We work with a core team of lead futures experts, coordinated via UCL. Within its wider institution, UCL can draw on approximately 850 professors and over 6,000 academic and research staff to engage for additional thematic or methodological expertise.

## EDUCATION

We have collectively delivered 100s of futures workshops and training events. This includes short courses for the FCO on futures techniques for new diplomats, and technique specific deep-dives such as scenario training. As a Top 10 global university, excellence in education is at the heart of our work Training for future policy professionals competencies a core focus of our work.

## SCIENCE & TECHNOLOGY FUTURES

Our consortium has specific expertise in science and technology (S&T) futures. This ranges from futures studies about specific science and technology policy issues, to futures for more high-level science policy futures. Technopolis regularly maps S&T ecosystems.

# CASE STUDIES

A

## Prioritisation of future cybersecurity issues (2020)

NCSC

*Client:* National Cyber Security Centre (NCSC) needed to rapidly engage industry, policy, regulator and researchers to review significant trends and identifying futures issues of mutual concern.

*Output:* a list of future issues to emerge if no regulatory action taken on liability chains in interconnected cybersecurity systems – to inform priority projects.

*Format:* used pre-existing **personas** to explore future cyber hygiene behaviours with inductive **scenario** worksheets to simulate with 25 experts. This was input for an adapted '**multi-criteria analysis**' by whole group of issue prioritisation.

*Impact:* the prioritised list produced was used as the evidence base for scoping new national research fund managed by [RISCS.ac.uk](https://www.riscs.ac.uk).

B

## Horizon scanning within the Department for International Trade

Dept. for International Trade

*Client* Department for International Trade

*Format* Management of an ongoing **horizon scan**, producing monthly updates for Minister on emerging risks and opportunities and geopolitical context for trade. This engaged wide range of qualitative and quantitative material from open and specialist sources.

*Impact* Output issues were highlighted in strategy meetings with senior leadership, and with speechwriters, who drew on the resource in their work.

*Adapted* During 2016 Brexit negotiations, the ongoing trend scanning was adapted with an inductive scenario technique. This provided expert teams with a regular forum to orient themselves strategically in unprecedented policy uncertainty: weekly meetings generated new scenarios in a light-touch process towards a long-term 2040 vision of trading landscape. This fed directly into the advice trade economists gave to Permanent Secretaries.

C

## Uncertainty and divergence of expert views: post-COVID policy conditions (2021)

EC DG Res.

*Client:* The European Commission DG Research and Innovation needed a foresight study on the ongoing COVID-19 pandemic and facilitate policy discussions on the possible medium-term uncertainties and risks.

*Format:* The study used the **Dynamic Argumentative Delphi** method to explore experts' views on specific statements about how Europe may look post-COVID, in domains relating to public health, and socio-economic conditions.

*Impact:* The key uncertainty identified is the acquired immunity of the population against SARS-CoV-2, modulated by the actions of public decision makers and the level of civic engagement. This fed into the development of five plausible, but distinct scenarios [published](#) describing the possible state of affairs in Europe in 2023 used by the Commission.

D

## Identifying risk and opportunities of future Internet-of-Things disruption (2019)

Lloyds ins.

*Client:* Lloyds needed a study to identify the risks and implications of increasing digital connectivity of devices on the insurance sector

*Format:* Combination of **literature review**, **expert surveys**, **expert interviews**, 2 workshops using **exploratory scenarios** and **wind-tunnelling** of decision pathways. We **adapted typical scenario construction methods** to meet the client's needs for historical scenario techniques used in the insurance sector.

*Impact:* Submissions by Lord Clement-Jones to Prime Ministers Questions about Online Harms White Paper based on oral briefing and [report](#); creation of new lines of business by several insurance brokers to diversify the cyber class.

**F**

UAE Scie

**Science and Technology Policy: continuous options appraisal (2018)**

*Client:* United Arab Emirates (UAE) Ministry for Advanced Sciences. They needed a futures-based **appraisal of different policy instruments**.

*Format:* A combined literature review, expert engagement on trends, drivers of change, goal modelling produced a **review & reusable appraisal tool**.

*Impact:* All decisions by the UAE Minister for Sciences since Aug 2018 have used the UCL S&T futures evidence appraisal tool.

**F**

BEIS

**Emerging technologies scanning and commercialisation policy appraisal (2022)**

*Client:* Technopolis were commissioned by the UK Department for Business, Energy and Industrial Strategy (BEIS) to explore the potential role of standardisation (rather than regulation) in supporting UK **commercialisation of emerging technologies**.

*Format:* An evidence review of trends in four key technology areas: graphene, quantum computing, synthetic biology, hydrogen as a fuel.

*Impact:* The [final report](#) is being used to inform the delivery of a joint Action Plan by BEIS and the National Quality Infrastructure (NQI) organisations, as well as helping BEIS to determine more generally what future role it should have in shaping the standards framework.

**G**

GO-Science

**Foresight: Future of Cities & Future of Skills and Lifelong Learning (2016)**

*Client:* Government Office for Science Foresight programme

*Format:* Series of different futures activities within two 2-year Foresight projects.

*Methods :* Designing visioning processes, developing **scenarios with quantitative population projections** and qualitative policy drivers, key trends and drivers of change **briefings** for GCSA, commissioning future issue papers.

*Impact:* Engagement with over 25 local authorities in supporting visioning for strategy alignment, using a [‘Foresight for Cities’ toolkit on gov.uk](#), and DCLG using futures outputs in its initiation of Local Growth directorate.

**H**

Blackpool

**Citizen and climate assemblies (2021)**

*Client:* Blackpool Council

*Format:* TPXimpact have a growing community engagement practice. They run direct democracy programmes with local authorities, which include recent experiences with designing **Citizen and Climate Assemblies** for Blackpool Council. With a small delivery budget, four 2.5 hour assemblies were run with 40 residents, hosting 10 expert guest speakers, entirely virtually.

*Impact:* The [Blackpool Climate Assembly](#) has made recommendations against eight issues as part of the town's push to reach net zero carbon emissions by 2030.

**I**

BEIS

**Bespoke and large scale analytical professional training (2021)**

*Client:* UK Department for Business, Energy and Industrial Strategy (BEIS)

*Format:* UCL and Technopolis designed and delivered programme of monitoring and evaluation training to equip analysts with a good understanding of different methods that can be used for different policy contexts. The training used a combination of online self-led video tutorials and in-person group activities.

*Impact:* Over the course of 12 months, 11 cohorts totally over 450 analysts completed the programme.

# OUR KEY PERSONNEL

## UCL

Dr Ine Steenmans



Ine is an Associate Professor in Futures, Analysis and Policy at the University College London (UCL). Ine's work focuses on future policy competencies and capabilities and asks how their development can be better aligned. Before joining UCL in 2017, Ine worked as a foresight researcher in the UK Government Office for Science.

Subject expertise: futures, policy analysis, evaluation, space

Prof Richard Sandford



Richard is Professor of Heritage Evidence, Foresight and Policy. In his current role, Richard works with the heritage profession to better understand heritage and the future. Previously, Richard led a team in the DIT Ministerial Strategy Directorate focusing on horizon scanning and strategic analysis. Prior to that, he was Head of Horizon Scanning in the Government Office for Science,

Subject expertise: heritage, emerging technologies, games

## TECHNOPOLIS

Cristina Rosemberg



Cristina is a Managing Partner at Technopolis UK. An economist by training, she has more than 15 years of experience socio-economic impact assessments and evaluation in the areas of science, technology, innovation, and economic development. Cristina has ample experience in designing and implementing studies that require a mixed-methods approach. She has elaborated evaluation guidelines, including 'ex ante' (future-looking) evaluation for government and practitioners.

Neil Brown



Neil is a Partner at Technopolis UK and has been involved in delivering and managing research, impact assessment and evaluation projects for 20 years. He leads work assessing the impacts of science capital investments, as well as studies relating to framework conditions including most recently a study for BEIS BRE exploring the potential role of standardisation (as an alternative or complement to regulation) in supporting the development and commercialisation of emerging technologies in the UK

## TPXIMPACT

Zung Nugen-Vu



Zung is Partner at TPXimpact. She is a seasoned project leader using quantitative and qualitative research methods to deliver strategies and services for the built environment. She has experience working with architects & broader design teams to deliver on visions. Zung has advised clients including the V&A Museum, Transport for Wales, London Legacy Development Corporation, East West Rail on how to better design public infrastructure taking into account evidence of community needs and usage. She serves as an advisor to the Mayor of London on Infrastructure, as well as a Design Council Specialist in the Built Environment.

Linda O'Halloran



Linda is a Partner at TPXimpact. She leads on local government systems projects. Formerly the Head of the Local Digital Collaboration Unit at DLUHC, she has unique experience in designing collective interventions into local government technology markets, and in building social networks and movements in the sector. She's currently the delivery partner on DLUHC's Future Councils initiative, which is designing interventions to improve local government resilience and disrupt legacy technology markets.