Introduction

No one could say that 2022 has been uneventful. We have seen war in Ukraine, volatile energy markets, supply chain disruptions, global food insecurity and rising inflation, fuelling a cost of living crisis. Extreme weather has demonstrated the effects of a changing climate, displacing millions of people worldwide. And all this on top of efforts to recover from the destabilising effects of COVID-19 on our economies and communities.

Upheavals like these underscore that change is continuous, bringing challenges that are complex, costly and difficult to address. It is no surprise that we have seen our work intensify! Good decisions require good evidence and, as ever, our goal is to provide policymakers with the objective, high-quality research and analysis needed to develop effective, lasting solutions. Since the formation of RAND Europe 30 years ago, one thing that has not changed is our commitment to use our expertise to help improve people’s lives.

This year’s Spotlight highlights the range of issues we have tackled, including: the security risks of research collaboration with Chinese partners; the complex factors influencing medicines R&D financing; the potentially transformative impact of quantum technology in the life sciences; and actions to support disadvantaged groups into green jobs as economies transform.

We have also widened our external engagement to stimulate debate on important topics, through policy fora, government testimony and the media. This will become a progressively important complement to our work. Looking ahead to the next 30 years, I have no doubt that RAND Europe will continue to facilitate better policy decisions through rigorous research and insightful analysis. As always, thank you for your continued support.

Hans Pung, President
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THE TRUE SCALE OF DISEASE BURDEN

Deepening our understanding of disease impacts on society and the economy
Research into the impact of a health problem typically analyses the direct effect on patient populations, using metrics such as increased mortality (years lost to disease) and morbidity (years spent living with disease). It can also look at impacts on health service use.

Less often considered are the wider impacts of disease on society and the economy. RAND Europe is at the forefront of efforts to develop a more rounded understanding of the true scale of disease burden, which may illuminate potential biomedical and healthcare innovation needs. We use innovative methodologies that consider both qualitative impacts (such as patient and carer experiences) and quantitative impacts (such as costs related to healthcare utilisation and delivery, wellbeing costs related to quality of life, and indirect costs such as labour productivity losses and out of pocket expenses). In 2019 we applied an innovative macroeconomic model to estimate the economic cost of nocturia, a condition causing sufferers to wake frequently at night to visit the bathroom. We found it could cost up to $79 billion in lost economic output each year across the US, UK, Germany, Spain, Japan and Australia. Another study underway explores the indirect economic and societal burden of seasonal influenza on the UK workforce and healthcare system.

This year, a RAND Europe and University of Cambridge team, through our Cambridge Centre for Health Services Research (CCHSR) partnership, looked at the wider impact of respiratory syncytial virus (RSV) in babies and children under five in the UK. We reviewed published studies to find out the number of children affected by RSV each year, the effect on their health and that of their parents or carers, and their use of health services. We also looked for evidence on parents taking time off work to attend healthcare appointments, and expenses incurred.

We estimate the total economic cost to the UK of RSV in children under five at around £80 million each year:

- **£14 million** in lost productivity of parents and carers
- **£1.5 million** in out-of-pocket costs
- **£65 million** in healthcare costs
- **467,000** visits to GPs and **34,000** hospitalisations
Human productivity is a complex issue. Despite advances in technology and skills, productivity per worker has stagnated in many economies. There are multiple possible causes, but one factor often overlooked is the link between employee wellbeing and productivity. Our regular workplace wellbeing surveys for Vitality Health suggest that – even before the COVID-19 pandemic – health-related productivity loss in the UK was increasing, from 16 days per worker per year in 2014 to 33 days in 2019, then to 48 days in 2022.

A recent RAND Europe report estimates the financial cost to the NHS of poor staff wellbeing at £12.1 billion per year, of which around £1 billion per year could be saved by tackling the issue. Nearly half of all NHS staff reported feeling unwell due to work-related stress in the latest NHS staff survey. This matters: we know from our other work with the NHS that hospitals with healthier nurses have lower infection and mortality rates, higher patient satisfaction and typically an operational surplus.

Our report recommends that managing staff health should be put at the core of NHS operational plans and governance. Two areas of focus would have the most positive effects on staff wellbeing:

- Improving the way work schedules are managed
- Improving the physical working environment.

Novel ways of working form another piece of the post-pandemic productivity puzzle. A RAND Europe study into the links between employee behaviours, wellbeing and work outcomes suggests that optimal work patterns will vary for different types of employee. Our detailed statistical analysis of workplace behaviour data and survey data identified six employee groupings, each with distinct needs and concerns. This suggests that more tailored interventions to support or change work behaviours could achieve better wellbeing and productivity outcomes.

HEALTHY WORKPLACES

Employee wellbeing leads to more productive workplaces
Innovation is a crucial engine for improving healthcare through new treatments, diagnostics, technologies and practices. But innovation systems may not always result in better outcomes for all. RAND Europe is committed to helping shape the policy research agenda by highlighting important issues and decisions to be made, to increase the chances of healthcare innovation reaching those in need in safe and timely ways.

Our thought leadership commentaries this year explored diverse topics in this arena. Here we highlight two: how to build equality, diversity and inclusion (EDI) considerations into health innovation processes; and how to regulate health-related software as a medical device (SaMD). For both, we flag that end users’ needs must be put at the heart of decision making to improve adoption and ensure appropriate use, and discuss how this might be achieved.
Delivering the broadest benefit to society

On EDI opportunities, we consider the entire innovation pathway – prioritisation, design, testing and access – and propose ways to mitigate biases. This adds a fresh perspective to a space where the focus is mostly on diversifying participation in clinical trials. Some possible actions we discuss include: considering the needs of diverse societal groups when deciding where to invest; engaging diverse groups in design; and including indicators of fairness in assessment processes.

IT meets medical innovation

Our thought piece on SaMD tackles policy and regulatory challenges around the use of software to help diagnose, treat or prevent disease – for example, to analyse medical history data such as MRI or CT scans. The global SaMD market is expected to reach US$86.45 billion by 2027, yet there is no universal definition of what qualifies as SaMD. We discuss the importance of clarity on this issue, which impacts on regulatory pathways. We also address the need to balance evidence requirements for regulatory approval with surveillance once a device is on the market. Finally, we reflect on the value of fully understanding the needs of patients and care providers to support safe, informed use.
The factors influencing the financing of medicines R&D are complex. Money matters, of course, but so do issues of supply (which influence the attractiveness of investing in a particular area) and demand (the markets for pharmaceuticals).

A recent study by RAND Europe, SiRM and LEK Consulting flags that more joined-up policy approaches and decision making in health and innovation systems are needed. This could improve interventions and help align industrial competitiveness objectives with health policy aims to improve population health and access to affordable new medicines. The project put the spotlight on the interdependence of financial and non-financial actions in shaping how the financing of medicines R&D evolves.

**Supply-side policy interventions that influence risk, costs, durations and expected returns from R&D can impact investment**

Approximately US$300 billion a year is invested in medicines R&D globally, with LEK analysis showing nearly two-thirds of this amount coming from big biopharma and about a tenth from venture capital. Decisions made by the private sector, in part related to shareholder value, thus...
Demand-side factors such as pricing and reimbursement models are also essential to ensure medicines reach patients

If investors are not confident that they will realise a return on their investments, they may not invest in particular R&D areas:

- Policymakers and payers can influence R&D pipelines by clearly signalling areas of demand and prioritising where they are willing to pay for innovation.
- Innovative pricing and reimbursement models aim to tackle affordability challenges.
- More diverse types of healthcare data may inform health technology assessments and pricing discussions. Incentives related to intellectual property protection also play a role.

About this study

The study was commissioned by the Dutch Ministry of Health, Welfare and Sport to examine the diverse types of interventions that can help to optimise the financing of medicines R&D on both the supply and demand sides.

Sarah Parkinson is a senior analyst at RAND Europe in the health and wellbeing group. Her other recent projects include studies on the advertisement and promotion of novel tobacco products, the future of antimicrobial resistance and the use of new technologies for infectious disease prevention.
WHO BENEFITS?

Society is changing – we review the implications for welfare policy

The policies that underpin welfare services need regular review to ensure they reflect changes in society and technology. RAND Europe has been commissioned by the UK Department for Work and Pensions (DWP) to gather evidence on a range of topics, including digitalising services and contracting out employment services and health assessments. We focus here on two examples.

Defining the household or benefit unit for welfare purposes

The definition of a household is crucial when deciding who receives UK benefits and at what level. Where unmarried adults are deemed to be living as a couple in one household, Universal Credit (UC) is usually paid to one adult, except in certain situations (e.g. domestic abuse). Our review found that changing social norms and behaviours make household definition complex – for example, couples increasingly choose to keep their income separate. Possible policy options for the future might include relying less on household means testing, introducing thresholds for considering partner income or widening the circumstances in which separate payments are made.
Understanding State Pension age policies

State Pension age (SPa) is an important element of pension system sustainability. We reviewed SPa decision making and policies in other high-income Organisation for Economic Co-operation and Development (OECD) countries and found that:

• Increasing the SPa is the most common measure adopted to address viability challenges such as rising life expectancy and a growing ratio of older adults to those of working age.

• Several countries have adjustment mechanisms linking SPa changes to changes in life expectancy.

• SPa changes are often accompanied by other reforms, e.g. early retirement policies, policies to encourage later retirement, and earlier SPAs for those who started work younger.

• Other decision factors include healthy life expectancy, socio-economic disparities and the age at which adult life is considered to start.
STEPS TO SUSTAINABILITY

Helping stakeholders through the green transition

Around the globe, states are seeking to build greener, more sustainable economies. Two recent RAND Europe projects highlight the need to support all stakeholders as they navigate the transition.

There is a growing literature on green jobs and green skills, but little research on the employability of disadvantaged groups as economies transform. RAND Europe examined 10 European cities and regions across France, Germany, Italy, Spain and the UK in a study supported by JPMorgan Chase, and found that people with low qualifications have limited opportunities to benefit from greening economies and may become more disadvantaged in the future. We identified nearly 200 interventions to help support disadvantaged groups into green jobs through education and training. Targeted investment and leadership, particularly at local level, could support further economic development in a way that provides opportunities for all.

On a different theme, RAND Europe was asked by the European Commission to examine the sustainable use of pesticides, given EU targets to reduce pesticide use and risk by 2030. We developed future scenarios that considered key factors in pesticide use, the likely impact of EU policies as well as obstacles to their implementation. These scenarios and their policy implications were debated at a workshop including EU member state authorities and representatives from non-EU countries, industry, non-profit organisations, scientific experts and the European Commission.

Our report outlines a suite of ways that pesticide use might be reduced, but also emphasises that a holistic approach is needed across all contexts, including political, legal, economic, societal, technological and environmental. Policy strategies also need to recognise variation across regions, accommodate smallholder farmers alongside large multinational companies and support farmers to take risks in implementing new practices.

RAND Europe continues to grow in the environmental sustainability space, with recent projects on the environmental impacts of health research and the assessment of systemic risk in food supply chains.
TRAFFICKING HUMAN BEINGS

Revising EU law to tackle an abhorrent crime

Trafficking in human beings is frequently a violent crime committed by organised crime networks. It destroys lives and deprives people of their dignity, freedom and basic rights.

A RAND Europe study in collaboration with EY has found that human trafficking in the EU is increasingly facilitated online and shows no sign of declining. Many fear that we will see numbers rise, as women and children fleeing Ukraine are at high risk of exploitation. While EU member states identify and register around 7,000 victims of trafficking each year, the true number of victims is unknown and likely far higher.

Among registered victims, we found:

- **Three-quarters are female**, most often trafficked for sexual exploitation, with men usually trafficked for labour
- **80% are adults**, although up to 50% of victims are children in some member states
- **Over half of all victims are EU nationals**, and trafficking does not always involve crossing borders
- **Vulnerable people are at particular risk of trafficking**, such as those with disabilities, limited formal education or from LGBTQI+ communities
- **Sexual exploitation and forced labour are the most common purposes of trafficking**. Other reasons include forced begging, organ donation and illegal surrogacy.

Our study identifies a range of legislative and policy measures that have the potential to enhance the fight against trafficking, focusing on four priority areas:

- **Improving the number of victims identified** by EU member states
- **Improving the number of traffickers investigated, prosecuted and convicted**, to address the perception of impunity
- **Improving the number of victims given support** and the quality of that support
- **Doing more to address demand** for the services of exploited persons.

The work was conducted for the European Commission Directorate-General for Migration and Home Affairs. It forms the evidence base for European Commission proposals to revise the 2011 Anti-trafficking Directive – an EU law that specifies common elements to be included in national anti-trafficking laws and policies.
HOW HUMAN TRAFFICKING IS GROWING ONLINE

The human trafficking chain

**Recruiting**
- Social networks and online classified sites used to deceive victims
- Recruitment agencies provide a facade of legality

**Transporting**
- Transport is coordinated online
- Compromised credit card data purchased online are used to hide traffickers’ identity

**Controlling**
- Victims are monitored and threatened online
- Pornographic photographs or videos may be used to blackmail victims

**Advertising**
- Services of trafficked people advertised online, e.g. on dating or sexual services sites

**Exploiting**
- Traffickers share abusive material anonymously online
When the British public voted to leave the European Union in June 2016, the Dutch government began preparing for Brexit almost immediately. The stakes were high: the UK was a major trading partner and thousands of Dutch citizens lived or studied in the UK and vice versa. A government-wide task force was set up to coordinate interests across ministries, develop a clear negotiating position and engage with business, citizens and other governments.

RAND Europe, in collaboration with independent consultancy Berenschot, was commissioned to evaluate the effectiveness of this effort by the Netherlands Ministry of Foreign Affairs (BZ). We used desk research, stakeholder interviews, an online survey and validation sessions to gather perspectives, then compared outcomes against goals. While we identified some areas for improvement, the Dutch approach was generally deemed successful:

• An effective and well-organised negotiating partner. Core objectives were agreed early on, and the Dutch negotiating position was seen as clear and consistent. Quickly identifying and analysing potential impacts created an information advantage that enabled Dutch officials to assist other
member states. However, there were organisational teething problems and difficulties in securing staff with the right expertise.

- **Crisis management and communication mostly seen as successful.** Peer review, dilemma and risk scenario sessions were used to help all ministries anticipate potential disruptions. Stakeholders were positive about engagement efforts, including a Brexit desk, Brexit Impact Scan for businesses and a national media campaign featuring a furry blue Brexit monster. Nearly 70 per cent of survey respondents in the Netherlands felt well-informed, compared to only 10 per cent of UK respondents. However, individual companies proved harder to reach than industry associations.

- **Insufficient information to determine cost-effectiveness.** Brexit-related spending could not be separated from the wider ministry budgets, making central accountability for Brexit outlay virtually impossible. Financial goals, accountability, performance indicators and archiving should be in place for future government-wide dossiers. We found no evidence that funds were spent inefficiently.
UK universities appear to have become a battleground of espionage and influence operations. From Chinese missile manufacturers setting up labs in the UK to efforts to shape university research agendas, there is alarming evidence of growing Chinese influence that could threaten national security and academic freedoms.

A new RAND Europe study reveals that almost three-quarters of joint research centres established between UK universities and Chinese partners focus on sensitive areas with potential national security risks. These include synthetic biology, advanced materials, artificial intelligence, and satellite and space technologies. While some centres involve little risk and bring about substantial economic and societal benefits, others may present national security risks because of their association with military-linked Chinese universities and entities.

The UK government is now redoubling efforts to regulate foreign influence in academia through legislation. An amendment to the Higher Education (Freedom of Speech) Bill could require universities to disclose sources of foreign funding. The new National Security Bill, if passed,
could criminalise covert activities by foreign agents on UK soil. These follow the National Security and Investment Act, which gives the government new powers to intervene in foreign takeovers of assets.

The crux of the problem is that informal collaborations between academics – at conferences, through personal networks and within joint research structures – lie beyond the scope of legislation. Universities UK warned in 2020 of “institutional cultures where staff may be unaware of the risks or not sufficiently empowered to act on the risks that they have identified”.

We propose three complementary initiatives to increase researchers’ awareness of potential risks:

1. A single portal to collect all governmental advice on research engagement with China, developed by the government’s newly created Research Collaboration Advice Team.

2. Better leveraging expertise within UK universities for managing collaboration, for example establishing forums or buddy systems, possibly as part of the new UKRI-funded training on export controls provided by Cranfield University and Universities UK.

3. Improving understanding of China. Investment in China literacy—not just language courses but Chinese history, politics and law—could help build a new generation of risk-cognisant academics and more resilient universities.

"Protecting UK national security interests may depend on UK academics’ own awareness of the potential risks of collaborating with Chinese partners."

This commentary originally appeared on the Times Higher Education website on 8 July 2022. Read the full blog for more detail on our research.

About this study
RAND Europe was commissioned to explore the opportunities and challenges of UK–China research collaboration by the Foreign, Commonwealth & Development Office. We used literature review, surveys and interviews to build a picture of current joint research activity. A synthesis and recommendations workshop brought together UK government departments (FCDO, BEIS, MOD, DCMS) with the higher education community to discuss how to navigate this complex landscape.

Fiona Quimbre is a defence analyst at RAND Europe. Her work focuses on understanding the levers and level of Chinese strategic advantage in the short, medium and long term, compared to other nations.
ON THE CUSP

Quantum technology could offer game-changing opportunities in the life sciences

The disruptive potential of quantum science has long been recognised, if not fully realised. In 1922, Danish physicist Niels Bohr was awarded the Nobel Prize in Physics for his foundational work examining the structure of atoms based on quantum theory. A century later, three other physicists shared the 2022 prize for their breakthrough research on quantum mechanics, which paved the way for a new era of quantum technologies.

Until now, there has been little study into the potentially transformative impact of quantum technology in the life sciences. A RAND Europe study for the Novo Nordisk Foundation and Novo Holdings has found that quantum technologies offer many untapped opportunities for the sector, including in drug development and in genetics and genomics. However, a more strategic and multidisciplinary approach is needed to maximise the potential.

Our research shows that most developments in this area so far have been at proof-of-concept stage. To tackle real-world problems, industry, university and government stakeholders will need to collaborate effectively on funding, skill-building and implementation. The breakthrough benefits – for example, accelerating personalised medicine – could help answer major questions in life sciences research and address challenges that are currently difficult if not impossible to solve.

Quantum technology is an umbrella term for technologies that harness quantum effects (physical effects at the subatomic level) using the properties of electrons, photons, atoms or molecules. ‘Quantum 1.0’ technologies such as lasers and transistors are already widely used. The new wave of quantum technologies, sometimes referred to as ‘Quantum 2.0’, is expected to lead to new products and services, potentially impacting sectors such as finance, defence, aerospace, energy, telecommunications and health.
Enabling the future ecosystem

Nurturing the growing ecosystem of quantum technology developments across the globe will require a mix of activities, some specific to life sciences and others across multiple sectors:

- Develop and nurture a diverse and skilled workforce within academia and industry to build necessary technical and commercial skills.
- Create and support inclusive, multi-stakeholder collaborations to aid development and eventual commercialisation of novel quantum technology applications.
- Develop national and international policy initiatives to help create the necessary technical infrastructure to address future needs.
- Systematically capture and disseminate lessons learned across the quantum technology R&I ecosystem to foster a culture of transparency and openness.
- Embrace a holistic, long-term and foresight-driven approach to help navigate uncertainty as quantum technologies evolve.
- Alongside long-term public investment, incentivise private sector investment and nurture smaller, newer enterprises.
- Bring together life science industry stakeholders with public and private sector stakeholders to discuss resourcing quantum technology R&I for growth.
Public research and innovation (R&I) funding is essential to a strong research system. It builds R&I skills, creates research infrastructure and expands the range of funded projects. However, the process for deciding which studies get funding must be robust and trusted.

Our review of proposal evaluation processes for Horizon 2020 (H2020), the EU’s main mechanism for funding research and innovation between 2014 and 2020, found that they were generally fair and transparent. There may, however, be scope to improve consistency and feedback and reduce burden.

Nearly €77 billion of H2020 funding was available over seven years. We analysed the effectiveness of H2020 processes to allocate these funds, using literature review and case studies of other international R&I funders. Our suggestions informed the design of the new EU R&I programme, Horizon Europe. They included:
• Regularly review process fairness and collect more information on diversity at application stage

• Encourage more female applicants by recognising career breaks, training reviewers and having more women on assessment panels

• Limit the use of multi-stage processes which can increase burden for applicants

• Try novel approaches to reduce bias and conservatism, such as double-blind review and lotteries

• Streamline consensus meetings by using more efficient remote formats

• Clarify assessment criteria and centre the evaluation process on these

• Consider more targeted use of reviewers aligned to their expertise

• Explore the use of novel technologies to improve the process

• Provide constructive feedback, especially for unsuccessful applicants

• Consider routes to support innovative or risky R&I, such as targeted funding schemes.

This was one of three H2020 projects we undertook in 2022 to help the EU improve research outcomes. We also developed a dashboard to measure the societal impact of biomedical and health research funded by H2020, and provided decision-making guidance to assess the future impact potential of security research projects.
BUILDING TRUST
Voluntary mechanisms to ensure safe and ethical AI systems
Artificial intelligence (AI) technologies are transforming our lives, from smartphone cameras and digital assistants to environmental monitoring and vaccine development. The potential societal and economic benefits are immense. However, AI also presents new risks, challenges and possible unintended consequences. Public trust in AI systems is therefore vital for their broader use and development.

Against the backdrop of the European Commission’s draft proposals for an EU-wide regulatory framework on AI, RAND Europe analysed evidence on the use of labels, codes of conduct and other voluntary self-regulatory mechanisms to help build trustworthy and ethical low-risk AI systems, in a study undertaken for Microsoft Belgium. We discovered a fragmented ecosystem of different initiatives around the world with varying levels of maturity, developed by a diverse range of public, private and third sector stakeholders. Many of the initiatives assess AI applications against ethical and legal criteria that emphasise safety, human rights and societal values.

We also hosted a virtual roundtable with policymakers, researchers and industry representatives to discuss the research findings. Some key themes emerged which we codified to stimulate and inform further policy debate. They include issues around defining self-regulatory mechanisms and their scope; designing robust tools and incentives for voluntary adoption; and implementing approaches that require clear roles, specialised skills and consumer support.

Key lessons for future use of self-regulatory mechanisms

1. Involving an independent, reputable organisation could strengthen trust and oversight
2. Engaging multiple stakeholders in design and development can improve buy in
3. Using innovative approaches provides flexibility and may help to address perceived burden
4. It is crucial to evaluate the impact of initiatives and share good practices
5. Consider using a diverse range of tools and incentives to suit different contexts and levels of AI risk
Efforts to improve representation and remove barriers for personnel with protected characteristics are seen as essential steps for modern militaries, but have not escaped controversy. Debates on both sides of the Atlantic highlight concerns that efforts to meet diversity targets could undermine the ability of the Armed Forces to maintain operational effectiveness.

In summer 2022, the Royal Air Force (RAF) was reported to have paused recruitment of white male candidates in an effort to meet in-year diversity targets. An RAF spokesperson quickly denied the claims, stating that there was no change in policy and that talent was the driver for recruitment. The news attracted much coverage and debate about implementing ambitious diversity goals, such as the target to increase female recruits into the Armed Forces to 30 per cent of intake by 2030.

The RAF furore echoed that around the repeal in 2012 of the US military’s Don’t Ask Don’t
Tell (DADT), the Clinton-era directive that non-heterosexual personnel could serve in the military if they didn’t officially disclose their sexuality. Many opposed the repeal due to concerns that it would undermine unit cohesion and military readiness.

Both debates reveal a need for increased understanding of the link between diversity and organisational effectiveness. RAND Europe’s *Leveraging Diversity for Military Effectiveness* report analyses how diversity can be leveraged to enhance the strategic and operational advantage of the Armed Forces and finds ample evidence that it can contribute positively to military effectiveness. Three dynamics in particular illustrate the link:

- Diversity can enhance organisational capacity for innovation, adaptation and quality of decision making – all critical for harnessing emerging technologies.
- Diversity has clear links to external legitimacy and the military’s ability to project influence and engage with domestic and international audiences.
- Diversity enhances the ability to attract, retain and foster the right skills.

Diversity in this context means both diverse demographics and also diversity of skills, capabilities and competencies. This is an important distinction since many organisations, including the Armed Forces, focus largely on the former. A new framing of diversity and inclusion may be needed to elevate it as a strategic enabler of military fighting power in the contemporary threat environment.

**Military effectiveness is in many ways at the very heart of current debates on military diversity**

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**About this study**

A combined team of RAND Europe and RAND Corporation researchers assessed the links between diversity and military effectiveness using large-scale literature review and interviews with experts and practitioners. The work provides a framework to help UK and US Armed Forces assess and leverage links. It was self-funded by the RAND Initiated Research programme.

*Linda Slapakova* is a senior analyst at RAND Europe in the area of defence and security. Her research focuses chiefly on the defence workforce and armed forces personnel issues, emerging security and information threats, and the impact of emerging technologies.
SOCIAL VALUE

For RAND Europe, social value is about making a difference to the communities in which we operate. We deliver social value both through the ethical and operational behaviours we embed in our practices, as well as the research and analysis we conduct. Pursuing our mission, the projects that we undertake align with our social value goals. Our organisational culture and behaviours reinforce our commitment to achieving positive benefits for society.

Our approach to achieving social value impact is guided by these four areas of focus:

1. What we are doing to promote equal opportunity and equity, underpinned by Equality, Diversity and Inclusion.
2. How we engage with others in our communities to deliver social value.
3. What we are doing to make our activities more sustainable and environmentally friendly.
4. How we can improve the health and wellbeing of both our own staff and others who benefit from our research.
FiMT RESEARCH CENTRE

The Forces in Mind Trust (FiMT) Research Centre was set up in 2017 to drive research on veterans and their families to help them make a successful transition to civilian life. RAND Europe won the bid to manage the Centre from 2022–2027 as research lead, alongside the King’s Centre for Military Health Research (KCMHR) at King’s College London (KCL). The consortium will leverage its unique network of global relationships to stimulate new thinking – for example, the recently established RAND Epstein Family Veterans Policy Research Institute in the US has a similar mission. Our goal is to help FiMT deliver positive benefits for veterans and their families for many years to come.

Dr Mary Keeling, research leader at RAND Europe, is the research manager at the FiMT Research Centre. She is a Chartered Psychologist who has worked in military health research since 2010, both in the UK and the US. Her research aims to understand the psychological and social impact of military service on military personnel, veterans and service-connected families.
RUSSIA’S WAR ON UKRAINE

Clarifying impacts and options for European defence
Russia’s war on Ukraine has destroyed lives, homes and infrastructure, inflicting terrible suffering on Ukraine’s citizens. It has also created policy challenges outside Ukraine. In addition to soaring energy costs and food security fears, governments are grappling with a range of strategic and practical issues linked to the conflict, including Ukraine’s continued need for support.

RAND Europe is working closely with UK and European policymakers and international organisations to explore the impacts, implications and potential future scenarios of the war, both immediate and in the medium to long term. Our work has gathered pace over the year, using scenario and gaming methodologies alongside more traditional research techniques to assess the effectiveness of existing strategies and understand the potential impacts of new technologies or tactics.

**Informing decision making**

Our research on the Ukraine conflict includes:

- Working with Professor Sir Lawrence Freedman to develop case studies on Russia’s approach to hybrid, cyber and information operations in Ukraine
- Organising closed-door symposia on emerging insights and lessons from the war for a European defence ministry
- Drawing lessons on the future of multi-domain operations for Russia, the UK and NATO, and the implications for military education and training
- Designing and delivering a strategic exercise on the implications of the war for the food and energy crises in Europe, the Middle East and Africa
- Closed-door events for decisionmakers including the UK’s Development, Concepts and Doctrine Centre (DCDC) and Defence Science and Technology Laboratory (Dstl), and the Cabinet Office.

**Informing public discourse**

Our insights and analysis have featured in media, conferences and seminars, including:

- BBC News
- *The Kyiv Post*
- *The Moscow Times*
- *The New York Times*
- Radio Free Europe
- *The Washington Post*
- The Finnish Institute of International Affairs’ Helsinki Security Forum
- The NATO Defense College
- The Norwegian Institute of International Affairs’ Military Power Seminar
- The Centre for Global Risk and Security
- The Stockholm International Peace Research Institute.
Network of ideas

To improve lives, our research must reach the people and policymakers who can use it most effectively. Our staff seek out opportunities to share their insights and expertise at the right places and with the right collaborators, creating a network of ideas to benefit the public good.

Financing climate change

Organised with Council of Advisor member, Professor Malik Dahlan, and the Scotia Group, a global network of internationalists, this panel discussion looked at ways to mitigate risk and adapt to a changing climate by helping the world’s economy transition to ‘net zero’.

Building societal resilience

The University of Cambridge’s Festival 2022 hosted a discussion on preparing for and responding to crisis events like floods, pandemics and cyberattacks. Our researchers explained how all of us can help build resilience in our individual communities by bolstering awareness to be better prepared.
Tackling Truth Decay in Europe

At a seminar co-hosted with the Brussels office of the German Marshall Fund of the United State, our researchers shared findings from a groundbreaking study of this phenomenon in Europe, concluding that an effective response will require piecing together multiple policy areas at an unprecedented level as well as building resilience.

Understanding digital healthcare

Identifying the potential and pitfalls of digital healthcare was the topic of the 2022 annual lecture, hosted by the Cambridge Centre for Health Services Research, a collaboration with the University of Cambridge. Professor Jonathan Benger CBE, Interim Chief Clinical Information Officer, NHS England, focused on five ‘digital domains’ to explore the value of digital technologies in healthcare in the 21st Century.

Establishing a Centre for Defence Economics and Acquisition (CDEA)

Launched by RAND Europe to be an independent, trusted resource for defence economics and acquisition, CDEA provides a hub for growing insights and expertise in the field. It was established to help our clients make effective decisions in relation to current and future defence capabilities and investments.
Our network also extends to parliamentarians and other high-level policymakers

The House of Lords International Relations and Defence Committee held an inquiry into the UK’s defence concepts and capabilities. RAND Europe was invited to present evidence during a session in May that focused on the UK Integrated Review and the Defence Capabilities Review, particularly relevant after Russia’s invasion of Ukraine.

The Scottish Affairs Committee invited RAND Europe to give evidence on the future of naval shipbuilding in Scotland. We shared how the current UK National Shipbuilding Strategy impacts on maritime skills as well as the potential implications of Scottish independence on the sector.
During a week-long, formal United Nations negotiation, RAND Europe was given two opportunities to share its expertise on space policy. We addressed UN Member State delegations on preventing an arms race in outer space, and were asked to join an expert working group on reducing state-based threats to space systems and other forms of conflict in space.

The Seoul Defense Dialogue 2022 invited RAND Europe to speak at the opening session of the South Korean Ministry of National Defense’s inaugural Space Security working group. Representatives from 54 countries and various UN and NATO agencies met to discuss threats to space security.

The UK Parliament’s Defence Select Committee published findings of its inquiry into progress made with the implementation of the 2021 National Space Strategy and 2022 Defence Space Strategy. This was informed by RAND Europe research, which was widely quoted in the report.
On the horizon

Incentivising the military

RAND Europe is providing research support to the Haythornthwaite Review of Armed Forces Incentivisation, drawing on our expertise in personnel policy, defence skills and military compensation. The review examines the UK Armed Forces’ (Regular and Reserve) approach to incentivisation, to help UK Defence improve the way it attracts, recruits and retains the people it requires and adapt to the changing nature of work in the 21st century. In collaboration with partners EY, we are helping the review navigate the existing research landscape and conducting enabling research to ensure conclusions and recommendations are grounded in robust evidence.

Supporting research during lockdown

The research sector, like many others, was significantly disrupted by COVID-19 and associated lockdown measures. RAND Europe and Vitae have been commissioned to evaluate a variety of UK government policy interventions targeted at universities and other research organisations, which have aimed to stabilise the research and innovation system. The evaluation will assess how effectively UK Research and Innovation (UKRI) and the UK Department for Business, Energy & Industrial Strategy (BEIS) have designed and delivered policies, and how they were received; evaluate early evidence on impact; and develop a framework to measure longer-term impact.
Regulating legal cannabis supply

In 2021, Malta became the first EU state to legalise the supply of non-medical cannabis, permitting home cultivation and Cannabis Social Clubs. Now RAND Europe is helping other European policymakers assess different options for regulating the legal supply of cannabis. The Swiss Federal Office of Public Health has engaged us to provide an overview of non-commercial regulatory models, including the effect on illegal markets and potential social and health harms. In the Netherlands, we are evaluating an experiment to explore the effects of allowing quality-controlled cannabis to be cultivated and delivered through a closed supply chain for coffeeshops.

Tracking the impact of HS2 on communities

The UK’s High Speed Rail 2 development (HS2) is the largest infrastructure project in Europe. The Wellbeing Impact Study of HS2 aims to understand how HS2 affects the mental health and wellbeing of people living nearby during planning, construction and use. What we learn will inform the design and assessment of later HS2 phases. Our research will also provide a new way of understanding how large transport projects affect local communities and help develop ways to support them. The study is being undertaken by the Cambridge Centre for Health Services Research, a collaboration between RAND Europe and the University of Cambridge.
In 2022 RAND Europe celebrated 30 years of delivering its mission to help improve policy and decision making through research and analysis. To mark the occasion, we asked some alums and current staff to share reflections on one favourite and impactful project. Here are just a few:

“Helping the UK Ministry of Defence think through the implications of climate change for UK Defence and Security was one of my most gratifying projects. Our work has provided a foundation for further analysis of what climate change means for UK Defence, and is being used to educate the next generation of military leaders.”

Lucia Retter
NOW: Research leader in defence and security, RAND Europe

Our research informed the UK Ministry of Defence’s Climate Change and Sustainability Strategic Approach (2021) by designing a conceptual framework to help decision makers systematically assess the breadth of implications of climate change and develop robust responses.

“Our research provided a blueprint for the EU’s future digital agenda. Cross-cutting policy options emerged from this analysis to help make the EU effective in the coming Digital Age.”

NOW: Envoy at Techleap.nl
THEN: Research Leader in information policy and economics and Head of Brussels Office (2008–2010)

Our 2009 study used futures methods to understand and assess the socio-economic impacts of digital trends to manage the uncertainty and increase the effectiveness of policy decisions on the EU’s future digital challenges, brought about by an emerging ubiquitous ‘internet society’.
Looking back nearly 20 years, I feel a sense of pride for the impact we had and nostalgia for the fun we had doing the work. Our insights informed the then UK Department of Health’s ground-breaking research strategy, Best Research for Best Health.

Jonathan Grant, alum (2002–2014)
NOW: Author and founding director, Different Angles
THEN: President, RAND Europe (2006–2012)

RAND Europe provided key analytical support to the UK government to develop its new research strategy. From this initiative, the National Institute of Health Research (NIHR) was founded in 2006. As the UK government’s major funder of health and care R&D, NIHR’s budget now stands at over £1.2 billion.

Our work to help people with varying conditions of poor mental health find employment was satisfying enough for me. But to see its impact swell from benefiting small population groups to larger pilots (known as the RAND pilots) was even more amazing.

Joanna Hofman
NOW: Deputy Director of research in home and social affairs, RAND Europe

In 2013 we examined how to improve service provision and psychological wellbeing and work outcomes for people with common mental health problems. Two years later the UK government implemented a large-scale impact trial. The results showed a statistically significant positive improvement on life satisfaction (on self-worth, happiness and reducing loneliness), even though the impact on employment was less consequential.
For our 30th anniversary celebrations in May, we brought together members of RAND’s Center for Global Risk and Security and our Council of Advisors for a first-ever joint meeting, followed by a gala dinner at the House of Commons for friends and supporters.

The topics discussed ranged from global defence policy, post-pandemic public health responses and the societal implications of disinformation to European strategic autonomy and Germany’s foreign policy. Joining RAND advisors ‘in conversation’ were well-known experts in their fields: Sir Jeremy Farrar, director of the UK’s
largest health funder, Wellcome; Mark Thompson, former Director-General of the BBC and CEO of The New York Times Company, now Chairman of Ancestry; Professor Joachim Krause of the Institute for Security Policy in Kiel, Germany; and Gustav Lindstrom, Director of the Paris-based EU Institute for Security Studies.

The House of Commons provided an atmospheric dinner venue, with Carl Bildt, former Swedish prime minister and foreign minister, and a current RAND Europe Council member, providing insightful after-dinner remarks.
Council of Advisors

Our Council of Advisors provides essential independent guidance, informed by their diverse experience and professional distinction. We regularly host events to give our stakeholders opportunities to exchange expert perspectives with Council members.

In July the Council welcomed a new Chair, Jason Matheny, RAND President and CEO, as it bade farewell to Michael D. Rich after 47 years of outstanding service to RAND. Michael’s thoughtful advice, insights and leadership have been greatly valued and appreciated.

We welcomed two new members in 2022. Dr Vishal Gulati is an active and influential member of Europe’s health and life sciences innovation economy. A trained medical doctor, he has been involved over two decades in all stages of the journey to turn scientific ideas into successful treatments, serving on many boards. Peter Watkins has over three decades of experience in defence policy, planning and international cooperation, most recently as Director General Strategy & International for the UK Ministry of Defence. He is a Fellow or board member of multiple organisations related to security policy. Peter was awarded a CB (2019) and CBE (2004).
Members serving in 2022/2023

Jason Matheny (Chair)President and Chief Executive Officer,
RAND Corporation

Michael D. Rich (Former Chair)Former President and Chief Executive Officer,
RAND Corporation

Paul Adamson OBE  Founder and Editor, Encompass  
Chairman, Forum Europe

László Andor  Secretary General,  
Foundation for European Progressive Studies

Dawn Austwick  Former Chief Executive,  
The National Lottery Community Fund

Carl Bildt  Former Prime Minister, and Former Minister for Foreign Affairs, Sweden

Professor Dame Carol Black DBE, FRCP, FMedSci  
Chair, British Library  
Chair, Centre for Ageing Better

Jessica Cecil  
Trustee, University of Bristol  
Former Chief of Staff to Director-General and  
Former Director of the Trusted News Initiative, BBC

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Queen Mary University

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Media Consultant,  
Former Deputy Editor-in-Chief, Bild

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Chair, Engage Britain

Michael Hoffman  
Chairman, Hoffman Ventures Limited

Professor David Howarth  
Professor of Law and Public Policy,  
University of Cambridge

Dr. Alexander Italianer  
Senior International Policy Adviser, Arnold & Porter  
Former Secretary-General, European Commission

Bridget Kendall MBE  
Master of Peterhouse, University of Cambridge  
Former Diplomatic Correspondent, BBC

Gunvor Kronman  
Chief Executive Officer, Hanaholmen,  
the Swedish-Finnish Cultural Centre

Ana Palacio  
Former Minister of Foreign Affairs, Spain

Sir Tom Phillips KCMG  
Independent Consultant  
Former UK diplomat

Peter Watkins CB CBE  
Non-Executive Member of the Board,  
UK Space Agency
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Civipol
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EC DG Employment, Social Affairs and Inclusion
EC DG Health and Food Safety
EC DG Migration and Home Affairs
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EC DG Trade
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European Defence Agency (EDA)
European Institute for Gender Equality (EIGE)
European Monitoring Centre for Drugs and Drug Addiction (EMCDDA)
European Parliament
European Union Agency for Asylum (EUAA)
European Union Agency for Fundamental Rights
Genomics England
Health and Safety Executive (HSE)
High Speed 2
Highways England
Impetus
London Ambulance Service NHS Trust
Medicines & Healthcare Products Regulatory Agency
National Institute for Health and Care Excellence
National Institute for Health and Care Research
NATO
Netherlands Ministry of Foreign Affairs
Netherlands Ministry of Health, Welfare and Sport
Netherlands Ministry of Infrastructure and Water Management
Netherlands Ministry of Justice and Security
Netherlands Research and Documentation Centre (WODC)
Norwegian Ministry of Foreign Affairs
Swiss Federal Office of Public Health
UK Cabinet Office
UK Defence and Security Accelerator
UK Defence Science and Technology Laboratory
UK Department for Business, Energy & Industrial Strategy
UK Department for Education
UK Department for Transport
UK Department for Work and Pensions
UK Development, Concepts and Doctrine Centre
UK Foreign, Commonwealth & Development Office
UK Home Office
UK Met Office
UK Ministry of Defence
UK Ministry of Justice
UK National Audit Office
UK Research and Innovation
UK Space Agency
### Foundations, charities and universities

- Action Against Gambling Harms
- Armed Forces Covenant Fund Trust
- Association of British Insurers
- Association of the British Pharmaceutical Industry
- Benevolentia Foundation
- Bernard van Leer Foundation
- Breuer\&Intraval
- Cambridge Ahead
- Centre for Humanitarian Dialogue
- COVID-19 Genomics UK Consortium
- Education Endowment Foundation
- Forces In Mind Trust
- Guy’s and St Thomas’ Charity
- Institute for Employment Studies
- International Association for the Evaluation of Educational Achievement
- King’s College London
- Lloyd’s Register Foundation
- NHS Employers
- Novo Nordisk Foundation
- OECD
- Porticus
- Royal College of Veterinary Surgeons (RCVS)
- SPARK
- The British Academy
- The Health Foundation
- The Nuffield Trust
- The Royal Foundation of the Duke and Duchess of Cambridge
- United Nations Development Programme
- University of Birmingham
- University of Cambridge
- University of Exeter
- University of Warwick
- Wellcome Genome Campus
- Wellcome Trust
- What Works for Children’s Social Care
- World Health Organization
- Youth Futures Foundation

### Private sector

- AIA
- AMR Industry Alliance
- Cambridge Enterprise
- DeepMind
- EY
- Ferring Pharmaceuticals
- Frontier Economics
- ICF
- Idorsia
- Ipsos
- Itad
- KPMG
- Manulife
- Microsoft
- Modern Life
- Mott MacDonald
- MSD
- Ruder Finn
- Sanofi
- Shared Intelligence
- SiRM
- Swedbank
- TELUS
- Velux Group
- VitalityHealth
Our expertise

Combining expertise and knowledge across a wide range of research disciplines and methodologies allows us to generate superior insights and impacts.

**Policy domains**
- Child & family policy
- Defence & security
- Digital society
- Drugs, policing & criminal justice
- Education & early years
- Employment, social inclusion & migration
- Energy & sustainability
- Health & healthcare
- Resilience & critical infrastructure
- New & emerging technologies
- Research & innovation systems
- Wellbeing in the workplace

**Capabilities and methods**
- Economic impact analysis
- Evidence assessment & synthesis
- Horizon scanning, futures & foresight studies
- Impact & process evaluation
- Policy design, monitoring & evaluation
- Randomised control trials
- Research systems analysis
- Serious gaming
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