UKRI Next Generation Services Projects Assembly

List of Projects Outline

Research Lead Projects

Title	Lead Organisation	Description
Technology Driven Change and Next Generation Insurance Value Chains	Loughborough University https://www.techngi.uk/	This project will consider how AI can be applied to processes such as underwriting and claims processing, speeding up the process for customers. Working with business, the project will consider how AI technologies can transform delivery of insurance services and save consumers money.
Unlocking the Potential of AI for Law	University of Oxford https://www.law.ox.ac.uk/unlocking-potential-artificial-intelligence-english-law	This project will look how AI can be put to use in legal services and how to unlock its potential for good. The project will bring academics, lawyers, businesses and programmers together to develop the skills, training and codes of practice to deliver these benefits. The team will gather best practices across the world, outline data challenges, identify where and how AI can legitimately resolve disputes.
Innovating Next Generation Services through Collaborative Design	University of Sheffield bit.ly/NextGenPSF	This project will consider future uncertainties about the roll-out of new AI technologies in accounting and legal services by using insight, existing studies, developments in AI and service design, as well as analysing the potential barriers to AI-based business model innovation. The project will work with mid-size firms across law and accountancy.

UK Research and Innovation

CR&D Projects

Large Consortia

Title	Organisations	Description
Automation and Transparency across Financial and Legal services: Mitigating Risk, Enhancing Efficiency and Promoting Customer Retention through the Application of Voice and Emotional AI	INTELLIGENT VOICE LIMITED Strenuus Ltd University of East London	The partners aim to develop AI software that detects and interprets emotion and linguistics from voice, developing a vocal AI technology for credibility/vulnerability assessment, key word spotting, in-call behavioural guidance and transparency of the decision-making process, trialled by an insurance contact centre during live claims handling
Pozibot	ALTELIUM LIMITED Delta Motorsport Ltd University of Lancaster Quantum Base Ltd	The aim of this project is to enable a new type of insured warranty to be developed. It will enable partnerships between insurance providers and smaller (local) battery pack suppliers developing next generation batteries

Enabling rapid adoption of artificial intelligence through an anonymized data protocol and explainable models	GINIE AI LIMITED Barclays PLC Imperial College London, Professional Insurance Agents Ltd. University of Oxford, Withers LLP	Two of the greatest obstacles towards adoption of AI in UK services is the acquisition of confidential data, and the explain ability of black-box neural models. Commercial products that advance state of the art algorithms will be developed, drawing on the latest body of research in computational privacy and machine learning. The technology will be researched, tested and trialled in a commercial setting. Key stakeholders and regulatory bodies will be engaged with to provide an industry wide protocol of how to enable access to data for the rapid adoption of machine learning in services.
The Development of an Artificial Intelligence Recommender System for Advisory Service Provision at Scale	FLUIDLY LIMITED Baldwins Holdings Ltd The Sage Group PLC	This project will develop a Client Advisory Insight Engine (CAIE), a web-based client engagement solution to enable resource efficient remote monitoring of SME clients' financial performance across an Accountancy firm's client portfolio. CAIE utilises AI to recommend advisory actions for accountants to open timely advisory conversations with their clients

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Small Projects

Title	Organisations	Description
UPLIFT - Utilising Processing to explore Insurance Fairness using Telematics	THE FLOOW LIMITED	The project will strengthen the UK's position in the motor insurance sector. The goal is to grow new understanding of risk, in greater detail, directly from driving telemetry, minimising the usage of traditional insurance proxies, which are less easy to justify and potentially unfair to end users. Overall the UPLIFT project seeks to empower improved and fairer insurance products making mobility smarter and safer for all.
Disrupting the cybersecurity insurance market through a technology and business model play	INSURTECHNIX LIMITED	This project applies AI/data techniques ('cybermatics') to the UK cyber insurance market. A cyber risk detection product has been developed which collects risk data from business devices. We will apply AI to this data to enable UK insurers to better price cyber risk premiums and reward good cyber risk management through reductions in insurance premiums.
Improving Legal Services Productivity and Accessibility with Artificial Intelligence	MOORCROFTS LLP Oxford Brookes University	This project is to research the feasibility of a legal contracts management system that uses AI to simplify the process of legal contract review, dramatically reducing the time taken to review, negotiate, and manage contracts. By implementing this as a cloud-based solution we plan to offer its capability as an online legal service to SME's and legal firms to enhance their productivity in negotiating legal contracts
A Real-time Digital Platform for Industry 4.0 Manufacturer	INROBIN LTD University of Strathclyde	In this project, partners are aiming to create a digital insurance product for industrial machinery based on real-time data and analysis with significant predictive power that will transform insurance services in manufacturing,

Insurance		bringing all round benefits to UK: reduction in inefficiencies, risks and costs. The technology will be marketed to insurers and manufacturers
Technical Feasibility and Market Validation for a Sustainable Business Assurance Platform for Accountancy Firms	BEYOND GREEN ADVISORS LTD	Adding to the accountant's business toolkit and skill set, whilst drawing on their analytical skills, theArena17 will help reduce impacts on jobs from the automation of their core services; automation driven by the growing uptake of cloud-accounting and digital reporting. TheArena17 will allow unquoted companies to understand their sustainability credentials and communicate them to investors/stakeholders. The automation will give all British businesses access to valuable services not widely available.
Oasis-CAIMAN	OASIS HUB LIMITED Cranfield University	The proposal is to develop an insurance software that can accept, analyse and review drone collected visual images to a high level of accuracy for loss and damage after extreme events. The project will test a 3D image recognition system for flood. The tool is intended to become a licensed software for the Insurance sector, and can be further developed as an emergency damage assessment and payment system after extreme events, as well as used to simply observe building and infrastructure damage.
Global Access to Justice via AI & Community	LEGALBEAGLES GROUP LTD IBM Ltd	This project seeks to provide easy access to legal answers, support and community advice enhanced by AI technology, which can analyse and scale knowledge to predict best routes for consumers to find solutions to legal issues. The objectives are to provide quality legal support in a cost-effective manner, to a global population that is increasingly struggling to gain access to justice and consequently researching

		online to find answers to legal matters
MatterLab - Predicting Matter Costs and Reserves	FRONTIER LABS LTD Weightmans LLP	This project will combine human centred design and artificial intelligence to create a system that augments and guides Legal experts when forecasting the costs of legal cases
Legal & Property Language Processing	ORBITAL WITNESS LIMITED HM Land Registry University of Southampto	AI techniques will extract and analyse legal rights and obligations related to property and land. The project lead will use this information to support the creation of "Legal Risk Scores" (similar to credit risk scores) for all property and land, revolutionising real estate practice in the legal and insurance sectors. It will increase transparency in understanding legal issues affecting property, speeding up the time in which lawyers can identify legal risks, and improve the standardisation of real estate risk assessment to allow for insurance policies to be issued in a more simple manner.
Transforming the insurance sector through AI and ML enabled cyber Risk prediction	ORPHEUS CYBER LIMITED	Using AI and machine learning to predict cyber Threat activity and enable accurate Risk assessment
distriBind - Intelligent Premium Income Prediction for Carriers and MGAs	DISTRIBIND LIMITED Vesuvio IS Ltd	distriBind is a transformative platform allowing Insurance providers to share information quickly and more accurately and delivering AI-led analytics and forecasting. This project will enable distriBind to research, test and develop a proprietary algorithm to deliver forecasting and anomaly detection around insurance premium income. This information will provide better business planning, assist compliance with new accountancy standards under IFRS17, and help ensure insurance capacity is available in the market.

Development of AI Conveyancer to facilitate instant conveyancing	TEAL LEGAL LIMITED Keele University	The project will build a prototype tool to establish whether AI and technology could improve on the current 'due diligence' decisioning process to decide whether properties are good and marketable. It will also conduct research to establish how this will fit into the current industry requirements, and impact insurance and regulatory requirement.
Recap - cryptocurrency accounting	RECAP TECHNOLOGIES LIMITED	Recap is an upcoming software product for cryptocurrency accounting, providing accountants, consumers and businesses a simple, intuitive and privacy-focused way of tracking, analysing and reporting on their cryptocurrency finances, providing clarity of their tax position. Recap will ingest data from numerous large data sources and perform automated data techniques including classification, matching, aggregation and modelling in order to provide an accurate and comprehensive dataset ready for further analysis and reporting.
SmartPolicy	KENNEDYS LAW LLP Chrysalis Analytics Ltd.	This project will produce a new tool for the insurance sector to enable insurers to draft consistent new policies and/or additional clauses to existing policies without the reliance on lawyers. We will develop machine learning algorithms and neuro linguistic programming (NLP) techniques that ensure policies are created to consistent standards and that evaluate policy documents and aid clients in understanding the amendments. The savings we create for insurers will be passed on to UK policyholders, who are subject to some of the highest insurance premiums in the global insurance market.
Applying AI-based solutions into	SOLOMONIC LIMITED University of Warwick	Solomonic enables litigation professionals to use structured, systematic data analysis when making

high-value litigation		litigation decisions. This is done by methodically analysing and indexing court documents based on a large number of criteria. This enables legal professionals to speed up litigation research and provide structured insights. This project will investigate the feasibility of applying machine learning algorithms to the large-scale collection of accurate data from court documents.
Tapoly- bespoke insurance platform for sharing economy participants	TAPOLY LTD Beazley Management Ltd University of St. Andrews	Self-employed and freelance workers represent 15% of the UK workforce, with insurance products being generally rigid, difficult to change and unable to cope with flexible working requirements. The outputs of this project will include designs and test implementations for the Oracle chatbot and advanced risk calculation engine. Within the many types of insurance available, Tapoly will offer several products to freelancers, of which we expect Professional Indemnity (PI) to generate greatest revenues.
Thirdfort - Data driven property fraud prevention	THIRDFORT LIMITED	The project will build an AI driven algorithm that can be used by property lawyers to detect fraudulent property transactions in real time, protecting property buyers, sellers and lawyers.
Ditto Tax: AI-driven automated tax advice using enabling knowledge acquisition methodology	DITTO AI LIMITED Devclever Ltd.	Ditto AI have developed a unique knowledge acquisition methodology, free from interviewer dependency that can produce a computable output that exhaustively documents an individual's decision-making & encodes their entire expertise on any subject

Project Flowerpot - Creating beautiful things on the edge	INTERCEPT SERVICES LTD Control F1 Ltd	Intercept IP will seek to transform the motor insurance market through the development of the next generation of in vehicle telematics devices. This AI will feedback to drivers factors influencing their overall driving safety including acceleration, braking, handling intensity, proximity to other vehicles and accommodation of external conditions. The level and quality of data available will enable Intercept IP to develop automated driver identification software and report highly detailed crash characterisation data. This will help insurers with claim resolution processes.
Capitalise.com - Using cloud data to monitor client portfolios and deliver next generation advisory	PLATFI LTD	Capitalise Monitor will assess cloud accounting and OpenBanking data through data analytics and machine learning, guiding and prompting advisers on: which clients to approach; and topics of conversation for client groups with beneficial products from a wide marketplace.
The Intelligent Automation of Contract Analysis of Collateral Warranties	BEALE & COMPANY SOLICITORS LLP Swansea University	Reviewing Collateral Warranties (a type of construction industry contracts) is an important part of commercial risk management and can be legally complicated. The project will harness the high level review power of machine learning to identify manageable parts of contracts and the close precision of rules to analyse the legal content those parts in detail.
To investigate the use of AI techniques to augment the the role of legal professionals	TRANSPARENTLY LIMITED	This project is to investigate the application of AI techniques to the analysis of conversational data, to augment the role of legal professionals during any discussion, negotiation or dispute resolution. Transparently will

during negotiation		focus initially on family law (specifically separation and divorce). The project will investigate and seek to gain the know-how, to enable future tools to be developed to support next generation services; a machine-supported 'second opinion', during emotional and difficult negotiations. The intention is to remove potential bias and offer greater transparency in legal decision making.
AUTTO: Micro-Automation Platform for the Professional Service Sector	Autto Ltd University of Exeter	Autto Ltd proposes to deliver an innovative and accessible workflow automation solution for legal departments, law firms and professional services. It aims to deliver increased workflow efficiency freeing professionals to concentrate on advising clients, having a positive impact on both the professional service organisation and their clients improving efficiency, reducing errors and enabling the launch of innovative services.
Xavier Ecosystem Feasibility Study	FD WORKS LIMITED Hatch Apps Ltd	The key objectives of the project are to: identify, clean up and blend a number of data sources, including private data from our users and large public data sets, into an accessible database; build a Proof of Concept analytical engine that employs artificial intelligence and big data techniques to extract accounting insights from the database; provide a web application user interface that presents these insights to businesses and their financial advisors, enabling them to understand their business performance and evaluate and model future business decisions.
INNOVACC	INVENTYA LTD Kapitalise Technology Ltd., Telesto IOT Solutions Ltd.	The project partners will develop a platform centralising management of the finance function for companies, through seamless integration with accounting software and AI backend. INNOVACC will reconcile accounting and financial information. It will increase efficiency and transparency in

		accounting and reporting of innovation related finances.
Lexograph	Structureflow ltd	The project looks to utilise and incorporate artificial intelligence and data analytics into the visualisation product in order to deliver greater functionality and value to users. The project will research and develop a number of opportunities for innovation. The end product is to have developed a data proof-of-concept system that can be incorporated into our product, significantly enhancing functionality and helping to accelerate the growth of our business
Self-learning Cyber Risk Insurance Engine (SeCRIE)	BEWICA LIMITED	The project aims to address cyber risk quantification in the insurance industry by combining AI, data science, cyber security and economics into a single end-to-end underwriting platform to quantify cyber risk and financial impact. An algorithm has been developed based on machine learning, which was used to predict the likelihood of a specific business suffering a cyber breach over a 12-month period. Bewica will offer a platform which provides SMEs real-time updated risk assessment, management and insurance services. Cybernaut will also provide insurers with tools for more accurate and real-time risk selection/pricing.
Development and commercialisation of an AI, ML and data enabled online commodity trade finance platform (Athena)	SATOSHI SYSTEMS LIMITED Sullivan & Worcester UK LLP	The project will develop a platform which will make existing legal practices more efficient. AI will be used to complete the due diligence checks, alongside Blockchain technology to produce a self-executing smart contract reducing the manual work of an experienced lawyer and ensuring the privacy of all stakeholders involved. This in turn will enable trading on the commodity market which will increase competition, their productivity and the knowledge and skills of their business.

Affordable Legal Advice	ETIC LAB LLP Court Based Personal Support, Solicotors Pro Bono Group The RCJ and Islington Citizens Advice Bureau	For the volunteers and staff who provide support through advice agencies on legal problems, there is an urgent need to explore the complex network of interlocking and overlapping services. For these service providers, knowing where the client has been before, what advice they've received, whether they have acted on that advice, what assistance other agencies can provide, whether the other agencies have capacity and the justice outcomes of the clients they help is crucial. This project will explore both the possibility of advice charities sharing data to understand their user's journeys and where users would benefit from being guided into the wider legal services market.
Increasing AI adoption rates in the UK legal and high-value services sectors through use of AI microservices and behavioural change science	LEGATICS LIMITED DLA Piper International LLP, Exchange House Services Ltd	This project recognises that AI models can achieve good technical performance but that adoption is primarily held back by organisational and behavioural factors. This project takes the novel approach of providing highly specific and pre-trained models, termed "AI microservices", which are built into existing workflow software used by the sector. It aims to build and integrate six AI microservices into the high-value legal practices of the project partners and measure the adoptability of the resulting technology.
Thank Intelligence Project: Meeting Minutes Automation	THANK INTELLIGENCE LTD	The objective of the project is to automate the process of taking minutes so attendees can focus on important conversations, improving interactions and allowing artificial intelligence to perform high quality minute-taking. The project will use pioneering technology for minute taking.
Lawli	Lawli Ltd	The project aims to reduce and eliminate existing barriers in legal services across the ecosystem, to make

		legal services more accessible and reduce the overall costs, time and resources commitments to pursue justice and promote fair market behaviour. Powered by the latest natural language processing techniques and machine learning algorithms, the project aims to develop and make available the most accurate and easy-to-use legal services covering a range of legal areas to law firms and businesses.
"Help Andi" - leveraging open data & AI to protect UK SMEs	DIGITAL FINEPRINT LIMITED	The project will build an online data management and oversights tool, leveraging some of our existing capabilities that use open data and AI. It will help bring transparency and clarity to all UK SMEs regarding their online footprint, and how this data is used and monetised by the wider insurance sector. It will be offering insights on up to 50 open data sources divided in to categories such as company profile, financials, risks and customer sentiment analysis using natural language processing analysing social media and review scores.
Instant Beneficial Ownership Visualisation Checks (Using AI and NLP)	AOS2 ENTERPRISE LTD	Current anti-money laundering (AML) compliance processes for verification of beneficial-ownership are challenging – they are labour intensive, manual, repetitive and data intensive tasks, which are vulnerable to human error. The project will create a beneficial ownership platform in the form of an online electronic identity verification service, reporting real-time automatic detailed visualisation of the structure of company ownership, identifying connections between customers and their owners. The project will use AI to trawl publicly available data, in both structured and unstructured forms, automatically validate an entities full ownership structure in real-time, and compare it with the information

		supplied to the relevant organisations. This information can also then be cross-referenced against international sanctions lists and watchlist databases.

Data Access Projects

Project Name	Lead organisation	Project Summary
Powering an open age of professional services	Engine B https://www.engineb.com/	The project is focused on the development and adoption of a standardised set of knowledge graphs, underpinned by industry agreed common data models and a common data access platform for professional services (structured and unstructured data) which will provide the equivalent open access to corporate data on a scale equivalent to open banking.
Standard for Environment, Risk and Insurance (SERI)	Icebreaker one https://icebreakerone.org/	The project will develop a new Standard for Environment, Risk and Insurance (SERI) to design, test and develop financial products. SERI has the potential to transform the sector, enabling the insurance industry to innovate around climate change and the new kinds of risk it creates, by developing both current and new products to maintain the UK's position at the forefront of global insurance.
RegNet: : Privacy-preserving data access network for regulated sectors	RegulAItion https://regulaition.com/	RegNet is a platform that combines multiple technologies to create a secure, privacy-preserving data access and data collaboration network for regulated sectors. The platform will power the global development of ethical AI

		providing the technology infrastructure for scalable, automated, repeatable, and responsible data-access, supporting the Fourth Industrial Revolution and the UK's leading position in it.
KnowRisk SC - Fusing data from Industry, Accounting, Insurance and Law to better identify, monitor and manage risk across entire supply chains	Sweetbridge https://sweetbridge.com/	By fusing IoT, AI and distributed ledger technologies around standardized data models, Sweetbridge are developing a national, open demonstrator of real-time risk identification and management tool for corporations, insurers, accountancies and lawyers, using the food & drink manufacturing supply chain as an exemplar use case. The platform will step-change data sharing needed for risk management by corporations, auditors, lawyers and insurance companies providing new ways of identifying and managing exposure to individual and systemic risk in supply chains through the sharing of data across insurance, accountancy and legal stakeholders