

# NATEP

## Software System or Business Process projects



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Software – system or business/process

Project	Supply chain partnership	Contact
<b>BASELINE - Rapid Machine Tool Verification</b>	<ul style="list-style-type: none"> <li>• Insphere Ltd</li> <li>• Hexagon Manufacturing Intelligence (UK) Ltd</li> <li>• Nuclear Advanced Manufacturing Research Centre</li> <li>• Rolls-Royce plc</li> </ul>	Ben Adeline Chief Executive  ben@insphereltd.com
<p>The Baseline project will develop a solution for rapid verification of large volume machine tools. The outcome of this will be to improve machining processes, reducing scrap and improving machine uptime.            NATEP Grant £107,790</p>		

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<b>Advanced Stress Concentration Assessment Tool (ASCAT)</b>	<ul style="list-style-type: none"> <li>• Cabot Design Ltd</li> <li>• Gingerneering Ltd</li> <li>• Safran Landing Systems</li> </ul>	Rachel Stephenson General Manager  rachel.stephenson@cabotdesign.com
<p>Generation of an analysis tool which integrates into current commercial available analysis software to assess the peak stresses at stress concentrations in landing gear structures.            NATEP Grant £90,000</p>		

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<b>Cabin Interior Monument Load Cell</b>	<ul style="list-style-type: none"> <li>• Cabot Design Ltd</li> <li>• Gingerneering Ltd</li> <li>• Rockwell Collins operating in the UK as B/E Aerospace (UK) Limited</li> </ul>	Rachel Stephenson General Manager  rachel.stephenson@cabotdesign.com
<p>A novel load cell developed for testing aircraft interior structures. With enhanced stiffness representation, self-calibration and interchangeable interface adapters, the load cell advances the useful data obtained during test and enhances capability for correlation with analysis            NATEP Grant £62,500</p>		

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<b>Airborne Software Capacity (ASC)</b>	<ul style="list-style-type: none"> <li>• Rapita Systems Ltd</li> <li>• Altran UK Ltd</li> <li>• Rolls-Royce plc</li> <li>• GE Aviation Systems</li> <li>• BAE Systems</li> </ul>	Ian Broster General Manager  ianb@rapitasystems.com
<p>“Airborne software capacity” will allow more functionality to be used in embedded aerospace systems such as jet engines by using advanced analysis for the capacity calculations of safety-critical software on single and multi-core hardware.</p> <p>NATEP Grant £150,000</p>		

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<b>Visual Inventory Optimisation Software</b>	<ul style="list-style-type: none"> <li>• Consult Avila</li> <li>• CANDA Systems</li> <li>• RLC Engineering (customer)</li> </ul>	Dudley Wood - Director dudley.wood@consultavila.com
<p>This project will:            Develop a visual management software tool to optimise inventory levels based on a proven best practice methodology, including data visualisation and active &amp; dynamic inventory planning and control, segmentation, mapping, trend analysis, alerting, root-cause analysis and forecasting. This software will be supported by an inventory management and control e-learning package and will be delivered via cloud technology.</p> <p>NATEP grant £64,000</p>		

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<b>asureSign Aero</b>	<ul style="list-style-type: none"> <li>• Test and Verification Systems Ltd</li> <li>• University of Bristol</li> <li>• Rolls-Royce plc (customer)</li> </ul>	Dr Michael Bartley - CEO mike@testandverification.com
<p>The funding supports the development of a tool (asureSign™) to support Requirements Based Verification for DO-178 &amp; DO-254 compliance in aerospace software and hardware development. Both standards mandate that developers demonstrate key safety requirements have been fully tested and that test coverage targets have been met.</p> <p>NATEP grant £92,000</p>		

Project	Supply chain partnership	Contact
<b>Supply Chain Excellence Data Streamlining (SCEDS)</b>	<ul style="list-style-type: none"> <li>• Prion Cutting Edge</li> <li>• Rule IQ</li> <li>• Assystem UK Ltd (customer)</li> </ul>	info@natep.org.uk
<p>SCEDS is the new affordable technology platform that shares aerospace project data, which is centrally located and secure, with an extended supply chain (SMEs), reducing the risk of costly design and manufacturing mistakes</p> <p>NATEP Grant £150,000</p>		

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<b>Plane Sight</b>	<ul style="list-style-type: none"> <li>• Blue Bear Systems Research</li> <li>• Createc</li> <li>• General Dynamics UK (customer)</li> </ul>	Gavin Goudie gavin@bbsr.co.uk
<p>Each year hundreds of aircraft are damaged during ground manoeuvre due to limited view of the operator/pilot when manoeuvring a large dynamic system within a complex and cluttered environment. Blue Bear Systems Research (BB), Createc and General Dynamics (GDUK) have teamed together to develop a novel situational awareness avionic system for commercial aircraft.</p> <p><b>NATEP Grant £67,200</b></p>		

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<b>Valuechain.com –connecting the Aerospace Supply Chains</b>	<ul style="list-style-type: none"> <li>• Valuechain.com</li> <li>• Techni Grind Machining</li> <li>• Hyde Coatings Ltd</li> <li>• Alcoa (formerly RTI Forming) (customer)</li> </ul>	Tom Dawes – Director tdawes@valuechain.com
<p>The Valuechain.com project provides multi-tier connectivity and visibility within the aerospace supply chain through an integrated cloud-based collaborative platform to streamline inter-company operations and develop competitive high value manufacturing extended enterprises.</p> <p><b>NATEP Grant £150,000</b></p>		

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<b>Aircraft Ditching Loads Prediction Tool</b>	<ul style="list-style-type: none"> <li>• Stirling Dynamics</li> <li>• University of Southampton</li> <li>• Bombardier(customer)</li> </ul>	Dr Simon Hancock - Research & Development Manager simon.hancock@stirling-dynamics.com
<p>This project will produce a method and tool to predict the loads experienced by an aircraft when ditching in water. This will cover a range of aircraft configurations and could be used by any aircraft manufacturer.</p> <p><b>NATEP Grant £166,850</b></p>		

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<b>Whole-field simulated/ experimental data comparison</b>	<ul style="list-style-type: none"> <li>• Enabling Process Technologies Ltd</li> <li>• Strain Solutions Ltd</li> <li>• Airbus Operations Ltd (customer)</li> </ul>	Dr John Philip Tyler – Director philip.tyler@eptworld.com
<p>This project will develop a new method for the full-field comparison between experimentally derived digital image correlation displacement/strain data and finite element simulation results from aerospace structures, incorporating an innovative and fully automated coordinate transformation approach.</p> <p><b>NATEP Grant £77,000</b></p>		

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<b>Aerospacespecialprocesses.com</b>	<ul style="list-style-type: none"> <li>• Valuechain.com Ltd</li> <li>• Stainless Plating Ltd</li> <li>• Blackprint Ltd t/a “Alloy Heat Treatments”</li> <li>• Bombardier (customer)</li> </ul>	Tom Dawes – Director tdawes@valuechain.com
<p>Aerospacespecialprocesses.com is a cloud-based platform which aims to develop a collaborative on-line platform that streamlines communication between aerospace manufacturers and special process houses by optimising complex planning variables, sharing 2-way information with customers and co-operative partners and consolidated logistics planner providing intuitive decision support to improve service levels, productivity and therefore increase the competitiveness of aerospace special process houses.</p> <p>NATEP Grant £150,000</p>		

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<b>Collaborative Knowledge Management for Aerospace Operations Improvement</b>	<ul style="list-style-type: none"> <li>• Agile Business Improvement Ltd</li> <li>• Pentangle Internet Ltd</li> <li>• Gardner Group Ltd (customer)</li> <li>• Unilathe (customer)</li> <li>• Packaging Automation(customer)</li> <li>• Clwyd Compounders (customer)</li> </ul>	Helen Jackson hjackson@dna-agile.com
<p>The development and deployment of persuasive technology (captology) to drive behavioural and cultural change supported by an innovative cloud-based collaborative problem solving platform to support UK aerospace supply chain companies disseminate best practice and embed standardised continuous improvement solutions. This is further supported by utilising semantic search capability and access to a shared collaborative knowledge repository with the aid of industry experts.</p> <p>NATEP Grant £ 150,000</p>		

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<b>Hands Free Inspection Interface</b>	<ul style="list-style-type: none"> <li>• Muretex Ltd</li> <li>• University of Coventry</li> <li>• Cranfield Aerospace (customer)</li> <li>• Rolls-Royce plc (customer)</li> </ul>	Dr J T Platts – Managing Director jtplatts@muretex.com
<p>This project will develop an infrastructure and delivery system based on an optical head mounted display to reduce both the inspection time and the burden placed on inspection staff.</p> <p>NATEP Grant £73,800</p>		

Project	Supply chain partnership	Contact
<b>ROCA: RapiTime Object Code Analyser</b>	<ul style="list-style-type: none"> <li>• Rapita Systems Ltd</li> <li>• University of York</li> <li>• Rolls-Royce plc (customer)</li> <li>• Airbus Defence and Space Madrid (customer)</li> </ul>	Ian Broster General Manager  ianb@rapitasystems.com
ROCA is a collaboration between Rapita Systems and the University of York, developing the next generation of software verification tools to reduce the cost and effort for current and future aerospace industry needs. <b>NATEP Grant £150,000</b>		

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<b>Risk Aware Mission Planning (RAMP)</b>	<ul style="list-style-type: none"> <li>• TEKEVER Ltd</li> <li>• ROTRON Power Ltd</li> <li>• Sovereign Global(UK) Ltd (customer)</li> <li>• European Maritime Safety Agency, Lisbon (customer)</li> </ul>	Paul Webb – Managing Director paul.webb@tekever.com
UAV market as applied to Search & Rescue, civil surveillance, environmental monitoring. Maritime vessels, land systems, planetary rovers. <b>NATEP Grant £150,000</b>		

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<b>Detection, Neutralisation and Investigation of Threat UAVs (DeNI of Threat UAVs)</b>	<ul style="list-style-type: none"> <li>• RNC Avionics Ltd</li> <li>• Saher(UK)</li> <li>• West Yorkshire Police (customer)</li> <li>• Eurocontrol (customer)</li> <li>• PNLD (customer)</li> <li>• Airbus DS Ltd (customer)</li> </ul>	Natasha McCrone – Project Manager natasha@rinicom.com
The overall objective of the project is to develop and implement a scalable system capable of detecting, neutralising and investigating threat UAV's. The existing Duplex PTZ (dual optical and video) will be enhanced to include a novel detection, classification and tracking module enabling the police and relevant authorities to apply the appropriate countermeasures to neutralise the UAV and a framework of operational and legislative procedures will be implemented to support all high risk scenarios with the aim of identifying and prosecuting the perpetrator. <b>NATEP Grant £150,000</b>		

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<b>Creating an Understanding of ILS Specifications</b>	<ul style="list-style-type: none"> <li>• Aspect Supportability Consultants</li> <li>• RTP-UK Ltd</li> <li>• Showcase Graphics</li> <li>• UK Council for Electronic Business(customer)</li> </ul>	Mark Williams Head of Operations (ILS) mwilliams@rtp-uk.com
Aspect and RTP Ltd investigated the transition and migration complex legacy data sets into the new S3000L Logistic Support standard <b>NATEP Grant £149,750</b>		

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<b>SkyBike</b>	<ul style="list-style-type: none"> <li>• Skybike International Ltd</li> <li>• Bit Parallel Ltd</li> <li>• Embedded Logic Ltd</li> <li>• BASF plc</li> </ul>	Gilo Cardozo – Chief Technical Officer gilo@giloindustriesgroup.com
<p>This project will work to develop a UAV platform with crop spraying capabilities. It will explore flight control systems and location integration with an experimental VTOL design.</p> <p><b>NATEP Grant £150,000</b></p>		

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<b>Novel training through virtual reality</b>	<ul style="list-style-type: none"> <li>• Invirt Reality</li> <li>• University of Exeter</li> <li>• FlyBe (customer)</li> </ul>	Mark Lewis – Technical Lead Mark.lewis@marchdynamics.co.uk
<p>This project is a close collaboration between a leading software engineering company, a University and an airline. It will seek to develop a novel, immersive environment utilising the latest in technology enhanced learning.</p> <p><b>NATEP Grant £150,000</b></p>		

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<b>Enhanced Safety for Small to Medium-Size Helicopters</b>	<ul style="list-style-type: none"> <li>• Helitune</li> <li>• Prosig</li> <li>• University of Bristol</li> <li>• Castle Air (customer)</li> <li>• Leonardo MW Ltd (customer)</li> <li>• MD Helicopters (customer)</li> </ul>	Peter Morrish – Technology Manager peter.morrish@helitune.com
<p>The goals of this project bring the safety and cost-saving benefits of Health &amp; Usage Monitoring (HUMS) to the small and medium-sized helicopter market. New hardware and data processing technologies will be combined and applied, resulting in a cost-effective 'Mini-HUMS' prototype for exploitation through the UK aerospace supply chain.</p> <p><b>NATEP Grant £150,000</b></p>		

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<b>High Strength Aluminium Alloy Failure Modelling</b>	<ul style="list-style-type: none"> <li>• Cabot Design Ltd</li> <li>• Gingerneering Ltd</li> <li>• Airbus Operations (customer)</li> </ul>	Mervin Davidson – Director merv.davidson@cabotdesign.com
<p>An advanced material model which facilitates the accurate analysis of high strength aluminium alloys under complex loading conditions, with specific application to the prediction of the initiation of failure under load.</p> <p><b>NATEP Grant £150,000</b></p>		



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<b>Machine Connectivity &amp; Manufacturing Intelligence</b>	<ul style="list-style-type: none"> <li>• ATS UK</li> <li>• Hitex Ltd</li> <li>• Arrowsmith Engineering (Coventry) Ltd (customer)</li> </ul>	Martin Kelman – Senior MES Consultant martin.kelman@ats-global.com
<p>The project will create a highly cost effective Machine Connectivity Module (MCM) which connects and monitors manufacturing processes using the latest technology in the fields of; embedded sensors, wi-fi communications and android based data processing &amp; display platforms</p> <p><b>NATEP Grant £150,000</b></p>		

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<b>Proof of Systems Assurance &amp; Certification</b>	<ul style="list-style-type: none"> <li>• D-RisQ Ltd</li> <li>• Abstract Solutions Ltd</li> <li>• GE Aerospace (customer)</li> </ul>	Nick Tudor – Business Director njt@drisq.com
<p>This project seeks to provide an automated, highly assured, systems design analysis capability tool which will enable faster and more cost effective development of constantly evolving complex systems for aerospace and other associated markets.</p> <p><b>NATEP Grant £75,000</b></p>		

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<b>Automated Testing of SPARK Ada Contracts (ATSAC)</b>	<ul style="list-style-type: none"> <li>• Altran UK Ltd</li> <li>• University of Oxford</li> <li>• Rapita Systems Ltd</li> <li>• MBDA UK Ltd (customer)</li> <li>• Rolls-Royce plc (customer)</li> </ul>	Stuart Matthews SPARK development team manager stuart.matthews@altran.com
<p>Software verification is an expensive and time consuming activity. In this project, Altran, University of Oxford and Rapita will combine SPARK specifications with automatic test vector and test harness generation thus reducing cost, risk and timescales for verification of aerospace software.</p> <p><b>NATEP Grant £150,000</b></p>		

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<b>Assystme</b>	<ul style="list-style-type: none"> <li>• Assystem UK Limited</li> <li>• Mosquito Digital Limited</li> <li>• Spirit AeroSystems</li> <li>• Airbus (customer)</li> </ul>	Graham Younger Head of Business Development UK-Aerospace GYounger@AssystemUK.com
<p>The assystme tool is a portable, SMART tool that can be applied in a manufacturing environment to increase quality and reduce cost of non-conformance. Providing route cause analysis and manufacturing process trends in a closed-loop solution, it reduces concessions and repairs utilising the engineering skills from Assystem.</p> <p><b>NATEP Grant £150,000</b></p>		

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<b>Process Control Software Tool [PCST]</b>	<ul style="list-style-type: none"> <li>• Line Business Services</li> <li>• Amfax Ltd</li> <li>• Cobham Mission Systems (customer)</li> </ul>	Stewart Long Projects Director s.long@sovision.com
<p>This project will develop a new process control tool targeted at SMEs which will help ensure that agreed processes are followed systematically, consistently and transparently within projects to support the completion of manufacturing and development projects to agreed quality, time and budget parameters</p> <p>NATEP Grant £100,130</p>		

Project	Supply chain partnership	Contact
<b>BOXARR – Supply Chain Risk Analysis</b>	<ul style="list-style-type: none"> <li>• BOXARR Ltd</li> <li>• I3 Works</li> <li>• Airbus (customer)</li> </ul>	Alasdair Pettigrew- CEO Alasdair.pettigrew@BOXARRplanning.com
<p>The project is developing an automated supply chain risk alert system- further strengthening BOXARR's industry leading supply chain modelling, analysis and optimisation solution</p> <p>NATEP Grant £150,000</p>		