

NATEP

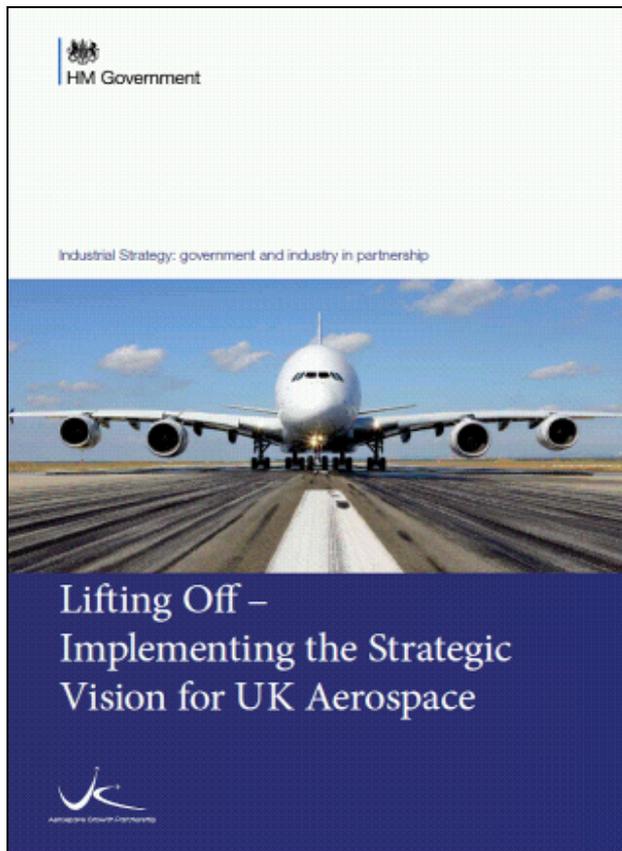
NATIONAL AEROSPACE TECHNOLOGY EXPLOITATION PROGRAMME

**Presentation to the Glasgow Aerospace
Conference**

26 October 2017



Background to NATEP



In support of the UK Aerospace Industrial Strategy for the Aerospace Sector, the Aerospace Growth Partnership (AGP) developed a National Aerospace Technology Exploitation Programme (NATEP) aimed particularly at small and medium sized businesses to :

- q help them develop their own innovative technologies**
- q Increase their ability to win new business with higher tier companies anywhere in the world**

NATEP was supported 2013-2017 by the Advanced Manufacturing Supply Chain Initiative.

NATEP is supported 2017-2020 by the Aerospace Technology Institute and Scottish Enterprise



Aerospace Growth Partnership

www.natep.org.uk

Building upon success

NATEP 2013-2017

- Ø **£40m programme with £23m of grant funding.**
- Ø **113 collaborative projects funded.**
- Ø **267 supply chain companies funded.**
- Ø **385 + supply chain jobs created or sustained.**
- Ø **England only.**
- Ø **Programme ended September 2017.**

NATEP 2017-2020

- Ø **A £14.4m with £8m of grant funding.**
- Ø **Will deliver 40 collaborative Research & Technology projects for the aerospace supply chain involving 100+ supply chain companies.**
- Ø **Programme launched June 2017.**
- Ø **England, Scotland, Wales & N.Ireland.**



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NATEP 2013-2017: Targets and Achievements

	Measure	Target	Success?	Achieved
	No of projects	100		112
	Grants & mentoring	£19M		~ £17.5M
	Jobs	220 by March 17 1200 by March 22		386 to date
	Industry in-kind	£1.5M		£3.3M
	Cross sector	Good reach		>80% companies
	Export opportunities	Good potential		>25%
	Good geographic coverage [England only]	Funding accessed by all regions		Funding has reached all but 2 LEP regions
	No of SMEs	Good reach		~75% funded partners are SMEs

NATEP 2013 -2017 – Economic Impacts

Evaluation by Regeneris Consulting Ltd:

- **NATEP has supported around £25m in GVA.**
- **Most of the impact is expected to occur in the future.**
- **£1 of aerospace sector GVA generates 3.43 through the economy. Net additional GVA is £84m.**
- **Public sector investment return of £26 for every £1 invested.**



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NATEP 2017-2022 Summary

NATEP is supported by the signatories of the Aerospace Growth Partnership Supply Chain Charter:

Airbus

GE

Rolls-Royce

SAFRAN

Bombardier

UTC

Leonardo Helicopters

GKN

Spirit

Thales

Boeing Defence Space & Security



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NATEP Programme Consortium

Programme Lead Organisation



Consortium Partners



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NATEP - Summary

NATEP

£14.4m programme running until 2020
Phased over three 6-monthly competitive calls
Provides 3-way help



q **Funding**



q **Collaboration**



q **Mentoring**



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www.natep.org

The NATEP Model

'Money & Mentoring'



- q Help with Consortia
- q Knowledge Transfer
- q Workshops & Networking

- q Help with Planning
- q Collaboration Agreement
- q 2 Stage Proposal Process
- q Feedback on Outline Proposal

- q Feedback on Full Proposal
- q Opportunity to Present

- q Monitoring of Project Progress
- q Assistance with Claims
- q Training on IP Protection
- q Technology Roadmapping

- q Promotion Opportunities
- q Press coverage

NATEP Project Criteria

- **Technology must have an application or potential application within civil aerospace.**
- **Projects comprise a supply chain technology partnership of at least 2 entities.**
- **Projects must show clear benefit technically and in creating or safeguarding jobs.**
- **Fundamental research not suitable, but wide range of Technology Readiness Levels (Usually TRL 4-7) considered.**
- **Development of technologies should be in line with the ATI Strategy.**
- **See NATEP Website for full criteria**



NATEP Project Technology Alignment

- **Development of technologies should be in line with Aerospace Technology Institute (ATI) Technology Strategy or an explanation provided of why if not.**

- **See www.ati.org.uk**



Grant Funding - Scotland

NATEP grants of up to 50% of eligible project spend are available to SME companies located in Scotland.

For Large companies operating in Scotland, NATEP grants are limited to a maximum of 40% of eligible project spend.



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NATEP Funding

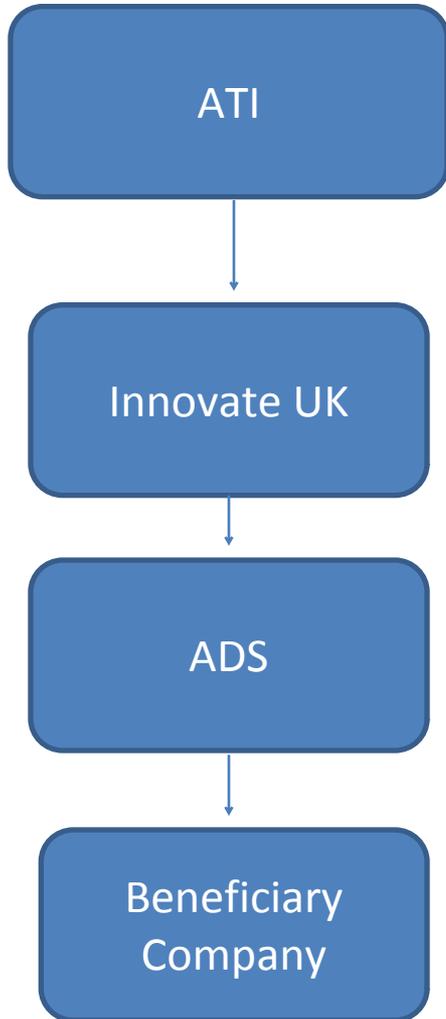
- **All-England project collaborations will be funded by NATEP**
- **All-Scotland collaborations will be funded by Scottish Enterprise**
- **Individual Scottish-based beneficiaries in “cross-region” collaborations to be funded on a case-by-case following discussion between NATEP and Scottish Enterprise**



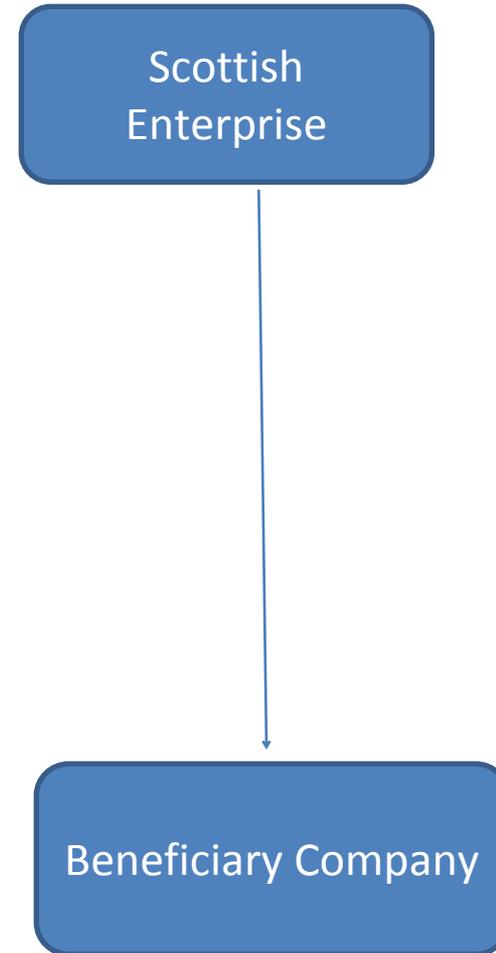
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NATEP Funding

England

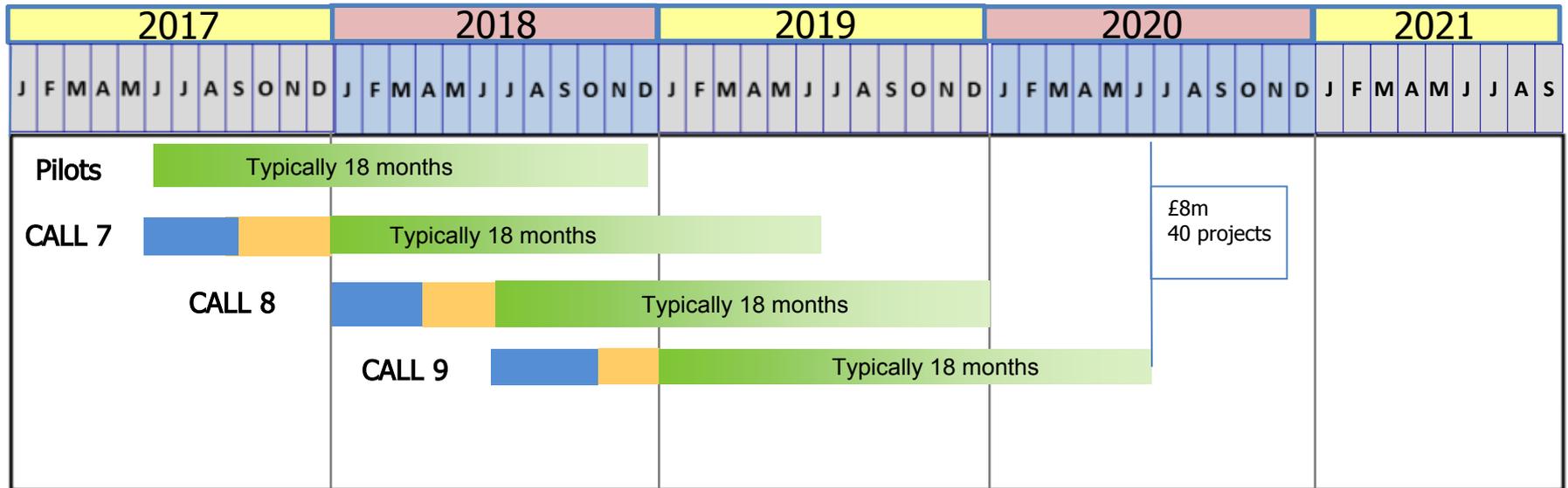


Scotland



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NATEP Timetable



- Outline Proposal
- Full Proposal
- Project Delivery



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Call Timetable

	Call Announced	Deadline for Outline proposal submission	Deadline for Full Proposal Stage	Project proposal presentation to a Panel	Grant funding awarded from
NATEP Call 7	26 June 2017	4 August 2017	6 October 2017	1 - 14 December 2017	8 January 2018
NATEP Call 8	6 January 2018	6 February 2018	12 April 2018	June 2018 (tbc)	July 2018 (tbc)
NATEP Call 9	June 2018 (tbc)	August 2018 (tbc)	October 2018 (tbc)	December 2018 (tbc)	January 2019 (tbc)



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NATEP Call 7 Update

- **39 Outline project proposals assessed by NATEP Regional Advisory Panels**
- **32 projects invited to full project proposal stage**
- **Final approval given at NATEP Steering Board 16 January 2018**
- **Scottish Enterprise funded projects to be endorsed by the NATEP National Steering Board 16 January 2018**



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Scotland Regional Advisory Panel

Scottish RAP Members

Sean McGovern (Chair) **BAE SYSTEMS Regional Aircraft**

Allan Colquhoun

Leonardo

Christopher McLean

Scottish Enterprise

Gordon Venters

Scottish Enterprise

Edward Andrews

ATI

Steve McLaughlin

Herriot Watt University

Konstantinos Kontis

Glasgow University

Michael Ward

Strathclyde University

Stephen Brown

Spirit Aerosystems

Steven Halliday

Rolls Royce

Stewart McCracken

MCS Group

Warrick Malcolm

ADS

Keith Grandison

ADS

Next RAP Meeting AFRC Inchinnan 2nd November

10.00-12.00 – Regional Advisory Panel Meeting

12.30 – 3pm – NATEP awareness session & clinic register interest via scotland@adsgroup.org.uk



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Further Information

Christopher McLean

Specialist Aerospace & Space - Technology & Engineering Team

Scottish Enterprise | www.scottish-enterprise.com

Scottish Development International | www.sdi.co.uk

Direct dial +44 (0)141 228 7360



NATEP 2013-2017 Project Examples



New drill and coating technology for dry drilling



Automated system design and verification or safety critical applications



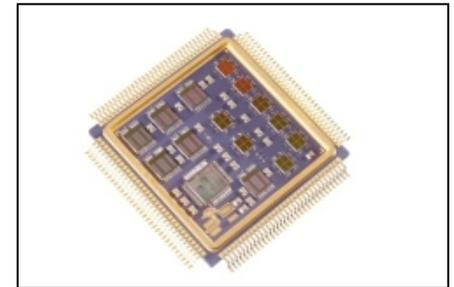
100% bio-based, sustainable resin initially aimed at cabin interiors



Technology for execution time analysis of safety critical software



Technology for automated gauge block calibration

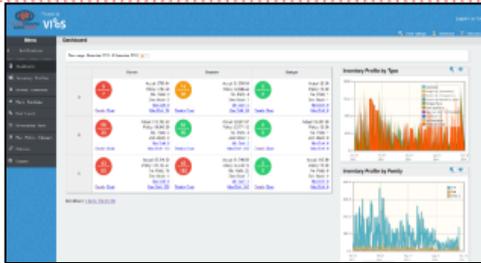


Automated plasma cleaning of high integrity multi-chip modules

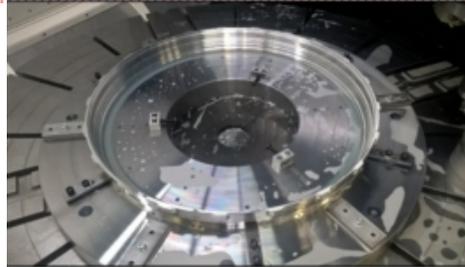


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NATEP 2013-2017 Project Examples



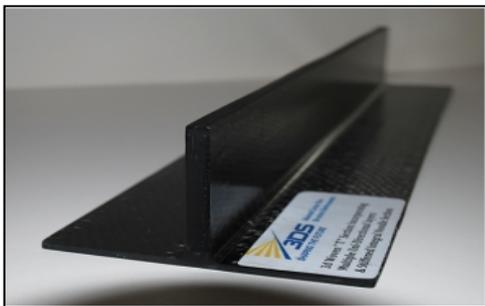
Novel Inventory Management Software



New machining strategies for thin rings and thread-rolled parts



Additive layer-manufactured pipe fittings
50% lighter



'Non-crimp' 3D weaving technology for CFRPs



Xenon lamp pulse system for prepreg composite fibre placement



Protocol for using augmented reality in complex manual operations

