



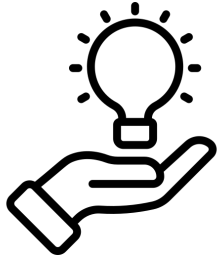
Advanced Air
Mobility | CRC



Launched in September 2023, the Advanced Air Mobility Cooperative Research Centre is realising Advanced Air Mobility in Australia and transitioning our Aerospace and Aviation industry.

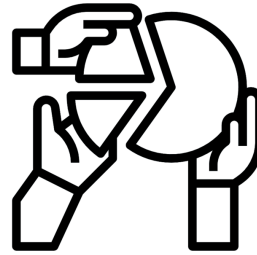
The Advanced Air Mobility Cooperative Research Centre (AAM CRC) will leverage Australia's established aerospace capability and support the growth of new and emerging aviation technology companies through cooperative research.





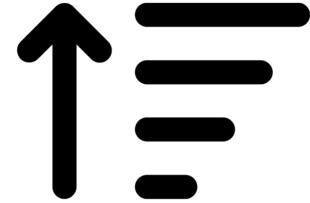
Addressing Complexities in AAM

The path to realising Advanced Air Mobility is marked by intricate challenges, from noise reduction to urban airspace integration. The AAM CRC will develop innovative solutions bolstering critical and nationally significant technologies and our sovereign capability.



A Collaborative Approach

The AAM CRC will be a hub, fostering cooperation across industry, government, and research organisations. As a collective, the AAM CRC will redefine air mobility, benefiting our vast nation through better connectedness that is clean, quieter and more convenient.



Focusing on Key Priorities

As the international aerospace industry transforms, focus on priorities like sustainability, community access, diversity, digitalisation, and testing will build an ongoing / flow-on / trickle-down industry in Australia, leading the global AAM sector.



Seizing the Economic Opportunity

Insights from Deloitte, McKinsey & Company, and others industry analysts highlight the potential for AAM to contribute billions to Australia's economy, creating jobs and opportunities.



New funding for AAM was **\$3 billion in 2022**. \$16 billion in past decade.



Of the largest 25 aerospace OEM's and of suppliers **72% and 64%** are engaged in AAM.



Supply deals and partnerships in AAM are **up 40%** from 2021.



\$45 billion in orders were placed in last 5 years for 6,700 aircraft.



Over 6,000 hours of eVTOL test flying



Publicly traded AAM companies saw value fall 41% but **significant recovery** in market cap in 2023.



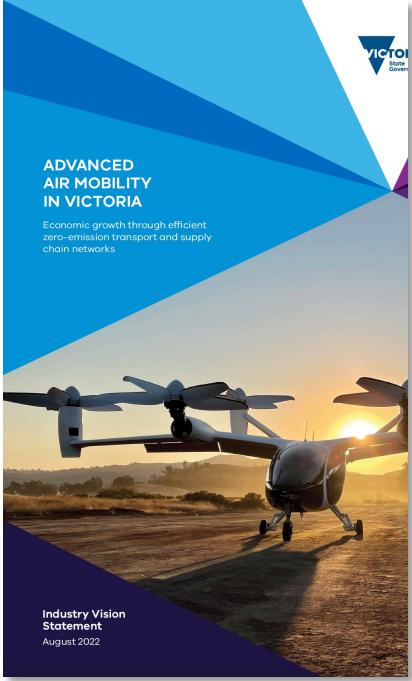
Building Infrastructure and Attracting Investment

The AAM CRC paves the way for vital aerospace and aviation infrastructure for future cutting-edge air mobility technology. This will draw domestic and international investment, solidifying Australia's global leadership.



Government Backing

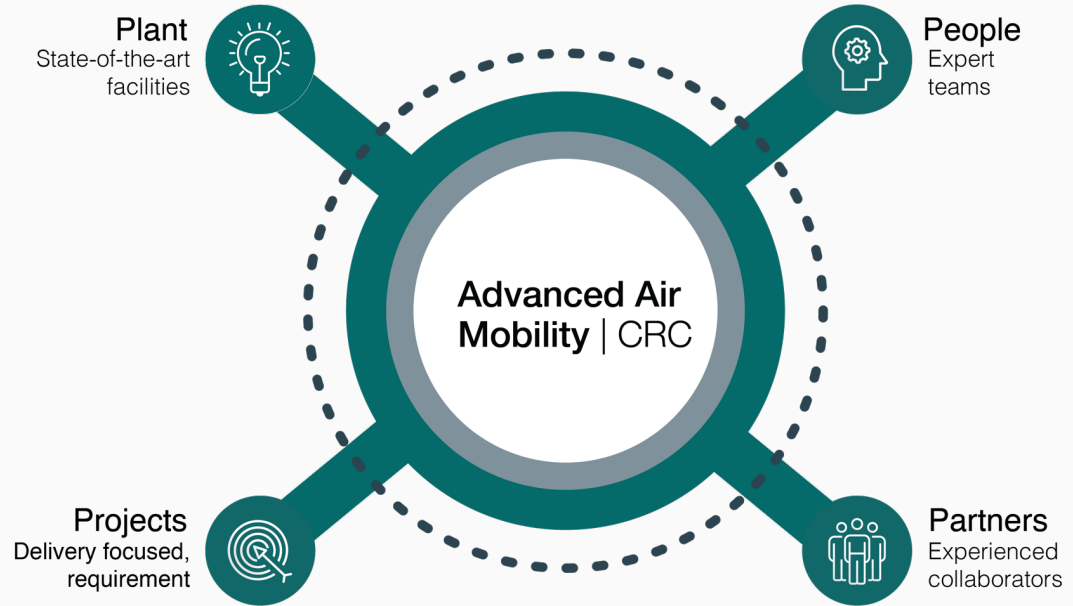
The Australian Commonwealth Government is committed to AAM's transformative potential, as seen in the Aviation Green Paper and the forthcoming Aviation White Paper. States like Victoria are also taking bold steps with their AAM Action plan.





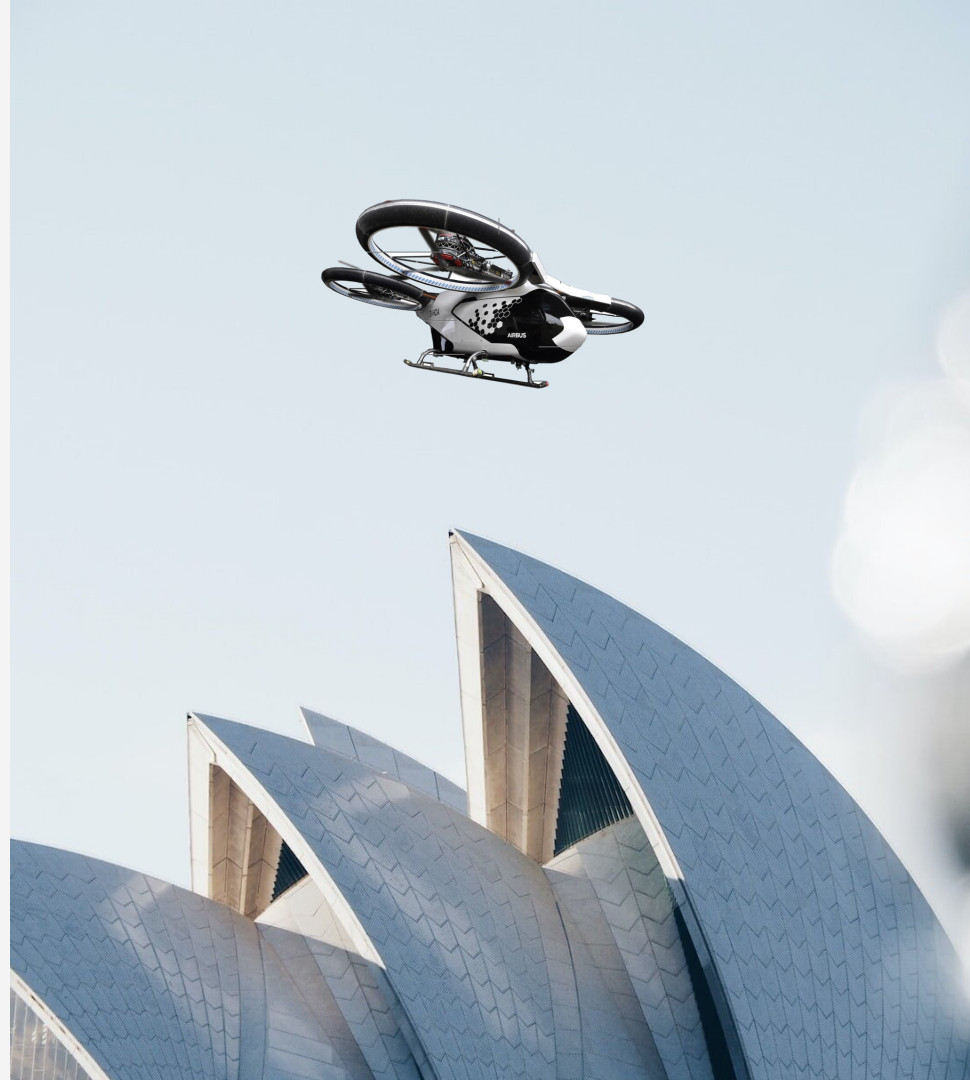
Partner with us for

- Ground-breaking research expertise
- Comprehensive education and training Initiatives
- State-of-the-art advanced development and manufacturing facilities
- Involvement in a pioneering community that will set the standard for the future industry
- Empowering member-driven Collaboration



An Australian Advanced Air Mobility Cooperative Research Centre

Join us on this transformative journey as we transition this vision to flight operations in Australia.





The AAM CRC will strategically integrate researchers and industry including airlines, airports, operators, aviation services, developers, OEMs, customers, communities, regulators and policymakers to undertake and deliver critical research and development in the AAM ecosystem.

Over a 10-year, whole-of-industry uplift, the AAM CRC will support timely, long-term advancements in air vehicles, air operations and ground operations, covering the ground-to-sky challenge of introducing advanced air mobility as well as developing sovereign industry capabilities to supply AAM products and services for Australia and export.

Growing the sector with a focus on digitalisation, materials and manufacturing, sustainability, and testing and flight trials, the AAM CRC will see a more connected Australia. The CRC will utilise the AAM network and industry to close our vast distances and secure a sustainable and globally competitive air mobility future.



What is a Cooperative Research Centre?

The CRC Program

Cooperative Research Centres grants provide funding for medium to long-term collaborative research programs that will help solve major problems or issues facing Australian industries. Grants are funded for up to 10 years and aim to improve the competitiveness, productivity and sustainability of relevant Australian industries. Grants are awarded through competitive, merit based funding rounds. Funding rounds generally occur once per year and sometimes differ in focus, industry sector and priority area.

What do I get?

Up to 50% of eligible research costs to undertake and deliver the research program with a group of partner organisations. There is no minimum or maximum grant amount, but the amount you request should be proportional to the scope and complexity of your research program. You and your partner organisations must at least match the amount of grant funding received through cash and/or in-kind contributions.

Who is this for?

Businesses who want to help solve the big problems facing Australian industries. Applications for grants should be submitted on behalf of a consortium of partners who agree to work together on the identified issue. A grant application must have amongst its partners at least one Australian industry entity and one Australian research organisation. For the full list of eligibility criteria, refer to the grant guidelines.

What do I need to do?

Applying for a grant can take time. It is important to identify your partners for the consortium, clearly articulate what they can provide to the research program and make sure you can respond to the assessment criteria.

Find out more

Go to business.gov.au/CRC for more information.

Industry Partners



Research Partners



Non-Government Partners and Associations



Meet the team



Dr Adriano Di Pietro

Interim CEO

Dr. Adriano Di Pietro has over 15 years of international experience in advanced technology development, in the aerospace and automotive industries. Adriano is the founding Director of the AIR Hub at Swinburne University, an aerospace focused industry led research group. Adriano is the Interim CEO of the AAM CRC bid, launching the bid in September 2023.



Peter Smith

Interim Strategic Advisor

Peter Smith an internationally experienced Australian consultant and professional director specialising in aerospace and defence. Peter consults to governments, companies and industry associations on strategic planning, opportunity analysis and major bids/proposals. He has chaired Australia's largest uncrewed systems company and held board positions on Australian and international uncrewed system associations.



Dr Victor Pantano

Bid Manager

Dr. Victor Pantano has served as the CEO of Australia's Digital Health Cooperative Research Centre. He's held executive roles at the University of Canberra, FEI Company, Lithicon AS, Digitalcore Pty Ltd, Australian National University, and ANU Connect Ventures, aiding business development and growth at the nexus of research and industry.



Pratik Ambani

Bid Consultant

Pratik Ambani has extensive experience in supporting the development of CRC bids and a strong understanding of its various elements such as governance and management structures, partner documentation, research program development, financial budget and economic impact modelling. He has qualifications in engineering and law.

Research Playbook

Programs



Themes



Enablers



Research Programs



Advanced air mobility operations require the integration of systems including air vehicles, air operations and ground operations. The research programs of AAM CRC reflect this and will collaboratively link researchers and industry on a strategic combination of projects over the 10 years of the CRC.



Air Vehicles

Advanced Air Mobility Air Vehicles include all aircraft that will fly in the future integrated airspace, from drones, remotely piloted air systems (RPAS), uncrewed air systems (UAS) and new formats of aircraft such as eVTOLs, STOLs and even zero emissions commercial aircraft.

The Air Vehicle research program will incorporate projects related to the design, manufacture and sustainability of the airframe, propulsion and sub-systems of AAM air vehicles with research and industry partners working collaboratively.



Air Operations

The Air Operations research program will build on Australia's international reputation as a developer and operator of air space management systems, adapting that expertise to the specific operational requirements of AAM operations. The challenge for future AAM will be successful realisation of the integrated airspace for drones, UAS, RPAS and piloted and unpiloted passenger aircraft. The research will focus on remote, regional and urban environments. This program will examine air traffic management, airspace integration and concepts of operation.



Ground Operations

Complementing air vehicle and air operations will be research to develop and test ground infrastructure and systems, particularly those related to regional and remote operations. Vertiport and other new AAM designated ground operations including take-off and landing sites, master planning, safety and security, air/ground communications, and refuelling/recharging facilities.

Research Themes



Supplementing the Research Programs will be strategic Research Themes, specialised capabilities which will be utilised by most or all programs. They will be led collaboratively by experienced research and industry members.



Sustainability

With decarbonisation requiring increased regulatory and voluntary attention in both aerospace and aviation, a cradle-to-grave approach to AAM environmental sustainability will need to be developed.



Digitalisation

Digitalisation includes the integration and utilisation of digital technologies and data-driven processes throughout the entire lifecycle of aerospace systems, including design, manufacturing, operations, and maintenance. Digitalisation encompasses the use of digital twin technology, advanced computing, data analytics, artificial intelligence and connectivity, ultimately leading to safer, more efficient, and more sustainable air travel."

The application of digitisation and artificial intelligence to the research and subsequent commercialisation of outcomes will be utilised to link relevant research element, accelerate research processes, reduce research costs and accelerate speed to market.



Materials & Manufacturing

Intelligent manufacturing processes will be used, integrating advanced composite materials and Industry 4.0 technologies to make the future of aviation a reality.



Test and Evaluation

With the worldwide and Australian shortage of aviation test ranges, the need and opportunity exists to develop ranges in relevant operating environments suitable for use by AAM. These spaces could be utilised by both for sovereign and international developers, civil and military, and potentially other vertical-lift aviation, such as UAS and helicopters. This will be based on the existing significant Australian capability for aviation test and evaluation, and emerging AAM test and trials activity.

Research Enablers

Supplementing the Research Programs and Themes, will be strategic Research Enablers, specialised capabilities which will be utilised across the CRC projects. They will be led collaboratively by experienced research and industry members.

Policy & Regulation

The AAM CRC is developing an evidence base that will inform policy and regulation.

Sovereign Applications

Research will bring together industry partners from across Australia to drive innovation in the national interest, cementing Australian as a key global player in the advancement of aviation and aerospace technologies. The AAM CRC will link researchers and industry partners with end-users to develop role-specific capabilities relevant to Australian and regional needs. These will include:

- Defence
- Logistics
- Aeromedical
- Emergency Services
- Disaster relief
- Environment
- Tourism

Equity & Diversity

Equity and diversity will be guiding principles for the AAMCRC both at the corporate and individual levels.

Education & Training

Research will be required across all elements of AAM to identify, develop and implement AAM-specific professional education and vocational training. This will be built on the significant existing Australian civil and military aviation training capabilities.

Community Engagement

The AAM CRC will have a community-first approach, with a focus on master planning, research and development opportunities, and community acceptance.

Trust & Safety

Cybersecurity is a key element of operational risk mitigation, particularly in cases of remotely piloted or autonomous operations. AAM-specific research will be required within in the broader context of increased cybersecurity development.

Frequently Asked Questions



Do I have to sign up for the life of the CRC?

No; however, the CRC can only provide matching funding for the duration for which you sign up. So, it is beneficial to sign up for the entire duration and you can withdraw (with 12 months' notice) if you decide to withdraw.

Do I have to sign a contract now?

No, you sign a Declaration during the bid phase. This is not legally binding; it is an intention to be involved.

The contract (Partner Agreement) is to be signed once the CRC is awarded (announcement expected in December 2024). If the CRC is successful, it will be your decision as to whether you proceed with signing the Partner Agreement. The Partner Agreement will provide an exit clause, meaning you can withdraw at any time with 12 months' notice.

Can I withdraw after signing the Declaration?

Yes, the Declaration can be withdrawn at any time.

Do I have to pay all the contribution amount upfront?

No, the contributions will be due half yearly or quarterly. So, if signing up to contribute \$200,000 per year, you will be issued with either four invoices of \$50,000 every quarter or two invoices of \$100,000 every six months.

When are the contributions due?

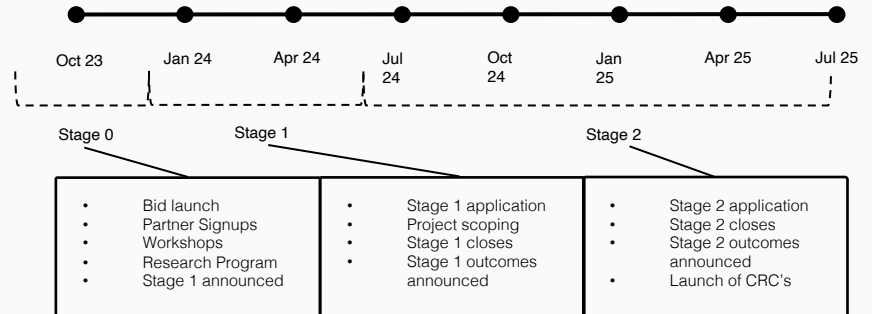
The CRC, if funded, will be operational from 1 July 2025, and the invoices for contributions will begin to be issued then

How do I know I will get my project done?

The CRC will have several processes for Partners to propose Projects and will work with Partners to bring consortia together to undertake Projects. The extent of your Project involvement will depend on your contributions – the more the funding committed to the CRC the larger the Projects, and the greater the number of Projects that Partners can undertake. The CRC will exist for 10 years, which will allow ample opportunity to undertake Projects of varying scales and duration (from three-month scoping/feasibility studies to three- to four-year technology development and commercialisation Projects). Projects can run in parallel or sequentially.

How can I have influence over the CRC decisions?

Gold and Silver Partners will be able to nominate and vote on Board positions for the CRC, as well as become Members of the CRC not-for-profit company that will be established. Gold, Silver and Bronze Partners can nominate representatives to the Research Program Consultative Committees according to the Partner tier table outlined in the Term Sheet. The CRC is an open organisation and exists for the benefit of its Members and Partners and will welcome discussions at any time.



Partner with us

The AAM CRC is actively inviting expressions of interest from research and industry organisations that have involvement in advanced air mobility as a strategic goal, or existing or developing capabilities and resources that are potentially relevant to AAM CRC research activities.



Partnership tiers



Gold

> \$200,000 cash contribution p.a

\$25,000 per stage bid contribution,
research partners only

Membership of CRC Company

Nominate candidates for the Board

Nominate a Program or a Theme
Leader

Nominate Program Drivers on
Consultative Committee

Access to CRC Fellows

Access to industry embedded co-
supervised PhD and Masters



Silver

> \$100,000 cash contribution p.a

\$15,000 per stage bid contribution,
research partners only

Membership of CRC Company

Nominate candidates for the Board

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Access to CRC Fellows

Access to industry embedded co-
supervised PhD and Masters



Bronze

> \$10,000 cash contribution p.a

\$5,000 per stage bid contribution,
research partners only

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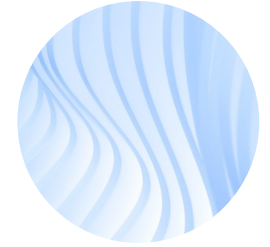
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Access to industry embedded co-
supervised PhD and Masters



Affiliate

< \$10,000 p.a or in-kind only

In-kind bid contribution

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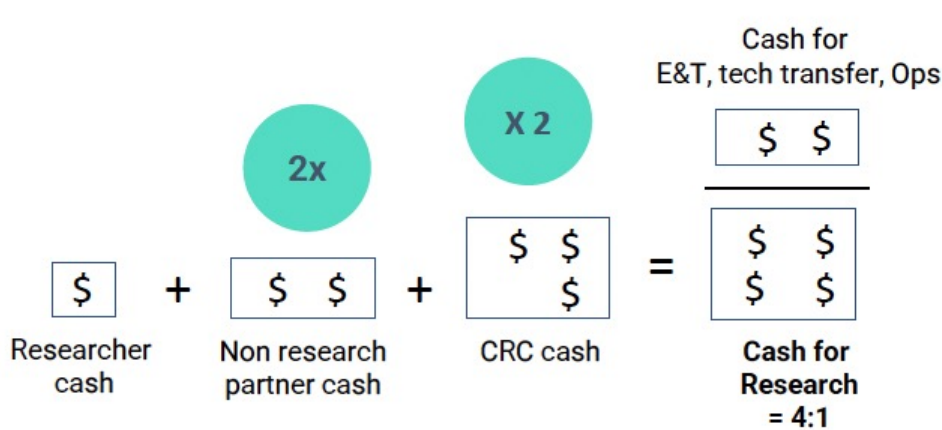
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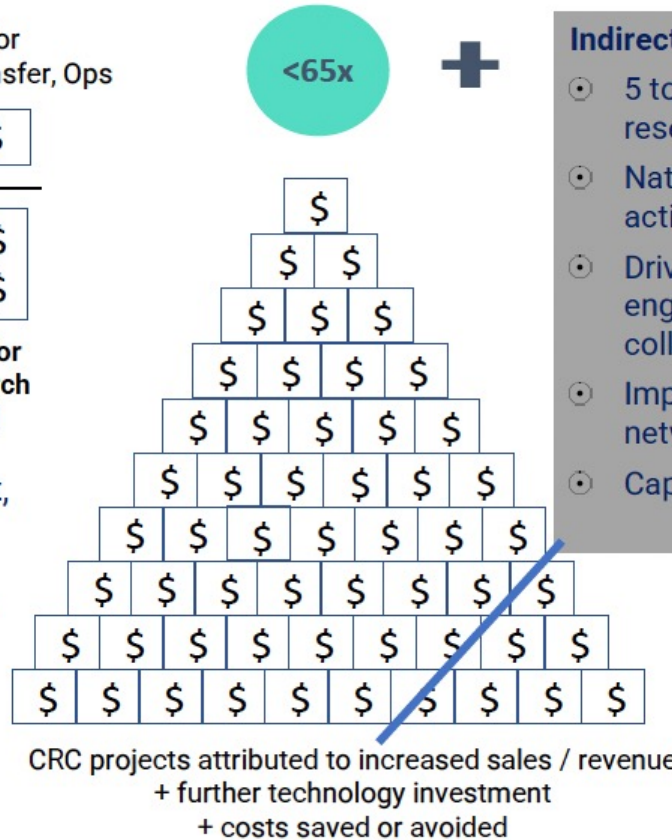
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Partnership Funding



This assumes research partner attract, at least in part, their own industry partners.

CRC cash for research is almost entirely for people, paid at 130% of salary. **Returns from IP is additional.**



Indirect economic benefits

- 5 to 10 years of research
- Nation building activities
- Drives industry engagement & collaboration
- Important research networks
- Capability building

Additional returns to research partners from IP commercialisation.

Transition to Flight

