STATES OF JERSEY



TECHNOLOGY ACCELERATOR FUND

Lodged au Greffe on 10th March 2022 by the Council of Ministers Earliest date for debate: 25th April 2022

STATES GREFFE

2022 P.75

PROPOSITION

THE STATES are asked to decide whether they are of opinion -

to support the Island's future economy, make faster progress on environmental and social goals, and strengthen the technology eco-system in Jersey, by establishing a States Fund to be known as the Technology Accelerator Fund ("the Fund"; known in the Government Plan 2022-25 as the Technology Fund) in accordance with Article 6 of the Public Finances (Jersey) Law 2019 and with terms of reference as set out in the Appendix to the Report.

COUNCIL OF MINISTERS

Note: In accordance with Article 6 (4) of the Public Finances (Jersey) Law 2019, this proposition is lodged with the consent of the Minister for Treasury and Resources.

6 Establishment of other funds

(4) The States may, on a proposition lodged by or with the consent of the Minister, vary the purpose or terms of a fund established under this Article or the circumstances in which the fund may be wound up.

REPORT

Summary

Ministers propose the development of a Technology Accelerator Fund¹ ("the Fund") to support the Island's future economy, make faster progress on environmental and social goals, and strengthen the technology eco-system in Jersey.

The Fund would receive, from the consolidated fund, £20 million that was earmarked for a Technology Fund in the Government Plan 2022-25, and which stems from the special dividend paid to government by Jersey Telecom in 2021. This report sets out the Terms of Reference for the Fund, for approval by the States Assembly as required by the Public Finances (Jersey) Law 2019.

The Fund will support an open, accessible and high impact Technology Accelerator Programme, designed and lead by Digital Jersey, working in partnership with Island businesses and organisations, states-owned entities and on and off Island technology and digital experts. The Programme will be a medium-term intervention designed to make use of early-stage technologies or early-stage applications of existing technologies. The programme will be professionally managed and will support industry and technology experts to come together to develop scalable and shareable plans that benefit the Island.

Information about the strategic priorities and governance of the Technology Accelerator Programme is provided in this report. Examples of initiatives that might be developed by the Programme, in line with the strategic priorities, include:

- Increased use of sensor and other technologies in agriculture, to increase yields and reduce the use of harmful chemicals
- Enhanced FinTech developments to improve Finance sector productivity through the use of automation and the upskilling of workers into higher value roles
- Modern construction technologies and skills to help make housing more affordable
- Generation and tracking of enhanced data, utilising the Digital Twin, to better guide development of economic sector strategies including Tourism and Retail
- Development, trial and scaling for new sustainable transport offerings tailored to the Jersey environment
- Exploration of new energy systems and solutions to support delivery of the Carbon Neutral Roadmap, and
- Investment in local training to develop a strong local software development community to support on-Island businesses and exports.

These are not specific intended projects, but examples of things being trialled in Jersey or other places that the Fund might in future support.

¹ Referred to as the Technology Fund in the Government Plan 2022-25

Background

In 2021, following successful international expansion over seven years, JT sold its IoT division with an aim to maximise the growth potential of the business by securing investment from a new owner who specialises in rapidly growing technology companies, with JT continuing to benefit from this growth by supplying services to the new company and retaining a minority stake in it.

This provides an excellent case study of the potential for Jersey based technology and digital businesses to have an out-sized impact with wider economic benefits for the Island, with the new business due to attract significant inward investment to the Island and offer new employment opportunities for Islanders. It also shows the value of taking a strategic approach to managing arms-length organisations.

That is why Ministers acted quickly to ring fence £20m of the proceeds from this sale to establish a new Technology Accelerator Fund. The Government Plan 2022-25 sets out that

"enables the creation of a £20 million fund to assist with technology projects that seek to assist with the Island's objectives, including enhancing the digital economy, closing known gaps in Jersey's innovation eco-system and ensuring government, states owned enterprises, arms-length partners and other key players, are equipped to play their role in incubating and supporting new high value initiatives. Proposals for the creation of this fund will be set out in a forthcoming proposition which will explicitly seek the Assembly's approval of the purpose and terms of the fund."²

This Report provides the framework for the establishment of the Technology Accelerator Fund, setting out the important strategic context; providing an overview of the planned approach to the development of a Technology Accelerator Programme by Digital Jersey, working closely with government departments and other arms-length agencies; and establishing terms of reference and other governance considerations for the associated Technology Accelerator Fund.

Strategic context

Future Jersey

Future Jersey was produced following agreement in the States Assembly that the Government's strategic planning process, historically based on medium-term plans aligned to the election cycle, needed a longer-term view. The vision serves as a reminder of Islanders' aspirations for the future, that Jersey will be:

"An Island loved for its beautiful coast and countryside, rich heritage, diverse wildlife and clean air, land and water. An Island where a sense of community really matters - a safe place to grow up and enjoy life. An Island that offers everyone the opportunity to contribute to, and share in, the success of a strong, sustainable economy."

Progress towards this vision is tracked across ten outcome areas using a range of indicators that are regularly updated³. The Technology Accelerator Fund presents an opportunity to drive faster progress across all these outcome areas, guided by the priority focus areas set out below.

² R Government Plan 2022 to 2025.pdf (p.173)

³ Jersey Performance Framework (gov.je)

The Economic Productivity Challenge

A strong and productive economy is central to delivering on our Future Jersey vision. Figure 1 below shows that annual percentage changes in GVA per FTE have been largely negative in the last twenty years in both finance and non-finance sectors of the economy.

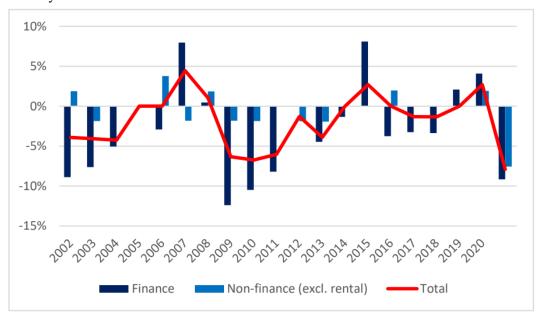


Figure 1 - Annual percentage change in GVA per FTE in real terms

A key determinant of business productivity is technology adoption, and yet Jersey businesses have a lower digital utilisation than their counterparts in the UK. On average a third less. Compared with Edinburgh and London, Jersey's digital and technological adoption is two-thirds lower⁴.

This gap in digital and technological adoption is not only evident in emerging technologies such as Artificial Intelligence (AI) but also now common Software as a Service (SaaS) products, such as Building Information Modelling (BIM) and Cloud computing. This gap in digital and technological adoption represents lower productivity, less internationally competitive business, and a less resilient workforce to the challenges posed by automation⁵.

This point is clearly made in the recent Economic Council report, *New Perspectives*⁶, which recommends that Jersey must truly embrace the importance of the new economy, being created globally through technology, artificial intelligence, and data.

Common Population Policy

The States Assembly adopted the first Common Population Policy (P.16/2021) in February 2022. The policy makes the need for greater deployment of new technologies clear and includes a commitment to "concentrate on reducing reliance on our migrant workforce by maximising the contribution of the people who are already here, through

⁴ Digital Jersey 5-year Strategy (2020) (p.22)

⁵ Ibid

⁶ Economic Council New Perspectives Report FINAL.pdf (gov.je)

improvements in productivity, increased workforce participation and the adoption of new technology."7

The relation between accelerated adoption of technology, productivity and economic migration is further explored in the independent PWC study, Impacts of an ageing population on Jersey's economy⁸. The report recognises that larger businesses have a structural advantage in adopting new technologies, which presents a particular challenge in Jersey where around 7,750 of the 8,120 registered private sector undertakings employ fewer than 20 people⁹.

The Fund supports a strategic cross-sectoral intervention to drive forward technology adoption Jersey's diffuse business environments, in order to improve productivity and help met population policy objectives.

Environmental and social objectives

Alongside the economic productivity challenge, technology and better use of data can also support the delivery of wider social and economic objectives.

The Sustainable Transport Policy already provides for a joint working programme to support new technology applications across transport and travel planning. This work has led to the development of a citizen cyclists initiative planned for 2022, as well as recent research into the potential for 'mobility as a service' technologies to help deliver key objectives¹⁰.

Future energy technologies play a key role in informing the draft Carbon Neutral Roadmap and in determining progress along the Island's decarbonisation pathway¹¹.

Likewise, the potential for modern methods of construction to increase housing sector productivity and develop more affordable homes for Islanders is recognised in the Creating Better Homes action plan¹².

⁷ p.116-2021.pdf (gov.je) (p.3)

r.182-2021.pdf (gov.je)

⁹ Labour market statistics (gov.je)

¹⁰ Mobility as a Service Exploratory Study (gov.je)

¹¹ Review of energy mix options (gov.je)

¹² Creating Better Homes: An Action Plan for Housing in Jersey (gov.je)

Technology Accelerator Fund

The Fund is intended to speed up the adoption of new technologies to support the Island's future economy, make faster progress on environmental and social goals, and strengthen the technology eco-system in Jersey.

The Terms of Reference for the Fund are set out in the Appendix to this report. They are informed by the relevant provisions in the Public Finances (Jersey) Law 2019 and by experience of the development and operation of other States Funds.

Strategic Priorities

This report sets initial strategic priorities for the Fund. Ministers are conscious that good strategic priorities for the Fund should be:

- **broad enough to provide flexibility** in developing new technology initiatives, but not too broad that too much time is spent considering every potential area for action
- **framed as challenges** or issues, not solutions (and in particular not starting with technology solutions in mind)
- of significance to Jersey, and
- areas that have the potential to inform wider strategic plans and insight.

Accordingly, the following strategic priorities are identified for the Fund.

Strategic priorities for the Fund



Future economy priorities

- To accelerate the use of technology in order to:
 - Improve productivity in existing economic sectors
 - Support the development of new economic sectors, products and services
 - Help ensure islanders have the right skills for the future
 - Improve supply chain resilience

Environmental and social priorities

- To accelerate the use of technology in order to:
 - Help meet the housing needs of islanders
 - Improve the health and wellbeing of islanders
 - Provide sustainable transport solutions
- Respond to the climate emergency

The Technology Accelerator Programme will develop partnerships to translate these priorities into actionable programmes of work. In doing so, the programme will need to look for opportunities that meet three requirements:

- 1. they have a strategic fit with ministers' priorities
- 2. they benefit from both local expertise, insights and entrepreneurial energy focused on the issues to be considered, and
- 3. there is a viable (even if emergent) route to a technology solution.

It is important to recognise at this stage that priorities might be set but that, in practice, no programmes can be developed in these areas that meet all three requirements. Equally it is the case that not all work initiated to identify opportunities, or to seek to develop and implement solutions in those opportunity areas, will achieve all the anticipated benefits. Learning will still be captured and fed back so the programme can develop and improve iteratively.

The list below seeks to bring to life the opportunities that might be developed under these strategic priorities:

- Increased use of sensor and other technologies in agriculture, to increase yields and reduce the use of harmful chemicals
- Enhanced FinTech development programme to improve Finance sector productivity through the use of automation and the upskilling of workers into higher value roles
- Modern construction technologies and skills to help make housing more affordable
- Generation and tracking of enhanced data, utilising the Digital Twin, to better guide development of economic sector strategies including Tourism and Retail
- Development, trial and scaling for new sustainable transport offerings tailored to Jersey environment
- Exploration of new energy systems and solutions to support delivery of the Carbon Neutral Roadmap, and
- Investment in local training to develop a strong local software development community to support on-Island businesses and exports.

These are not specific intended projects but are examples of things being trialled in Jersey or other places that the Fund might in future support.

Funding context

There has been discussion previously about the need and potential for the Government of Jersey to provide direct financial support to start-ups, perhaps taking equity stakes in companies rather than issuing loans. The funding context has now changed substantially since the development of the previous Jersey Innovation Fund, and the response to the 2008 recession has led to a prolonged period of high liquidity in global markets.

Locally, a number of organisations and platforms are now in place such as Tekex, Digital Jersey's Springboard and Faction.je, that help companies raise money for early-stage ideas. Digital Jersey continues to work in this area together with Jersey Business and the Government of Jersey's Economy Department. Local start-ups *are* expected to benefit from the Technology Accelerator Programme, as part of wider partnerships applying for funding.

Learning from the Jersey Innovation Fund

This proposal takes into account lessons from the Jersey Innovation Fund. It will improve upon it in two key areas.

The first is in the model of governance, with clear, single points of managerial and political accountability and a Digital Jersey Lead Partner model that ensures that specific funding decisions will be taken close to relevant technical expertise, within a framework of political strategy and priority and in line with the public finance manual, with ongoing support to ensure projects are a success. Digital Jersey will be empowered to act quickly to close down areas of work that are not delivering expected benefits and expected to use the associated learning to improve future decision making and action.

In addition, the purpose of the Fund is to accelerate technology adoption to achieve *existing public policy objectives*. The purpose of the Fund is not to chase financial return on investment as an end, or to take a venture capital position in respect of high-risk innovation.

Benefits and risks

The specific benefits derived from the Fund, and risks to successful delivery of these, will be determined by the activities that are selected to be taken forward, and the Technology Accelerator Programme will employ professional risk assessment and benefits realisation methods to identify and manage these.

There are though a number of high-level benefits, and associated high-level risks, that can be considered at this stage, as set out below. In particular, ministers recognise the risk (R2) that due to the emergent nature of technologies to be explored, some areas of work will not deliver the specific anticipated benefits and may need to be varied or stopped. While this, and other, risks are difficult to quantify at this stage it is believed that they can be accepted given the potential benefits and the imperative for policy intervention.

Anticipated high-level benefits		Anticipated potential risks (0-5)		Probability	Impact	Response
B1	Improvements in economic productivity and the delivery of environmental and social goals through the faster adoption of technology	R1	The risk that appropriate opportunities cannot be identified to benefit from available funding	2	3	Tolerate
B2	Economic benefits associated with funded programmes, including indirect (spill over) effects such as signalling benefits, and direct benefits such as the development of new intellectual property	R2	The risk that, due to the emergent nature of technologies to be explored, some areas of work will not deliver the specific anticipated benefits and may need to be varied or stopped	4	2	Tolerate

В3	System benefits, such as	R3	The risk of financial			
	improved collaboration		mismanagement			
	between organisations,		associated with the			
	improved use of		Fund*	1	4	Tolerate
	availability of data and					
	enhanced digital and					
	technology skills					
B4	The range of specific	R4	The range of specific			
	benefits that result from		risks associated with			
	funded programmes		funded programmes			

^{*}The risk of financial mismanagement associated with the fund is mitigated in two main ways:

- by ensuring funding is deployed and governed in line with the Public Finance Manual (a pre-emptive due diligence audit will be undertaken to establish best practice financial management arrangements in the Technology Accelerator Programme), and
- by utilising the Fund for direct payments rather than higher risk loans or equity investments (although it is recognised that, where they have an interest, States Owned Enterprises may wish to take an equity stake in support of that interest using their own capital, and private organisations may also wish to invest as a positive spill over benefit of the Fund).

Oversight Group

A Technology Accelerator Fund Oversight Group ("the Oversight Group") will be set up, comprising the Director General for the Economy (Accountable Officer for the Fund), the Treasurer of the States, the Group Director - Strategy and Innovation and one independent member appointed by the Minister for Economic Development, Tourism, Sport and Culture.

The Oversight Group will work within the guidelines established by the Terms of Reference for the Fund and will be responsible for advising ministers all matters concerning the Fund, and for oversight of the delivery of the Technology Accelerator Programme.

The Accountable Officer will be able to draw on the Fund to secure such advice, including third party advice where appropriate, as is required to discharge their role in respect of the Fund.

Technology Accelerator Programme

Lead Partner

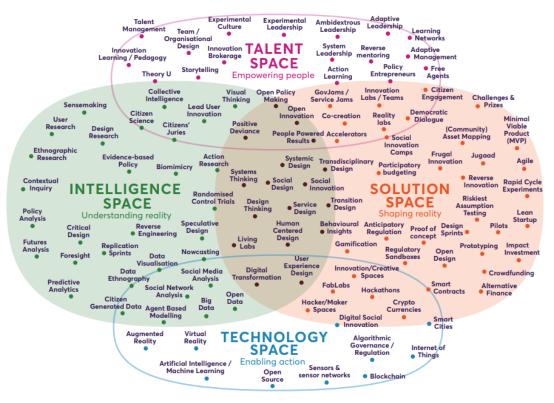
Digital Jersey are the lead partner for the delivery of the Technology Accelerator Programme. Digital Jersey is the government-backed economic development agency and industry association dedicated to the growth of the digital sector and have a role to develop strategies to help on-Island industry thrive and remove barriers for inward investors choosing Jersey as their world-leading base for digital innovation.

As the Lead Partner, Digital Jersey will work with a wide-range of Island businesses and organisations, states-owned entities and on and off Island technology and digital experts.

Approaches

Technology accelerator programmes are well established in many jurisdictions and take differing approaches depending on the context and objectives for any aspect of the workstream. The Jersey programme is expected to make use of a range of approaches from across the available landscape, which have been summarised by Nesta¹³ as set out in the diagram below¹⁴. In particular the programme is expected leverage the potential of Jersey's unique family of states-owned enterprises to create an effective technology testbed.

Landscape of Innovation Approaches Version 2 (December 2018)



An analysis of accelerator programmes from across the world has provides the following insights which will be considered further as part of the detailed programme design work.

- Government can play a key role in engaging accelerators to become more active
 in building the technology and innovation ecosystem in a place. Programmes
 that seek to achieve this should develop partnerships to include universities,
 angel groups, chambers of commerce and economic development agencies; and
 should put in place strong advisory and governance mechanisms.
- Businesses are increasingly engaged with accelerators and in supporting the development of entrepreneurial communities and new types of business partnerships.

-

¹³ National endowment for science, technology, and the arts – the UK innovation agency

¹⁴ The landscape of innovation approaches | States of Change (states-of-change.org)

- Participation in leading accelerator programmes may have a strong positive signalling effect distinct from the direct programme benefits. Signalling effects reveal to investors that an organisation has undergone rigorous selection processes and may assist them in recruiting talent and securing other resources.
- Leading accelerators may provide access to resources that would be difficult to
 access otherwise. This includes access to seed funding and follow-on
 investment, extensive mentor and alumni networks, domain experts, and peerto-peer learning with highly qualified founders in the cohort.
- Seed accelerators may help organisations learn when and how to fail and aid in more efficient development decisions. Accelerators appear to provide for more efficient development decisions, in terms of selecting both projects to drop and the right amount of effort to put into a given project.

Formative evaluation approach

A full evaluation will be undertaken throughout the formation and operationalisation of the programme. This will ensure monitoring, can help the programme demonstrate rigor through value for money, KPI achievement and remain agile and flexible to adapt as necessary. An appropriately skilled and competent evaluation partner will be identified at an early stage.

Programme funding and governance

The high-level design of the Technology Accelerator Programme will be set out in a strategic programme plan prepared by Digital Jersey as Lead Partner, which will:

- describe how the programme will respond to the purpose and priorities set out in this report;
- set out the detailed objectives, performance measures and other governance considerations that will ensure the professional management of the programme and assurance of the proper use of public funds;
- explain how the programme will maximise the economic benefits for on-Island businesses, promote social value and diversity, and contribute to the development of an inclusive entrepreneurial culture in Jersey; and
- be informed by the views of scrutiny, relevant government departments, industry representatives and states-owned enterprises.

The strategic programme plan will be approved by the Minister for Economic Development, Tourism, Sport and Culture, having regard to the recommendation of the Oversight Group. Once agreed, the plan will be published, and its delivery will be reported to the Oversight Group on a regular basis. Allocations from the Fund will be contingent on successful delivery against the plan.

Financial and manpower implications

The Government Plan 2022-25 provides £20 million for the creation of a fund for technology projects that seek to assist with the Island's objectives.

This report sets out the Terms of Reference for a Technology Accelerator Fund and describes an associated programme of work, led by Digital Jersey, that will support

industry and technology experts to come together to develop scalable and shareable plans that benefit the Island.

Manpower implications will include technical and governance expertise as well as programme and project management resource. The Accountable Officer will be able to make use of available funds to secure any advice required to discharge their role in respect of the Fund; and the Fund will meet appropriate costs incurred in designing, delivering, and assuring the good governance of the Technology Accelerator Programme up to a value of £1m over the first three years (equivalent to 5% of the Fund value).

APPENDIX

TERMS OF REFERENCE

States Fund

Technology Accelerator Fund

The Technology Accelerator Fund is established as a "States Fund" in accordance with Article 6 of the Public Finances (Jersey) Law 2019 ("the Law") which enables the States, on a proposition lodged by, or with the concurrence of the Minister for Treasury and Resources, to establish a States Fund for specific purposes.

1. The purpose of the Technology Accelerator Fund

- 1.1 The purpose of the Technology Accelerator Fund ("the Fund") is:
 - (a) to support the Island's future economy
 - (b) to make faster progress on environmental and social goals
 - (c) to strengthen the technology eco-system in Jersey
 - (d) to receive the following funding sources –
- (i) a transfer of £20m from the Consolidated Fund, earmarked for this purpose in the Government Plan 2022-25, and further transfers from this and other Funds as necessary;
- (ii) a grant from a head of expenditure approved in a Government Plan; and
- (iii) income or charges as agreed in a Government Plan.
 - (e) to use the available funds to provide financial support to a professionally managed and medium-term programme of activities designed to make use of early-stage technologies or early-stage applications of existing technologies, to achieve the objectives at (a-c) above.

2. The powers and limitations of the Fund

- 2.1 As a States Fund, the purpose of the Fund can only be varied by the States on a proposition lodged by, or with the consent of, the Minister for Treasury & Resources.
- 2.2 Money held in the Fund will not form part of the annual income of the States nor the Consolidated Fund balance.
- 2.3 Only those costs associated with the purpose of the Fund can be met out of the Fund.
- 2.4 The Technology Accelerator Fund will be maintained until such a time as the Minister for Economic Development, Tourism, Sport and Culture with the consent of the Minister for Treasury and Resources makes a Ministerial Decision to wind up the Fund. Any residual funds remaining in the Technology Accelerator Fund will be paid to the Consolidated Fund.
- 2.5 The operation of the Fund must be in line with the Public Finances (Jersey) Law 2019 and the requirements of the Public Finances Manual.

3. Those empowered to carry out actions on behalf of the Fund

3.1 The Minister for Economic Development, Tourism, Sport and Culture has overall policy responsibility, on behalf of the Council of Ministers, for the Fund. The Minister

will approve the strategic programme plan, having regard to the recommendation of the Oversight Group.

- 3.2 The Principal Accountable Officer has responsibility under the Public Finances Law (Jersey) 2019 for the appointment of the Accountable Officer(s) for the Fund.
- 3.3 An Accountable Officer is accountable for the proper financial management of the Fund, which includes ensuring that payments from the Fund are progressed in line with the purpose of the Fund and that the Fund is administered in a prudent and economical manner; responsibility for ensuring that proper control and assurance frameworks exist; and responsibility for ensuring that systems are in place to manage risks related to the Fund.
- 3.4. An Accountable Officer for the Fund is answerable to the States' Public Accounts Committee for the performance of their functions.
- 3.5. An Accountable Officer can delegate functions to others but will remain accountable. To ensure that good governance and control is achieved, any delegation must be documented in a Scheme of Delegation.
- 3.6. The Comptroller and Auditor General has a duty under Article 11 of the Comptroller and Auditor General (Jersey) Law 2014 to provide the States with independent assurance that the public finances of Jersey are being regulated, controlled, supervised, and accounted for in accordance with the Law. This duty extends to the Fund.
- 3.7. The Minister for Treasury and Resources has ministerial responsibility for setting an appropriate investment strategy for the Technology Accelerator Fund, as required by the Public Finances (Jersey) Law 2019.

4. Control of Expenditure from the Technology Accelerator Fund

- 4.1 The Accountable Officer has responsibility for the Budget and expenditure relating to the Fund. The Accountable Officer will be able to make use of available funds to secure such advice, including third party advice where appropriate, as is required to discharge their role in respect of the Fund.
- 4.2 A Technology Accelerator Fund Oversight Group ("the Oversight Group") will be set up, comprising the Director General for the Economy, the Treasurer of the States (or delegate), the Group Director Strategy and Innovation and one independent member appointed by the Minister for Economic Development, Tourism, Sport and Culture. The Oversight Group will work within the guidelines established by the Terms of Reference.
- 4.3 The Oversight Group will advise the Minister for Economic Development, Tourism, Sport and Culture on delivery of the strategic plan for a Technology Accelerator Programme developed by Digital Jersey as Lead Partner.
- 4.4 The Accountable Officer will make payments from the Fund to the Lead Partner to meet appropriate costs incurred in designing, delivering, and assuring the good governance of the Technology Accelerator Programme. The scope and nature of these anticipated costs will be set out in the strategic programme plan, will be reviewed on an

on-going basis, and will be capped at a value of £1m over the first three years (equivalent to 5% of the Fund value).

- 4.5 Treasury and Exchequer will make arrangements for the allocation of funds to be accounted for in accordance with the Public Finances (Jersey) Law 2019 and the requirements of the Public Finances Manual.
- 4.6 The Principal Accountable Officer will ensure that the Fund is regularly reviewed by the relevant Accountable Officer.

5. Reporting arrangements

- 5.1 Specific reporting and management information requirements for the Technology Accelerator Programme will be set out in strategic programme plan. As a minimum, these will include relevant financial, risk and programme management, benefits realisation and governance information reported on a quarterly basis to the Oversight Group. Recognising that, due to the emergent nature of the technologies to be explored, some areas of work will not deliver the specific anticipated benefits and may need to be varied or stopped, reporting to the Oversight Group will make any such occurrences explicit.
- 5.2 The Minutes of Oversight Group meetings will be made available to the Economic and International Affairs scrutiny panel.
- 5.3 A summary of the Fund's activity will be published in the Annual Report and Accounts for each year it is active.