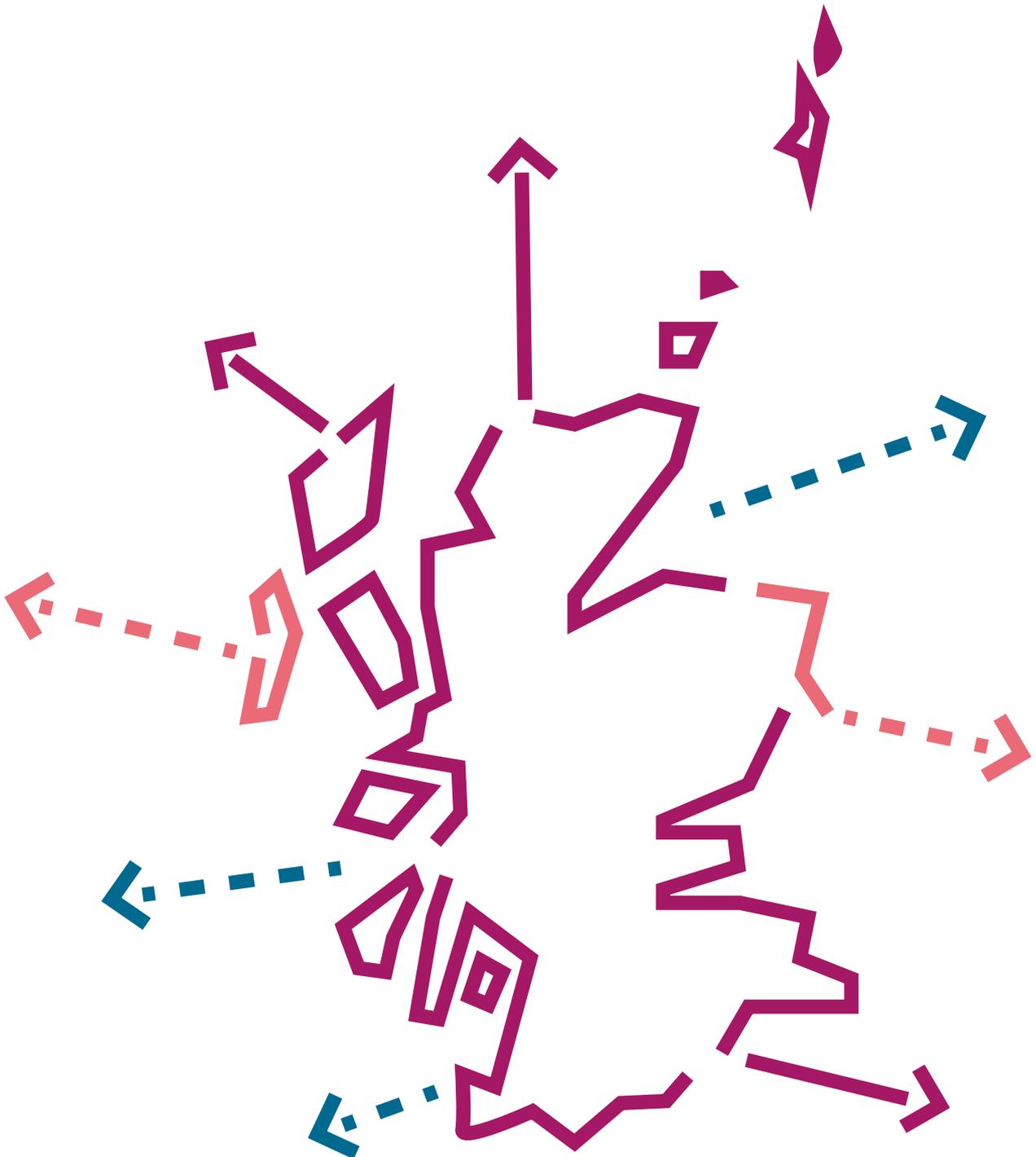




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# A Trading Nation – An Export Plan for Scotland’s Technology Sector



Plan has been developed and produced in partnership with



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# Introduction

Published in 2019 [A Trading Nation: A Plan for Growing Scotland's Exports](#) outlines the Scottish Government's ambitions to grow Scotland's exports to 25% of Gross Domestic Product (GDP) by 2029. The Plan commits to the development, with industry, of Sector Export Plans focused on growing exports from key sectors highlighted in A Trading Nation (ATN). It recognised that the technology, digital and media industries are some of Scotland's top 5 strategic sectors.

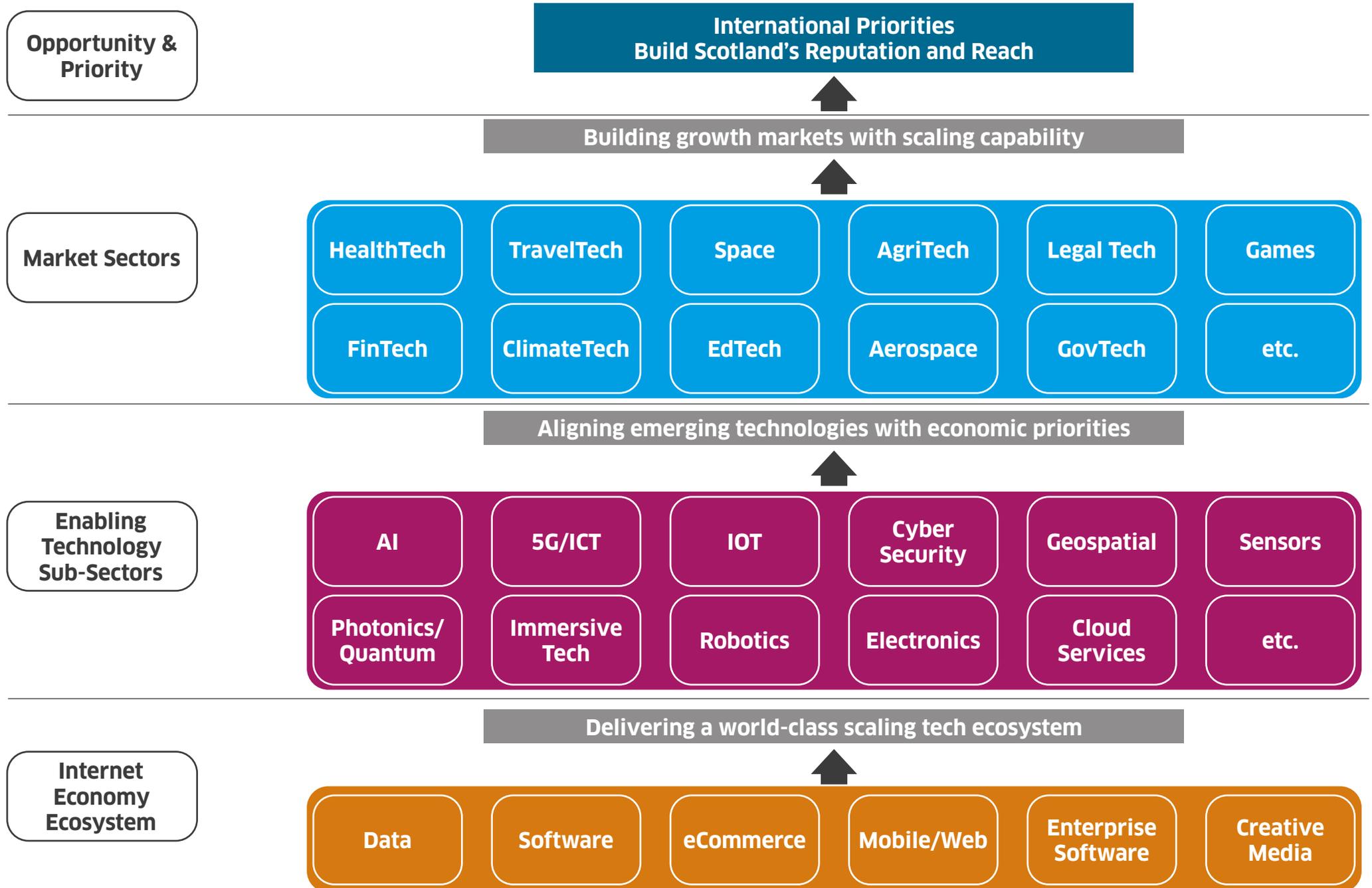
The purpose of this Technology Sector Export Plan (TSEP) is to: create a clear framework through which industry, public sector and the Scottish Government can collaborate; identify and maximise the export opportunities; capitalise on Scotland's technology export strengths; and make a significant contribution to our overall export growth ambitions set out in ATN.

In 2021, there were 10,395 VAT/PAYE registered businesses in the technology sector, which equated to 5.8 per cent of the 178,670 VAT/PAYE registered businesses in Scotland's private sector. The level of total Scottish employment provided by these technology businesses was 83,610, which equated to 4.3 per cent of total Scottish private sector employment (1.9 million). The total Scottish turnover of these technology sector businesses was £21.6 billion, which equated to 7.4 per cent of the £293.2 billion total Scottish private sector turnover. This data is from the [Businesses in Scotland 2021, ONS \(IDBR\) publication data](#).

The technology sector is very broad and there are many areas of the sector in which Scotland has key strengths and comparative advantages internationally. The diagram on page 2 sets out an overview of Scotland's current technology ecosystem, with the caveat that the innovative nature of the sector means it is constantly evolving.

What is certain, is the increasingly integral nature of the technology sector to Scotland's economic success. There is real potential to further internationalise that will allow Scotland to not only match our competitors, but in many cases lead in international markets, given our global profile and demand for high value Scottish technology products and services.

# Scotland's Technology Ecosystem - International Growth Opportunities



Source: Scottish Development International (SDI), 2021

In recent years, the pandemic has demonstrated a transformative shift, globally, in the way sectors have evolved to support the new environment we are experiencing.

As a result, we are experiencing an unprecedented demand for products and solutions across the technology sector globally which is creating exciting opportunities for Scotland.

Sectors such as education, healthcare and financial services have also embraced change through the adoption of digital technologies which have fundamentally changed the way businesses and organisations operate and how customers engage with these sectors.

To support this transformation, there is on-going engagement with industry, public sector and government to explore ways in which we can grow the exports of this sector further, embracing this new way of living, working and learning through disruptive technologies and growing our global competitiveness. This approach is also aligned with our enterprise agencies' approach including [Scottish Enterprise's 2021-22 Business Plan](#) which outlined the future economic opportunities that will drive Scotland's international advantage, and wider initiatives to tackle the skills gap and develop a digital workforce to prepare for future technology sectors.

The Government and partners will continue to deliver ATN in line with the [Scottish Government's Vision for Trade](#) published in 2021. In addition the Scottish Government [National Strategy for Economic Transformation](#), a 10-year strategy, sets out a clear aim of growing Scotland's economy.

This TSEP will look at Scotland's long-term economic success and identify areas of emerging opportunity for technology export growth. These could include for example: net zero, enhanced health and wellbeing, accelerated use of digital technologies and advanced manufacturing.

To support the trade ambition within ATN and accelerate economic recovery and growth, this TSEP sets out our aim to work collaboratively across the technology ecosystem to support companies and industries to build export capacity and capability. In doing so we can support businesses to adapt to new global markets and continue to grow internationally from the uncertainty created by the COVID-19 pandemic and the UK's exit from the European Union (EU).

The technology sector in Scotland has shown great resilience, innovation and diversity in the face of recent unprecedented challenges, maintaining high levels of activity during the COVID-19 pandemic and positioning itself to further embrace growth domestically and also through international opportunities. This TSEP provides a framework for industry, public sector, and Scottish Government collaboration to continue to drive this growth over the coming months and years.

## Current strengths

Scotland is home to many technology businesses, from start-ups through to large-scale tech, who are supported through a well developed eco-system. Through this eco-system, companies can make informed decisions on how they innovate, internationalise and grow their exports making a direct contribution to the Scottish economy.

A number of reports have been developed, by both the private and public sector, which highlight the agnostic nature of the sector and its impact on delivering new technology solutions and products in global markets. The [Scottish Technology Ecosystem Review](#) (STER), published 25 August 2020, made key recommendations to further develop Scotland's technology sector to world-class status. This TSEP further supports this approach to drive and increase exports from the Scottish company base.

Working with industry and through strategy workshop discussions, Europe, Asia Pacific and North America have been identified as the priority international markets for technology exports. There was continued endorsement that the assessment of current Scottish technology export strengths in the USA, Germany, Ireland, Sweden and the Netherlands, and growing import demand for technology in the USA, Germany, China, Japan, Mexico, Singapore and South Korea identified within ATN, provide a strong starting point for the identification of priority international markets. Full details of our analysis of critical international markets and their underpinning criteria for the technology sector are available within ATN and can be located [here](#).

Through the implementation of this plan, we will monitor priority international markets and sub-sectors which will enable industry, and delivery partners, to focus on Scotland's strengths and market our technology exports globally.

Scotland has a strong spread of public and private sector organisations who have been working together to offer a range of support to businesses to develop their skills, knowledge and approach to engaging in international markets. These partners include industry bodies, chambers of commerce, local authorities, enterprise agencies, skills organisations and government.

## Current support

One of the technology sector's key strengths, is its relationship with Scotland's enterprise agencies and trade associations. Scottish Enterprise's (SE) international arm Scottish Development International (SDI), Highlands and Islands Enterprise (HIE), South of Scotland Enterprise (SOSE) and Skills Development Scotland (SDS) have the privilege of working directly with the technology sector in Scotland, providing valuable support to companies to drive exports.

Companies seeking support with internationalisation and exporting can access this through [Scottish Enterprise](#).

In addition, successful delivery of ATN is built upon support across a wide range of networks, including the agencies above, the Scottish Chambers of Commerce network, industry partners and both central and local government.

The power of international networks is critical to supporting the international ambitions of our technology firms. Already, through SDI, our Trade Envoys and the GlobalScot network, entrepreneurs can access a wealth of information, data and be introduced to relevant connections.

In addition to and beyond those networks, industry leads have the ability to support the development of this plan through their own extensive international networks that could support this initiative. For example larger, global firms and industry leaders have extensive international reach and the ability to support Scottish technology firms to access new markets.

Much of the support available is centred on assisting businesses to develop their skills around leadership, business growth, innovation and internationalisation with a view to growing their domestic and international sales. SDI supports companies with their international strategy providing advice, guidance and information on new markets. Through their international activity, SDI in-market specialists focus on supporting companies while also exploring global markets to 'fit' with the Scottish product, ultimately growing Scottish exports. Please see **Annex A** to view where SDI 'In Market Specialists' are based.

Scottish Enterprise works with both UK and international partners to gather the best market intelligence to increase the export potential of the Scottish technology industry. There is also a wide range of available programmes developed for businesses to support their export ambitions which are signposted by SDI and Department for International Trade (DIT) in Scotland.

The Scottish Government has a commitment to establishing a national network of 'Tech Scalers', growth-focused entrepreneurial hubs with the aim of providing promising technology start-ups with access to first rate commercial education, training and mentoring. Accessing international learning, through the Tech Scaler and international networks will expand our pipeline of world-class technology businesses and aid the development of products and/or services for global markets. Having access to world-class educational and incubation services and international 'Market Square' resources opens access for our founders and leaders to learn from international best practice.

Two excellent case studies of Scottish technology companies internationalising and exporting are highlighted here:

**Soben**, an award-winning quantity surveying and commercial management consultancy headquartered in East Kilbride, announced in 2021 the expansion of its operations into the United States. The company's new U.S. headquarters are located in Chicago, IL with a North America CEO Joe Cusick leading a team of 11 consultants serving clients in the United States, Mexico and Chile.

Its clients are blue chip national and international organisations who construct prestigious and complex projects across the high tech, mission critical, construction, civil engineering, rail, utility and energy sectors.

Soben's U.S. expansion project was aided by SDI through a range of financial and advisory support.

Soben's expansion into the U.S. stemmed from the business recently securing a leading West Coast data centre developer as an anchor client.

**IGS** is a multi-award-winning agritech innovator, which designs, supplies and supports vertical farms for growers all around the world. It was founded in 2013 by a farmer and an engineer to address key challenges in the food industry with precision indoor agriculture. The company delivers modular Growth Towers capable of growing a wide variety of crops including microgreens, herbs, salad leaves, brassicas, roots, fruits, botanicals (including edible flowers) and even tree seedlings.

This Scottish success story is growing rapidly: its workforce has increased six-fold in two years (25 staff to 150 in three locations, including at its newly opened Engineering Innovation Centre in Fife). Sales have rocketed from zero in 2019, to forecasting more than £100m in 2022, and the company now has customers across four continents. SE and our SDI specialists have been with IGS every step of the way, supporting their innovation, investment and internationalisation journey.

Through information sharing, providing in depth research, sharing expert advice and making key introductions by our in-market specialists, SDI has assisted IGS to enter and expand in target international markets. SDI in-market trade specialists have assisted IGS in Singapore, the United Arab Emirates and Europe, with future support planned in Japan and North America. IGS has benefited from connections SDI has made on the company's behalf including GlobalScots in the Middle East and South-East Asia. David Farquhar, CEO of IGS and his Chief Operating Officer, Andrew Lloyd, are also valued members of the prestigious GlobalScot network.

## Framework to increase exports

This TSEP identifies four key areas through which industry, public sector and the Scottish Government can collectively build on our technology export growth strengths and opportunities, bringing our focus and resources together to drive improvement and growth.

1. Through the on-going work to deliver ATN, we will continue to **provide export support to technology companies in Scotland by:**
  - Helping the industry to capitalise on its export potential by accessing support available through enterprise agencies, public sector, the Scottish Government and the wider ecosystem, to ensure partners are aligned behind the delivery of this TSEP.
  - SE/SDI and other ATN delivery partners continuing to provide support to new and experienced exporters to drive growth through technology exports into global markets. Supporting the work of the STER programme to encourage world-class education programmes to establish a presence in Scotland. This will increase the level of expertise immediately available to support Scottish businesses to scale, access international networks and trade internationally.
  - Continuing to leverage the knowledge, insights and networks of our international networks including our GlobalScots and Trade Envoys to support our technology exporters to thrive internationally by bringing their influence and insight into identifying opportunities for export growth.
2. Through our on-going work within A Trading Nation on international networking, showcasing Scotland and supporting exporters in market; we will **promote the international presence of technology exporters by:**
  - The on-going identification of international trade opportunities in overseas markets, through a global approach. SDI in-market specialists will support businesses to engage in these opportunities to showcase Scotland's technology strengths and develop export growth.
  - Raising awareness and promoting opportunities through the new single Brand Scotland mark which is available for companies who participate in international expos and events.

3. Through our on-going work to provide trade support within ATN, we will **consolidate the partnership between technology exporters and government by:**
  - Creating a newly established Technology Exports Delivery Group (TEDG) to oversee and drive delivery of the TSEP.
  - Ensuring that relevant groups, such as the STER Implementation Group, have sight of the delivery of the TSEP, and that there is collective accountability and responsibility for the development and delivery of this TSEP to Scottish Ministers via the Ministerial Trade Board and its responsibilities for delivery of ATN.
  
4. Working to improve the data, measurement and evaluation of the delivery of ATN to **improve the evidence and forecasting of technology export growth opportunities by:**
  - Establishing robust underpinning data to support the identification of sub-sectoral specific export growth opportunities, both current and emerging, and to use this plan to ensure, industry, public sector and Scottish Government, are aligned in this approach.

## What's next

### In Scotland:

- SE/SDI will continue to review its support for technology companies, working with critical programmes such as STER implementation to ensure the internationalisation of technology companies is aligned with the delivery of Scottish Enterprise Future Economic Opportunities and the delivery of STER.

### International presence and promotion

- We will work towards increasing the volume of engagement between Trade Envoys and GlobalScots and technology companies. Companies can access support by registering on the [GlobalScot portal](#). The success of this will be assessed at the annual review through the survey of companies.
- We will ensure the reach and expertise of our network of in-market specialists is promoted within the technology sector, fostering new connections and using international insight to open new markets to technology exporters.
- Free Trade Agreements (FTAs) have the potential to reduce or remove tariffs to open market opportunities for physical distribution in the technology sector. It is important to ensure that Scottish companies are fully aware of opportunities that may exist through FTAs and that they are able to take advantage of these via representation on the TEDG.
- There will be engagement with the Brand Scotland Partnership Board to learn about their Communications Guide and Trade Toolkit. Seminars for technology companies will be jointly hosted to explain the benefits of being under one Scotland banner to support and promote their participation at international events. An example of this has been participation at Expo 2020 Dubai.

### A Partnership between industry and government

- The TEDG will be partner led. Relevant partners will contribute to the delivery of the plan as well as considering its future development, working in partnership with others, including the STER implementation board, to ensure alignment of direction and support.
- The Scottish Government will provide support to develop leadership of this plan, bringing direction, focus and commitment, to ensure all partners identify and deliver the critical actions required across the four key areas of this plan through a newly established TEDG.
- We will use the Scottish Government's Trade Board as the key vehicle for Ministerial oversight of the development and delivery of this TSEP.

## Improving data, evidence and forecasting

- Industry and enterprise agencies will work with government analysts to improve our tracking of technology exports and export opportunities in Scotland across sub-sectors and products/services.
- Industry partners, enterprise agencies and the Scottish Government will work together to ensure their surveying of companies augments and supplements this work to provide a comprehensive understanding of current and emerging export growth potential in Scotland's agile and rapidly evolving technology sector.
- The development and future iterations of this TSEP will establish clear growth ambitions on specific sub-sectoral priorities in line with A Trading Nation's target to ensure 25% of Scotland's GDP is composed of exports by 2029.

## Delivery and evaluation

This is the first iteration of the TSEP and as such it represents a starting point on the journey to identify and capitalise on the sub-sectoral opportunities for technology export growth in Scotland, aligned with our delivery of ATN. It is clear that one of the great strengths of Scotland is the diversity and agility of our technology companies which will support the successful delivery and growth of technology exports.

To do this, the partners involved need to be accountable to each other and draw on our respective leadership, expertise, influence and resources via the TEDG to:

- Annually review progress and the scope of this plan. It will review data and trends on technology exports in Scotland, reflecting on progress in our delivery in relation to ATN. Work across industry and wider government to enhance the international capability and capacity of our technology companies and align with main market sub-sectors within the technology sector.
- Report annually to Scottish Ministers via the Scottish Government Ministerial Trade Board, identifying progress and areas of emerging opportunity. This agile approach will allow this TSEP to develop and grow, each year, as the technology exporting environment changes during these unprecedented times.
- Consolidate the tri-partite relationships and support this annual review by developing clearer data and evidence of technology export strengths and opportunities, based on our shared understanding of the sector, sub-sectors, products and international markets.





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