

A close-up photograph of a woman with long dark hair and a young child with curly hair, both smiling warmly. The woman is in the foreground, and the child is leaning their head against her. The background is a bright, out-of-focus outdoor setting.

Tissue & Eye Services Strategy 2023-26

Caring Expert Quality

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Welcome

We are one of Europe's largest tissue banks.

In 2022/23 we issued 3,922 corneas and 345 heart valves for transplant, but we need to do more. Our role is to co-ordinate, recover, process, store and supply human tissue for transplantation – making a vital contribution to NHS Blood & Transplant's mission to save and improve even more lives. The Tissue and Eye Services Strategy 2023-26 sets out our ambitions in pursuit of NHS Blood and Transplant's vision of 'a world where every patient receives the donation they need'.

The key issues that we need to address are:

- the gap between patient needs and donations of corneas and heart valves
- financial and commercial agility to respond to customers and invest in innovation
- the need to innovate and promote our expertise, research and development
- skills development for our staff and attracting talented new staff to deliver our vision

To respond to these issues our strategic ambitions are:

- more donors, more transplants
- revolutionise donation – particularly to meet the domestic need for corneas
- create a financial surplus to invest in transformation and research projects
- innovate to meet patient demand



Laura, cornea transplant recipient (and son)



John Carter, who gave the gift of sight to a 68-year-old man and a 57-year-old woman by donating both of his corneas

Welcome

This strategy explains the changes and innovations we intend to make to improve patient access to tissue and eye products. The risks that have been identified include:

- ocular and heart valve donation levels may not increase sufficiently to meet UK demand and this would result in patient needs not being met
- a focus on donation could lead to us not making the gains that we want to in other elements of the supply chain
- that Advanced Therapy Medicinal Products research delivers, for example, 3D-printed corneas sooner than expected which could result in reduced income

We are very grateful to the many people who have helped us develop this strategy, including:

- Our dedicated team of organ and tissue donation and transplantation professionals
- the NHSBT Executive Team and Board
- donor family members
- patient groups
- Consultant surgeons
- the Ocular Tissue Advisory Group
- Clinical Leads for Organ Donation
- the British Association of Plastic, Reconstructive and Aesthetic Surgeons
- the Society for Cardiothoracic Surgery, in particular the Congenital Cardiac Surgery Committee

We would also like to acknowledge every tissue and eye donor and their families, whose incredible generosity allows us to save and improve so many people's lives.



Anthony Clarkson
Director of Organ and Tissue
Donation and Transplantation

Welcome

Our tissue and eye services are a key part of NHS Blood and Transplant, you can read about all of our other services in our organisational strategy [here](#).

How our Tissue and Eye Services Strategy aligns with NHS Blood and Transplant's five strategic priorities:

Grow and diversify our donor base
to meet clinical demand and reduce health inequalities



We will deliver a step change in donation

Through working with NHS partners, we will make a step change in the availability of corneas and heart valves through a new donation approach. Our aim is to meet current demand from UK donors within 3-5 years. In the short term, we will further improve current systems to support our customers.

Modernise our operations
to improve safety, resilience and efficiency



We will continue to invest in areas that benefit more patients

By increasing supply of ophthalmic and cardiovascular products and driving operational productivity, we will remain the market leader where patients need us to be and innovate to fill new opportunities. Our product portfolio will be reviewed to meet the needs of our customers and patients.

Drive innovation
to improve patient outcomes



We will meet demand for innovative new products

By providing important tissue grafts for patients and continually scanning the health environment to identify the products that are required by patients, we will develop systems to accelerate the adoption of research into clinical practice. We are well placed to expand into new products and markets.

Collaborate with partners
to develop and scale new services for the NHS



We will collaborate and engage with our customers

Through collaboration with external stakeholders in all areas and leading the NHS approach, we aim to radically increase donations. Our research and development strengths will help us meet patients' emerging needs.

Invest in people and culture
to ensure a high performing, inclusive organisation



We will attract, develop and retain our expert workforce

By investing in training and development, to help us achieve our milestones in donation, continuous improvement and our market share, we will actively work to improve staff satisfaction rates and make Tissue and Eye Services an attractive place to work.

Who we are and what we do

Our infrastructure is UK-wide:

Tissue and eye banks

2 tissue and eye banks

Liverpool Tissue and Eye Bank contains:

- the National Referral Centre, where specialist nurses take consent¹ for tissue donation
- cleanroom and processing facilities
- clinical support and customer care teams
- product storage and issue
- research and development (R&D) team
- research tissue bank

Filton Eye Bank contains:

- cleanroom and production facilities

Hospital Development

6 Regional Tissue Donation Nurse Specialists who work with partners to drive donor referrals

Retrieval teams

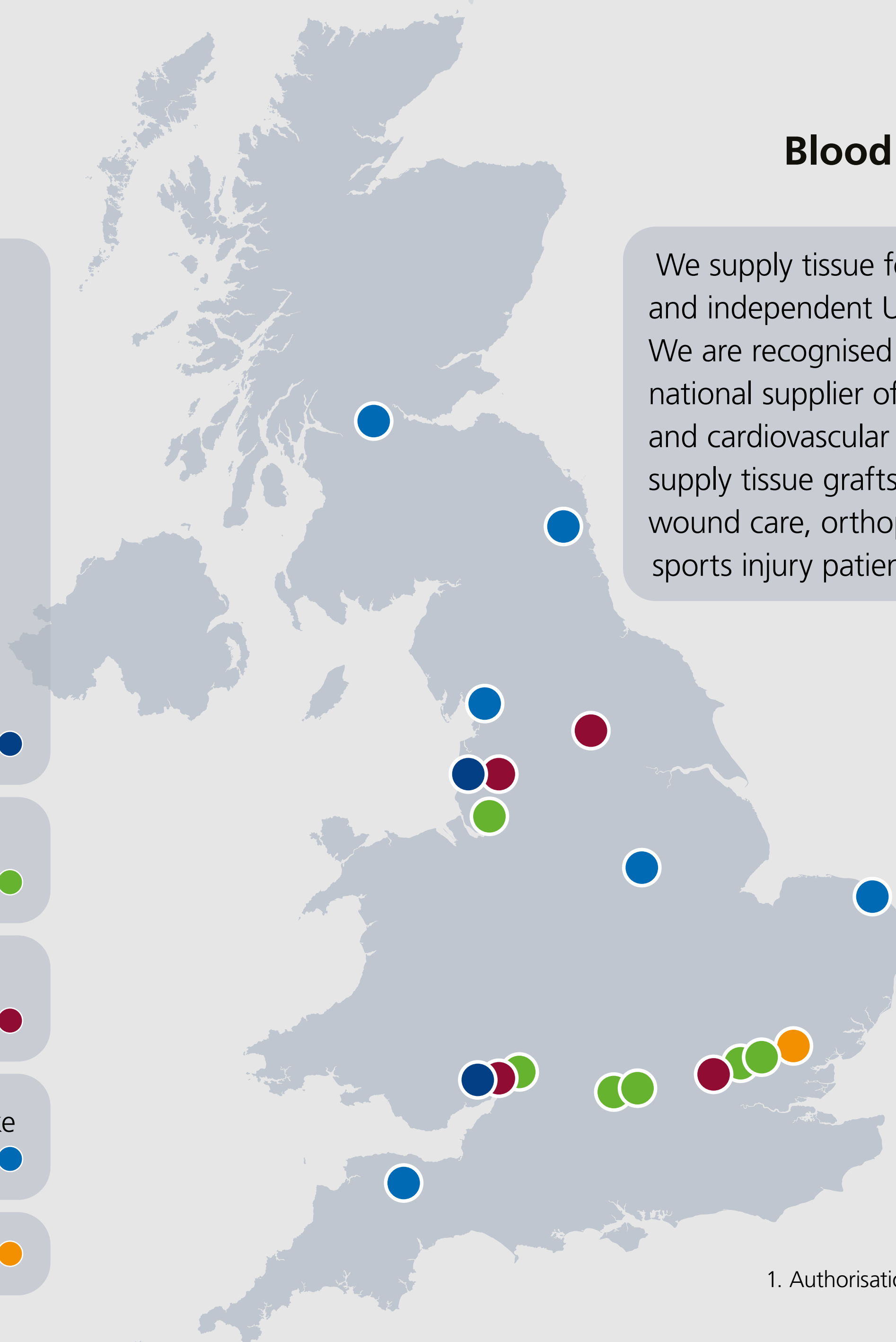
4 TES retrieval teams who travel to donors and retrieve tissue and eyes

Eye Retrieval Schemes

6 commissioned eye retrieval schemes which make referrals and complete eye retrievals

Satellite issuing site

Satellite storage and issue site in Basildon

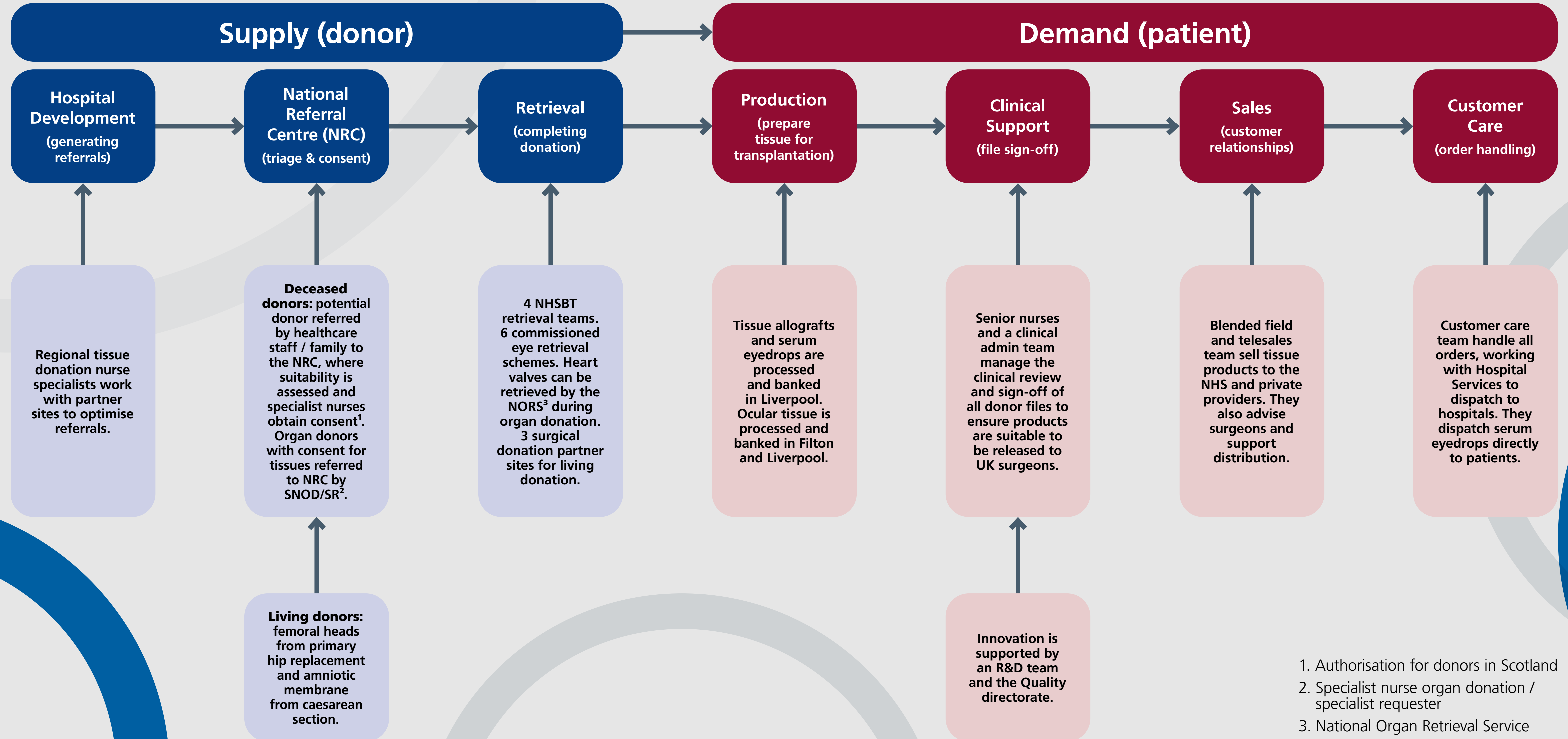


We supply tissue for use in NHS and independent UK hospitals. We are recognised as the leading national supplier of ophthalmic and cardiovascular tissue. We also supply tissue grafts for burns, wound care, orthopaedic and sports injury patients.

1. Authorisation for donors in Scotland

Who we are and what we do

We lead the NHS' tissue supply chain, from referral through to issue



1. Authorisation for donors in Scotland
2. Specialist nurse organ donation / specialist requester
3. National Organ Retrieval Service

Our Tissue and Eye Strategy on a page

Priorities

To deliver these priorities we will:

We will know that we have succeeded when:

Grow and diversify our donor base
to meet clinical demand and reduce health inequalities



Deliver a step change in donation

- Meet current demand from UK donors for corneas and heart valves within 3 years
- Improve current systems and be the importer of choice for more corneas

- New referral pathways
- Sustainable donation system
- Evaluate international supply options for domestic cornea shortfall

By 2025/26:

- Ocular donors (2,421 to over 3,000)
- Corneas issued for transplant (3,922 to c7,000)
- Cornea discard rate (19 to 18%)
- Heart for valves donors (345 to 380)

Modernise our operations
to improve safety, resilience and efficiency



Achieve financial sustainability

- Increase income from ophthalmic and cardiovascular products
- Drive operational productivity
- Over time withdraw some products from our portfolio, where there is no longer a patient need

- Developed an investment fund for transformation
- Sustainable stock holding that consistently meets demand
- Reduced logistical costs

By 2025/26:

- 45% increase in TES income aligned to activity increase
- 55% increase in serum eyedrops income

Drive innovation
to improve patient outcomes



Meet demand for innovative new products

- Establish a market position in innovative, bespoke and decellularised products
- Prioritise R&D support
- Improve use of data

- New products pipeline
- Accelerate progress of research into clinical practice
- Implement an ocular allocation system

By 2025/26:

- 2 new products introduced

Collaborate with partners
to develop and scale new services for the NHS



Collaborate and engage with our customers

- Collaborate with external stakeholders in all areas and lead the NHS approach to radically increase donation
- Leverage R&D strengths to help us meet patients' emerging needs

- Create new roles within each speciality for advice, resolving product issues and development initiatives

By 2025/26:

- Customer satisfaction rating (69% to 80%)

Invest in people and culture
to ensure a high performing, inclusive organisation



Attract, develop and retain an expert workforce

- Attract, develop and retain an expert workforce
- Create a workforce with the skills required to deliver our ambitions

- Deliver the People Plan
- Invest in development and training
- Invest in key business capabilities

By 2025/26:

- Our Voice score (6.7 to 8.0)
- Staff turnover rate (15.4% to 12%)
- Sickness/absence rate (6.4% to 4%)

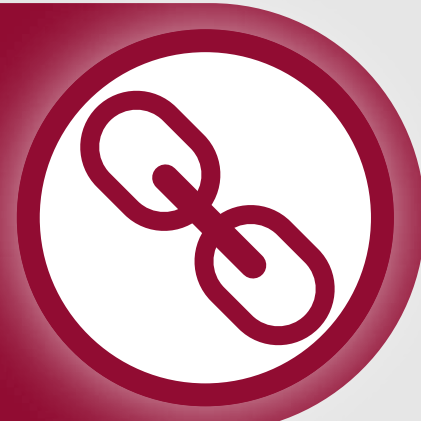
Our roadmap

Priority

Grow and diversify our donor base
to meet clinical demand and reduce health inequalities



Modernise our operations
to improve safety, resilience and efficiency



2023/4

- Engage with NHS England and partners to deliver a step change in donation, initially through new Eye Retrieval Schemes.
- Work with colleagues to build routine referral and a national waiting list.

- Review and define the future product portfolio.
- Build a sustainable stock holding to consistently meet demand.
- Review supply chain resilience and mitigate weaknesses.
- Define future TES digital operating system.
- Introduce Continuous Improvement (CI) to deliver productivity gains.

2024/5

- Introduce new pathway referrals with hospices.
- 4,794 corneas issued (+15%).

- Exit from product lines which are not delivering value to patients.
- Reduce logistical cost; streamline delivery and align organ & tissue donation processes.
- Investment in new capabilities.
- Develop core operating system changes.

2025/6

- Develop digital referral solution for all referrals to NHSBT.
- 3,077 ocular donors (+27%).
- 5,047 corneas issued (+29%).
- 380 heart valve donors (+10%).
- Cornea discard rate 18% (-4%).

- Deliver data to drive productivity through the National Data Insights platform.
- Orthopaedic and sports injury issued (+39%).
- Serum eyedrops issued (+38%).
- 995 cardiovascular products issued (+4%).

Our roadmap

Priority

Drive innovation
to improve patient outcomes



2023/4

- Launch a cornea pre-cutting service (DMEK).
- Increase provision of tissue to the research community by increasing consent rates.
- Clinical trial of dCELL[®] dermis for diabetic foot ulcers continues.
- Develop an ocular allocation system to help address health inequalities.
- Introduce a database for collection of serum eyedrops patient follow-up data.
- Scope direct access to donor primary care data.

2024/5

- Identify and remove barriers that delay bringing new products to market.
- Increase provision of tissue to the research community by increasing consent rates.
- Clinical trial of dCELL[®] dermis for diabetic foot ulcers concludes.

2025/6

- 2 new products on the market.

Our roadmap

Priority

Collaborate with partners
to develop and scale new services for the NHS



Invest in people and culture
to ensure a high performing, inclusive organisation



2023/4

- Create new roles within each speciality to be the conduit for advice, resolving product issues and development initiatives.
- Leverage our customers to become advocates for tissue donation.

- Deliver the OTDT People Plan.
- Deliver 23/24 Our Voice action plan based on staff survey feedback.
- Embed NHSBT anti-racism framework.
- Full review and update of all training and development across TES.
- Deliver leadership training workshops to 50% OTDT senior leaders.
- Strengthen capabilities to support donation and Continuous Improvement.

2024/5

- Develop user groups for orthopaedic and sports injury and burns and wound care specialities.

- Deliver 24/25 Our Voice action plan based on staff survey feedback.
- Deliver leadership training workshops to remaining OTDT senior leaders.
- Strengthen commercial capabilities, including sales & marketing and supply chain.
- Our Voice score (7.2).
- Staff turnover rate (14%).
- Sickness/absence rate (5%).

2025/6

- Continue to look for new opportunities in ATMPs & Scaffolds.
- dCELL[®] clinical trials complete.
- 80% customer satisfaction for orthopaedic and sports injury products (+16%).

- Deliver 25/26 Our Voice action plan based on staff survey feedback.
- Strengthen commercial capabilities, including sales & marketing and supply chain.
- Our Voice score (8.0).
- Staff turnover rate (12%).
- Sickness/absence rate (4%).

Next steps

Our ambition is to increase donation so that no patient in the UK will wait for a transplant due to a lack of tissue availability.

The majority of Tissue and Eye Services products are generously donated by deceased donors. We have strong pathways from donation to transplantation; however, we do not reach enough donors to fully meet demand for corneas and heart valves. Demand for corneas is higher than the current supply from donors in the UK and affected patients are waiting too long to receive the gift of sight. Most donation pathways are linked to hospitals. The NHS is under significant pressure and activity has not recovered to 2019/20 levels. New pathways are required, for example, in partnerships with hospices.

Our ambition is to deliver a financial break-even point and establish a transformation fund.

Our Tissue and Eye Services have a strong record in producing high quality and safe products. We operate on a cost recovery basis, meaning we rely on income generation. We have made progress toward break-even but donation rates, operating costs, and the slow recovery of elective surgery post-COVID are impacting on this. Meeting patient need is essential to improving our financial performance and controlling costs to the NHS. Driving sales growth and efficiencies will see us achieve an operational surplus by the end of Year 1. In Years 2 and 3, we will be able to invest in transformation and improvements to help meet patients' needs.



Next steps

Our ambition is to turn research into clinical practice by developing innovative products which meet our customers' needs.

Our expert in-house Research and Development Team develop new products and cater to bespoke requests. Our Research Tissue Bank supplies tissue to the UK research community and clinical trials. Despite much research currently being undertaken within the Advanced Therapy Medicinal Products (ATMP) area, the need for human corneas and heart valves is expected to continue over the next 10 years. Demand for orthopaedic and sports injury products is also expected to be maintained, although there are animal-derived and synthetic alternatives available. We do not have the right skills to develop ATMPs ourselves. The space in which we can add the most value through research and development is in developing innovative decellularised products. Decellularisation increases graft lifespan, reducing the number of replacement grafts needed, and so improving patient outcomes.

Our ambition is to be highly engaged with our customers, and responsive to their needs.

We are a national NHS provider, and our customers span the UK. We want to be more than a supplier – we want to be a partner to customers. There are more opportunities for interaction with system influencers. Collaboration is essential to develop and deliver new products that meet patient need and increase our market share. Leveraging our relationships with customers will increase advocacy for tissue and eye donation, learning from the organ donation model of collaboration. Our GMP expertise and ability to provide tissue for research mean we are uniquely positioned to collaborate with universities on research projects.



Next steps

Our ambition is to attract, develop and retain an expert workforce.

Our people are expert in what they do and continue to show remarkable adaptability and resilience in a particularly challenging operating environment. In a staff survey our colleagues have told us that we need to improve access to training and development and take steps to promote greater staff wellbeing, which we will deliver as outlined within this strategy. To remain a supplier of choice for our customers, we need to be skilled in areas such as marketing, commercial, supply chain and continuous improvement, and we will strengthen these capabilities within our team. Wider workforce shortages and internal challenges give us a clear mandate to act in these areas. It has never been more important that we invest in people and culture to ensure a high-performing, inclusive organisation.

Thank you for reading our Tissue and Eye Services Strategy.



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