

REVOLUTIONISING THE MOLECULAR DIAGNOSTICS THE SITUATION IN UK

In the UK, sufficient funding is available for the development and maintenance of NGS infrastructure, indicating a commitment to advancing this technology. There is the availability of a sufficient healthcare workforce or personnel specifically for NGS testing and they emphasize the importance of data security, integration, and governance to ensure responsible data-sharing practices.



CORE PILLARS	Well Implemented	Implemented	Not Implemented	Clear Information Not Available
Infrastructure and tools	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Molecular tumour boards and expertise	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Reimbursement for NGS and liquid biopsy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Education/training/awareness	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Governance	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Healthcare workforce	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Data sharing and linking	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

INFRASTRUCTURE AND TOOLS

The United Kingdom has a well-established infrastructure for NGS testing. There are dedicated NGS centers equipped with the necessary tools and infrastructure. Sufficient funding is available for the development and maintenance of NGS infrastructure, indicating a commitment to advancing this technology. NGS is routinely utilized in the United Kingdom, highlighting its widespread adoption and integration into clinical and research practices. These factors collectively create a favorable environment for NGS testing, ensuring accessibility and regular utilization of this technology in various healthcare and research settings throughout the United Kingdom.

UK	Available	Not Available
NGS centre	●	○
Equipments	●	○
Funding	●	○
Routine utilization	●	○

COUNTRIES' CORRELATION	INDEPENDENT VARIABLE
Dependent Variable	Funding
NGS Centre	High Positive Correlation
Equipment	High Positive Correlation
Routine Utilization	Medium Positive Correlation

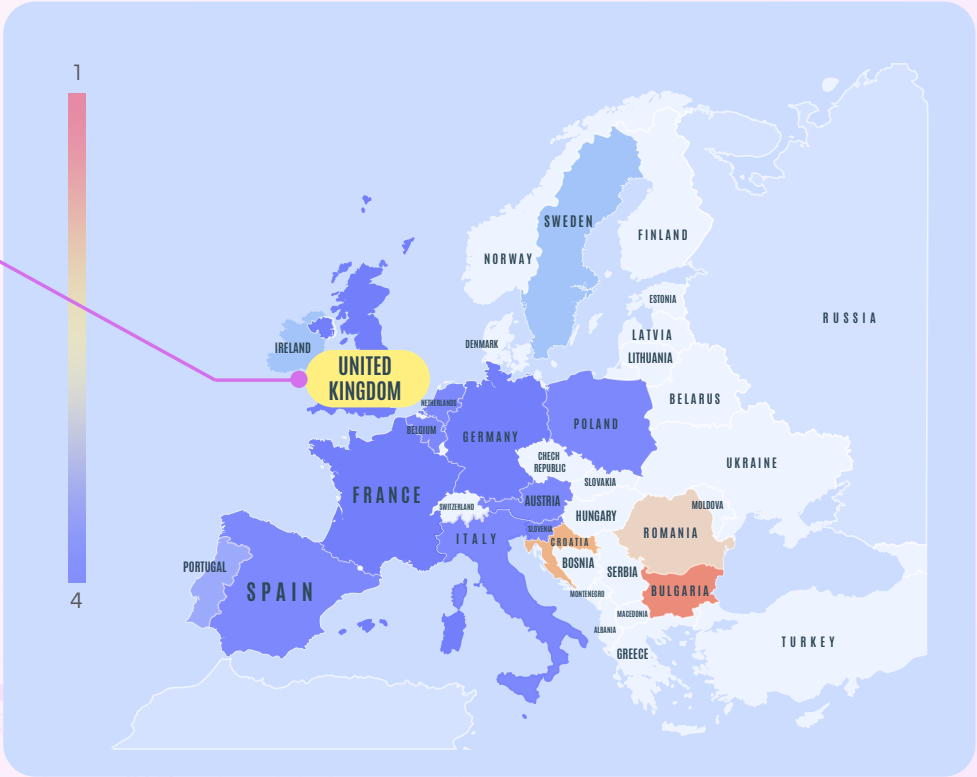
1-0,8 - Very High Positive

0,79-0,6 - High Positive Correlation

0,59-0,4 - Medium Positive Correlation

0,39-0,2 - Low Positive Correlation

0,19-0 - Very Low Positive Correlation



MOLECULAR TUMOUR BOARDS AND EXPERTISE

The United Kingdom currently lacks an available MTB panel, indicating the absence of a dedicated molecular tumor board for consultation and discussion. Recurring meetings for consultation are not held, suggesting a potential gap in structured discussions among experts in the field of molecular diagnostics. Additionally, the number of patients being tested and discussed within an MTB context is low or negligible. These findings indicate a need for further development and implementation of platforms and frameworks to facilitate collaborative discussions and improve the utilization of molecular testing in patient management within the United Kingdom.

	MTB Panel	Consultation frequency	Testing/ Discussion
Belgium	●	●	●
Croatia	●	●	○
Spain	●	●	○
Italy	●	●	●
France	●	●	●
Germany	●	●	●
UNITED KINGDOM	○	○	○
Ireland	○	○	○
Slovenia	●	●	●
Poland	○	●	●
Sweden	○	●	○

● Available
 ○ Not Available

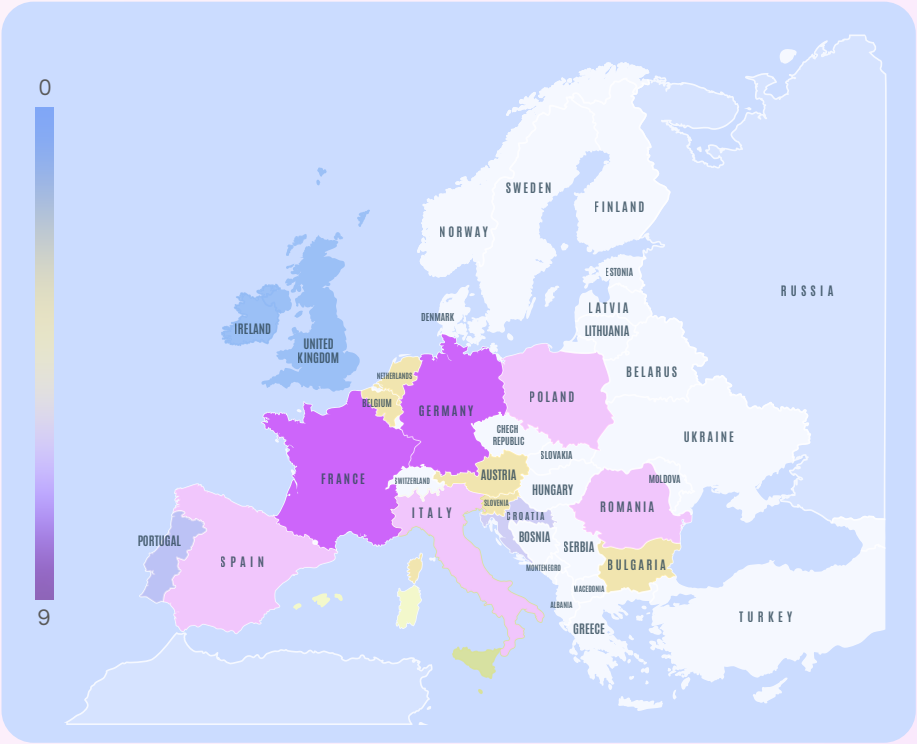
● Very High
 ● High
 ● Medium
 ● Low
 ○ Very Low

● High
 ● Medium
 ○ Low

COUNTRIES' CORRELATION	INDEPENDENT VARIABLE
Dependent Variable	MTB Panel
Consultation Frequency	Very High Positive Correlation
Testing/ Discussion	High Positive Correlation

1-0,8 - Very High Positive
 0,79-0,6 - High Positive Correlation
 0,59-0,4 - Medium Positive

0,39-0,2 - Low Positive Correlation
 0,19-0 - Very Low Positive Correlation



REIMBURSEMENT FOR NGS AND LIQUID BIOPSY IN UK

The information does not specify details about the reimbursement status for Next-Generation Sequencing (NGS) and Liquid Biopsy in France, as well as the availability of sufficient funding for the reimbursement process. A shift by public hospitals toward greater use of LB in NSCLC, where tissue biopsy still predominates, is conditioned by regional policies, with some moves toward paying for EGFR mutation testing.

CENTRES' CORRELATION	INDEPENDENT VARIABLE
Dependent Variable	Funding
Reimbursement for NGS	Medium Positive Correlation
Reimbursement for Liquid Biopsy	Low Positive Correlation

1-0,8 - Very High

0,79-0,6 - High Positive

0,59-0,4 - Medium Positive

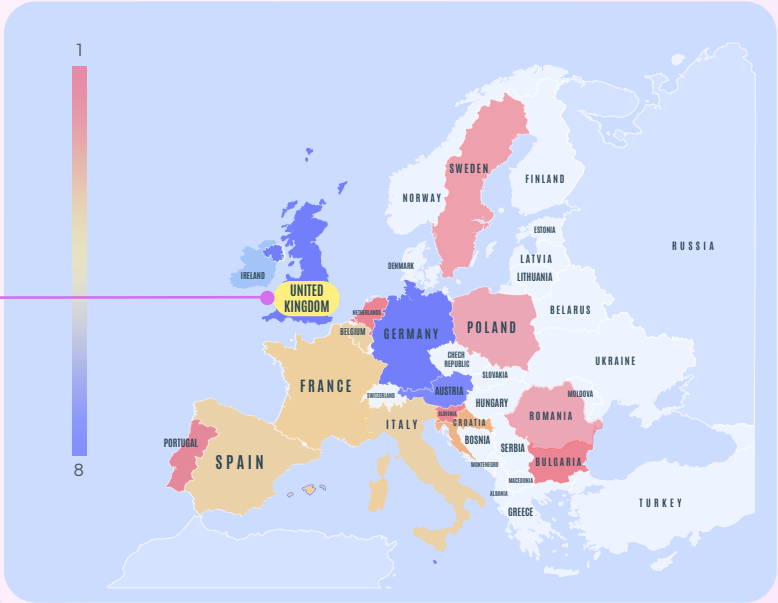
0,39-0,2 - Low Positive

0,19-0 - Very Low Positive

EDUCATION/TRAINING/AWARENESS

The United Kingdom has sufficient availability of trained personnel for conducting NGS testing. The level of awareness and understanding regarding NGS testing and its applications is rated at the highest level of 5 on a scale of 1 to 5. Additionally, the country offers educational programs and workshops to increase awareness about NGS and provides dedicated educational programs for proper training in NGS technology. These favorable conditions in the United Kingdom contribute to the effective adoption and utilization of NGS technology in various healthcare and research settings.

COUNTRIES' CORRELATION	INDEPENDENT VARIABLE
Dependent Variable	Educational Programmes
Trained Personnel	Low Positive Correlation
Awareness/ Understanding	Medium Positive Correlation
Educational programme/ workshops to increase awareness	Medium Positive Correlation



GOVERNANCE

Laboratories and institutions in the United Kingdom do not hold ISO accreditation or certification. However, the country demonstrates a proactive approach in healthcare practices by regularly updating clinical guidelines. Moreover, there is an implementation of both internal and external guidelines to guide their operations. While the use of external quality assessment is not specified, the emphasis on updated clinical guidelines and the utilization of guidelines suggest a commitment to maintaining high standards of healthcare and ensuring evidence-based practices. Further information on external quality assessment would be necessary for a comprehensive evaluation of quality assurance practices in the United Kingdom.

COUNTRIES' CORRELATION	INDEPENDENT VARIABLE	COUNTRIES' CORRELATION	INDEPENDENT VARIABLE
DEPENDENT VARIABLE	ISO Accreditation/ Certification	DEPENDENT VARIABLE	Clinical Guidelines
Internal Guidelines	Very Low Positive Correlation	Internal Guidelines	Very Low Positive Correlation
External	Low Positive Correlation	External	Very Low Negative Correlation
External Quality Assessment	Low Negative Correlation	External Quality Assessment	Low Negative Correlation

1-0,8 - Very High Positive 0,79-0,6 - High Positive Correlation 0,59-0,4 - Medium Positive Correlation
0,39-0,2 - Low Positive Correlation 0,19-0 - Very Low Positive Correlation

	ISO Accreditation/ Certification	Clinical Guidelines	Internal Guidelines	External Guidelines	External Quality Assessment
Belgium	●	●	●	●	●
Croatia	●	●	●	●	●
Spain	●	●	●	●	●
Italy	●	●	●	●	●
France	●	●	●	●	●
Germany	●	●	●	●	●
UNITED KINGDOM	●	●	●	●	●
Ireland	●	●	●	●	●
Slovenia	●	●	●	●	●
Poland	●	●	●	●	●
Sweden	●	●	●	●	●

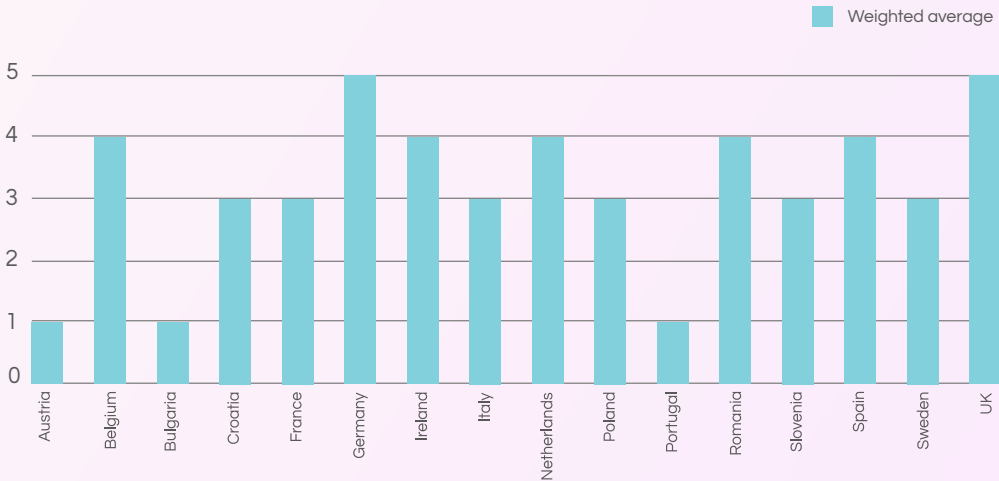
HEALTHCARE WORKFORCE

In the United Kingdom, there is availability of a sufficient healthcare workforce or personnel specifically for Next-Generation Sequencing (NGS) testing. This implies that there are enough trained professionals with expertise in NGS technology to conduct and interpret NGS tests effectively. The presence of a sufficient workforce ensures that NGS testing can be performed efficiently and accurately, contributing to the advancement of genomic medicine and personalized healthcare.

SUFFICIENT HEALTHCARE WORKFORCE	
	AvailableNot Available
Belgium	
Croatia	
Spain	
Italy	
France	
Germany	
UNITED KINGDOM	
Ireland	
Netherlands	
Slovenia	
Poland	
SWEDEN	

DATA SHARING AND LINKING

The United Kingdom has established a culture of routine data sharing and provides security guidelines for protecting data both externally and internally. Data linking to the Electronic Health Record (EHR) is practiced, enabling comprehensive patient information to be integrated and accessible. Additionally, there is a controlling body in place to regulate data-sharing activities. However, cross-border and cross-disciplinary collaborations are not as prevalent. Overall, the United Kingdom emphasizes the importance of data security, integration, and governance to ensure responsible data-sharing practices and facilitate research and healthcare decision-making.



CENTRES' CORRELATION	INDEPENDENT VARIABLE
DEPENDENT VARIABLE	Security Guidelines
Data Sharing	Very Low Positive Correlation
Data Linking	Low Negative Correlation
Controlling Body	Low Positive Correlation
1-0,8 - Very High Positive 0,79-0,6 - High Positive Correlation 0,59-0,4 - Medium Positive Correlation	0,39-0,2 - Low Positive Correlation 0,19-0 - Very Low Positive Correlation



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