

REVOLUTIONISING THE MOLECULAR DIAGNOSTICS THE SITUATION IN SWEDEN

Sweden benefits from sufficient funding to develop proper infrastructure for NGS. However, the routine utilization of NGS testing is not widespread and they currently do not provide reimbursement for NGS or liquid biopsy testing. Routine data-sharing practices and the availability of security guidelines contribute to a collaborative environment for NGS technology.



CORE PILLARS	Well Implemented	Implemented	Not Implemented	Clear Information Not Available
Infrastructure and tools	●	○	○	○
Molecular tumour boards and expertise	○	○	●	○
Reimbursement for NGS and liquid biopsy	○	○	○	●
Education/training/awareness	○	●	○	○
Governance	○	●	○	○
Healthcare workforce	○	○	●	○
Data sharing and linking	○	●	○	○

INFRASTRUCTURE AND TOOLS

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

Sweden has NGS centers with the necessary equipment and infrastructure for NGS testing. The country also benefits from sufficient funding to develop proper infrastructure for NGS. However, the routine utilization of NGS testing is not widespread in Sweden, indicating that the integration of NGS technology into regular healthcare or research practices may still be limited. Overall, while Sweden has the necessary resources and support for NGS, there is room for increased adoption and utilization of NGS in routine healthcare and research settings.

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

Sweden currently does not have a dedicated Molecular Tumor Board (MTB) available for tumor discussions and decision-making. Consultation meetings for tumor cases occur on a monthly basis, indicating a regular forum for healthcare professionals to discuss and seek insights on patient cases. However, the number of patients being tested or discussed is relatively low. This suggests a limited volume of patients undergoing molecular tumor analysis and decision-making processes. Overall, there is room for further development and establishment of resources to enhance molecular tumor analysis and decision-making in Sweden.

	MTB Panel	Consultation frequency	Testing/ Discussion
Belgium	●	●	●
Croatia	●	●	○
Spain	●	●	○
Italy	●	●	●
France	●	●	●
Germany	●	●	●
United Kindgom	○	○	○
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

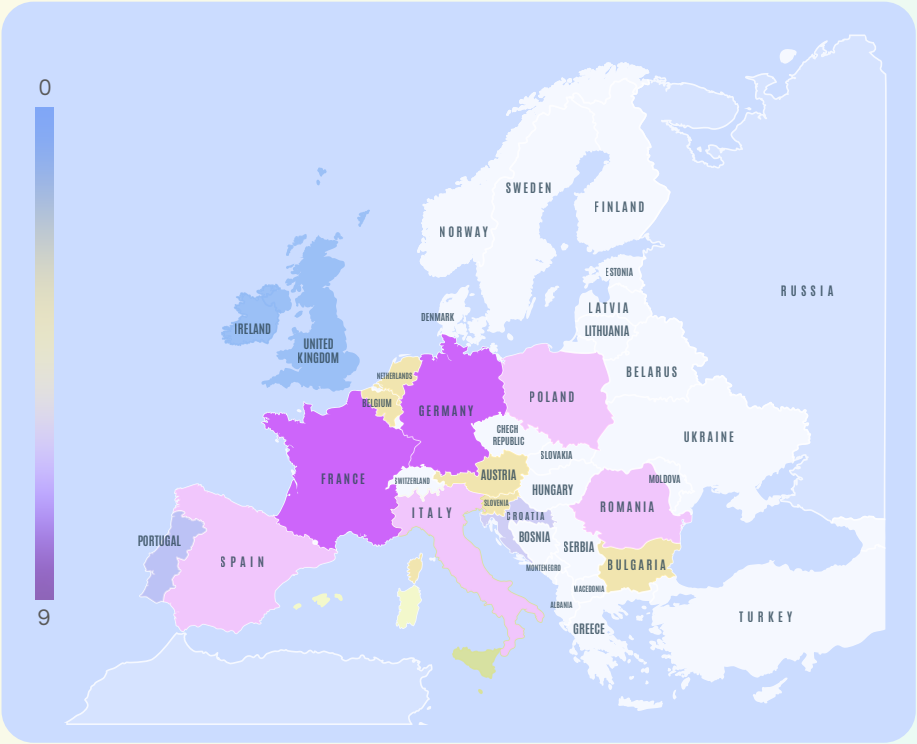
1-0,8 - Very High Positive

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 SWEDEN

Sweden does not currently provide reimbursement for NGS or liquid biopsy testing. This lack of reimbursement creates potential barriers to accessing and utilizing these advanced diagnostic technologies. Additionally, there is insufficient funding available for the reimbursement process in Sweden, indicating challenges in allocating adequate financial resources for covering the costs of NGS and liquid biopsy testing. These factors may impact the widespread adoption and accessibility of NGS and liquid biopsy in the country.

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

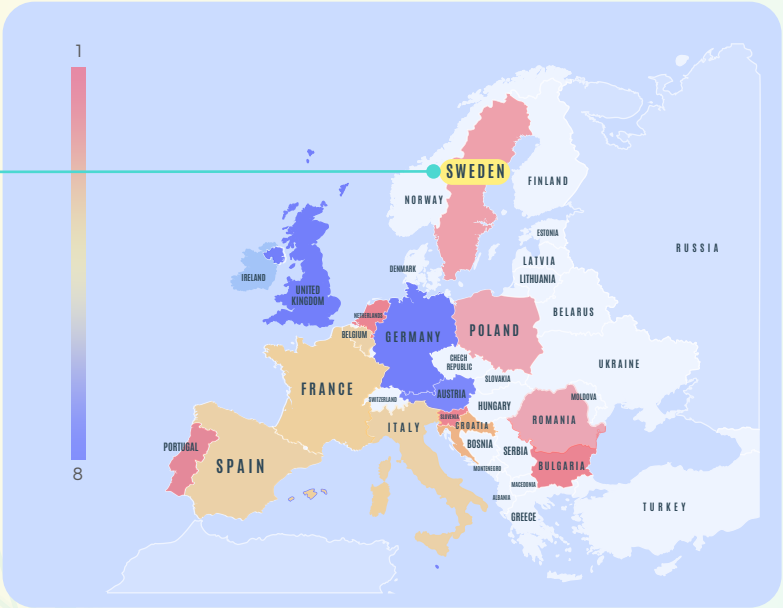
0,39-0,2 - Low Positive

0,19-0 - Very Low Positive

EDUCATION/TRAINING/AWARENESS

In Sweden, there is a lack of trained personnel for NGS testing and applications. The awareness and understanding regarding NGS technology are moderate, indicating room for improvement. However, Sweden has educational programs and workshops available to increase awareness and offers specific programs for proper training in NGS, showing a commitment to developing expertise in the field.

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

Labs and institutions in Sweden do not have ISO accreditation or certification. However, clinical guidelines in the country are regularly updated, ensuring that healthcare professionals have access to current and evidence-based recommendations for patient care. While the use of internal guidelines is not widespread, healthcare professionals rely on external guidelines provided by national or international organizations. It is worth noting that the practice of external quality assessment is not as prevalent in Sweden. Overall, there is an opportunity to enhance ISO accreditation, promote the use of internal guidelines, and increase participation in external quality assessment programs to further improve the quality and standardization of healthcare practices in Sweden.

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 Kindgom	●	●	●	●	●
Ireland	●	●	●	●	●
Slovenia	●	●	●	●	●
Poland	●	●	●	●	●
SWEDEN	●	●	●	●	●

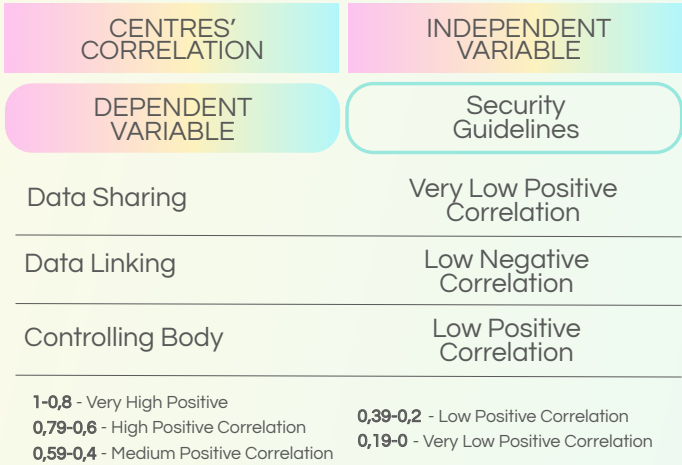
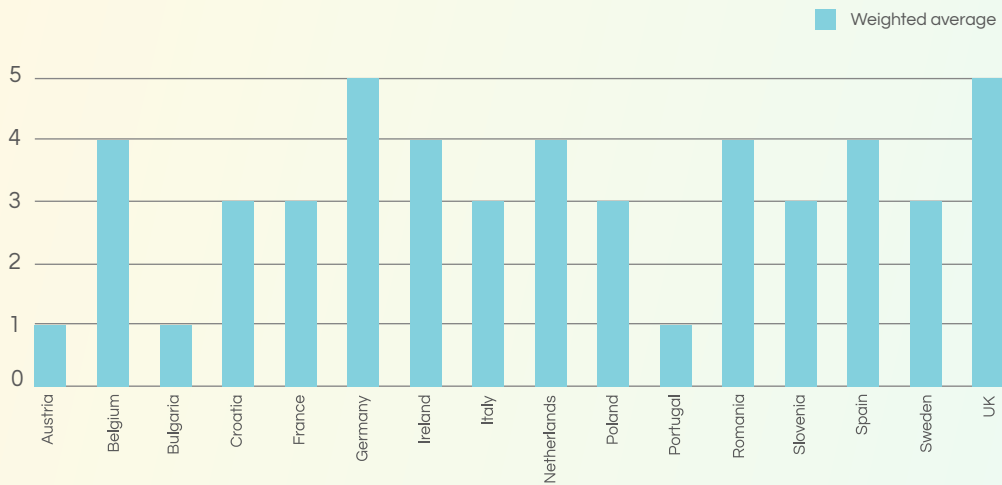
HEALTHCARE WORKFORCE

The data suggests that there may be a lack of availability of a sufficient healthcare workforce or personnel in Sweden. This implies that the country is facing challenges in terms of an inadequate number of healthcare professionals to meet the demands and needs of the healthcare system. The shortage of personnel can potentially impact the delivery of healthcare services, including cancer diagnosis, treatment, and management, and may require attention and strategies to address the workforce shortage and ensure adequate healthcare coverage for the population.



DATA SHARING AND LINKING

In Sweden, routine data sharing practices and availability of security guidelines contribute to a collaborative environment for NGS technology. However, cross-border/cross-disciplinary collaborations and data linking to Electronic Health Records are limited. The presence of a controlling body for data sharing ensures proper regulation and oversight in sharing NGS data.





DENIS HORGAN



Email:
denishorgan@euapm.eu



Brussels Address:
Avenue de l'Armee Legerlaan
10 1040 Brussels, Belgium