

Sustainability in Biobanking: Legal Framework and Practical Implementation

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Introduction

As biobanks' value for scientific research has steadily grown, the environmental impact of processing and storing increasingly larger numbers of samples cannot be ignored. Despite some biobanks – including Biobank Graz (partner of BBMRI.at) – implementing institutionally enacted policies for environmental protection, there are legal acts that can guide biobank stakeholders into pursuing green biobanking, which is a key consideration for long-term sustainability of these repositories and aligns with the European Commission's aim of making Europe climate-neutral by 2050.

Material & methods

We have performed legal desk research, such as resorting to published materials on the topic. Moreover, interview partners working in research and consulting elucidated their experiences with e.g. reporting and CO₂ balancing for companies that fall under the new directives.

Results

The current regulatory framework for environmental protection at both national and EU levels is, as of now, largely not applicable to biobanks. Recommendations proposed by the scientific community as best practices for biobanks to reduce carbon emissions can often be difficult to implement, since fundamental changes in locally established processes are necessary.

Discussion & conclusion

Compliance with existing legislation, most of which is currently optional for biobanks, can prepare them for future regulatory intervention. Additionally, biobanks, as key actors of contemporary scientific advancements, should lead by example in adopting measures for environmental protection.

Consent models that allow sample reuse are an example of a potential regulatory pursuit that aligns with environmental protection. Ethical and legal guidelines to dispose of unused, surplus samples can further reduce the environmental strain.

References

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Keywords

Sustainability, Environmental Protection, Legal Framework, European Union