

Protecting Children's Neurodata: EU Policy Brief

Synap Kids – Student-Led Children's Neuroscience Initiative

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Executive Summary

Children's neurodata, including EEG recordings, cognitive app outputs, and neurofeedback results, is increasingly collected in EU schools, research programs, and educational apps. Current GDPR regulations set high standards for personal data but do not explicitly address neurodata. Synap Kids proposes minimal baseline safeguards, including parental consent, secure storage, and limits on usage, to protect children's neurodata while ensuring practical implementation for schools, research initiatives, and app developers. This submission provides actionable recommendations to the EDPB for inclusion in Recommendations 1/2026.

Problem Statement

Neurodata of children, such as EEG recordings, results of cognitive app tests, and outputs of neurofeedback, are being taken in schools of the European Union, research activities, and learning programs more and more. As GDPR sets a high standard for personal data, no explicit reference to neurodata exists, and hence, children are subject to the breach of their right to privacy, unauthorized access, and exploitation.

Synap Kids promotes a minimalist EU policy framework to establish baseline protections, including parental consent, safe storage, and recommended limits on use, to safeguard the neurodata of children without making it overly burdensome for schools, research initiatives, and app developers to adopt.

EDPB Recommendations

Synap Kids encourages the EDPB to:

- 1. Explicitly recognize children’s neurodata as personal data under GDPR.*
- 2. Issue baseline guidance for schools, educational apps, and research programs, including:*
 - Mandatory parental consent before collecting or processing neurodata.*
 - Recommended secure storage, including encryption and limited access.*
 - Guidance for equitable implementation across low-resource schools and programs.*

Stakeholders

<i>Stakeholder</i>	<i>Role/Interest</i>	<i>Concerns / Responsibilities</i>
<i>Children & Parents</i>	<i>Data subjects</i>	<i>Consent, privacy, mental autonomy</i>
<i>Schools & Educational Apps</i>	<i>Collect and use data</i>	<i>Compliance with EU regulations, ethical handling</i>
<i>Neurotechnology Developers</i>	<i>Process or analyze neurodata</i>	<i>Innovation, market access, regulatory compliance</i>
<i>EU Regulatory Bodies</i>	<i>Oversight and enforcement</i>	<i>Legal clarity, enforcement mechanisms</i>
<i>Civil Society Organizations</i>	<i>Advocacy for children’s rights</i>	<i>Public awareness, policy advocacy</i>

Policy Option – Minimal

- Voluntary Guidelines for schools, research programs, and app providers.*
- Mandatory Parental Consent before collecting or processing neurodata from children.*
- Recommended Secure Storage: encrypted data, access limited to authorized personnel.*

Pros:

- Quick implementation, low cost, and easy adoption.*
- Establishes a baseline protection standard across the EU.*

Cons:

- Non-enforceable, may lead to inconsistent protections across countries or institutions.*

Decision Criteria & Scoring

<i>Criteria</i>	<i>Weight</i>	<i>Option A (Minimal)</i>
<i>Effectiveness</i>	<i>0.35</i>	<i>2</i>
<i>Equity</i>	<i>0.20</i>	<i>2</i>
<i>Feasibility</i>	<i>0.20</i>	<i>5</i>
<i>Cost</i>	<i>0.15</i>	<i>5</i>
<i>Time to Impact</i>	<i>0.05</i>	<i>5</i>
<i>Ethics / Legal Clarity</i>	<i>0.05</i>	<i>2</i>
<i>Weighted Total</i>	<i>1.00</i>	<i>3.05</i>

Option A scores highest on feasibility, cost, and time to impact, making it ideal as a first step toward stronger neurodata protection.

Implementation Plan

- ***Lead Agencies:*** *EU Data Protection Authorities, national education ministries.*
- ***Timeline:***
 - *Draft guidelines: 3 months*
 - *Pilot implementation in select schools/research programs: 6 months*
 - *Full adoption: 12 months*
- ***Resources Needed:***
 - *Templates for parental consent forms*
 - *Recommended encryption methods and secure storage solutions*
 - *Training materials for educators, researchers, and developers*
- ***Equity Measures:***
 - *Guidance for low-resource schools and programs*
 - *Accessible materials for parents across languages and abilities*

Evaluation Metrics

- ***Compliance Rate:*** *Percentage of schools, apps, or programs following the guidelines.*

- **Parental Understanding:** Survey results on consent form comprehension.
- **Data Security Incidents:** Number and severity of reported breaches.

Figure Representation

Data Collection → Parental Consent → Secure Storage → Limited Use

References

- European Data Protection Supervisor. (n.d.). Reports and guidance on children's data protection. <https://edps.europa.eu>
- General Data Protection Regulation (GDPR), Regulation (EU) 2016/679. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32016R0679>
- UNICEF. (2025). Neurodata & children's rights report. <https://www.unicef.org/reports/neurodata-children-rights-2025>
- Data and Information was organized under the assistance of perplexity in a timely manner.

This policy brief represents the recommendations of Synap Kids, a student-led initiative under a individual. It does not constitute formal EU legislation or legal guidance.