Use of AI and ICT to Support Inclusion of Learners with Autism, ADHD, and Learning Difficulties

Systemic Innovation: Policy, Place & Provision

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Introduction

- This presentation shares findings from UNESCO's recent global study on AI and inclusion.
- Aim: to explore how technology; AI and ICT, supports learning, communication, and participation for neurodiverse learners, especially those with autism, ADHD, and learning difficulties.

- Focus: How AI, ICT, and Assistive Technology can be integrated sustainably across education systems

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EmpowerEd: Enabling Inclusive teaching and learning through ICT and AI-Driven Solutions Project

Objective:
To foster a global initiative leveraging AI capabilities to enhance the quality and accessibility of special education, particularly for children with autism

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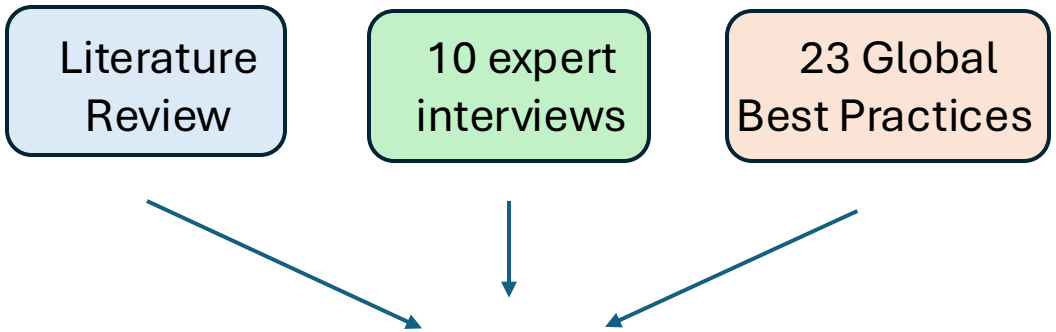
Methods



- Combined **literature review**, **10 expert interviews**, **23 global best practices**
- Experts and contributors from Europe, Australia, the U.S., Serbia, Qatar, Kazakhstan, Uganda, China and others

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Purpose of today's session

- How inclusive technology moves from **individual classrooms** to **whole systems**
- What policies, infrastructures, and models of provision enable scaling
- How countries can build coherent, sustainable approaches to AI, ICT and AT for neurodiverse learners
- This builds on Webinar 1, which focused on classroom practices and learner-facing tools.

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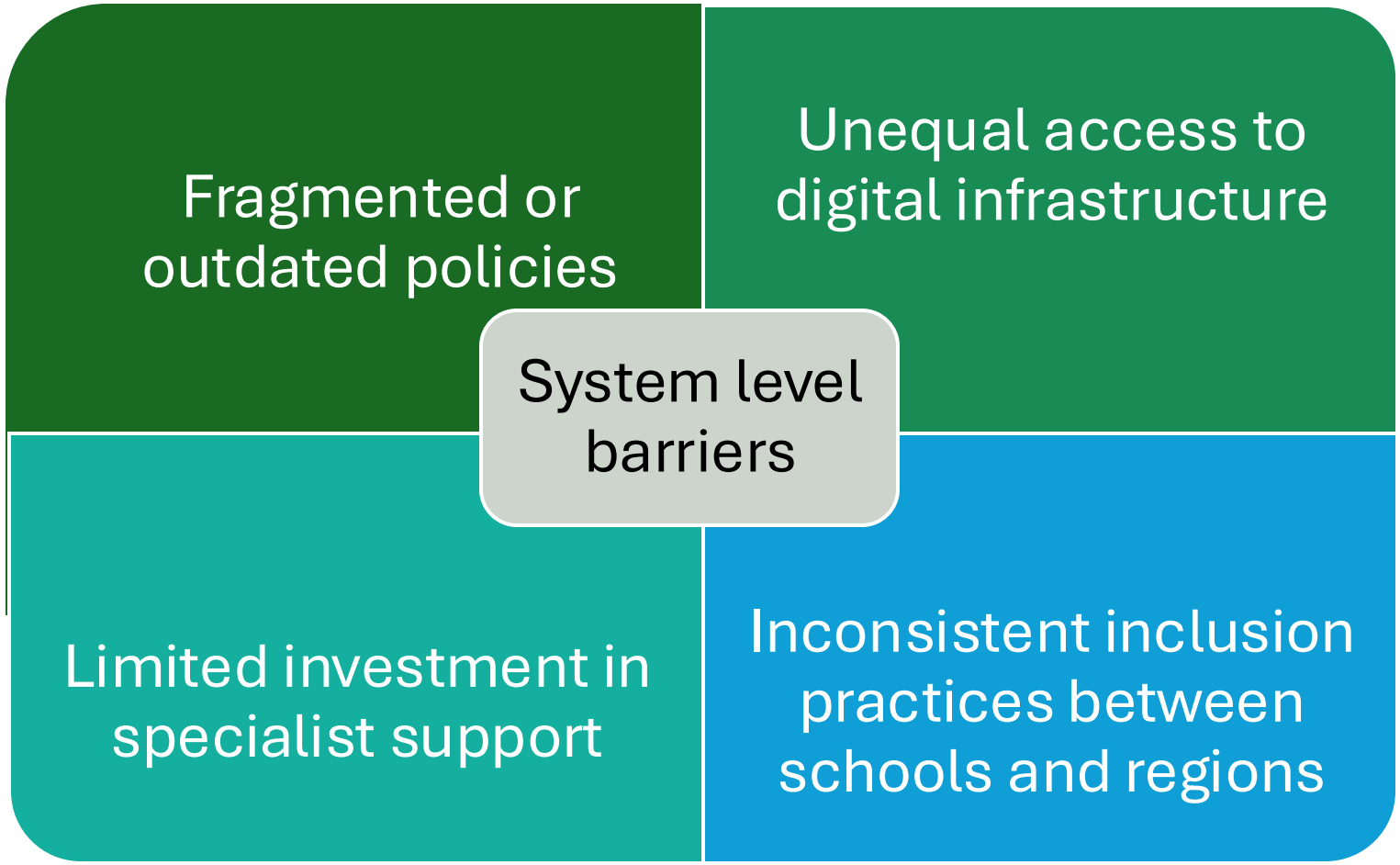
Why Systems Matter



- Children benefit when technology is embedded in an enabling ecosystem.
- However, our research identified major system-level barriers
- Scaling inclusive technology requires addressing these structural gaps

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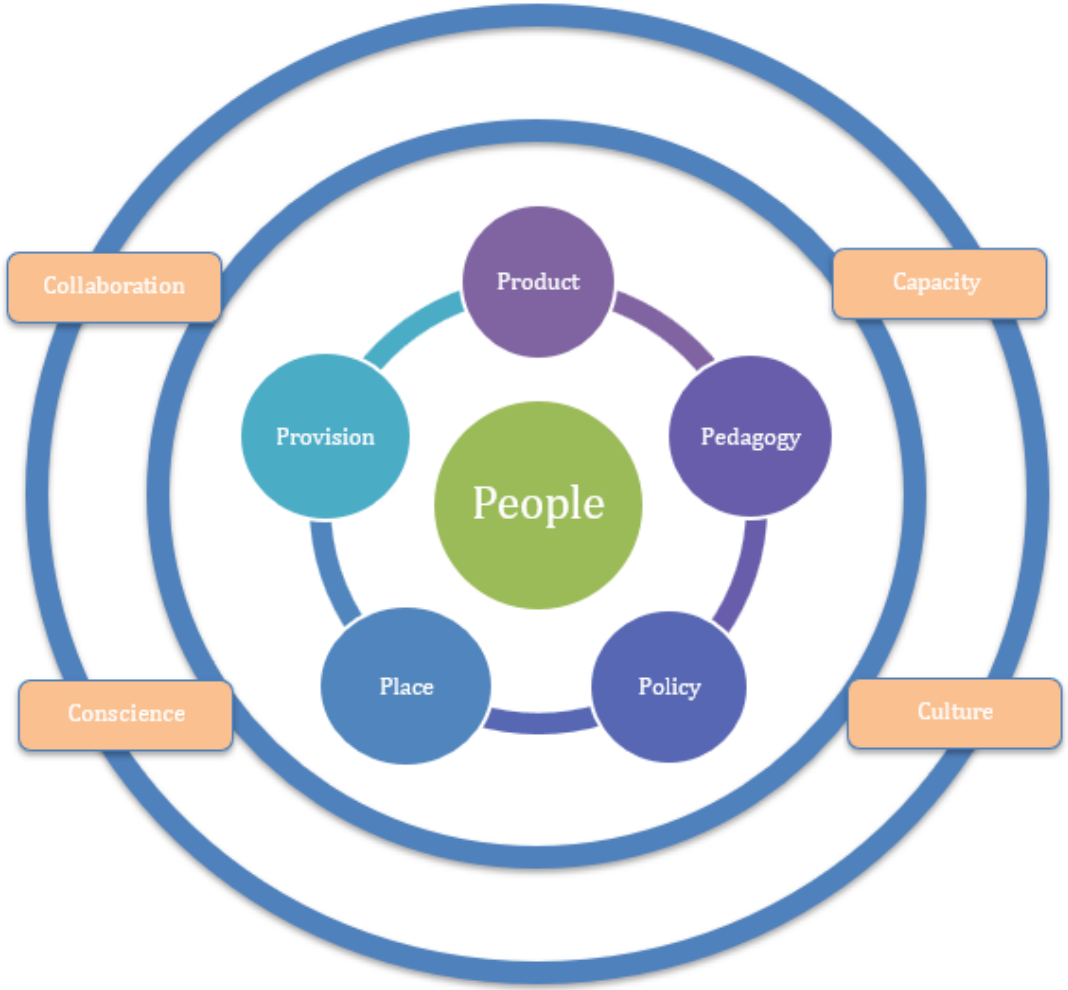
The Framework: 6Ps + 4Cs

- **6Ps:**
  People at the centre → supported by the right **Products** → embedded in inclusive **Pedagogy** → enabled by **Policy** → grounded in **Place** → sustained through **Provision**.
- **4Cs:**
  Capacity, **Culture**, **Collaboration**, and **Conscience** strengthen all Ps and ensure equity, cultural fit, and ethical use.
- Focus for today: Policy, Place & Provision +4Cs



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Policy: Foundations for Equitable Scaling

Across countries, policies influence whether digital inclusion becomes standard practice or remains isolated.

Key findings:

- Policies often exist but lack **coherence across ministries** (education, ICT, health).
- National AI strategies rarely address **learners with disabilities** explicitly.
- AT and ICT guidelines are inconsistent between regions and school systems.
- Ethical frameworks for AI use in education remain underdeveloped.

Effective policy must integrate:

- Clear standards for digital accessibility
- Procurement and funding mechanisms
- Inclusive AI and data governance
- Accountability and monitoring

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Place: The Importance of Context

Place determines opportunity. Cultural, geographic, and institutional factors shape access to technology.

Key insights:

- Urban–rural divides strongly affect digital access and connectivity. Also Global South-Global North contrasts
- Infrastructure disparities lead to unequal opportunities for neurodiverse learners.
- Cultural attitudes influence how families and teachers perceive AI, ICT, and AT use.
- Local centres of excellence can accelerate innovation when resourced.

Context-sensitive strategies ensure that technology is equitable, relevant, and sustainable.

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Provision: Building Sustainable Support Systems

Provision concerns how technology is **funded, supplied, supported, and maintained**.

Findings across interviews and case studies:

- Schools require stable access: devices, software, connectivity, and maintenance.
- Teachers need **ongoing** professional development, not one-off training.
- Specialist support (e.g., AAC experts, therapists, digital inclusion leads) is essential for successful implementation.
- Innovative models—such as resource centres, loan systems, and tiered support—strengthen sustainability.

Scaling inclusion requires planned, financed, and long-term provision models.

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The 4Cs: Enablers of Systemic Change

The 4Cs operate across all system levels and determine whether innovations scale:

1. Capacity

Building skills, infrastructure & long term support systems. All embedded in policy, place a& provision.

2. Culture

Promoting inclusive mindsets & contextually relevant practice. National & local values that shape adoption; inclusion & language fit, ensuring tech matches teaching reality

3. Collaboration

Connecting ministries, schools, families & developers. Multi sector governance, co-design, family involvement, linking schools with support services

4. Conscience

Ensure ethical, safe & rights-based use of AI/ICT.
Safeguarding children's rights, consent, ethical AI, privacy, equity in deployment

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What Systems Need to Put in Place

Based on global evidence, effective systems invest in:

1. **Clear policy frameworks** aligning AI, ICT, AT, and inclusive education
2. **Infrastructure that reaches every learner**
3. **Sustainable budgeting** for technology renewal and maintenance
4. **Professional development pathways** for mainstream and specialist staff
5. **Accessible products and platforms** aligned with UDL principles
6. **Cross-sector collaboration** (education, ICT, health, social inclusion)
7. **Monitoring and evaluation** to track outcomes and equity

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Emerging Directions for Governments and Institutions

Integrate AI ethics with disability rights frameworks

Develop inclusion-specific guidance within national AI and EdTech strategies

Strengthen institutional readiness: digital audits, infrastructure planning, accessible procurement

Promote participatory governance involving people with lived experience

Ensure tools work across settings—*school, home, community*

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Key Messages

Inclusive technology succeeds when:

- The **system** is aligned
- The **policy environment** supports equity
- Provision is **sustainable and holistic**
- Tools and practices are **co-designed with learners**
- Ethical and contextual considerations guide decision-making

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Technology alone cannot guarantee inclusion—
systems do.

Thank you

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