

Dear Aoibhinn,

I hope this finds you well. Please find attached the Partnership for Inclusive Education's collective response to the Department of Education's SEN Reform Agenda and Delivery Plan 2025–2030. I would really appreciate if you could share this with the Committee for Education.

This paper reflects the shared expertise and frontline experience of CiNI members working across education, health, and community sectors to support children and young people with Special Educational Needs and Disabilities (SEND). It welcomes the ambition of the reform programme while highlighting key areas that require further clarity, investment, and co-production to deliver real change.

We hope this response will support constructive dialogue with the Department and partners as the reforms progress, and we would welcome the opportunity to discuss the recommendations in more detail.

A copy has been shared with the Minister and the Department of Education.

Many thanks and best wishes,

Dr Ernest Purvis

Head of Policy

Children in Northern Ireland

Unit 9, 40 Montgomery Road

Belfast

BT6 9HL

Tel: 028 9040 1290

Fax: 028 9070 9418

Web: www.ci-ni.org.uk





Partnership *for* Inclusive Education



Response to the SEN Reform Agenda and Delivery Plan 2025-2030

October 2025

Dr Ernest Purvis - ernest@ci-ni.org.uk

Contents

About Our Response	1
Who We Are	1
Our Vision	2
Key Elements of an Inclusive System	2
Specialist Professionals and Settings	4
Systemic Challenges	6
Mental Health	7
Reduced Timetables	8
Non-attendance	9
Specialist Provision in Mainstream Settings (SPiMS)	10
SEN Reform Agenda	12
Right Support	12
Right People	14
Right Time	16
Right Place	17
What's Missing?	20
Consultation	20
Participation	21
Collaboration	21
Resources	21
Outcomes Framework	23
References	26

About Our Response

Who We Are

The Partnership for Inclusive Education is a group of Members of Children in Northern Ireland (CiNI) that meet to discuss government strategies, legislation, policy and practice affecting children and young people with Special Educational Needs and Disabilities (SEND).

The Partnership brings together a range of organisations and expertise, with a shared purpose and collective commitment to improve SEND support, eradicate structural barriers to education, and work in partnership with government to deliver an inclusive education system.

The scope of the Partnership's work encompasses all children and young people with additional needs, including those in early years education and those accessing post-19 provision. It also includes children and young people who require educational support but who may not be entitled to a statutory statement of special educational needs.



Our Vision

The Partnership for Inclusive Education's vision is to create fully accessible learning environments where every child and young person, regardless of their background, abilities, or needs, feels valued, empowered, and supported to reach their full potential.

We are committed to fostering a culture of respect, collaboration, and understanding that celebrates diversity as a strength across our entire education system, from the early years right through to further and higher education.

Through early help and support, inclusive practices, adaptive resources, and compassionate teaching, we believe that the education system in NI can deliver equitable opportunities for all learners, cultivating a sense of belonging and inspiring lifelong growth, resilience, and meaningful participation in society.

Our advocacy is underpinned by the rights of children and young people with disabilities enshrined in the relevant UN Conventions and provided for in domestic law.

Key Elements of an Inclusive System

We are committed to working in partnership with government to ensure that every child enjoys their right to an effective education, and that all learning environments are conducive to every child achieving the fullest possible social integration and individual development. We strive to remove all barriers, structural, cultural, attitudinal or otherwise, that hinder or impede a child's right to an education and the fulfilment of their unique individual potential.

Our shared response reflects and summarises the views of leading children's charities to the Department of Education's SEN Reform Agenda and Delivery Plan (2025-2030). We welcome the NI Executive's prioritisation of SEN reform and its focus on achieving the Right Support, from the Right People, at the Right Time and in the Right Place. Our aim is to ensure that the voices of children and families shape implementation and that reforms are resourced, rights-based, and deliver meaningful inclusion. To that end, we do express some concern around the Department's use of 'SEN' rather than 'SEND', which risks making children with disabilities less visible within this particular policy area. Since the inclusion of children with SEND in mainstream education is a central aim of this plan, it is vital that disability rights and equality remain at the forefront, with a clear emphasis on the legal obligations to safeguard disabled children's rights.

Our vision of an inclusive education system is ambitious, evidence-based, and rooted in the belief that society has a responsibility to meet the needs of every child, and that government must allocate adequate resources to ensure that all children have effective access to, and receive, education, training, health care services, habilitation and rehabilitation services, preparation for employment and recreation opportunities. Here are some of the key elements of an inclusive system that we envisage will help realise our vision:

1. Flexible, Personalised Learning Plans

Each student has a personalised learning plan co-created by educators, students, families, and specialists. These plans outline individual goals, learning styles, strengths, and areas needing support, allowing each learner to progress at their own pace. Curriculum and assessments are flexible, adaptable to different needs, and focused on growth and achievement rather than rigid benchmarks.

2. Diverse, Multi-modal Classrooms

Classrooms are equipped to support diverse learning needs, incorporating multi-modal teaching strategies (visual, auditory, kinesthetic, and sensory learning aids). Universal Design for Learning (UDL) principles guide the development of learning environments that best correspond to requirements and preferences so that materials, technologies, and activities are accessible to all students.

3. Interdisciplinary Support Teams

Schools are supported effectively by interdisciplinary teams comprising educators, therapists, psychologists, social workers, and allied health professionals who collaborate to support each student's needs holistically. Teams work closely with families and students to provide timely interventions, ensuring that academic, emotional, and social needs are met within the school setting.

4. Collaborative, Inclusive School Culture

From leadership to students, everyone in the school community embraces an inclusive mindset. There is a culture of respect, empathy, and shared responsibility, where differences are celebrated, and everyone contributes to creating an inclusive environment. Peer support programmes encourage students to learn from and assist each other.

5. Accessible Facilities and Technology

School buildings and spaces are universally accessible, removing any physical barriers for students with disabilities. Assistive technology and adaptive equipment are readily available to all who need them, enhancing the participation and independence of every learner.

6. Inclusive Curriculum

The curriculum is broad and inclusive, representing diverse perspectives, cultures, and experiences. It integrates life skills, social-emotional learning, and practical skills alongside academic subjects, preparing students for real-world challenges and fostering respect and understanding.

7. Trained and Empowered Educators

Teachers receive comprehensive training in inclusive education practices, covering UDL, differentiated instruction, and cultural competence. They are supported with ongoing professional development, mental health resources, and collaboration opportunities with specialists, ensuring they feel equipped and confident in meeting diverse needs.

8. Support Beyond the Classroom

Inclusive education extends beyond the classroom, with transition programmes to support students as they move from one year group to another and as they prepare for life after school. Partnerships with community organisations, employers, and state agencies provide pathways for students with SEND to pursue further education, meaningful employment, and independent living. Monitoring and evaluation, involving children and young people with additional needs and their families and representatives, must include disability-inclusive indicators and measure progress.

Specialist Professionals and Settings

Inclusive education recognises the vital role of specialist professionals and settings in supporting pupils with complex or unique needs. Qualified professionals, such as Qualified Teachers of Deaf Children and Young People (ToDCYP) or young people with vision impairment (QTVI), educational audiologists, and other specialists, provide essential expertise and tailored support. Specialist staff teams and special schools complement mainstream settings by offering intensive, individualised support that fosters development and confidence. By integrating the expertise of these professionals and settings into the wider education system, we can ensure that children of all abilities have access to appropriate resources and opportunities. Collaboration between mainstream and specialist professionals promotes best practice, ensuring that children with SEND benefit from a well-rounded and inclusive education.

According to the Consortium for Research in Deaf Education (CRIDE)'s 2024 Report for Northern Ireland, the number of qualified ToDCYP in employment working

in a peripatetic role or in a resource provision has decreased by 38% since similar surveys began in 2011.¹ Over the same period of time, the number of d/Deaf children reported has increased by 29%.² As key advocates note, specialist teachers play a crucial role in helping children reach their full potential. They provide families with expert information and guidance, deliver deaf awareness training in educational settings, and advise teachers on effective classroom strategies. Their support extends to the use of amplification and assistive listening devices, and they often work collaboratively within multi-disciplinary teams. Importantly, they also focus on the d/Deaf child's social and emotional development. This support begins from birth and the early years and continues through key transitions into adulthood. A recent report highlights the need to ensure SEND reform delivers for d/Deaf children and that the EA Sensory Service is strengthened by developing a pathway approach to support for d/Deaf children, including those in early years, with additional or complex needs and who use sign language, as well as ensuring there is a broader and more sustainable staffing structure.³

Another important issue that affects the availability of specialist teachers, including QTVIs, is the pressure on caseloads and the number of experienced staff approaching retirement age. Future-proofing the workforce, through effective succession planning, and reducing the high caseload numbers are both critical to support the future of specialist support. An example of best practice, and effective partnership working, has been the development of the Curriculum Framework for Children and Young People with Vision Impairment (CFVI) led by RNIB, and co-designed through collaboration between QTVIs, VCS organisations, and academic partners from the University of Birmingham.⁴ The framework has been endorsed by the EA, with the Sensory Support Service actively involved in the project's reference group. The CFVI is also referenced within the Sensory Support Service's Graduated Response to the SEND Transformation Programme.

¹ Consortium for Research in Deaf Education, 2024, Report for Northern Ireland:

<https://cms.ndcs.org.uk/sites/default/files/2025-05/CRIDE%20Northern%20Ireland%20-%202024.pdf>

² CRIDE data shows 1,238 children reported in 2011, and 1,603 children reported in 2024.

³ NDCS, 2025, Developing specialist education support for deaf children in Northern Ireland:

<https://www.ndcs.org.uk/about-us/campaigns/our-campaigns/developing-specialist-education-support-deaf-children-northern-ireland>

⁴ RNIB, 2024, Curriculum Framework for Children and Young People with Vision Impairment (CFVI):

<https://www.rnib.org.uk/professionals/education-professionals/cfvi/>

Systemic Challenges

We welcome the urgency and candour with which the Department has set out the challenges facing the current SEND system. The recognition that children with SEND are not always afforded the same opportunities as their peers – and that families experience a system marked by delay, stress and inconsistency – is an important step toward rebuilding trust. However, we are concerned by the emphasis on the financial trajectory and cost pressures, which are used as a framing device for the plan and appear to be significant drivers of the Reform Agenda. While fiscal sustainability is absolutely essential, the initial tone of the strategy risks positioning children's needs as a budgetary problem to be managed rather than a rights-based obligation to be fulfilled.

The SEN Reform Agenda references the Independent Review of Education Report's alarm regarding projected expenditure on SEND, which could reach 34% of the Department's total budget, and states that such projections 'indicate an impending financial crisis for both Education and the Northern Ireland Executive.' However, there is no correlation or corresponding reference to the fact that these projections also represent children's needs. For example, in a later summary of current data, the Department notes that 'one in five children and young people (19.4%) in our education system have SEN and/or Disability – 68,240 in 2023/24.' This represents a '29% increase over nearly two decades [and] over the same period there has been a 134% increase in pupils with a Statement of SEN.' The Department also notes that the proportion of statements of SEN in NI is higher than England but does not elaborate on the potential reasons why. All of this information is essential to understand the financial pressures and the tone of the analysis from the Independent Review should be tempered by, and placed firmly within, the current context of growing demand for SEND support driven by growing levels of need for intervention.

Investment in SEND should be guided by what is required to comply with legal obligations and to achieve equitable outcomes, not solely by what is affordable within current spending limits. It is for politicians and Ministers to decide what those limits should be and the level of spending that is necessary to fulfil every child's right to an education. Reforms must be led by ambition for inclusion and meaningful improvement in children's lives – not by the imperative to reduce cost growth. As such, we would welcome a stronger commitment, and guiding principle, to underpin the SEN Reform Agenda that reflects relevant articles of the United Nations Convention on the Rights of the Child, including but not limited to, Articles 2, 3, 6 and 12 that state:

- 'States Parties shall respect and ensure the rights set forth in the present Convention to each child within their jurisdiction without discrimination of any kind, irrespective of the child's or his or her parent's or legal guardian's race, colour, sex, language, religion, political or other opinion, national, ethnic or social origin, property, disability, birth or other status [...and] in all actions concerning children, whether

undertaken by public or private social welfare institutions, courts of law, administrative authorities or legislative bodies, the best interests of the child shall be a primary consideration.'

- 'States Parties shall ensure to the maximum extent possible the survival and development of the child [...and] assure to the child who is capable of forming his or her own views the right to express those views freely in all matters affecting the child, the views of the child being given due weight in accordance with the age and maturity of the child.'

Mental Health

The growing complexity of need among children and young people in Northern Ireland is inextricably linked to rising mental health challenges, particularly among those with SEND. Evidence collated in the *Mental Health in Northern Ireland Fundamental Facts 2023* report highlights 1 in 8 children now meet the criteria for a probable mental health illness – a significant increase over the last decade.⁵ Research also points to strong links between mental illness and some disabilities,⁶ and schools across NI have been reporting increasing presentations of anxiety, emotional distress, trauma-related behaviours, and self-harm.⁷ Despite this, access to timely psychological support and therapeutic intervention remains inconsistent and under-resourced. By comparison, the UK Government's Spending Review in 2025 committed to employing 8,500 additional mental health staff by the end of the Parliament and expanding mental health support teams to 100% of schools by 2029-30.⁸ This reflects a Labour Party manifesto commitment and an important recognition of the crucial relationship between mental wellbeing and learning. It is essential that Northern Ireland's SEN Reform Agenda incorporates this level of ambition. Mental health must be embedded as a cross-cutting theme throughout the strategy, with investment in whole-school approaches, trauma-informed practice, and integrated therapeutic services. Given the high co-occurrence of SEND and mental health needs, failure to respond effectively will further entrench barriers to learning and inclusion. A fully inclusive education system cannot be achieved without prioritising mental health as a core pillar of support. The SEN Reform Agenda references that cross-departmental and cross-sectoral collaboration is key to delivery, but there is little detail in the plan around how exactly this will happen and what role the education system will play when it comes to

⁵ Mental Health in Northern Ireland: Fundamental Facts. October 2023. Northern Ireland: Mental Health Foundation; Office of Mental Health Champion. Available at: <https://www.mentalhealthchampion-ni.org.uk/files/mentalhealthchampionni/2023-10/Mental%20Health%20in%20MHF%20Northern%20Ireland%20Fundamental%20Facts%202023.pdf>

⁶ Totsika, Vasiliki et al. (2022), Mental health problems in children with intellectual disability, *The Lancet Child & Adolescent Health*, Volume 6, Issue 6, 432 – 444. Available at: [https://doi.org/10.1016/S2352-4642\(22\)00067-0](https://doi.org/10.1016/S2352-4642(22)00067-0)

⁷ Education and Training Inspectorate (ETI), 2021. Post-Primary Phase Report: September 2018 – December 2020. Available at: https://www.etini.gov.uk/files/etini/publications/post-primary-phase-report-September-2018-December-2020_0.pdf

⁸ HM Treasury, Spending Review 2025: <https://www.gov.uk/government/publications/spending-review-2025-document>

other government strategies, such as the new Health and Social Care (HSC) Children and Young People's Emotional Health and Wellbeing Framework.⁹

Reduced Timetables

The use of reduced timetables has become an increasingly common practice across Northern Ireland's schools – particularly for children and young people with SEND. While some schools employ reduced hours as a short-term strategy to ease transition or manage acute needs, in too many cases this practice reflects a system under strain, where mainstream environments lack the resources, training, or specialist support to safely and effectively include all learners. While individual schools or EA personnel may sometimes apply internal guidelines, and some children may have reduced hours formally recorded within individual education plans or annual reviews, there is currently no Department-wide, statutory or uniform regulatory system mandating: notification and approval processes; data recording and reporting; or review timelines and reintegration planning. In that context, the system can be described as largely unregulated, particularly compared to areas like England, where the Department for Education has issued non-statutory guidance and Ofsted considers this issue in inspections.¹⁰

Families and advocacy organisations often report that children with SEND are disproportionately affected by reduced timetables, often spending significant periods out of school, sometimes for months or years at a time. This is rarely formally recorded or monitored, and decisions are not always made in collaboration with families or professionals. In some cases, reduced hours are presented as a 'voluntary' measure, when in reality they serve to mask exclusion. There is currently no statutory framework in Northern Ireland that governs the use of reduced timetables. There is no clear guidance for schools, no oversight by the Education Authority, and no centralised data collection. As a result, reduced provision often goes undocumented, leaving children without access to a full curriculum and families without recourse to challenge or appeal. This raises significant equality and safeguarding concerns, especially where children with statutory statements are denied their full entitlement to education.

Moreover, the increased reliance on reduced timetables cannot be separated from broader systemic issues. Delays in accessing assessments, under-resourced SEND support teams, staff shortages, and rising mental health need all contribute to schools reaching for partial timetables as a default. This is particularly acute for pupils with autism, anxiety, or complex social-emotional needs, who may struggle without specialist input or tailored transition planning. If the SEN Reform Agenda is to deliver on its stated aims, then reduced timetables must be explicitly addressed. The Department, in collaboration with the Education Authority and Schools, should consider:

⁹ Department of Health (NI), 2025, Consultation on the HSC Children and Young People's Emotional Health and Wellbeing Framework: <https://www.health-ni.gov.uk/consultations/consultation-hsc-children-and-young-peoples-emotional-health-and-wellbeing-framework>

¹⁰ Department of Education (England), 2024, Working Together to Improve School Attendance: https://assets.publishing.service.gov.uk/media/66bf300da44f1c4c23e5bd1b/Working_together_to_improve_school_attendance_-_August_2024.pdf

- A duty requiring schools to notify the Education Authority when a reduced timetable is implemented, including rationale, duration, and plan for reintegration;¹¹
- That all cases be made subject to regular review, with family involvement and a named lead professional;
- Data on reduced provision be centrally collected, disaggregated, and published annually to ensure transparency and equality of opportunity; and
- Clear, accessible guidance is developed and co-produced with schools, families and children, setting out expectations and accountability measures.

Children with SEND have a right to a full, inclusive education. Children with a disability are legally protected from less favourable treatment due to their disability, and decisions about implementing a reduced timetable must be made with the best interests of the child as the primary consideration. Reduced timetables may at times be necessary, but often are simply unlawful, and indicate an unmet need. They must never become a proxy for exclusion.

Non-attendance

Rising levels of school non-attendance among children and young people with SEND, and in particular those with autism and anxiety-based needs, present an urgent and pressing challenge for the education system in Northern Ireland. While official attendance figures offer only a partial picture, there is consistent evidence from families, practitioners and VCS organisations that increasing numbers of children are unable – not unwilling – to attend school, due to severe emotional distress and other factors. In some cases, the actions or omissions of public authorities are preventing access to school, resulting in clear breaches of children’s human rights.

Patterns of Emotionally-Based School Non-Attendance (EBSNA) are frequently misunderstood, misclassified, or hidden altogether within broader attendance codes. As a result, many of these children fall through the cracks – unseen, unsupported, and uncounted. EBSNA is often driven by environmental stressors, unmet need, or trauma; and inappropriate responses can compound distress and reinforce disengagement. While there has been some recognition of these issues through a new absence code and associated guidance issued in September 2025 – much work is still required, including clear, disaggregated data that supports identification and meeting needs.

It is clear that children with autism are disproportionately affected. Sensory overload, rigid environments, difficulties with peer relationships, inconsistent support, and a lack of trained staff all contribute to increased school-based anxiety. Many families report a lack of flexibility or understanding in how schools respond, leading to

¹¹ If schools are considering implementing a reduced timetable, they should be able to clearly show how this course of action is in the best interests of the child. All children have an equal right to an effective education, and reduced timetables should never be used for reasons of expediency or due to lack of resources.

deterioration in mental health, academic disengagement, and in some cases, total withdrawal from education.

The Best Practice Guide on School Anxiety and Distress published by Children in Northern Ireland (CiNI) in 2025 presents a trauma-informed, graduated approach to identifying and supporting children at risk of emotionally-based school non-attendance.¹² Crucially, it places the child's emotional wellbeing – and their right to feel safe and heard – at the centre of all planning. The guidance advocates for early intervention, phased reintegration, and the co-design of individual support plans with pupils and families. It also stresses the importance of avoiding punitive approaches such as fines, formal warnings, or rigid attendance panel procedures, which are known to worsen anxiety for this particular group of young people.

The sharp rise in Elective Home Education (EHE) is another indicator of systemic strain that must not be overlooked. The number of children known to the Education Authority as being home educated has increased from 281 in 2014/15 to 1,099 in 2024/25 – an almost 300% rise.¹³ This figure does not include children who have never been registered with a school, as there is currently no legal requirement for parents in Northern Ireland to inform authorities of their decision to home educate. Nor are schools or the EA required to record or report the reasons why a child is deregistered. In the absence of robust data or follow-up, serious issues within the education system – including the failure to meet children's needs, breakdown of placements, or unmanaged anxiety – may be hidden behind the appearance of parental choice. Many families report that they only pursue home education as a last resort when school becomes untenable. Without structural change, the education system risks continuing to displace its most vulnerable learners. We therefore recommend that the deregistration process is urgently revised to require the collection and analysis of reasons for deregistration, with a view to identifying and addressing underlying system failures that may be contributing to this trend.

There is no formal Departmental strategy for addressing EBSNA, nor any reference to it in the current SEN Reform Agenda, Outcomes Framework, or Delivery Plan. This is a significant omission, given it is a key factor in school non-attendance, and there is a clear need for Department-led guidance, investment in resources and training, improved data collection, and a focused element of inspections. Children experiencing EBSNA are not absent by choice. They are communicating distress in the only way they can – by withdrawing from environments that do not meet their needs. A truly inclusive education system must be equipped to listen, adapt, and act.

Specialist Provision in Mainstream Settings (SPiMS)

Chronic underinvestment and undervaluing of Special Schools have ultimately resulted in a capacity crisis and insufficient number of special school placements, which continues to

¹² Children in Northern Ireland (CiNI), 2025, School Anxiety and Distress: A Best Practice Guide for Schools: <https://form.jotform.com/250853982889074>

¹³ Figures provided by the EA to the Safeguarding Board for Northern Ireland, 17 September 2025.

negatively impact children and families, many of whom face significant delays before having their school place confirmed at key transition points (e.g. post-primary).¹⁴ While the origin of Specialist Provision in Mainstream Schools (SPiMS) can be framed as a pragmatic response to growing placement pressures in special schools, combined with broader policy commitments to inclusion, it is apparent that the model emerged not from a cohesive strategic vision, but rather from localised innovation and necessity – often in areas where special school capacity was limited or mainstream settings lacked sufficient support infrastructure. Critically, the Education and Training Inspectorate (ETI) notes that these provisions have developed in a largely uncoordinated and unregulated fashion, with variation in design, staffing, and purpose.¹⁵ This has raised legitimate concerns about inconsistency, role ambiguity, and the potential for internal segregation, challenging the assumption that all SPiMS inherently advance inclusion. Their expansion reflects both genuine attempts to meet need more flexibly and systemic gaps in the continuum of provision – underscoring the need for clearer policy direction, accountability, and a stronger evidence base.

¹⁴ Eimear Flanagan, BBC News NI, 26 June 2025, Boy without SEN school place 'lonely and in limbo': <https://www.bbc.co.uk/news/articles/c78nelv35zdo>

¹⁵ Education and Training Inspectorate (ETI), November 2024, Specialist Provisions in Mainstream Schools – Part 1: <https://www.etini.gov.uk/files/etini/publications/specialist-provisions-in-mainstream-schools-part-1.pdf>

SEN Reform Agenda

Right Support

The Partnership for Inclusive Education welcomes the stated ambition of the SEN Reform Agenda to ensure that all children and young people receive high-quality, effective and evidence-based support that is inclusive and child-centred. The emphasis on early intervention and on providing the right support, in the right place, at the right time, reflects important principles that are widely supported across the education, health, and voluntary and community sectors.

We welcome the expansion of proven models of practice such as the Nurture Plus and Inclusive Play programmes, which many of our member organisations have contributed to or observed with positive outcomes. Similarly, the prioritisation of speech, language and communication interventions and the protection of the Sensory Support Service as a regionally coordinated model are important and welcome developments. These initiatives reflect a growing awareness of the importance of access to specialist expertise and inclusive practice within the mainstream system, particularly for children with sensory disabilities and communication-based needs.

At the same time, the Partnership remains cautious about the gap between policy intention and operational reality. The scale of system transformation proposed is significant, yet there is limited detail on how schools will be supported to implement the changes. In particular, the Graduated Response Framework, and more importantly the lack of clarity surrounding its legal status, risks becoming a barrier to support when schools continue to lack the capacity, staffing, or training to meet need at the early stages. We are concerned that, in its current form, this framework may function as a repackaged and potentially unlawful, unpublished Draft Revised Code of Practice, without the statutory clarity or infrastructure needed to ensure equitable delivery informed by affected parties. It is puzzling that the recent 'SEN Policy Statement', which intends to provide this clarity, and is based on the 1998 Code of Practice, also refers to parts of a revised SEND Framework that have not been commenced and the fact that the new draft Code of Practice has been 'widely adopted in the spirit of the anticipated legislation.'

A further concern relates to the over-reliance on pilot projects to demonstrate and test models of enhanced provision. While piloting is a necessary step in innovation, it must not delay access to effective interventions. It is vital that all children – regardless of where they live – can benefit from approaches that are already known to be effective. The Department must commit to equitable roll-out of these programmes, alongside sustained investment in early intervention capacity within all schools.

We are also concerned about the lack of clarity around the proposed changes to the support model for children with statements of SEN. The strategy signals a shift in how support will be delivered and resourced, but there is insufficient information on how this will be funded and how it will impact children who currently receive Classroom Assistant support, therapy input, or alternative provision. The needs of children who are unable to attend school, including those with statements, appear to be entirely absent from the new support framework. This is a significant oversight that must be addressed.

The Partnership believes that this element of reform requires careful, transparent communication and co-design with families and schools. Parents must understand what changes are being proposed, how their child's current provision will be protected or enhanced, and how any new decisions will be made. Without this clarity, families may lose confidence in the system at a critical moment of transition, at a critical time when trust is being re-built.

We also note that data gaps persist in how support is monitored and evaluated. There is currently limited publicly available information on the quality, consistency, or outcomes of SEND provision across schools. This lack of transparency undermines efforts to ensure that inclusive practice is being delivered equitably and effectively across Northern Ireland. Further comments on the proposed Outcomes Framework are provided in the relevant section later in this document.

In light of the above, the Partnership makes the following recommendations:

- Ensure children who present with needs that require intervention have early access to specialist provision and evidence-based programmes across all regions and school settings, not just in pilot areas;
- Develop robust standards for inclusive practices in both mainstream and special schools, ensuring consistency and clarity for schools, families and inspectors;
- Monitor implementation of the new support model closely, with a focus on data collection, outcomes, and lived experience. Engage regularly with children, parents and educators to identify issues and opportunities for improvement;
- Clarify the legal status of the new model, including the timing and nature of any anticipated legislative or regulatory changes. Greater transparency is required on whether the Graduated Response Framework is statutory, advisory, or a replacement for the Code of Practice; and
- Provide clear, accessible information for parents/carers and children on how the support system works, what to expect, and how to raise concerns if support is not being delivered.

Ultimately, the effectiveness of the "Right Support" pillar will be measured not by policy design, but by its impact on the daily experiences of children and young people with SEND. Achieving this vision will require not only ambition, but sustained investment, meaningful partnership, and a strong commitment to accountability.

Right People

The Partnership for Inclusive Education strongly supports the vision of a system where every child is supported by confident, knowledgeable professionals who understand their needs and rights. The SEN Reform Agenda rightly identifies the critical role that educators, classroom assistants, and specialist professionals play in delivering inclusive, high-quality education. However, realising this vision will require sustained investment in workforce development, supported by a coherent strategy and strong system leadership.

We welcome the proposed introduction of mandatory SEND training for all educators, as well as the development of tailored CPD pathways. This is a long-overdue and essential step in ensuring that all staff – regardless of role or setting – have the skills and knowledge required to recognise and respond to additional needs. Inclusive practice must not be treated as a specialist add-on but embedded in the professional identity and expectations of all educators.

We also welcome the renewed investment in Educational Psychology and Allied Health roles, including the development of multi-agency support within schools. For too long, school-based staff have had limited access to therapeutic advice and intervention, often relying on overstretched services delivered off-site. Strengthening the presence of these professionals within the daily life of schools through implementing children's services co-operation at a practical level will play a vital role in early intervention, collaborative problem-solving, and reducing the need for escalation.

The Partnership further supports the enhanced role of the Middletown Centre for Autism, particularly its focus on system-wide capacity-building and neuro-affirming practice. This is an area of significant interest to many of our member organisations and reflects best practice in understanding and supporting children with autism, sensory differences and social communication needs.

Our members also welcome the retention of the Sensory Service as a centralised model due to the high level of specialism and expert support required for some low incidence conditions and disabilities. It is important to consider how well connected this specialism will be to any new system or structures, and how it can also benefit from wider reform driven by inclusive practice. The service must also be subject to the same monitoring and reporting as other parts of the system.

The Partnership remain concerned that the strategy underestimates the scale of the workforce challenge. Recruitment and retention pressures are already well-documented across the education and health sectors. Without urgent action to address vacancy rates, unfilled posts and burnout, there is a serious risk that the reform programme will not be deliverable in practice. A long-term, cross-sectoral approach is needed to build the workforce required – and to support them to stay.

Classroom Assistants, in particular, play a vital – and often undervalued – role in supporting children with SEND. Yet many assistants continue to face insecure

employment conditions, low pay, and limited access to continuous professional development and/or career pathways.¹⁶ The current reform agenda does not adequately acknowledge their contribution, nor does it clarify how their roles may evolve within the new support model. This must be urgently addressed. Without investment in this essential group of practitioners, inclusion cannot be meaningfully achieved.

We are also concerned that there is no clear provision for protected time for staff to engage in training, planning, and reflection. Building inclusive practice is not just about knowledge acquisition – it requires time for teams to work collaboratively, adapt provision, and engage with external support. In high-pressure environments, without ring-fenced time or resources, these important functions are often deprioritised.

To ensure that the workforce is empowered to deliver the ambitions of the reform programme, the Partnership recommends:

- The development of an Integrated SEND Workforce Strategy, co-produced with professional bodies and trade unions. This strategy should include clear targets and milestones for recruitment, retention, and professional development across all sectors of the workforce;
- The provision of adequate funding and resources for schools to release staff for training and professional development, including backfill costs where necessary;
- Clarification of the role of Classroom Assistants within the new support model, including employment protections, access to accredited training/CPD, and formal pathways for progression;
- The establishment and resourcing of area-based professional learning networks, enabling schools and practitioners to share practice, engage in peer mentoring, and collaborate on inclusive solutions; and
- Enhanced cross-departmental and cross-sectoral collaboration through representation on relevant structures, shared action-plans and targets, and the pooling of resources to improve the wellbeing of children as per the statutory requirements of the Children's Services Co-operation Act (Northern Ireland) 2015, where appropriate.

Inclusion depends on people. It cannot be achieved through policy alone. If we are to deliver on the promise of the "Right People," we must invest in those who work every day to make inclusion a reality – and ensure that they are valued, supported, and equipped to succeed. Implementing reform also requires getting the right people around the table, and the case for greater integration of health and social care services in education grows stronger every day. Cross-departmental collaboration and

¹⁶ O'Connor Bones, U. et al., 2024, A Profile of Classroom Assistants in Northern Ireland, Ulster University:
https://pure.ulster.ac.uk/ws/portalfiles/portal/217147315/Classroom_Assistants_in_NI_Report.pdf

interdisciplinary working encourages wider buy-in, strengthens political support (which will be required to invest the resources required), and facilitates more effective implementation.

Right Time

The Partnership for Inclusive Education strongly endorses the principle that early identification and timely intervention are critical to achieving better outcomes for children and young people with SEND. Delays in recognising need and accessing appropriate support too often result in the escalation of difficulties, increased distress for families, and a higher burden on schools and services. Intervening early – and appropriately – is both a moral imperative, a legal obligation, and of benefit to the public purse.

We welcome the Reform Agenda's emphasis on early years and the introduction of innovative early intervention programmes, such as Inclusive Play, which many of our member organisations view as a promising example of child-led, relational practice. The proposed development of integrated health and education teams, and the ambition to introduce child development passports to enable better continuity and shared understanding, represent important steps toward a more connected and responsive system.

We also welcome the Department's commitment to developing a SEND data dashboard. Improved data visibility has the potential to help track access to support, monitor timeliness of intervention, and better understand the trajectories of children with SEND across the system. Done well, this could significantly enhance accountability and enable early action where support is falling short.

Despite these positive signals, too many families continue to experience significant delays in accessing help. Children can wait months or even years for diagnosis or intervention, during which time their needs may become more acute. Families often find themselves pushed toward statutory assessment as the only viable route to secure consistent or specialist support – even when lower-level intervention may have supported at an earlier stage. We are currently witnessing the outworkings of unmet needs within the spiralling numbers of children with SEND and children for whom a statement has become necessary.

The Partnership is particularly concerned about the limited inclusion of non-statutory early years settings within the current support infrastructure. Many of the most vulnerable and developmentally at-risk children are in voluntary, private or community-based pre-school settings. Yet these providers often face barriers in accessing support from the Education Psychology Service or EA SEN teams, due to inconsistencies in policy and service coverage. This creates a two-tier system and risks deepening inequalities at the very point where early intervention could be most effective.

In addition, the current transitional support arrangements between early years and primary, and between primary and post-primary, remain fragmented and overly reliant on informal relationships. The promise of early intervention must be matched by structured support at key points of transition, where risk of breakdown is often highest.

In light of these concerns, the Partnership makes the following recommendations:

- Fund and embed universal early intervention teams, with coverage across statutory and non-statutory settings. These teams should include educational psychologists, speech and language therapists, and SEND outreach professionals, and be available to all early years providers;
- Establish the Transitional Support Programme as a statutory requirement, with clear guidance, timelines and accountability mechanisms. Schools, parents and professionals must have reliable and consistent channels for communication and planning at every key stage in a child's journey;
- Provide greater clarity on how the Department will address inequalities in access to support between statutory and non-statutory providers. This should include clear expectations for EA service access and coverage, as well as guidance on professional liaison and SEND planning; and
- As an urgent priority, implement enhanced data sharing arrangements between Education, Health and the Department for the Economy, to ensure that children's developmental information advances early and follows them across transitions, services, and key phases. There is a legal imperative to achieve this under the Children's Services Co-operation Act (Northern Ireland) 2015.

Timely intervention is not only about acting early in a child's life – it is about acting promptly, appropriately, and collaboratively whenever and wherever support is needed. The reform agenda must ensure that no child is left waiting for help simply because of the type of setting they attend, the postcode they live in, or the point in their education journey they have reached.

Right Place

The Partnership for Inclusive Education welcomes the Department's commitment to ensuring that children and young people with SEND are educated in settings that are inclusive, appropriate, and well-resourced. For many years, the availability of suitable school placements – whether in mainstream, special schools, or specialist provisions – has been one of the most significant areas of concern for families and practitioners across Northern Ireland. We are therefore encouraged to see the SEN Reform Agenda acknowledge this challenge and propose structural changes to better support inclusive pathways.

We welcome the proposal to designate Special Schools as regional Resource Hubs, recognising the expertise and experience these settings can offer in supporting wider system development. Ensuring that this expertise is shared with and accessible to mainstream schools will be critical to building capacity for inclusion across the system. Special Schools should be supported through additional funding and resources where appropriate, in order to deliver on the potential for these new Hubs.

The proposals to improve transitions post-16 and post-19 are also welcome but lack detail. Too often, young people with SEND and their families face uncertainty, lack of planning, and fragmented provision as they move beyond compulsory education. A clear, cross-departmental approach to transition is essential to ensuring continuity of support and meaningful pathways into further education, training, or employment.

Despite these promising developments, there remain critical weaknesses in the current placement system that are not yet adequately addressed in the reform agenda. Most notably, there continues to be a chronic shortage of appropriate school places for children with complex needs. Each year, families report long waits, unsuitable placements, a scramble for provision during the summer holidays and situations where children with SEND are left without a school place entirely. Mainstream schools, meanwhile, are under increasing pressure to meet a growing diversity of need, without the planning, collaboration, funding, training, or specialist input required to do so effectively. While the aspiration to build an inclusive mainstream system is one we fully support, it cannot be realised without sustained investment in staff development, accessible infrastructure, and therapeutic support.

We are also concerned by the rapid and unregulated expansion of SPiMS. While some SPiMS are well-integrated and offer an effective bridge between mainstream and specialist practice, others risk functioning as internal segregation units, without clear accountability or consistent standards. There is a need to ensure that these provisions are genuinely inclusive, enable high aspirations to be met, are relational, and form part of the whole-school culture – not a means of isolating pupils who challenge existing inaccessible systems.

In addition, annual review processes and placement decisions remain inconsistent and lacking in transparency. Families frequently report feeling excluded from decision-making, receiving late notifications of changes, or struggling to access the evidence on which decisions are based. This undermines trust in the system and makes collaborative planning difficult.

To ensure that every child is supported in the right place – at the right time and with the right support– the Partnership makes the following recommendations:

- Guarantee timely and appropriate school placements for all children with SEND. Placement allocation should be actively monitored by the Department, with clear protocols and timeframes for responding to delays or disputes;
- Establish cross-departmental protocols – and an outcomes-based approach – especially for education, health, and care transitions. This will include clear

responsibilities and timelines for joint planning at key stages, particularly at post-primary and post-16/19 transitions;

- Ensure all learning environments meet inclusive design standards, developed in collaboration with VCS organisations, families, and education professionals. Physical space, sensory conditions, and accessible communication must be integral to inclusive provision; and
- Conduct an independent review of SPiMS across Northern Ireland to evaluate consistency, inclusiveness, and effectiveness. This should include the development of regional standards and consideration of bespoke inspection or quality assurance arrangements, co-designed with pupils and families.

Delivering the 'Right Place' for every child will require more than expanding places or refining guidance. It demands a whole-system commitment to inclusion – where placement decisions are not just about space or availability, but about needs and rights.

What's Missing?

Consultation

Chapter 3 of the Department of Education's approved Equality Scheme (Updated 2023), notes that it 'will consult on [...] matters relevant to the Section 75 statutory duties in accordance with the recommendations as contained in the Equality Commission's guidance.'¹⁷ The Department also states that 'in making any decision with respect to a policy adopted, or proposed to be adopted by it, the Department shall take into account any such assessment and consultation carried out into the likely impact on the promotion of equality of opportunity and good relations in relation to the policy.'

Given that the Education Minister has described the SEN Reform Agenda and Delivery Plan as "the most ambitious programme of SEN reform in a generation", it is clear that they fall under the definition of 'policy' articulated in Chapter 4.1 of the Department's Equality Scheme. Yet, there is no evidence or publicly available information that the Department conducted a screening exercise or equality impact assessment to assess the likely impact of the plans on equality of opportunity. The same appears to be true of the Graduated Response Framework published by the EA, which will now act as the gateway to EA pupil support, and which is based on an unapproved, unpublished Draft Revised Code of Practice with no legal status.

While the Minister claims that the SEN Reform Agenda and Delivery Plan "have been developed with input from parents, practitioners and academics and engagement will continue as we move into implementation," the lack of public consultation in line with Section 75 of the Northern Ireland Act 1998 appears to be a breach of the Department's Equality Scheme and ultimately limits space and opportunities for children, young people, and families to provide feedback on the proposed direction of travel. The Partnership for Inclusive Education felt it was necessary to develop this response partly due to this vacuum, and we would strongly urge the Department to consult meaningfully with those who will be most impacted by reform.

Considering the concerns raised regarding potential breaches of the Department's approved Equality Scheme, this paper has been shared with the Equality Commission for Northern Ireland. We urge the Department to act swiftly to comply with its statutory equality obligations under section 75 of the Northern Ireland Act 1998. This will include conducting a comprehensive screening exercise using robust sources of data and mitigating against any adverse impact identified. If, through carrying out comprehensive screening of the policy, it is determined that there is potential for a major impact on the enjoyment of equality of opportunity for any of the nine protected section 75 categories, a full equality impact assessment, including direct consultation with children and young people and parents and carers, should be carried out without delay.

¹⁷ Department of Education (NI) Equality Scheme, 2023: https://www.education-ni.gov.uk/sites/default/files/publications/de/DE%20Equality%20Scheme_Updated%202023.pdf

Participation

At the heart of an inclusive education system is the active participation of children, young people and their families. Listening to and valuing the perspectives of young people and their families ensures that education reflects their lived experiences, aspirations, and needs. Inclusive education must be co-designed with children and parents as equal partners, fostering mutual trust and collaboration.

Mechanisms for child and parental participation should be embedded at all levels of decision-making, from individual learning plans to school policies and government reforms. This approach not only enhances the relevance and effectiveness of education but also empowers families and pupils to take an active role in shaping their educational journeys, reinforcing the principles of dignity, respect, and equality.

Collaboration

Delivering meaningful reform for children with Special Educational Needs will require more than operational change – it demands deep, sustained collaboration and structural change across all parts of the system. The SEN Reform Agenda rightly acknowledges the role of Executive departments, arms-length bodies, local government and the voluntary and community sector. But too often, families and frontline professionals are left navigating fragmented, disconnected services. To ensure that reform is not only ambitious but effective, government must move beyond siloed delivery and foster genuine partnership working. This will involve implementation through co-production with those who live and work within the system every day – children, families, educators, and community-based services.

Stronger cross-sectoral collaboration will help bridge gaps between education, health, and social care, ensuring timely, coordinated support tailored to each child's needs. It will also allow for smarter use of resources, harnessing the expertise and reach of trusted local organisations. Reform must be more than a central plan – it must be a shared mission, rooted in relationships and responsive to the lived realities of children and families.

Resources

Transforming the SEND system cannot be achieved without sustained and sufficient investment. While the Delivery Plan sets out an ambitious vision, its success hinges on the resources available to deliver change at scale and with urgency. Decades of underinvestment, growing demand, and workforce pressures have left services

overstretched and children waiting too long for support. While we recognise the need for financial sustainability, reform must not be used as a vehicle to constrain or cut costs – it must be about doing better and focusing resources where they are most needed (within children's services), not spending less.

Investment must be targeted, transparent, and linked to measurable improvements in children's lives. This includes resourcing the educational workforce, expanding access to allied health professionals in co-operation with health partners, modernising school environments, and scaling up inclusive and therapeutic supports. Crucially, funding must also reach the community and voluntary sector, who play a vital role in delivering early help, family support, wraparound care, independent advocacy, training, and legal advice/representation. The specialism and expertise that exists amongst our membership should be further harnessed in order to enhance and complement statutory provision. Without meaningful financial commitment, reform risks becoming rhetoric. Real transformation requires real resources – delivered over time, protected from political instability, and driven by a commitment to equality of opportunity for all children with SEND. For too long, SEND support in Northern Ireland has been shaped by chronic underinvestment and a lack of meaningful funding uplift in children's support services, despite rising levels of need. This has left schools, services and families operating within a system that is overstretched by design. If children are to receive the support they are entitled to, this pattern must change. Reform must be underpinned by a funding model that is fit for purpose, responsive to need, and capable of sustaining inclusive education into the future.

Outcomes Framework

The Partnership welcomes the publication of the Outcomes Framework, which outlines the four outcomes to be achieved over the next five years, the population indicators that will be used to determine progress, and commentary on Performance Measures and the Data Development Agenda. However, the current framework leans heavily on positively framed, aspirational indicators and self-reporting mechanisms (e.g. 'children feel included', 'parents and carers feel their views are listened to'). While these are important and will provide a clear evidence base on children and families' experiences, it is also crucial that there is data capturing the structural stress points, where failings are evident and visible. A framework that is designed and built to create a narrative of progress, without mechanisms for revealing system strain, would ultimately reduce transparency and accountability. In other words, measurable risks must be tracked in parallel to the aspirational outcomes, and we would recommend considering a set of accountability indicators that cover:

- *Waiting times for assessment and support* – not limited to averages as set out in the Outcomes Framework but a clear set of metrics on how long children wait for assessments, therapies, statements, and support. Delays are among the most visible and distressing indicators of systemic failure, regularly reported by parents and practitioners, so the full picture is essential.
- *Number of children without a suitable school placement* – the Outcomes Framework mentions 'further work to explore the potential' for indicators related to reduced timetables/children with SEND not accessing school and other issues. In our view, these are some of the most significant and important measures that should be included in the Framework. There is no outcome or metric that tracks the number of children out of school due to placement unavailability, the duration of time without placement, those with a named placement that they are unable to attend (e.g. because it is not ready, or there is no health support available), or cases where no named placement is identified in a statement. These are vital to assess whether the system is meeting its legal obligations and to understand capacity shortages in both special and mainstream schools.
- *Use of Reduced Timetables* – there is no tracking of how many children are on reduced timetables, or studying a reduced curriculum, the duration or reason for the timetable modification, or whether such arrangements are reviewed or agreed with parents. Capturing this data is crucial to understand unmet needs, informal exclusionary practices, and assess whether legal duties and children's rights are being upheld.
- *Appeals and Tribunal Cases* – while the framework mentions the number of formal complaints and appeals, with trends in resolution times and outcomes, it is also important gather information on the reasons for appeal (e.g. refusal to assess, placement disputes) to understand key pressure points in the system.

- *Equality of Access by Setting or Geography* - there is nothing in the Framework to suggest that relevant data will be disaggregated by region or local authority area, type of school, or any other measure. This is critical to understand regional consistency in delivery and variation in access to support services and specialist input.
- *Impact of Reforms on Classroom Assistants/Frontline Staff* - the Outcomes Framework reiterates the focus of the SEN Reform Agenda on 'reducing reliance on external support and one-to-one classroom assistant support' but does not include any specific indicators related to employment, pay, training, workload, burnout or wellbeing for these essential staff. Classroom assistants are often essential to inclusion, yet remain under-recognised and undervalued.

Conclusion

This response reflects the collective expertise and frontline experience of a broad coalition of organisations working directly with children, families, and schools across Northern Ireland. While the Partnership welcomes the overall shift toward more inclusive and child-centred education, we remain deeply concerned by the significant gaps in resourcing and therefore the potential for further difficulties and delays in accessing appropriate SEND support. The lack of public consultation, Equality Impact Assessment, uncertainty around the legislative framework, and continued underinvestment in frontline services risk undermining the potential of what could be a transformative moment for children with additional needs.

Through this submission, we have highlighted the positives and there are many aspects of the SEN Reform Agenda that will be widely welcomed. However, we also point to the structural weaknesses that must be addressed, from the chronic delays in access to support, to the appropriateness of placements, the overreliance on temporary projects, and the growing use of informal exclusionary practices such as reduced timetables. We have also offered practical, evidence-informed recommendations aimed at ensuring equality of opportunity, accountability, and meaningful change.

The Partnership for Inclusive Education is committed to working constructively with the Department of Education and the Education Authority, other statutory bodies, and sector partners to ensure that reform delivers real improvements in the lives of children and young people. We hope this response will be taken as a serious and valuable contribution to that effort.

References

- Children in Northern Ireland (CiNI), 2025, School Anxiety and Distress: A Best Practice Guide for Schools: <https://form.jotform.com/250853982889074>
- Consortium for Research in Deaf Education, 2024, Report for Northern Ireland: <https://www.batod.org.uk/wp-content/uploads/2024/12/CRIDE-2024-Northern-Ireland-report.pdf>
- Department of Education (England), 2024, Working Together to Improve School Attendance: https://assets.publishing.service.gov.uk/media/66bf300da44f1c4c23e5bd1b/Working_together_to_improve_school_attendance_-_August_2024.pdf
- Department of Health (NI), 2025, Consultation on the HSC Children and Young People's Emotional Health and Wellbeing Framework: <https://www.health-ni.gov.uk/consultations/consultation-hsc-children-and-young-peoples-emotional-health-and-wellbeing-framework>
- Education and Training Inspectorate (ETI), 2021. Post-Primary Phase Report: September 2018 – December 2020. Available at: https://www.etini.gov.uk/files/etini/publications/post-primary-phase-report-September-2018-December-2020_0.pdf
- Education and Training Inspectorate (ETI), November 2024, Specialist Provisions in Mainstream Schools – Part 1: <https://www.etini.gov.uk/files/etini/publications/specialist-provisions-in-mainstream-schools-part-1.pdf>
- Eimear Flanagan, BBC News NI, 26 June 2025, Boy without SEN school place 'lonely and in limbo': <https://www.bbc.co.uk/news/articles/c78nelv35zdo>
- HM Treasury, Spending Review 2025: <https://www.gov.uk/government/publications/spending-review-2025-document>
- Mental Health in Northern Ireland: Fundamental Facts. October 2023. Northern Ireland: Mental Health Foundation; Office of Mental Health Champion. Available at: <https://www.mentalhealthchampion-ni.org.uk/files/mentalhealthchampionni/2023-10/Mental%20Health%20in%20MHF%20Northern%20Ireland%20Fundamental%20Facts%202023.pdf>
- O'Connor Bones, U. et al., 2024, A Profile of Classroom Assistants in Northern Ireland, Ulster University: https://pure.ulster.ac.uk/ws/portalfiles/portal/217147315/Classroom_Assistants_in_NI_Report.pdf
- RNIB, 2024, Curriculum Framework for Children and Young People with Vision Impairment (CFVI): <https://www.rnib.org.uk/professionals/education-professionals/cfvi/>
- Totsika, Vasiliki et al. (2022), Mental health problems in children with intellectual disability, The Lancet Child & Adolescent Health, Volume 6, Issue 6, 432 – 444. Available at: [https://doi.org/10.1016/S2352-4642\(22\)00067-0](https://doi.org/10.1016/S2352-4642(22)00067-0)