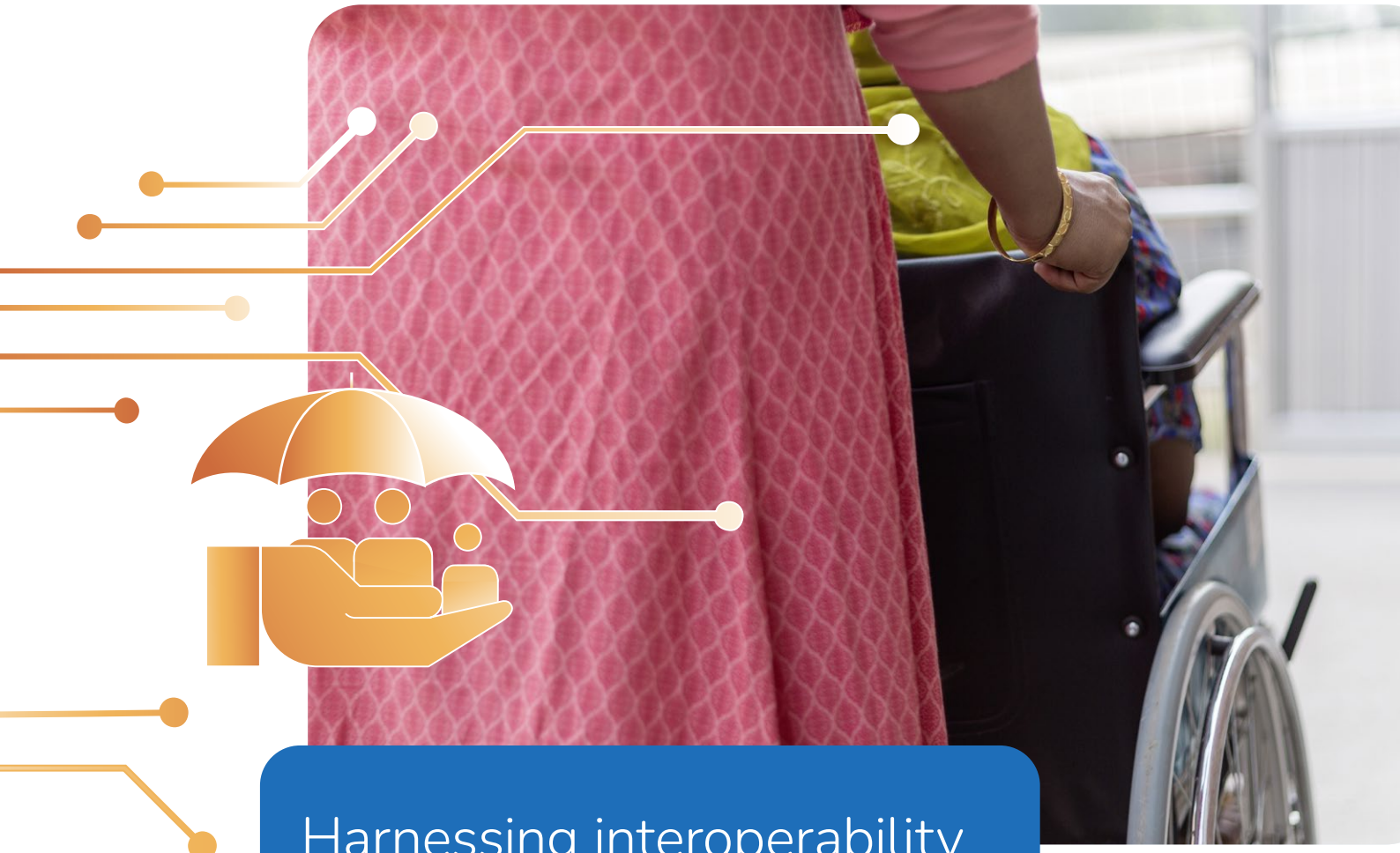
Digital Convergence
USP2030

Disability registries and social protection information systems



Harnessing interoperability to improve outcomes for persons with disabilities

November 2026

Digital Convergence Initiative (DCI)

DCI is the global initiative for the digital transformation of social protection systems. Established as part of the USP2030 partnership, the DCI is an open and collaborative platform for governments, development partners, civil society organisations and the private sector united by a shared vision: expanding the coverage of social protection and enhancing its delivery through inclusive, interoperable digital systems.

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Table of contents

List of acronyms 4

1 Why disability-inclusive social protection matters 5

2 How does this paper contribute? 7

3 Key concepts of disability registries and social protection systems 9

4 What are the linkages between the two systems? 19

5 What factors mediate these benefits and the operational challenges and risks? 29

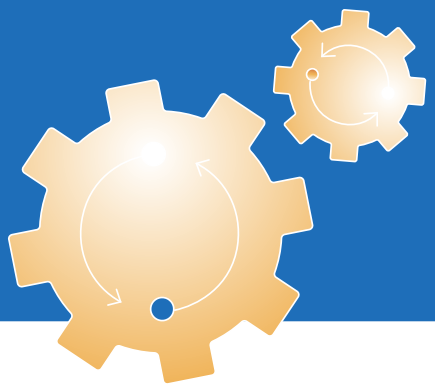
6 From potential to practice: Entry points for action 34

References 38

List of acronyms

API	Application programming interface
AT	Assistive technology
COMPIN	Commission for Preventive Medicine and Disability
CRPD	Convention on the Rights of Persons with Disabilities
CRVS	Civil registration and vital statistics
DCI	Digital Convergence Initiative
DMIS	Disability management information system
DR	Disability registry
ICF	International Classification of Functioning, Disability and Health
IGVUST	Global Socio-Territorial Vulnerability Index
ILO	International Labour Organization
KNDRS	Korea National Disability Registration System
LMIC	Low- and middle-income country
MIS	Management information system
MLSA	Ministry of Labour and Social Affairs
NDIS	National Disability Insurance Scheme
OPD	Organisation of Persons with Disabilities
PLIDA	Person Level Integrated Data Asset
RIS	Social Information System
RSH	Social Household Registry
SP	Social protection
SPIS	Social protection information system
SSIS	Social Security Information System
UN	United Nations
UNICEF	United Nations Children's Fund
UNPRPD	United Nations Partnership on the Rights of Persons with Disabilities
WHO	World Health Organization

1 Why disability-inclusive social protection matters



Persons with disabilities represent approximately 16% of the world's population – over 1.3 billion people – and are disproportionately represented among the poorest and most marginalised groups (WHO, 2022). They face higher barriers to educational attainment and employment, and significantly higher costs of living due to additional expenditure on care, assistive technologies, and health services. These 'costs of disability' compound across the lifecycle: Children with disabilities face heightened risks of school exclusion, child labour, and placement in institutional care (Mitra et al., 2017). Working-age adults with disabilities are more likely to be outside the labour force or working in the informal economy (OECD, 2022; UN DESA, 2024), while the absence of community support services generates overreliance on families, constraining caregivers' own economic opportunities (Addati et al., 2018). Older persons experience rising disability prevalence in contexts where pension coverage is limited and community-based care is underdeveloped, creating heightened risks of dependency, isolation, and impoverishment. These inequities intensify during crises: without deliberate inclusion, persons with disabilities are consistently among the last to be reached in emergency expansions of assistance (Global Disability Summit, 2025 ▶).

Addressing the barriers preventing participation, and providing the support required for poverty elimination and the equal participation of persons with disabilities is a binding human rights and development commitment. The UN Convention on the Rights of Persons with Disabilities (CRPD) ▶ anchors State obligations to ensure equal participation, non-discrimination, accessibility, an adequate standard of living and access to social protection, as well as an equal right to live independently and be included in the community. In parallel, the 2030 Agenda and Sustainable Development Goals commit governments to 'leave no one behind'.

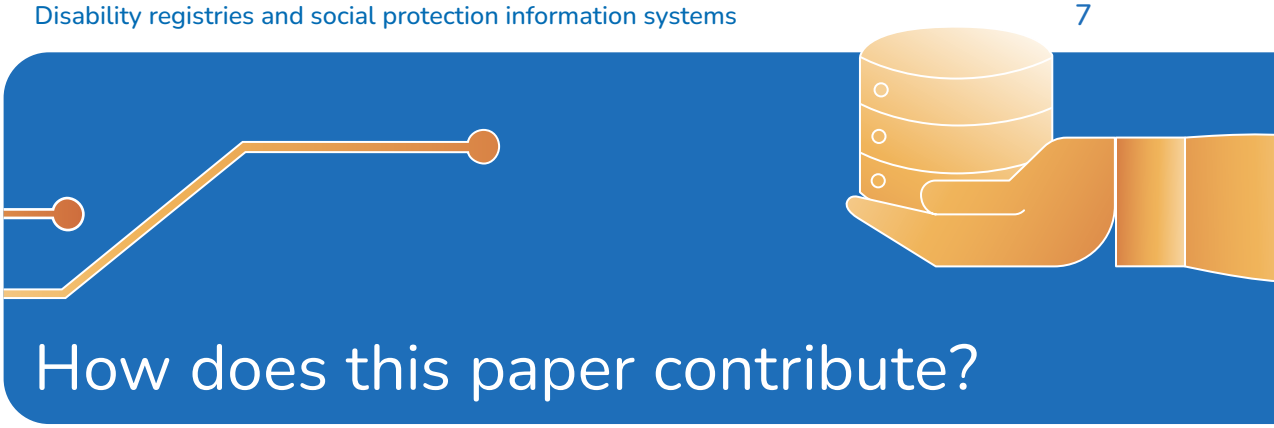
Inclusive social protection systems play a crucial role in addressing these gaps and enabling the full participation of persons with disabilities in their societies across the lifecycle[1] (ILO & UNICEF, 2024 ▶; GIZ, 2022 ▶; European Union, 2024 ▶). Disability-inclusive social protection entails a set of interventions providing both basic income security and coverage of health and disability-related costs – achieved through a mix of cash benefits, in-kind goods and services, and access to affordable health care. This implies a twin-track approach: ensuring access to mainstream social protection schemes, while developing disability-specific schemes that explicitly promote social inclusion and provide the additional support that mainstream programmes alone cannot.

1 For more guidance and background on disability inclusive social protection systems see ILO & UNICEF (2024) ▶, GIZ (2022) ▶, European Union (2024) ▶.

Appropriate disability and needs assessment, alongside case management, are necessary to optimise access to support as well as resource allocation.

Yet coverage remains limited and deeply unequal. Globally, only 38.9% of people with severe disabilities receive any disability benefits, with coverage ranging from 85.6% in high-income countries to just 3.3% in low-income countries (ILO, 2024 ▶). Even where schemes exist, benefit levels are inadequate and access barriers compound the gap: physical and administrative obstacles, inaccessible communication, documentation requirements, and restrictive certification processes dependent on specialist medical assessment in settings where clinical capacity is limited. Further, means-testing that fails to account for disability-related costs (Mitra et al., 2017; Mont & Cote, 2020) produces systematic exclusion errors in mainstream programmes – particularly for households that are poor once those costs are considered, or for people with high support needs in non-poor households (ILO & UNICEF, 2024; World Bank, 2025b).

For social protection systems to effectively address disability-related vulnerabilities and support the equal participation and inclusion of persons with disabilities across the life course, they must be embedded within coherent, multi-sectoral approaches that cut across traditional administrative boundaries. Central to this is the reliable identification of children and adults with disabilities and their support needs (Mont et al., 2019): without it, the design of schemes will be less responsive, neither targeted disability support nor the prioritisation of persons with disabilities within mainstream programmes will be able to function effectively, and case management and policy planning will both remain haphazard.



2 How does this paper contribute?

This paper focuses on interoperability between disability registries and social protection information systems as an approach to making social protection more disability-inclusive, specifically, by leveraging the progress made in the information systems that support the design, delivery, coordination, and monitoring of disability and social protection policies and programmes.

Over the past decade, social protection information systems have grown in sophistication and coverage, enabling more accurate targeting, faster delivery, and better monitoring of benefits and services across diverse populations (Barca & Chirchir, 2019 ▶; Lindert et al., 2020 ▶). For instance, as of 2024, 62 countries have operationalised social registries to reduce fragmentation and improve coordination across social programmes, covering 1.1 billion people globally (World Bank, 2025b ▶).

In recent years, disability registries have begun to receive more policy attention, driven by recognition that effective support and resource allocation to persons with disabilities cannot be effectively served by systems that have no reliable way of knowing who they are and what their support needs are. While some higher-income countries have developed disability registries that achieve meaningful integration across sectors, in most low- and middle-income countries (LMICs), the development of administrative identification systems for persons with disabilities, including the granting of official disability status or disability certification, remains a significant challenge. These systems are often predominantly paper-based, reliant on medical assessments, characterised by low coverage, limited information, and accessibility and reliability issues, and are not designed for data exchange with other government systems. This undermines their potential to facilitate effective and integrated support.

The result is that two systems with significant potential to reinforce each other often develop along separate trajectories – with different institutional homes, different data standards, and limited formal connection between them. **This paper shows that the moment to bridge that gap is now**: a growing number of countries are investing in digital disability registries and transitioning toward functional assessment frameworks (Global Disability Fund, 2024 ▶), catalysing the technical and institutional conditions under which the two systems can meaningfully interoperate.

This paper supports practitioners and policymakers in understanding and advancing interoperability between disability registries and social protection information systems, drawing on country experiences to examine the complementarities between the two systems, the conditions under which data exchange generates meaningful improvements, and the risks that need to be managed along the way. It is intended as

a non-technical companion to the Digital Convergence Initiative's (DCI) interoperability standards (see Box 1), bringing the case for interoperability to life through country examples. It is intended as a resource for governments, development partners, and organisations of persons with disabilities – whether they are designing a disability registry for the first time or seeking to deepen linkages between systems that already exist.

BOX 1. The DCI Disability Registry and Social Protection Systems Interoperability Standard

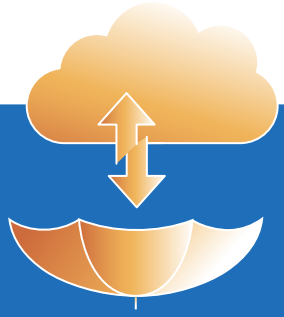
Released in January 2025 and endorsed by the Universal Social Protection 2030 (USP2030) Partnership, the DCI's Disability Registry and Social Protection Systems Interoperability Standard specifies how the two systems can exchange data in practice. Developed through collaboration across 15 organisations and grounded in observations from a diverse range of countries, it is adaptable to different national contexts.

The standard is organised around three components:

- **Process standards**, which define the flow of processes/transactions that subsequently lead to data exchange
- **Data standards**, which define a common data model – covering data objects (such as a person's record with attributes like name and disability level), code directories (standardised lists of values for each attribute), and data types and formats – to ensure information is structured consistently across systems
- **API standards**, which govern the technical protocols for the exchange itself

Each component is illustrated through concrete use cases, including automatic enrolment of registered persons with disabilities into linked benefit programmes, eligibility checks for personal assistance schemes, and household-level targeting that combines disability status with poverty scores from a social registry.

Full documentation is available at standards.spdci.org ▶.



3 Key concepts of disability registries and social protection systems

What is a disability registry?

A disability registry (DR)[2] is an administrative information system that consolidates records on individuals who have entered a formal disability identification, assessment, recognition or certification pathway under national laws, regulations or programme rules. In many countries, it is the record of people who have applied for, been assessed for, or been granted an official disability status, card or certificate. At its core, a DR provides an authoritative administrative record of disability status and select disability-related information needed to operationalise entitlements, verify status across programmes or territories, support planning, and monitor the registered population. Its coverage is shaped by several factors, including the following, among other things:

- **Legal disability status criteria and assessment tools**: Traditional systems often rely heavily on medical criteria, focusing on diagnoses, health conditions or impairments leading to medicalised assessments and registering a narrower population. Many countries have carried out reforms towards approaches considering barriers, functioning and support requirements, in line with the recommendations of the UN Committee on the Rights of Persons with Disabilities. However, any set of criteria or assessment tools can still exclude people who experience disability, but are not officially recognised.

- **Awareness, stigma and perceived value**: People may not apply if they are unaware of the registry, do not self-identify as a person with a disability, fear stigma, or see limited practical value in registration because associated benefits or services are weak.

- **Age and gender**: Older persons may not seek, or may be excluded from, disability status if disability benefits are unavailable to people already receiving old-age pensions. Children may be under-identified because of stigma, parental reluctance, or procedures not adapted to developmental stages. Women and girls may face unequal access due to compounded gender and disability stigma, especially if registration mechanisms are not gender-responsive.

- **Accessibility, cost and administrative complexity**: Inaccessible procedures, distance to assessment centres, direct and indirect costs, limited outreach in remote areas, and complex registration processes can all restrict coverage.

2 For a comprehensive understanding of disability registration systems, see UNICEF (forthcoming).

BOX 2. Key terms and conceptual differences

In some countries, the terms **disability registry and disability management information system (DMIS)** are used interchangeably. For interoperability design, however, it is useful to distinguish between them and clarify a few related concepts:

- **Disability registry**: An authoritative administrative record for defined disability-related attributes, especially official disability status, category or level, where used, validity period, and selected support-needs indicators.
- **Disability certification or assessment system**: The process that generates the disability status decision and, where relevant, collects information on functional difficulties, barriers and support requirements.
- **Disability management information system**: The broader digital system, which may include the registry as one module, while also supporting workflows for application, assessment, certification, renewal, grievance and appeals, referral tracking, dashboards, analytics and data exchange with other systems.
- **Advanced DMIS functions**: Some systems may also support service coordination or limited case management, but these are not core registry functions and remain uncommon in many LMIC settings.

In all cases, **formal disability status certification should be understood as a specific administrative tool within a wider system for identifying persons with disabilities and their support needs** across sectors and for different purposes. It should enable access to targeted disability-related support and defined entitlements, but should not be required for protection against discrimination, equal access to mainstream services, legal capacity, political participation or other rights.

Further, a disability registry is not:

- x A census or a nationally representative sample of all persons with disabilities
- x On its own, an estimate of disability prevalence in the general population (Prevalence, inequalities and population-level gaps require censuses and nationally representative surveys, ideally using internationally comparable functional difficulty questions.)
- x A social registry (see Box 3 key differences ▶)

What functions does it serve?

The practical functions of a DR vary by country and according to the maturity of the wider administrative system. At a minimum, a DR provides the administrative record of individuals that have been granted the official disability status to operationalise disability-related entitlements. It can reduce the duplication of assessments, support the portability of certification across programmes and territories, and provide a basis for monitoring whether registered persons with disabilities are accessing mainstream and disability-specific schemes.

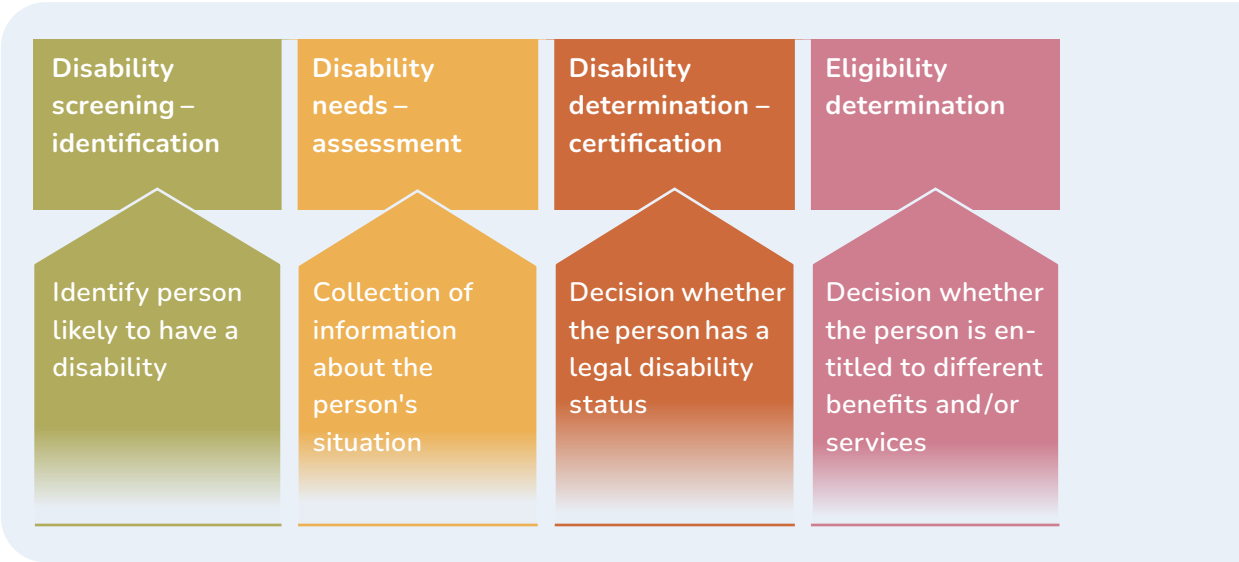
Where the DR is embedded in a broader DMIS and connected to other systems, it can also support additional functions: proactive outreach to registered persons who are not receiving benefits; referral to rehabilitation, assistive technology, inclusive education, employment or community-based support; emergency preparedness and response; analysis of unmet support needs; and planning or costing of disability-related services. These functions should be treated as extended DMIS or interoperability functions, rather than assumed features of every registry.

How is disability status determined?

Disability registries are typically populated through a sequence of individual identification, assessment, determination and eligibility processes (Figure 1 ▶):

- **Screening/identification** is increasingly a routine process used by health, education, social protection, employment or other systems to identify children or adults who may have functional difficulties and need further disability related assessment, support, accommodation or referral; its output is a flag or referral, not an eligibility decision.
- **Individual disability and/or needs assessment** gathers more detailed information on impairments, functioning, barriers, support requirements and, where relevant, disability-related costs; its output is an assessment record or support profile.
- **Disability status determination or certification** is the administrative decision, based on information gathered during the assessment, as to whether or not a person meets the legal or policy criteria for formal disability status. This may result in a certificate, card or status record. In some systems, disability status is binary – recognised/not recognised – while in others it includes levels or categories of recognition, which may be used as eligibility criteria to differentiate entitlements or levels of support.
- **Programme eligibility determination** is a separate decision by social protection or other agencies on access to disability-specific benefits, or in relation to prioritising persons with disabilities in the targeting of mainstream benefits and services. It may use disability status as the main criterion or combine it with other criteria, such as level of disability status, age, income, residency, household composition or available resources.

Figure 1. Disability determination process



Countries configure these processes differently depending on their institutional context, legal framework, policy objectives and available workforce.

- In some countries, certification is conducted by multidisciplinary assessment bodies; in others, medical professionals provide the primary determination; and, in some settings, local government officials, social workers, community committees or outreach workers help initiate applications or carry out the initial assessment.

- From a rights- and inclusion-oriented standpoint, the determination of disability status should not be limited to medical diagnosis, and impairment and assessment should also consider functional difficulties, environmental barriers and support requirements, alongside impairments (WHO, 2001). In practice, many countries combine medical evidence with information on functioning and support needs, especially when disability benefits or services are differentiated by level of disability or the intensity of support required. Where support-needs assessment is incorporated, it may take the form of a light screening embedded in the certification process, or a deeper assessment linked to referral and case management after status is granted.

- Disability status systems may include provisions for **review, renewal and updating records**. Depending on the country, some status decisions are permanent, while others are time-limited and require periodic renewal, either to reassess changing functioning and support needs or, in many LMICs, to confirm proof of life and maintain accurate records. Renewal can improve data quality, but it can also create barriers if it is too frequent, costly, medicalised or difficult to access.

- Disability assessment and certification for children should be age-appropriate and different from adult processes, as children's functioning and support needs change rapidly with development, health, learning and environment. Processes should include caregiver input and flexible review arrangements, while avoiding burdensome reassessments for families. Early support and intervention should not depend on formal certification, especially in early childhood.

- Where a person cannot complete registration or assessment alone, because of significant support needs, systems may allow assistance from a parent, caregiver, trusted person or representative. This should support the person's participation and autonomy, and avoid undermining the person's legal capacity, autonomy and right to make decisions about their own life. Accessible information, reasonable accommodation and supported decision making should be the default. Proxy arrangements should be clearly defined, safeguarded, reviewable, and never used to deny legal capacity or for administrative convenience.

What data does a disability registry contain?

The content of DRs varies widely across countries, reflecting the purpose of the system, eligibility rules, legal mandates and assessment approach. Across all models, the value of the DR for interoperability lies less in holding all information about a person with a disability than in acting as the authoritative source for a defined set of disability-related attributes that other systems can verify or use, subject to consent, legal mandate and data minimisation. Common categories of data include:

- **Identity and contact information**: name, date of birth, sex or gender where recorded, address or location, contact details, household linkage and, where available, a unique identifier for de-duplication and interoperability
- **Application and decision metadata**: application and assessment dates, decision outcome and rationale where recorded, disability status category or level, validity period, renewal date, review schedule, and grievance or appeal status
- **Assessment-related information**: depending on the model, impairment type and severity, functional difficulties, human support needs, assistive technology needs, environmental barriers, and other variables required for planning or entitlement decisions
- **Eligibility and entitlement information**: benefits, fee waivers, concessions, assistive products, services, or priority access to mainstream programmes linked to the status decision, where these fall within the registry mandate
- **Referral and case-management fields**: in more advanced DMIS models, in selected fields, referral history and status, services received, social work follow-up, assistive product needs or support plan status (these should not be assumed as standard registry content)
- **Safeguards and consent records**: consent status, data-sharing permissions, restrictions on use, correction requests, grievance records, access logs and audit trails, especially where data are shared across agencies or used in emergencies

Who collects and stores the data?

Data feeding into a DR may be collected by different institutions depending on the country's assessment and certification pathway, including health professionals, social workers, multidisciplinary assessment teams, local government officials, civil registration authorities or social protection staff. Wherever possible, assessment and data collection should be carried out close to where people live, with accessible procedures and reasonable accommodation, to reduce barriers for persons with disabilities and their families.

Storage arrangements may be distributed. Medical records, civil identity data, household socioeconomic information, benefit payment records and sectoral service records may remain in the systems that originally collected them, while select elements are shared with or verified by the DR for status determination, entitlement verification, referral, monitoring or planning. The registry itself is usually managed by a designated public authority, such as a disability-focused agency or the ministry responsible for social welfare, social protection or disability affairs. Clear governance arrangements are essential to define who collects, stores, shares, updates, corrects and protects the data.

How is the disability registry set up?

DRs vary widely in scope, institutional anchoring and how tightly they are coupled with eligibility decisions and service delivery. Three broad models are commonly found:

- **Programme-linked registries** are tied to one or more disability-specific programme and may function as beneficiary management databases. They usually contain only the data needed to administer the programme, and the assessment process may reflect programme eligibility rules. When several programmes create separate registries, fragmentation and inconsistent records can result.
- **Disability status registries** are gateway systems that primarily record the official disability status decision, category or level, where applicable, validity period and associated entitlements. Their core value is to provide an authoritative source for defined disability-related attributes across schemes, sectors and administrative territories, while other systems remain authoritative for civil identity, poverty status, payments, health records or school enrolment.
- While rare, there is an evolution towards **support-needs and case-management-oriented systems**, which go beyond status verification and include richer information on support requirements, barriers, referral history and service linkage to support personalised support planning and service coordination in places where social work capacity and service networks exist. These connect with other management information systems (MIS) – such as health management information systems (HMISs), education management information systems (EMISs), social protection management information systems (SPMISs) – unique beneficiaries registries, which are often managed by agencies delivering benefits and services.

In practice, countries often move gradually from programme-linked lists or paper-based certification records towards a more authoritative disability status registry, and only later towards a broader DMIS with workflow management, referral tracking, analytics and interoperability. A country may, therefore, have a disability registry without a mature DMIS, or a programme MIS that temporarily performs registry-like functions for a specific disability benefit. Across all models, DR design involves practical trade-offs between accessibility, comprehensiveness and reliability, while remaining anchored in CRPD principles of non-discrimination, accessibility, autonomy, participation, privacy and effective access to support. Many LMICs and fragile settings may need to begin with simpler, decentralised gateway models to reach scale, with basic interoperability, then incrementally strengthen full-fledged support needs and barriers related data, referral functionality and advanced interoperability, as institutional capacity develops.

What is a social protection information system?

Social protection information systems (SPISs) comprise a range of registries and software applications that perform different, but complementary, functions along the social protection delivery chain – from outreach, registration, and eligibility determination through to enrolment, payment, and beneficiary management (Lindert et al., 2020 ▶; Karippacheril et al., 2024 ▶). Depending on context and objectives, countries organise these systems very differently, resulting in varying degrees of integration and a wide range of institutional set-ups. For a full overview, see Barca and Chirchir (2019) ▶.

Function. SPISs support the design, delivery and monitoring of social protection programmes via the digitisation of key functions along the delivery chain. Country systems vary widely: some have a range of programme-specific MISs[3] alongside a social registry and an integrated beneficiary registry; others may only have one or two digitised MISs. Table 1 ▶ summarises the main system types and their function.

3 Also referred to as beneficiary operations management systems.

Table 1. Types of social protection information systems

<table>
<tr><th></th><th>Serving one programme</th><th>Serving multiple programmes</th></tr>
<tr><td>Managing data on potential beneficiaries</td><td colspan="2">Social registry

Social registries support processes of outreach, intake, and registration, and the assessment of needs and conditions to determine potential eligibility, for one or multiple social programmes, serving as platforms that can potentially support access to multiple benefits and services, which can extend well beyond the sphere of social assistance. Assessment usually takes into account measures of (household and individual) socioeconomic status or categorical factors, or a combination of both. In terms of population covered, social registries contain information on all registrants, whether or not they are deemed eligible for, or are enrolled in, a particular social programme.

Select examples

▶ Registro Social de Hogares (Chile)
▶ Dominican Republic: Sistema Único de Beneficiarios (SIUBEN)
▶ Cambodia (IDPoor)
▶ Senegal (Registre National Unique)</td></tr>
<tr><td>Managing data on current beneficiaries</td><td>Programme MIS/beneficiary operations management system

These systems manage data on enrolled beneficiaries – payments, case management, conditionality monitoring and grievance redress – for a single programme.

Select examples

▶ Zambia Social Cash Transfer MIS
▶ Brazil Bolsa Família MIS</td><td>Integrated beneficiary registry

An integrated beneficiary registry consolidates data from multiple programme MISs to provide a unified view of who is receiving what – supporting coordination, identification of overlaps and gaps, and cumulative monitoring across programmes.

Select examples

▶ Armenia's e-social system</td></tr>
<tr><td>Cross-sectoral interoperability</td><td colspan="2">All system types can connect – through APIs, data exchange layers, or whole-of-government platforms – with registries managed by other sectors, including civil registration, tax, employment, health and disability. This is typically enabled by a foundational unique identifier and supported by legal data-sharing frameworks.

Select examples

▶ Chile: Registro de Información Social
▶ Turkey: Integrated Social Assistance System
▶ Belgium: Crossroads Bank for Social Security</td></tr>
</table>

- **Type of data collected and managed**: Social registries typically contain socio-economic data on all potential beneficiaries and their households. Exact data collected varies (depending on the user programmes' eligibility criteria), but may encompass roster household composition information; geospatial identifying information; self-reported and/or verified information on income; the education, employment and health status of each individual; information on housing (e.g. type of housing material, connection to water, electricity, and so forth) and assets (e.g. vehicle, land, livestock, etc.). **Many social registries also collect some form of disability-related data**, although the approach and quality varies significantly, with implications for its usefulness for both social protection and disability policy purposes (see Box 3 ▶).

- **Focus**: Anyone in need versus specific population groups (e.g. only those pre-classified as poor); those who are potentially eligible (social registries) versus current beneficiaries (beneficiary registries), etc.

- **Coverage**: Varies widely (also depending on function), from lower than 5 % to almost 100 % coverage of the population; partly achieved via data-sharing across government databases.

- **Type/amount of data collected/stored**: Varies widely, from minimal to extensive, depending on function, policy/operational choices and uses (see above). For example, integrated beneficiary registries often only retain the data required to provide a consolidated overview of benefits delivered to each household or individual.

- **How data are collected and updated**: The two most frequent approaches to data collection are: on-demand registration, which relies on households going to an office, or accessing an application/website, to apply and 'census-style' door-to door registration, which entails all or selected households in an area being interviewed at certain intervals. Both approaches offer significant advantages and disadvantages (see Barca & Hebbar, 2020 for a full list), including in terms of data currency.

- **Interoperability and data sharing**: This varies widely, from not at all to extensive data sharing across government databases (usually tax, civil registry, land ownership, disability status, etc.), usually enabled by a unique identifier and strong data protection legal frameworks.

BOX 3. The challenge of disability data quality within social registries

Social registries increasingly collect disability-related data, but the way this is done varies widely and often limits its usefulness (Barca et al., 2021). Many still rely on a single filter question – such as 'Does [name] have a disability? Yes/No' – which is likely to miss people who experience functional difficulties, but do not self-identify as having a disability, particularly older persons and those in contexts where stigma is high. Others ask about the type of disability using impairment-based categories without capturing severity or support needs (see Barca et al., 2021, Table 2 for country examples).

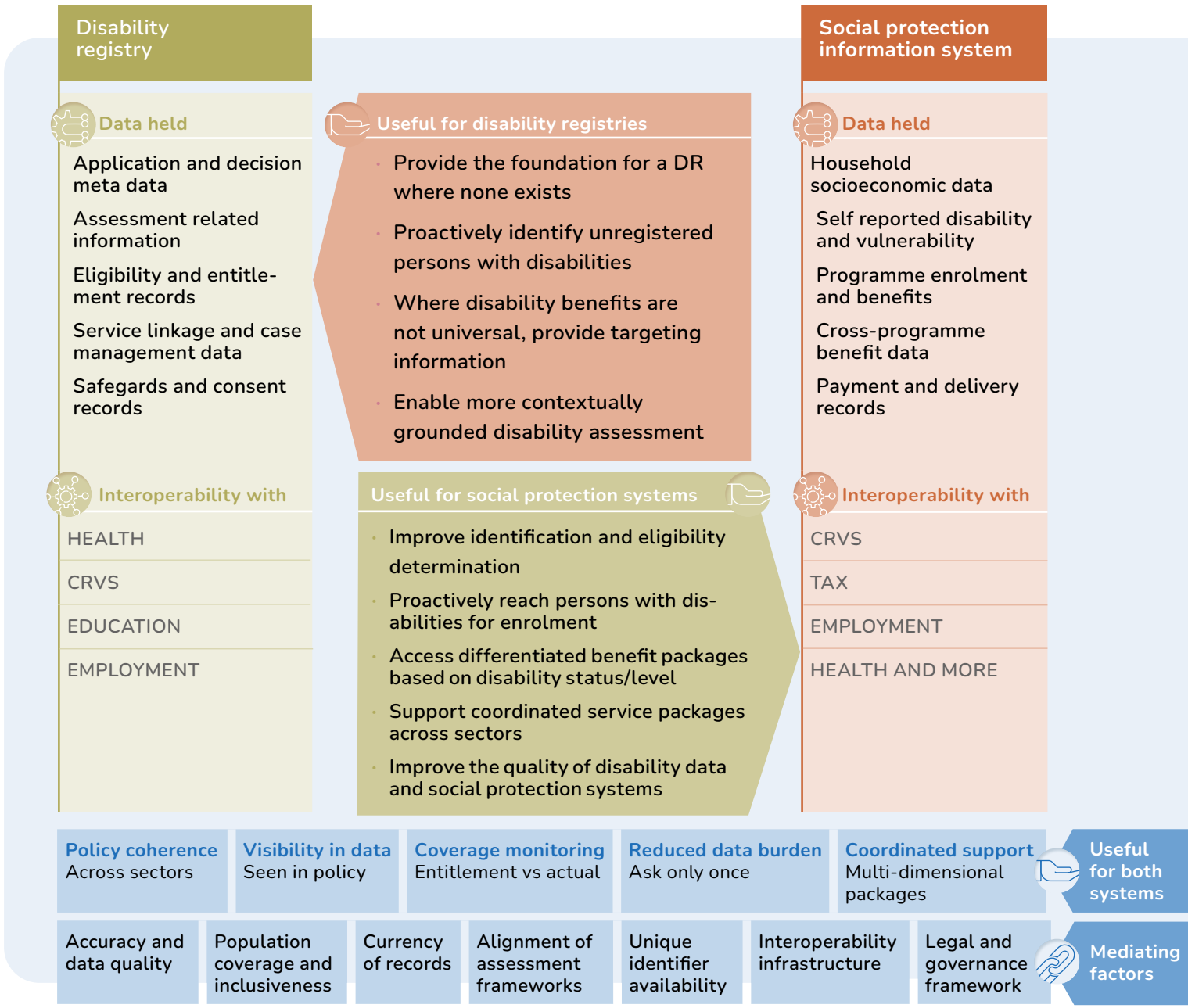
Several tools and approaches exist to strengthen disability identification. The Washington Group Short Set ▶, widely used in censuses and surveys, captures functional difficulties across six domains and allows for inferring severity from a graded response scale. However, it under-identifies persons with psychosocial and intellectual disabilities, underestimates disability prevalence among children, and does not capture environmental barriers, assistive device use, or support needs. The Washington Group Enhanced Short Set and the UNICEF/WG Child Functioning Module address some of these gaps, while WHODAS 2.0 ▶ offers a more comprehensive assessment of functioning, but is more resource-intensive to administer. Alternative disability proxies are also used, including questions on chronic or long-term illness, limitations in daily activities, or whether a household member requires additional care (World Bank & UNICEF, 2025). Each approach captures a different dimension of disability, and countries should consider which combination best fits their context, capacity, and policy objectives.

Critically, whichever approach is adopted, social registries should also ask whether household members hold an official disability status or card. Some countries have made the mistake of replacing questions on official disability status with functional difficulty questions, removing the possibility of analysing the overlap between the two (World Bank & UNICEF, 2025). Ideally, questions on functional difficulties should be complemented by a question on official disability status and its classification, enabling both referral and analysis of the gap between self-reported difficulty and formal registration. Further, enumerators should be appropriately trained to ensure data quality. However, none of these tools replace a comprehensive individual disability and support needs assessment, which requires a complementary, in-depth process, ideally linked to a disability registry.

4 What are the linkages between the two systems?

Many benefits can be reaped if better information exchange is sought between disability registries and social protection information systems. These are visualised in **Figure 2**, and demonstrated with country examples in the remainder of this section.

Figure 2. Potential linkages between disability registries (DRs) and social protection information systems (SPISs)



What is the value of coordination across both systems?

There are specific advantages to data flowing from the disability registry to the social protection information system, and vice versa. **Some key potential benefits – highlighted in the boxes under Figure 2 ▶ – cut across both systems and go beyond the sharing of data alone (illustrated with country examples in Box 4 ▶)** and include the following:

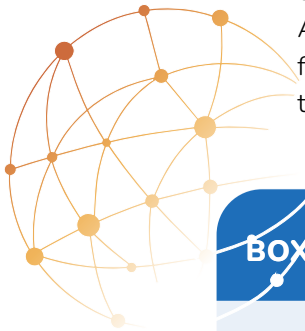
- **Greater policy coherence across two sectors that have historically operated in silos.** Disability and social protection are often administered by different agencies, with limited formal coordination. Strategic engagement with each other's systems, data, and processes creates institutional incentives for greater coherence – including shared indicator frameworks, joint planning based on a more complete picture of the overrepresentation of persons with disabilities in vulnerable populations, their specific support needs and the costs they face, and the coordinated monitoring of outcomes that neither sector can track alone.

- **Being seen in the data is a prerequisite for being seen in policy.** Persons with disabilities who are not registered are effectively invisible to policymakers and planners – unknown in terms of how many they are, where they live, and what they need. Disability registries, and their linkages with social protection data, are, therefore, foundational to evidence-based, disability-inclusive social protection policy planning and resource allocation.

- **Monitoring gaps between entitlement and actual coverage.** Neither system alone can answer the question of whether disability-inclusive social protection is working. Linked administrative data from the two systems enables the disaggregated analysis of coverage gaps by disability type, age, sex, and geography; assessment of factors driving non-take-up of benefits; and tracking of outcomes for persons with disabilities across programmes over time – the kind of monitoring that is simply not possible when the two systems remain disconnected (see DCI's standards-based approach to enabling this use case here ▶). Combining such data with census and national survey data can help monitor performance at the population level.

- **Where data are shared across sectoral registries, a reduction in the cost and burden of data collection – for governments as well as users.** According to the 'ask only once' principle increasingly being adopted in many countries where e-government is more advanced, each sector would become a 'data holder' for key variables under its competence, while pulling data from the other sector registries on an ad-hoc basis, rather than duplicating data collection. Further, the more data are used and shared by different stakeholders (while respecting data protection and privacy best practices), the more opportunities there are to validate the data and ensure their accuracy and quality, while also jointly investing in the infrastructure required for citizens to provide meaningful feedback and grievances.

- **Coordinated, multi-dimensional support for persons with disabilities.** Interoperability enables governments to design and deliver layered packages of support – combining disability-specific benefits with income security transfers, healthcare, rehabilitation, assistive technology, employment services, and community care – rather than requiring persons with disabilities to navigate each programme independently. Achieving the twin-track approach in practice, where persons with disabilities benefit from both mainstream and disability-specific programmes simultaneously, requires the two systems to share data rather than operate in parallel.



BOX 4. How connected systems create cross-sectoral visibility

Republic of Korea. Korea's approach to disability-social protection coordination is built around two interlocking systems. The Korea National Disability Registration System (KNDRS), established in 1989, registers persons with disabilities on the basis of a medical model of assessment and serves as the authoritative record of disability status across government – covering approximately 2.6 million persons with disabilities, or around 94 % of those estimated to have a disability under the medical definition. The Social Security Information System (SSIS), launched in 2010 and continuously expanded, integrates data from over 360 welfare programmes across 22 ministries, consolidating what were previously fragmented, ministry-specific systems. Citizens access benefits through the Bokjiro single-window portal, which automatically verifies income, assets, household composition, and disability status against connected government databases – reducing eligibility determination times from 60 days in 2009 to under 10 days by 2013.

The architecture supports coordination well beyond processing efficiency. When a person registers in the KNDRS, the SSIS automatically flags relevant entitlements across ministries – including utility discounts, pension points, and tax exemptions – without requiring separate applications. A 'blind spot detection' function draws on utility records, community case management data, and risk profiling to proactively identify persons who may be eligible for benefits, but have not yet applied. By comparing KNDRS registration data with actual service claims through Bokjiro, planners can identify persons with disabilities who are registered, but not accessing their entitlements, triggering targeted local outreach. At the strategic level, the analysis of demographic trends within the KNDRS – over 55 % of registered persons with disabilities are now aged 65 or above – is actively informing a budget reorientation toward long-term care and home-based rehabilitation over vocational training.

Chile. Chile's disability and social protection data infrastructure rests on three interconnected systems. The Social Household Registry (RSH), established in 2016, is the social registry that enables household-level poverty targeting. The Social Informatio- System (RIS), established in 2012, is an integrated administrative database consoli-

dating individual civil, social, and benefit attributes from across state agencies, updated monthly. The Commission for Preventive Medicine and Disability (COMPIN) is the specialised technical authority responsible for the medical and functional certification of disability. Together, these systems underpin the Global Socio-Territorial Vulnerability Index (IGVUST), which cross-references self-reported disability data from the RSH with official medical certifications from COMPIN to construct a composite measure of household functional dependency and socioeconomic vulnerability.

This architecture enables coordination at a level of geographic precision that standalone systems cannot achieve. A 'State of Health and Dependency' indicator allows the government to allocate resources – including the National Care System – at the neighbourhood level, targeting areas where high densities of registered persons with disabilities coincide with low socioeconomic scores, and identifying service deserts where disability population clusters are distant from primary health infrastructure. Because the RIS updates monthly, the IGVUST functions as a near real-time monitoring platform, allowing authorities to track shifts in need and evaluate the effectiveness of local interventions over time.

Australia. Australia's approach centres on linking de-identified administrative data across federal and state systems to enable population-level monitoring and long-term outcome tracking for people with disabilities (PWDs). Three systems form the core architecture: the Person Level Integrated Data Asset (PLIDA), a secure national data spine integrating health, taxation, education, and social security records at the individual level; the National Disability Insurance Scheme (NDIS) Content Data Collection, which provides granular service-level data on participant goals, support packages, and outcomes; and the National Disability Data Asset (NDDA), fully operationalised in 2024/25, which links de-identified data across federal and state governments to enable analysis that crosses jurisdictional boundaries.

By linking NDIS service data with PLIDA's longitudinal welfare records, authorities can track participant transitions into employment and education over time – shifting the basis of programme evaluation from service volume to social and economic participation outcomes. Mapping NDIS participant demographics against PLIDA's housing and geography data allows planners to identify service deserts and direct specialised disability accommodation investment to areas of highest unmet need. At the strategic level, analysis of how different NDIS support packages correlate with long-term reliance on the Disability Support Pension is informing predictive budgeting for the 2026–2030 cycle and helping to identify gaps between disability-specific supports and mainstream health and justice systems.

Sources: Kim et al. (2023) ▶; Banco Integrado de Datos (2025) ▶; AIHW (2026) ▶

What are the benefits of data flowing from the social protection information system to the disability registry?

The value of social protection data flowing to disability registries varies depending on where a country sits in its system development journey – from providing the initial foundation for a registry where none yet exists, to enriching the coverage and quality of systems already in operation.

Where no disability registry exists, social protection data can provide the foundation for one. In lower-income countries at early stages of building disability registration infrastructure, social protection systems do not merely complement an existing disability registry, but effectively seed one. Where no formal disability registry exists, the data collected through cash transfer eligibility processes can provide the foundation from which a registry is built over time (**see Box 5**).

BOX 5. Leveraging disability-targeted social protection programmes for building DRs

Zambia. The Zambia Agency for Persons with Disabilities (ZAPD) has long held the mandate for disability certification, but coverage has remained limited. In parallel, the Social Cash Transfer (SCT) programme – which provides double the standard transfer rate to households with a member with a severe disability – built disability assessment directly into its registration process to determine eligibility. This produced a second, higher-coverage administrative record of persons with disabilities, developed largely independently of ZAPD's certification pathway, despite using a broadly similar assessment approach. The two processes are now being harmonised, with the goal of consolidating them into a single unified system.

Egypt. Launched in 2015, the Karama (Dignity) programme is a foundational pillar of Egypt's flagship Takaful and Karama social safety net, providing unconditional cash transfers to those unable to participate in the labour market, including the elderly and persons with disabilities. The programme currently covers approximately 1.4 million persons with disabilities. In the absence of a centralised disability registry, Karama originally conducted its own assessment to determine benefit eligibility. With the passing of the Disability Law in 2018, the Integrated Services Card (ISC) for persons with disabilities was created in 2019, drawing on the Karama database. The ISC process follows a biopsychosocial model: Medical Officers from the Ministry of Health first evaluate impairment type and severity to establish clinical eligibility, after which cases are referred to one of 232 Social Rehabilitation Offices nationwide, where functional assessments capture how disability affects daily activities, including mobility and self-care.

Dominican Republic. The disability related information in the SIUBEN social registry has allowed data analysis showing the specific vulnerabilities of households with members with disabilities, informing the design and implementation of disability benefits in response to the COVID crisis, and contributing to the development of disability registration.

Sources: USAID (2022) ▶; UNICEF (2023) ▶; World Bank (2024a, 2024b) ▶

Where disability registries are nascent, but social protection information systems are more mature, the socioeconomic data held in social registries can be directly useful in the design, targeting, and delivery of disability-specific policies and programmes. Rather than collecting this data from scratch through separate processes, disability registries and the agencies that manage them can draw on social protection data to support a range of functions, including the following:

- **Proactive identification of unregistered persons with disabilities.** Social registries that cover large shares of the population frequently capture self-reported disability or functional difficulty data – for example, through Washington Group questions embedded in registration questionnaires. This data can be used to identify individuals likely to have a disability who have not yet been formally assessed or registered, enabling proactive outreach and referral for certification, rather than relying entirely on demand-driven registration. In contexts where the most marginalised persons with disabilities are least likely to initiate registration themselves, this represents a significant, yet underutilised, opportunity for closing the gaps (Barca et. al, 2021 ▶).

- **Informing registration and eligibility determination for disability-targeted programmes.** Where disability benefits are poverty-targeted rather than universal (due to fiscal or political constraints) socioeconomic data from the social registry can be used at the eligibility determination stage – after disability status has been certified – to assess whether an applicant meets the means-test criteria, without conducting a separate socioeconomic assessment. This reduces duplication for both governments and applicants. It is important to note that socioeconomic data plays no role in disability status determination itself, which is based solely on disability-related information.

- **Enabling more complete and contextually grounded assessment.** Household demographic data collected by social protection systems can contribute to enriching the disability certification process – providing verified contextual information that assessors would otherwise need to collect independently.

What are the benefits of data flowing from the disability registry to the social protection information system?

Disability registries contain data that is critically useful to social protection systems aiming to be disability-inclusive. In particular, the following types of data and functions can improve social protection outcomes for persons with disabilities (see Box 4 ▶):

- **Improving identification and eligibility determination.** Verified disability status from a disability registry can support social protection identification and enrolment through two distinct pathways. First, where a disability registry generates an individualised service programme or entitlement record, eligibility for linked social protection benefits can be automatically triggered – calculating entitlements and initiating enrolment without requiring any additional steps from the beneficiary. Second, where benefits require an application, disability registry data can serve as verified proof of disability status, replacing or supplementing costly and time-consuming individual medical assessments conducted for programme purposes and reducing the administrative burden for both applicants and government agencies. Social registries can also use this information for the poverty score, for instance, by incorporating this information into the proxy means test (PMT) algorithms (see DCI's open interoperability standards ▶ on how both pathways can be operationalised in practice).

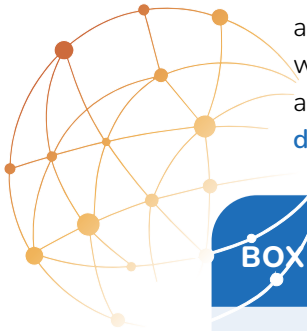
- **Proactively reaching persons with disabilities.** Even where automatic triggering or direct verification are not yet feasible, disability registry data can be used to generate lists of persons with disabilities for proactive outreach – enabling programme agencies to conduct targeted registration drives, mobile camps, or community-based enrolment efforts to reach a population that is often excluded by passive, demand-driven application processes. This is particularly relevant for persons with significant functional limitations who face the greatest barriers to self-navigating enrolment, and for whom passive registration approaches consistently underperform. This is particularly relevant during shocks, for instance, in Senegal, in response to COVID-19, it was agreed that persons with the Equal Opportunity Card would be included in the Registre National Unique, so they could benefit from cash transfers.

- **Informing benefit design and calibration.** Aggregated data from disability registries on impairment type, severity, and level and broad type of human and assistive technology-related support needed can inform the overall design planning and budgeting for disability-specific social protection benefits, including cost-of-disability adjustments to benefit levels, supplementary allowances for personal assistance, and targeted additional schemes for those with the highest support needs.

- **Supporting coordinated, comprehensive service packages.** Where disability registries include data on service receipt – such as rehabilitation, assistive technology, and supported employment – interoperability with the social protection information system enables case managers and programme administrators to see the full picture of support a person is receiving, avoid duplication, and identify gaps in the package of support being provided. Beyond social assistance, several countries are actively exploring connections between disability status data and employment systems to enforce job quotas and support job matching (e.g. Armenia, Thailand, Egypt). DCI is

currently developing interoperability standards for employment and social protection systems ▶, which would further extend the potential for disability data to support labour market inclusion.

- **Improving the quality of disability data within social protection systems.** Social protection information systems frequently collect disability data – for example, through the Washington Group Short Set on functioning embedded in social registry questionnaires – but these self-reported data may be incomplete, inconsistently captured, or of variable quality. Cross-referencing with verified assessment data from a disability registry can significantly improve the accuracy of disability-related fields within social protection systems, supporting more reliable disability-disaggregated analysis, targeting, and monitoring. Where both systems adopt the DCI's common data standards ▶, this cross-referencing can be systematic rather than ad hoc.



BOX 6. How data from DRs can support social protection systems

Estonia. Estonia's Labour Market Insurance Fund draws on medical and disability data to provide a targeted set of labour market services to eligible individuals without requiring them to initiate a separate application. The Estonian Unemployment Insurance Fund uses an information system called TETRIS, which connects via X-Road to 13 national registers to pull in medical and administrative data for work ability assessments to support the reintegration of people with disabilities into the labour market. In its first five years, this system supported nearly 15,000 people in joining the labour market (e-Estonia, 2018). This reflects Estonia's broader 'Proactive Government' model – in which services are offered on the basis of existing administrative data, rather than waiting for citizens to make a request – providing a policy framework that disability data linkages are well placed to support.

Armenia. Armenia's e-Disability Platform, operated under the Ministry of Labour and Social Affairs (MLSA), is among the clearest examples of a single disability assessment automatically triggering multiple entitlements. A single International Classification of Functioning, Disability and Health (ICF)-based functional evaluation generates eligibility for pensions, social allowances, assistive devices, and rehabilitation services across MLSA programmes – replacing what previously required five or more separate application processes with a single digital workflow. When a disability certification period nears expiry, the platform sends automated notifications to ensure continuity of support. Benefits are expected to be processed within 30 days, compared to a previous processing time of 3 to 6 months. Planned extensions will connect the platform to the employment sector registry, further expanding the range of programmes that can draw on shared disability assessment data.

Korea. Once an individual is registered in the KNDRS, government agencies verify disability status through the shared SSIS database, rather than conducting separate assessments. The registration record determines eligibility across a wide range of programmes – including the Disability Pension, income support under the National Basic Livelihood Security System, employment quotas and wage subsidies, the provision of assistive devices, transportation subsidies, and tax reductions. The same record extends to the health system: households with registered persons with disabilities may receive reductions in National Health Insurance contributions or qualify for subsidised coverage under the Medical Aid programme, reflecting the higher medical costs and reduced earning capacity typically associated with disability.

Chile. Certification from COMPIN serves as verified proof of disability status for social protection purposes, flowing into the RIS through the Plataforma Integrada de Servicios Electrónicos del Estado (PISEE) platform. This certified status feeds directly into benefit calibration. The Single Family Subsidy (SUF) – a cash transfer targeted at low-income families with children, pregnant women, and persons with disabilities – provides double the standard transfer amount to households with a certified disabled member, replacing the need for a separate programme-level disability assessment with a single authoritative determination.

Egypt. The Karama social pension illustrates how the development of a centralised disability registry can progressively reduce administrative duplication in social protection. In the absence of such a registry, the programme originally conducted its own disability assessments to determine eligibility for benefits. The subsequent development of the Integrated Services Card created a verified, cross-governmental record of disability status, removing the rationale for these parallel processes. When a person now applies for Karama, the Ministry draws directly on their disability status recorded in the Integrated Services Card to determine level of need and benefit eligibility, and separate programme-level assessments are being phased out.

Thailand. Thailand's Department of Empowerment of Persons with Disabilities (DEP) maintains a national disability registry of approximately 2.25 million people. Registration requires a formal medical assessment at provincial disability service centres and grants a disability ID card that serves as the gateway to a wide range of benefits across social protection programmes, including:

- Automatic enrolment in the Universal Coverage Scheme, which provides free medical treatment, rehabilitation, and assistive devices.
- Disability allowance (800 Thai Bhat [THB] per month for adults and 1,000 THB for children under 18) uses the disability ID as the primary verified input for eligibility determination by local offices.
- Disability card holders who also hold the State Welfare Card, a means-tested benefit for low-income households, receive an additional 200 THB monthly top-up.

- For insured persons in formal employment who become disabled, the Social Security Fund provides income replacement at 50% of the last wage, with the disability ID used to verify status.

Germany: Germany's Federal Employment Agency maintains a formal registry of severely disabled workers as part of administering its 5% quota for companies with 20+ employees. Employers must report the number of severely disabled employees annually, and the agency uses this data to facilitate placements.

Cambodia (in development). Cambodia's Digital Social Protection Platform, currently under development, aims to allow individuals who hold a disability card to be automatically considered eligible for the Family Package benefit – bypassing a separate commune-level enrolment step. Once implemented, this will significantly reduce the administrative barriers faced by persons with disabilities when navigating social protection systems.

Sources: Eurofound (2021) ▶; key informant interviews

5 What factors mediate these benefits and the operational challenges and risks?

The benefits described in the preceding sections are not automatic. Whether interoperability between disability registries and social protection information systems delivers meaningful improvements in practice depends on a set of mediating factors relating to the quality and design of each system, the institutional and legal environment in which they operate, and the governance arrangements that determine how data is shared and used. At the same time, interoperability introduces risks that need to be actively managed, particularly given the sensitivity of disability data and the potential for poorly designed systems to deepen rather than reduce exclusion.

Mediating factors

Quality, coverage, and currency of data in each system

The value of data exchange is directly dependent on the coverage, quality and currency of the data being exchanged. As discussed in section 3 ▶, the coverage of disability registries depends on several factors. Particularly where coverage is nascent – with less than 2.5% of the estimated disability population registered – registries are likely to be skewed towards relatively better-off individuals. This is in part because the entitlements first attached to disability status, such as vehicle subsidies, tax exemptions, and employment quota access, are of most practical value to those already in formal employment or with higher incomes, creating stronger incentives for them to register than for the most marginalised persons with disabilities. These coverage gaps – whether driven by the incentive structure of early entitlements, gender, or geography – are not corrected by interoperability alone; they require active outreach, community-based registration, and the meaningful involvement of organisations of persons with disabilities. Similarly, social protection information systems with limited population coverage or that capture disability only through self-reported binary fields (as shown in Box 3 ▶) offer limited value to disability registries. Both systems need to achieve sufficient coverage, accuracy, and currency for interoperability to yield results.

Unique identifiers and interoperability infrastructure

Data exchange between systems requires a reliable mechanism for matching records across them – typically a unique individual identifier that is consistent across both the disability registry and the social protection information system, and embedded in the broader digital government infrastructure. This is far from a given: over 800 million people worldwide still lack official proof of identity – meaning that roughly one in ten people cannot prove who they are – and over half of these are children whose births

have never been registered (World Bank, 2025a ▶). Persons with disabilities may face additional barriers to obtaining identity documents, including inaccessible registration procedures, transport and communication barriers, stigma, institutionalisation, and lack of reasonable accommodation. Where unique identifiers do not exist, are not consistently assigned, or are not shared across systems, record linkage depends on probabilistic matching using names, dates of birth, and addresses – an approach that introduces errors and is particularly unreliable for populations with incomplete or inconsistent documentation.

Beyond individual identifiers, meaningful interoperability depends on the existence of shared technical infrastructure that enables systems managed by different agencies to exchange data securely and reliably. This infrastructure can take different forms depending on a country's digital architecture and institutional context. Some countries have invested in government-wide data exchange platforms – middleware layers that route data requests between sovereign systems without centralising data ownership – while others have developed consolidated whole-of-government platforms that bring data from multiple agencies into a single environment for welfare administration purposes. Both models can support disability register-social protection interoperability, but they have different implications for data governance, institutional power, and scalability – and the choice between them is as much a political and institutional question as a technical one (see Box 5 ▶). Where neither model is yet in place, interoperability between disability registries and social protection systems may need to be built on bespoke bilateral data-sharing arrangements – achievable, but harder to sustain and scale. Investment in foundational digital public infrastructure is, therefore, often a precondition for systematic interoperability, rather than something that can be resolved at the level of the two systems themselves.

Legal and data governance frameworks

Disability data is among the most sensitive categories of personal data, and its collection, storage, and sharing is, rightly, subject to legal protections in many jurisdictions. Data protection legislation, consent requirements, and sector-specific privacy frameworks can impose significant constraints on the sharing of disability assessment data with social protection agencies, particularly where data protection regimes have not been designed with cross-sectoral data sharing in mind. At the same time, weak or absent legal frameworks create the risk of misuse: disability data shared without adequate safeguards can be used for purposes beyond those for which it was collected, disclosed to employers or other third parties, or retained beyond the period for which it is needed.

Getting this balance right requires clear legal frameworks that specify the purposes for which disability data can be shared, the agencies that can access it, the consent mechanisms that apply, and the audit and accountability arrangements that govern its use. Chile's inter-agency data sharing arrangements offer one illustration of what this looks like in practice. A formal agreement between the Ministry of Social Development and Family and the Civil Registry and Identification Service specifies the variables to be shared, exchange mechanisms and transfer frequency, and audit trail require-

ments, as well as explicit constraints on use: information may only be used for the purposes authorised under the agreement, access is limited to named officials and authorised third parties, and the Ministry bears formal responsibility for confidentiality and data handling throughout.

Institutional relationships and coordination capacity

Interoperability is as much an institutional challenge as a technical one. Disability registries and social protection systems are typically managed by different agencies, often with different mandates and sometimes competing interests – and in many countries the institutional will and capacity to use shared infrastructure purposefully is the binding constraint, not the technology itself. Institutional mandates shape what is possible: Chile's Ministry of Social Development and Family holds a sufficiently broad cross-sectoral mandate, codified within laws, to drive interoperability efforts in a top-down manner, compensating for the fact that disability and social protection functions sit within separate institutional homes. In contrast, in Korea and Armenia, both functions are housed within the same ministry, making coordination a more surmountable challenge from the outset.

Potential risks

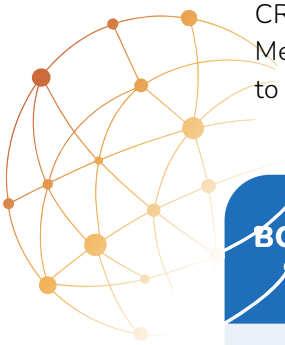
Risk of double exclusion

A distinctive risk in the disability context is that linking social protection access to verified disability certification status can inadvertently create new exclusion mechanisms. Where certification processes are inaccessible, costly, or geographically concentrated, making certification a prerequisite for social protection benefits effectively excludes the most marginalised persons with disabilities from programmes they are entitled to. This risk is particularly acute in LMICs where disability assessment infrastructure is limited and certification processes remain urban-centred and/or specialist-dependent. **Similarly, conditioning access to disability benefits to poverty targeting** (set through PMT or else) can exclude many persons with significant disabilities and support needs living in quasi or non-poor families who do not have the means to support themselves without adverse consequence for their households. Combined, these requirements can multiply exclusion errors. System design needs to actively guard against this: interoperability should expand access to benefits, not create a new administrative hurdle that must be cleared before access is granted. Interim arrangements – such as provisional eligibility based on self-reported functional difficulty, pending formal certification – may be needed to ensure that integration does not inadvertently narrow coverage.

Risks to autonomy and the rights of persons with disabilities

Interoperability raises important questions about the rights of persons with disabilities with respect to their own data. The CRPD affirms the right of persons with disabilities to autonomy and self-determination, including in relation to decisions about

their lives and support needs. Systems that automatically share disability assessment data with social protection agencies – or that use disability status to trigger enrolment or exclusion from programmes without the knowledge or consent of the individual – may advance administrative efficiency at the cost of individual agency. Organisations of persons with disabilities (OPDs) should, therefore, be involved from the design stage, and in periodic reviews of interoperability arrangements, to help ensure that data-sharing rules, consent processes, safeguards and grievance mechanisms are aligned with CRPD principles and do not create new risks of exclusion, surveillance or misuse. Meaningful consent, transparency on how data are used and shared, and mechanisms to access, correct and contest records are core requirements.



BOX 7. Building the conditions for interoperability: Enablers and challenges from country experiences

Armenia: An enabling environment built on legal clarity and shared infrastructure Armenia's e-Disability Platform illustrates how a deliberately constructed enabling environment can support comprehensive interoperability. The legal framework is explicit and layered: the Law on the Rights of Persons with Disabilities (2021) establishes the Platform's authority; a government resolution specifies disability data exchange standards including REST API formats, data schemas, and consent requirements; and the Law on Protection of Personal Data (2015, amended 2024) governs data handling. The Public Services Number (PSN) provides a consistent unique identifier across all government systems. The Government Interoperability Platform, in place since 2015, standardises workflows and API contracts for data exchange across health and social registries. Consent is operationalised at a granular level, specifying which data categories are accessible to which agencies. Multi-level institutional coordination through the National Commission on People with Disabilities (PWDs), the MLSA Interagency Working Group, and the Information Systems Agency of Armenia ensures accountability across the architecture. The Nork Technology Center, which administers the platform, operates to ISO 27001 standards on information security. Implementation was not without friction: pre-2022 siloed databases used incompatible formats, resulting in data rejection rates of around 23% in early pilots, which the Nork Technology Center addressed by building API wrappers for legacy systems.

Thailand: API-driven interoperability built on a national ID foundation. Thailand's disability allowance delivery illustrates how a foundational digital identity infrastructure can enable end-to-end automated eligibility verification. Once an applicant presents their disability ID, a multi-agency API pipeline handles the full verification process: identity and alive status are confirmed via the Ministry of Interior's ThaID system; disability status is verified through the Department of Empowerment of Persons with Disabilities (DEP) API; residency and local jurisdiction are mapped via the Department of Local Administration; cross-ministry duplication checks, including

against the Social Security Fund, are performed through the Government Data Exchange Hub; and payment is triggered directly to the applicant's PromptPay account. Local officers receive a pre-verified digital flag on their dashboard to authorise the payout, significantly reducing manual processing. The API infrastructure is backed by data sharing agreements involving 29 agencies.

Chile: Navigating asymmetric capacity and retrospective standardisation. Chile's experience highlights the challenges that arise when two systems at very different stages of digital maturity attempt to integrate. The social protection information systems have been operational since the mid-2000s, while the disability registry was only digitised from 2020. Interoperability efforts required substantial retrospective data standardisation: building shared data dictionaries, reconciling older and newer disability assessment frameworks, and aligning field definitions across systems with different institutional histories. The disability registry also lacked data documentation at the outset, requiring substantial efforts from the Ministry of Social Development and Family to construct data pipelines – a process that has had to be repeated as models of disability assessment have changed. Real-time web service exchange was initially planned, but reduced to batch-mode transfers due to capacity mismatch.

Korea: The compounding value of early investment in shared identifiers. Korea built its integrated disability and welfare architecture incrementally over four decades, starting from a commitment to the Resident Registration Number as a universal unique identifier, and progressively connecting systems as institutional capacity and trust developed. The KNDRS was established in 1989; the SSIS, which eventually connected over 360 programmes across 22 ministries, was launched in 2010. The lesson for countries at early stages of development is less about replicating Korea's specific path than recognising that early investment in shared identifiers and common data standards compounds in value: each additional system connected to shared infrastructure delivers value at a lower incremental cost than a bespoke bilateral arrangement would.



6 From potential to practice: Entry points for action

The country experiences examined in this paper demonstrate that meaningful interoperability between disability registries and social protection information systems is achievable – and that it can deliver substantial improvements in the identification, targeting, and delivery of support for persons with disabilities. The practical entry points in this section are intended to help governments, development partners, and organisations of persons with disabilities identify where to start and what to prioritise.

ENTRY POINT 1. Conduct a diagnostic

Before pursuing interoperability, develop a clear picture of what each system currently holds and what it can realistically contribute. A structured diagnostic of both the disability registry and the social protection information system should cover: population coverage and known gaps in terms of accessibility, comprehensiveness and reliability; the disability status criteria and assessment framework in use and their alignment with CRPD principles; the availability and consistency of unique identifiers; the legal and data governance framework for cross-sectoral data sharing; and the institutional relationships, or absence thereof, between the agencies responsible for each system. Even a rapid assessment can identify whether the preconditions for data exchange are in place, where the most significant gaps lie, and what sequencing of investments makes the most sense. Box 8 ▶ sets out a set of guiding questions to structure this process.

A data mapping exercise is a practical first step in this diagnostic: documenting what fields exist in each system, how key variables are defined, where definitions conflict, and what the coverage and quality of each field actually is. This exercise shows the compatibility of data standards and dictionaries, and informs the strategy for harmonisation where gaps exist.

ENTRY POINT 2. Identify where you are in the journey and prioritise accordingly

Countries can be at very different stages of system development, and the appropriate entry point for interoperability work will vary accordingly. Table 2 ▶ sets out four scenarios – from standalone systems with no formal data sharing through to full integration. These are not strictly sequential: countries may already have elements of more advanced scenarios in place, or may move directly to a more integrated approach, depending on their existing digital infrastructure, institutional capacity and political will. The goal is to identify where each system currently sits and what the most realistic next steps are.

Table 2. Priority actions and how DCI standards can help

	Nascent systems	Ad hoc data sharing	Structured interoperability
System state	DR and social protection systems exist independently with different institution homes, data standards, and ID systems. It is also possible that one or both are absent or still emerging.	Systems exist separately, but have begun exchanging data on an ad hoc basis.	Automated or near-real-time data exchange via APIs. Disability status used directly in determining social protection eligibility.
Data sharing	None; requests are manual and ad hoc.	There are periodic exchanges via agreed protocols (e.g. batch transfers).	There is real-time or near-real-time exchange via APIs or shared data exchange infrastructure.
Priority actions	• Strengthen each system's coverage and data quality independently. • Conduct joint mapping of data holdings. • Harmonise data models.	• Pilot a low-risk use case, jointly agreed between agencies. • Use socio-economic data to enrich disability profiles.	• Use linked data for planning and resource targeting. • Actively enrol those falling through the cracks. • Use aggregated DR data to design or reform social protection schemes or tiered support packages.
DCI standards that could help	▶ Data	▶ Process ▶ Data	▶ Process ▶ Data ▶ API

ENTRY POINT 3. Address the disability status certification bottleneck

In many LMICs, the accessibility of disability certification is the single most significant practical barrier to both disability registry coverage and to any interoperability arrangement that links social protection access to certified disability status. Expanding mobile certification camps, digitising the assessment and certification process, developing assessment tools that can be used by trained local level assessors, and decentralising assessment points are all concrete actions that can be pursued independently of broader system integration work.

ENTRY POINT 4. Pilot before scaling

In any stage, identify a specific bounded use case – a single programme, a single data flow, a single geographic area – and treat it as a learning exercise before committing to broader integration. A well-designed pilot generates evidence on what works, surfaces practical and institutional obstacles early, and builds the cross-agency trust that more

comprehensive arrangements require. The choice of pilot matters: select a use case in which both agencies have an incentive to participate and where success is visible enough to build political support for scaling. Most countries featured in this paper have started with eligibility determination.

ENTRY POINT 5. Involve organisations of persons with disabilities as active partners

OPD engagement should go beyond formal consultation. Funding OPDs to participate meaningfully in system design processes, using them as outreach and registration partners in communities that facility-based systems consistently miss, and involving them in data quality audits – checking whether registered populations reflect the actual diversity of disability experience in a given context – are all concrete actions that improve both coverage and system legitimacy. OPDs are also often the most reliable source of intelligence on where systems are failing in practice, which is precisely the information needed to improve them.

BOX 8. Guiding questions for cross-sectoral engagement on interoperability between disability registries and social protection systems

Policy-level questions:

- What are the policy objectives and functions of data collected by the disability registry and the social protection information system in your country? Are there opportunities for mutual benefit, as described in section 3 ▶? Are converging objectives articulated in a joint vision or embedded in a policy, strategy, or law?

Across existing systems:

- What is the target population of each system, and who is effectively covered? To what extent do these populations overlap – and what does the gap between them represent?
- What variables does each system collect? What opportunities exist for harmonising definitions and reducing data collection burden via shared data models?
- What interoperability or data-sharing agreements already exist between disability and social protection agencies?
- How accurate, current, and trusted is the data in each system? What investment is needed to make each system's data credible to external users?
- Who are the key stakeholders whose buy-in is necessary – across government levels, across ministries, and in civil society – and how are organisations of persons with disabilities involved?

Looking ahead:

- How can each system better inform the other in relation to: eligibility determination and benefit delivery; personalised service planning and case management; and planning, resource allocation, and monitoring?
- How can data sharing be operationalised in terms of unique identifiers, common data standards, APIs, legal frameworks, institutional governance, and sustainable financing?

→ For technical guidance on operationalising these linkages – including data standards, API specifications, and governance frameworks – see the DCI Disability Registry Interoperability Standards at standards.spdci.org/standards/wip-disability-registry ▶.

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Address:

Friedrich-Ebert-Allee 32 + 36
53113 Bonn/Germany
T +49 228 44 60 – 0
F +49 228 44 60 – 17 66
E info@giz.de
I www.giz.de

Dag-Hammerskjöld-Weg 1-5
65760 Eschborn/Germany
T +49 61 96 79 – 0
F +49 61 96 79 – 11 15

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Authors:
Madhumitha Hebbar, Alexandre Cote, and Shiv Chandaria

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Susan Sellars

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E-mail: ▶ **contact@spdci.org**
Website: ▶ **www.spdci.org**

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