



issa

INTERNATIONAL SOCIAL SECURITY ASSOCIATION

# Social Policy Highlight

23



## Information and Communication Technology: Facilitating innovative social security

Effective Information and Communication Technology (ICT) solutions are essential to the successful implementation of national social policy, including social security reform and the design and strategic management of integrated social security programmes. Putting in place ICT solutions that are appropriate, affordable and lasting can present challenges, however – but the good practice experiences of social security administrations show how these may be surmounted. As this *Highlight* concludes, ICT is making a major contribution to the positive transformation of the operations and administration of social security agencies worldwide, and is vital for shaping efficient client-centred administrations and programmes that cater to the different and evolving needs and aspirations of populations.

*Hans-Horst Konkolewsky, ISSA Secretary General*

The increasing importance attributed to Information and Communication Technology (ICT) in social security organizations represents a global trend. Administrations are increasingly turning to ICT solutions to provide new services, satisfy stakeholders through improved quality and increase the efficiency of major processes. ICT has also played a role in the extension of coverage. The use of ICT in improving contribution collection and compliance, simplifying sign up and claims procedures and providing better information to the population are all examples of the concrete impact of appropriate ICT solutions. However, the introduction and management of ICT is not without risk, particularly as projects can require significant investment in infrastructure and staffing. Administrations need to ensure that the services provided are consistent with stakeholder needs. And the ICT process must be managed efficiently to ensure that the results from the implementation of new ICT measures, at the very least, match expectations.

### This issue

- Highlights four sustainable and positive contributions that ICT is making to social security
- Summarizes the challenges of putting in place and managing effective ICT
- Identifies key elements to the successful implementation of ICT solutions

## Key contributions of ICT

- Effective ICT is essential in putting in place new and innovative policy measures
- ICT enables the introduction and implementation of large-scale, integrated social programmes
- ICT improves how benefits and services are delivered and perceived by the population
- ICT improves operational efficiency and facilitates better decision-making

## Effective ICT is essential in putting in place new and innovative policy measures

As social security adjusts to new realities, ICT is increasingly facilitating new and innovative ways to provide benefits and collect contributions. For example, in the provision of disability benefits, increasing effort is now being focused on proactive and preventive measures as well as Return-to-Work measures. The effectiveness of such measures not only requires knowledge of an individual's situation but coordination among different stakeholders. Efficient and effective information management facilitated by ICT is thus a prerequisite of such an approach.

ICT has also been effective in facilitating contribution collection and compliance. In the Republic of Moldova, the introduction of effective ICT measures has allowed the introduction of an online system to combat contribution evasion by employers. Employees can check whether their employer has paid contributions on a real-time basis, thus allowing them to anticipate any potential problems in payment. The Swaziland National Provident Fund introduced a Web system to collect contributions electronically from employers and to provide members with an easy way of accessing information regarding their contributions. Other countries such as Argentina, Estonia, the People's Republic of China and Mexico have put in place systems which allow the checking of contribution payments between the social security administration and the collection agencies (typically the tax authorities).

## ICT enables the introduction and implementation of large-scale, integrated social programmes

Effective use of technology has also enabled better coordination between various stakeholders which in turn facilitates more holistic policy responses to the challenges facing social security.

By exploiting the advantages of shared information systems, policies can be tailored to more accurately reflect the individual situations of the population. In many countries in Latin America, unified record keeping has been introduced. Individuals have a unique identification number and often unified contribution collection. This not only simplifies the collection process but allows data exchange between institutions and has facilitated the implementation of conditional cash transfer programmes.

ICT allows administrations to verify that those who are entitled to benefits receive that to which they are entitled. It can help also reduce administrative error or abuse of the benefit system.

Integrated systems and coordination can also strengthen the implementation of international social security agreements, particularly those that respond to the needs of migrant workers.

## ICT improves how benefits and services are delivered and perceived by the population

Web-based communication allows greater interaction and communication between the population and social security administrations. Many administrations provide information through a dedicated Website, but there is an increasing trend towards more tailored “e-services” which use Web-based applications and improve interaction and relevance for users. In recent years, mobile phone technology and personalized responses to individual needs have further improved the service offering.

The provision of “e-services” is now seen as a mainstream approach. It involves the provision of virtual service centres where clients can easily and quickly complete their transactions electronically without manual intervention. In order to avoid the fragmentation of service sites, institutions have often opted for the implementation of “one-stop” Web portals, which provide unified entry points to access services.

E-services have resulted in a wide range of benefits such as:

- Increased accessibility, both geographically and time-wise.
- Personalized services, such as individualized information and benefit projections.
- Possibility to carry out transactions remotely, such as adhesion, contribution payment and making claims.
- Improved efficiency in transactions, which can be provided more quickly and at less cost.

Although much depends on how systems are put in place and managed, successful implementation of e-services can lead to a reduction in transaction times, cost savings and an increase in customer satisfaction.

Successful implementation of e-services is not straightforward. It often requires significant changes in the way a social security administration works including:

- Organizational change by transforming working processes.
- Human change by training personnel.
- Cultural change by embracing the transformation.
- Communication changes to ensure the population is informed of access to information possibilities.

Ultimately, it is important that new tools are reliable and easy to use. Other communication channels, such as call centres and experimental video-based systems, have often been introduced in parallel to Web technology, reflecting the fact that parts of the population are often unable or unwilling to access information in this way.

Successful implementation has tended to occur when administrations have used the opportunity to transform the way they operate. By providing the online services the public needs or desires, they have put in place a citizen-centric approach.

## ICT in practice

- The Mbao pension scheme in Kenya allows contributions to be made via mobile phone money transfer. In the United Republic of Tanzania and Uganda, contribution balances can be checked in the same way. The measure allows costs to be kept to a minimum and has facilitated increased participation by the informal sector and the self-employed.
- Singapore’s Central Provident Fund developed their e-services by multiplying the points of access to members, including mobile phone applications allowing calculation of contributions and online inboxes. The result was a 99 per cent overall satisfaction rate from members and beneficiaries.
- The Canada Revenue Agency (CRA) manages family benefits and has created an “Automated Benefits Application” for beneficiaries. There is a direct and secure link between the province registering the birth and the CRA, which then determines if the applicant is eligible for benefits.
- Since December 2009, employers in Cameroon can make declarations electronically to the National Social Insurance Fund (NSIF). The NSIF also used ICT to detect fraud and managed to identify 32,000 irregular claimants in 2009, leading to savings of CFA francs 2.5 billion.

## ICT improves operational efficiency and facilitates better decision-making

With increasing pressure on social security finances, ICT continues to provide possibilities for social security administrations to reduce costs and manage resources more efficiently. Processes across different social security institutions need to be coordinated and standardized and the data recording and storing methods compatible so that organizations can share solutions and integrated policy solutions can be put in place. However, successful systems that reflect the growing sophistication of social security schemes can improve administrative efficiency.

Effective use of ICT can also improve decision-making. Decision-makers can be supported by accurate and timely information as well as appropriate analytical tools. Improvements in ICT tools and processes mean that raw data can be used to generate reports and analysis in very short time frames. These new techniques allow policy-makers and managers to understand complex information about social security schemes, including benefits provided and the collection of contributions.

In practical terms, this enables administrations to:

- Better manage their employees and ensure that staff are attributed to the appropriate tasks. It also allows greater autonomy – information can be made available not only to decision-makers or analysts, but also to staff in various departments at various levels. This can be critical if the administration wishes to effectively carry out case management or an individual assessment of disability cases for example.
- Measure response times and other “Key Performance Indicators”. The public confidence in a social security system depends on how well and transparent the administration is; this can now be more accurately measured and tracked.
- Assess the impact of policies on individuals. For example, policy-makers can use real data to assess if benefit provision

## Reducing costs and improving service times

In Côte d’Ivoire, the Social Insurance Institute – National Social Insurance Fund (IPS-CNPS) has been using a system called “Citidirect” since 2008 to pay benefits to members’ accounts in real-time through the banking system. This has resulted in a reduction in transaction costs per insured member from CFA francs 1,300 to CFA francs 300 and achieved savings of more than CFA francs 240 million a year. The NSSF in Uganda introduced online applications for benefits and instituted electronic handling of the claims process. These, together with other procedural changes, have reduced the benefits processing time in the NSSF from an average of 105 days in 2009 to 18 days in 2011.

is meeting its objectives. The aim of benefit provision may be redistributive in theory. Testing this premise with real data allows stakeholders to assess whether this is the case in practice.

## Managing complex challenges

ICT investment can be significant and although the potential advantages of ICT are numerous, as solutions become more complex and management time is put under pressure, there are a number of challenges that must be addressed to ensure implementation is successful:

- The cost of solutions – both implementation and running costs are often underestimated, leading to cost overruns and disappointing return on investment. For example an ICT project for the United Kingdom’s National Health Service was eventually abandoned in 2011 after over GBP 10 billion had been spent.
- Inappropriate solutions – the services provided may be driven by what the technology does and not what the customer actually wants.
- The complexity of certain ICT systems poses problems – this sometimes means that systems are difficult to manage and do not always fulfil expectations.
- The rapid evolution of product and service offerings can impact negatively on the stability of business processes through excessive changes in approaches which are difficult to manage.
- The training of staff has to be addressed, particularly if employees of social security administrations are expected to play a variety of roles.

## Success factors

Implementation and operation of ICT solutions requires appropriate preparation and ongoing management of the challenges and problems that may arise. Examples of successful ICT projects highlight a number of factors that need to be considered:

- In general terms, putting in place a detailed business plan and defining a roadmap and milestones for implementation and operation is required. Such an approach facilitates analysis of the costs and benefits realized by new technology and allows anticipation of future technical, budgetary and administrative constraints. When the new processes are up and running, a continual check of whether customer needs are being met and efficiency targets achieved is essential. For example, are client queries being more speedily resolved and are transactions

- with different stakeholders being carried out more efficiently?
- The ICT platform must be adequately prepared. For instance, processes must be able to handle peaks of requests and must be flexible enough to add new processes and services. The server infrastructure must ensure adequate performance and be easy to configure when adding new functions or recovering from failures.
- The use of standardized technologies and interconnecting products and services. This approach enables the institution to cope with technology dependency by ensuring a controlled product diversification. For example, using products of different brands that are interchangeable enables the institution to address integration issues and reduce dependency on single brands. This approach also increases the capacity to deal with technology evolution by enlarging the options of products that can be used in the future.
- Effective use of Business Continuity Management (BCM) techniques is a significant element of any approach. BCM is a holistic management process that identifies potential threats, impacts to business and provides a framework to build a resilient system that effectively safeguards the interest of stakeholders and the organization's reputation.
- Use of an Information Technology Infrastructure Library (ITIL) to develop good practices for IT services management, development and operations. ITIL provides detailed descriptions of a number of important IT practices and provides comprehensive checklists, tasks and procedures that any IT organization can tailor to its needs.

## Conclusion

Increased development of ICT has enabled social security institutions to improve their administration and better position themselves as efficient organizations offering quality services to the covered population. But ICT often plays an important enabling role, allowing policy-makers to introduce new ways of providing benefits which more closely meet the need of society. ICT has enabled the implementation of increasingly sophisticated social programmes, reforms and coverage extension measures, which can be accomplished more effectively and quickly.

Despite the positive trends in ICT use, there are also a number of cases where results have been disappointing – customer satisfaction may not have increased or the promised efficiency savings not realized. The introduction of ICT does not guarantee success; it must be closely managed and appropriate resources devoted to it to ensure this happens. At each stage, objectives need to be checked against the reality of the situation.

Therefore there remain both opportunities for improvement and challenges to face for social security administrations in the use of ICT.

- First, ICT's potential has not been fully exploited as many administrative processes are still based on outdated or inappropriate approaches.
- Second, challenges for ICT application remain, including financial constraints, administrative capacity and human resources skills. Implementation of ICT requires transformation of the administration and effective management both at implementation and operation.
- Third, if the challenges are addressed and the process well managed, practical ICT solutions can lead to improved services for end users and better business practices.

## Sources

**Carter, C. H.** 2009. *The person first: Re-engineering human services to enhance the human condition* (Conference paper, ISSA International Conference on Information and Communication Technology in Social Security, Seville, 3-5 June). Geneva, International Social Security Association.

**ILO; UNDP.** 2011. *Successful social protection floor experiences* (Sharing innovative experiences, No. 18). Geneva, International Labour Organization; New York, NY, United Nations Development Programme.

**ISSA.** 2010. *Dynamic social security: Securing social stability and economic development* (Development and trends: Global report). Geneva, International Social Security Association.

**ISSA.** 2010. *Technical Commission on Information and Communication Technology: Summary of findings 2008-2010*. Geneva, International Social Security Association.

The **International Social Security Association (ISSA)** is the world's leading international organization bringing together national social security administrations and agencies. The ISSA provides information, research, expert advice and platforms for members to build and promote dynamic social security systems and policy worldwide.

4 route des Morillons  
Case postale 1  
CH-1211 Geneva 22

T: +41 22 799 66 17  
F: +41 22 799 85 09  
E: [issacomm@ilo.org](mailto:issacomm@ilo.org) | [www.issa.int](http://www.issa.int)