# INNOVATIONS IN BIRTH REGISTRATION

# FOREWORD

"Birth registration is a fundamental right of every child. Yet despite the obligation of governments to register all births, registration levels remain critically low. Globally, the births of over 230 million children under the age of five have never been recorded. In the eyes of the law, these children are invisible.

Being invisible means these children are vulnerable. They may be denied health care or education and later in life these children may enter into marriage or the labour market before the legal age. How can you enforce laws on child marriage when you cannot verify the child's age?

The challenges are even more acute in the emergency context after natural disasters and conflicts, where birth registration services may be stalled, individual birth certificates lost or even entire archives destroyed. A refugee without a birth certificate is even at risk of becoming stateless.

The Sustainable Development Goals sets out the ambition of providing legal identity for all, including birth registration by 2020. For us to achieve this goal, there is an urgent need to start working differently so that every child in the world is registered at birth.

"Innovations in Birth Registration" is an important step forward in this work. Working with a wide range of corporate and development partners, we have compiled guidance and activities to help define solutions to the most challenging birth registration contexts.

To provide children the protection they deserve and make sure no child is left behind, all children must be counted. Count every child because every child counts!"
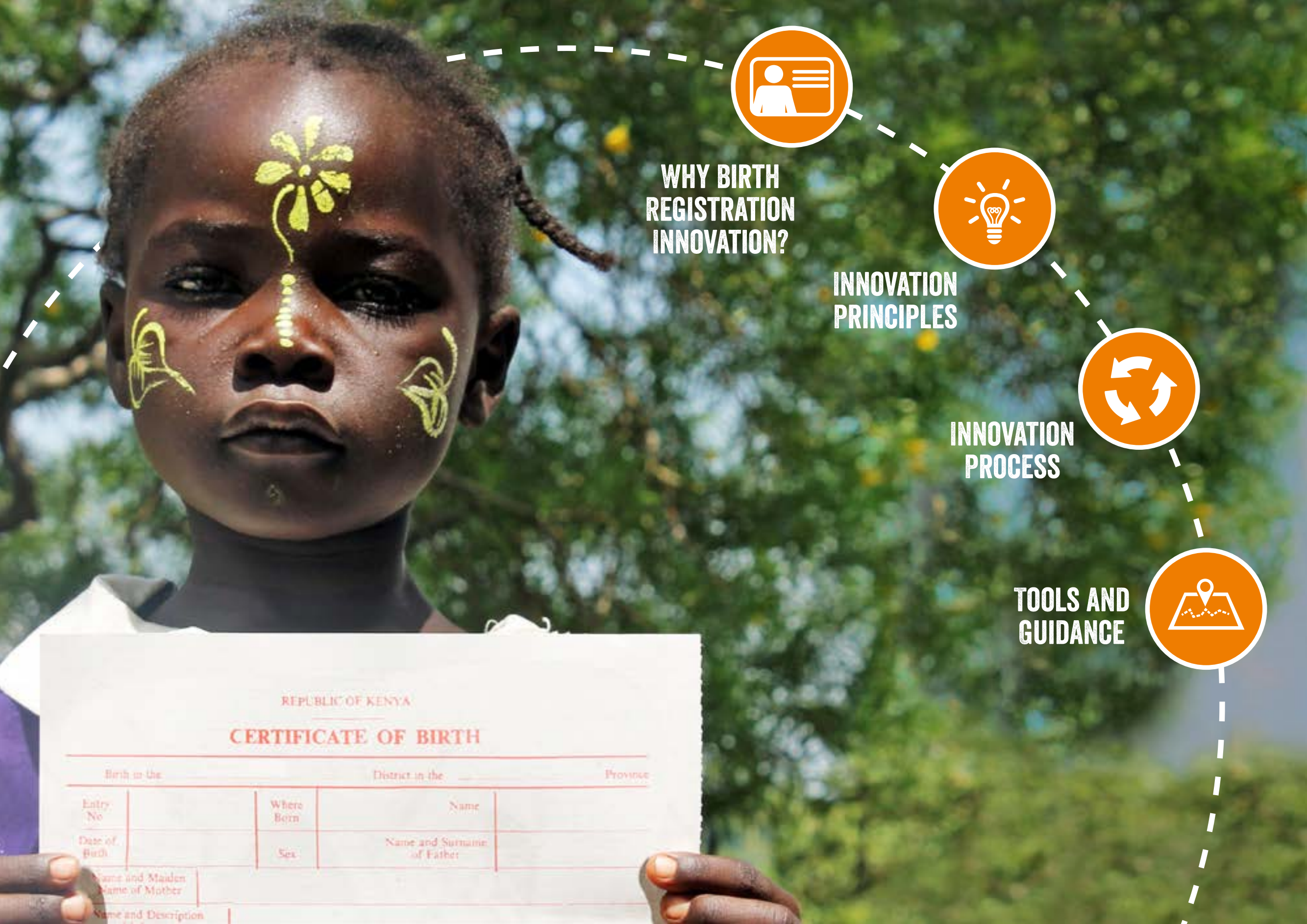
"In countries with near universal birth registration, the importance of an effective Civil Registration and Vital Statistics system is often overlooked – a birth certificate is issued shortly after birth and accurate administrative data is used by the government to support efficient service provision. This can make it difficult to comprehend the complex issues facing children, governments and caregivers in the absence of such systems.

Now is the time to re-think how children obtain their legal identity. We need to dramatically increase the numbers of children being registered at birth so they are counted, have access to their full rights and are not left behind.

Given the pressing need and the complexity of the challenge, incremental change is unlikely to yield the required results. "Innovations in Birth Registration" aims to address this challenge by combining practical guidance on innovation and design thinking methodologies together with case studies and lessons learned from birth registration interventions around the globe.

To make any significant progress towards universal birth registration we need to design solutions for and with the end users, leverage cross-sector collaboration and challenge existing orthodoxies. This report promotes such approaches and also recognizes the ability of digital technology to act as an enabler, powered by the rapidly increasing accessibility of mobile, cloud and analytic technologies.

With the growing momentum around CRVS within governments, development actors, companies and communities coupled with the increasing accessibility of relevant technology this report is much needed and very timely."

**Anne-Birgitte Albrectsen**
Chief Executive Officer
Plan International

**Ian Lobo**
Managing Director
Accenture

WHY BIRTH
REGISTRATION
INNOVATION?

INNOVATION
PRINCIPLES

INNOVATION
PROCESS

TOOLS AND
GUIDANCE

REPUBLIC OF KENYA

CERTIFICATE OF BIRTH

| Birth in the | | District in the | | Province |
|---|---|---|---|---|
| Entry No | | Where Born | Name | |
| Date of Birth | | Sex | Name and Surname of Father | |
| Name and Maiden Name of Mother | | | | |
| Name and Description | | | | |
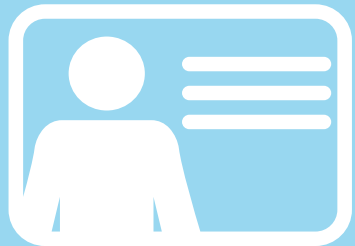
# WHY BIRTH REGISTRATION INNOVATION?

# WHAT IS BIRTH REGISTRATION?

Birth registration provides formal recognition by a state of a child's birth and is a permanent and official record of a child's existence (Every Child's Birth Right: Inequities and trends in birth registration, UNICEF, 2013).

**The right to birth registration is enshrined in the United Nations Convention on the Rights of the Child, which states that "every child shall be registered immediately after birth and shall have the right from birth to a name and a nationality."**

More recently the importance of the right to birth registration has been recognised in Target 16.9 of 2030 Agenda for Sustainable Development, which aims to "provide legal identity to all, including birth registration, by 2030."

The recording and documenting of life events such as birth, marriage, divorce, adoption, and death into a civil registration and vital statistics (CRVS) system, is a fundamental function of governments. It enables the production of statistics on population dynamics, health, and inequities in service delivery on a continuous basis for the country as a whole and for local administrative subdivisions. (WHO, World Bank Group 2014)

## TYPES OF REGISTRATION

**CURRENT**
Registration of a vital event within a legally specified time period e.g. 60 days.

**LATE**
Registration of a vital event after a legally specified time period but within a specified grace period (usually 1 year).

**DELAYED**
Registration of a vital event after the prescribed period determined in existing laws, rules or regulations (usually after 1 year).

# THE BIRTH REGISTRATION PROCESS

**STEP 1**
Notification of birth

An authorised agent (often health worker, birth attendant, or midwife) notifies the Civil Registrar that a birth has taken place through a formal process e.g. paper, mobile phone. In some countries it is a legal requirement, but for others this step is optional, merged with Step 2 (Declaration of Birth) or does not exist.

**STEP 2**
Declaration of birth

An Informant (usually the mother, father, relative, or head of the institution where the birth occurred) provides formal confirmation (either written or digital) of the occurrence and characteristics of a birth to the Civil Registrar.

**STEP 3**
Validation

The Civil Registrar validates the information provided by the Informant about the occurrence and characteristics of the birth. This may include checking documentary evidence such as parents ID, a child health record book/passport, antenatal card or testimony from a local leader.

**STEP 4**
Registration of birth

The Civil Registrar officially records the occurrence and characteristics of the birth in the civil register. This creates a permanent and official record of the existence of a person before the Law.

**STEP 5**
Issuance of birth certificate

The Civil Registrar provides a certified extract of the birth record from the civil register, the birth certificate. The birth certificate is the first form of legal identity for the child and proof of their existence by law. The document includes information from the birth record such as the individual's name, parents' names and nationalities, date and place of birth. The birth certificate facilitates access to nationality, in particular for displaced population and other population of risk who, in the absence of birth registration would be at the risk of statelessness.

**STEP 6**
Storage of birth record

The birth record must be safely and securely stored and be accessible as and when required. Depending on the country, the record may be stored in paper or electronic formats.

**STEP 7**
Usage of birth record

Birth records should form the basis for other foundational registries such as the National Population Register and identification systems. When birth registration information is aggregated it can also be used for planning and development purposes, and as a reliable source of vital statistics at the national and sub-national levels.

# WHY IS BIRTH REGISTRATION SO IMPORTANT?

## HUMAN RIGHTS

Birth registration provides individuals with the documentary evidence required to secure recognition of legal identity, family relationships and nationality which is necessary for:

### ACCESS TO:

HEALTH    EDUCATION    SOCIAL PROTECTION

### PROTECTION FROM:

CHILD MARRIAGE    CHILD LABOUR

TRAFFICKING    ILLEGAL DETENTION

## SERVICE PROVISION AND ACCESS

Birth registration provides a first form of legal identity, upon which other identification systems e.g. ID Card Register are often built. These foundational registers provide the identification services necessary to access public and private services to be able to:

REGISTER LAND    GET A DRIVERS LISENCE    VOTE

TRAVEL / GET A PASSPORT    GAIN FORMAL EMPLOYMENT

OPEN A BANK ACCOUNT    GET A MOBILE PHONE

## VITAL STATISTICS

As part of a Civil Registration and Vital Statistics (CRVS) system for Government, the recording of vital events such as birth and death is a fundamental metric for smart planning and decision making. Universal and accurate registration of birth, death and cause of death, enables production of vital statistics which government can use to more precisely:

ASSESS LEVELS OF INEQUALITY    ALLOCATE RESOURCES EFFICIENTLY

UNDERSTAND POPULATION DYNAMICS    PLAN AND MONITOR DEVELOPMENT PROGRAMMES

MEASURE PROGRESS AGAINST THE SDGS

**CASE STUDY**

# RUBI'S STORY

When Rubi first tried to go to primary school she was refused access, she didn't have a birth certificate. Recognising the importance and need of the document, her mother registered Rubi's birth and received a birth certificate, and Rubi was admitted to school where she thrived.

At the age of 15, Rubi was an ambitious young lady who loved school. On returning home one day, she was met by her Father who informed her that she would not attend secondary school, as she so desired and had worked so hard for. Instead, she would be getting married, a common practice in Bangladesh and a financial necessity for Rubi's family.

Using her birth certificate as proof of age, and with the help of her teachers and Plan International's partner organisation, Rubi visited the local government office where the Chairman informed her parents of the legal implications of child marriage. She was underage, should not be married, and using her birth certificate as proof, Rubi was able to avoid the marriage and go back to school where she went on to graduate at 18.

# WHAT IS INNOVATION?
## PLAN INTERNATIONAL DEFINES INNOVATION AS:

## A NEW APPROACH...

Innovation results from a unique idea or from the adaptation of existing solutions to a new situation. To be an innovation, the solution doesn't need to be original in itself, but rather be the outcome of doing things differently in the given context.

## TO SOLVE PROBLEMS AND RESPOND TO NEEDS...

These problems may be clearly observed or identified only by those whom they affect. There will often be multiple competing problems and needs; identifying which of these demand an innovative solution requires careful selection.

## THAT BRINGS ABOUT A POSITIVE AND SUSTAINABLE IMPACT.

An innovation is considered successful when it results in a positive impact which is visible or measurable. To maximise the value and impact of the innovation, particularly in low resource settings, it should be:

- **SUSTAINABLE:** able to endure for an extended period of time and not restricted to the initial implementation phase.

- **SCALABLE:** repeatable at an increased level of magnitude i.e. it can be extended to a wider geographical area and adopted by majority of the target group.

The exact length of time needed to prove the impact of an innovation is individual and contextual; iIt will depend on nature of the innovation and its target group. For example, in emergency contexts an innovation may be purposefully short lived to deal with a particular event and therefore not intended to remain once the crisis is over.

## 230M CHILDREN UNDER 5 DO NOT HAVE THEIR BIRTH REGISTERED

## WHY IS INNOVATION IN BIRTH REGISTRATION REQUIRED?

Despite continued efforts by governments, civil society and international organisations around the world, over 230 million children under five have not had their births registered. (UNICEF 2013) In the past 10 years there has been an overall increase in global birth registration rates of children under five from 58 percent to 65 percent, however more than 100 countries still do not have well-functioning CRVS systems in place to register key life events. (WHO, World Bank Group 2014)

New approaches are required to overcome current challenges and make the large improvements required to achieve universal birth registration. There is a need for innovation in birth registration.

# COMMON CHALLENGES IN BIRTH REGISTRATION

## 1. LEGAL AND POLICY FRAMEWORK

### LIMITED OR NON-EXISTENT LEGAL AND POLICY FRAMEWORK:
Often outdated and do not reflect United Nations standards.

### DISCRIMINATORY LAWS AND POLICIES:
Do not to support universal birth registration e.g. ethnic minorities, single mothers, indigenous people or orphans can be discriminated against, preventing registration.

### UN-HARMONISED CRVS LAWS AND POLICIES:
Different laws support different CRVS components, making it hard to effectively govern CRVS activities in a coordinated manner.

## 2. INSTITUTIONAL FRAMEWORK

### LACK OF COORDINATION BETWEEN MINISTRIES:
At the national level, the mandate for birth registration, health and vital statistics often sits within different ministries. At the local level, programs are often implemented in isolation and do not leverage the strengths of different authorities e.g. health and birth registration.

### LACK OF EFFECTIVE GOVERNANCE MECHANISMS:
Relevant technical working groups and/or steering committees are either missing or not able to provide oversight and coordination for CRVS strengthening efforts.

### UN-HARMONISED CRVS LAWS AND POLICIES:
Decentralised CRVS models have limited or no oversight at a national level.

# 3. SUPPLY: SYSTEMS AND PROCESSES

**PROCESS COMPLEXITY:**

Multi-step, manual (or partially digitised) birth registration processes are inefficient and hence often not completed by the informants.

**LACK OF ACCESS TO REGISTRATION SERVICES:**

Centralised nature of birth registration process requires citizens to travel to regional capitals or even the national capital to collect birth certificate.

**LACK OF STORAGE CAPACITY, MAINTENANCE AND RELIABILITY:**

Paper based birth registration records require a lot of space and are often poorly maintained, difficult to locate and vulnerable to loss or damage.

**LACK OF INTEROPERABILITY & INABILITY TO SHARE INFORMATION:**

(i) from civil registrars to centralised registry office
(ii) between civil registrars, and
(iii) Ministries e.g. birth registration data available to/from Ministry of Health.

**LIMITED AUTHENTICITY OF APPLICATIONS AND RECORDS:**

Difficulty in ensuring that the details and information provided about a birth are accurate.

**LIMITED CAPACITY OF REGISTRATION STAFF:**

Registration offices are often under-resourced, tasked with numerous activities and provided with limited training to effectively conduct their role.

**SERVICE DISRUPTION:**

During emergency situations e.g. natural catastrophes or conflict, birth registration services are for example deprioritised or registration staff need to leave their office or duty.

# 4. DEMAND FOR BIRTH REGISTRATION SERVICES

**LACK OF AWARENESS:**

Limited understanding among the general population of the benefits and importance of birth registration.

**LACK OF INCENTIVE:**

Proposed benefits of birth registration, such as access to healthcare or education, are either (I) received through other, usually informal, means, (II) not considered valuable enough to outweigh the direct and indirect costs associated with birth registration, or (III) not required until later in life.

**DIRECT COSTS:**

Formal or informal charges made for birth registration and birth certificates deter parents (or caregivers) from engaging in or completing the birth registration process.

**INDIRECT COSTS:**

Costs of for example travel, accommodation and loss of earnings due to the need to travel long distances, or sometimes on multiple occasions in order to receive the birth certificate.

**INFORMAL PRACTICES WHICH ENABLE DISCRIMINATE PRACTICES:**

Informal practices can directly or indirectly discriminate against certain vulnerable groups based on their sex, religion etc.

**BACKLOG OF UNREGISTERED INDIVIDUALS:**

In addition to solving the challenge of registering all new born children, birth registration is also challenged by a backlog of the 230 million unregistered children, and an even larger number of unregistered adults around the world.

# 5. MONITORING AND EVALUATION

### INABILITY OR UNWILLINGNESS TO MANAGE PERFORMANCE:

Poor monitoring and reporting mechanisms, low prioritisation and budget constraints prevent low birth registration rates from triggering remedial actions.

### LACK OF ACCOUNTABILITY:

Civil Registrars or senior management are not held accountable for performance related to birth registration.

# 6. PRIORITISATION

### CRVS NOT PRIORITISED BY GOVERNMENTS:

Governments do not prioritise CRVS which has a direct impact on the budgets made available to strengthen the birth registration system.

# BIRTH REGISTRATION INNOVATIONS AROUND THE WORLD: ASIA

## INNOVATION:
Integrated and mobile legal identity services

## INNOVATION PROCESS STEP:
Implement

## CHALLENGE:
Policy that acts as a barrier to registration

## LOCATION:
Indonesia

## BACKGROUND:
78% of couples in the poorest 40% of households in Indonesia do not have a marriage certificate.

## PROBLEM:
Parents are required to show proof of marriage (evidenced by a marriage certificate or family card/ Statutory Declaration) to be able to obtain a birth certificate for their child that includes the father and mother's name. As a result, many children remained unregistered.

## SOLUTION:
The Religious Courts, Office of Religious Affairs and Civil Registry Office together with other key stakeholders, came up with a mobile legal identity service offered at the community level which integrates the three services required to fulfil the birth registration process.

- Muslim marriages were legalised by Court Officials from Religious Courts, and the marriage certificate was provided by Officers from the Office of Religious Affairs.

- Non-Muslim marriages were legalised by the General Courts,

and the marriage certificate issued by the Civil Registry Office.

- Birth certificates were issued by Officials from the Civil Registry Office.

## KEY LESSONS LEARNED:
- The Religious Courts were champions of the integrated and mobile services for legal identity based on their experience of dramatically increasing circuit court services over the last decade.

- The female heads of household CSO, PEKKA, was instrumental in discussions at district and sub-district level linking service providers and members of the community.

- Policies and procedures needed to be clarified and coordinated at the national level and then implemented across the country.

- The delivery of legal identity documents to individuals at village level works best if government and non-government actors co-ordinate their strategic interventions.

> ## LIKE A DREAM TO GET THE DOCUMENTS DONE IN ONE DAY AND THERE ARE NO FEES TO PAY
> ### CLIENT



Judges of the Religious Courts in the district of Karawang legalising marriages at a legal identity integrated and mobile service held in collaboration with the Office of Religious Affairs (to issue the marriage certificates) and the Civil Registry Office (to issue birth certificates for the children from the marriage). Photo: Cate Sumner

# IMPLICATIONS OF POOR BIRTH REGISTRATION SYSTEMS IN EMERGENCIES

The need for innovation in birth registration is even more pressing when considering the implications that poor registration systems have in emergency contexts. Government systems are frequently disrupted or destroyed by emergencies. The extent of damage caused by the emergency depends on the resilience of the system to cope with shock. The impact of an emergency on birth registration will vary from country to country depending on the type of system (e.g. paper, online, offline), the registration procedure and requirements as defined by law.

**In an emergency context, parents are less likely to have the supporting documentation required to register births; Civil Registrars will be overwhelmed responding to the emergency; and birth registration services will be disrupted. Without a birth certificate, children born during an emergency lack proof of identity and run the risk of becoming stateless.**

An emergency such as a refugee crisis brings to light the urgency of improving birth registration systems to be able to cope with emergencies, both in the country where the emergency took place as well as the countries receiving refugees. A birth certificate can help provide an appropriate lasting solution for refugees by allowing them to claim legal identity. Many refugees do not have their births registered or do not have the ability to prove registration due to paper records being destroyed or lost.

## 10M PEOPLE IN THE WORLD HAVE NO NATIONALITY - UNHCR

## COMMON CHALLENGES IN A BIRTH REGISTRATION SYSTEM AFTER AN EMERGENCY:

- Continuation of the normal service
- Putting in place some extraordinary provision e.g. for internally displaced persons (IDPs) or refugees (if the emergency affects also neighbouring countries) or people who do not have complete set of documents.
- Safekeeping of records
- Returning to normal operations after the emergency is over
- Clearing the backlog of unregistered births which could have occurred during the emergency

# BIRTH REGISTRATION INNOVATIONS AROUND THE WORLD: AFRICA

## INNOVATION:
Mass registration and immunisation drives

## INNOVATION PROCESS STEP:
Implement

## CHALLENGE:
Disruption to birth registration services during an emergency

## LOCATION:
Sierra Leone

## BACKGROUND:
In Sierra Leone 78% of children under the age of five years have their birth registered.

## PROBLEM:
During the Ebola outbreak numerous services were disrupted and the majority of children born during the emergency and recovery periods did not have their births registered or receive necessary vaccinations.

## SOLUTION:
Sierra Leone's Ministry of Health and Sanitation, WHO, UNICEF, and Plan International worked together to conduct mass registration and immunisation drives. For the first time, immunisation and birth registration services were integrated, leveraging one occasion to provide both services. This way, children who had originally missed out on accessing the service originally, were provided with an opportunity to access both at the same time.

## IMPACT:
A 3-day integrated measles, polio and birth registration campaign was conducted that reached 97% of children under the age of five. The campaign registered births and issued certificates for an estimated 200,000 children born at home during the Ebola outbreak and those not registered at birth prior to the outbreak.

# ENABLERS IN BIRTH REGISTRATION

Birth registration is a multiple step process implemented according to a country's legal and administrative context. However, as mentioned earlier, birth registration systems in low and middle income countries also share many common problems.

Below are a number of enablers, which if applied appropriately to birth registration systems, could help solve some of these problems. Note that some of these enablers are already being used in practice, however others look more to the future.

| ENABLER | HOW CAN IT BE APPLIED TO BIRTH REGISTRATION? |
|---|---|
| AUTOMATED SYSTEMS | Automate systems to improve data collection and accessibility of birth records, increase efficiency, improve user experience and standardise the CRVS process. |
| BIOMETRIC IDENTIFICATION | Use biometric data as a unique identifier for both informants (e.g. parents) and newborns (e.g. palm prints) during birth registration. |
| BLOCKCHAIN | Use a shared distributed ledger (blockchain technology) where details of a birth are kept in a highly decentralised and anonymous form and are controlled and used by individual citizens from anywhere in the world (with an internet connection), rather than by governments. |
| COMMUNICATION FOR DEVELOPMENT | Facilitate and improve engagement in birth registration that will lead to positive behavioural impact through an integrated communications campaign taking into consideration the values, attitudes and behaviors which impact birth registration. |
| CLOUD-BASED STORAGE | Reduce operational costs and increase security by using cloud-based storage of civil registration records. |
| DIGITAL IDENTITY | Use digital identities (e.g. via a public key infrastructure) to authenticate individuals implicated in the birth registration process (e.g. informants) to assure the integrity of birth registration records. Conversely birth certificates, as a "breeder" document can be used during the identification process to establish a digital identity. |
| ELECTRONIC RECORDS | Capture birth registration records electronically to reduce work load and costs while increasing data security and accessibility for government. |
| INTEGRATION WITH HEALTH SERVICES | Leverage existing interactions the mother and child have with the health system during antenatal and postnatal care to increase awareness and uptake of birth registration services. |

| ENABLER | HOW CAN IT BE APPLIED TO BIRTH REGISTRATION? |
|---|---|
| **INTEGRATION WITH OTHER CIVIL REGISTRATION SERVICES** | Provide marriage registration services alongside birth registration to increase birth registration rates in countries where marriage registration is a requirement for birth registration. |
| **INVENTORY MANAGEMENT** | Use digital technology to ensure that civil registration offices do not experience preventable stock-outs of paper and other resources required for birth registration. |
| **MOBILE COMMUNICATIONS** | Use mobile phone (via SMS, USSD or internet connected smartphone app) to raise awareness, notify or declare births from remote communities as well as provide status information about birth registration application. |
| **MOBILE OUTREACH UNITS** | Transport the necessary birth registration agents and materials to areas without access to civil registration offices for active/on-location registration on a regular basis. |
| **OPEN SOURCE SOFTWARE** | Develop non-proprietary software and an active developer community to provide a standardised alternative to custom built and proprietary solutions for CRVS, reducing implementation and maintenance costs. |
| **PERFORMANCE MANAGEMENT** | Increase accountability of birth registration actors through a digitised performance management system (e.g. reporting on number of births registered by jurisdiction e.g. district). |
| **SECURITY TAGGING** | Link the birth record with the newborn child using a unique and personalised identification tag which can store digital information. This tag can be used to identify the child and retrieve their birth certificate from any registration office. |
| **SOCIAL MEDIA** | Increase efficiency of communication and notification of births using social media, in particular as a platform to reach specific target groups. |
| **STANDARD OPERATING PROCEDURES (SOP)** | Extend and clarify responsibilities of all staff and provide training on the importance of their role within the birth registration process e.g. administrative staff to check that families leaving the hospital have first registered the birth of newborns. |
| **SYSTEM INTEROPERABILITY** | Enable common data to be shared across health and civil registration functions (linked through a master person index) to reduce duplication and registration effort. Integrate civil registration within the foundational registers, including national ID and the population register within the eGovernment architecture, to strengthen the integrity of legal identity documentation. |

# INNOVATION PRINCIPLES

# INNOVATION PRINCIPLES

**FOR AN EFFECTIVE INNOVATION THAT LEADS TO A LONG-TERM IMPACT ON BIRTH REGISTRATION, APPLY THESE SIX KEY INNOVATION PRINCIPLES:**

1. UNDERSTAND CONTEXTUAL CONSTRAINTS

2. CHALLENGE ORTHODOXIES

3. IDENTIFY TECHNOLOGY ENABLERS AND TRENDS

4. GET INSPIRATION FROM OTHER SECTORS

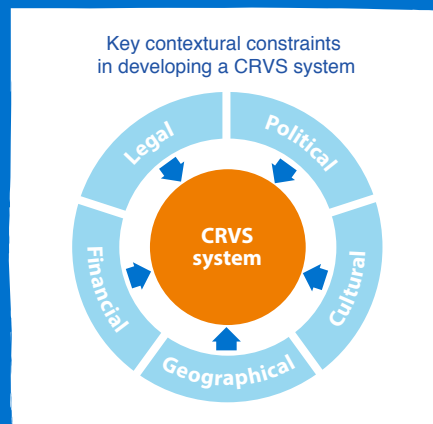5. PARTNER FOR IMPACT

6. FAIL FAST & LEARN TO PIVOT

# 1. UNDERSTAND CONTEXTUAL CONSTRAINTS

Overcoming the common challenges faced by birth registration is complicated by a number of constraints. These include financial, legal, cultural, political and geographical barriers which significantly influence the range of available solutions. For example, as a result of CRVS being a low-priority for many governments, the budget allocated to developing a CRVS system is typically much less than for higher priority areas such as health and education. This financial constraint can limit or even prevent some solution options e.g. large scale infrastructure improvements, thus there is a need for solutions that are creative with available resources.

What differentiates constraints from pain points i.e. factors which complicate, but do not limit the process, is that they are usually intractable in at least the short to medium term. To make rapid progress, solutions need to be identified which can operate within or in spite of these contextual constraints.

If constraints such as financial limitations are overlooked, even the best intended and designed solutions may not be sustainable, and therefore never reach the significant scale needed for impact. This is particularly applicable for donor funded projects, where once funding stops, the project is discontinued and whatever gains were made are quickly lost.

Key contextual constraints in developing a CRVS system



Legal | Political | CRVS system | Financial | Cultural | Geographical

> **IF I HAD ASKED PEOPLE WHAT THEY WANTED, THEY WOULD HAVE SAID FASTER HORSES.**
>
> **HENRY FORD**

# 2. CHALLENGE ORTHODOXIES

To encourage breakthrough thinking in birth registration, it is critical to challenge existing orthodoxies e.g. only district offices can register births:

- What beliefs could be holding teams back and restrict the ability to innovate?

- Are these beliefs based on facts or theory?

- Are there any restrictions in place in current birth registration systems based on these beliefs?

- What happens if these beliefs, these existing orthodoxies, are challenged? If only the core purpose of the birth certificate i.e. to provide a child with legal identity is considered.

The ability to solve problems is often restricted by assuming that long-held beliefs cannot change because "…it has always been done that way". Challenging orthodoxies enables the problem and potential solutions to be seen from a different angle, potentially leading to truly disruptive innovation.

## 3. IDENTIFY TECHNOLOGY ENABLERS AND TRENDS

Trends such as data revolution and SDG monitoring are calling for transformative actions in data gathering, capacity and analysis in order to respond to the SDGs. In combination with technology enablers such as mobile technology, they provide a wealth of opportunities to respond to common problems in birth registration. Together they provide a perfect window of opportunity to build momentum for innovation in birth registration.

Mobile technologies have already become a go-to tool to increase accessibility of birth registration services in low-resource settings. Beyond this, there is a new wave of technologies that should be explored in order to achieve universal birth registration:

- Open source software to create freely available and standardised CRVS systems.

- Cloud computing for cheap and reliable storage of civil registration data.

- Biometrics to improve the authenticity of birth registration data.

- Big data and analytics to better extract value from vital statistics.

- Blockchain to develop more secure and democratised identity management.

See Enablers in Birth Registration for how these and other enablers can be used to strengthen birth registration systems.

## 4. GET INSPIRATION FROM OTHER SECTORS

The search for solutions to the CRVS domain should be wide spread. Looking to other sectors e.g. private and government, to search for ready-made solutions that are already solving similar functional problems is an important and cost effective approach to innovation. It provides an opportunity to leverage already existing solutions, and be able to shift resources otherwise spent on new solutions, towards creating successful innovations. Consider for example how many of the below CRVS functionalities can be found in other domains:

- Workflow management

- Business rules and data validation

- Document management

- Performance management

- Statistical analysis and reporting

- System integration & interoperability

- User administration

- Security & confidentiality
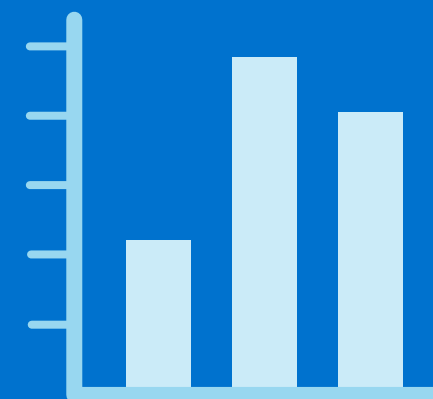
# 5. PARTNER FOR IMPACT

Innovation demands operating beyond core competencies and challenging belief-systems. Partnering with a range of stakeholders who complement existing skills and expertise will therefore maximise innovation capability. Consider partnering with the following actors who may add value to the birth registration innovation process:

- Various Government Ministries e.g. Health, ICT, Interior
- Private Sector e.g. technology, data analysis, customer-focused industries, legal
- Academic Institutions
- Civil Society Organisations
- Donors
- Non-Governmental Organisations

To partner for impact it is important to consider what type of actor to involve at which part of the Innovation Process. When identifying the problems and brainstorming to come up for solutions to these problems, make sure to include actors and stakeholders who experience these problems in their everyday life or work. This will ensure the problem(s) are high priority for the target users, and that proposed solutions are relevant and attractive for adoption by the target communities. As result, this will also help ensure more effortless adoption in the intended.

Once a problem and proposed solution have been identified, consider involving actors based on their technical expertise related to specific solution. In this part of the process, contextual knowledge is still very important, but should be combined with the appropriate technical expertise to ensure a high quality solution. Ultimately, at the stages of implementation and scale up of the solution, involve actors with the relevant networks, influence and experience in the areas of interest e.g. communities, districts, and regions.

# 6. FAIL FAST AND LEARN TO PIVOT

To find a solution and innovate with impact, it is crucial to learn what works and what doesn't. Being an innovator, means operating in new and uncharted territories where trial and error should be expected and appreciated as vital steps to reach a successful innovation.

Aim to test ideas and hypotheses as quickly as possible, and accept that failure is inevitable. Learn fast from the experience of failure, adapt the solution or approach, and test it again. The key to finding a successful innovation is being willing and able to "pivot" i.e. change direction when failure is observed. Investing time and effort in an idea which has been proven to fail, is waste of resources that could be spent towards finding the right solution.

> **IF YOU'RE NOT EMBARRASSED BY THE FIRST VERSION OF YOUR PRODUCT, YOU'VE LAUNCHED TOO LATE.**
>
> **REID HOFFMAN, CO-FOUNDER AND EXECUTIVE CHAIRMAN, LINKEDIN**

# BIRTH REGISTRATION INNOVATIONS AROUND THE WORLD: LATIN AMERICA

### INNOVATION:
Hospital registration

### PHASE:
Scale with Impact

### CHALLENGE:
Births that occur in hospitals are not registered immediately

### LOCATION:
El Salvador, Guatemala, Honduras, Paraguay

### PROBLEM:
Lack of timely birth registration.

### SOLUTION:
Together with the various areas of the civil registries including but not limited to civil registrars, the Organization of American States (OAS) developed a curriculum to support effective hospital-based birth registration, recognising its opportunity for timely registration of births:

- Standard Operating Procedures include bedside registration activities.

- Preparing parents for registration with sensitisation throughout pregnancy.

- Comprehensive training for all staff members in the health facility, from doctors to security staff. Facilitates implementation of a holistic process, creating ownership at every level.

- Facilitation of preliminary registration recognising that the mother may need father's approval for registration. Allows follow-up if registration is not completed.

### IMPACT:
After the second year, a formal model with the signing of a memorandum of understanding between the Civil Registry and the Health Ministry was applied. All countries in Latin-America have implemented hospital registration. There are differences in methodology and geographical scope, but there is a consensus that having registration offices in hospitals represents a permanent response to birth registration in the Americas. How registration is administered in the office e.g. opening hours is the exclusive responsibility of the civil registry in each country.

### KEY LESSONS LEARNED:

- Installing the first offices was a slow process as commitment of Civil Registries, Health Ministries and Hospital Board of Directors was needed for a successful strategy.

- Health service partners needed to be sensitised.

- Including all hospital staff in the training created ownership. Every person became an agent to sensitise parents on birth registration.

- Hospitals in the same country had different ways of working e.g. times for medical appointments so opening hours of the registrar offices was adjusted accordingly.

### NEXT STEPS:
OAS is looking for financing to start a pilot using this methodology in 10 hospitals in urban and rural areas of Haiti.



The entrance of Regional public hospital Concepcion in Paraguay. The billboard informs the population that a Civil registry and identification office is open and includes the sponsors of the National campaign "Right to an Identity": Vice-Presidency of Paraguay, Ministries of Justice, Interior, Health, Civil Registry, the OAS and Spain (the donor). Photo: PUICA/OAS.
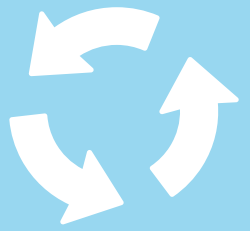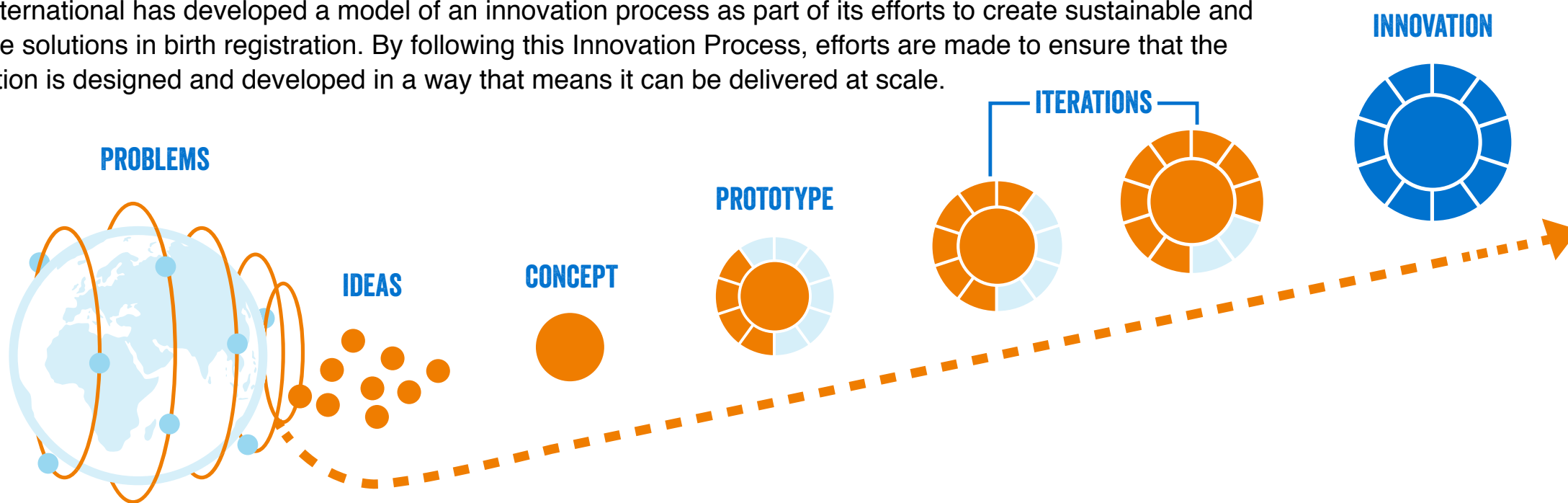
# INNOVATION
## PROCESS

# THE INNOVATION PROCESS

Plan International has developed a model of an innovation process as part of its efforts to create sustainable and scalable solutions in birth registration. By following this Innovation Process, efforts are made to ensure that the innovation is designed and developed in a way that means it can be delivered at scale.



| IDENTIFY | IDEATE | CREATE & VALIDATE | IMPLEMENT | SCALE WITH IMPACT |
|---|---|---|---|---|
| • What problems prevent a current solution from achieving full social impact?<br>• Which is the most important? | • In what ways can the identified problems be resolved?<br>• Which ideas should be tested?<br>• How is an innovation built for impact and sustainability? | • Is the proposed solution fit for purpose? If not, modify and retest. | • How is the solutio implemented to ensure adoption? | • What steps are taken to ensure impact and sustainability? |

### PREPARING FOR SCALE WITH IMPACT

| | | | | |
|---|---|---|---|---|
| • How widespread is the problem?<br>• If resolved, how large is the impact? Restricted to birth registration or also broader CRVS strengthening? | • What solutions are feasible at scale? | • Does the solution respond to the needs of all users and contexts who experience the problem? | • Is there capacity to use / operate the solution?<br>• Is there operational acceptance and commitment at all organisational levels? | • Full impact and sustainability is achieved |

# IDENTIFY

The first step of the innovation process is critical – it is essential to identify the real or underlying problems which most require attention.

## 1. IDENTIFY ALL USERS AND STAKEHOLDERS:

Identify all relevant and different user groups and stakeholders who can provide a wide range of views of current problems. There are many different perspectives which need to be identified and taken into consideration to be able to fully identify the problems.

### EXAMPLES OF STAKEHOLDERS IN BIRTH REGISTRATION:

- Informant e.g. parent or guardian
- Civil registration staff incl. registrar general, IT director, registrars from both urban and rural areas, operations manager
- Health facility staff e.g. midwife, doctor
- NGOs/CSOs
- Community Leaders e.g. Chiefs and Religious Leaders
- Community Workers incl. Health Workers

## 2. IDENTIFY THE "AS-IS" BUSINESS PROCESS:

Together with the identified users and stakeholders, map out the process that a user currently goes through, the "As-Is" Business Process, and how the users and stakeholders are involved in each step of this process.

## 3. IDENTIFY THE PROBLEMS:

Together with the key stakeholders, identify the problems in the "As-Is" Business Process. Strive to understand the full scope of problems that are causing or negatively affecting birth registration. Differentiate between symptoms and root causes. Don't immediately assume that the source of the problem is known; critically question available information and challenge existing beliefs. Document whether the problem is caused by a barrier or a bottleneck.

> " IF I HAD AN HOUR TO SOLVE A PROBLEM I'D SPEND 55 MINUTES THINKING ABOUT THE PROBLEM AND 5 MINUTES THINKING ABOUT SOLUTIONS.
>
> **ALBERT EINSTEIN**

## 4. FILTER THE PROBLEMS:

It is not possible to find a solution for every problem. Use existing data sources to research local context constraints to determine which identified problem(s) most urgently can and need to be addressed.

NB: DON'T EXCLUDE A HIGH PRIORITY PROBLEM AT THIS STAGE BECAUSE IT DOESN'T REQUIRE AN "INNOVATION". AN INNOVATION CAN BE AN EXISTING SOLUTION APPLIED TO A NEW CONTEXT AND PROBLEM.

## THE FIVE WHYS METHOD

To get to the root cause of problems ask the question "Why?" five times. Asking "Why?" opens up the problem and allows an increased understanding of the underlying and contextual factors. This in turns enables the innovation process to find potential to solutions more effectively.

### PROBLEM STATEMENT:

Low birth registration rates in Community "East" in a country in West Africa. Why are the birth registration rates low?

1. Parents do not come to register the birth of their child. Why not?

2. The distance from their home to the Civil Registry is too far. Why is it too far?

3. The parents often have to make the journey twice. Why?

4. Frequent stock-out of supplies and not enough staff limits the ability to provide serviceat the Civil Registry. Why?

5. There is a lack of financial and physical resources allocated to the Civil Registry in Community "East".

## BOTTLENECK VS. BARRIER

### BOTTLENECK:

Something which slows down the birth registration process e.g. long waiting times or shortage of supplies.

### BARRIER:

Something preventing a parent from registering the birth of their child e.g. high direct and indirect costs.

## SYMPTOM VS. ROOT CAUSE IN BIRTH REGISTRATION

### SYMPTOM:

The "on-the surface" reason why parents don't register the birth of their child e.g. the local Civil Registry is always closed or waiting times are too long.

### ROOT CAUSE:

The underlying reason parents do not register the birth of their child e.g. the local Civil Registry is understaffed.

## TOOLS:

- Stakeholder Mapping
- Situational Analysis
- "As-Is" Business Process Analysis
- Customer Journeys
- Waterfall Chart
- Problem Tree
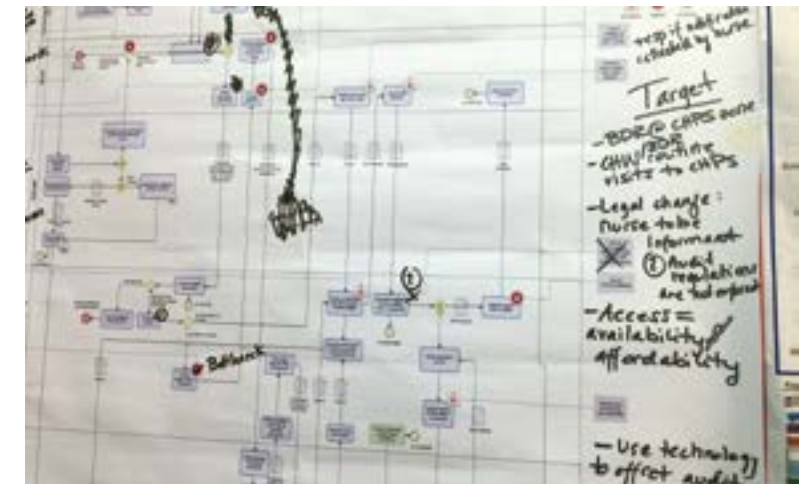


Identification of bottlenecks and barriers in As-Is Business Process Map during Ghana CRVS Digitisation Workshop Feb 2017. Photo: Melissa Cederqvist

**NB: STRIVE TO BRING UP THE LESS OBVIOUS OR MORE HIDDEN BARRIERS AND BOTTLENECKS BY SPEAKING TO A VARIETY OF STAKEHOLDERS, INCLUDING END USERS I.E. THE PARENTS.**
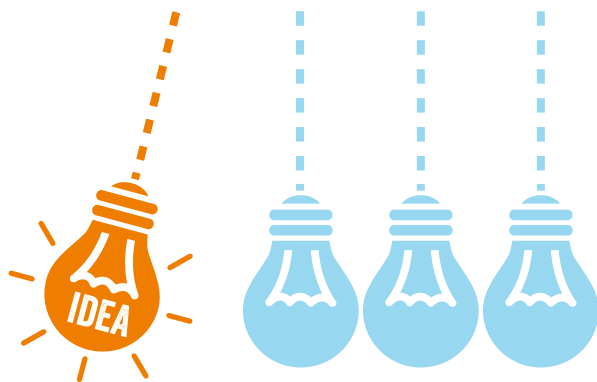
# IDEATE

## 1. GENERATE IDEAS:

Building on the insights gained during the identification of the problems (Identify), generate a large variety of potential solution ideas derived from multiple sources. Cross functional teams will help provide insights from different perspectives and increase the likelihood of finding solutions appropriate for the context-specific problems.

## 2. PRIORITISE THE IDEAS:

Determine which ideas are good candidates to be taken to the next step i.e. that have the highest potential of becoming innovations. Using a set of criteria developed together with stakeholders, assess which of the ideas are most feasible, costeffective, strategic and acceptable to stakeholders.

## 3. SET THE VISION:

Define the concept so it can be clearly articulated to any audience. The intent of the innovative idea must be well defined and easily understood by all relevant audiences.

### TOOLS:

- Identify Technology Enablers and Trends
- Determine the Long Term Vision for the CRVS System, including Birth Registration
- What If We Could Exercise
- Ideation Session
- Timeline for Future Context Assumptions
- Mapping Ideas to Problems
- Prioritisation Checklist
- Identification of Risks with Identified Innovations
- Documenting the Proposed Innovation
- The Elevator Pitch

### EXAMPLE OF EXERCISE TO GENERATE IDEAS

#### IDEATION SESSION:

Gather a group of CRVS stakeholders e.g. Civil Registration, Identification Authority, Statistical Service, together, and split them into groups of 3 or 4, ensuring that they are in cross-functional teams. Go through the "As-Is" business process, and discuss each identified bottleneck or barrier, proposing at least one idea to address each barrier or bottleneck. Document the proposed solutions on a flip-chart to present back to the other groups who have been doing the same exercise.

### SET OF ASSESSMENT CRITERIA

- Reflects the Long Term Vision for birth registration
- Cost-effective
- Financially sustainable
- Feasible
- Leaves no one behind

IDEA

# CREATE

## 1. CONCEPTUALISE THE SOLUTION:

- Develop a simple version of the proposed solution that can be tested with a user group using the least amount of effort, a Minimum Viable Product (MVP).

- Test the MVP with a range of stakeholders from the initial Stakeholder Map.

- Evaluate the findings based on a set of test questions. Does the MVP meet a need or solve a problem?

- Update the concept according to the above findings. If the MVP failed, revise (pivot) or terminate the idea.

- For a service, document what the "To-Be" business process will look like using the proposed solution; for a product, document a core set of requirements.

## 2. DEVELOP A PROTOTYPE:

- Once a successful MVP has been identified, incorporate the feedback and develop a functional version of the solution, a prototype.

- Use the prototype to validate original requirements and get user feedback from the same or a new group of stakeholders, still ensuring a diverse group which includes perspectives from both the end-user and government agencies.

## TOOLS:

- Develop an MVP
- "To-Be" Business Process Map
- Develop System & Solution Requirements
- Core Requirements Identification
- Develop a Low Fidelity Prototype

## TO CONSIDER WHEN CONCEPTUALISING THE SOLUTION

### CHALLENGE EXISTING ORTHODOXIES
Demonstration to stakeholders after each iteration, enabling early feedback.

### LOOK AT NEW TRENDS
What are the new tech and non-tech trends that have vpotential to be a game changer for the defined problem?

### UTILISE EXISTING CAPABILITIES & INFRASTRUCTURE
What existing solutions, approaches, technologies, people and assets can we look to leverage to solve the problem?

### EXPLORE ALTERNATIVE SERVICE MODELS
What works well elsewhere and in other sectors that might be applicable?

### FOSTER OPEN COLLABORATION
How can we crowdsource ideas to generate a different world view?

# BIRTH REGISTRATION INNOVATIONS AROUND THE WORLD: AFRICA

### INNOVATION:
Mobile birth notification application

### PHASE:
Validate

### CHALLENGE:
Direct and indirect costs as a result of distance to registration centres

### LOCATION:
Kilifi & Kwale Counties, Kenya

### BACKGROUND:
In 2014, Plan Kenya with support from the Birth Registration Innovation Team at Plan International Headquarters and in partnership with Kenya's Civil Registration Services, conducted a holistic situational analysis on birth and death registration in Kenya.

### PROBLEM:
Limited reach of and efficiency in the birth registration process.

### SOLUTION:
Based on the findings and an ideation workshop with key birth registration stakeholders in Ganze Sub-County of Kilifi County, a "To-Be" business process was defined, informing the development of a solution that:

- Empowers notification by community based registration agents.

- Integrates with the central CRVS system and simplifies the Registrar's work tasks through online validation.

- Sends SMS to parents with a unique ID and instructions of how and when to collect the certificate.

- Provides local and national government with a mechanism to monitor registration performance.

### KEY LESSONS LEARNED:
- Engage users throughout the design process to ensure it responds to their needs.

- Ensure the work plan highlights dependencies and requirements and is a joint effort which everyone involved has access to.

- Build in operational indicators into the application from the on-set to improve user experience e.g. measure registration completion time.

- Apply a change management strategy from the on-set to ensure adoption by end-users.

### NEXT STEPS:
The Digital Birth Registration (DBR) project, is a work stream under the wider Tulinde Tusome Project, funded by Global Affairs Canada. It is an integrated programme which looks not only at supply of effective and efficient birth registration services, but also how to increase the demand for the service itself.



Assistant Chiefs in Ganze District, Kenya, test out the prototype of a mobile application for birth notification to inform further development. Photo: Annina Wersun

# VALIDATE

## 1. TEST THE PROTOTYPE:

### A. CONTROLLED ENVIRONMENT WITH A LIMITED NUMBER OF END-USERS:

Use a similar set up as for testing the MVP, and define a clear set of questions related to user needs and expectations which will be tested. Does the prototype solve the identified barriers and bottlenecks from the "As-Is" Business Process Analysis?

### B. RECEIVE FEEDBACK FROM END USERS:

Be open and receptive to all type of feedback from end users. What may seem like a small detail during the prototype testing, may prove to be a key detail of the final solution.

## 2. REVIEW USER FEEDBACK:

### REVIEW THE RESULTS AND FEEDBACK OF THE TESTS TO ASSESS IF THE PROTOTYPE SATISFIES USER NEEDS AND EXPECTATIONS. DETERMINE WHETHER:

- The prototype should be developed into a final solution in its current state; or

- If it requires any changes before further testing.

### BASED ON THE ABOVE ASSESSMENT, DETERMINE WHICH PATH TO TAKE:

1. Launch the prototype as a solution in its current state.

2. Go back to "Create" to refine the requirements and further develop the prototype.

3. "Pivot" in order to change the concept and solution altogether.

4. Stop any further development of the solution.

## TOOLS:

- Test the Prototype

## BENEFITS OF AN ITERATIVE APPROACH

### 1. EARLY FEEDBACK
Demonstration to stakeholders after each iteration, enabling early feedback.

### 2. CHANGE ENABLED
Changes to requirements and priorities can easily be made with only the iteration being worked on having a fixed scope.

### 3. FASTER DELIVERY
Each iteration of aproduct/service can go live, with the benefits already being realised before the final version is ready.

### 4. TRANSPARENCY
Development process frequently exposed to stakeholders and gathering of feedback provides useful indicators for monitoring & evaluation purposes.

### 5. REDUCED RISK
Continuus testing and feedback reduces the final risk, i.e. less sunk costs and orginisational risk, i.e. due to increased transparency.

# IMPLEMENT

## 1. IMPLEMENT THE INNOVATION:

Turn the prototype into the fully envisioned solution through repeated iterations and feedback from users. Each iteration will take on a new set of requirements until the innovation is complete.

## 2. INTEGRATED PROGRAMME:

Before proceeding with implementation, ensure the programme is well integrated according to five key strategic interventions:

1. Process & Technology
2. Change Management
3. Advocacy
4. Behavioural Impact
5. Monitoring & Evaluation

Applying these five strategic interventions can collectively contribute to an increased demand for and improvement in supply of birth registration services. These strategic interventions also define the work streams under which activities should be delivered in a project.

## 3. ENSURE ADOPTION:

Manage the change which comes with the implementation of the innovation. An innovation can bring about a change which is unfamiliar and can make users feel uncomfortable at first. A change management strategy is crucial to ensure the innovation is fully integrated and adopted by all stakeholders – especially end users.

## INTEGRATED PROGRAMME
### FIVE KEY STRATEGIC INTERVENTIONS

**1. PROCESS & TECHNOLOGY:**
making birth registration services effective and accessible

**2. CHANGE MANAGEMENT:**
building the capacity and engagement of individuals across all levels of administration to provide effective & efficient birth registration services

**3. ADVOCACY:**
advocating for a supportive and rights based legal and policy framework

**4. BEHAVIOURAL IMPACT:**
creating demand for birth registration through an integrated marketing and communications campaign

**5. MONITORING & EVALUATION:**
proving a model that is scalable and sustainable through rigorous M&E and continuous improvement

**TOOLS:**
- Change Management Approach
- Change Champions Network
- Iterative Delivery

# BIRTH REGISTRATION INNOVATIONS AROUND THE WORLD: SOUTH ASIA

## INNOVATION:
Integrated Digital Birth Registration programme

## INNOVATION PROCESS STEP:
Implement

## CHALLENGE:
No standardised birth registration process

## LOCATION:
Pakistan

## BACKGROUND:
Pakistan has an average birth registration rate of 27% (According to "Pakistan Demographic & Health Survey 2012-13" this has been improved to 34 %) and an unknown death registration rate.

## PROBLEM:
The analysis of the current situation was conducted through desk-based research and interviews with key stakeholders. This included an assessment of existing registration processes, capacity levels, supporting IT systems, and legal and policy frameworks, which identified a number of key findings such as:

- Limited awareness of civil registration and its importance

- Inaccessible/ Non-Existent/ Dysfunctional Union Council offices.

- No standardised registration process or fees across the country

- Multi-step and time consuming registration processes

- Co-existence of paper-based and electronic registries

- Insufficient computer skills within Union Councils to complete registration duties

- No civil registration data is shared with or accessible by other government systems

- Vital statistics are not compiled from the civil registration data source

- Legislation for civil registration is not uniform across Pakistan

## SOLUTION:
To respond to current system weaknesses, a Future State Technology Architecture for CRVS was developed, using appropriate Technology to simplify registration processes and make them more accessible to communities.

- Lady Health Workers/Nikkah Registrars will use simple mobile devices to share the first-hand information of new-borns to the concerned official of Union Council (UC)/Municipal Committee (MC) within their catchment area.

- Officials at UC/MC will be able to validate and register this data and focus on high-value tasks rather than manual data collection and entry.

## CONTINUED ON NEXT PAGE...

## INNOVATION:

Integrated Digital Birth Registration programme

## INNOVATION PROCESS STEP:

Implement

## CHALLENGE:

No standardised birth registration process

## LOCATION:

Pakistan

Recognising that technology alone cannot bring about a sustained impact, the programme ensures a comprehensive response to current system weaknesses with specific work streams focusing on the demand for and supply of birth registration services:

- Process Improvement & technology: making birth registration services effective and accessible.

- Change Management: building the capacity and engagement of individuals across all levels of administration to provide effective and efficient birth registration services.

- Advocacy: advocating for a supportive and rights based legal and policy framework.

- Behavioural Impact: creating demand for birth registration through an integrated marketing and communications campaign.

- Continuous improvement: proving a model that is scalable and sustainable through rigorous M&E.

## KEY LESSONS LEARNED:

Extend the applicability of existing solutions to enhance processes: this programme will extend the use and applicability of a technology solution initially developed by UNICEF and Telenor, recognising that we do not need to start from scratch.

Tailor the solution and approach to different contexts: the baseline study for this project revealed the need to adjust the process and implementation strategies for different population types i.e. vulnerable, hard to reach etc.

## NEXT STEPS:

The Digital Birth Registration programme will be implemented across 3 districts of Pakistan, intending to prove an integrated model for birth registration that is effective in a range of contexts and suitable for national scale-up.

LHW Kazbano registering a Child Birth in Village Bello of UC Bello District Sujawal.
Photo: Plan Pakistan

## SCALE WITH IMPACT

To achieve scale with impact, follow the Innovation Process and plan for scale already from the beginning of the process to ensure the innovation is conceived, designed and developed for scale and maximum impact.

# BIRTH REGISTRATION INNOVATIONS AROUND THE WORLD: SOUTH AMERICA

## INNOVATION:

Strengthening the National Civil Registry to assist displaced populations or those at risk of displacement

## INNOVATION PROCESS STEP:

Scale with Impact

## CHALLENGE:

Low registration rates of vulnerable people including IDPs

## LOCATION:

Colombia

## PROBLEM:

Due to the location of registration services, initially only available in urban centres, vulnerable populations such as Internally Displaced People (IDPs) from the protracted conflict in the country, were regularly found without a birth certificate or proof of identity.

## SOLUTION:

Supporting the National Registry of Civil Status (RNEC), UNHCR, Plan International and partners supported the development of the Vulnerable Population's Attention Unit (UDAPV) which have the capability of immediately providing Birth Registration, Identity Cards for children and adolescents and provisional Identity Documents. UDAPV services are supported by 3 types of mobile units:

- Mobile offices (large vehicles) that have the technical equipment required to carry out the provision of birth certificates.

- "Light units" (4x4 vehicles) for access to more remote areas that carry all equipment but require installation in a location.

- Mobile Kits: hardware and software equipment required to issue birth certificates. Easy to transport and install, allowing staff to provide birth certificates almost anywhere.

## IMPACT:

Five years after its creation within RNEC, Resolution Nº 5026 of July 31, 2009, resolved that UDAPV would now assume "the effective and timely coordination, programming, and execution of the more vulnerable campaigns in the farthest regions of the national territories". As a result, the structures, management and sustainability of these services have been ensured.

## KEY LESSONS LEARNED:

During implementation, institutional adjustments within RNEC and innovations in the regulations have helped ensure the success and adoption of UDAPVs:

- "Ad hoc Registrars" - specially commissioned registrars who accompany the campaign so Municipal Registrars can continue their day-to-day work.

- RNEC's leading role to provide UDAPV with enough financial resources to reduce the exclusive dependency on resources from international cooperation organisms, ensuring its sustainability.

# TOOLS AND GUIDANCE

# IDENTIFY

## 🔧 TOOL: STAKEHOLDER MAPPING

### OBJECTIVE:

- Identify and include the perspectives of all stakeholders.
- Foster a culture of co-creation and co-ownership from the outset, to enable an increased buy-in of the innovation over time.

### HOW:

#### MAP CRVS STAKEHOLDERS

Identify stakeholders directly involved with birth registration, and later identify all stakeholders involved with and affected by the wider CRVS system. Determine the role and the impact each stakeholder can have on birth registration, their interest as well as potential contribution to birth registration.

#### DETERMINE AN ENGAGEMENT STRATEGY

Determine how the identified stakeholders can best be engaged to ensure that their needs are addressed while leveraging their interests and potential contribution on birth registration.
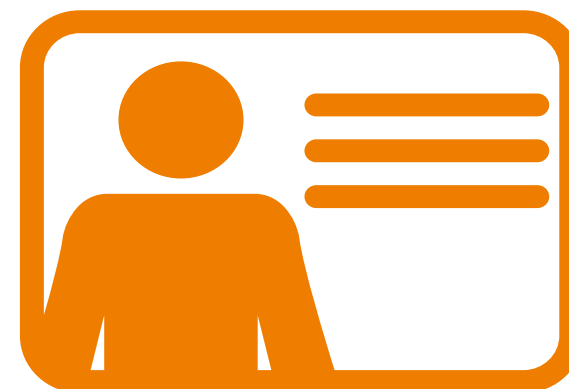
| STAKEHOLDER | ROLE | IMPACT | INTEREST IN BIRTH REGISTRATION | POTENTIAL CONTRIBUTION | LEVEL OF ENGAGEMENT |
|---|---|---|---|---|---|
| REGISTRATION AUTHORITY | Overall responsibility for birth registration | High | • That all children born in country are registered<br>• All registration data ends up in central system | Provide in-depth knowledge into current and legacy birth registration system and processes | Involve from design stage<br>• Demonstrate all process options & benefits<br>• Early ownership |
| LOCAL GOVERNMENT | Engage in birth registration process | High | Minimise work required to facilitate registration process | Share experience of BR implementation at a local level, including common challenges | Involve from design stage<br>• Demonstrate all process options & benefits<br>• Early ownership |
| CITIZENS | Overall responsibility for birth registration | High | • Ability to easily access a fair birth registration service<br>• Enjoy the legal benefits of birth certificate e.g. access to health, education, voting | • Provide insights into current process and challenges faced.<br>• Identify opportunities i.e. existing interactions they have with government services | • Involve from design stage<br>• Early adoption |
| COMMUNITY LEADERS | Conduct between local government and communities | Medium | Communities can access essential services easily | Provide insights into challenges faced by communities and community needs, wants and desires. | • Involve from design stage<br>• Regular feedback sessions |
| NGO/UN AGENCY | Extensive experience in birth registration programming | Medium | • No duplication of effort<br>• Every child must be registered | • Share insights from existing programmes<br>• Draw on experience from other programmatic areas | • Involve in demonstrations of processes<br>• Technical Working Groups |
| PRIVATE SECTOR | Technology capabilities that can be utilised for birth registration | Medium | • Return on Investment<br>• Positive impact on community<br>• Access to new markets | • Provide insights for new solutions and approaches | • Provide financial support |

# TOOL: SITUATIONAL ANALYSIS

## OBJECTIVE:

- Understand the full scope of the current situation.
- Identify the strengths, weaknesses, problems and gaps in e.g. the existing birth registration systems, processes and overall organisation.

## HOW:

1. Conduct a desk review to find relevant research and past assessments.
2. Conduct interviews and explore the below areas with all relevant stakeholders identified in the Stakeholder Map.
3. Conduct group workshops, splitting into groups of 3-4 people to share findings and collate identified problems.

**NB:** DO NOT OBSERVE BIRTH REGISTRATION IN ISOLATION, INSTEAD CONSIDER IT AS PART OF THE BROADER CIVIL REGISTRATION AND VITAL STATISTICS SYSTEM.

| | |
|---|---|
| CRVS LONG TERM VISION | CRVS PROCESSES |
| CRVS STATUS & BASELINE | CRVS SYSTEM LANDSCAPE |
| CRVS ORGANISATIONS & ACTORS | CRVS LEGAL & POLICY FRAMEWORK |
| REGISTRATION BARRIERS | CULTURAL CONSIDERATIONS |
| PROCESS BOTTLENECKS | CURRENT CRVS INITIATIVES |

# TOOL: "AS-IS" BUSINESS PROCESS ANALYSIS

## OBJECTIVE:

- Create a visual representation of the activities and tasks that collectively contribute to the birth registration process.
- Understand how different actors are involved in the process.
- Identify the process barriers and bottlenecks which occur at different stages of the process and how they can affect subsequent steps.

## HOW:

### 1. MAP THE BIRTH REGISTRATION "AS-IS" BUSINESS PROCESS.

- Work with the identified stakeholders during for example a multiple day workshop or multiple meetings with each individual stakeholder to correctly capture each step of the process and the responsibilities of each individual actor in each step. Limit the group size to 2-3 people for maximum input and productivity.

- Document any concerns e.g. barriers and bottlenecks that are discussed. These will be important to document on the visual model in Step 3.

### 2. DEVELOP A VISUAL MODEL.

Use a business process modelling tool to develop a visual model of the flow e.g. Bizagi (free of charge) of the documented feedback.
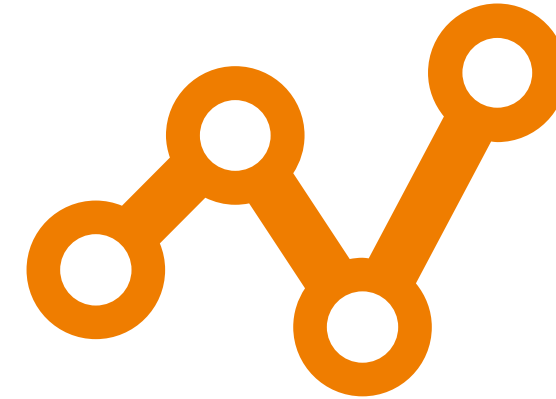
### 3. IDENTIFY AND DOCUMENT BARRIERS AND BOTTLENECKS THAT MAY OCCUR AT VARIOUS STEPS OF THE PROCESS:

- Which bottlenecks exist that may be slowing down the process?

- Which barriers exist that may be preventing the process from being conducted as required e.g. prevent parents from engaging in the process?

- What informal practices exist?

## 4. MAP THE BIRTH REGISTRATION "AS-IS" BUSINESS PROCESS

Map the barriers and bottlenecks on the "As-Is" Business Process Map at the specific step where they are observed. Annotate each barrier or bottleneck with brief 1-2 sentence comments which describe the main concern.
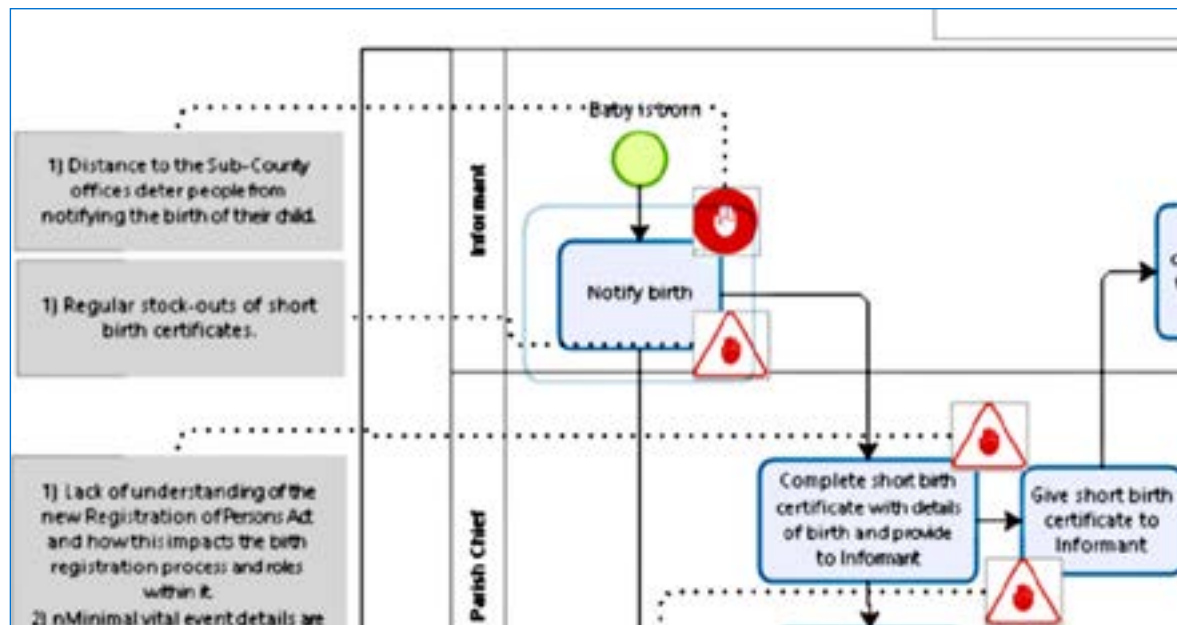


As-Is Business Process Analysis during Ghana CRVS Digitisation Workshop Feb 2017. Photo: Melissa Cederqvist

## BOTTLENECK VS. BARRIER

### BOTTLENECK:
Something which slows down the birth registration process e.g. long waiting times or shortage of supplies.

### BARRIER:
Something preventing a parent from registering the birth of their child e.g. high direct and indirect costs.

# TOOL: CUSTOMER JOURNEYS

**OBJECTIVE:**

- Describe the experiences of various users of the birth registration system and process.
- Understand the opportunities and pain points of the birth registration service from the users' perspective.

**HOW:**

**1. REFER TO THE "AS-IS" BUSINESS PROCESS MAP, AND DESCRIBE THE CUSTOMER TOUCH POINTS THROUGHOUT THE PROCESS.**

**2. INTERVIEW END-USERS AND SERVICE PROVIDER**

e.g. Informants and Civil Registry in the birth registration process, to identify both the negative experiences (pain points) and positive experience (delighters) experienced throughout the process.

**3. DOCUMENT THE FINDINGS IN FOR EXAMPLE A TABLE FORMAT LIKE THE ONE BELOW.**

## CUSTOMER JOURNEY IN BIRTH REGISTRATION – PAIN POINTS AND DELIGHTERS

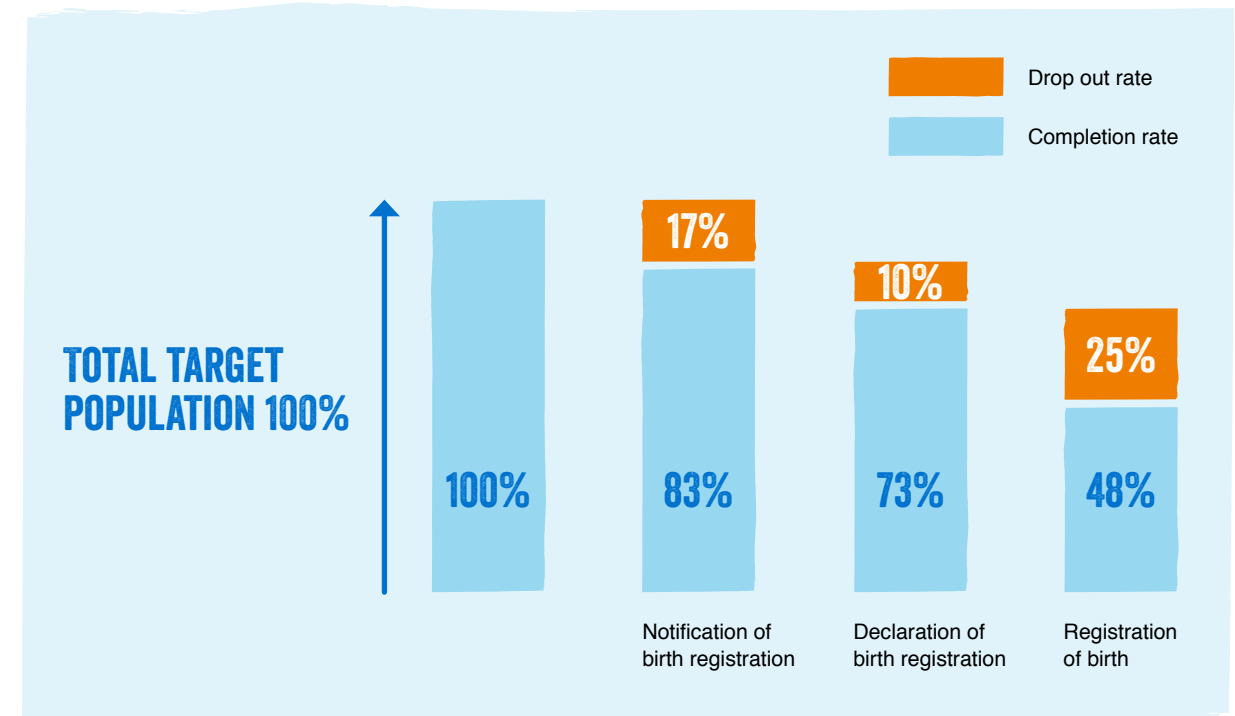| | NOTIFICATION OF BIRTH | DECLARATION OF BIRTH | VALIDATION | REGISTRATION OF BIRTH | ISSUE OF BIRTH CERTIFICATE | STORAGE OF BIRTH RECORD | USAGE OF BIRTH RECORD |
|---|---|---|---|---|---|---|---|
| **BIRTH REG. PROCESS** | | | | | | | |
| **KEY ACTOR'S EXPERIENCE** 🙂😐🙁 | | | | | | | |
| **INFORMANT** | 🙂 | 🙂 | 🙂 | 🙁 | 🙁 | 😐 | 😐 |
| **CIVIL REGISTRY** | 🙂 | 🙂 | 🙁 | 🙂 | 🙂 | 😐 | 😐 |
| **STATISTICAL AGENCY** | 🙁 | 🙂 | 🙁 | 🙂 | 🙁 | 🙁 | 🙁 |
| **KEY IMPROVEMENTS AND LEARNINGS** | | | | | | | |

## TOOL: WATERFALL CHART

### OBJECTIVE:

- Understand the effectiveness of each step of the birth registration process in relation to other steps in the same process.
- Determine at which point of the birth registration process the most 'drop outs' occur.

### HOW:

1. Determine the size of the target population i.e. the expected number of births in a given period.

2. For each process step, determine what % of the target population that completes the step.

3. Identify which steps experience the biggest "drop-outs" and compare the results to the pain point identified with end-users.

**NB:** IN THE ABSENCE OF DATA POINTS, BEST ESTIMATES CAN BE PROVIDED.



Legend:
- Drop out rate (orange)
- Completion rate (light blue)

TOTAL TARGET POPULATION 100%

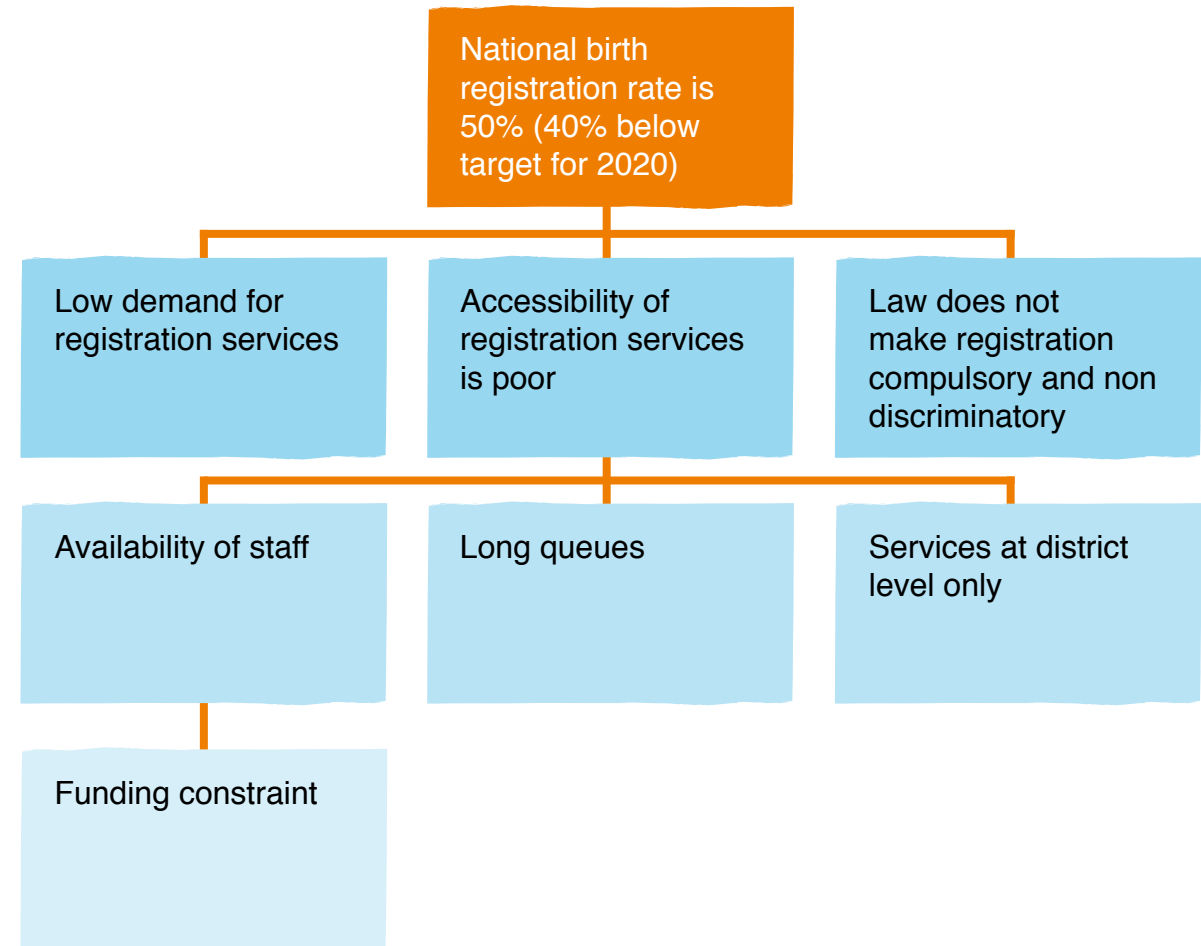| | 100% | Notification of birth registration (17% drop out, 83%) | Declaration of birth registration (10% drop out, 73%) | Registration of birth (25% drop out, 48%) |

## 🔧 TOOL: PROBLEM TREE

### OBJECTIVE:

• Map out the causes and effects of individual problems to better understand underlying issues in the birth registration process.

### HOW:

1. Define the problem statement (based on "As-Is" Business Process Map and Customer Journey analysis).

2. Break the problem statement down into discrete problems.

3. Identify symptoms of each problem.

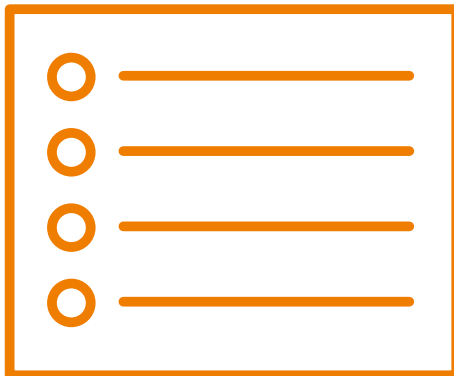4. Based on these, trace the root cause of the problem.

National birth registration rate is 50% (40% below target for 2020)

- Low demand for registration services
- Accessibility of registration services is poor
- Law does not make registration compulsory and non discriminatory

- Availability of staff
- Long queues
- Services at district level only

- Funding constraint

# IDEATE

## 🔧 TOOL: IDENTIFY TECHNOLOGY ENABLERS AND TRENDS

### OBJECTIVE:

- Identify technology enablers and trends which can help solve some of the identified problems in the birth registration process.

### HOW:

Create a list of technology enablers and trends relevant to the context of the identified problem. Use Enablers in Birth Registration as a reference, but add or remove as needed for the specific context being considered.

## 🔧 TOOL: DETERMINE THE LONG TERM VISION FOR THE CRVS SYSTEM, INCLUDING BIRTH REGISTRATION

### OBJECTIVE:

- Ensure the understanding of the future context is uniform across the team involved in the innovation process.
- Ensure all ideas and solutions are aligned with the government's future vision and strategies of birth registration and CRVS.

### HOW:

Consult existing documentation such as Strategic Plans, and document the Long Term Vision for birth registration. Take into consideration areas such as Birth Registration as a reference, but add or remove as needed for the specific context being considered.

1. Harmonisation
2. Operational efficiency
3. Interoperability
4. Data Quality
5. Coverage
6. Automation / Digitisation
7. Reliability and maintenance
8. Security
9. Monitoring
10. Sustainability
11. User centred
12. Accessibility of data

# 🔧 TOOL: WHAT IF WE COULD EXERCISE

## OBJECTIVE:

- Get stakeholders to brainstorm freely and think about the ideal and desired future while forgetting about existing orthodoxies..

## HOW:

1. Briefly review the existing priority problems which have been identified.
2. Ask each participant to note down three "What If's" on for example on a post-it note, in their notebook or format which is available to the group.
3. Ask each participant to read out what they have written down and group the "What If's" together based initially clear categories e.g. system improvement, costs etc.
4. Bring each category forward to the "Ideation Session".

## TOOL: IDEATION SESSION

### OBJECTIVE:

- Ideate and identify possible solutions which fit the relevant assumptions, what if's and identified problems together with a group of end users and key stakeholders.

### WHAT TO THINK ABOUT:

#### PARTICIPANTS:

All stakeholders identified using the Stakeholder Mapping tool. NB: Ensure majority of the participants have experience in one of the relevant areas for which the innovation is being created e.g. country, financing, CRVS.

#### DURATION:

To maximise productivity and get as much value from each participant as possible, plan to have 2-3 day work shop outside of the participants' regular city of residence. If this is not possible, host a session for a day together.

#### FACILITATORS:

1 facilitator per group of 3-4 people (maximum of 20 participants).

#### INTRODUCTION:

Start with an ice breaker that will introduce everyone and bring all levels of staff to the same level.

#### EXERCISES:

Pick from the tools from the Ideate section of this publication and plan and organise how to conduct these exercises during the session. Determine in advance how much time will be allotted for each exercise e.g. 15 or 30 minutes. Ensure there is enough time to get the participants to understand the exercise, get creative, while being able to stop when ideas start to become repetitive.

#### GROUP EXERCISES:

- Split up the larger group into smaller groups of 3-4 people as often as possible to ensure high participation.

- Plan to have one flip chart per group to scribble down ideas and notes on which can later be easily presented to the greater group.

- Ask each group to pick one member of the team (not a facilitator) to present the groups conclusions of the task to the bigger group in 10 minutes.

## INDIVIDUAL EXERCISES

- Throughout the group sessions, allow the participants to go back and consider ideas and brainstorm individually for 5-10 minutes. For example, after 15 minutes of an exercise as a group, ask each individual to go and brainstorm on their own for 5 minutes.

- Regroup and ask each individual to provide their ideas and thoughts.

### ICE BREAKER:

Take 2-3 minutes to draw the person sitting on the left, asking the person questions as needed to be ableto introduce them e.g. name, title, role etc. When time is up, each person presents the person they have drawn, their name, role and other information they were able to find out during those minutes. This exercise not only introduces each person to the group; it also has each member of the group use a skill that they would not normally use in the workplace and makes everyone a little uncomfortable, something that may well happen again during ideation.

### WHEN YOU'RE ALONE, YOU'RE ESSENTIALLY BUILDING A WOODPILE IN YOUR BRAIN. THEN, WHEN YOU JOIN A GROUP, YOU'RE IGNITING A SHOWER OF SPARKS THAT MIGHT LIGHT IT UP.

### JUDAH POLLACK AND OLIVIA FOX CABANE, CO-AUTHORS OF THE NET AND THE BUTTERFLY: THE ART AND PRACTICE OF BREAKTHROUGH THINKING.



Participants are working individually to gather "What If's" during a CRVS Innovation Workshop in The Hague, The Netherlands April 2017. Photo: Melissa Cederqvist

## TEMPLATE FOR DOCUMENTING INNOVATIONS:

# INNOVATION TITLE

### PROBLEM STATEMENT
- What is the problem?
- What are the root causes?
- What is the impact and for whom?

### SOLUTION CONCEPT
- Who? What? Where? With whom (partners)?
- How is this new? How does this solve the problem differently?

### SOLUTION ILLUSTRATION
- Visual + key features
- How does it work?
- Who does it involve / impact?

### IMPACT
- Tangible / intelligible
- Outcome for beneficiaries
- Benefits for Plan International
- Benefits for donors / partners
- Opportunities to scale

### RISKS
- Why might it fail?

### MITIGATIONS
- How can potential points of failure be identified early?

### PROTOTYPING
- Hypothesis testing / MVPs
- Scope of prototype
- Timeframe
- Costs

### IMPLEMENTATION
- Geographic focus
- Delivery approach (iterations)
- Timeframe
- Costs (fixed and variable)

### SCALING
- Geographic focus
- Timeframe
- Costs (fixed and variable)

### FUNDING MODEL
- Approach for prototyping / implementation / scaling
- Sustainability / revenue generation

### CONCEPT OWNER

PLAN INTERNATIONAL

# TOOL: TIMELINE FOR FUTURE CONTEXT ASSUMPTIONS

## OBJECTIVE:

- Get stakeholders to agree on a future context for which the solutions are expected to interact within.
- Get stakeholders in the mind-set of thinking about the future before introducing additional exercises to ideate and think about future solutions to current problems.

## HOW:

1. Create a list of Future Context Assumptions.
2. Ask stakeholders in small groups of 3-4 people if the assumption will hold true 2, 5 or 10 years from present time.

## EXAMPLE: TIMELINE FOR FUTURE CONTEXT ASSUMPTIONS

| ASSUMPTIONS | BRIEF DESCRIPTION | GROUP 1 | GROUP 2 | GROUP 3 | GROUP 4 |
|---|---|---|---|---|---|
| **FUTURE INVESTMENT** | | | | | |
| Early registration | Concentrated on on-time registration | | | | |
| Health records | High quality and coverage of health records | | | | |
| **IDENTIFICATION AUTHORITY** | | | | | |
| Personal Identification Number (PIN) | PIN implemented | | | | |
| Data sharing | Shares ID details for validation with Civil Registry during birth registration | | | | |
| **STATISTICAL SERVICE** | | | | | |
| Data storing and sharing | Only government agency allowed to store and share vital statistics across agencies | | | | |
| **CIVIL REGISTRY** | | | | | |
| Awareness | Most families know the importance of birth registration | | | | |
| Human resources | Sufficient Registrars on salary | | | | |
| Legal identity | Birth certificates are the sole source of legal identity from birth | | | | |
| **INFRASTRUCTURE** | | | | | |
| Internet connectivity | Reliable internet connectivity at healthcare facilities | | | | |
| Technology literacy | Technology literacy at community and district level | | | | |
| English language skills | English skills at community and district level | | | | |
| Mobile Infrastructure | 90% mobile network coverage | | | | |

# TOOL: MAPPING IDEAS TO PROBLEMS

## OBJECTIVE:

- Map as many ideas as possible for the problems identified in Problem Tree.

**NB: THIS SHOULD BE AN EXHAUSTIVE LIST OF IDEAS FROM ALL STAKEHOLDERS WITH VARIOUS PERSPECTIVES. SPEND AT LEAST 1 DAY IN AN IDEATION SESSION ON THIS EXERCISE.**

## HOW:

1. Revisit the problem statements written out in the "Problem Tree".

2. In teams of 3 to 5 people from various sectors and background (cross-functional), brainstorm as many solutions and ideas as possible.

3. Report back in teams to the wider group and allow other teams to endorse or critique.

4. Repeat steps 2 and 3 until ideas are exhausted.

# 🔧 TOOL: PRIORITISATION CHECKLIST

## OBJECTIVE:

- Quickly and efficiently rate the mapped ideas according to a pre-defined set of criteria.

## HOW:

1. Define the list of prioritisation criteria together with the identified stakeholders.

2. Split into groups of 3-4 people, and answer Yes or No for each criteria.

3. Continue only with ideas who received 100% or majority Yes (more than 50%).

4. For each idea that was taken forward from Step 3, gather scoring from 1-10 from all stakeholders for each criteria and calculate an average score out of 10.

5. Continue with the five ideas with the highest score in Step 4.

## STEP 3 TABLE

| IDEA | CRITERIA | | | | |
|------|----------|--|--|--|--|
| | Feasible | Cost-effective | Acceptable | Strategic | Sustainable |
| Use mobile phone for notification | Yes | Yes | Yes | Yes | Yes |
| Train all local chiefs in manual notification | No | Yes | Yes | Yes | Yes |
| Empower parents to be notification agents | Yes | Yes | No | Yes | No |

## NB: THE EXACT CUT-OFF POINT DEPENDS ON HOW MANY IDEAS ARE BEING CONSIDERED IN TOTAL. FOR EFFECTIVE WORK FLOWS AND PROGRESS, ONLY 10-15 IDEAS SHOULD BE CONTINUED WITH IN STEP 4.

## STEP 4 TABLE

| IDEA | CRITERIA | | | | | |
|------|----------|--|--|--|--|--|
| | Feasible | Cost-effective | Acceptable | Strategic | Sustainable | Total |
| Use mobile phone for notification | 8 | 6 | 8 | 9 | 5 | 36 |
| Train all local chiefs in manual notification | 4 | 5 | 9 | 5 | 3 | 26 |
| Empower parents to be notification agents | 4 | 9 | 5 | 8 | 9 | 35 |

## TOOL: IDENTIFICATION OF RISKS WITH IDENTIFIED INNOVATIONS

### OBJECTIVE:

• Identify positive and negative risks with each prioritised innovation.

### HOW:

**NAME OF INNOVATION:**

| Identified risk | Type of risk (Positive/Negative/Unclear) | Details | Mitigations to consider if 'Negative' or 'Unclear' |
|---|---|---|---|
| | | | |
| | | | |

## TOOL: DOCUMENTING THE PROPOSED INNOVATION

### OBJECTIVE:

• Document the innovation(s) which are being proposed as a result of the "Ideate" step.

• Create a document which can be easily referred to during the following steps in the Innovation Process e.g. "Create".

### HOW:

Use the below template and add sections as/if needed.

**NAME OF INNOVATION:**

| | |
|---|---|
| Definition of the problem | |
| Brief description of proposed solution | |
| Value proposition | |
| Key features | |
| Brief explanation of how the innovation is going to be created | |

# TOOL: THE ELEVATOR PITCH

## OBJECTIVE:

- Create a brief persuasive explanation of the idea that is able to spark interest in stakeholders.
- Time: 30 sec – 1 min.

## HOW:

1. Define the list of prioritisation criteria together with the identified stakeholders.

   - Why should someone care about this solution?

   - What is the problem definition?

   - What insights were used?

   - What is the proposed solution and expected benefits?

   - What differentiates the idea from alternatives

2. Summarise the most important points into a short and impactful elevator pitch and practice until it is convincing and persuasive.

# CREATE

## 🔧 TOOL: DEVELOP AN MVP

### OBJECTIVE:

- To develop a simple version of the proposed solution that can be tested with a user group using the least amount of effort. Use the information gathered to validate the solution's potential to solve the identified problem and gather inputs for design.

### HOW:

There are numerous ways to develop an MVP; the most appropriate method will depend on what type of product or service is being developed and what needs to be validated. Consider the below examples to better understand what an MVP might look like:

- Announce a new place where the product or service will be provided and observe interest levels and attendance. Offer real information, a product or service if people are asked to come in person or travel to a specific location.

- Interview likely users and introduce the idea to gauge their response.

- Advertise the product or service and monitor interest levels.

- Hold a demonstration of what the product or service would do when fully developed and evaluate audience feedback.

- Offer a more manual version of an automated product or service, a "Concierge" experience, which results in the same expected outcome as the automated product or service. What was the users' reaction?
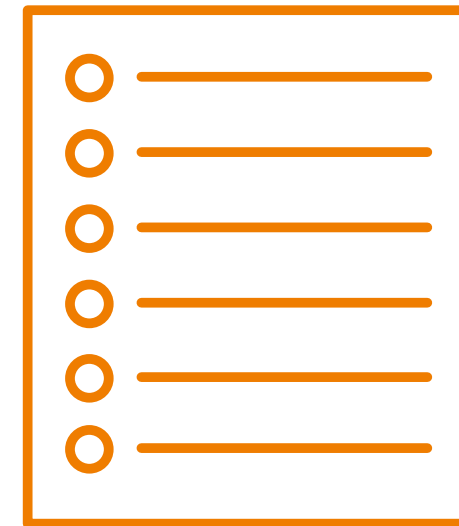
## EXAMPLE:

MVP Test – Target group

## PURPOSE:

To validate availability and size of the target group to ensure
the innovation will have an impact.

### MINIMUM VIABLE PROCESS TEST CASE CONTINUOUS REGISTRATION: 1B – HEALTH FACILITY

#### INSTRUCTIONS

1. Check which service you are providing to the mother.

2. START this activity with the first women who you serve who has brought their child for immunisation or who is in the maternity ward. Please complete this for your full working day.

3. Please add a tally (I) for each woman seen.

4. Ask the 2 questions in the table for all mothers.

5. For each of the questions, if the answer is yes - add a tally (I) into the relevant column. If the answer is no, leave it blank.

6. Please return this sheet to the Plan International team member.

☐ Immunisation    ☐ Maternity ward    ☐ EPI Outreach

| DESCRIPTION | COUNT (TALLY) |
|---|---|
| Women who access this service (Tally ALL) | |
| Questions: | |
| Do you NEED a birth certificate for your child? | |
| If possible, would you apply for a birth certificate here today (this would take about 15mins)? (Tally YES ONLY) | |

## EXAMPLE:

MVP Test – Time

## PURPOSE:

To validate the time needed to complete a task before considering to add it to an existing workload.

Minimum Viable Process – Continuous Registration: 1b – TEST Birth Notification     Date: _____ March 2017

**TEST ONLY - THIS IS NOT AN ACTUAL BIRTH REGISTRATION – ALL DATA WILL BE DELETED**

Instructions: After filling out the required information for the service you are providing, please fill out the below information. Please return this sheet to the Plan International team member. Please check which service you are providing to the mother.

☐ Immunisation  ☐ Maternity ward  ☐ Refugee registration  ☐ EPI Outreach

Start time: _____     End time: _____

| Details of Child | |
| --- | --- |
| Surname | |
| Other Names | |
| Sex | |
| Date of birth | |
| Disability if any | |
| Weight at birth | |
| District of birth | |
| Place of birth | |

| Details of Mother | |
| --- | --- |
| Surname | |
| Other Names | |
| Age | |
| Marital Status | |
| Usual Residence | |
| Nationality | |
| National Identification Number or Alien Identification Number for citizens and Aliens respectively | |
| Level of education | |

| | |
| --- | --- |
| Profession or occupation | |
| Previous births | |

| Details of Father | |
| --- | --- |
| Surname | |
| Other Names | |
| Age | |
| Marital Status | |
| Usual Residence | |
| Nationality | |
| National Identification Number or Alien Identification Number for citizens and Aliens respectively | |
| Level of education | |
| Profession or occupation, and previous births | |

| Details of Informant | |
| --- | --- |
| Family Name | |
| Other Name | |
| Capacity | |
| Nationality | |
| National Identification Number or Alien Identification Number for citizens and Aliens Respectively | |
| Signature of informant | |
| Date of notification | |

## 🔧 TOOL: "TO-BE" BUSINESS PROCESS MAP

### OBJECTIVE:

- To create a visual representation of the activities and tasks that collectively contribute to the future birth registration process
- To inform the development of a practical process prototype in order to test the innovation hypothesis.

### HOW:

1. Update "As-Is" Business Process Map with the identified and stakeholder validated solutions.

2. Compare the "As-Is" and "To-Be" Business Process Maps and ensure all annotated issues from the "As-Is" Business Process Map and Problem Tree have been addressed with the proposed solution.

## 🔧 TOOL: DEVELOP SYSTEM AND SOLUTION REQUIREMENTS

### OBJECTIVE:

- To create a core set of requirements that will allow a product developer to create a prototype.

### HOW:

Conduct an ideation session and split into a group with participants who have technical knowledge about the current IT systems and architecture where the solution should be implemented e.g. Civil Registry IT Director, Health Service IT Director, Statistical Service IT Director. Take the group through the "To-Be" Business Process Map for the prioritised solution, and discuss what specific system and solution requirements would be needed to make this process possible. The input and guidance from the participants should then be used to develop system and solution requirements for the proposed solution.

## 🔧 TOOL: CORE REQUIREMENTS IDENTIFICATION

### OBJECTIVE:

- Establishing core requirements needed to create an initial prototype with minimal resources.

### HOW:

1. Define use cases for the solution, based on the user/system interactions defined in the "To-Be" Business Process Map.

2. Define a list of functional requirements that reflect the defined use-cases. NB. This list should not be exhaustive at this stage, they should be enough to create a "front-end" or user-facing view.

3. Validate core requirements with a small, but diverse stakeholder team to ensure that the innovation is reflected in the requirements.

# TOOL: DEVELOP A LOW FIDELITY PROTOTYPE

## OBJECTIVE:

• To test the proposed solution.

## HOW:

A prototype can be completed at different levels of completeness: low, medium and high fidelity. A low fidelity prototype is usually a very rough, quick and cheap to produce experiment, produced in the early stages of developing a solution. It is used to test assumptions made about what the end user needs, and has the following characteristics:

• Illustrates – 'Looks' and 'feels' like the innovation. Front end requirements i.e. what the innovation will look like to the user are usually prioritised to develop a prototype.

• Simulates – Mimics what the innovation will do, but does not necessarily do it completely.

• Evolves – A low fidelity prototype is the first of many iterations of an innovation. It can be refined into the final solution by progressively becoming a medium and then a high fidelity prototype which take longer to produce and are the successive steps taken before execution of the solution.

Agile methodology can efficiently enable and facilitate the iterative development process during which the prototype is evolved.

## APPLYING AGILE

"Agile" refers to an iterative, incremental method of managing the design and build activities, where the aim is to develop a product in a highly flexible and interactive manner. A sprint is an agile delivery technique initially intended for software development but now more broadly used for other types of projects that need to be developed quickly and It can therefore be a useful technique when developing an innovation. The sprint represents a time boxed period for developing a prototype and then subsequent iterations. A scrum is a meeting to be held regularly with the team to determine what everyone is working on and what needs to be done to remove any obstacles in progressing the prototype.

**DAILY SCRUM**

**1-2 WEEK SPRINT**

**SOLUTION REQUIREMENTS**
Based on the idea from the ideate phase

**SPRINT BACKLOG**
Committed set of prototype requirements broken down into tasks for the scrum team

**INTERNAL TESTING**

**DEMONSTRATION OF PROTOTYPE TO STAKEHOLDERS**
(iteration 1) for feedback
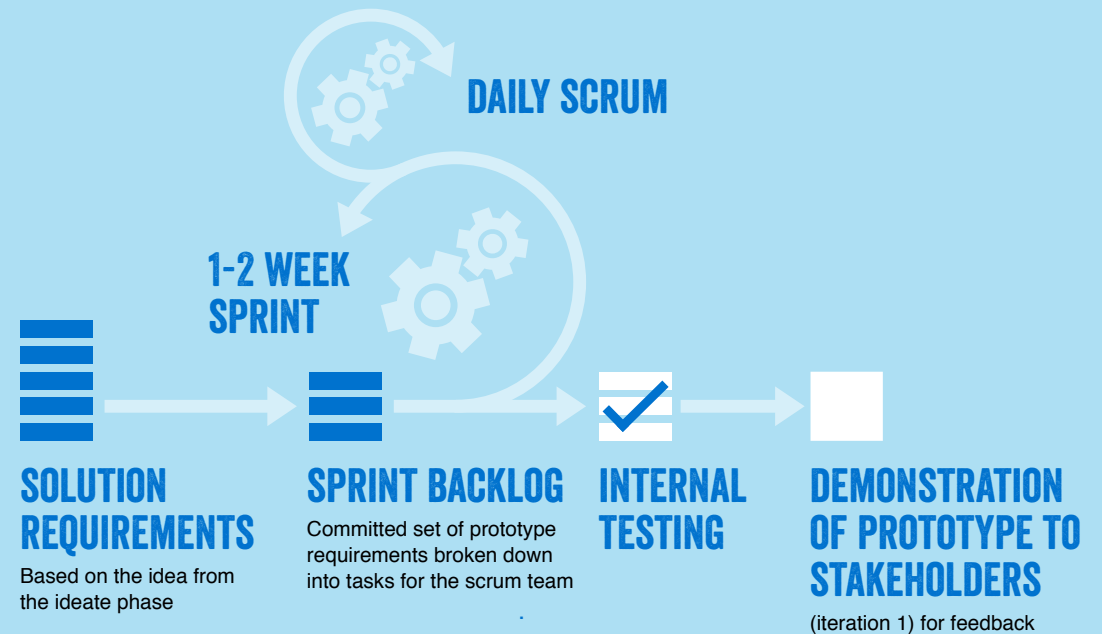
# 🔧 TOOL: TEST THE PROTOTYPE

## OBJECTIVE:

- Establishing core requirements needed to create an initial prototype with minimal resources.

## HOW:

### STEP 1:

Define a set of clear Key Performance Indicators (KPIs) to facilitate comparison between new and current practice. Continue to measure these metrics throughout iterative development and deployment in order to understand changes in these KPIs as and when changes are made to the solution.

### STEP 2:

Identify a group of early adopters for testing. Testing the prototype on early adopters will increase the likelihood of getting honest and valuable feedback.

### STEP 3:

Conduct tests in both controlled and uncontrolled environments to observe user feedback. While a product or service may function well in isolation, external factors can drastically affect a user's experience with it.

### STEP 4:

Review and evaluate all user feedback, taking both positive and negative comments into consideration. These should be fed back into the iterative design and delivery process.

### STEP 5:

Repeat all steps

### BASED ON THE ABOVE ASSESSMENT, DETERMINE WHICH PATH TO TAKE:

1. Launch the prototype as a solution in its current state.

2. Go back to Create to refine the requirements and further develop the prototype.

3. "Pivot" in order to change the concept and solution altogether.

4. Stop any further development of the solution.

### EARLY ADOPTERS:

The end users who are most likely to be engaged, interested, and champion the innovation once fully implemented.

# IMPLEMENT

## 🔧 TOOL: CHANGE MANAGEMENT APPROACH

### OBJECTIVE:

- Create a communications strategy to ensure uptake of solutions.

### HOW:

1. Identify which actors are involved in the "To-Be" process. How does the proposed solution and the change it comes with affect these actors, their roles and their management? Who needs to be made aware of system and process changes across all levels of affected institutions?

2. Define what each of these actors need to know e.g. how the change is going to affect them respectively? What are the benefits of the changes? When are the changes coming?

3. Repurpose the materials developed during the Identify and Ideate phases such as "To-Be" Business Process Maps and Customer Journeys into appealing communication materials for the target audience.

4. Develop a common, clear and consistent message explaining the innovation (practice the Elevator Pitch).

5. Use Communication for Behavioural Impact (COMBI) methodology, or similar, tailoring communications to desired behavioural outcomes. Different types of communication e.g. written, direct, visual will be required so that stakeholders:

   1. Hear about the innovation
   2. Are informed
   3. Convinced of its value
   4. Decide to change behaviour in line with the innovation
   5. Act on the behaviour
   6. Reinforce this action, and ultimately
   7. Maintain the change.

6. Define when each actor should be communicated with. Who could act Change Champions within the organisation?

7. Determine how to monitor and respond to the acceptance/feedback of the change.

# 🔧 TOOL: CHANGE CHAMPIONS NETWORK

## OBJECTIVE:

- Create a network of change champions to promote and communicate the innovation to ensure uptake.

## HOW:

1. Identify Change Champions, people who fully understand the need for the innovation and are able to promote it through their peer groups and contacts.

2. Refer to Stakeholder Map carried out at the beginning of the innovation process, to ensure champions are enlisted in all key areas impacted by the innovation.

3. Enlist the 'early adopters' that helped to test the innovation during testing of the prototype and the iterative process, and who would be able to act as advocates for the innovation.

4. Run training workshops for the Change Champions – so that they can then become trainers on the innovation.

5. Involve Change Champions in formal activities such as communications, training and monitoring behavioural changes.

# TOOL: ITERATIVE DELIVERY

## OBJECTIVE:

- Prioritise requirements of the solution, and test these in an iterative manner to allow for high levels of initial uncertainty and potential need for additional development resources.

## HOW:

1. Divide requirements into:
   - Essential – must haves.
   - Conditional – good to have and would improve the innovation.
   - Optional – the value add is likely to be small.
2. For the first iterations, choose requirements that at a minimum collectively create something new that can be tested on end users.
3. Follow the Build, Test, Deploy, Evaluate cycle for each iteration
4. Nearing the end of the development lifecycle, focus on requirements that require less feedback.

## BUILD, TEST, DEPLOY, EVALUATE... REPEAT



TEST    Iteration 1 (prototype)
BUILD    DEPLOY
EVALUATE

TEST    Iteration 2
BUILD    DEPLOY
EVALUATE

TEST    Iteration ...
BUILD    DEPLOY
EVALUATE

Final Innovation
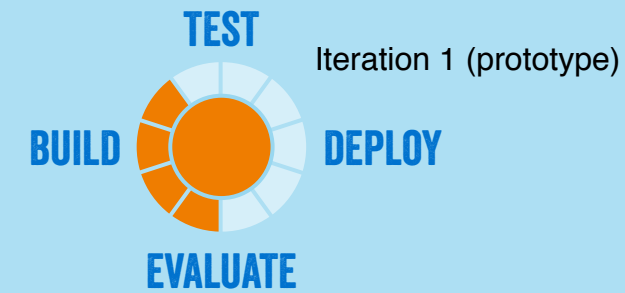
### BUILD
Iteration is built based on sub-set of requirements specified for the innovation

### TEST
Iteration is internally tested to see if it satisfies the specified requirements

### DEPLOY
Iteration is deployed to receive feedback from end users and so benefits can be realised

### EVALUATE
Iteration is assessed to determine what needs to change, and what requirements should be to be tested next
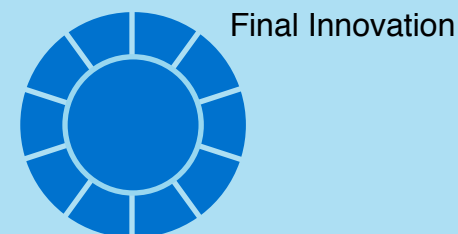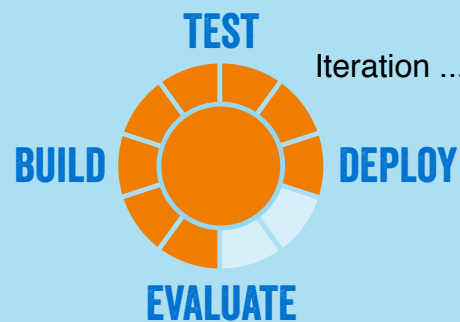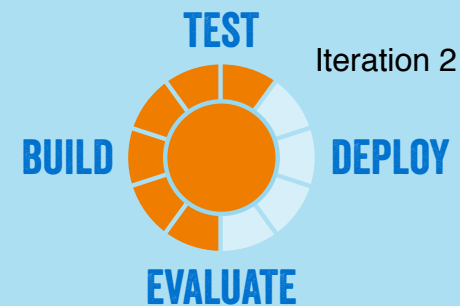
# ABOUT

## PLAN INTERNATIONAL

Plan International is an independent development and humanitarian organisation that advances children's rights and equality for girls.

## PLAN INTERNATIONAL BIRTH REGISTRATION INNOVATION TEAM

### COUNTRY LEVEL IMPACT

Building momentum for the universal right to an identity through BRIT's global expertise:

- Conduct detailed situational analysis to fully understand the current state of CRVS

- Streamline CRVS processes and enhance existing CRVS systems

- Extend the reach of systems through the use of mobile technologies to reach the most vulnerable

- Advocate for legal and policy changes that support rights-based and secure birth registration
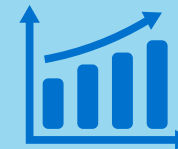
### GLOBAL GOODS

Creation of global assets for CRVS strengthening:

- Member of:
  - Regional Steering Group for CRVS in Asia and the Pacific
  - African Programme for the Accelerate Improvement of CRVS

- CRVS Digitisation Guidebook (www.crvs-dgb.org)

- Identifying and addressing risks to children in digital birth registration systems: A step-bystep guide (https://plan-international.org/publications/identifying-and-addressing-riskschildren-dbr-systems#download-options)

- CRVS Digitization Guidebook is included in the Toolkit of the Global Partnership for Sustainable Development Data (http://www.data4sdgs.org/)

### INFLUENCING

Promoting innovative birth registration models for national scale-up:

- Promote innovations in CRVS to realise its full value as part of the Data Revolution

- Encourage global best practices and standards in digitised CRVS systems

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# ACKNOWLEDGEMENTS

# ADDITIONAL READING

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