



# No-code for good

How no-code can strengthen adaptability  
in response and empower local actors

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and empower local actors

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**Relief Applications**

reliefapplications.org  
contact@reliefapplications.org  
10 rue Guy de Maupassant,  
31200, Toulouse,  
France

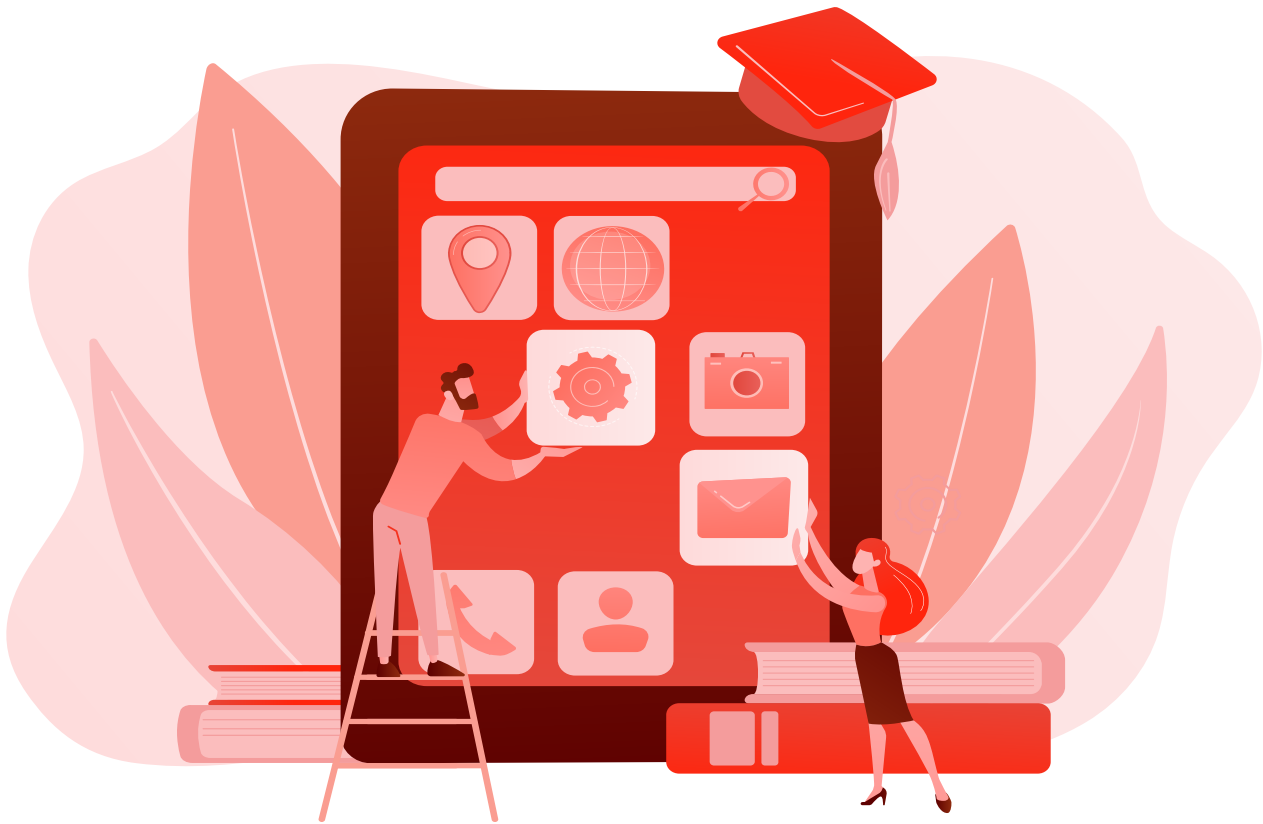
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# Abstract



The humanitarian sector is being tested to its limits, with a constantly increasing number of people in need of assistance combined with a widening funding gap. More than ever, aid workers and their partners need to come up with innovative solutions to alleviate the suffering caused by an intricate combination of man-made and climate disasters, while systematically reducing the price tag of interventions. International organizations and well-resourced structures have already invested in technology to assist them in increasing the scope of their operations while ensuring quality and inclusivity of their programs.

No-code technology can provide similar solutions without the need to hire a team of professional developers. New no-code tools are constantly being developed and enable the creation of increasingly complex platforms, while maintaining low barriers to entry. To that extent, no-code is becoming a promising partner for big and small organizations alike using technology to improve aid operations. First of all, the agility of no-code tools shortens the time to launch and thus increases the response capacity in times of crises. It also creates opportunities for faster adaptation

and for more flexible replicability than custom IT software. What is more, no-code platforms have a tremendous potential for the localization of humanitarian action by giving local actors with little-to-no IT knowledge access to powerful tools to conduct, monitor and capitalize on their activities. By providing pathways for all actors to rely on digital tools, no-code can also reinforce the systematic collection of relevant information and, therefore, the comprehension of local contexts and the potential for better advocacy.

The shift towards greater and smarter digitalization does not fall onto small scale actors solely. It is also essential for international organizations and donors to support local partners in the implementation of locally-led solutions that strengthen sustainability and enable retention of knowledge and skills. In that regard, no-code can be an asset in the broader paradigm shift of the humanitarian sector and support greater coordination, adaptation and localization of activities.

# Context

Over the last years, the number of humanitarian crises has risen and their level of intensity has increased. Climate disasters, scarcity of resources, displacement, conflicts, epidemics, poverty, are all facets of a vicious cycle, creating emergency contexts that have become extremely intricate. Simultaneously, and partly because of this greater complexity, humanitarian crises are increasingly protracted. The food crisis is worsening or at best plateauing, violent conflicts continue to afflict millions of civilians, forced displacement shows no sign of slowing, and climate-induced disasters drive increased levels of risk and vulnerability in countries that are already facing humanitarian challenges<sup>1</sup>. Estimates predict a dramatically high amount of 347.7 million individuals who will need humanitarian assistance in 2023; it is already 23.5 million people more than the population in need identified throughout 2022<sup>2</sup>. Among them, over 100 million are forcibly displaced, a bleak historic record<sup>3</sup>. What is more, between 3.3 and 3.6 billion people live in contexts that are highly vulnerable to climate change, with increased levels of vulnerability for communities living in locations otherwise affected by poverty, violent conflict or limited access to basic services and resources<sup>4</sup>.

While humanitarian needs keep rising, the financing of aid is not keeping up and the funding gap continues to widen. In 2022, only 57.1% of financial requirements were met<sup>5</sup>. This year's forecast for humanitarian funding reaches 54.2 billion USD, already 2.5 billion more than last year. Meanwhile, access to affected populations is increasingly difficult and humanitarians are repeatedly restricted in their activities. This paints a grim picture for the future of humanitarian aid and urges us all to re-think our approach.

Better coordination, multi-sectoral approach, recognition and support of local stakeholders, investment in preparedness and prevention, are all essential changes to sustain a shift of paradigm in the humanitarian sector. The humanitarian response system is being tested to its limits, and aid workers need more than ever to reinvent their activities and partnerships. Fortunately, there is a strong appetite from humanitarian workers for innovative solutions. More and more initiatives are developed by organizations and their partners, while innovations from the private sector inspire new practices in humanitarian action.

**347.7 million**

People in need of humanitarian assistance in 2023 (OCHA)

**7.2%**

Increase compared to 2022, 257% increase compared to 2018 (OCHA)

**103 million**

Forcibly displaced as of mid-2022 (UNHCR)

**3.3 to 3.6 billion**

People live in contexts that are highly vulnerable to climate change (IPCC report 2023)

**\$54.20 billion**

Financial requirements for 2023 (OCHA)

New technologies and digital tools are one promising way to support humanitarians in gathering more reliable data, in improving all steps of the project cycle and in making better decisions. However, as OCHA noted, digitalization is not the miraculous antidote against all ills: *"Technology is not an end in itself, and its adoption alone cannot shift a paradigm. Rather, investment in technology must go hand-in-hand with efforts to ensure that it is responsible, sustainable and inclusive and that it protects, above all, human life and dignity."*<sup>6</sup>

When developing and implementing technological tools for humanitarian action, it is thus essential to ensure that they are fit to purpose, safe and secure, and easy to use. In particular, tools must be accessible to frontline workers and allow rapid actions. In that respect, no-code platforms have tremendous potential to level up humanitarian action and provide all actors with powerful tools to address the needs of affected populations.

# What is no-code?

No-code tools are software development platforms which enable users to build and deploy their own applications without the need of active coding. Users can drag and drop pre-coded elements like building blocks and create an interface that fits their needs without hiring web engineers and developers. Similarly, low-code applications are addressed to an audience with higher IT skills and include a greater amount of coding than no-code, but still significantly less than traditional web and application development. However, the term "no-code" does not imply that coding does not take place; no-code platforms simply provide a visual layer over code. The elements that compose the tool have already been built 'behind the scenes' so

that the user is only required to intuitively organize them. No-code tools are therefore customizable and accessible to all users, but also scalable and expandable.

Interest in no-code is growing in every industry, while more and more no-code initiatives are being developed. For the non-profit sector, this can represent a real change of paradigm. Indeed, the accessibility of no-code tools participates in the democratization of technology, since powerful tools that were traditionally restrictive to big and well-resourced organizations are now accessible to other actors.

## Benefits of no-code

### User-centered approach

No-code user interface builder creates opportunities for non-technical users to design complex solutions using pre-built blocks. Its interactive feature allows you to visualize the final product as you go and to focus on the type of content and the layout that you want, therefore supporting an outcome-driven process.

### Affordability

Creating a solution using no-code tools only requires you to subscribe to the chosen no-code vendor without the need of hiring a team of developers. Maintenance is also included in the subscription in most cases, reducing costs in the long run.

### Agility and speed to launch

Because all the coding has already been made, developing an application with a no-code tool only requires you to drag and drop elements within the desired layout, which significantly decreases the time to launch. Because no technical knowledge is required beyond basic digital literacy, it allows you to work in smaller teams without the intermediary of web designers and developers.

# Room for improvement in the future of no-code

## Specificity and limited customizability

No-code platforms' customizability is limited to the pre-coded elements and they are therefore rarely all-encompassing. In fact, many no-code tools were initially built for a specific activity, and then were expanded. As a result, most no-code applications are specific to one or few purposes (e.g., website creation or data analysis, but rarely both simultaneously).

Yet, no-code is rapidly growing. A large variety of platforms already exist and they together provide a very wide range of services, which is sufficient for many small-to-medium scale actors and local organizations that are simply looking for a specific tool. Furthermore, no-code vendors are increasingly investing in the development of application systems where bridges across tools are provided to allow better coordination (e.g., Microsoft Power Apps). This allows small and large structures alike to adopt no-code tools throughout their offices and programs and sustain strong internal coordination.

## Vendor stability

The tradeoff of delegating all coding to an external party is that users lose power over the management of the tool itself. Organizations using no-code tools are dependent on the vendor regarding the management and the future of the tool. Many young start-ups have joined the no-code trend, and one could be concerned regarding their stability over time.

When choosing a no-code solution, it is thus important to consider not only the service provided, but also the general standpoint of the provider, its social commitment and ethical considerations, and to assess its financial stability. Many big tech companies provide no-code tools that are widely available and reliable, while start-up initiatives will provide novel and sometimes ground-breaking tools that could change the game.

## Tips to choose a no-code provider

If you want to join the community of no-code users, there are a few elements that you should investigate before making your decision:

- ☑ Availability of open-source or free-license option
- ☑ Previous use cases in similar contexts
- ☑ Possibility of connecting to and from other tools through an API integration
- ☑ Vendor's mission alignment with the organization's mandate
- ☑ Endorsement of key standards (e.g., GDPR, WEP, Principles for Digital Development)
- ☑ Green commitment

## The opportunities of no-code for humanitarians

No-code and low-code have supported humanitarian organizations in their activities for years. WordPress, Microsoft Power Apps, Kobo Toolbox are all examples of no- or low-code softwares that require more or less coding depending on the complexity of the solution desired. They have become vital partners for an increasing number of actors and have proven their potential for scaling, broadening and strengthening humanitarian action.

Yet, no-code tools have a lot more to offer to the humanitarian sector, given their rapid growth and specialization. Thanks to their agility, no-code tools can be deployed in an extremely short period of time and therefore boost the response capacity of local, national and international actors in times of crisis. They can also strengthen partnerships with

local organizations and civil society organizations as they empower smaller structures with lower levels of technical expertise and allow them to create tools tailored to their specific needs with little to no intermediary. Thanks to their accessibility, no-code platforms can also accompany humanitarian actors in their shift towards greater digitalization, which expands their information management capabilities, their accountability potential and their resources for advocacy.





# No-code for better adaptability

## Providing swift and appropriate response

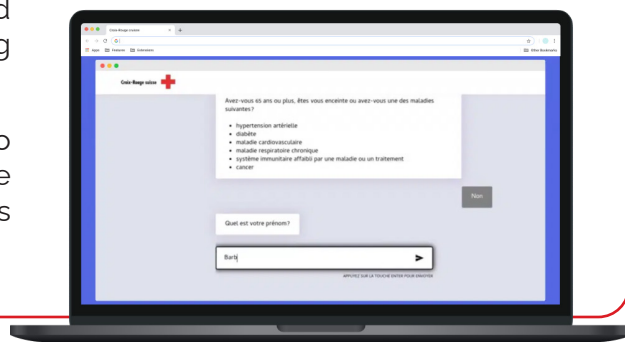
Using no-code applications and softwares reduces considerably the development and testing time of digital solutions. Applications using no-code tools can be launched in a matter of days or even hours, while it would take months using traditional IT methods. Additionally, with no-code, testing is generally automated, and the platform can be used as soon as it has been created.

Fast launch is particularly crucial when responding to a fast-unfolding crisis, where aid workers and local actors need to respond quickly to specific needs. Many no-code providers also offer offline options which can help carry out activities in hard-to-reach locations or in disaster-stricken areas, ensuring that aid reaches as many vulnerable populations as possible.

### Chatbot for Volunteer Recruitment with the Swiss Red Cross

During the first months of the Covid-19 pandemic, most of Europe was under strict lockdown. Many services were put on hold, and people were confined to their homes. Yet, it is precisely in times of crisis like these that organizations are in need of human resources. In March 2020, the [Swiss Red Cross](#) found itself in a dire need of volunteers. With the sanitary context at the time, the screening process was particularly important in the recruitment of volunteers, as it was essential to ensure the safety of the staff and beneficiaries. Instead of sending a form to applicants, which can be tedious to fill in and often results in lower levels of successful applications, the Swiss Red Cross developed an interactive and user-friendly solution using [Landbot](#), a no-code Chatbot builder.

They managed to build the interface in no time following the announcement of restrictive measures and received over 500 applications within a week of launch.



## Adapting solutions to evolving needs

No-code tools are dynamic. Changes can be made in real time, which allows workers on the ground to adapt their tools according to the latest context developments and tailor their approach as they go. Such solutions are therefore easily adjustable to a changing environment and have greater replicability potential in other contexts than most custom coded tools.

No-code providers are also constantly expanding their systems. The extent of what no-code tools are able to do is rapidly widening as new technologies are introduced, and existing solutions are

perfected. Possibilities are also increasing along with demand, as more and more governments and nonprofit organizations rely on no-code solutions. What is more, stand alone tools can provide bridges to other well-known software so that the interconnection of systems is strengthened. Nevertheless, it is not always the case and potential shortcomings in terms of linkages across tools can become burdening in the long run. It is thus important to also consider the potential evolution of the need for the tool within an existing system before choosing a product.

## Reducing the number of intermediaries

The visual approach of no-code allows to organize the pre-built elements with a clear vision of the final product. This can reduce the production chain when creating a digital tool, and therefore allow experts in humanitarian action to translate their knowledge directly into practical solutions. This also applies when modifying an existing tool, which reduces unforeseen costs and delays in the long run.

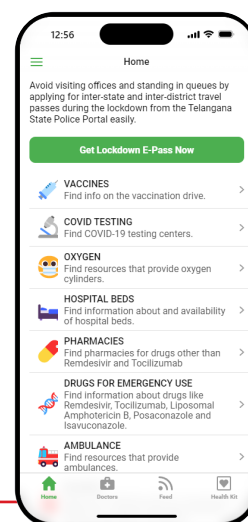
Moreover, the ease of use of no-code platforms allows other actors to participate in relief activities, especially in times of crisis. The civil society can

thus become a powerful partner and individual initiatives can help alleviate access challenges and delays.

### HydCovid Resources: an app listing life-saving supplies availability during the Covid-19 pandemic in India

In 2021, the alarming second wave of Covid-19 hit India, and its healthcare system quickly crumbled. Cases continued to explode, leaving the government unable to respond to the magnitude of the crisis. Life-saving resources became scarce and the information about the availability of products and services was decentralized into Google Sheets that people would share on social media.

Vensy Krishna, a lawyer by training without IT expertise, created [HydCovid Resources](#) using [Glide](#), a no-code development platform. Her app translated the information contained in the Spreadsheets onto a user-friendly interface listing essential services in her city, Hyderabad, such as hospital beds capacity and oxygen masks availability. The first version only took her 2h to deploy, from idea to launch, thanks to the no-code tool. The app quickly went viral and connected thousands of users in a matter of days. Her initiative later scaled up thanks to dozens of volunteers updating the information and gained partnership with the government, as well as recognition from the UN<sup>8</sup>.



# No-code for localization

## Supporting locally-driven initiatives

Thanks to its low barrier to entry, no-code provides opportunities for non-technical staff to build tailored tools. In particular, this creates the potential for local actors without extended IT knowledge or dedicated budget to create and own solutions in accordance with their skills and expected use.

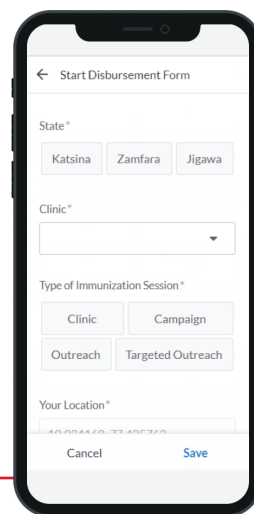
Capitalizing on the contextual knowledge of local

organizations, tools created by actors on the ground are also likely to be adapted to the specific requirements of the environment they operate in. It takes into account cultural considerations and potential application obstacles (e.g., offline service) to provide tailored solutions and enlarge the reach of humanitarian activities.

### New Incentives: designing tailored applications for locally-led projects in hard-to-reach contexts

New Incentives is working to improve infant mortality rates in North-West Nigeria by providing cash incentives to caregivers when vaccinating their infants. Their area of operation is a remote and poor region with one of the lowest childhood vaccination rates in the world. The All Babies program carried out by New Incentives has managed to double the percentage of fully immunized infants between 12 and 16 months old and increase the timeliness of the measles vaccination.

Using a no-code application development platform ([AppSheet](#)), New Incentives has been able to develop an ecosystem of tools tailored to their needs and the challenges of their context. They developed tools spanning from expense management, to clinic visitors monitoring, and to cash transfer disbursement reviews. Because it was developed by the organization members themselves, they were able to create, maintain and improve their tools, making it a sustainable and reliable system to support their daily activities<sup>9</sup>.



## Enhancing retention and investing in long-term capacity building

Enhancing retention of knowledge within affected communities and strengthening long-term resilience are essential to the localization of aid. Not only are no-code tools easy to use, they usually are also a more affordable solution in the long term. This fosters durability beyond partnership agreements as local actors are able to pursue their activities with the support of appropriate tools even after the closure of a partnership. That way, partnerships become a true investment for

the future that increases the agency of local actors and builds durable capacities.

However, for no-code to be a sustainable solution for local actors, it is important that such initiatives are supported by their partners. Donors and intermediary organizations must lead the localization shift by promoting locally-developed tools with their local partners and adapting their requirements and expectations to the use of such tools.

# No-code for strengthened coordination

## Balancing complexity and usability

International agencies have developed highly efficient technological solutions to support their operations, elaborate tools that no-code softwares cannot yet offer. Complex solutions developed by IT experts will for instance enable the centralization of tools for different purposes and build bridges between functionalities, while no-code products tend to still be very specific to a single purpose.

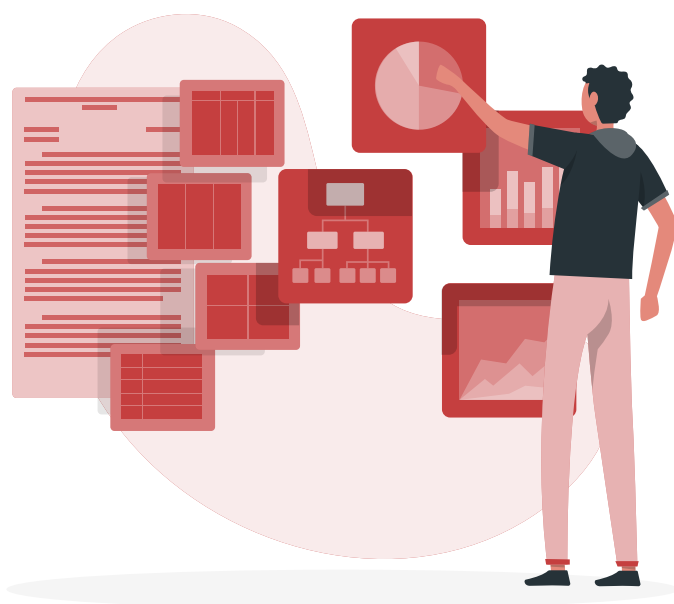
Yet, such intricate solutions will not be necessary for every organization or every branch of an organization. Therefore, using no-code platforms can be a sustainable alternative to provide customizable solutions that are easy to use even by non-tech-savvy staff, while enabling reproduction over time or in other contexts. This is particularly crucial when dealing with external partners that are

not familiar with the organizational tools. If training and capacity building activities can overcome skill gaps, they tend to be bound to a time and a place, and the benefits are often lost overtime. When possible, it is usually more resource-efficient and sustainable to rely on appropriate and specific but user-friendly tools that can be managed by external stakeholders with minimum support. Not only will this allow swifter and smoother implementation, it will also build stronger partnerships and empower local stakeholders.

## Digitalization for more systematic reporting

As data gets increasingly central to humanitarian action, from conducting needs analyses to evaluating significance of projects, it becomes essential for organizations of all sizes to record and analyze - to various degrees of depth - data related to their activities. In particular, the humanitarian community must capitalize on local knowledge and support field actors in collecting but also sharing this information through better recording of data and information retention systems.

No-code tools can accompany local actors and smaller organizations in their shift towards greater digitalization. Although technology is not the magic answer and must be implemented when appropriate, digital solutions offer excellent opportunities for collecting data related to any project with minimal burdening of daily tasks. This data can then be shared with other actors to improve coordination, as well as used to stay accountable to donors and partners.



# No-code for advocacy

## Increasing exposure

Smaller organizations often lack project visibility. They might struggle to reach beneficiaries outside of their intervention area and are overlooked by donors and international partners. No matter how valuable a program is to affected communities, it must be sustained by convincing donors to support and expand its activities.

No-code web development tools are an obvious example of how an organization without extensive technical resources can increase exposure of its mandate and specific projects, and become visible to beneficiaries but also to potential donors and future partners.

What is more, instead of sending paper files and presenting their work orally, having a website, an overview dashboard, an application or any other concrete, visual presentation of their activities can help organizations make a strong impression on future donors or partners. It increases the level of confidence and boosts the chances of scaling up their activities. Digital tools that are easily shareable with donors and communities are thus an asset for an organization to prosper and grow.



## Using data for better advocacy

More than simply making activities and actors visible in the humanitarian field, no-code tools can help organizations build more impactful messages. With better recording of activities and more systematic data collection through digitalization, local and small-scale organizations have the ability to gain detailed knowledge of the context they are working in and the impact of their activities.

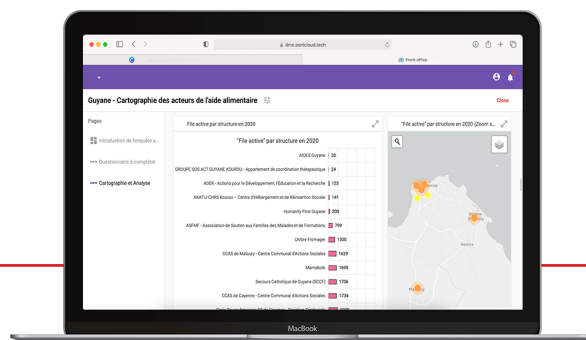
No-code data analysis tools are getting increasingly powerful. They can now perform

complex operations and give detailed insights on the data collected. For most actors, this is more than sufficient to monitor their activities. Monitoring progress is essential for ensuring that activities are going in the right direction and have the intended impact, and to adjust them accordingly. Assessing performance can then translate into compelling narratives to support advocacy programs and the sharing of best practices.

### Food assistance in French Guiana: data management system for monitoring activities and mapping actors

French Guiana is the French territory with the greatest levels of extreme poverty. Food assistance is a key pillar in the fight against poverty in the country and represents an essential service for numbers of individuals. Yet, no detailed data collection system was available to monitor the number of beneficiaries and their profile or to measure the volume of services provided.

The French Guiana prefecture and the [French Red Cross](#) partnered with Relief Applications to create the first complete cartography of the food aid actors in the region and their impact on beneficiaries. Relief Application used [Oort](#), a no-code data management platform developed by its partner Oort Cloud Tech, and was able to create forms for data collection to assess the state of food assistance services to date from both a quantitative and qualitative point of view. Using the same tool, it was then possible to analyze and visualize all the data into dashboards and to map food assistance services. This built a better understanding of the food assistance context nationally and showed local disparities. This analysis guided subsequent strategic decisions and strengthened coordination and dialog among actors operating in French Guiana.



# Future considerations

## Management of the organizational adoption of no-code

The adoption of no-code tools is not limited to small scale actors, but can be a great asset for larger organizations as well. If selected with care and configured appropriately, it can replace custom solutions for many activities. Nevertheless, depending on the size of the structure, it might be necessary to invest in managerial and leadership changes to ensure smooth implementation of a system of no-code tools. In particular, it will probably be required to establish a team of experts to manage the tools and assist non-technical staff, to develop governance protocols related to the adoption and use of no-code platforms, and to organize training and other capacity building activities.

## No-code for IT specialists

Although no- and low-code tools are a great opportunity for users with limited IT knowledge to create powerful solutions, it can also target professional developers and assist their work. No-code tools can suffice when basic solutions are being developed, but they can also serve as a great basis for more complex projects. Some low-code platforms can in fact be expanded by adding custom code to the pre-coded elements to build more complex solutions. No- and low-code can thus also serve as a middle ground between technical experts and other staff members, being both easy to navigate and extensible.

## Integration of new technologies in no-code tools

Artificial Intelligence and Machine Learning technologies are gaining momentum and have become increasingly popular in the last few years. New technologies are integrated in common tools, and their use is rapidly democratizing. More and more no-code tools like Microsoft Power Apps or Qlik Sense are incorporating the latest technologies to their platforms, creating increasingly powerful and sophisticated solutions. This evolution is likely to make no-code tools an even more valuable partner for humanitarian organizations in the future.

## Data security

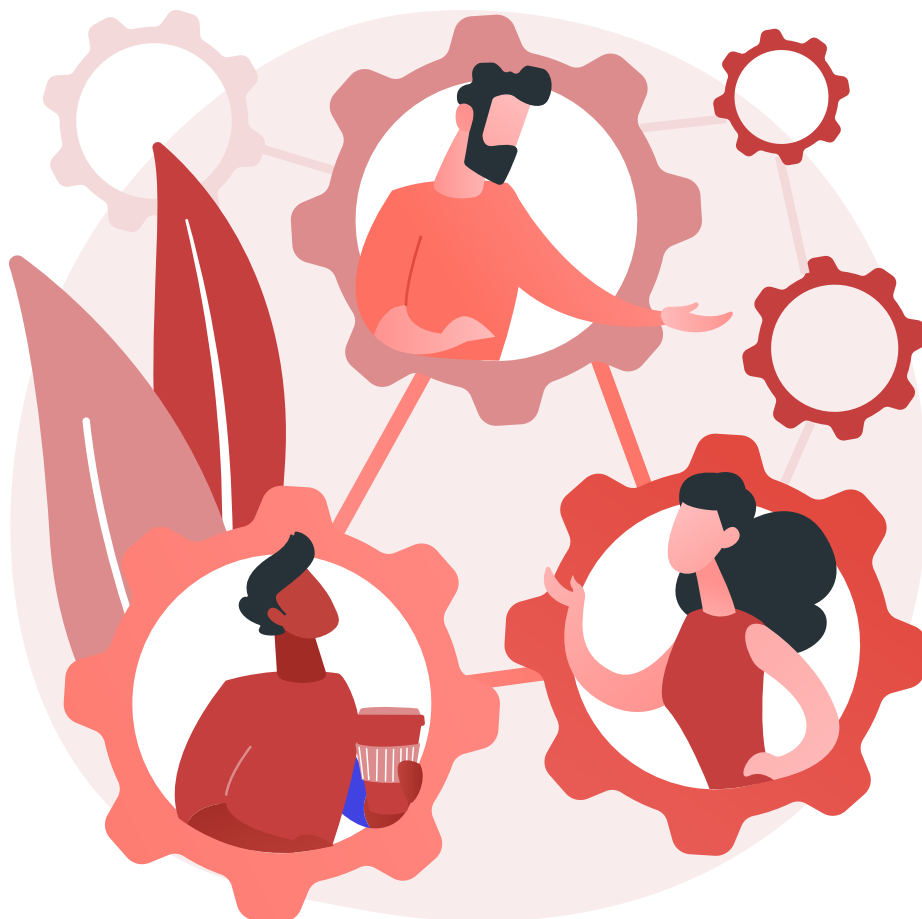
In humanitarian action, ensuring security of the data collected is crucial. With the emergence of simplified digital solutions using no-code platforms, there have been inevitable concerns regarding the security of such tools. If this holds true to all IT activities, no-code tools present specific risks that must be addressed. Most no-code tools provide built-in security and carry out security checks. Although vigilance remains necessary, applications created with no-code require far less effort than a self-hosted solution to ensure security of data. Nevertheless, given the externalization of coding activities, no-code platforms come with lower levels of visibility into the construction of the code and its inherent security risks. Reducing cyber-risks is part of the vendors' ethical duties, but it remains essential to read the fine characters of the contract and make sure that the provider is compliant with international standards and the organization's practices.

# Conclusions

More than ever before, we need to create venues for greater collaboration across actors, better coordination across scales and sectors, and to amplify local actors' voices. We must take advantage of the complementarity of knowledge and capacities across organizations. We must sustain a community of practice and render instruments and best practices available to all. In this regard, no-code is a powerful resource for the future of humanitarian action.

Notwithstanding their groundbreaking progress in the last years, no-code platforms have yet to reach their full potential. There is still a need for more offline solutions to ensure usability in remote locations. There is a need for transparent and rigorous security policies. There is a need for more integrated solutions to support complementarity of tools. In practice, there is also a need for better appreciation of simple and straightforward tools for routine tasks whenever possible, and for greater consideration of no-code tools as sustainable and resource-efficient solutions in partnerships. Finally, there is a need for broader visibility of no-code platforms and features to organizations of all scales. All this while keeping the price tag as low as possible.

Challenges are not marginal. The road ahead is not linear. But tools have already paved the way towards better use of resources and greater inclusivity of technological advancement to level up existing efforts. In fact, most organizations already rely on no-code platforms for a variety of purposes. But innovations keep flourishing and opportunities for smarter work are increasing. **No-code alone will obviously not revolutionize the sector. But it can propel local and regional actors at the forefront of the stage, enhance their response capacities and participate in the shift of power dynamics in the humanitarian sector.**





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