

# Request for Application #2021-056

## Notice F1: Implementation of the WHO digital documentation of COVID-19 certificates: vaccination status (DDCC:VS) technical specifications

### 1. Summary of deadlines

The expected schedule for this application is outlined in the following table. Note that PATH reserves the right to modify this schedule as needed. All parties will be notified simultaneously of any changes through a modification posted on [Digital Square's website](#).

Release of request for application	November 3, 2021
Submission of fact-finding questions to <a href="mailto:msoc@path.org">msoc@path.org</a>	November 10, 2021 by 5:00 p.m. EST
All fact-finding questions and answers posted to <a href="#">Digital Square's website</a>	November 17, 2021
Concept note due	December 1, 2021 by 5:00 p.m. EST
Notification of in-scope concepts	December 15, 2021
Full applications due	January 12, 2022 by 5:00 p.m. EST
Applicants notified of decision	March 2022

### 2. PATH statement of business

PATH is a global organization that works to accelerate health equity by bringing together public institutions, businesses, social enterprises, and investors to solve the world's most pressing health challenges. With expertise in science, health, economics, technology, advocacy, and dozens of other specialties, PATH develops and scales solutions—including vaccines, drugs, devices, diagnostics, and innovative approaches to strengthening health systems worldwide

### 3. Project background

#### A. Project Background

Digital Square, an initiative within PATH's Center of Digital and Data Excellence (CoDE), is one of PATH's innovative responses to Global Health challenges to drive change. Conceived from the lessons of the inefficiencies and redundancies of investments in digital technologies, Digital Square aims to enable the global digital health community to move beyond the stasis caused by perpetual piloting of experimental projects, strengthen the existing ecosystem for digital health investments, and encourage new investments from traditional and non-traditional donors.

In pursuit of our Mission to connect health leaders with the resources necessary for digital transformation, Digital Square offers a new way to invest in digital health—providing a space where countries and members of the global community can gather to think big and do good, together. By convening government officials, technological innovators, donor and implementation partners, and others across borders and boundaries in the Digital Square, possibility can grow into reality by focusing on a common goal: connecting the world for better health. Digital Square works in three key ways:

- Co-investment: Digital Square coordinates investments in digital health to maximize the impact of every dollar spent.
- Global goods: Digital Square scales tools and technologies that can be adapted to different countries and contexts.
- Digital market readiness: Digital Square create digital market readiness by building capacity with governments, local technology developers, and health workers.

With regards to global goods, Digital Square focuses on the following activities:

1. Securing investment to increase the resilience, reuse, and sustainability of digital health global goods, which will ultimately reduce the cost of individual digital deployments while also increasing the effectiveness and impact of those deployments.
2. Development of, and advocacy for, the adoption of common metrics to compare and prioritize future investments in global goods; and.
3. The establishment of efficient governance processes and financial mechanisms, building trust in, and additional resources for, global goods.

Digital Square is also working with partners to create digital market readiness by building capacity with governments, local technology developers, and health workers to bring these technologies to scale. This request for application (RFA) is published with activity 1, above, in mind.

#### B. Open application process

Submission of applications will utilize the Digital Square [Open Application Process](#) (OAP), which begins with a concept note. Application submission deadlines are detailed below and application materials must be submitted on Digital Square's [open application platform](#). By submitting your application to Digital Square, applicants acknowledge and agree that your application, including overall budget amount will be shared publicly on the [open application platform](#). This process and platform promotes transparency with other applicants, Digital Square's [Peer Review Committee \(PRC\)](#), and other organizations and individuals without obligation of confidentiality. By participating in the OAP you agree that detailed budget breakdowns may be shared with the Digital Square [Governing Board Investment Review Committee \(IRC\)](#).

PATH requests that applicants provide a concept note (details under section 4. Concept note) after which determinations will be made based on the evaluation criteria to showcase which concepts are "in-scope." At that juncture, in-scope applicants will be invited to submit full applications (details under section 5. Full application requirements - technical). The full application also requires financial details (please see 6. Full application requirements - cost for further information). **All applications must be submitted in English.**

### C. Proposed project timeline

PATH anticipates that subawards will begin upon signature and end by June 30, 2023. In addition to project-specific deliverables based on individual scopes of work, PATH will require applicants to provide quarterly narrative and financial reports, at minimum, to support their work.

### D. Application review membership

Navigate to the [Peer Review Committee \(PRC\)](#) and [Investment Review Committee \(IRC\)](#) to review current membership.

### E. Conclusion of process

Applicants will be notified of a decision in March 2022. As part of Digital Square's due diligence, we will conduct pre-award evaluations of all shortlisted candidates. We will use our recipient pre-award survey, informed by USAID's non-US organization pre-award survey (NUPAS) and other industry-wide standards, and customized for Digital Square. Final award is subject to the terms and conditions included in this solicitation, as well as successful final negotiations of all applicable terms and conditions affecting this work.

### F. Digital Square Resources

[Grant and contract basics](#) provides an overview of legally binding agreements. For more information following the procurement process for selected applicants, review the [global good agreement process](#).

## 4. Concept note

### A. Scope of work

Under Notice F1, Digital Square is accepting applications from existing digital health software tools (with a strong, but not exclusive, focus on point of care tools) that meet the definition of [global goods](#) and / or are existing [approved Digital Square global goods](#) to implement and align to the World Health Organization (WHO) published Digital documentation of COVID-19 certificates: vaccination status (DDCC:VS): technical specifications and implementation guidance. The key output is to showcase the tools as reference implementations of the technical guidance.

Applications are expected to align and strengthen the shelf-readiness aspects of the technologies and are encouraged to focus on strengthening capacities of new implementers/innovator groups in working and advancing global goods.

The guidance document is aimed to support and provide direction for countries and implementing partners on the technical requirements for developing digital information systems for issuing standards-based interoperable digital certificates for COVID-19 vaccination status, and considerations for implementation of such systems, for the purposes of continuity of care, and proof of vaccination.

The guidance document covers a range of topics and outlines scenarios such as "continuity of care" and "proof of vaccine", as well as frames the core data set and a national trust architecture for the DDCC:VS.

In addition to the published guideline the WHO and community have created a HL7 FHIR implementation guide that is to be considered and adhered to in the application. More information can be found here:

<https://worldhealthorganization.github.io/ddcc/>

Technologies and software being proposed in the applications must meet the following three minimum requirements to be seen as a global good.

- 1 Be an existing software that has been deployed in three or more low-resource contexts.
- 2 Be a global public good. Software tools will be considered a global public good if either:

- 2.1 The source code is made available under an Open Source Initiative–approved software license; or
  - 2.2 The software is freely accessible and adheres to the Open Definition for access to data; or
  - 2.3 Software has been applied to a health domain to manage, analyze, or transmit health-related data.
- 3 Content may be considered a global good if it is a resource, toolkit, or data standard that is available under an open license and that is used to improve or analyze health data management processes.

Applications must clearly identify how they plan to incorporate the guidance into their tool/solution as well as have clearly outlined data exchange / interoperability solutions as well as metrics and means of testing these.

Applications must align to the [principles of shelf-readiness](#) and where appropriate ensure that the proposed technical development is aligned to the principles of shelf-readiness as a whole and with particular consideration to quality, documentation and installation

Applications must align their solutions to be part of the [Instant OpenHIE](#) project (as appropriate for deployment) and build into the testing approaches and infrastructure to ensure data exchange, the ability to showcase the exchange, and provide interoperability profiles required for the WHO DDCC:VS technical guidance.

Applicants are required to segment the applications into work packages. Work packages must be modelled around core areas of the proposal and any aspects of shelf readiness that are being proposed. Care must be given to clearly indicate the gaps, activities and expected outputs/deliverables that the requested funding will go towards.

Applicants must ensure that the work packages are self-contained and not overly reliant on another. If there is a reliance this must be clearly called out and justified.

Examples of investments that will be made available through this call for applications include (but are not limited to):

- Aligning a solution to incorporate key data standards and align to workflows.
- Ensuring that applications can fulfill the data exchange needs of the WHO DDCC:VS technical guidance
- Showcasing the technical guidance scenarios in their tool
- Generating and or querying for data from trusted architecture
- Aligning technologies to the DevOps guidelines and containerization deployment that is illustrated through use within the Instant OpenHIE project; and
- Aligning of technologies to be better framed within the OpenHIE architecture and supporting the required workflows as per the [OpenHIE architectural specification](#) (as well as the associated test cases).

The following will be considered out-of-scope, and therefore make the concept note ineligible for funding:

- Investments that are not applicable outside of a single health program area.
- Investments in new functionality that are not justified in making the tool a shelf-ready solution.
- Investments that are aimed to fund the implementation of the solution within a project (i.e. the funding is intended for technical development and not implementation work / activities).

Applications must include a motivation as to the focus of the selected technology and why the inclusion of WHO DDCC:VS technical guidance within is the tool to a valued/important investment tied to health outcomes and opportunities. Connecting the motivation to existing field implementations requests and potential use is encouraged.

### ***Local capacity development***

Digital Square is committed to enhancing and expanding the capacities of local enterprises and new team to support the development, enhancement and deployment of global goods. As such applications are encouraged to seek out opportunities to build local capacity in local teams and new innovators and expand the global good communities through this opportunity.

### ***Open source and global Access***

Work proposed in the applications must align to global access principles and be made available under an appropriate open-source license. Applications must clearly outline the licensing of proposed work items in the application.

## **B. Required elements**

In the first phase of the [Open Application Process \(OAP\)](#), applicants will submit concept notes to the [open application platform](#). Concept notes should be **three pages or less** in length. To be eligible for funding through Notice F1, applicants must complete the [concept note template](#), which includes the following components:

### *I. Two sentence overview*

In two sentences, provide a description of your project for a nontechnical audience. Please describe: the goal(s) of the project; how the goal(s) will be achieved; and how your organization's expertise will contribute to achieving the project goal(s).

### *II. Executive summary*

Describe in two to three paragraphs, for a nontechnical audience, the context under which this application or work plan is being submitted to Digital Square and the expected outcomes. Answer the following questions:

- What will this investment from Digital Square specifically go toward?
- How will this investment advance shelf-readiness of the global good?
- What is/are the goal(s) of the project?
- How will the goal(s) be achieved?
- How will your organization's expertise contribute to achieving the project goal(s)?

### *III. Consortium team*

If you are looking for partners or collaborating organizations, indicate the type of support needed and put the text in **bold font**.

Describe in two to three paragraphs the composition of the consortium: In the first paragraph of this section, describe the prime organization, including the skill sets of the organization relative to the project. Include how the organization will lead/manage the work. In the second paragraph, identify supporting organizations. Include technical capabilities aligned with the application activities for each organization. Also, include the following details: profile of organization's relevant qualifications, and how capabilities will augment the prime organization.

### *IV. Project description*

Describe the project idea in further detail. If you have phases or objective areas in your project, outline those in the project description. Subsections within the project description should include: background or problem statement, objectives, deliverables and schedule, and risk mitigation(see below for details).

#### *i. Background or problem statement*

Put the project/work within the larger context. Detail relevant background information necessary for a third party to understand. What is the current phase/stage of the software? How does it measure up against the shelf-readiness framework? Where are the gaps?

- ii. Objectives and activities  
What is the technical approach or anticipated activities to address the problem statement and anticipated outcomes? Provide a short description of monitoring and evaluation approach, techniques, and/or process. Frame the objectives within the shelf-readiness framework.
- iii. Deliverables & schedule  
What are the outputs or deliverables? What is the anticipated timeline to meet deliverables?
- iv. Risk mitigation  
Are there potential obstacles or risks? What is the mitigation strategy and/or plan to overcome them?

**Applicants must submit preliminary concept note in the first four weeks of the concept note phase.** Before the final submission other applicants and/or other stakeholders in the community may provide feedback, comments, and suggestions, as well as identify potential areas for collaboration if the early draft of the concept note is published on the platform. The first version of a concept note submitted after the due date will not be reviewed to move onto the application phase and therefore is ineligible for funding.

When submitting the concept note to the [open application platform](#), you should copy sections I-III into the platform and list the consortium team organization(s), as applicable. The [open application platform](#) will also ask you to provide digital health atlas registration confirmation (required), tagging, geographic reach, and source code, as applicable.

Digital Square requires that the global good is registered as a software in the [Digital Health Atlas](#) (DHA). This ensures that users of the DHA can reference in future project registrations. If the digital health tool is registered, please include a screenshot of the entry under “Attachments.” If it is currently not part of the taxonomy to register the software, please register by contacting [DIGITAL-HEALTH-ATLAS@who.int](mailto:DIGITAL-HEALTH-ATLAS@who.int) and include a copy of this email under “Attachments” on the [open application platform](#). Please see *Appendix B: Application requirements – technical checklist*.

Concept notes that are aligned with Digital Square’s vision, priorities, and funding objectives will be invited to submit a full application. Funding has been identified from which multiple subawards are expected to be made. Application should range from US \$80,000- \$150,000 in proposed cost.

## 5. Full application requirements - technical

The technical application should be written clearly and define all work, deliverables, and timelines of performance to eliminate ambiguity. Any acronyms used should be spelled out and technical jargon should be minimized in favor of commonly understood terms. Please see *Appendix B: Application requirements – technical checklist*.

Following the concept note stage, notified applicants, using feedback received in the concept note phase, will begin preliminary application development in the [technical application template](#).

**The preliminary application should contain only the [technical application template](#).** During the application finalization step, following the application co-creation and comment period, the full application package must include a detailed budget and budget narrative (see 6. Full application requirements - cost for more information).

During the preliminary application co-creation step applicants and other stakeholders can provide feedback, comments, and suggestions beginning the day of application posting. **Applicants must post a technical application iteration within the first two weeks of the preliminary application co-creation step.** The first version of a preliminary technical application submitted after the due date will not be reviewed to advance to the full application phase and therefore is ineligible for funding.

Applicants may continue to post technical application iterations on the forum until the preliminary application comment period begins. Please indicate updates by saving the file with a version number at the end of the file name or date (e.g., “ApplicationTitle\_v1”). As necessary, please revise the two-sentence overview, executive summary, and consortium team on the [open application platform](#) page.

## Required elements

To be eligible for funding through Notice F1, applicants must expand their concept notes to include the following additional subsections in the [technical application template](#):

- *High-level budget summary*  
During the application finalization step, include the total requested value. If the technical application includes multiple work packages, please include the value of each work package.
- *Digital health technologies*  
Provide an overview of key digital health tools, technologies, and standards that the project will be utilizing or investing, as well as the interactions between them. Detailed information (e.g., architecture or sequence diagrams) and linkages to existing Digital Square investments may be provided as supporting documents.
- *Use cases and user stories*  
Summarize key use cases and user stories that will be addressed by this intervention. What are the scenarios that the shelf-readiness investment would better facilitate? Please reference the particular use cases in the work packages.
- *Objectives and activities*  
Detail all objectives so that even someone unfamiliar with the project can understand what is expected of all parties involved. Define the activities of the project/assigned work (i.e., things that will be knowable and measurable at subaward end) and activities undertaken to meet the objectives. If your application includes several objective areas or workstreams, the application should be broken up into clearly identified **work packages framed around the shelf-readiness framework sections**. Any dependencies between work packages should be clearly indicated.
- *Community feedback*  
Describe how the consortium proposes to engage with the broader digital health community for feedback and input. Indicate the expected frequency of such engagements, as well as the type of expected input (e.g., feedback on architecture/design, use case alignment). Applications should include how the consortium will engage with international communities, such as the OpenHIE community, as well as engagement with relevant country stakeholders to solicit input on the application.
- *Schedule*  
Using the *Objectives and activities* outlined above, estimate month(s)/quarter(s) for the task(s) and list the entity responsible if a consortium member will support the task. Indicate month/quarter for designated activities with no end product (meetings, phone calls).
- *Deliverables*  
Detail the expected deliverables in a tabular format that includes the name and a description of the expected output. A deliverable is a specific output (i.e., activity or item) the applicant will produce over the term of the subaward. Deliverables may be programmatic (e.g., reports, screenshots, code, certifications) or financial (e.g., invoices or financial reports). Deliverables document progress toward completion of the objectives detailed in the subaward scope of work.

- [Global Good Maturity Model Assessment](#)  
Complete the self-assessment and include a [link](#) to the Google Sheet. You do not have to reach a certain threshold on the Maturity Model to qualify for funding through the Notice.

## 6. Full application requirements - cost

Digital Square is only requesting detailed financial information during the application finalization step following the preliminary application comment period. The budget should clearly outline the costs of the proposed project. If your application includes work packages (*See 5: Objectives and activities*) the cost application must be broken down by the work packages. All costs must be submitted in United States dollars (USD). Please see *Appendix C: Full application requirements – cost checklist*.

In the application finalization phase, please bear in mind that the technical application and cost application are complementary documents. The programmatic relevance of elements of cost such as level of effort (LOE), equipment, travel, and subawards or consultants, which should include consortium members, must be demonstrated by the scope of work (SOW).

### Required elements

To be eligible for funding through Notice F1, applicants must complete a cost application consisting of a detailed budget and budget narrative in the provided templates. A cost application includes two components: a detailed budget and budget narrative:

1. [A detailed budget](#) for the total period of performance, submitted in an unlocked Excel file and includes the following information:
  - a. Personnel. At minimum the budget should detail:
    - i. All proposed staff/positions with rates.
    - ii. Total number of days in total level of effort according to key staff.
  - b. Itemization of all other costs (e.g., agency costs, service tax, administrative costs, supplies, etc.).
  - c. Estimated schedule of other anticipated expenses (travel, supplies, etc.).
  - d. Details of all subawarded work, including proposed consultants, proposed subawardees, procurement contracts and consortium members, as applicable.
2. [A budget narrative](#) detailing the cost and cost basis applied in generating the application. The budget narrative shall explain in a detailed but concise manner the assumptions made in order to arrive at each cost. The budget narrative will also provide the contact information (name and email) for the technical point of contact.

The cost application shall begin with a summary budget detailing costs. All budgets should be organized based on types of costs as set forth in the section immediately below *along with a technical point of contact for each related work package*.

Description	Work Package 1, as applicable (USD)	Work Package 2, as applicable (USD)	Total Cost (USD)
<b>Technical point of contact</b>	<b>Name, Email</b>	<b>Name, Email</b>	
Personnel (salaries & wages)			



Fringe benefits			
Travel			
Equipment			
Supplies			
Other direct costs			
Contractual			
Consultants			
<b>Total direct costs</b>			
Indirect costs			
<b>Total project costs</b>			

All mathematical calculations must be presented clearly in the budget spreadsheet. Note that although the template is designed for a two-year grant, your project may be shorter. You should modify your budget depending on your proposed start and end dates. The spreadsheet also contains broad cost categories and some of them may not be applicable to all organizations or projects. Only fill out those categories that apply to your specific proposed project.

Digital Square will evaluate the quoted prices and hourly rates. No analysis will be performed on quotes determined as non-responsive or if the technical quote is determined to be technically unacceptable. The price/business evaluation will be conducted in accordance with the quoted utility-based solution and proposed labor categories, their rates and Evaluation Matrix. Digital Square will conduct an analysis to determine if all quoted prices are reasonable. This evaluation is conducted with the expectation of adequate price competition and will rely heavily on market forces to determine whether proposed prices are fair and reasonable. The comparison of proposed prices in response to this solicitation is the preferred and intended price analysis technique.

Digital Square will also compare the proposed prices to historical prices paid for the same or similar services and the independent government cost estimate. Other techniques and procedures may be used to ensure quoted prices are fair and reasonable. A cost realism analysis will be performed to determine whether the quoted LOE is realistic for the work to be performed, reflects a clear understanding of the requirements and is consistent with the unique methods of performance set forth in the applicant's technical quote.

## Special note on indirect costs

Indirect costs are overhead expenses incurred as a result of the project but not easily identified with the project's activities. These are administrative expenses that are related to overall general operations and are shared among projects and/or functions. Examples include executive oversight, existing facilities costs, accounting, grants management, legal expenses, utilities, and technology support.



If your organization includes indirect costs in the budget, and your application is selected, your organization must provide a Negotiated Indirect Cost Rate Agreement with the US Government or three years of audited financials to PATH to validate the use of this rate.



## 7. Additional attachments, *optional*

- A. Resumes and letters of commitment may be submitted for proposed key personnel. A complete and current resume may be submitted for each key personnel position, detailing the requisite qualifications and experience of the individual. Qualifications, experience and skills shall be placed in chronological order starting with most recent information.
- B. Third-tier subawardee agreements, contracts or commitment. Offerors may submit any agreements, contracts or commitments it has with any potential third-tier subawardee.
- C. Past performance information sheets.
- D. Awards. Applicants may include any information on awards or certifications.

## 8. Application evaluation criteria

The following is a list of significant criteria against which Applications will be assessed by the [Peer Review Committee \(PRC\)](#) and [Investment Review Committee \(IRC\)](#). These criteria are part of the [Prioritization Framework](#), which was developed by Boston Consulting Group, in consultation with Digital Square and other stakeholders. A full application adheres to the technical application scope of work requirements and cost application requirements and will be evaluated based on the following table:

Dimension		Considerations
 <b>Impact</b>		<b>Demonstrated need/Meet Use Case:</b> Does the application appropriately address a significant country need, identified use case or gap in the technology ecosystem as evidenced by use of, approval of, and/or interest in the technology/approach?
		<b>Applicability:</b> Does the application support a reusable digital health asset that could potentially be deployed in a variety of contexts over time?
		<b>Adoptability:</b> Does the application have a robust plan and/or key outputs that will facilitate the drive towards adoption/scale (e.g., terms of documentation, interoperability, being appropriately open sourced)?
		<b>Potential for health impact:</b> What is the potential impact of the project on health systems and ultimately health outcomes?
 <b>Cost</b>		<b>Investment appropriateness:</b> Is the investment requested reasonable given the application's goals?
		<b>Reasonable project cost/ cost of ownership:</b> Is the proposed cost reasonable for the proposed deliverables/outcomes? And if appropriate, is the total cost of ownership reasonable given the target users.

		<b>Funder alignment:</b> Is Digital Square the appropriate funder for this application versus other funders?
	<b>Technology</b>	<b>Relationship with existing ecosystem:</b> Does the application appropriately work with or leverage existing technology?
		<b>Differential value:</b> Does the application provide unique value versus analogous projects or technologies?
		<b>Sound technical strategy:</b> Does the application articulate a compelling technical strategy based on appropriate technical documentation?
	<b>Probability of Success</b>	<b>Overall approach:</b> Is the application well-thought-out and does it adhere to the <a href="#">Principles of Digital Development</a> ?
		<b>Application plan:</b> Are activities clearly articulated with owners and measurable indicators of success?
		<b>Partners:</b> Does the application involve collaboration between an appropriate set of partners (e.g., technical experts, users, donors, etc.)?
		<b>Team:</b> Does the application team have the skill sets to deliver on the work?
		<b>Financial sustainability:</b> Does the technology have other existing or anticipated funding streams, or at minimum, a reasonable plan for future sustainability?

Note: PATH reserves the right to include additional criteria.

## 9. Application submission process and timeframes

### A. PATH contacts

Program contact: Maria Soc; [msoc@path.org](mailto:msoc@path.org)

Procurement contact: Teresa Gingras; [tgingras@path.org](mailto:tgingras@path.org)

Technical Lead contact: Carl Fourie; [cfourie@path.org](mailto:cfourie@path.org)

### B. Timeframe

As described in 3 A b: Open Application Process, submission of Applications will utilize the Digital Square Open Application Process, which begins with a concept note. Application submission deadlines are detailed below and application materials must be submitted on Digital Square's [open application platform](#).

Step #: Summary	Description	Approximate timeline
<b><i>Preparation phase</i></b>		
Step 1: Solicitation preparation	Digital Square works with the investor(s) to secure funding and refine the scope of work for the solicitation.  Once funding amount is determined and the scope of work finalized, Digital Square will finalize the call for applications.	
<b><i>Concept note phase</i></b>		

<p>Step 2: Concept note development and community review</p>	<p>Digital Square issues a call for applications, and applicants upload concept notes to Digital Square's public-facing <a href="#">open application platform</a>. In the first few weeks, as outlined by the solicitation, applicants will submit concept notes. Before the final submission other applicants and/or other stakeholders in the community may provide feedback, comments, and suggestions, as well as identify potential areas for collaboration if the early draft of the concept note is published on the platform. Digital Square encourages an agile approach of development with early publication of draft concept notes to the platform and applicants are encouraged to edit and respond to community feedback, on their concept note, during this time. Following this the final version of the concept note must be submitted and applicants must use the <a href="#">concept note template</a>.</p>	<p>~4 weeks  December 1, 2021</p>
<p>Step 3: Digital Square review of concept notes</p>	<p>Following the concept note review, Digital Square (comprised of the technical and operational team representatives) assesses concept notes to ensure alignment with the initiative vision and funding objectives identified in the open application process. Digital Square eliminates concept notes that are not strategically aligned with the above.</p> <p>Digital Square identifies a set of short-listed concept notes based on the open application process criteria and emails applicants who are eligible to advance to the application phase.</p>	<p>~2 weeks  December 15, 2021</p>
<p><b><i>Application phase</i></b></p>		
<p>Step 4: Technical application co-creation, comment period and application finalization</p>	<p>Using feedback received in the Concept note phase, applicants will begin preliminary application development.</p> <p>Applicants must use the <a href="#">technical application template</a> and post an application iteration on the <a href="#">open application platform</a> in the first 2 weeks.</p> <p>Applicants will be able to request interim reviews of their applications. Only one review may be requested from Digital Square, and unlimited reviews from the community are allowed.</p> <p>Using feedback, applicants revise the technical application, develop a budget and budget narrative, and submit these to the Digital Square <a href="#">open application platform</a>. Applicants must use the provided <a href="#">technical application</a>, <a href="#">budget</a>, and <a href="#">budget narrative templates</a>.</p> <p>The budget and budget narrative are not shared publicly on the platform. Commenters see only the high-level summary budget provided in the <a href="#">technical application</a>.</p>	<p>~4 weeks  January 12, 2022</p>

	At the conclusion of this step, Digital Square will restrict the ability to upload new content to <a href="#">open application platform</a> .	
<b>Review and Investment Phase</b>		
Step 5: Peer Review Committee (PRC) review	<p>The <a href="#">PRC</a> reviews applications according to the <a href="#">Prioritization Framework</a>, notice scope of work technical requirements and evaluates applications as green-, amber-, or red-lit per the <a href="#">PRC Membership Policy</a>. Green-lit applications are recommended for funding immediately; amber-lit applications are recommended for future funding or further exploration; red-lit applications do not fully meet the selection standards/criteria.</p> <p>The <a href="#">PRC</a> sees only the high-level summary budget provided in the technical application. Proprietary information including salaries, indirect rates, or other factors are not shared with anyone outside of the investor and Digital Square.</p>	<p>~3 weeks</p> <p>February 2, 2022</p>
Step 6: Digital Square OAP recommendation	<p>Digital Square compiles the evaluation provided by the <a href="#">PRC</a> by clustering the applications according to the <a href="#">Prioritization Framework</a> for <a href="#">Investment Review Committee (IRC)</a> review, and assigning values based on green, amber, or red light scoring.</p> <p>Digital Square creates an investment package recommendation of the highly scored applications, as collated from the PRC reviews and synthesized into a single scoring metric that assigns numerical values to the color associated to the proposals, for the <a href="#">Investment Review Committee</a> based on the funding round objectives, investor priorities, and Digital Square vision.</p>	<p>~1 week</p> <p>February 9, 2022</p>
Step 7: Investment Review Committee (IRC) review	<p>Digital Square presents the applications, high-level budget summary, <a href="#">PRC</a> feedback within the <a href="#">Prioritization Framework</a>, and Digital Square recommendation to the <a href="#">IRC</a>.</p> <p>The <a href="#">IRC</a> evaluates whether to approve the funding packages and reserves the right to modify the recommendation at their discretion. The recommendation is made to the Digital Square board for ratification and final approval.</p>	<p>~2 weeks</p> <p>February 23, 2022</p>
Step 8: Award Phase	<p>Digital Square shares the funder decisions as voted on by the <a href="#">Board</a> with applicants. Upon applicant request, <a href="#">PRC</a> and <a href="#">IRC</a> feedback shall be shared with applicant.</p> <p>Funder decisions are contingent on investor approval.</p>	

### C. Fact-finding questions

Questions on this solicitation will be accepted via email to the contacts listed above through November 10, 2021 by 5:00pm EST. Responses to all submitted fact-finding questions will be posted to Digital Square's website on November 17, 2021. Please note that responses will not be confidential except in cases where proprietary information is involved. Inquiries after this date cannot be accommodated.

## 10. Terms and conditions of the solicitation

### A. Notice of non-binding solicitation

PATH reserves the right to reject any and all applications received in response to this solicitation and is in no way bound to accept any application. The applications submitted through this RFA process are the responsibility of the submitter and do not necessarily reflect the views of the United States Agency for International Development (USAID), the United States Government, or PATH.

### B. Confidentiality

All information provided by PATH as part of this solicitation must be treated as confidential. In the event that any information is inappropriately released, PATH will seek appropriate remedies as allowed. Applications, discussions, and all information received in response to this solicitation will be held as strictly confidential, except as otherwise noted.

### C. Conflict of interest disclosure

Applicants submitting on PATH business must disclose, to the procurement contact listed in the RFA, any actual or potential conflicts of interest. Conflicts of interest could be present if; there is a personal relationship with a PATH staff member that constitutes a significant financial interest, board memberships, other employment, and ownership or rights in intellectual property that may be in conflict with the applicant's obligations to PATH. Applicants and PATH are protected when actual or perceived conflicts of interest are disclosed. When necessary, PATH will create a management plan that provides mitigation of potential risks presented by the disclosed conflict of interest.

### D. Communication

All communications regarding this solicitation shall be directed to appropriate parties at PATH indicated in Section 9. A. Contacting third parties involved in the review panel, or any other party may be considered a conflict of interest and could result in disqualification of the application.

### E. Acceptance

Acceptance of an application does not imply acceptance of its terms and conditions. PATH reserves the option to negotiate on the final terms and conditions. We additionally reserve the right to negotiate the substance of the finalists' applications, as well as the option of accepting partial components of an application if appropriate.

### F. Right to final negotiations

PATH reserves the option to negotiate on the final costs and final scope of work, and also reserves the option to limit or include third parties at PATH's sole and full discretion in such negotiations.

### G. Third-party limitations

PATH does not represent, warrant, or act as an agent for any third party as a result of this solicitation. This solicitation does not authorize any third party to bind or commit PATH in any way without our express written consent.

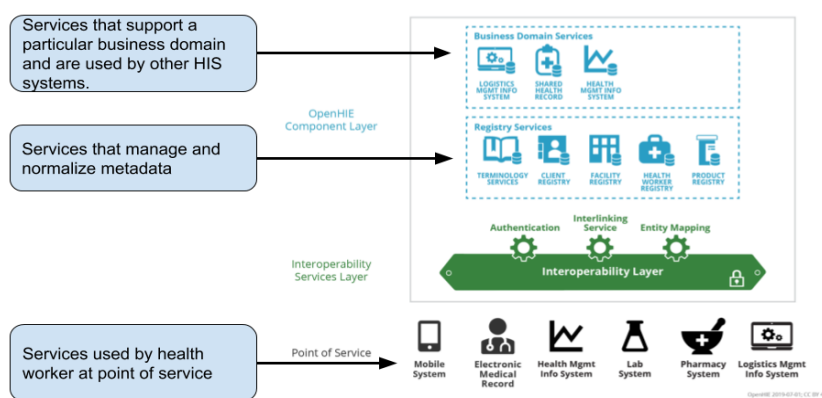
#### H. Application validity

Applications submitted under this request shall be valid for 90 days from the date the application is due. The validity period shall be stated in the application submitted to PATH.

## Appendix A: Shelf readiness

The term “shelf-ready,” and the broader concept of “shelf readiness,” stem from the need to ensure that digital health global goods, particularly software, are ready to be deployed as stand-alone products which meet the primary data use needs of a tool. While not referring to a monolithic approach the concept of stand-alone refers to the tools being packaged and complete in the view of having available and installed all required dependencies and functions to achieve the intended feature sets. Shelf readiness aims to allow implementers and decision makers to have a higher level of confidence in the solutions as they would be well presented in their product information, ability to perform desired functions as well as interoperability workflows / metadata synchronizations and deployment aspects, to name a few areas.

Digital Square has framed three tiers of shelves around the scaffolding of the OpenHIE architecture to describe conceptual groupings of tools within the space; with the first set of shelves framed around the (i) Business Domain Services, (ii) Metadata Management/Registry Services and (iii) Point of Services.



Technologies and software that are shelf ready should strive to support the Installation Qualification (IQ), Operational Qualification (OQ), and Performance Qualification (PQ) of software validation, in both tool and implementation, and through this allow themselves to showcase their readiness for safe and effective use and function. Digital Square has outlined the following framework in guidance of technologies that are shelf ready. The framework flows around the following areas:

### 1. Global goods maturity model

Shelf-ready software and tools show a high level of maturity across the [global goods maturity model](#). While high scores across all dimensions are ideal, achieving the levels indicated below are prioritized:

- Global utility
  - Digital health interventions (high)
  - Source code accessibility (high)
- Community support
  - Software roadmap (medium)
  - User documentation (medium)
  - Multi-lingual support (medium)
- Software maturity
  - Technical documentation (medium)
  - Software productization (medium)
  - Interoperability and data accessibility (medium)
  - Security (medium)
  - Scalability (medium)



Further refinement of this model would see that software and tools exhibit strong features and functionality in the areas of installation and employment; quality assurance and testing; and product information and documentation.

**Installation and deployment:** Tools and technologies should not only follow international conventions to support industry and enterprise installation and deployment patterns but strive to support the [Instant OpenHIE](#) deployment and configuration requirements to form part of the large infrastructure. This is inclusive of:

- Harmonized containerization approaches with the Instant OpenHIE project.
- Development of synchronization tools (e.g., OpenHIM mediators) between the software tool and metadata registries (facility, client, terminology) using appropriate IHE profiles of HL7 FHIR.
- Scripted configurations and data sets (as required) to showcase the functionality of base use cases.
- Existing documentation that allows implementers to validate that the initial installation of the tool is as per expected to support IQ. Functionalities and artifacts could include documented “expected” state of successful installation, installation reports validating all services are operational, initial system check tests to support successful and correct installation, etc.

**Quality assurance and testing:** Strong and empirical evidence of well-thought-out quality assurance patterns to validate functionality and provide a sustained and consistent base of evidence that the software both meets the functional requirements or feature sets. Evidence should also indicate software is built as expected. Shelf-ready tools should strive towards having a documented testing strategy that covers any major risk areas and business critical functions, including testing strategies to mitigate failure in these areas. This testing strategy should be operationalized in a testing framework that is applied against the tool in a repeatable manner, have quality assurance plans and reports, as well as outline available indicators in the level and coverage of testing available for review.

**Product information and documentation:** Shelf-ready tools should differentiate the product information and documentation artifacts and cater to the required audiences. Product information should outline in a summary form the key functions and value proposition of the tool and serve as a “quick access” document for decision makers to understand the value proposition and value gained from the tool (the brochure, so to say). In addition, product documentation for shelf-ready goods should be comprehensive and inclusive of all aspects to support an effective and safe implementation and ongoing operations of the tool in the field. Product documentation should include not only developer documentation (software design, patterns, etc.), but also implementer documentation (installation guides, architectural implementation patterns for scale, implementation validation checks, etc.), administrator guides (configuration option and descriptions of all features and options, etc.), user guides and operation manuals (outlining the functionality of the system as well as how it operates).

## **2. Supports standards for data exchange as appropriate for the tool and aligned with the OpenHIE architecture**

Shelf-ready software tools are well categorized within the business functional domain or as a registry/metadata service or point-of-service solution and, as such, adhere to clearly defined data exchange patterns and flows. The solutions are well aligned to the OpenHIE architecture and facilitate the required interactions to support the key use-cases that are proposed and advertised as supported by the technology. As an example, Point of Services systems interacting with patients would be well suited to register and query patients and associated demographics with a client registry and should be able to synchronize health facility lists with a facility registry.

## **3. Aligns with DevOps and Cloud Services Guidelines**

Shelf-ready tools and technologies look to ensure that they are aligning to emerging guidelines such as the [DevOps and Cloud-Services guidelines](#). These look to provide guidance on some of the major areas of consideration for the deployment of implementations within and for countries. These considerations often require a migrating path from local hosting to international cloud services. Shelf-ready global goods should provide a change management path/guideline for the transition from local data centers to cloud

and take into account the need to harmonize on a common approach to DevOps across digital health tools.

## Appendix B: Application requirements – technical checklist

- To be eligible for funding through Notice F1, all application materials must be submitted on Digital Square's [open application platform](#)
- Technologies and software being proposed in the applications must meet the following minimum requirements to be seen as a global good:
  - Be an existing software that has been deployed in three or more low-resource contexts.
  - Be a global public good. Software tools will be considered a global public good if either:
    - The source code is made available under an Open Source Initiative–approved software license; or
    - The software is freely accessible and adheres to the Open Definition for access to data or.
    - Software has been applied to a health domain to manage, analyze, or transmit health-related data.
  - Content may be considered a global good if it is a resource, toolkit, or data standard that is available under an open license and that is used to improve or analyze health data management processes.
- Applications must align their solutions to the WHO DDCC:VS technical guidance.
- Applications must align their solutions to be part of the Instant OpenHIE project and initiative to ensure harmonization and leverage work undertaken in the project.
- Applicants are required to segment the application into work packages modelled around selected areas of the WHO DDCC:VS technical guidance document.
- Applications must clearly outline the licensing considerations and global access aspects of the proposal.

### Concept note phase

- Applicants must upload their concept note within the first two weeks of solicitation release
- Applicants must provide digital health atlas registration confirmation (required), tagging, geographic reach, and source code, as applicable
- Applicants must complete the [concept note template](#) which includes
  - A two-sentence overview
  - A executive summary
  - A consortium team
  - A project description including background or problem statement, objectives, deliverables and

schedule and risk mitigation.

### Application phase

- Applicants must post a technical application iteration within the first two weeks of the preliminary application co-creation step.
- Applicants **must** complete the [technical application template](#), which includes:
  - A two-sentence Overview
  - A high-level Budget Summary
  - A executive summary
  - A consortium team
  - A background or problem
  - A digital health technologies
  - A use cases and user stories
  - A objectives and activities
  - A community feedback
  - A schedule
  - A deliverables and
  - [Global Good Maturity Model Assessment](#)

## Appendix C: Full application requirements – cost checklist

- To be eligible for funding through Notice F1, all application materials must be submitted on Digital Square's [open application platform](#)
- If your application includes work packages (see Section 5: Objectives and Activities), the cost application must be broken down by work package.
- All costs **must** be submitted in United States dollars (USD).
- The programmatic relevance of elements of cost such as level of effort, equipment, travel, and subawards or consultants **must** be demonstrated by the scope of work.
- All mathematical calculations **must** be presented clearly in the budget spreadsheet, provided in the worksheet.
- The [budget narrative](#) **must** explain and justify all of the expenses required to achieve the project aims and objectives described in the [technical application](#).
- Applicants **must** complete a cost application consisting of a [detailed budget](#) and [budget narrative](#) in the provided templates. A cost application includes:
  - [Detailed budget](#) for the total period of performance, submitted in an unlocked Excel file, which includes the following information:
    - a. Personnel. At minimum, the budget should detail:
      - i. All proposed staff/positions with rates.
      - ii. Total number of days in total level of effort according to key staff.
    - b. Itemization of all other costs (e.g., agency costs, service tax, administrative costs, supplies, etc.).
    - c. Estimated schedule of other anticipated expenses (travel, supplies, etc.).
    - d. Details of all subawarded work, including proposed consultants, proposed subawardees, and consortium members, as applicable
  - [Budget narrative](#) detailing the cost and cost basis applied in generating the application. The budget narrative shall explain in a detailed but concise manner the assumptions made in order to arrive at each cost. The budget narrative will also provide the contact information (name and email) for the technical point of contact.