



Multi-Stakeholder Digital Knowledge Platform  
for Global Health Partnerships



## Executive Summary

## We Disrupt

We disrupt current PPP healthcare markets by transforming and democratizing PPP project preparation and implementation processes by applying modern digital technologies, such as blockchain and AI. We leverage these technologies with greatest healthcare needs in developing countries with private capital and responsible investors who focus on ESG criteria, SDGs and climate resilience in their investment strategies. We create an open innovation PPP ecosystem that delivers a high impact healthcare infrastructure disruption. Our ambition is to challenge the established incumbent system that guarantees PPP healthcare projects which provide both value for money and value for people. PPPHealth4All is an industry leader in terms of using new technologies which are applied to traditional marketplaces. We use digital technology to overcome information silos and enable direct multi-stakeholder interactions within the PPP healthcare ecosystem. Our plan is to position PPPHealth4All to become the leading PPP healthcare platform, and also to be amongst the top blockchain healthcare infrastructure companies within the first 8 years of operation.

## We Transform

In order to scale up and enhance the quality of PPP healthcare projects at global, regional and national levels we need to make giant steps to overcome the existing challenges. Multi-stakeholder platforms will be essential to bring together all relevant stakeholders and help attract investments. PPPHealth4All is designed to act as the catalyst for change at a global level. We intend to change the current narrative: no more transactional PPPs - we need transformational PPPs that bring value for people along with value for money and are based on principles of sustainable infrastructure and SDGs. PPPHealth4all changes the discussion in a way that stakeholders will no longer ask "Are PPPs an option?" but "How do we speed up the implementation of a PPP for project or programme specific healthcare needs, e.g. COVID-19?"

PPPHealth4All is a transformational force that improves the existing healthcare infrastructure by providing a trusted platform, which ensures security and knowledge by connecting stakeholders within the healthcare infrastructure community; offering the best practices, tools and methodologies; sharing data and meaningful insights; advocating the discussion towards a better and more sustainable infrastructure.

## We Innovate

PPPHealth4All is innovative solution in terms of the concept, approaches, technologies, principles used and markets addressed. It will employ the following innovative features: Blockchain Document Verification, TimeStamp and eDelivery (exchange digital data and documents securely and reliably); Blockchain Wallet; Blockchain for Integration (provision of a standardized shared database to improve interoperability among users); Blockchain as multi-sided platform (provision of a marketplace without regulating intermediaries); Context Broker (data-driven decisions in real time); eArchiving (store and preserve data cost-efficiently over the long term); eID (digital services requiring electronic identification of users); eInvoicing (electronic invoices in line with the European standards); eSignature (create and verify electronic signatures in line with European standards); eTranslate (multilingual public services and communication); Open source solutions hosted by GitHub; Representational State Transfer (REST) APIs, allowing the acquisition of metadata across platforms.

Our preliminary choice is HyperLedger, which is an optimal solution for tech-based consortium defined by organizations that have a need for transacting business with one another and where they must agree to the policies that govern the network. Fabric architecture enables easy onboarding of various organizations into the Fabric blockchain network governance, it provides neutral, open & community-driven infrastructure. Consortium members have access to not only their own data, but also to the shared data contributed by other members of the ecosystem, a well-defined consortium can enable building and training very powerful artificial intelligence (AI) engines, and provide highly insightful analytics on key metrics related to risk and fraud. This can help to reduce intermediary costs, increase processing efficiencies, eliminate costly reconciliation processes, and enhance transparency across the supply chain. Shared platforms allow for innovation, allowing work to be done once while benefiting many.

We aim to build on existing well-established frameworks and open source software and commit ourselves to only using individually developed tools where such are functionally required or where no equivalent is available. For any individual UI elements required, we will refer to Angular as the development framework, a well established and state-of-the-art for adaptive, modern web frontends under the MIT licence. The backend will be developed using a micro-service approach employing Java as the main language, making use of the SpringBoot framework for deployment. We will make use of AWS for hosting and running the platform. AWS data protection policy ensures, that all privacy and security concerns are fully addressed and comply to all legal conditions.

## Relevance to InfraChallenge

PPPHealth4All offers digital solutions to tackle healthcare infrastructure gap and building a digital infrastructure for PPP healthcare ecosystem, thus enabling faster preparation of PPP healthcare projects and increased pipeline of PPP projects. We strive to create strong enabling environments for PPPs in the healthcare sector, consistent with the guidance provided in the GI Hub's InfraCompass 2020 report. At the time of current pandemic, PPPHealth4All promotes PPPs as an instrument to combat COVID-19 and can provide a mitigating response by offering analytical tools and developing a database of PPP healthcare projects responding COVID-19. We believe that our solutions are highly relevant to the mandate and priorities of the Global Infrastructure Hub. If we win, it will be easier to convince the investors, financiers and international organizations to become active users of the platform and to align their agendas with agendas of governments and civil society. We strive to increase a pipeline of sustainable and people-centered PPPs for global health and therefore mitigate the consequences of the current global health challenges, such as COVID-19 pandemic, and to get ready for next ones.

Digital innovation is a key to tackle the healthcare infrastructure issues by enabling insights, providing real time info, assure security through blockchain and thus increased efficiency. PPPHealth4All is implementing such digital features that deliver added value to the stakeholders (lenders and borrowers, public and private entities, experts and advisors) - providing collective actions and collective leadership to achieve Universal Health Coverage/SDG.3 by 2030.

## Problem Statement

Although healthcare programs are being initiated in many countries through PPPs, emerging economies are still struggling to bridge the gap between those who can afford healthcare and those who cannot and how to deliver on their SDG-3 commitments. It is estimated that over 400 million people lack access to basic healthcare. The healthcare delivery problem is getting worse and is being driven by a lack of verifiable information. The current pandemic has highlighted the many deficiencies that exist and overwhelming bureaucracies that are roadblocks to information exchanges and sharing of resources. Increasing demands for access to healthcare services caused by changing demographics (aging population), a growing burden of chronic diseases, technology that is available, but which is becoming more expensive, and the lack of healthcare practitioners is proving to be increasingly challenging.

Our aim is to overcome the following challenges:

1. **Lagging behind with SDG.3:** if no immediate and consolidated actions are taken, the SDG.3 will not be achieved by 2030;
2. **Sustainability:** PPP projects are rarely designed in a sustainable way and do not reduce a carbon footprint. The concept of sustainable and people-centered public-private partnerships is still new and not clearly understood or agreed among stakeholders.
3. **Value for People.** health systems designers might shift focus from serving health institutions to empowering the individual patient. But health care has lagged behind. Human-centered design (HCD) has been used to develop many transformative solutions and should be increasingly applied in health care and PPPs.
4. **Complexity of PPP Projects:** the structure of PPPs is increasingly complex. PPP projects may involve hundreds of sub-projects and suppliers as well as legal and regulatory agencies in multiple countries. The preparation of projects is costly and timely. There is a need to achieve greater standardization across the value chain, including standardization of project preparation, contract management, financial management, operation & maintenance and impact assessment.
5. **Fragmented Data:** there is, in fact, little information available how many PPP healthcare projects were implemented and how many are in pipeline. The information about such projects is hardly available in systematic way, and available information is often scarce and fragmented. The existing information does not also provide leading practices and lessons learnt to make judgements about impact made.
6. **Information Silos:** healthcare sector and PPP healthcare projects are operating in informational silos. Lack of communications is observed between various groups of stakeholders, as well as different, sometimes conflicting objectives and incentives.

## Our Unique Value Proposition

Our UVP is increased affordability of PPP healthcare projects: reduced costs and time for preparation and implementation of PPP healthcare projects with increased quality and sustainability aspects achieved through data, tools and technologies offered and early alignment of stakeholders and, finally, an increased pipeline of PPP projects in the healthcare sector.

## Target Market

PPPHealth4All strives to have a global outreach. Pragmatically, it will cater first and foremost to developing countries to assist them addressing their healthcare infrastructure gap and to improve their services. However, developed countries will learn much as well. Our innovative approach will identify and embrace ideas which could originate everywhere. Our system will assimilate and share lessons learned by emerging and developed countries, especially in the realm of digital solutions and sustainability practices. To achieve this goal, our pilot study will address a representative cross section of African, European and Asian countries with representative pipelines of PPP healthcare projects.

## Competition

Compared to our competitors- data and service providers, we are offering not only data that is of interest to investors but offering a seamless approach integrating a whole PPP healthcare value chain (that also include end users and civil society) and across all phases of PPP healthcare life-cycle (not only project preparation/ financial closure). Our competitive advantage is that we are not representing a particular group/organization to cater for and are free to set up our own agenda. We have no dependency on a specific location/country and could work with the clients in any geographies with focus on developing countries. Our unique platform aims to bring all partners (both public and private sector) together in a seamless decision matrix and healthcare ecosystem, which we believe no other competitor could offer.

## Feasibility

PPPHealth4All is a not-for-profit project with a solid business case that allows it to generate stable revenues. Its business model is monetized through BaaS (licenses), tokens, transaction fees. In addition, it is planned to partner with corporations, non-profits, governments, foundations, and other entities who will make a payment/contribution in exchange for access to services and aggregated data.

Revenue projections: (FY1): \$100,000 (FY2): \$350,000 (FY3): \$550,000 (FY4): \$850,000. (FY5)- \$1mIn.

In addition, we will also offer free or special discounted rates to governments, nonprofits, research and academia and NGOs who want to transact and other digital payment platform or maintain an online ledger.

The platform is scalable in terms of:

1. **Administrative scalability:** the ability for an increasing number of organizations or users.
2. **Functional scalability:** the ability to enhance the system by adding new functionalities and covering social infrastructure.
3. **Geographic scalability:** the scope could be enlarged from the developing countries to global.

## What Makes Our Solution Distinctive?

PPPHealth4All is the very first and the only platform in the world that cover the PPPs in the healthcare sector. It is not limited to one country but has a global outreach. It generates enormous social impact as described above. It also stands out in terms of technologies used: blockchain and artificial intelligence but also our multi-stakeholder approach. And most importantly, our focus is the global health and sustainability. It is also a suited instrument to mobilise stakeholders and provide urgent response in the times of the global health crises.

## Market Research

The OECD estimates that the pool of private investment capital could reach US\$106 trillion by 2030 and it should be leveraged in emerging markets. This investment pool should give added attention to healthcare investment which has contracted significantly both in terms of value (from EUR 3.8 billion in 2017 to EUR 828 million in 2018) and also in number of projects. The Project Finance and Infrastructure Journal (IJGlobal) estimates that there are roughly 600 healthcare infrastructure projects/assets globally—the majority of which are PPPs. PwC Report states that investment in PPP projects will increase due to new applications and a need to close the healthcare infrastructure gap by 2030. In a survey carried out by a member of the PPPHealth4All among PPP practitioners globally (60 countries), PPP projects were identified as both a problem and the solution. Poorly designed PPP projects are struggling under the pandemic and, simultaneously the pandemic offers greater opportunities for PPP healthcare projects that are innovative and embrace dynamic e-solutions, include shared information sources, and propagate new technologies. PPPs models which embrace a platform where the services and infrastructure are procured collaboratively and transparently will offer the best value-for-money. However, for decisions to be made project on project scope, scale, budgets, and geographic location will require data that will help project champions make informed decisions about the viability of PPP projects. Recently a study in Africa pointed out that health ministries were prevented from delivering almost any form of healthcare to their citizens, because there was an almost total lack of knowledge about the magnitude and nature of the challenges they are facing. This dearth of information is avoidable. Our clients: governments, private sector, donors, academia, the MDBs, NGOs and individual experts need to coordinate their efforts, depoliticize healthcare, and find ways to engage the private sector as equal partners as convenient and long-term collaborators. Our system will enable this goal to be achieved.

## SWOT Analysis

**Strength:** We represent a skilled global team with analytical and technical skills and a practical understanding of PPP healthcare market. Aside from the synergy that exists in our team in terms of expertise and geographical presentation, we have achieved already a very strong online presence. We are well positioned in Frankfurt am Main, proximal to global financial players. Our platform continues to grow organically from the day of its launch. PPPHealth4All current ecosystem represents 15 countries and is a fair representation of various stakeholder groups. PPPHealth4All project has received several prestigious awards.

**Weakness:** One of the weaknesses that obvious is our current limited capacity and constrained ability to compete on an equal footing with major industry players, especially as it relates to partnering investors from the banking and financial service industry. Typically they partner with long term partners have a the backing of international organizations.

**Opportunities:** The potential opportunity in leveraging “disruptive” blockchain applications to PPP healthcare is unbounded considering the current political focus on the health sector due to the current COVID-19 pandemic and limited understanding of critical changes needed to proactively organize and mobilize this market. PPPHealth4All is well-positioned to provide platform and technology services and we are ready to take advantage of any opportunity that comes our way.

**Threat:** Real challenges that we are likely going to face as a global blockchain platform and technology business are future economic downturns which could impact access to financing and opportunities to engage with infrastructure champions and investors.

## Impact

The impact of PPPHealth4All on communities will be immense as it will allow informed decision-making on specific healthcare needs and proactive project mobilization decisions. Healthcare PPPs are specifically directed at people and their needs. The proposed platform will offer a seamless solution for PPP healthcare projects that offer access and equity, economic effectiveness and fiscal soundness, SDG-compliance, resilience, replicability, and stakeholder engagement. These requirements will enhance the impacts on our target audience. We believe that our focus on a sustainable, resilient, and replicable solution will help deliver long-term PPP projects that will deliver throughout the project contractual period which can be as long as 30 + years.

It will offer a way to leverage healthcare resources to the 400 million plus people who have no access to healthcare, or very limited healthcare globally; healthcare opportunities to the vulnerable (women at risk, aging population - the 60+ population will double by 2050, and youth); an organized approach to future medical disasters and pandemics - that will happen - we need to face that reality. It will be a platform that helps bridge the healthcare funding gap, and allows countries to focus on achieving their SDG goals and improve collaborative partnerships between the public and private sectors by increasing information exchanges, resource exchanges, and best practice ideas.

The dynamic nature of this platform which will constantly evolve (through block-chain inputs) will have a built-in regenerative capability which will ensure longevity of the platform through constant updates that will mitigate technological obsolescence. If managed well by its ecosystem community, its theoretically could evolve constantly and even outlive its designers. An added benefit of the platform is that it can be adapted for other users in different markets who need decision making data tools that would be populated by their users.

PPP projects for global health implemented by PPPHealth4All stakeholders will positively impact society, the environment and the economy due to improved well-being. PPPHealth4All will be using Health Impact Assessment (HIA), which is a structured and stepwise process for identifying the potential health and social benefits and harmful impacts of a project when health inequality is addressed. The impact of PPPHealth4All will be correlated to a number of people receiving improved access to improved healthcare services through an increase in a number of PPP projects. Due to the current crises in healthcare accessibility, PPP projects that bring the public and private sector together in meaningful partnerships, will only advance healthcare provisions. The starting point is low, but the end goal will be universal improvements in health care.

We firmly believe that initiatives, like PPPHealth4All, will offer integrated services where the public and private sectors can interact as meaningful collaborative partners in health solutions and avoid current stove-piped into silos that discourage collaboration thereby limiting the leveraging of each partner’s resources, be they institutional, financial, innovative, or best practices. In the post-pandemic era, new paradigms for implementing healthcare through innovative approaches will drive healthcare forward. We are ready to do this through PPP initiatives that embrace the fundamentals of people-first PPPs. This includes access and equity, economic effectiveness and fiscal sustainability, sustainability and resilience, replicability, and stakeholder engagement.



# #PPPAgainstCorona



— Staufenstrasse 33  
Frankfurt am Main  
Germany

— +49 173 6117539

— [ppphealth4all.de](http://ppphealth4all.de)

— [info@ppphealth4all.de](mailto:info@ppphealth4all.de)

## Contact Us