

A guide · The $500 trillion PPP infrastructure opportunity

Launch a PPP program for Childcare and Early Education Providers in Jordan

WHAT THIS GUIDE IS FOR

Your organization launches a PPP program to build, equip and run nurseries and kindergartens with public and private partners, at workplaces, in public buildings and inside new projects, starting with Jordan's $86 billion and Aqaba's $46 billion of projects.

PREPARED FOR
Childcare and Early Education Providers in Jordan

PREPARED BY
Saad I. Sahawneh

DATE
November 10, 2026

CONTENTS

Inside this guide

01	Introduction	3
02	The guide	5
03	Jordan’s $86 billion and Aqaba’s $46 billion	6
04	Jordan’s $86 billion, sector by sector	7
05	Artificial intelligence	8
06	Robotics	9
07	Tokenization	10
08	Small PPPs in parallel	11
09	PPP research labs	12
10	Unsolicited proposals	13
11	Why childcare and early education providers	14
12	How the program could work	15
13	About Jordan PPP	16
14	Next steps	17

INTRODUCTION

A century of infrastructure reaches the end of its useful life

Most of the roads, bridges, power plants, water networks, ports and airports the world runs on were built in the last hundred years, and much of that stock is wearing out at the same time.

The infrastructure of the twentieth century was designed, poured and left to age. It carried the growth of every modern economy, and it was built for a world with fewer people, far less data and a different climate. Pipes leak, grids strain under new demand, and assets designed for one purpose are asked to carry several. Replacing them is the largest building program in human history, and it has already begun.

Rebuilding and running the world's infrastructure will take about $500 trillion over the next fifty years. It is the largest investment humanity will make in that time. Public-private partnerships (PPPs) will carry a large share of it, because governments cannot fund, build and run the rebuild alone, and the private sector cannot do it without them.

How the $500 trillion adds up

	$300T	to build the physical assets: roads, rail, ports, grids, water, cities, schools and hospitals
+	$150T	to operate and maintain them across the life of each concession
+	$50T	for the sensors, compute and robotics that will sit inside them, the share of the rebuild that venture capital can fund
=	$500T	**in total to rebuild and run the world's infrastructure over the next fifty years**

INTRODUCTION

The next hundred years will build Earth's largest computer

For thousands of years the method has stayed the same: design it, pour it, forget it, and repair it when it fails. The next generation of infrastructure will carry a software layer specified alongside the concrete. Assets will monitor their own condition, predict their own failures and schedule their own maintenance, and fleets of machines will raise them with very few human hands involved.

The larger change is the connection between assets. When a port knows what the rail line is carrying before it arrives, a water utility prices its pumping energy against the grid in real time, and every contract and drawing on every project sits in one connected record, the built world starts to behave as one system. Joined across borders, the world's roads, grids, ports, water networks, data centers and satellites become one globally connected, superintelligent computer.

Future infrastructure will be self-building, self-monitoring and self-healing. A road that senses its own cracks can schedule its own repair and use the savings to fund the next stretch. A water network that finds its own leaks can put the recovered water into meters on the next street. Each asset leaves behind the money, the data and the proof for the asset that follows it, so each new project starts further ahead than the last.

The point where the built world starts improving itself faster than anyone can direct it is the infrastructure singularity. Three technologies bring it closer: artificial intelligence designs and runs the assets, robotics builds and maintains them, and tokenization finances them and opens their ownership to everyone. Each of the three will shape the world the youngest children grow up in, and the parents who build and run the new assets will need care for their children while they work.

Nurseries and kindergartens are part of the infrastructure a country runs on. They let parents work, they prepare children for school, and they need safe buildings, trained staff and steady funding for decades. The projects of the next fifty years will bring new workplaces, zones and towns, and each will need care close to where families live and work. This guide invites childcare and early education providers in Jordan to launch a PPP program, starting with the projects at home.

THE GUIDE

Build the first classrooms of the $500 trillion PPP opportunity

Your organization opens a dedicated PPP program, a team and a set of offers that build, equip and run nurseries and kindergartens with government, employers and developers, starting with Jordan's $86 billion of projects and the $46 billion anchored in Aqaba.

01 **A PPP early years team.** A dedicated team that knows how PPPs are prepared, procured and paid follows every project in Jordan's pipeline that brings new workers, homes or public buildings, and it offers nurseries and kindergartens while each project is still being designed.

02 **Workplace nurseries.** Since Jordan's Labour Law was amended in 2019, an employer whose workers have 15 or more children under five must provide a nursery. The provider builds and runs nurseries for ministries, hospitals, factories and zones under long-term contracts, paid through a service fee per child.

03 **Kindergartens with government.** Public kindergarten classrooms can be built, equipped and maintained by a private partner and paid through availability payments, which helps the Ministry of Education expand KG2, the year before first grade, where demand outgrows its buildings.

04 **Care inside new projects.** Industrial zones, logistics hubs, hospitals, universities and new towns delivered as PPPs can include a nursery in their design, run by the provider as a subcontractor to the consortium from the first day of operation.

05 **Small-scale PPPs and direct proposals.** Jordan's PPP Regulation No. 9 of 2024 defines small-scale PPPs below $14.1 million, which can be bundled into one feasibility report and one tender, and PPP Law No. 19 of 2023 accepts direct private proposals under Article 15. A provider can propose a network of nurseries for public workplaces as one tender.

JORDAN AND AQABA

An $86 billion pipeline to start with

Jordan has 243 PPP and infrastructure projects in development, worth about $86 billion, of which $46 billion is anchored in Aqaba. Every one of them will bring workers, and many of those workers will be parents who need care for their children close to work.

$86 billion
of PPP and infrastructure projects in development across Jordan

$46 billion
anchored in Aqaba, Jordan's only port and its gateway to the Red Sea

SECTOR	PROJECTS	VALUE	WHAT THE PROJECTS WILL BUY
Energy	33	$28.3 billion	Grid and demand forecasting, solar and storage analytics, robotic panel cleaning, predictive maintenance
Tourism	40	$13.8 billion	Visitor flow and demand forecasting, resort and heritage-site operations, booking and payment rails
Urban development	17	$13.8 billion	Digital twins of new districts, digital permitting, modular construction, district operations
Transport	33	$11.7 billion	Traffic and fleet AI, tolling and payments, inspection drones for roads and rail
Industry	31	$8.1 billion	Factory automation, quality verification, industrial sensors and energy management
Water	29	$7.6 billion	Leak detection, pressure management, smart metering, pipe-inspection robots
Mining	15	$1.2 billion	Autonomous drilling and haulage, drone surveying, ore sorting
Health	12	$1.0 billion	Hospital operations AI, patient flow, equipment monitoring
Agriculture	10	$310 million	Precision irrigation, farm robotics, crop and soil monitoring
Environment	15	$270 million	Waste-sorting robotics, emissions monitoring, circular materials
Digital	6	$270 million	Data centers, connectivity, sovereign compute
Education	2	$20 million	School and training campus PPPs, digital learning, building operations and energy retrofits

A Jordanian provider that runs one nursery under a PPP at home can repeat the model at the next site and across the region. Aqaba concentrates ports and terminals, logistics, rail to the port, industry, energy, water and tourism inside the Aqaba Special Economic Zone, which makes it a single place to test port automation, logistics software, desalination and energy technology on assets that connect Jordan to the world.

SECTOR GUIDES

Jordan's $86 billion, sector by sector

Jordan is investing in and advancing 23 sectors at once, and together their projects make up the $86 billion. A sector guide for each lists every project in it, its link to the infrastructure singularity and the ways a partner can take part.

The sectors closest to childcare and early education providers

Education and Skills	SADAQA has helped over 400 daycares and 1,600 caregivers; a Labour Ministry study urges more daycares. 12 projects, $7m of forward investment. www.JordanPPP.com/sectors/education
Manufacturing	Labour Law Article 72 requires workplace nurseries; Better Work Jordan pushes nurseries in garment factories at Al Hussein Industrial Estate. 38 projects, $2.4bn of forward investment. www.JordanPPP.com/sectors/manufacturing
Health	NCFA developed the nursery at the Jordanian Royal Medical Services, which serves 200 children. 20 projects, $986m of forward investment. www.JordanPPP.com/sectors/health

All 23 sector guides

Oil, Gas and Power	$15.1bn	Wastewater and Reuse	$946m
Tourism	$13.8bn	Nuclear Energy	$835m
Urban Development	$12.8bn	Agriculture and Food	$400m
Green Hydrogen	$10.6bn	Solar Power	$326m
Transport	$8.1bn	Digital and AI	$243m
Water	$6.7bn	Circular Economy	$189m
Fertilizers and Chemicals	$6.5bn	Wind Power	$186m
Ports and Logistics	$3.6bn	Pharmaceuticals	$128m
Manufacturing	$2.4bn	Creative Industries	$47m
Storage and Grids	$1.4bn	Defense	$10m
Mining and Minerals	$1.2bn	Education and Skills	$7m
Health	$986m		

Every sector guide can be read and downloaded at www.JordanPPP.com/sectors.

ARTIFICIAL INTELLIGENCE

AI designs, structures and runs it

A PPP takes about seven years from concept to financial close and costs roughly 10% of capex to structure. Almost all of that work is documents and models, which is the work AI does well.

What changes

When the cost of intelligence approaches zero, the cost of preparing a project falls with it. Feasibility studies, options appraisals, cost plans, risk matrices, financial models and tender documents can be produced and tested in days, and contracts can be drafted and stress-tested in hours. PPP projects will soon appoint an AI technical advisor alongside the human ones. Once an asset is running, the same intelligence operates it: a digital twin models the asset in real time, sensors report wear and faults early, and maintenance follows the data.

Jordan arrives late to PPP software, and that is an advantage. With few legacy systems to migrate off, AI-native tools can be built from the ground up, and the reasoning behind each decision can be captured inside the transactions being structured today.

What it means for childcare and early education providers

AI helps a provider run many nurseries as one network. Simple tools plan enrollment, staffing and meals, track each child's development for parents and teachers, and plan energy use and maintenance across buildings. A provider that runs its sites on data can show government and employers, with evidence, how each nursery performs.

What will be built

Project preparation	Software that turns feasibility studies, cost plans and tender documents into a repeatable process, so the years spent before tender shrink to months.
Procurement	Tools that let ministries compare bids on whole-life cost and deliverability.
Cost estimation	A national benchmark database that prices every project against real Jordanian rates.
Contract intelligence	Assistants that read, compare and answer questions on every contract, drawing and instruction on a project in plain language.
Asset monitoring	Sensors and digital twins that tell an operator what will fail before it fails.
Permits and approvals	Digital workflows that replace the paper trail across ministries, municipalities and utilities.

ROBOTICS

Robots build it and keep it running

Most of the $500 trillion of infrastructure due over the next fifty years will be built by machines, and people will design, train and supervise those machines.

What changes

Autonomous software combined with autonomous machines produces autonomous infrastructure. Tunneling machines, construction robots, drones and modular factories already raise structures with far fewer people on site. The machines then stay with the asset: drones inspect bridges and power lines, robots travel inside pipes to find leaks, and cleaning robots keep solar fields at full output.

Robotics also changes who can compete. A small company with the right machines can build what once needed a thousand-person contractor, and it can prove its method on a pilot before anyone asks for a track record, which opens PPP work to new companies for the first time.

What it means for childcare and early education providers

Robotics reaches early education through the buildings and the classroom. Modular construction lets a provider add a nursery or a kindergarten quickly where demand grows, cleaning and inspection machines keep buildings safe, and simple programmable toys give young children a first, playful lesson in how machines work.

What will be built

Water networks	Robots and acoustic sensors that find leaks inside the network, in a country that still loses about 41% of its water to leaks, theft and faulty meters.
Construction	Modular methods, on-site automation and quality verification suited to Jordan's labor market.
Inspection	Drones and crawlers that survey roads, bridges, rail, power lines and pipelines and report defects automatically.
Energy	Robotic cleaning and maintenance for solar fields, and retrofit technology for public buildings, street lighting and water pumping.
Mining	Autonomous drilling, haulage and drone surveying for phosphate, potash and new mineral projects.
Ports and logistics	Automated handling, yard robotics and drone delivery for Aqaba's terminals and Jordan's dry ports and border crossings.

TOKENIZATION

Tokenization finances it and opens its ownership

A PPP absorbs capital over four years and releases it over thirty. Today's investors expect to enter and exit easily, and tokenization gives them that option.

What changes

A concession is a long-dated, contracted, inflation-linked cash flow, the kind of asset a token represents well and an ordinary investor has rarely been able to hold directly. Tokenization lets a small pilot be funded by a few hundred investors, with returns paid automatically from the asset's own revenue and no lender between them.

The rails already exist in the region. ADGM regulates tokenized securities, the Dubai Land Department records tokenized title deeds on its own register, and Jordan adopted a national Blockchain Technology Policy in December 2024. Tokenized concession revenues are still rare, so the first tokenized PPP in Jordan is open to whoever builds it.

PPP companies will be tokenized before PPP projects, because a developer already gathers projects, risks and revenues into one entity. People will own the builders first, then the portfolios, then the projects, and at the end of that sequence sits a stock exchange for the physical world.

What it means for childcare and early education providers

A nursery or kindergarten under a PPP earns steady fees and availability payments over a long contract, the kind of revenue a token represents well. A provider can offer tokenized stakes in the buildings it runs to parents, employers, the diaspora and local investors and pay holders as the payments arrive.

What will be built

Issuance	Compliant token issuance for PPP companies, infrastructure funds and small pilots.
Investor onboarding	Identity checks, suitability and custody built for Jordanian and regional investors.
Revenue distribution	Smart contracts that pay holders from tolls, tariffs and availability payments as the money arrives.
Registries	Shared records of contracts, milestones and asset performance that every party can trust.
Secondary markets	Venues where holders can buy and sell stakes in operating infrastructure.
Citizen participation	Tools for citizens to propose projects, vote them up and invest small amounts in what gets built.

SMALL PPPS IN PARALLEL

A thousand small PPPs teach more than one large one

The World Bank counted 315 private infrastructure projects reaching financial close across all low- and middle-income countries in 2024, only a few per country. No country can learn quickly at that pace, and each lesson arrives years after the technology behind it has moved on.

Each of those projects is too large, too slow and too expensive to try anything new on, and every approval, guarantee and stakeholder on a $1 billion project pulls it toward the way things were done before. Small projects are where a new idea can afford to be wrong, because the downside is small, the learning cycle is fast and the bureaucracy is thin.

Run them in parallel

Software has already moved from building one idea at a time to building ten at once, and infrastructure can follow. Picture 100 small schools built within six months, each delivered through its own PPP and each testing a slightly different legal structure, financing model, construction method and operating approach. Performance data arrives quickly, the models that work are copied, the weak ones are retired early and policy improves with every round, so a thousand small projects teach a country tens of thousands of lessons where one large project teaches a few.

$10M	spent preparing a single $100 million PPP, enough to build 100 pilots at $100,000 each
780	small PPPs a year in Jordan at $100,000 each, from 1% of the budgets of its 40 contracting authorities, about $78 million, in a country that closes only a handful of PPPs a year today
97,500	small PPPs a year if every country ran 500 at $100,000 each, for $9.75 billion, less than the price of one metro line

The PPP singularity

The PPP singularity is the point at which it becomes cheaper to build the pilot than to conduct the study. One feasibility study can make a project look feasible, another can make it look unfeasible, and the decision still comes down to judgment, while a pilot settles the argument with evidence. Governments that work this way become portfolio managers of experimentation: they set the objectives and the guardrails, standardize contracts that can adapt, collect the data and publish every pilot, every cost and every failure on one public website.

PPP RESEARCH LABS

Pilots need somewhere to live

PPP innovation needs the public and private sectors working together, so each lab is built the way a PPP is built: the public sector spearheads it and the private sector designs, finances, builds and operates it.

One lab per sector	Water, power, transport, aviation, health, education, agriculture, digital, tourism and urban development each get a lab inside the ministry or authority that runs the sector.
A one-line brief	Run ten small PPP projects a year at up to $100,000 each, testing new technologies, new PPP frameworks, new construction methods and new financing structures.
A PPP itself	The ministry tenders the lab, and private companies bid to design, finance, build and operate it with their own capital, effort and technology.
Funding	About $1 million a year per lab, found by moving 1% of an authority's budget away from inefficient spending. Ten labs can run a hundred experiments a year on a modest budget.
Open results	Every result is published as it happens, including the failures: what worked, what failed and what the contract should have said. The lessons go straight into the large PPPs already running and the ones still to come.
Room to explore	Labs carry no fixed deliverables, because predetermined outputs defeat the purpose of research, and they are judged on engineering results.

Who builds and who funds

Small projects open PPPs to founders and small companies. On a large concession a bid costs 3% to 5% of capex, prequalification asks for a decade of comparable projects and performance bonds run to tens of millions. AI cuts the bid cost, robotics cuts the crew a project needs and tokenization lets a few hundred investors fund a pilot, so a small PPP moves at the speed of the founders running it. Venture capital funds the technology, infrastructure funds finance the assets, and a $10 billion fund raised by both, deploying $2 billion in its first year, could back 20,000 small PPPs, about 100 in every country.

What it means for childcare and early education providers

Small PPPs suit childcare well, because a nursery or a kindergarten classroom can be built or refitted within months and measured from the first term. A provider can run lab pilots at several workplaces at once, test new designs and tools and carry the best results into larger programs.

UNSOLICITED PROPOSALS

Jordanian law accepts unsolicited PPP proposals

Any private company can take its own PPP idea to government. Article 15 of PPP Law No. 19 of 2023 lets a proposer submit a direct proposal to the Ministry of Investment or a public authority, and PPP Regulation No. 9 of 2024 sets out how it is assessed.

How a direct proposal works

Conditions	The proposal offers an innovative solution for a public service, is prepared on the proposer's own initiative, gives value for money, fits government programs, covers the government's obligations from project revenues and discloses any conflict of interest.
Contents	The scope, the proposer and its experience, a pre-feasibility study with the innovation and intellectual property behind it, the fiscal implications and any support or guarantees sought, and the cost of preparing the study.
Review	A public authority or municipality that receives a proposal refers it to the Ministry, which has 60 days to take it up for study or return it unopened, and can charge a study fee of at least $7,050.
Registry	A qualifying proposal is listed as a PPP project in the national registry of public investment projects, and one that falls short is rejected.
Tender	If the project goes to tender, the proposer can match the best offer, and if another bidder wins, the winner repays the proposer's direct study costs.
Small projects	Projects with a capital cost below $14.1 million are small-scale PPPs, and similar ones can be bundled into one feasibility report and one tender under simpler procedures.

Limitless ideas

This is the Swiss Challenge approach: the proposer brings the idea, the market competes on it and the proposer keeps the right to match the best offer. Many of the projects in Jordan's $86 billion pipeline are still early enough for a partner to shape the deal or bring its own idea, and a direct proposal can be as large as a mini city built and operated under one contract or as small as a $100,000 pilot. The PPP research labs can be proposed the same way, and every company with an idea for a public service becomes a possible project sponsor.

What it means for childcare and early education providers

A provider knows where parents wait for places and where workplaces lack care. A direct proposal lets it turn that knowledge into a project of its own design, such as a network of nurseries for public hospitals or a kindergarten block for a crowded district, and keep the right to match the best offer at tender.

WHY CHILDCARE AND EARLY EDUCATION PROVIDERS

Childcare providers run the care that lets a workforce work

Every project needs people, and many of those people are parents. Nurseries and kindergartens are long-lived assets that must be built, staffed, kept safe and paid for, which is the work a PPP pays for, and providers already know what each place costs to run.

Where childcare providers fit in a PPP

Workplaces	Nurseries for ministries, hospitals, factories and zones, run under long-term contracts with employers.
Kindergartens	Public KG2 classrooms built, equipped and maintained by a partner and paid through availability payments.
New projects	Nurseries designed into industrial zones, hospitals, campuses and new towns from the first drawing.
Services	Staff training, meals, transport, cleaning and maintenance that keep each site safe and ready for children.
Workforce	Care that lets parents, and especially mothers, take the jobs that each PPP creates.

Jordan already has the rules

The Ministry of Social Development licenses nurseries, including home nurseries under instructions issued in 2021, and counted 1,105 licensed nurseries in November 2023, of which 418 sat in ministries and government bodies. The Labour Law requires a workplace nursery once workers have 15 or more children under five, and in 2017 the Ministry of Education and UNICEF launched a plan to give every child access to KG2.

Why a program, and why now

A provider that waits for each employer or tender runs one nursery at a time. A program gives it a team, a standard design and standard terms, so it can bring nurseries and kindergartens to government and employers as its own proposals and join other consortiums as their care partner. Jordan's pipeline is large and early, and the providers that join it now will care for its workers' children for decades.

THE PROGRAM

How the program could work

The program can sit inside the provider's management team, with a PPP lead at its center and the nurseries, staff and methods the provider already runs behind it.

PPP team	A small team of early education, operations, finance and legal people that covers every project in the pipeline that needs care.
Workplace care	Nurseries for public and private employers, run under long-term contracts and priced per child and per site.
Kindergartens	KG2 classrooms built, equipped and maintained for government and paid through availability payments.
Standard design	One licensed nursery design, with its staffing, safety and equipment, that can be built quickly at any site.
Direct proposals	Childcare projects brought to government under Article 15, including small-scale PPPs below $14.1 million.
Technology	Enrollment, development tracking and building sensors used as standard in every nursery and kindergarten.
Partners	Agreements with contractors, developers, employers, banks and the authorities that procure public buildings.

What the provider gains

The provider gains long-term contracts with government and employers, a steady base of families and a stake in the buildings it runs. Each site it delivers builds a record that ministries, employers and lenders trust, which qualifies it for larger programs in Jordan and across the region.

It also gains a role in the projects around it. Providers that know how to work with partners can open nurseries wherever new jobs appear, which puts them at the start of the decades of building ahead in Jordan.

ABOUT

Jordan PPP

Accelerate Jordan
Accelerate the infrastructure singularity
Accelerate the Jordan PPP singularity

AMMAN, JORDAN WWW.JORDANPPP.COM

Jordan PPP helps every kind of organization in Jordan launch a public-private partnership (PPP) program of its own. It publishes 96 guides, one for each kind of organization, from the Royal Hashemite Court and Parliament to banks, contractors, universities, humanitarian organizations, companies in twenty-one sectors and organizations in twelve governorates.

Its vision is the infrastructure singularity, when roads, grids, ports and water networks become one globally connected, superintelligent computer, built by robotics, run by artificial intelligence and financed by tokenization. Rebuilding and running the world's infrastructure will take about $500 trillion over the next fifty years.

Its method starts small: a PPP program for every organization, small PPPs run in parallel, a research lab in each sector and direct proposals under Article 15 of PPP Law No. 19 of 2023, starting with Jordan's $86 billion and Aqaba's $46 billion of projects.

JORDAN PPP

What Jordan PPP offers

The guides

One for every organization

96 guides, each with the case, the program and six first steps.

www.jordanppp.com/guides →

The summary

All guides in one document

Every guide, its organization and its ask, in one place.

www.jordanppp.com/summary →

Futureproofing

AI, robotics, tokenization

What the three technologies change for every organization.

www.jordanppp.com/futureproofing →

The opportunity

$500 trillion

The $500 trillion PPP infrastructure opportunity, from the crisis to the exchanges.

www.jordanppp.com/opportunity →

NEXT STEPS

How a childcare provider can start

Any childcare or early education provider in Jordan can take this guide forward. The first steps use the nurseries, staff and families the provider already has.

Mandate	Board or owner approval for a PPP program, with its workplace, kindergarten and project offers and its first-year goals.
Team	A named program lead, with early education, operations, finance and legal people drawn from the provider's existing teams.
Pipeline	A map of Jordan's $86 billion of projects by sector and stage, and early meetings with the employers and authorities that will need care.
Design	A standard nursery and kindergarten design, with its licensing, staffing and costs, ready to offer at any site.
Partners	Contractors, developers, employers and a bank that can finance and build the first sites.
Pilot	A first workplace nursery or kindergarten as a small-scale PPP or direct proposal, taken from idea to submission.

Jordan has the projects, a young population and a law that lets a provider propose its own projects. A PPP program gives your organization the nurseries and kindergartens to run and a role in raising the children of the superintelligent infrastructure future.

PREPARED BY
Saad I. Sahawneh

LINKEDIN
linkedin.com/in/saadsahawneh



The $500 trillion PPP infrastructure opportunity

A guide for childcare and early education providers in Jordan

November 10, 2026