



HEALTH SOLUTIONS

SMART HEALTH SYSTEMS - FACILITY OPTIMISATION - CONTRACTING & PPP

CAPABILITIES AND INSTRUMENTS

A coherent suite for the *health capital cycle*.

Six proprietary instruments, applied by Health Solutions from the first investment question to the last day of asset life. Each produces a defined output. Together they carry a health capital project from concept, through appraisal and financial close, into operation.

1

Health Solutions.

An independent advisory practice working with international financing institutions, multilateral and bilateral organisations, and ministries of health and finance on capital investment, health infrastructure and private sector participation.

WHO WE ARE

An advisory practice where health systems meet *capital*.

Health Solutions is an independent advisory practice, Geneva and worldwide, founded in March 2026. It advises on the structuring of health investments, the lifecycle of health and social infrastructure, private sector participation and public-private partnerships.

Primary clients are multilateral development banks and international institutions. The practice also works directly with ministries of health, in Africa, in Small Island States and in Central Europe.

Engagements are led at senior level throughout. Where an assignment calls for multi-disciplinary capacity, the practice draws on a network of senior individual experts and on partner firms in South Africa, Denmark, Italy and France.

The work rests on twenty-five years of experience inside the institutions that finance and build health systems, and on six proprietary instruments developed to give investors and project owners structured evidence at each decision point.

25

YEARS OF PRACTICE

WHO Geneva, ILO Geneva, the European Commission, multilateral development banks and international consulting.

10+

COUNTRIES OF EXPERIENCE

National contexts in which the CASH lifecycle methodology has been applied.

6

PROPRIETARY INSTRUMENTS

CASH, VIBE, SCALE, VICI, RAPID and BRIDGE, covering the full capital cycle.

4

ILLUSTRATIVE QUALIFICATIONS

The European Commission, the World Health Organization, the Asian Development Bank for a grouping of development banks, and a group of private investors.

SELECTED ILLUSTRATIVE QUALIFICATIONS

European Commission · DG INTPA

Private sector participation in the Team Europe Initiative on health security, covering seven case studies and the financing architecture.

World Health Organization

Rapid appraisal of a recent greenfield hospital project, applying RAPID to maturity, demand, options and feasibility flags.

Asian Development Bank · for a grouping of development banks

Optimisation of social infrastructure investment portfolios across development bank operations, drawing on CASH.

A group of private investors

Application of VIBE to upstream maturity for a substantial health infrastructure investment, in support of an investment decision.

DISTINCTIVE PROPOSITION

Four reasons clients choose us.

ONE

Senior practitioner depth

Engagements are led by a partner with twenty-five years of front-line responsibility across WHO, the ILO, the European Commission, multilateral development banks and international consulting. The work is neither delegated nor subcontracted.

TWO

Proprietary instruments

Six named methods, each built as a working digital tool, which compress upstream uncertainty for investors and produce structured, defensible evidence for capital decisions.

THREE

Public and private fluency

Command of how multilateral instruments, blended finance and partnership structures interact in health, derived from operating inside the institutions that design them.

FOUR

A curated network

Multi-disciplinary engagements assembled from senior individual experts and four partner firms, each chosen for the specific demands of the assignment. There is no standing panel.

THE QUESTIONS WE ARE ASKED, AND WHAT ANSWERS THEM

VIBE

IS THE PROJECT VIABLE AND BANKABLE

SCALE

IS THE PROJECT MATURE ENOUGH FOR CAPITAL

VICI

WHAT MUST IT CONTAIN AND WHAT WILL IT COST

RAPID

WHAT HAS BEEN APPRAISED AND WHAT REMAINS

BRIDGE

FROM APPRAISAL TO PLANNING, WITH FINANCIAL CLOSE

CAPABILITY IN EVIDENCE

Four assignments, set out as an indication of the range of work undertaken in health infrastructure, capital investment and complex contracting.

National Health Reference Laboratory · Eastern Africa

Technical and economic feasibility study covering service configuration, infrastructure requirements, investment scenarios and operational sustainability.

Standardisation of primary health care facilities · Jordan

Upstream technical and strategic advice on a national programme: facility typology, service modelling and infrastructure norms.

Guide on health technology assessment · WHO

Co-editor of the World Health Organization guide on health technology assessment.

Inclusive health infrastructure · UNOPS

Substantive contribution to the United Nations Office for Project Services guide, bringing lifecycle and equity perspectives to facility planning and design.

WHAT WE DO

Five domains of work.

i.

Structuring health investments and partnerships*Where capital meets institutions*

Public-private partnerships, blended finance, concessions and other complex contracting instruments in health. Transaction design, allocation of risk and revenue, contractual architecture, and the upstream conditions that determine whether a transaction reaches financial close and operates soundly thereafter.

ii.

Planning and appraising health infrastructure*The whole asset life*

Hospitals, primary care networks, laboratories and logistics platforms. Early appraisal, technical and economic feasibility, schedule of accommodation, capital and operating cost, design review, and the optimisation of operating asset portfolios. Anchored by CASH.

iii.

Engaging the private sector in health*Commercial capacity for public objectives*

Advisory at the interface between health programmes and private actors: pharmaceutical and diagnostic firms, health technology companies, infrastructure developers and facility operators. Market shaping, engagement design and the terms on which private capacity is brought into public systems.

iv.

Government engagement and investor commitment*Bridging authorities and the institutions that finance them*

Support to public authorities in building institutional ownership, securing ministerial and treasury approvals, and carrying a project into the pipelines of multilateral development banks. Covers the positioning of proposals within development bank and development finance instruments, European Union external action in health and United Nations health programmes, and the dialogue that turns funder interest into firm commitment.

v.

Health system preparedness and resilience*System performance, not emergency response*

The capacity of a health system to absorb pressure and continue to function. The work covers financing, governance, legal framework, infrastructure and service delivery, and treats these five elements as the determinants of health system performance.

Financing

REVENUE, ALLOCATION, PURCHASING

Governance

STEWARDSHIP AND ACCOUNTABILITY

Legal framework

PUBLIC LAW, CONTRACTING, REGULATIONS

Infrastructure

ASSETS, EQUIPMENT, UTILITIES

Service delivery

MODELS OF CARE AND WORKFORCE

The five elements through which Health Solutions assesses health system preparedness and resilience.

HOW WE DELIVER

Network of senior experts

Specialised health architects. Hospital, laboratory and primary care experience in resource-constrained and high-complexity settings.

Civil and structural engineers. Seismic, climate-resilient and tropical health facility design.

Financial analysts and modellers. Lifecycle costing, PPP financial structuring and concession economics.

Health economists. Cost-effectiveness, health technology assessment and financing instrument design.

Legal and procurement specialists. PPP contracts, concession agreements and complex public procurement.

Public health and policy advisers. WHO programmes, EU external action and ministry implementation.

Partner firms

Benguela Health Ltd South Africa. Health infrastructure development and project delivery.

Triangulate Health Ltd Denmark. Health economics and health technology assessment.

Design and architecture network Italy. Designers and architects specialising in health infrastructure.

Senior technical network Worldwide. Civil and structural engineers, cost consultants and financial modellers.

2

SECTION TWO
THE INSTRUMENTS

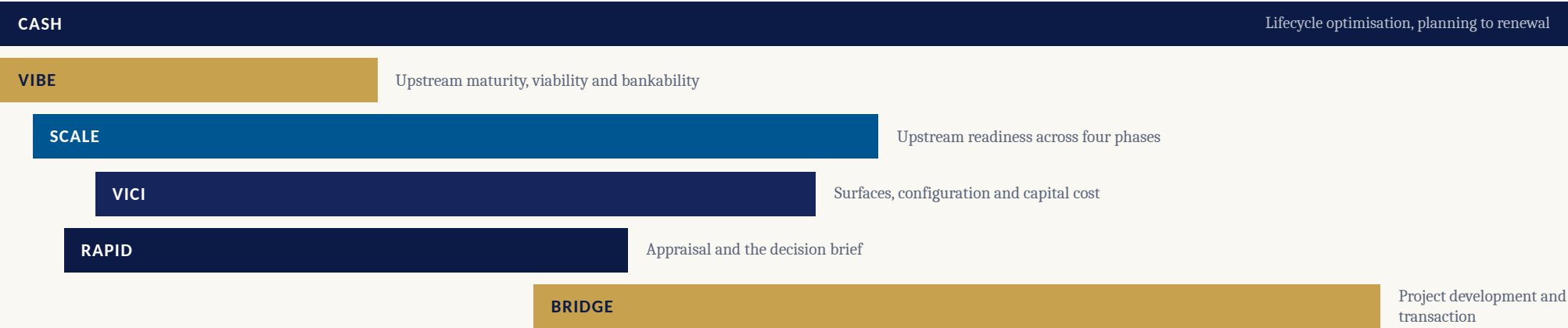
Six instruments, *one capital cycle.*

Each instrument answers a distinct question and produces a distinct output. They are deployed singly, or in sequence on projects that run from concept to financial close.

THE SUITE

From the first investment question to the *last day of asset life*.

Health Solutions has built and deployed six named instruments. Each is a working digital tool as well as a method. Each records evidence, computes a position and exports a document that a board, a commission or a credit committee can read.



PRE-FEASIBILITY	FEASIBILITY	PLANNING AND DESIGN	PROCUREMENT	IMPLEMENTATION	OPERATIONS
FOR ASSET OWNERS AND OPERATORS CASH · Capital Assets Solutions for Health Lifecycle optimisation of health and social infrastructure portfolios, from planning and programming to decommissioning and renewal. Deployed in more than ten countries.		FOR FUNDERS AND INVESTORS VIBE · Viability, Identification of risks, Bankability, Engineering A 360 point maturity diagnostic taken before the cost of a feasibility study is committed. Four weighted areas, thirty-six criteria, one classification.		FOR PROJECT OWNERS SCALE · Simplified Checklist for Assets Lifecycle Effectiveness Four upstream phases, twenty-five components and one hundred and three elements, tracked from pre-feasibility to construction readiness.	
FOR SPONSORS AND DESIGNERS VICI · Visualiser for Infrastructure and Capital Investment Schedule of accommodation, clinical and ancillary classification, cost ratios by clinical function and construction lot, footprint and plot coverage.		FOR INVESTMENT COMMITTEES RAPID · Rapid Appraisal for Project Investment and Development Appraisal cockpit and reporting environment. Gap matrix, risk register, resource mobilisation timeline and a typeset decision brief.		FOR GOVERNMENTS AND THEIR ADVISERS BRIDGE · Bridging Readiness, Investment Development and Government Engagement Twelve work packages across four strands, carrying an appraised project through institutional approval and on towards financial close.	

CASH

*Capital Assets Solutions for Health.
Lifecycle optimisation.*

DESIGNED FOR

Asset owners, operators and their financial sponsors

LIFECYCLE STAGES

Six, from planning and programming to decommissioning and renewal

TRACK RECORD

Applied in more than ten countries. The most widely deployed of the six instruments

OUTPUT

Asset register, lifecycle cost model, prioritised intervention scenarios and a phased investment roadmap

INSTRUMENT ONE

Protecting value once the capital has been committed.

Where the other instruments address whether and how to invest, CASH addresses what happens to the asset afterwards. It brings the same analytical discipline to the operating life of a hospital, a laboratory or a primary care network that appraisal brings to the investment decision.

The methodology reads across six lifecycle stages and produces four connected outputs, each usable on its own and each feeding the next.

Asset register

Condition, utilisation and criticality across the portfolio, held at the level that supports a capital decision.

Lifecycle costing

Capital, operating and renewal trajectories over the full life of the asset, with the replacement profile of plant and medical equipment made explicit.

Six lifecycle stages

Planning and programming, design and construction, commissioning and handover, operation and maintenance, renewal and adaptation, decommissioning. Each stage carries its own decisions and its own costs, and the methodology reads them as one sequence.

Optimisation pathways

Prioritised intervention scenarios, each carrying its financial and operational consequence, so that a portfolio can be sequenced against a budget.

Investment roadmap

A phased, costed and financeable plan, sequenced to match the funding envelope and the tolerance of the operating estate for disruption.

Where it is used

Portfolio review for a ministry holding an ageing estate.
Capital allocation across a development bank programme.
Condition and criticality assessment ahead of a refinancing.
Renewal planning for plant and medical equipment approaching the end of its economic life.

VIBE

*Upstream of upstream.
Before the cost of feasibility.*

DESIGNED FOR

Funders, investors and grant-making bodies

STRUCTURE

Four weighted areas, nine criteria each, scored out of ten

SCALE

Ninety points per area, three hundred and sixty in total

OUTPUT

Composite index, per-area classification, evidence trail, executive summary and recommendation

INSTRUMENT TWO

Is this project ready for our capital, and on what conditions?

VIBE is taken before a feasibility study is commissioned. It scores a project across four areas, records the evidence relied on for each criterion, and returns a classification for every area alongside a single composite index.

Each criterion carries a specification of the evidence required, a score, an analytical summary and a link to the source document. The assessment is repeatable, so the same project can be rescored as it matures and the movement between assessments becomes the record of progress.

V · VIABILITY

Strategic fit, demand, sponsor commitment, congruence with the health master plan, site selection, co-ordination between the parties.

I · IDENTIFICATION OF RISKS

Country, regulatory, technical, financial, social and environmental risk, each recorded with its likelihood and its consequence.

B · BANKABILITY

Cost and benefit profile, financing structure, revenue model, treasury commitment, readiness to receive capital.

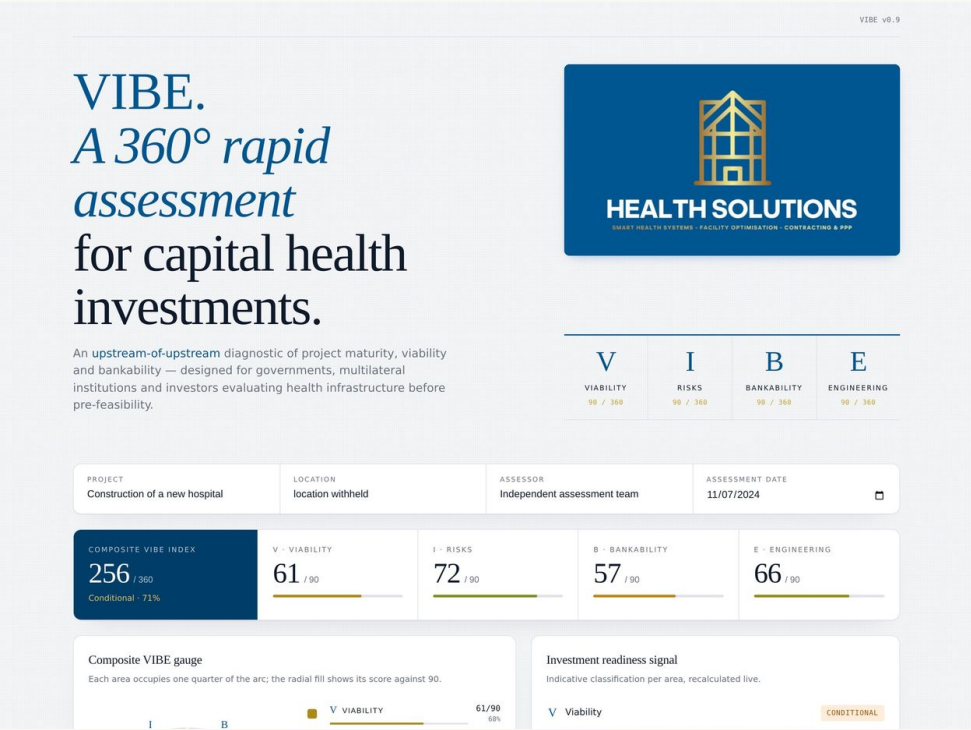
E · ENGINEERING OF OVERALL PROJECT

Scope definition, technical concept, procurement strategy and delivery model, tested against the maturity of the design.

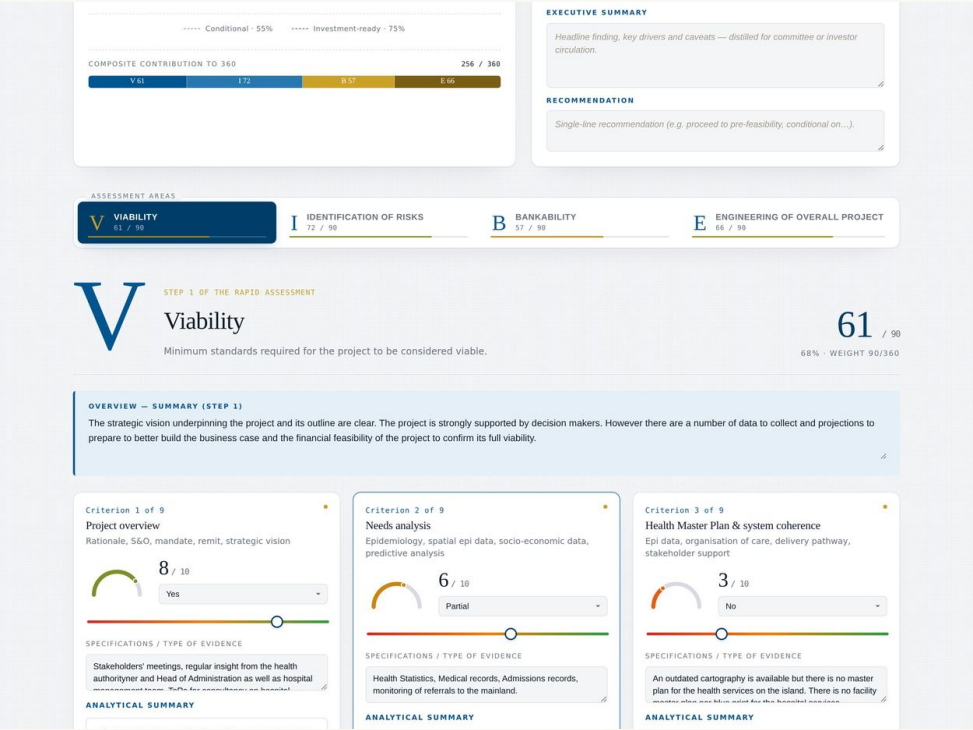
Classification thresholds: conditional at 55 per cent, investment ready at 75 per cent. Assessments are held locally and exported to JSON for archiving.

VIBE IN USE

A composite index, four classifications and the evidence behind each score.



SYNTHESIS · COMPOSITE INDEX AND PER-AREA SCORES



AREA DETAIL · CRITERIA SCORES, EVIDENCE SPECIFICATIONS AND ANALYTICAL SUMMARIES

The composite gauge

The arc is divided into four quadrants, one for each area, and each fills radially against ninety. The readiness signal beside it converts the same figures into a plain classification, recalculated as scores are entered.

Evidence, not opinion

Each of the thirty-six criteria carries a specification of the evidence required, the score awarded, an analytical summary and a link to the source document. An assessment can be audited line by line.

Repeatable as the project matures

The same project is rescored as work advances. Movement between assessments becomes the record of progress, and the export to JSON preserves each round for comparison.

SCALE

Simplified Checklist for Assets Lifecycle Effectiveness.

DESIGNED FOR

Project owners, commissions and their technical advisers

STRUCTURE

Four phases, twenty-five components, one hundred and three elements

ELEMENT STATES

Started, in progress, finalised, not applicable

OUTPUT

Weighted completion by phase and overall, a support flag on any component, and a dated readiness report

INSTRUMENT THREE

Everything the upstream phases require, in one register.

SCALE sets out every component of the upstream phases and asks the project owner to record where each element stands. Progress is weighted, so a component does not have to close before the work inside it registers.

Two components act as gates. The clinical brief opens the strategic outline case and closes only when health needs, service model, activity, workforce, equipment and facility implications are all complete. Construction readiness closes the upstream journey.

PHASE ONE

Pre-feasibility

The case for change, the business rationale and the legal and technical preconditions. Clinical brief, strategic outline case, outline business case, legal analysis, service and space requirements, site and engineering constraints, contracting options.

7 COMPONENTS

PHASE TWO

Feasibility

Architectural, engineering, equipment and financing definition sufficient to commit to design. Architecture, engineering, medical equipment, ancillary services, project financing, project management cycle.

6 COMPONENTS

PHASE THREE

Planning

Principles and methods, master physical development, engineering services planning, medical and essential equipment management, planning and programming, tendering and roll-out.

6 COMPONENTS

PHASE FOUR

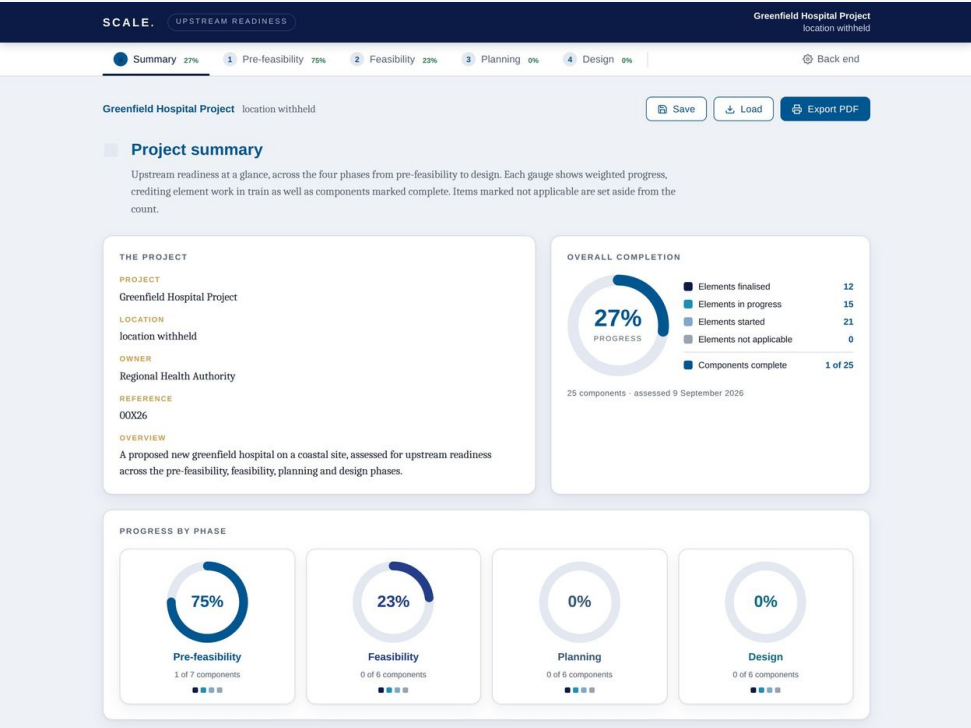
Design

Pre-design, regulatory compliance, schematic design, design development, department design and construction readiness, which is the closing gate of the upstream journey.

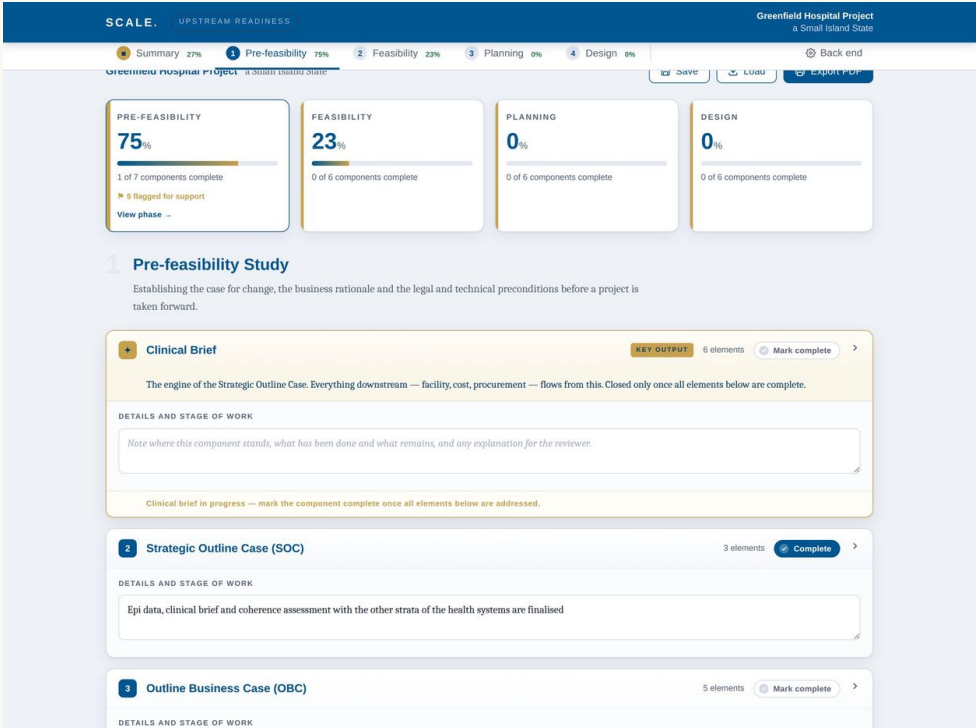
6 COMPONENTS

SCALE IN USE

Weighted progress, phase by phase, from a checklist that counts itself.



SUMMARY · OVERALL COMPLETION AND PROGRESS BY PHASE



PHASE VIEW · COMPONENTS, ELEMENT STATES AND SUPPORT FLAGS

Counts that cannot drift

Component and element totals are computed from the data, so the figures printed on the cover always match the checklist itself.

Four states, weighted

Each element is started, in progress, finalised or not applicable. Work in train is credited, and elements marked not applicable are removed from the denominator.

A flag for support

Any component may be flagged for support. The flag records where assistance is wanted, ahead of any formal request.

VICI

Visualiser for Infrastructure and Capital Investment projects.

DESIGNED FOR

Sponsors, designers, cost consultants and funders

VIEWS

Overview, surfaces, clinical and ancillary classification, cost ratios and site

LANGUAGES

English and French, switched live

OUTPUT

Schedule of accommodation, cost build-up, plot coverage test, PDF and CSV export

INSTRUMENT FOUR

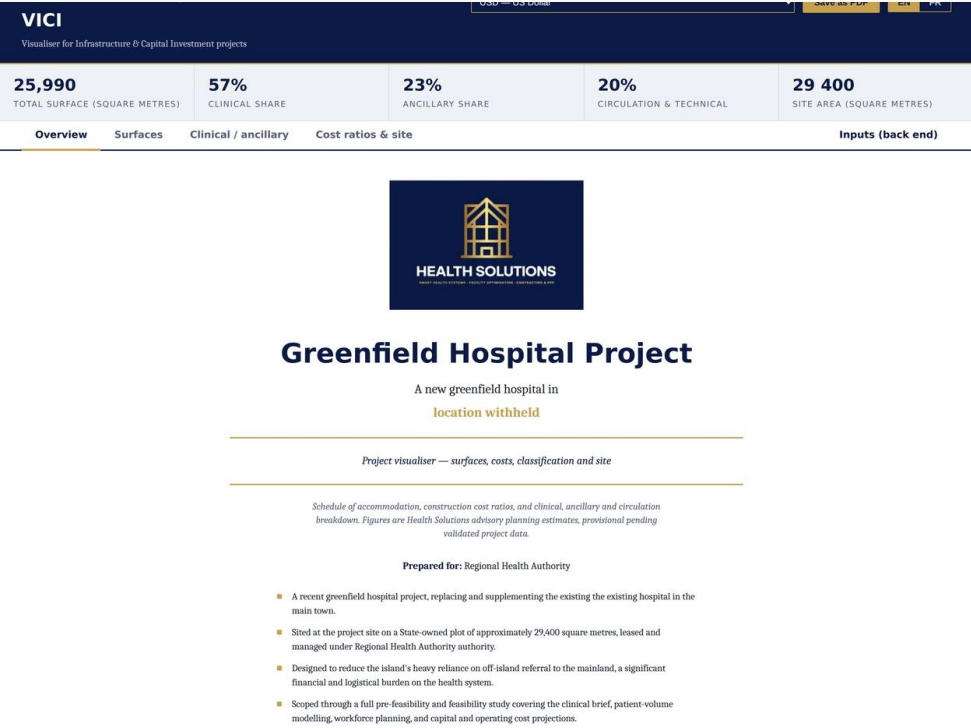
What the building has to contain, and what that will cost.

VICI holds the schedule of accommodation and turns it into the figures a funder asks for. Every department is assigned to a functional group, and every functional group maps automatically to a classification, so the clinical, ancillary and circulation shares are derived by rule from the schedule.

Surface benchmarks draw on the OSCIMES and ANAP benchmarking system. The service catalogue follows the nomenclatures of the NHS Health Building Notes, the Australasian Health Facility Guidelines and the United States Facility Guidelines Institute, so a schedule built in VICI is legible to any of the three traditions.

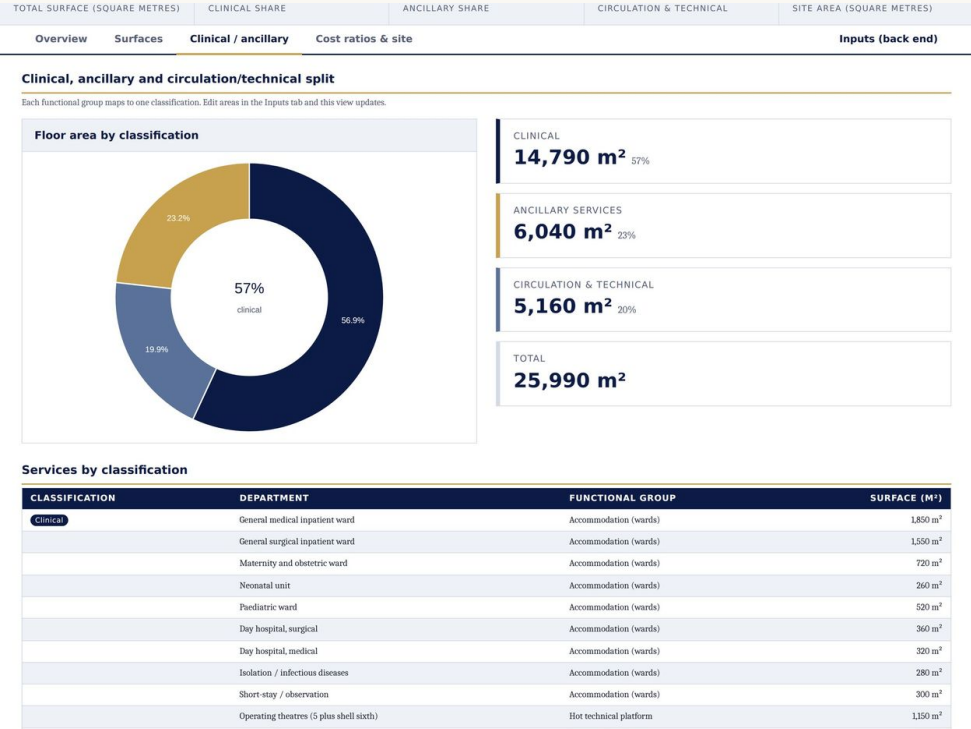
VIEW	WHAT IT HOLDS
Overview	Surface allocation by functional group as a treemap, departmental breakdown as a sunburst, and the full schedule of accommodation.
Surfaces	Floor area by classification, the clinical, ancillary and circulation split, and the services that sit within each.
Clinical / ancillary	Every department listed under its classification, with subtotals and the ratio against total floor area.
Cost ratios and site	Cost per square metre by clinical function and by construction lot, the footprint and plot coverage test, and the site.
Inputs	The back end. Project identity, schedule of accommodation, cost ratios, currency and rate, save and load.

The schedule of accommodation, read four ways.



VICI IN USE · TWO

Classification derived from the functional group, not asserted.



CLINICAL AND ANCILLARY · EVERY DEPARTMENT UNDER ITS CLASSIFICATION, WITH SUBTOTALS

Inputs (back end)

Isolation / infectious diseases	Accommodation (wards)	Clinical	280	×
Short-stay / observation	Accommodation (wards)	Clinical	300	×
Operating theatres (5 plus shell sixth)	Hot technical platform	Clinical	1150	×
Anaesthesia and recovery	Hot technical platform	Clinical	300	×
Intensive care unit	Hot technical platform	Clinical	520	×
High-dependency unit	Hot technical platform	Clinical	300	×
Accident and emergency	Hot technical platform	▼ scroll for more Clinical	820	×

Add a department

Add from service catalogue

Cost by clinical function (per m², excl. tax)

FUNCTION	FUNCTIONAL GROUP	PER M ² (EXCL. TAX)	
Operating theatres	Hot technical platform	2989	×
Intensive care and high dependency	Hot technical platform	2989	×
Accident and emergency	Hot technical platform	2989	×
Delivery suite	Hot technical platform	2989	×
Endoscopy	Hot technical platform	2989	×
Imaging and radiology	Cold technical platform	2337	×
Outpatient consultations	Cold technical platform	2337	×
Dialysis	Cold technical platform	2337	×
Rehabilitation and physiotherapy	Cold technical platform	2337	×
Oncology day unit	Cold technical platform	2337	×
Inpatient wards	Accommodation (wards)	1902	×
Maternity and neonatal	Accommodation (wards)	1902	×
Day hospital	Accommodation (wards)	1902	×
Laboratory and pathology	Medico-technical logistics	▼ scroll for more 2554	×

Add a function

Cost by construction lot (per m², excl. tax)

INPUTS · THE BACK END, WHERE THE SCHEDULE AND THE COST RATIOS ARE EDITED

A catalogue, not a blank sheet

Departments are added by hand or drawn from a service catalogue built on the NHS Health Building Notes, the Australasian Health Facility Guidelines and the United States Facility Guidelines Institute.

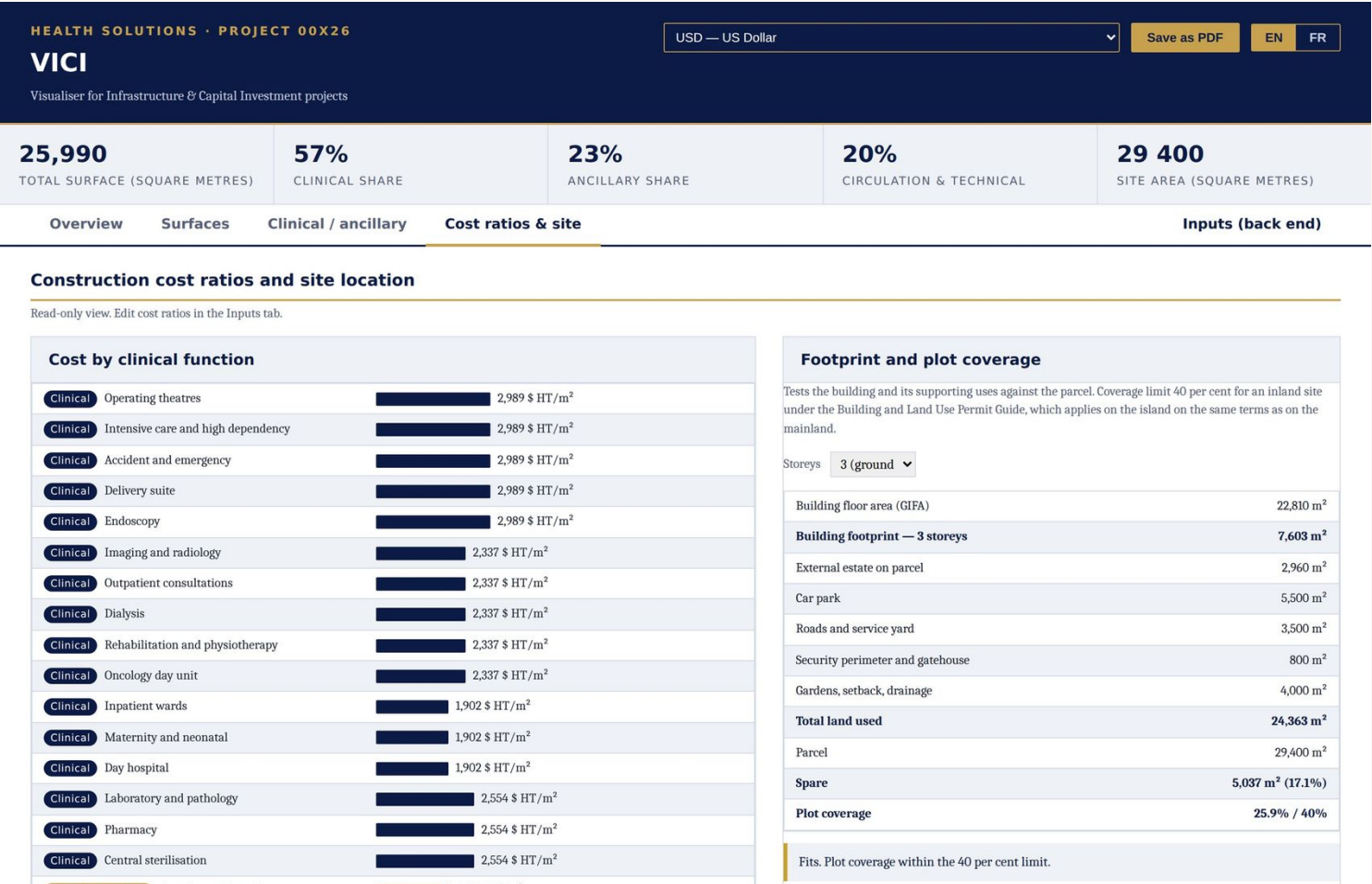
Classification by rule

Each functional group maps to one classification. The clinical, ancillary and circulation shares are therefore derived from the schedule, and a sponsor and a cost consultant read the same figures.

The project travels as a file

The schedule, the cost ratios and the site images are held in a single project file, so the work can be sent, versioned and reopened offline.

Cost by clinical function, cost by construction lot, and the plot test.



Two build-ups, one figure

Cost is assembled twice. Once by clinical function, where an operating theatre carries a different rate from an inpatient ward. Once by construction lot, where structural frame, HVAC and electrical installation each carry their own rate per square metre. VICI displays both build-ups together, so the two can be compared directly.

The plot coverage test

Building floor area is divided by the number of storeys to give a footprint, and the footprint is added to car parking, roads and service yard, security perimeter, gardens, setback and drainage. The total is tested against the parcel and against the coverage limit that applies on the site. The result reports the spare land and states plainly whether the scheme fits.

Currency

A base currency and a planning rate are held with the project. Every cost tile converts on selection, so a single schedule serves the national authority and the financing partner without a second model.

COST RATIOS AND SITE · TWO INDEPENDENT COST BUILD-UPS AND THE COVERAGE TEST

RAPID

Rapid Appraisal for Project Investment and Development.

DESIGNED FOR

Sponsors, investment committees and multilateral reviewers

STRUCTURE

Eleven components, each carrying its own completion

REGISTERS

Gap matrix, risk register and resource mobilisation timeline

OUTPUT

Appraisal dashboard, method note and a typeset decision brief assembled from a Word template

INSTRUMENT FIVE

An appraisal a committee can read in a single sitting.

RAPID delivers a full upstream appraisal at a fraction of the cost of a feasibility study, and states plainly what it has not covered. Completeness is driven by the gap matrix, and scope deferred to planning and design is excluded from the denominator, so the headline percentage means what it says.

The method note underpins the appraisal. It maps the plain-language headings to the canonical appraisal terminology used by development banks.

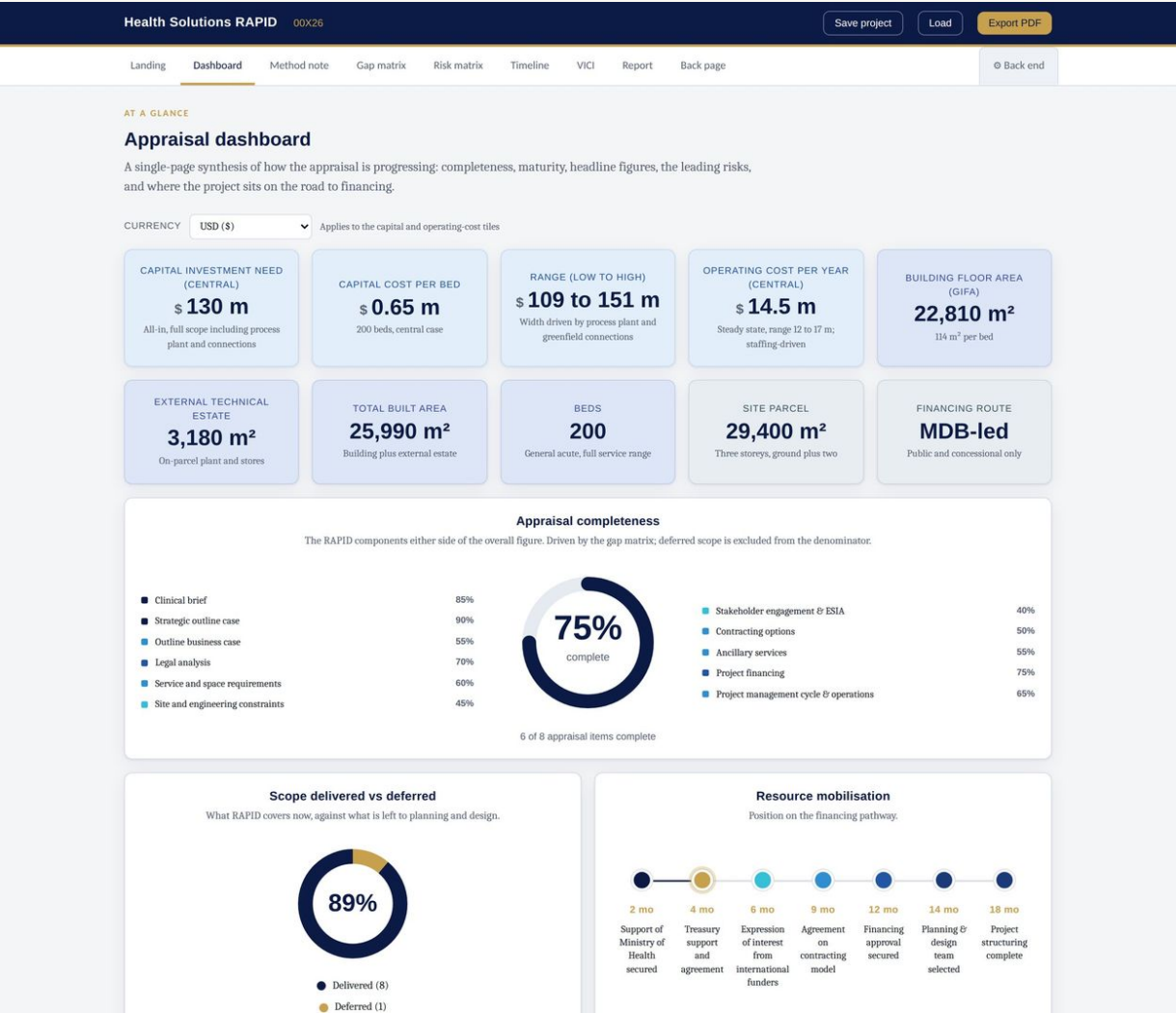
INCLUDED

- The pre-feasibility components in full, structured as in SCALE, save the geotechnical and detailed technical studies
- The feasibility elements that inform an early funding decision: ancillary services, project financing, and the project management cycle with operations
- A maturity diagnostic from VIBE and a surface and cost visualisation from VICI
- A gap matrix, a risk register and a resource mobilisation timeline

DEFERRED TO PLANNING AND DESIGN

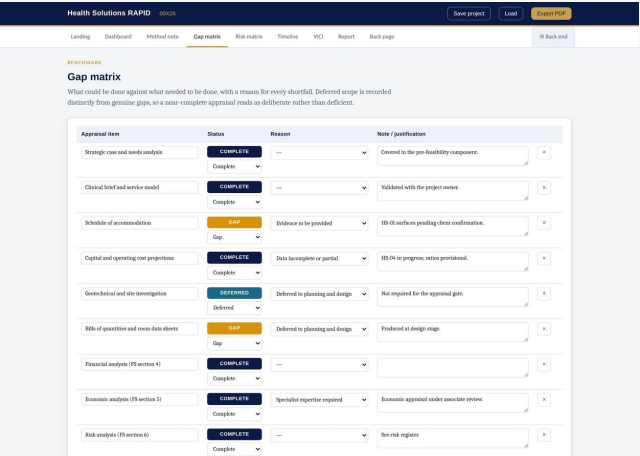
- Architecture, building engineering and medical equipment
- Geotechnical, geological and detailed engineering studies
- Bills of quantities and room data sheets
- Oversight and quality control at planning and design stage

Completeness, maturity, headline figures, leading risks and the road to financing.

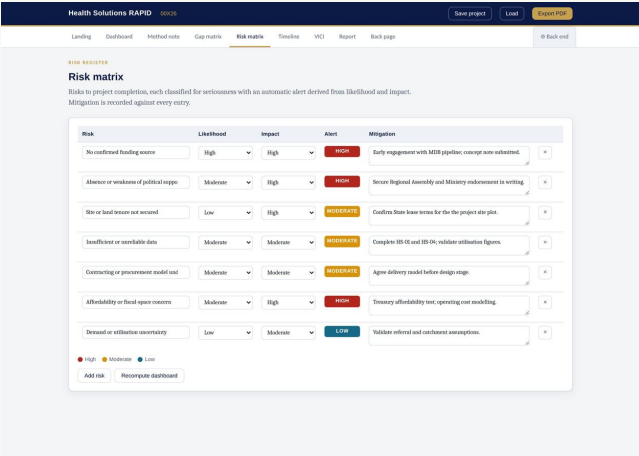


RAPID IN USE · TWO

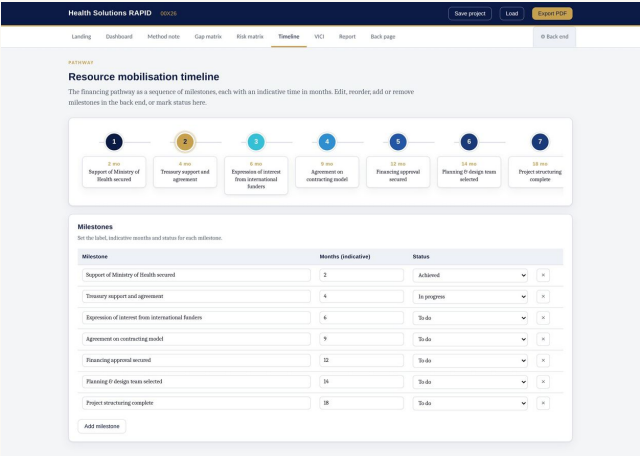
Gaps, risks and the financing pathway, each held as a register.



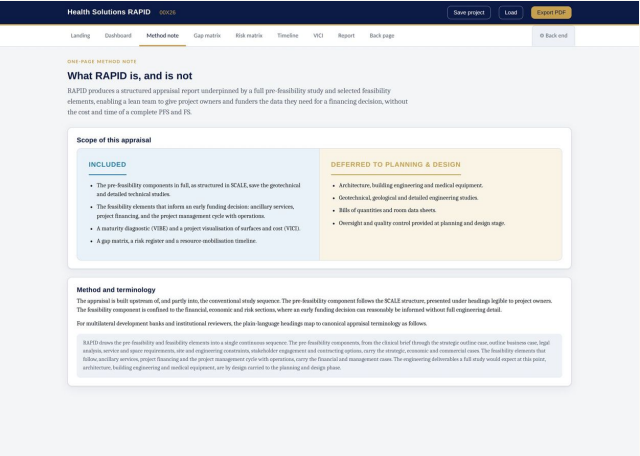
GAP MATRIX · STATUS, REASON AND JUSTIFICATION



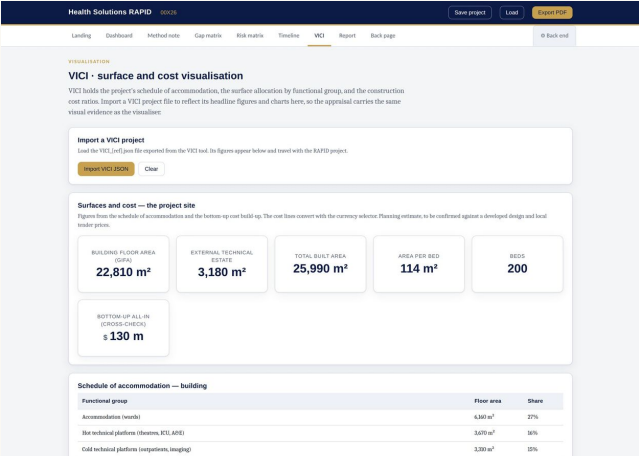
RISK REGISTER · LIKELIHOOD, IMPACT, ALERT, MITIGATION



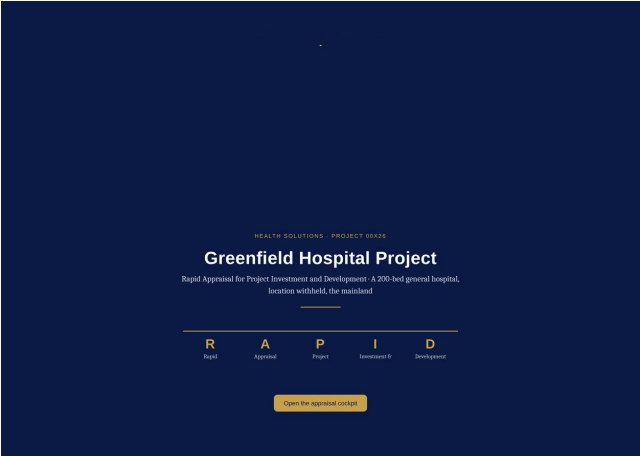
TIMELINE · THE FINANCING PATHWAY AS MILESTONES



METHOD NOTE · SCOPE AND APPRAISAL TERMINOLOGY



VICI IMPORT · SURFACES AND COST, CARRIED ACROSS



COVER · RECIPIENT AND PARTNER MARKS, SET IN THE BACK END

A narrative in Word carries anchor lines. RAPID reads them, places the dashboard, gap matrix, risk matrix, timeline and VIBE synthesis at the right points, and returns a single typeset PDF, so the instrument and the report remain one document.

BRIDGE

Bridging Readiness, Investment Development and Government Engagement.

DESIGNED FOR

Governments, project commissions and their financing partners

STRUCTURE

Twelve work packages across four strands

MEASURE

Progress read from the evidence recorded in each package

OUTPUT

Roll-out dashboard, per-package activity and output register, document store and an exportable report

INSTRUMENT SIX

From an appraised project into planning, with financing secured.

BRIDGE governs the transition that follows appraisal, carrying the project from an appraised proposal into planning, with financial close secured. It holds twelve work packages, each with its aim, its activities, its outputs and the documents that evidence them, and measures where the project stands against the evidence recorded. Elapsed time does not register.

STRAND ONE

Support and secure

Strategic advice and co-ordination. Government engagement and institutional advocacy. Financing strategy and the path to financial close.

STRAND TWO

Develop and strengthen

Continued technical advisory services. Management and oversight of complementary studies. Continued project development.

STRAND THREE

Consult and prepare

Procurement preparation, above all the planning and design tender. Stakeholder engagement and communication, including community consultation.

STRAND FOUR

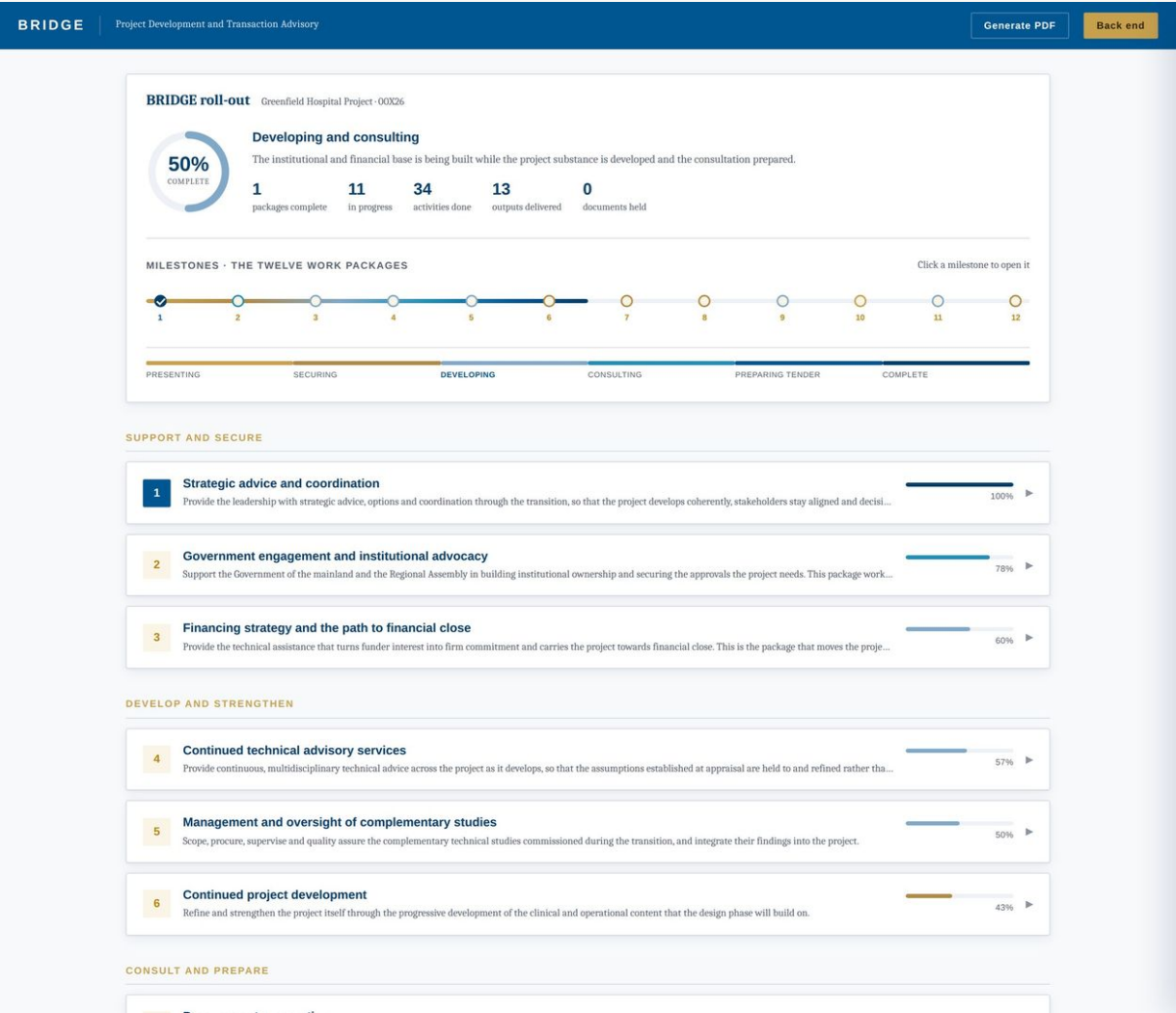
Bolster and sustain

Risk management and quality assurance. Capacity building and knowledge transfer. Programme management office support. Rapid response specialist expertise.

Each package records its activities and outputs separately, so a package may be fully active and still hold no delivered output. The distinction matters to a funder tracking disbursement against evidence.

BRIDGE IN USE

Twelve milestones, and a position read from the evidence held.



ROLL-OUT DASHBOARD · OVERALL POSITION, MILESTONE RAIL AND THE PACKAGES BY STRAND

A named position, not a percentage

The overall figure resolves to one of six named states, from presenting through securing, developing, consulting and preparing tender to complete. The named state is shown alongside the counts that produce it: packages complete, packages in progress, activities done, outputs delivered and documents held.

Evidence in the instrument

Each package accepts the documents that evidence it, held inside the project file. Terms of reference, briefing notes, review notes and due diligence responses sit against the package they belong to, which keeps the audit trail intact.

Configurable

The twelve packages are the default. The back end allows a package to be renamed, reordered, reassigned to a different strand, added or removed, so the instrument follows the terms of the assignment.

3

Analysis that reaches *the people who decide.*

Indicators, cost structures and system diagrams, drawn so that a commission, a minister and a credit committee can read the same page and take the same meaning from it.

VISUALISATION INTENSIVE REPORTING

Data and analysis, drawn for *the decision at hand*.

Health Solutions produces its findings as designed documents, typeset for circulation. The same discipline that governs the instruments governs the reporting: one figure appears once, computed from one source, and every chart states the basis on which it was drawn.

Four formats recur across the practice.

ONE

Single sheet project briefs

A whole project on one landscape sheet: need and feasibility, bed allocation, clinical services, manpower, financial plan, permits, financing, delivery capability, risk and roadmap. Sized for circulation at a commission meeting.

TWO

System diagrams

Layered explanations of the systems that a hospital depends on and that few stakeholders see, drawn so that clinical, technical and financial readers can each find their own layer.

THREE

Dependency maps

The external services on which a health facility depends, from water and power to transport, telecommunications and the local economy, mapped at pre-programming stage where the dependencies can still be designed around.

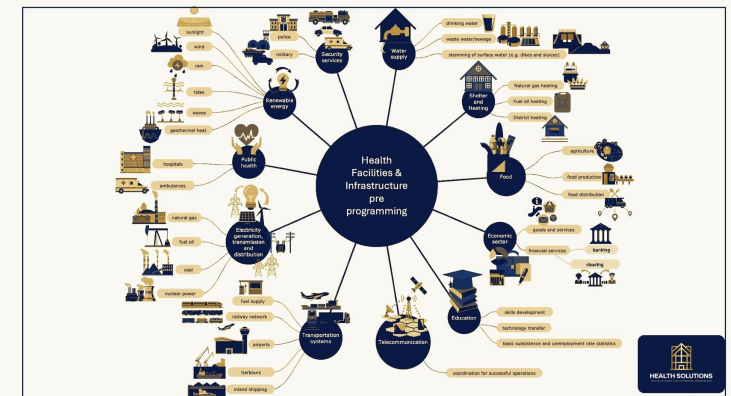
FOUR

Technical explainers

Financial and contractual concepts set out for a non-specialist audience, in the house palette, written for a ministry team preparing for a lender meeting.



PROJECT OVERVIEW • FACILITY NETWORK, ISLAND HEALTH MASTER PLAN AND SYSTEM GAPS



DEPENDENCY MAP • THE EXTERNAL SERVICES A HEALTH FACILITY INHERITS FROM ITS SITE

SPECIMEN · THE PRACTICE ON ONE SHEET

The whole practice on a single sheet.



HEALTH SOLUTIONS ON ONE A4 SHEET

The same discipline

The sheet applies to the practice the treatment Health Solutions applies to a project. Numbered panels, one figure computed once, and a reading order that carries a reader from the numbers, through the work, to the evidence behind it.

Seven panels

- Who we are, and how the practice is put together
- The six questions clients bring
- What we do, across five domains of work
- The instrument suite, mapped against the capital cycle
- Who we work for
- What we produce
- Capability in evidence

How it is used

Circulated ahead of a first meeting, attached to a proposal, or printed at A4 as a leave-behind. It carries the whole practice on one page, so a first conversation can open on the work itself.

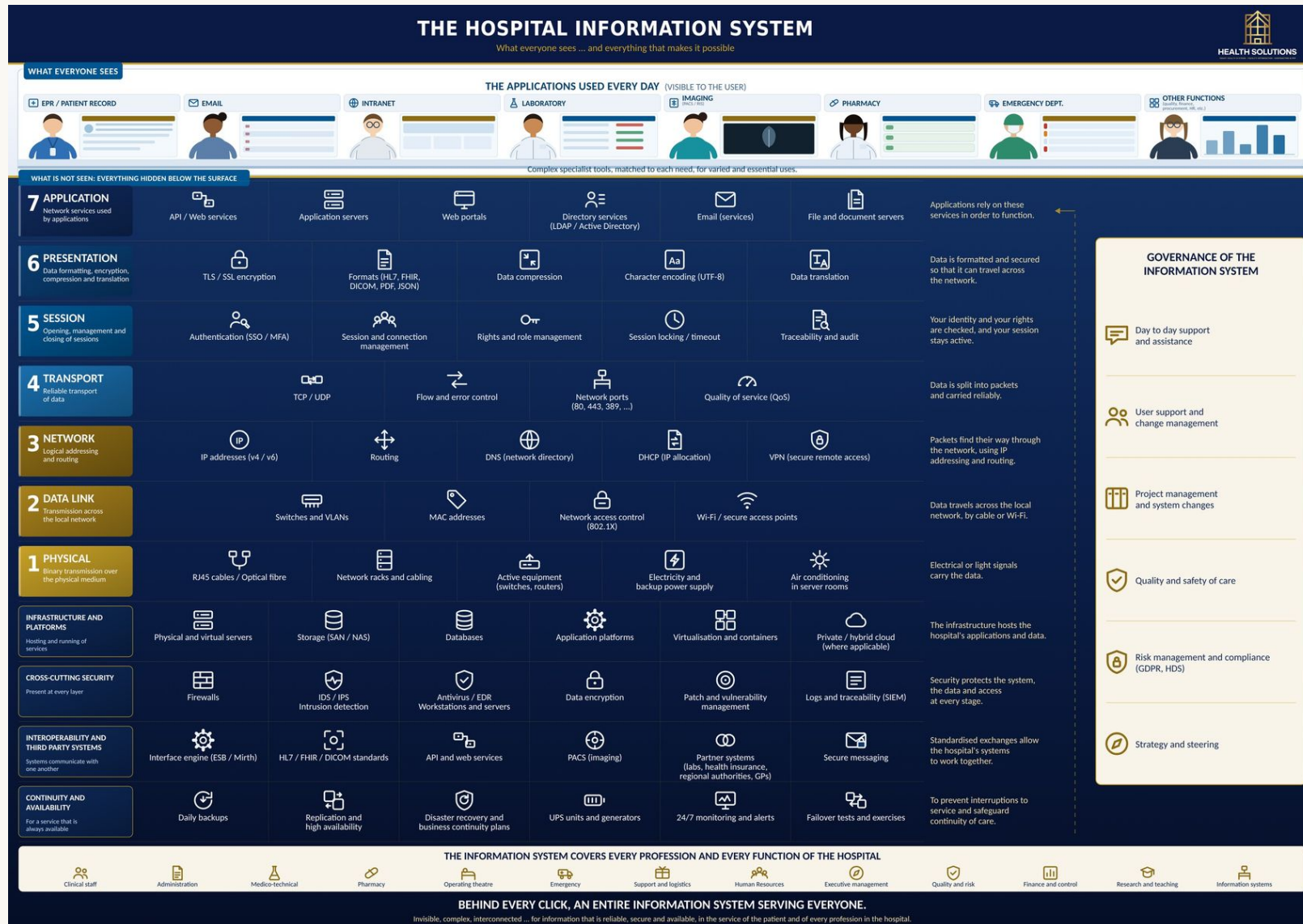
Built from the same parts

The palette, the panel grid, the numbered markers and the capital cycle bar are the components used across every Health Solutions document, so a reader who has seen one sheet can read the next without instruction.

SPECIMEN · HOSPITAL INFORMATION SYSTEM

What everyone sees, and everything that makes it possible.

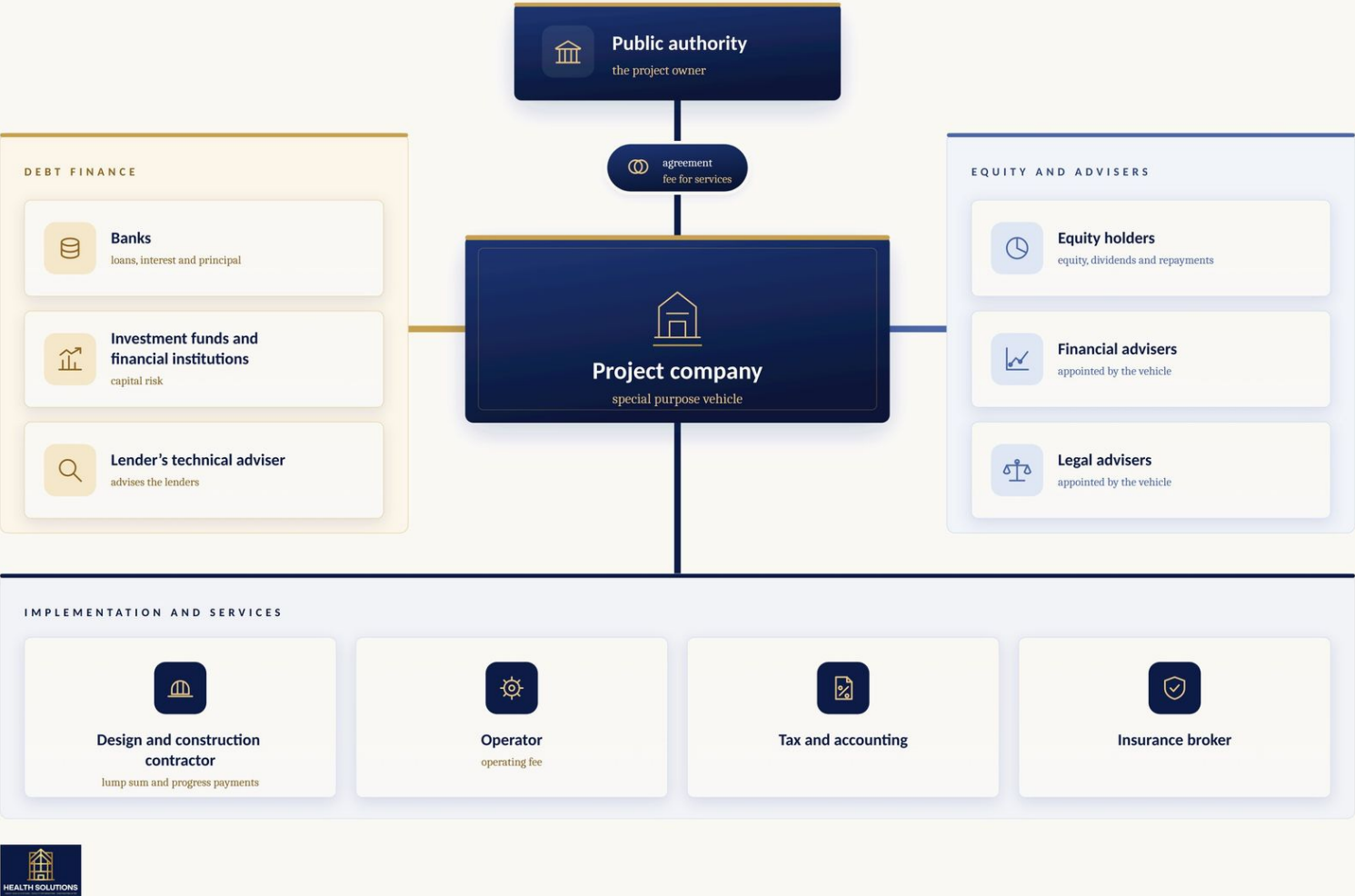
Seven network layers, four transverse domains and the governance that holds them together, on one sheet. The upper band shows the applications a clinician actually uses. Everything below it is the estate that a capital budget has to pay for and an operating budget has to keep running.



SPECIMEN · PARTNERSHIP STRUCTURE

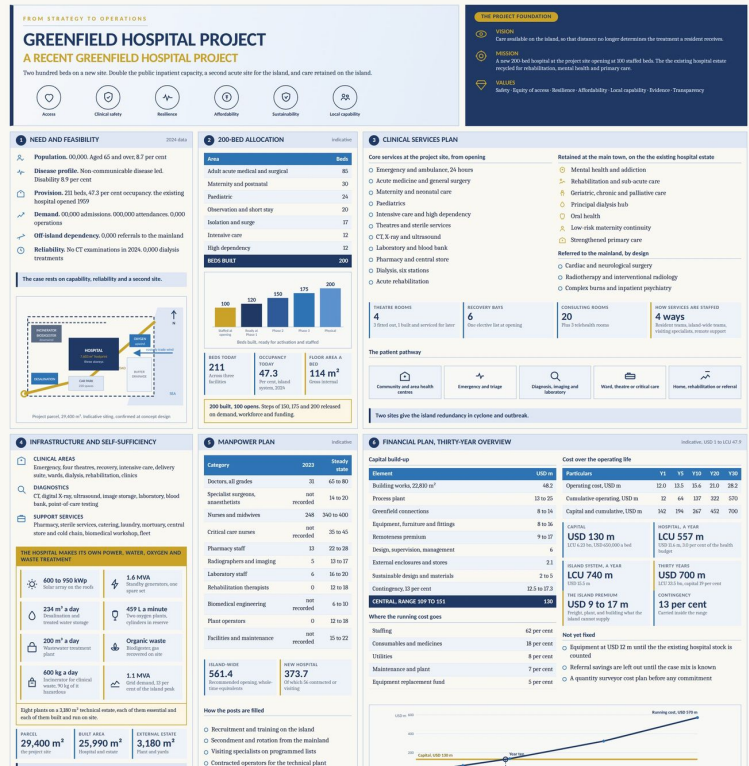
Who signs what, and what flows between them.

The public authority, the special purpose vehicle it contracts with, and the parties standing behind that vehicle: banks and investment funds on the debt side, equity holders and their financial and legal advisers on the other, and the contractor, operator, tax and insurance counterparties who deliver and run the asset. Each line carries a payment, a service or a right.



SPECIMEN • SINGLE SHEET PROJECT BRIEF

A recent greenfield hospital project, on one sheet.



SINGLE SHEET PROJECT BRIEF, REPRODUCED HERE IN TWO HALVES

Eleven panels

Project foundation. Need and feasibility. Bed allocation. Clinical services plan. Infrastructure and self-sufficiency. Manpower plan. Financial plan over thirty years. Permits, licences and procurement. Digital and technology. Financing and cost offset. Delivery and client capability. Risk management and the roadmap to opening close the sheet.

Every figure traceable

Surfaces and capital cost come from VICI. Completeness and the risk register come from RAPID. Upstream readiness comes from SCALE. Nothing is entered twice, and a figure that moves in an instrument moves on the sheet.



Confidentiality

The specimen reproduced here has been anonymised. Location, client body, partner institutions, financing partners and the identity of the existing estate have been removed, and the demographic figures suppressed. Health Solutions does not identify a live engagement in any external material.

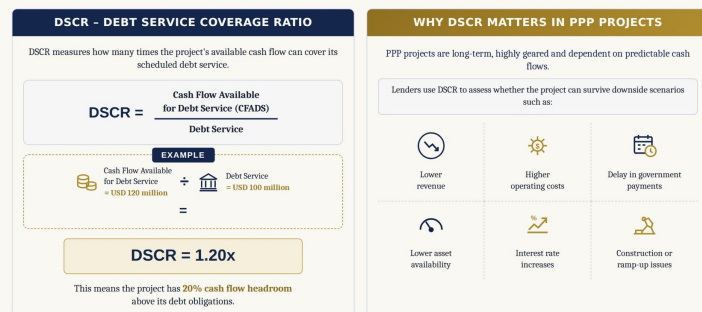
SPECIMEN • TECHNICAL EXPLAINER

Lender arithmetic, set out for the people who have to agree to it.

DSCR AND FINANCIAL RATIOS IN PPP PROJECTS



CAN THE PROJECT REPAY ITS DEBT?



OTHER KEY FINANCIAL RATIOS USED IN PPP AND PROJECT FINANCE



IMPACT OF STRONG FINANCIAL RATIOS



KEY TAKEAWAY: Financial ratios are not just numbers in a model. They are the language lenders use to judge whether the project is financeable.



A public authority entering a concession or an availability payment structure is asked to accept covenants written in ratios. The debt service coverage ratio, the loan life and project life coverage ratios, gearing, equity internal rate of return, debt tenor and the tail period each carry a consequence for the public balance sheet.

Health Solutions produces short explainers of this kind so that a ministry team can hold its own side of the conversation. The example shown sets out what each ratio measures, what a lender infers from it, and what follows for pricing, equity contribution and the ability to withstand a downside case.

Where these are used

- Ministry and commission briefings ahead of a lender meeting
- Annexes to appraisal reports, where the narrative assumes the reader already knows
- Capacity building sessions under a BRIDGE knowledge transfer package
- Published perspectives on the practice website

How they are made

Each explainer is drawn to the house palette and set on a single sheet, so that it can be printed, projected or attached to a note without redrawing. The worked example carries its own arithmetic, which allows a reader to substitute the figures of the project in front of them.

The wider set

Companion sheets cover the allocation of risk in availability payment structures, the sequence from appraisal to financial close, the difference between capital and operating expenditure in a health facility, and the treatment of medical equipment renewal in a lifecycle cost model.

LEADERSHIP

Dr Gwenaël Dhaene, Managing Director.

Managing Director of Health Solutions, and a specialist in public-private partnership design and optimisation for the health and social sectors. A public and health law specialist, working on partnerships and complex contracting since 2003.

Twenty-five years across the public and private sectors, some fifteen of them as a United Nations official, with engagements in more than seventy countries. From 2021 to 2026 he advised on capital investment and health infrastructure at World Health Organization headquarters in Geneva, leading the capital investment in health workstreams and arranging blended and concessional finance alongside the European Investment Bank, the African Development Bank, the Islamic Development Bank and the Inter-American Development Bank. From 2015 to 2021, at the Decide Health Decision Hub, he co-ordinated the global network for value for money in health and hosted the Organization Fair Pricing Forum.

Earlier he co-ordinated technical advice at the International Labour Organization in Geneva and led the public sector advisory practice for Europe, the Middle East and Africa at IHS Global. Doctorate in public and health law, summa cum laude, Paris I Sorbonne, on public-private partnerships in health. He is the author of the six instruments described in this document.

Where we work

Geneva and worldwide. Ministries of health across Africa, Small Island States and Central Europe. Multilateral development banks and international institutions, including the European Investment Bank, the African Development Bank, the Islamic Development Bank, the World Bank, the Asian Development Bank and the Council of Europe Development Bank.

Partner firms and network

The practice is built around an extensive network of specialist experts across the world, engaged assignment by assignment. Where an engagement calls for institutional capacity, it is delivered with a small number of partner firms in health infrastructure delivery, health economics, legal structuring and pre-acquisition assessment.

THE INSTRUMENTS

CASH	Capital Assets Solutions for Health
VIBE	Viability, Identification of risks, Bankability, Engineering of overall project
SCALE	Simplified Checklist for Assets Lifecycle Effectiveness
VICI	Visualiser for Infrastructure and Capital Investment projects
RAPID	Rapid Appraisal for Project Investment and Development
BRIDGE	Bridging Readiness, Investment Development and Government Engagement

CASH, VIBE, SCALE, VICI, RAPID and BRIDGE are proprietary methods and digital instruments of Health Solutions. © 2026 Health Solutions. All rights reserved.



HEALTH SOLUTIONS

SMART HEALTH SYSTEMS · FACILITY OPTIMISATION · CONTRACTING & PPP

Let us begin a *conversation.*

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AREAS OF WORK Geneva and worldwide



SCAN TO VISIT