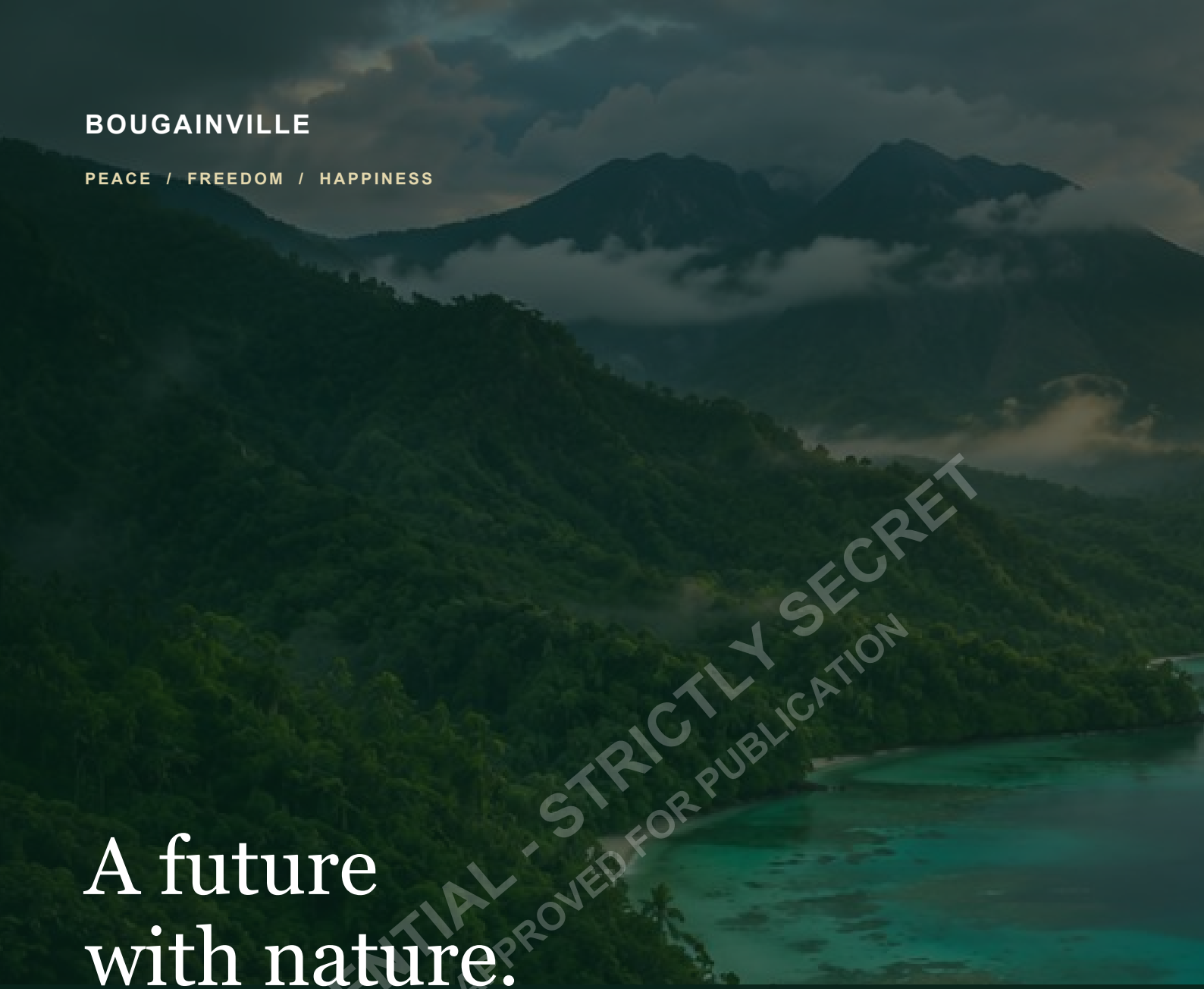


BOUGAINVILLE

PEACE / FREEDOM / HAPPINESS

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A future with nature.

INVESTOR GUIDE

2027 - 2040

27 projects. One shared direction of development.

Researched baseline data, investable next steps and a phased scenario for essential services, value creation and nature conservation.

An independent proposal for government, communities and investors.
Not an official development plan or a financing commitment.

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Concept development · Planning status 05.11.2026

THE PROGRAMME AT A GLANCE

Essential services first. Then growth.

A start in 2027 makes sense as an orderly development programme. Financing is prepared in verifiable stages, rather than being assumed on the strength of a promised major event.

TOTAL INVESTMENT PLAN

9,574.5 EUR million

27 packages; P11 retained, P25-P27 added

PANGUNA / GIRASOL

EUR 6.500 billion

P23 under the sole contractual leadership of Girasol International AG

ISLAND UPLIFT

+30%

Applied to all base values and ranges

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THE DOCUMENTED BASELINE

The 2024 census population of 367,093, approximately 9,384 km² of land, three statistical regions and diverse local languages form the basis of the development programme starting in 2027.

THE UPDATED PLANNING FRAMEWORK

Infrastructure: EUR 3,074.5m; Panguna: EUR 6,500m. Additions: P25 data/quantum campus EUR 455m, P26 hardware hub EUR 84.5m and P27 Fruit Hub EUR 52m. P11 is retained at EUR 65m. All values include the 30% island uplift.

THE RIGHT SEQUENCE

Land and community agreements, data, water, health, energy and accessibility come first. The data centre, resort, air taxis and mining will advance only when demand, approvals and financing have been demonstrated.

THE CLIENT'S PROJECT BASIS

Girasol International AG is the project developer, coordination office and sole contractual holder of mining rights for the Panguna Mine. Dietmar Lein confirms on 05.11.2026 that he holds the company extracts and has checked them. All mine contracts must be concluded with Girasol International AG.

Sources: [S01] [S04] [S09] | Independent proposals are explicitly scenarios.

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READING GUIDE

From the starting point to investment.

02 Programme at a glance

04 Island profile and technical baseline data

05 Population and demand to 2040

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HOW TO READ THE FIGURES

All project values are in EUR million. Base × 1.30 = displayed planning allowance. Ranges also include 30%. P23 forms part of the total investment plan and will be implemented exclusively through Girasol International AG. Operating costs and transfers are financed separately.

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ISLAND PROFILE

Understanding Bougainville.

PEOPLE	LAND AREA	DENSITY
367,093	9,384 km²	39 / km²
2024 census	ABG reference figure	2024 census

Regional distribution	North 153,530; Central 98,067; South 115,496 (2024).
Main centres	Buka as the seat of government, with Arawa and Buin as other key centres.
Climate	Reference values: mean annual temperature 27 °C; rainfall 2,500-4,500 mm/year.
Terrain & geology	Mountains, rivers, coasts and atolls; Mount Balbi approximately 2,715 m. Panguna: a porphyry copper-gold system.
Hazards	Earthquakes, tsunamis, floods, landslides and volcanic ash. Bagana is active; Maila in 2026 demonstrates the region's exposure to storms.
Language & culture	At least 19 indigenous languages according to ABG; Tok Pisin and English. Local language versions require qualified editorial work.
Political status	An autonomous region within PNG. Self-government in 2027 and independence in 2030 are ABG objectives; the constitutional process remains relevant.
Age structure	No current regional age distribution is available in the 2024 census summary. Youth samples do not replace statistics for the entire population.

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DATA PRINCIPLE

Verified baseline data, our own calculation models and future objectives remain distinct. Site data on ground conditions, water, hazards and demand must be supplemented before every construction decision.

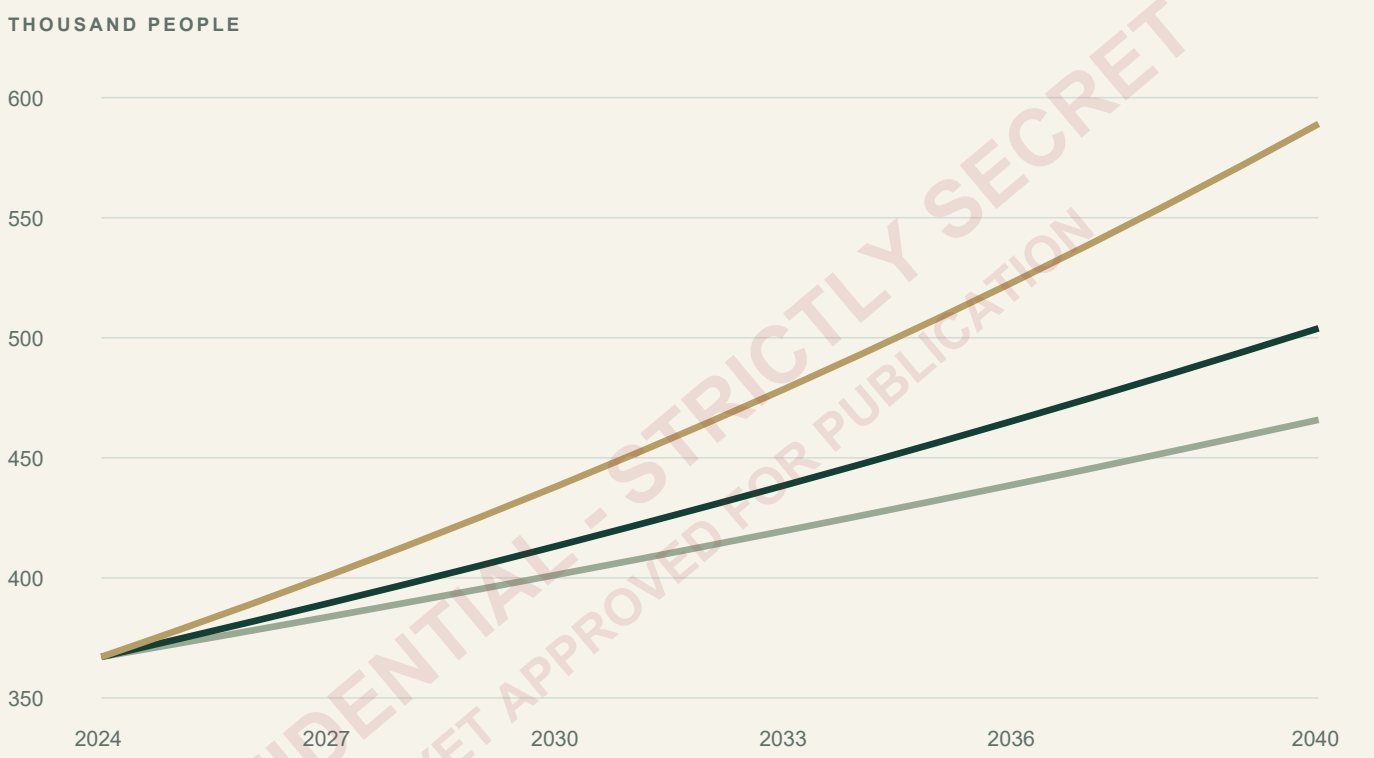
Sources: [S01] [S02] [S03] [S04] [S05] [S06] [S09] [S15] | Independent proposals are explicitly scenarios.

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THREE MODELLED DEMAND CASES

Grow without overbuilding.

Baseline: 367,093 people in the 2024 census. The following values are mathematical sensitivities, not official forecasts.



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Annual growth	2027	2040	Interpretation
1.5 %	383,861	465,836	Slower growth
2.0 %	389,562	503,940	Central planning case
3.0 %	401,132	589,077	High-demand case

PLANNING IMPLICATION

Expand in modules. Size public services for local catchment areas. The data centre, port and resort additionally require their own contracted loads, cargo volumes and demand. Formula: 367,093 × (1 + growth)^(year - 2024).

Sources: [S02] | Independent proposals are explicitly scenarios.

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PROJECT PACKAGES 01-09

Investments with a clear scope.

EUR million · 2026 conceptual allowances. Base excludes the uplift; planning allowance and range include a 30% island uplift. Time windows are conditional planning assumptions.

ID	Project	Base	× 1.30	Range	Period
01	Democracy, registries & trusted institutions	25	32.5	23.4 - 52	2027-2032
02	Banking access, payments & social dividend	30	39	26 - 65	2027-2035
03	Climate-resilient roads & bridges	400	520	364 - 780	2027-2040
04	Ports, coastal shipping & cold chains	120	156	104 - 234	2027-2037
05	Airports & regional connections	110	143	91 - 221	2028-2035
06	Air rescue, drones & future air taxis	20	26	15.6 - 45.5	2027-2034
07	Electrification & renewable microgrids	160	208	143 - 312	2027-2038
08	Electric mobility & public transport	25	32.5	20.8 - 52	2028-2037
09	Safe water, sanitation & hygiene	100	130	91 - 208	2027-2038

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Infrastructure excluding P23: EUR 3,074.5m; range EUR 2,070.9-4,810m. All funding must still be secured.

Details, technical assumptions, operating requirements and sources are provided in the project profiles.

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PROJECT PACKAGES 10-18

Investments with a clear scope.

EUR million · 2026 conceptual allowances. Base excludes the uplift; planning allowance and range include a 30% island uplift. Time windows are conditional planning assumptions.

ID	Project	Base	× 1.30	Range	Period
10	Fibre, connectivity & digital inclusion	60	78	52 - 130	2027-2034
11	Modular island data centre	50	65	39 - 117	2027-2034
12	Regional hospital, robotics & telemedicine	90	117	78 - 182	2028-2035
13	Community clinics & outreach care	50	65	41.6 - 104	2027-2036
14	Circular economy & safe waste management	45	58.5	39 - 97.5	2027-2037
15	Homes rooted in family & tradition	150	195	130 - 299	2028-2040
16	Education, skills & research	70	91	58.5 - 143	2027-2038
17	Cocoa, agriculture & sustainable fisheries	65	84.5	52 - 136.5	2027-2038
18	Nature, watersheds & coastal resilience	60	78	52 - 130	2027-2040

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P23 / Girasol: EUR 6,500m. Total plan: EUR 9,574.5m. P25-P27 add to the portfolio; P11 is retained. All mine contracts are with Girasol International AG.

Details, technical assumptions, operating requirements and sources are provided in the project profiles.

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PROJECT PACKAGES 19-27

Investments with a clear scope.

EUR million · 2026 conceptual allowances. Base excludes the uplift; planning allowance and range include a 30% island uplift. Time windows are conditional planning assumptions.

ID	Project	Base	× 1.30	Range	Period
19	Nature resort & medical wellness	90	117	71.5 - 195	2030-2038
20	Local materials, workshops & repair	40	52	32.5 - 84.5	2028-2038
21	Commodity trade, custody & tokenisation	15	19.5	10.4 - 39	2029-2036
22	Panguna: legacy, water & feasibility	100	130	78 - 260	2027-2034
23	Panguna: development of the copper-gold mine	5,000	6,500	4,550 - 9,750	2032-2040
24	Emergency readiness & safe communities	35	45.5	28.6 - 78	2027-2038
25	International data & quantum campus	350	455	325 - 650	2027-2038
26	International Building & Supply Hub	65	84.5	65 - 117	2027-2032
27	Bougainville International Fruit Hub	40	52	39 - 78	2027-2034

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P23 / Girasol: EUR 6,500m. Total plan: EUR 9,574.5m. P25-P27 add to the portfolio; P11 is retained. All mine contracts are with Girasol International AG.

Details, technical assumptions, operating requirements and sources are provided in the project profiles.

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2027-2033

The next step remains verifiable.

Annual use of funds in the scenario, EUR million. This does not imply that financing is secured today or that the government's capacity to absorb investment will remain unchanged.

Year	Infrastructure	P23 / Girasol	Priority and approval
2027 *	49.88	0.00	Baseline, essential services, P11; P26 starter depot, P27 crop trials and P25 site planning.
2028	147.27	0.00	Water, power and access; prepare construction and supply chains for hardware hub P26 and Fruit Hub P27.
2029	258.78	0.00	Targets: P26 12,000 m² core; P27 initial packing and cooling stage; P11 early island services.
2030 *	328.19	0.00	Three-year review: essential services, hardware demand, mango quality and first vanilla harvests.
2031	390.16	0.00	P25 first 2 MW module after power, network and customer gates; demand-led P26/P27 expansion.
2032	429.93	133.56	P26 up to 20,000 m² subject to demand; Panguna development and first investment packages through Girasol.
2033 *	397.49	400.68	Three-year review; P25 target 5 MW and first quantum system; expand Fruit Hub exports.

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THREE-YEAR REVIEWS *

2027: EUR 49.88m for preparation and initial measures. 2030: review dependable essential services. 2033: assess regional networks, skills and approvals.

Total plan: EUR 9,574.5m; including P23 / Girasol EUR 6,500m. Annual totals reconciled.

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2034-2040

The next step remains verifiable.

Annual use of funds in the scenario, EUR million. This does not imply that financing is secured today or that the government's capacity to absorb investment will remain unchanged.

Year	Infrastructure	P23 / Girasol	Priority and approval
2034	347.35	712.33	P27 full build-out against supply volumes; complete P11 island node; secure operating reserves.
2035	257.90	890.41	P25 second quantum system target; retender trade and supply agreements.
2036 *	177.10	979.45	Three-year review; P25 target 10 MW after demand and viability checks; measure circularity.
2037	134.32	979.45	Expand only where utilisation and maintenance budgets support it; improve existing facilities.
2038	94.98	890.41	Panguna: systems integration and commissioning planning through Girasol; review logistics assets.
2039 *	34.66	801.37	Three-year review: maintain assets, secure reserves and train the next generation.
2040	26.49	712.34	Prepare an impact assessment, replacement investment and the next long-term development period.

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THREE-YEAR REVIEWS *

2036: review local value creation, circular systems and impacts on nature. 2039: maintain assets and secure reserves. 2040: assess the overall impact and the next development period.

Total plan: EUR 9,574.5m; including P23 / Girasol EUR 6,500m. Annual totals reconciled.

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INVESTMENT THESIS

A development proposition that starts with people

From 2027, Bougainville can begin a development programme that improves essential public services, local value creation and nature conservation together. The most robust investment thesis starts with accessible healthcare, clean water, reliable electricity, safe transport routes and functioning institutions. These foundations are what make more ambitious ventures, such as international data centres, premium resorts or the redevelopment of Panguna by Girasol International AG, economically viable. The programme is a proposal for discussion with the government and communities. It is neither an adopted national budget nor a commitment to grant particular approvals.

The 2024 census recorded 367,093 residents. A manageable total population makes pilot projects with verifiable results possible; its distribution across mountains, coasts and outer islands nevertheless calls for decentralised solutions. The approach therefore combines regional service centres in the North, Central and South with smaller facilities in communities. Water, energy and communications systems will be planned in modules. A village should be able to receive services before the final main road is completed.

The existing Vision 2052 and the Development Plan 2023-2027 provide the historical frame of reference. This document complements them with a scenario to 2040 presented in a form accessible to investors. Every project idea needs an accountable public or private commissioning body, a locally legitimate site agreement, an operating model and a financeable next step. Success will not be measured solely by euros invested: outage hours, travel time to a clinic, drinking-water quality, local household incomes and preserved ecosystems are equally important measures. For investors, the opportunity lies in long-term, transparent services and development through partnership. High social value does not, however, replace demand assessment or commercial due diligence.

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PUBLIC SERVICES CREATE THE CONDITIONS FOR INVESTMENT.

P01, P03, P07, P09 and P13 provide essential foundations before more complex business models are scaled up.

Sources: [S20] [S13] [S01] | Independent proposals are explicitly scenarios.

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PEACE, LAND AND TRUST

History as the foundation for design

Bougainville's historical experience combines a long history of indigenous settlement, colonial interventions, mining, severe conflict and a persistent peace process. Panguna produced from 1972 to 1989. The consequences for land, water and affected communities continue; the legacy-impact assessment published in 2024 makes clear that past burdens do not disappear through a new investment narrative. Economic development must therefore begin with clearly documented rights, participation and fair distribution.

The Peace Agreement of 30 August 2001 is a crucial point of reference. Autonomy, weapons disposal and the referendum were interconnected. The 2019 vote demonstrated a very strong preference for independence; the subsequent constitutional process must be distinguished from that result. Investors should support the peace process by not treating political target dates as contractual conditions that have already been fulfilled, and by not playing communities against one another through competing promises.

A documented dialogue is proposed for every project site: who holds the land, who uses it, who bears the impacts and who benefits? Predominantly matrilineal traditions make women's participation particularly relevant; local differences, for example in Buin and on the atolls, must be respected. Clan representatives, young people, people with disabilities, churches and affected neighbours should receive accessible information. Translation, independent advice and sufficient time to decide belong in the development budget.

This history leads to concrete design principles: improve existing settlements, preserve spaces for families and celebrations, secure access to land, map cultural sites and address complaints without the risk of retaliation. Contracts must define handback, rehabilitation, compensation and arrangements for changes of operator. This work establishes the social foundations on which infrastructure can operate for decades.

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TRUST IS A LONG-TERM COMPONENT OF THE PROJECT.

Dialogue on land, transparent participation and fair complaints procedures are prepared before procurement and construction.

Sources: [S07] [S08] [S11] [S12] [S13] [S19] | Independent proposals are explicitly scenarios.

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TECHNICAL BASELINE

Surveying the island before building it

The ABG states a land area of approximately 9,384 square kilometres. Bougainville and Buka are the main islands; other islands and atolls require their own logistics. Coastal plains, river systems and steep mountain terrain impose different requirements. Buka is the seat of government; Arawa and Buin are other important centres. In 2024, the statistical regions had populations of 153,530 in the North, 98,067 in Central and 115,496 in the South. Distributing facilities uniformly per capita would therefore be just as inadequate as concentrating them exclusively in one centre.

Official indicative figures of approximately 27 degrees Celsius annual mean temperature and 2,500 to 4,500 millimetres of rainfall underline the importance of humidity, drainage and corrosion protection. Bagana is an active volcano; earthquakes, tsunamis, landslides, river floods and regional storms require site-specific assessment. Cyclone Maila in April 2026 demonstrates why older blanket assurances of safety are not an appropriate basis for planning. Critical facilities need hazard zoning, safe access, backup power and mutually independent communications routes.

Geologically, Panguna is part of a porphyry copper-gold system. This technical classification establishes neither currently economically recoverable reserves nor approved production volumes. Updated resource estimates and technical studies are separate work packages. The same applies to soil bearing capacity, available aggregates, water abstraction and power supply at the site.

The current regional age structure remains a significant data gap. The 2024 census brief does not provide complete age tables for Bougainville; the median age in a youth survey must not be applied to the total population. The 2027 start therefore includes an open inventory of schools, health facilities, households, routes, energy facilities and sites exposed to hazards. These data will progressively improve the precision of investment decisions.

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SITES DETERMINE TECHNOLOGY AND COSTS.

Geotechnical conditions, water, hazards and accessibility must be assessed for every project; average figures are insufficient.

Sources: [S01] [S02] [S03] [S04] [S05] [S06] [S15] | Independent proposals are explicitly scenarios.

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SIZING CAPACITY TO 2040

Demand under three population scenarios

Demand is based on the 367,093 residents counted in 2024. This concept uses three purely arithmetic annual growth assumptions: 1.5 per cent, 2.0 per cent and 3.0 per cent. These produce 2027 populations of approximately 383,861, 389,562 and 401,132 respectively. In 2040, the figures would be 465,836, 503,940 and 589,077 respectively. These are sensitivities, not official forecasts. They do not account for changes in migration, fertility or mortality, or possible differences in census coverage.

The formula is: population in the target year equals 367,093 multiplied by the annual growth factor raised to the number of years since 2024. The middle scenario serves as the working case, while the high scenario stress-tests expansion areas, pipe diameters, school capacity and network planning. The lower case tests whether tariffs and utilisation remain viable under slower growth. Planning should also consider geographic distribution and seasonal demand; an additional mine or tourism facility can generate more load at a particular location than regional population growth.

Expandable systems make technical sense: water tanks and networks with prepared connection points, healthcare buildings with rooms that can be fitted out later, modular battery storage and standardised school components. Capacity allowances are provided where later expansion would be expensive; full equipment is installed in response to demonstrated demand. For a data centre, contracted IT load is decisive; for a port, cargo volume; for a resort, accessible paying demand. Population figures alone do not justify these major investments.

The scenarios will be reviewed annually. After three years, new usage and population data should enable adjustments. In this way, the journey through time to 2040 remains a transparent decision-making tool and does not become an inflexible promise to build.

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DEMAND DETERMINES THE NEXT EXPANSION STAGE.

High population assumptions serve as a stress test. Contracted demand determines commercial facilities.

Sources: [S02] | Independent proposals are explicitly scenarios.

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SWISS INSPIRATION, BOUGAINVILLE'S OWN FORM

Democracy with local responsibility

In this proposal, Switzerland provides inspiration for subsidiarity, reliable administration, financial traceability and participation. This is not a recommendation to adopt a foreign constitution or building culture unchanged. Bougainville has its own political institutions, community structures and conflict-resolution practices. The development programme should strengthen them and connect them transparently with technical and financial responsibilities.

A public project register is proposed, identifying the responsible department, site, budget range, financing status, contracting parties, construction progress and operating indicators. Decisions should be made as close as possible to where their consequences are experienced. Regional bodies can prepare priorities; highly technical reviews will be organised jointly so that smaller communities do not have to build the same specialist capacities repeatedly. An independent audit trail, published procurement criteria and rules on conflicts of interest make oversight easier.

Public participation involves more than a digital voting field. Meetings, radio, printed summaries and local languages must reach people without reliable internet access. The proposed citizen access area will initially provide information, accept submissions and allow users to track their status. Legally binding votes require a separate statutory basis, verifiable identity, protection against coercion and appropriate procedures for secret decisions. Participation data must not be used for political profiling.

The independence decision and the goal of full autonomy determine this concept's contracting strategy: cooperation with banks and other institutions from Papua New Guinea will take place exclusively through short-term transitional contracts. Every contract will contain a specific calendar expiry date and a provision for an earlier orderly transition upon full autonomy. Automatic renewals and new permanent dependencies are excluded. The authorities currently responsible will remain accountable for existing procedures; contractual migration will be prepared from the outset.

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ACCOUNTABILITY REMAINS TRACEABLE.

Local priorities, professional assessment and public financial oversight are linked together.

Sources: [S07] [S09] [S10] [S13] [S20] | Independent proposals are explicitly scenarios.

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INSTITUTIONS THAT CAN ACT

Passports, registers, banking and payments

For 2027, a reliable population and business register is more important than merely designing new documents. The starting position is the Autonomous Region within Papua New Guinea. PNG passports are issued under the existing procedure of the responsible immigration and citizenship authority; applications require proof of citizenship. An independent Bougainville passport can therefore appear in this concept only as a later, conditional institutional work package. International recognition, citizenship law and secure document production cannot be replaced by a website.

In practical terms, the programme begins with birth registration, traceable identity checks, accessible service points and data protection. Identity, eligibility for social benefits, electoral registers and health records will not be merged indiscriminately into a single database. Every use needs a defined purpose, restricted access, correction mechanisms and a procedure for people without complete documentation. Mobile teams can reach remote communities.

The PNG kina and the existing payments framework provide the operational starting point. Appropriately licensed banks and payment providers will be engaged through short transitional contracts until autonomous structures can fully take over. Accounts, access to cash, agent networks and government payments must be transferable without interruption of service. Fixed end dates, exportable data, open interfaces, segregated custody of assets and a documented handover are envisaged. Automatic commitments to PNG institutions extending beyond full autonomy are excluded.

A maximum term of twelve months is envisaged as the planning standard for transitional services. Any further engagement after expiry will require a new tender and an express decision. An earlier transition upon full autonomy will be agreed together with orderly wind-down periods. A development bank, financial regulator and subsequent monetary framework will be prepared in parallel, with capital, governance, credit assessment, specialist staff and clear responsibilities. Account opening, source-of-funds checks, foreign exchange and permissible repatriation of returns will be handled within this transitional architecture.

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Sources: [S09] [S10] [H01] [H02] [H03] | Independent proposals are explicitly scenarios.

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COSTS, CAPITAL AND PROCUREMENT

Financing according to maturity and ability to pay

The investment plan comprises 27 projects and EUR 9,574.5 million: EUR 3,074.5 million for infrastructure and EUR 6,500 million for Panguna under Girasol International AG. The client has confirmed the previous estimates including Panguna. Additions are P25 data and quantum campus at EUR 455 million, P26 hardware hub at EUR 84.5 million and P27 Fruit Hub at EUR 52 million. P11 is retained at EUR 65 million. All figures include the 30% island uplift. P26/P27 include EUR 20.15 million of opening stock and initial working capital; these are not fixed-asset investments.

Construction costs, operating expenditure, maintenance, replacement investment, financing costs, taxes and price escalation are considered separately. An apparently inexpensive building does not provide inexpensive healthcare if staff, medicines, maintenance and electricity are missing. Before approval, every venture needs a multi-year operating forecast and an identified payment source. For projects financed through user charges, demand, ability to pay and social compensation mechanisms will be assessed together.

Essential public services combine grants, budget allocations and development finance. Private investment will support electricity, logistics, processing, telecommunications, accommodation and technical services in particular. All contracts will have a calendar expiry date, defined performance and handover obligations, and a new tender before any follow-on engagement. Open-ended commitments and automatic renewals are excluded. Terms will reflect the service and its payback period; PNG banks and institutions will be subject exclusively to the short transitional rule until full autonomy.

Procurement begins with clearly defined packages and grows in line with implementation capacity. Transparent tenders, life-cycle costs, independent construction supervision and documented contract changes safeguard quality. Panguna is a regular component of the overall investment plan; its financing will be managed as a separate investment area exclusively through Girasol International AG. All mine-related contracts, including financing, construction, operation and offtake, will be concluded with the company. Essential services and ongoing operations will have their own payment sources until mine revenues actually begin to flow.

For budget context, on 14 September 2026 the PNG Prime Minister's Office reported a total of PGK 844.09 million for the ABG: PGK 46.74 million in own-source revenue, approximately 5.5 per cent; PGK 520.36 million in national grants; and PGK 276.9 million in reappropriated development funds. These budget allocations are not freely available investment funds. Grants, private financing and operating funds will therefore be organised separately for each project.

Sources: [S20] [F01] | Independent proposals are explicitly scenarios.

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PARTNERSHIP AND VALUE CREATION

Opportunities for external investors

The programme opens up a range of roles: developing and operating individual facilities, supplying standardised technology, training, construction supervision, project finance or investing in locally rooted businesses. The appropriate role depends on the business model. A solar supply project may require a long-term offtake agreement; a cold chain needs sufficient volumes and paying users; a resort needs reliable access, staff and demonstrable demand. Project sheets should therefore identify not only construction value but also operations, dependencies and the next review point. P25 adds exports of cloud, computing and network services, together with a quantum programme involving prospective German and international technology partners.

Local value creation will be established as a contractual objective. Training before construction, transparent recruitment criteria, realistic procurement from local businesses and a planned transfer of technical responsibility are proposed. Depending on the project, landholding communities can benefit through leases, defined equity participation or other legally reviewed models. Participation must not, however, expose communities to debts or liabilities they cannot adequately assess.

Germany, Austria and Switzerland form the DACH cooperation region for engineering, vocational education, healthcare, environmental technology, financing and quality assurance. Girasol International AG will undertake project development and coordination. The following is a project foundation confirmed by the client on 5 November 2026: Dietmar Lein holds the company registry extracts, which have been checked. Girasol International AG holds the sole contractual extraction rights to the Panguna mine. All contracts for this mining project will be concluded exclusively with Girasol International AG as the rights holder and project developer.

Investors should be able to identify verifiable opportunities: specific service needs, modular expansion, recurring operational services and transparent contracts. No guaranteed return, secured utilisation or trouble-free exit is promised. The next investable unit is often a properly funded feasibility study or pilot whose success criteria are defined before it begins.

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GIRASOL LEADS THE PANGUNA CONTRACTS.

Girasol International AG is the sole contractual holder of mining rights. All mine contracts are concluded exclusively with the company.

Sources: [S13] [S20] | Independent proposals are explicitly scenarios.

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ISO AND OPERATIONAL RELIABILITY

Organising quality so that it can be measured

International standards should support the quality of implementation without serving as an unsubstantiated seal of approval. At the time of research, ISO 9001:2026 has been published; it sets out requirements for quality management. ISO 14001:2026 is the relevant environmental management standard. ISO 45001:2018 remains the published basis for occupational health and safety while a revision is being prepared. ISO/IEC 27001:2022 supports information security management. For tenders, the current edition and applicable amendments will be checked before the contract is signed.

The practical benefit lies in clear procedures: responsibilities, documented requirements, training, risk analysis, internal review, handling nonconformities and continual improvement. A clinic, for example, needs controlled maintenance and cleaning processes; a water utility needs verified sampling and incident response; a construction company needs safe management of machinery and subcontractors. A certificate does not replace project-specific authorisation, product testing or professional acceptance.

ISO 37120:2018 provides methods for comparable indicators of municipal services and quality of life. An adapted selection is proposed for Bougainville: access to water and sanitation, electricity outages, waste collection coverage, access to education and healthcare, and transparent financial data. Applying individual indicators does not constitute certification of the entire region. Measurement methods, reference quantities and data gaps should be published.

The programme recommends phased implementation. Small local businesses will receive understandable requirements and support; high-risk major projects need independent review. Certification will be claimed only when a competent independent body has assessed the specifically identified scope. Quality will thus emerge as demonstrable operational practice, rather than as a collection of logos.

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QUALITY IS CREATED THROUGH DAILY WORK.

Standards serve as references; certificates apply only to organisations and scopes that have actually been audited.

Sources: [H04] [H05] [H06] [H07] [H08] | Independent proposals are explicitly scenarios.

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ACCESSIBILITY FIRST

Innovative roads with minimal repair requirements

The development goal is a road that requires no repairs over the longest possible service life. Research, material selection and construction methods will consistently aim to move as close as possible to this goal. In Bougainville, this includes load-bearing subgrade, effective drainage, stable slopes, robust bridges and suitable concrete or composite construction methods. Pilot sections will compare performance under local loading conditions. Measurements will cover repair-free years of use, damage per kilometre, availability and life-cycle costs. Inspection and preventive measures will accompany development and safeguard operations.

Expansion begins with corridors that connect particularly large numbers of people to markets, clinics, schools and ports. Small bridges, safe footpaths, landing places and road drainage can deliver substantial benefits early on. The road programme will be coordinated with water and telecommunications planning so that new surfaces do not have to be opened shortly afterwards to lay utilities. A digital asset inventory will help prioritise damage and maintenance needs.

Air services complement these networks. For medical transport, the initial assessment should focus on approved aircraft or helicopters that can be operated with trained crews, maintenance and secured operational resources. Electric air taxis remain a later pilot, subject to certification, range, weather capability, emergency landing options and medical equipment. They must not be presented as an unsubstantiated service guarantee for 2027. Cargo drones can support small, time-critical shipments once authorised.

Electric vehicles are particularly suitable for predictable municipal and commercial routes. Charging points will be developed together with reliable power and spare-parts stocks. For islands and coastal settlements, suitable boats and safe landing sites are often decisive. Here, the most advanced mobility is the combination that reaches people reliably and can be financed sustainably.

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ACCESSIBILITY IS THE OBJECTIVE.

Roads, bridges, ships, medical flights and cargo drones complement one another; their availability and ongoing costs matter.

Sources: [S04] [S05] [S06] | Independent proposals are explicitly scenarios.

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ENVIRONMENT, WATER AND RESOURCES

Protecting natural capital and material cycles

Rainforests, rivers, coasts and reefs provide livelihoods, cultural space and economic natural capital. An investment programme must therefore first determine which areas and functions are to be preserved. Community-agreed protected areas, sensitive zones without new major facilities, ecological baseline surveys and long-term funding for monitoring are proposed. The nature gallery presents these values; AI images will be identified as visualisations and must not imply scientific evidence that particular species occur at a location.

One hundred per cent recycling is the explicit development goal of the circular-economy concept. The programme will move towards this goal through product design, prevention, reuse, repair, separately collected material streams and continually improved recovery. Each material stream will have a measurable balance and a development plan. Organic materials will be composted or digested locally; metals and plastics will be returned through reliable recovery chains. Specialised processes for batteries, electronics and medical waste will be developed and qualified. Material cycles that are not yet closed will receive safe interim treatment and specific innovation assignments.

Pollution-free resource extraction is likewise a development goal, with consistent minimisation of emissions and environmental releases. Electrified processes, recirculated water, secure residue systems and independent water and air measurements will make progress towards the goal measurable. For Panguna, Girasol International AG will integrate technical development, environmental protection and aftercare. Historical impacts will be recorded separately; protective measures, rehabilitation and closure funds will have clear responsibilities and dedicated budgets.

Quantitative balances are recommended for all projects: water abstracted, energy generated, materials used, waste and changes in land use. Measurable interim targets make corrective action possible. An attractive resort or data centre is part of the commitment to nature only if its water, electricity, wastewater and waste balances remain convincing beyond the opening image.

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CIRCULAR FLOWS ARE ACCOUNTED FOR.

Material flows, wastewater, residues and replacement investment require verifiable quantities and responsibilities.

Sources: [S04] [S13] [S19] [S21] [S22] | Independent proposals are explicitly scenarios.

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SWITZERLAND, CANADA, SINGAPORE AND NEW ZEALAND

Commodity trading and tokenisation backed by real rights

Switzerland, Canada, Singapore and New Zealand will be developed as trading and custody locations. Girasol International AG will manage all commodity, storage, financing and offtake contracts for Panguna. Specific partners and locations will be selected on the basis of quality, logistics and regulatory suitability. Origin, quantity, quality, ownership allocation and export obligations will be documented for every consignment. Girasol International AG's existing contractual extraction rights form the project foundation; tokenised claims will additionally relate to specifically allocated material and clear redemption rules.

A potential pilot model begins with material that has already been extracted, legally exported and independently verified. Warehouse operator, owner, insurer, custodian and register will be clearly distinguished. Every claim issued must be allocated to a verifiable quantity and quality. Issuance, transfer and redemption require coordinated rules; independent inventory reconciliations will prevent double pledging or double issuance. Physical storage and digital key custody are separate functions.

Switzerland has a FINMA framework for licensed DLT trading facilities. In Canada, securities and derivatives rules may also be relevant to crypto platforms and contractual claims; the CSA emphasises appropriate custody and segregation of client assets. Singapore's MAS is exploring regulated tokenisation through initiatives including Guardian, which does not amount to blanket permission for any offering. New Zealand's FMA assesses crypto offerings according to their economic substance and the financial services actually provided.

Before implementation, individual legal, tax, anti-money-laundering, sanctions and insolvency reviews are required in every affected jurisdiction. For copper concentrates, direct delivery to contracted buyers may be more economical than global warehousing. Tokenisation will therefore be treated as an optional settlement tool for verified assets, not as a prerequisite for financing the country or a substitute for a functioning market.

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DIGITAL CLAIMS REQUIRE REAL BACKING.

Proven ownership, segregated custody, insurance, independent verification and redemption come before token issuance.

Sources: [H09] [H10] [H11] [H12] [H13] [H14] | Independent proposals are explicitly scenarios.

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QUALITY OF LIFE

Health, housing and a funded social-dividend pilot

Healthcare innovation starts with accessible primary care, medicines, qualified staff, safe water and functioning referral pathways. Telemedicine can make specialist expertise available when local teams carry out examinations and follow-up care. A robot-assisted clinic additionally needs reliable power, data connections, maintenance, sterilisation, replacement instruments and clear clinical accountability. Remotely controlled procedures do not replace these foundations. Expansion will be approved on the basis of treatable cases and the ability to operate safely.

Housing development should strengthen existing family and village spaces. Co-designed homes adapted to the climate and local building culture are proposed, with shade, ventilation, rainwater management, safe sanitation and improved resilience. Materials and layouts will be tested with local craftspeople. Shared spaces, celebrations, gardens and multigenerational living remain part of the design. A uniform imported settlement type is not a prerequisite.

A basic income needs sustainably available revenues, not merely a payment app. The main model, P02, initially envisages a time-limited, independently evaluated trial for 5,000 adults. At EUR 50 per month, annual transfer costs would be EUR 3 million, plus administration. These recurring transfers are not included in P02's EUR 39 million investment allowance. For 367,093 people, EUR 50 per month would arithmetically cost approximately EUR 220.3 million annually. Both are model calculations, not benefit commitments.

Long-term distributions could be considered only from surpluses that have actually been received and are legally available, after provisions for operations, the environment and a fund for future generations. Evaluation should examine health, nutrition, school attendance, paid work and local prices. In this way, social prosperity will be developed as verifiable progress.

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SOCIAL BENEFITS REQUIRE LASTING FUNDING.

The main P02 model calculates 5,000 adults × EUR 50 per month = EUR 3 million per year; transfers must be financed separately.

Sources: [S01] [S03] [S04] [S13] | Independent proposals are explicitly scenarios.

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IMPLEMENTATION AND DECISION GATES

The first 100 days from 2027

During days 1 to 30, the programme office will organise responsibilities, a project register and a confidential contract data room. Girasol International AG will coordinate project development and manage its separate Panguna investment area. Communities will identify priorities and contact persons. Existing projects, contracts and funds will be recorded. For each agreement, the contract register will contain its start, calendar end date, tender deadline, responsible body and handover obligations; PNG transitional contracts will additionally contain the autonomy trigger. Urgent work on water, clinic power, bridges and communications will begin in parallel.

During days 31 to 60, preliminary assessments of priority sites will follow: land rights, environment, hazards, demand, connection options and operating costs. Small measures that can be implemented quickly will receive clearly bounded specifications. Robust feasibility-study commissions will be prepared for larger ventures. Financing should account for preparation and subsequent operations; an unfinished business plan is not an authorisation to build.

During days 61 to 100, the first transparent procurement awards and pilots can begin, provided a mandate and funds are in place. Mobile registration services, selected healthcare connections, solar power for schools and clinics, water improvements and critical drainage are proposed. A public baseline measurement will allow later comparison. Major construction projects will be authorised only after independent review.

The subsequent path follows six decision gates: demonstrable need; local and legal clarification of the site; technical and environmental feasibility; secured financing and operations; verified acceptance; and demonstrated performance in daily use. The portfolio will be reassessed every three years, in 2030, 2033, 2036 and 2039. The year 2040 represents the targeted state of maturity. Unmet conditions will lead to revision or postponement, rather than construction promises that continue automatically.

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APPROVALS FOLLOW DEMONSTRATED PREREQUISITES.

Need, rights, feasibility, financing, offtake and operations form a continuous chain.

Sources: [S13] [S20] | Independent proposals are explicitly scenarios.

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INVESTOR DUE DILIGENCE

Managing risks and disclosing results

The programme needs a shared risk register with clearly identified owners. Political and legal status, land rights, permits, ability to pay, foreign exchange, ground conditions, logistics, skilled labour, natural hazards and environmental impacts will be assessed for each project. Merely naming a risk is insufficient: every material issue requires a mitigation measure, a statement of residual uncertainty and a decision on when further capital can be committed.

At Panguna, the focus is on technical implementation, construction and operating approvals, environmental performance, community participation and financial control. Girasol International AG will lead the venture as the sole contractual holder of extraction rights. The confirmed investment allowance of EUR 6.500 billion will be incorporated into the investment plan in the same way as the other project values. Contracts for financing, design, construction, operation and offtake will be concluded exclusively with Girasol International AG. Milestones, payment schedules and provisions will keep construction progress and the use of funds traceable.

Construction and operations must allow for alternative supply routes, spare parts, trained staff and appropriate reserves. A second communications route and a safe operating condition during power outages are essential for clinics and critical data. Insurability will be assessed early; remaining exclusions must not become apparent only after contract signature. Climate and geotechnical investigations must correspond to the actual site.

An annual public report should bring together budget changes, progress, operating indicators, complaints and environmental measurements. External investors will additionally receive appropriate audited financial information. The aim is a transparent learning process: successful pilots grow and unsuitable ventures are adapted. Returns, social value and nature conservation will not be equated through a single promise; each will be assessed against its own measurable criteria.

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THE PROGRAMME MUST ALSO BE VIABLE WITHOUT THE MINE.

Essential services and their operations must not depend solely on future Panguna revenue.

Sources: [S05] [S06] [S09] [S10] [S19] | Independent proposals are explicitly scenarios.

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TRANSPARENCY AND RESPONSIBILITY

Portal operations, editorial policy and publisher information

Bougainville.online is envisaged as the future web address. The domain is presented here as a planning detail; registration and technical connection are not part of this PDF edition. The portal remains a government proposal. For official operations, citizen and government areas require authorised identities, verified role permissions, data protection and an accountable operator. Confidential concept documents will be published only after express approval.

The news editorial team will use verifiable sources and display the publication date, event date, source and last verification time separately. An automated agent may summarise existing reports and prepare changes for review. If no new substantiated news is available, this will be stated openly. Being current each day means checking daily, not inventing an event every day. Corrections will remain traceable; political statements will be attributed to their authors.

English and German can provide international access. Tok Pisin and local languages need editors proficient in those languages. Symbols help users find their way; flags do not provide an unambiguous mapping between language and identity. Missing translations will be identified as such. The website should function on slow connections, support keyboard navigation and respect reduced-motion preferences. Images of planned facilities will be identified as AI visualisations.

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A GOVERNMENT PROPOSAL REMAINS CLEARLY IDENTIFIABLE AS A DRAFT.

Production logins, official publication, translations and automated updates require authorised operations.

Sources: [S14] [S18] [H07] [H15] | Independent proposals are explicitly scenarios.

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PROJECT 01 / INFRASTRUCTURE PROGRAMME

Democracy, registries & trusted institutions

Civil, business and land-use registries, 12 service hubs, secure identity, open procurement and independent audit.







Three distinct AI visualisations · possible designs, not existing facilities.

PLANNING ALLOWANCE INCL. 30%	RANGE INCL. 30%	TIME WINDOW
32.5 EUR million	23.4 - 52 EUR million	2027-2032

Confirmed planning allowance; implementation follows technical planning, approvals and financing.

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PROJECT 01 / DECISION FRAMEWORK

Democracy, registries & trusted institutions

BASE ALLOWANCE	30% ISLAND UPLIFT	PLANNING ALLOWANCE
25 EUR million	+7.5 EUR million	32.5 EUR million

SCOPE

12 service points; offline-capable registries; a privacy and complaints office.

COST BASIS

€25 million planning budget for software, secure infrastructure, training, surveying and implementation; no passport-sale programme.

TECHNOLOGY & SIZING

ISO 9001 and ISO 27001 as management objectives; certification only after an external audit.

OPERATIONS & ONGOING COSTS

5-8% of the installed digital budget annually for operations, security and continuing training; finance separately.

ROLE OF EXTERNAL INVESTORS

Fixed-term procurement and operating services; firm expiry dates, re-tendering, data portability and orderly handover.

PREREQUISITES

Build effective registries and responsibilities; engage PNG institutions only through short transitional contracts until full autonomy.

MEASURING SUCCESS

Share of births registered, processing times, published contracts and independently audited accounts.

HISTORICAL / LOCAL CONTEXT

Birth registration, transparent tenders and communities as the starting point; Swiss subsidiarity as an inspiration.

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NEXT DUE DILIGENCE TASK

Before procuring software, document responsibilities, data fields and actual workflows with communities. One service point pilots birth registration, applications and complaints procedures; the system is extended to other locations only after independent review. Paper-based and offline access remain part of the contract.

REVENUE & FINANCING

Core public functions require budget allocations or grants. External companies can provide equipment, training and fixed-term operating services. Payments should be linked to accepted functionality, demonstrable data security and trained staff; data ownership and the ability to change providers remain contractually protected.

ANNUAL USE OF FUNDS · RELATIVE PROFILE



Sources: [B12] [B02] [R02] [R03] | Independent proposals are explicitly scenarios.
For all contracts: a fixed expiry date, an orderly handover and a new tender.

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PROJECT 02 / INFRASTRUCTURE PROGRAMME

Banking access, payments & social dividend

Regulated banking partnerships, low-cost accounts, an offline payment pilot and a limited, evaluated income trial.







Three distinct AI visualisations · possible designs, not existing facilities.

PLANNING ALLOWANCE INCL. 30%	RANGE INCL. 30%	TIME WINDOW
39 EUR million	26 - 65 EUR million	2027-2035

Confirmed planning allowance; implementation follows technical planning, approvals and financing.

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PROJECT 02 / DECISION FRAMEWORK

Banking access, payments & social dividend

BASE ALLOWANCE	30% ISLAND UPLIFT	PLANNING ALLOWANCE
30 EUR million	+9 EUR million	39 EUR million

SCOPE

60 agent points; a payment platform; initially 5,000 adult beneficiaries in the pilot.

COST BASIS

€30 million for implementation, the agent network, IT and capital/risk buffers; ongoing transfers are excluded.

TECHNOLOGY & SIZING

€50 per month for 5,000 adults costs €3 million annually; a universal model requires permanently secured revenue.

OPERATIONS & ONGOING COSTS

For 367,093 people, €50 monthly would amount to approximately €220.3 million annually before administration; this is not a promised entitlement.

ROLE OF EXTERNAL INVESTORS

Banks and payment providers through short-term transitional contracts; fixed expiry dates, re-tendering and migration to autonomous structures.

PREREQUISITES

Licensed providers, secure settlement and data portability; no automatic renewals or permanent dependence on PNG.

MEASURING SUCCESS

Active low-cost accounts, agent coverage, payment times, fraud losses and independent impact evaluation.

HISTORICAL / LOCAL CONTEXT

Families and remote villages gain access without a smartphone requirement; cash remains available.

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NEXT DUE DILIGENCE TASK

Engage banks and payment providers through short-term transitional assignments. The planning standard is a maximum of twelve months, a fixed calendar expiry date and an orderly migration if full autonomy occurs earlier. Data exports, account transfers and cash availability are prepared from the outset.

REVENUE & FINANCING

Payment operations use affordable fees and transparent settlement. Follow-on services are tendered again; automatic renewals are excluded. Technology and agent networks can receive private co-financing. Social transfers receive a separate public budget.

ANNUAL USE OF FUNDS · RELATIVE PROFILE



Sources: [R01] [R09] [B12] | Independent proposals are explicitly scenarios.
For all contracts: a fixed expiry date, an orderly handover and a new tender.

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PROJECT 03 / INFRASTRUCTURE PROGRAMME

Climate-resilient roads & bridges

Fix drainage, bottlenecks and bridges first; progressively upgrade about 250 km of priority roads and 150 km of rural links.







Three distinct AI visualisations · possible designs, not existing facilities.

PLANNING ALLOWANCE INCL. 30%	RANGE INCL. 30%	TIME WINDOW
520 EUR million	364 - 780 EUR million	2027-2040

Confirmed planning allowance; implementation follows technical planning, approvals and financing.

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Concept development · Planning status 05.11.2026

PROJECT 03 / DECISION FRAMEWORK

Climate-resilient roads & bridges

BASE ALLOWANCE	30% ISLAND UPLIFT	PLANNING ALLOWANCE
400 EUR million	+120 EUR million	520 EUR million

SCOPE

250 km of main and connecting roads, 150 km of rural tracks; bridges selected through a condition inventory.

COST BASIS

€400 million blended allowance for structures, drainage, slope stabilisation and roads; not a flat cost per kilometre.

TECHNOLOGY & SIZING

Development objective: the longest possible repair-free service life. Innovative surfaces, drainage and foundations informed by local pilot comparisons.

OPERATIONS & ONGOING COSTS

An indicative annual maintenance allowance of 2-4% of the road assets' replacement value, subject to verification.

ROLE OF EXTERNAL INVESTORS

Fixed-term EPC and maintenance contracts with condition targets, firm expiry dates and re-tendering.

PREREQUISITES

Rainfall and flood design, soil testing, land agreements and an assessment of alternatives for each corridor.

MEASURING SUCCESS

Repair-free years, damage per kilometre, availability, life-cycle costs and local skilled personnel.

HISTORICAL / LOCAL CONTEXT

Year-round access to schools, clinics and markets takes priority over prestige corridors.

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NEXT DUE DILIGENCE TASK

The road inventory, ground conditions and drainage determine the first pilot sections. Innovative construction methods are developed and compared to achieve the longest possible repair-free service life. Drainage, robust load-bearing structures and controlled construction quality are included in every package; results determine further expansion.

REVENUE & FINANCING

Fixed-term construction and maintenance services receive firm expiry dates and measurable condition targets. New packages are tendered again. Public or development-finance payments support access; repair-free years and life-cycle costs measure the success of innovation.

ANNUAL USE OF FUNDS · RELATIVE PROFILE



Sources: [B01] [B08] | Independent proposals are explicitly scenarios.
For all contracts: a fixed expiry date, an orderly handover and a new tender.

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PROJECT 04 / INFRASTRUCTURE PROGRAMME

Ports, coastal shipping & cold chains

Upgrade existing ports, about twelve resilient jetties and reliable coastal services with cold-chain logistics.







Three distinct AI visualisations · possible designs, not existing facilities.

PLANNING ALLOWANCE INCL. 30%	RANGE INCL. 30%	TIME WINDOW
156 EUR million	104 - 234 EUR million	2027-2037

Confirmed planning allowance; implementation follows technical planning, approvals and financing.

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PROJECT 04 / DECISION FRAMEWORK

Ports, coastal shipping & cold chains

BASE ALLOWANCE	30% ISLAND UPLIFT	PLANNING ALLOWANCE
120 EUR million	+36 EUR million	156 EUR million

SCOPE

Two priority port sites and up to twelve jetties; freight and passenger services based on demand.

COST BASIS

€120 million for phased port and jetty works, navigation, cargo handling and cold chains; fleet size subject to the business case.

TECHNOLOGY & SIZING

Modular facilities; shore power where viable; price climate risks into quay walls and breakwaters.

OPERATIONS & ONGOING COSTS

Dredging and steel corrosion can cause substantial recurring costs; port tariffs require a demand assessment.

ROLE OF EXTERNAL INVESTORS

Port services, terminal operations, cold chains and concession-based ferry connections.

PREREQUISITES

Assess bathymetry, coastal processes, navigation safety, land use and coastal ecology.

MEASURING SUCCESS

Regular services, freight costs, spoilage rates, safe landings and utilisation.

HISTORICAL / LOCAL CONTEXT

The island geography makes affordable sea routes a useful complement to roads.

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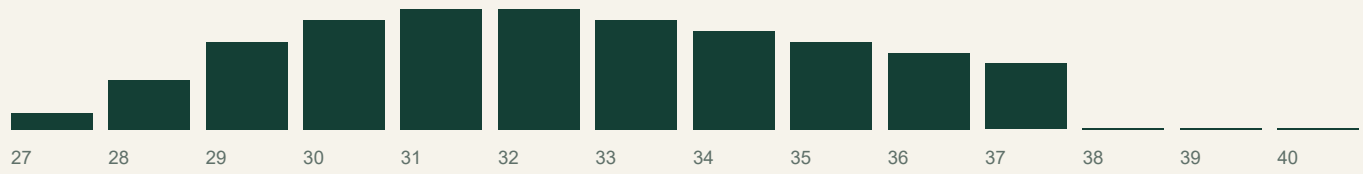
NEXT DUE DILIGENCE TASK

Record freight volumes, cold-chain needs, water depths and current timetables at each location. First identify the bottleneck between producers, storage, quay and vessel. An anchor-customer group and a local community agreement precede technical preliminary design and the decision to build a larger facility.

REVENUE & FINANCING

Revenue can arise from handling, storage, refrigeration and regular freight services. Utilisation commitments must account for seasonal harvests and empty return trips. Safety facilities and public landing places may require grants; commercial concessions need transparent tariffs, access rules and verifiable environmental obligations.

ANNUAL USE OF FUNDS · RELATIVE PROFILE



Sources: [B07] | Independent proposals are explicitly scenarios.
For all contracts: a fixed expiry date, an orderly handover and a new tender.

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PROJECT 05 / INFRASTRUCTURE PROGRAMME

Airports & regional connections

Build on existing works at Buka, Aropa and Buin: runway reliability, safety systems, compact terminals and emergency access.







Three distinct AI visualisations · possible designs, not existing facilities.

PLANNING ALLOWANCE INCL. 30%	RANGE INCL. 30%	TIME WINDOW
143 EUR million	91 - 221 EUR million	2028-2035

Confirmed planning allowance; implementation follows technical planning, approvals and financing.

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PROJECT 05 / DECISION FRAMEWORK

Airports & regional connections

BASE ALLOWANCE	30% ISLAND UPLIFT	PLANNING ALLOWANCE
110 EUR million	+33 EUR million	143 EUR million

SCOPE

Assess three existing sites individually; no new major airport in the baseline scenario.

COST BASIS

€110 million additional programme allowance; reconcile ongoing 2026 Aropa works before procurement to avoid duplicate funding.

TECHNOLOGY & SIZING

Expansion only following an air-traffic forecast; international functions require border and health services.

OPERATIONS & ONGOING COSTS

Regular runway maintenance, navigation, firefighting and staffing are permanent public operating responsibilities.

ROLE OF EXTERNAL INVESTORS

Design, construction, operating equipment, ground handling and aviation services.

PREREQUISITES

ICAO/PNG approvals, obstacle clearance, geotechnical conditions, land rights, staffing and dependable flight demand.

MEASURING SUCCESS

Safety approvals, weather availability, flight frequency, utilisation and access to clinics.

HISTORICAL / LOCAL CONTEXT

Medical access and affordable regional connections come first.

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NEXT DUE DILIGENCE TASK

Assess the condition and certification of existing runways, drainage, navigation and emergency equipment together with authorities and operators. Expansion follows a substantiated traffic forecast. The first assignment may be a safety-critical rehabilitation; larger terminals require confirmed demand and sustainable operating costs.

REVENUE & FINANCING

Fees and commercial space alone often cannot fund an entire expansion when flight volumes are low. Public safety investment and commercial services must be clearly distinguished. Private operators need transparent traffic assumptions; airlines must independently confirm routes, aircraft and service frequency.

ANNUAL USE OF FUNDS · RELATIVE PROFILE



Sources: [B08] [B09] | Independent proposals are explicitly scenarios.
For all contracts: a fixed expiry date, an orderly handover and a new tender.

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PROJECT 06 / INFRASTRUCTURE PROGRAMME

Air rescue, drones & future air taxis

Drones move samples and medicines; certified helicopter and aircraft services provide rescue. Passenger eVTOL remains a later conditional pilot.







Three distinct AI visualisations · possible designs, not existing facilities.

PLANNING ALLOWANCE INCL. 30%	RANGE INCL. 30%	TIME WINDOW
26 EUR million	15.6 - 45.5 EUR million	2027-2034

Confirmed planning allowance; implementation follows technical planning, approvals and financing.

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PROJECT 06 / DECISION FRAMEWORK

Air rescue, drones & future air taxis

BASE ALLOWANCE	30% ISLAND UPLIFT	PLANNING ALLOWANCE
20 EUR million	+6 EUR million	26 EUR million

SCOPE

Two medical air corridors, 8-12 drones, 10 safe landing or handover points and an air-rescue contract.

COST BASIS

€20 million for stations, communications, training and fleet/leasing mobilisation; ongoing flight hours are additional.

TECHNOLOGY & SIZING

Cargo pilots in 2027; certified air rescue in 2028-2030; eVTOL no earlier than 2033 as an option for assessment.

OPERATIONS & ONGOING COSTS

Do not promise autonomous patient transport; flight hours and medical teams require secured annual budgets.

ROLE OF EXTERNAL INVESTORS

Operator contracts with availability payments, drone logistics and local maintenance.

PREREQUISITES

Aviation authority approval, weather limits, dispatch, clinical triage, batteries and safe landing sites.

MEASURING SUCCESS

Time to treatment, successful deliveries, safety incidents and cost per mission.

HISTORICAL / LOCAL CONTEXT

Reach remote communities before the road network is fully developed.

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NEXT DUE DILIGENCE TASK

Clinics first define medical use cases, handover points and dependable emergency notification. A regulator-approved corridor is tested for transporting samples and medicines. Patient flights require licensed operators, available medical teams and procedures for poor weather and alternative transport.

REVENUE & FINANCING

A standby contract with quality and response requirements is more plausible than payment solely per flight. Public health budgets or funding partners must cover availability. A later eVTOL pilot receives its own funding decision only after certification, insurability and operational trials.

ANNUAL USE OF FUNDS · RELATIVE PROFILE



Sources: [B15] [R04] | Independent proposals are explicitly scenarios.
For all contracts: a fixed expiry date, an orderly handover and a new tender.

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PROJECT 07 / INFRASTRUCTURE PROGRAMME

Electrification & renewable microgrids

A phased programme of about 40 MW solar, 100 MWh batteries and priority distribution grids; other sources depend on site studies.







Three distinct AI visualisations · possible designs, not existing facilities.

PLANNING ALLOWANCE INCL. 30%	RANGE INCL. 30%	TIME WINDOW
208 EUR million	143 - 312 EUR million	2027-2038

Confirmed planning allowance; implementation follows technical planning, approvals and financing.

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PROJECT 07 / DECISION FRAMEWORK

Electrification & renewable microgrids

BASE ALLOWANCE	30% ISLAND UPLIFT	PLANNING ALLOWANCE
160 EUR million	+48 EUR million	208 EUR million

SCOPE

40 MWp of solar PV; 100 MWh of storage; connect hospitals, waterworks and businesses first.

COST BASIS

€160 million baseline concept including networks, protection systems and training; the large mine is expressly excluded.

TECHNOLOGY & SIZING

At an 18% PV capacity factor, 40 MW produces approximately 63 GWh annually before losses; this is not a supply guarantee.

OPERATIONS & ONGOING COSTS

Reserve funds for battery replacement; mine electricity requires a separate, substantially larger system and separate financing.

ROLE OF EXTERNAL INVESTORS

Power-purchase agreements, decentralised operating models, grid services and battery maintenance.

PREREQUISITES

Load measurement, network planning, tariffs and ability to pay; spare parts, disposal and backup supply.

MEASURING SUCCESS

Connections, outage hours, renewable share, electricity costs and battery safety.

HISTORICAL / LOCAL CONTEXT

Affordable household electricity and dependable public services establish the demand base.

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NEXT DUE DILIGENCE TASK

Record load profiles for clinics, households and businesses over representative periods. Assess electricity networks, suitable sites and operating arrangements, then tender the first regional module. Measurable connection quality, meters, spare parts and trained staff belong in the initial phase.

REVENUE & FINANCING

Offtake agreements, social tariffs and public connection subsidies must work together. Private investors can fund generation, storage or operations, but need creditworthy buyers and clear rules for payment defaults. Inverter and battery replacement reserves must be funded from actual revenue or budget allocations.

ANNUAL USE OF FUNDS · RELATIVE PROFILE



Sources: [B03] [B04] [B05] [B06] | Independent proposals are explicitly scenarios.
For all contracts: a fixed expiry date, an orderly handover and a new tender.

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PROJECT 08 / INFRASTRUCTURE PROGRAMME

Electric mobility & public transport

Electric minibuses and robust utility vehicles on suitable corridors; workshops and chargers grow with reliable roads and electricity.







Three distinct AI visualisations · possible designs, not existing facilities.

PLANNING ALLOWANCE INCL. 30%	RANGE INCL. 30%	TIME WINDOW
32.5 EUR million	20.8 - 52 EUR million	2028-2037

Confirmed planning allowance; implementation follows technical planning, approvals and financing.

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PROJECT 08 / DECISION FRAMEWORK

Electric mobility & public transport

BASE ALLOWANCE	30% ISLAND UPLIFT	PLANNING ALLOWANCE
25 EUR million	+7.5 EUR million	32.5 EUR million

SCOPE

Indicative scale of 100 buses/minibuses, a phased municipal utility-vehicle fleet and 40 charging points.

COST BASIS

€25 million for vehicles, depot infrastructure and operational start-up; procurement based on demand.

TECHNOLOGY & SIZING

Robust, repairable vehicles and open charging protocols; components suitable for salt and humidity.

OPERATIONS & ONGOING COSTS

Include energy, drivers, tyres, insurance and battery reserves in fare and subsidy models.

ROLE OF EXTERNAL INVESTORS

Fleet leasing, availability models, workshop services and municipal transport contracts.

PREREQUISITES

Road condition, range under load, battery servicing, grid connections and affordable fares.

MEASURING SUCCESS

Passenger numbers, operating cost per kilometre, reliability, road safety and local maintenance staff.

HISTORICAL / LOCAL CONTEXT

Shared transport reduces family costs; no compulsory switch of private vehicles.

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NEXT DUE DILIGENCE TASK

Begin with municipal routes and predictable commercial vehicle schedules. Daily distance, gradients, payload and charging windows determine vehicle and battery size. A depot pilot combines workshop capacity, spare parts, driver training and charging power; utilisation and availability determine the next vehicle series.

REVENUE & FINANCING

Leasing, fleet contracts and public transport service agreements are possible models. Fares, operating subsidies and residual-value risks are assessed separately. Procurement must include workshop capability and battery replacement; a low purchase price alone does not establish affordable operations throughout the vehicle's service life.

ANNUAL USE OF FUNDS · RELATIVE PROFILE



Sources: [B01] | Independent proposals are explicitly scenarios.
For all contracts: a fixed expiry date, an orderly handover and a new tender.

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PROJECT 09 / INFRASTRUCTURE PROGRAMME

Safe water, sanitation & hygiene

Protect water sources, harvest rainfall and provide treatment and decentralised sanitation suited to each settlement.







Three distinct AI visualisations · possible designs, not existing facilities.

PLANNING ALLOWANCE INCL. 30%	RANGE INCL. 30%	TIME WINDOW
130 EUR million	91 - 208 EUR million	2027-2038

Confirmed planning allowance; implementation follows technical planning, approvals and financing.

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PROJECT 09 / DECISION FRAMEWORK

Safe water, sanitation & hygiene

BASE ALLOWANCE	30% ISLAND UPLIFT	PLANNING ALLOWANCE
100 EUR million	+30 EUR million	130 EUR million

SCOPE

A programme directly serving approximately 100,000 people in its first expansion stages; school and clinic WASH.

COST BASIS

€100 million for phased facilities, distribution, laboratory and hygiene systems and delivery in difficult locations.

TECHNOLOGY & SIZING

Prioritise easily maintained equipment over complex central facilities; emergency water access during ashfall and storms.

OPERATIONS & ONGOING COSTS

Chemicals, filter replacement, electricity, sampling and technician visits require annual funding.

ROLE OF EXTERNAL INVESTORS

Construction and operating contracts, pump/filter servicing and local maintenance groups; socially differentiated charges.

PREREQUISITES

Water testing, ownership and use rights, flood levels and funded maintenance.

MEASURING SUCCESS

Microbiological quality, functioning connections, disease burden and operational availability.

HISTORICAL / LOCAL CONTEXT

Health begins with clean water; local water groups receive responsibility and training.

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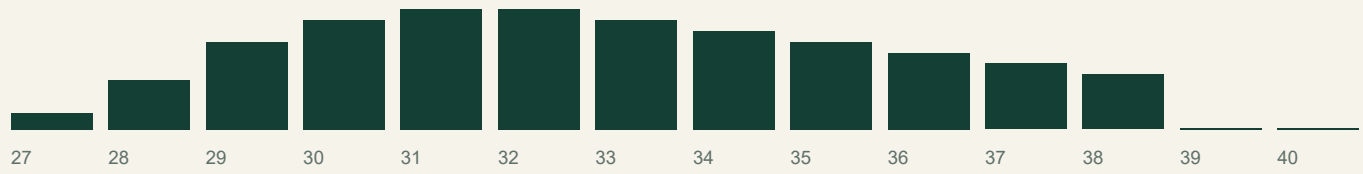
NEXT DUE DILIGENCE TASK

Map local water quality, seasonal availability, source rights and existing systems. Each catchment receives the simplest solution that can be operated sustainably. The first contract combines construction with hygiene, operator training, sampling and a publicly understandable incident procedure.

REVENUE & FINANCING

Water charges must account for basic service provision and affordability. Grants can cover high connection costs; ongoing operations require their own funding. External firms can supply, build and maintain systems. Payments should reward functionality, water quality and operational handover, rather than merely the number of pumps installed.

ANNUAL USE OF FUNDS · RELATIVE PROFILE



Sources: [B10] [B11] | Independent proposals are explicitly scenarios.
For all contracts: a fixed expiry date, an orderly handover and a new tender.

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PROJECT 10 / INFRASTRUCTURE PROGRAMME

Fibre, connectivity & digital inclusion

Inventory existing links; add redundant backhaul, regional fibre and wireless coverage for villages, schools and clinics.







Three distinct AI visualisations · possible designs, not existing facilities.

PLANNING ALLOWANCE INCL. 30%	RANGE INCL. 30%	TIME WINDOW
78 EUR million	52 - 130 EUR million	2027-2034

Confirmed planning allowance; implementation follows technical planning, approvals and financing.

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PROJECT 10 / DECISION FRAMEWORK

Fibre, connectivity & digital inclusion

BASE ALLOWANCE	30% ISLAND UPLIFT	PLANNING ALLOWANCE
60 EUR million	+18 EUR million	78 EUR million

SCOPE

Three regional network nodes; priority public facilities; assess a second independent international route.

COST BASIS

€60 million concept allowance for terrestrial networks and backhaul; a new submarine cable only after a study.

TECHNOLOGY & SIZING

Satellite can temporarily close gaps; account for latency, capacity and recurring costs.

OPERATIONS & ONGOING COSTS

International capacity and maintenance create permanent operating costs; do not assume free connectivity.

ROLE OF EXTERNAL INVESTORS

Carrier contracts, open network access, wireless/fibre operation and affordable retail services.

PREREQUISITES

Assess existing capacity, rights of way, spectrum licences, submarine cable routing and connection charges.

MEASURING SUCCESS

Availability, price per GB, connection quality, redundant routes and health-centre coverage.

HISTORICAL / LOCAL CONTEXT

Digital services remain usable offline; provide for training and access to devices.

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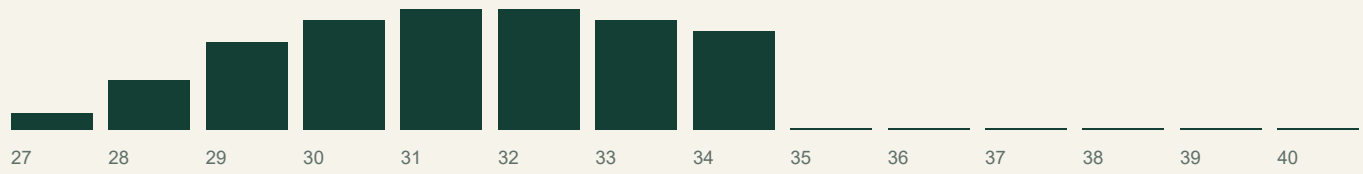
NEXT DUE DILIGENCE TASK

Inventory existing cables, available capacity, prices and actual outages. Clinics, schools and authorities establish an initial combined demand profile. The technically independent second connection is assessed against existing networks, radio and satellite options for availability and total cost.

REVENUE & FINANCING

Anchor-customer contracts can support the first expansion phase. Open network access and transparent wholesale prices encourage additional providers. Public support can enable remote connections; international capacity leases and maintenance must be included in the calculation for the entire contract term.

ANNUAL USE OF FUNDS · RELATIVE PROFILE



Sources: [B16] | Independent proposals are explicitly scenarios.
For all contracts: a fixed expiry date, an orderly handover and a new tender.

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PROJECT 11 / INFRASTRUCTURE PROGRAMME

Modular island data centre

Modular secure data infrastructure for island services, telephony, central-bank systems, government and logistics. Separate from international campus P25.







Three distinct AI visualisations · possible designs, not existing facilities.

PLANNING ALLOWANCE INCL. 30%	RANGE INCL. 30%	TIME WINDOW
65 EUR million	39 - 117 EUR million	2027-2034

Confirmed planning allowance; implementation follows technical planning, approvals and financing.

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PROJECT 11 / DECISION FRAMEWORK

Modular island data centre

BASE ALLOWANCE	30% ISLAND UPLIFT	PLANNING ALLOWANCE
50 EUR million	+15 EUR million	65 EUR million

SCOPE

Initial target of 0.5-1 MW IT, expandable with local demand. Early services from 2029 as a planning target.

COST BASIS

€50 million for phased data-centre infrastructure; customer-owned servers and major expansion only as contractually defined.

TECHNOLOGY & SIZING

0.5-1 MW IT at target PUE 1.4: approximately 6.1-12.3 GWh/year at full load. Validate tropical PUE; expand only after demand assessment.

OPERATIONS & ONGOING COSTS

1 MW IT at a PUE of 1.4 requires approximately 12.3 GWh annually; a dedicated energy plan is needed.

ROLE OF EXTERNAL INVESTORS

Fixed-term operation for government, telephony, central-bank systems and logistics; colocation and disaster recovery.

PREREQUISITES

Pre-leasing, electricity prices, two physically separate fibre routes, skilled staff and data law.

MEASURING SUCCESS

Contracted kW, utilisation, PUE, availability, security and local apprenticeships.

HISTORICAL / LOCAL CONTEXT

Essential services and local data control first. P11 remains a separate island node alongside international campus P25.

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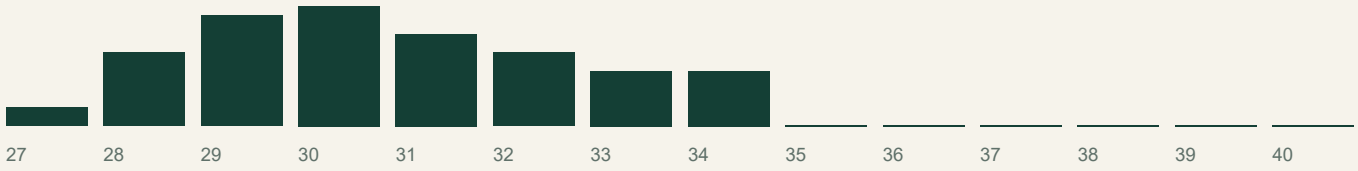
NEXT DUE DILIGENCE TASK

Establish local demand from telephony, government, central-bank systems and logistics. Target planning in 2027, construction in 2028 and initial services in 2029. Demonstrate dual network routes, secure power, data protection and a local operating team before commissioning.

REVENUE & FINANCING

The island node remains a separate EUR 65m project. Fixed-term service agreements, colocation and disaster recovery fund operations. P25 adds international capacity; facilities and customer revenues must not be counted twice.

ANNUAL USE OF FUNDS · RELATIVE PROFILE



Sources: [B17] [B18] | Independent proposals are explicitly scenarios.
For all contracts: a fixed expiry date, an orderly handover and a new tender.

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PROJECT 12 / INFRASTRUCTURE PROGRAMME

Regional hospital, robotics & telemedicine

A regional referral hospital of about 100 beds, diagnostics, maternal care, emergency services and later robotic surgical assistance.







Three distinct AI visualisations · possible designs, not existing facilities.

PLANNING ALLOWANCE INCL. 30%	RANGE INCL. 30%	TIME WINDOW
117 EUR million	78 - 182 EUR million	2028-2035

Confirmed planning allowance; implementation follows technical planning, approvals and financing.

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PROJECT 12 / DECISION FRAMEWORK

Regional hospital, robotics & telemedicine

BASE ALLOWANCE	30% ISLAND UPLIFT	PLANNING ALLOWANCE
90 EUR million	+27 EUR million	117 EUR million

SCOPE

Approximately 100 beds as a planning scale, operating theatres, imaging, laboratory and telemedicine; assess existing capacity first.

COST BASIS

€90 million for buildings, medical equipment, digital integration and commissioning; staffing and operations are additional.

TECHNOLOGY & SIZING

Robotics provides assistance under medical responsibility; no autonomous clinic or unsecured remote surgery.

OPERATIONS & ONGOING COSTS

Planning indication: annual operation can reach 8-15% of the initial investment; model this in detail before financing.

ROLE OF EXTERNAL INVESTORS

Design/construction, equipment leasing, training and maintenance contracts; licensed professionals retain clinical responsibility.

PREREQUISITES

Catchment area, disease burden, specialist staff, sterile supplies, water, electricity and clinical approval.

MEASURING SUCCESS

Access, safe births, waiting times, infections, utilisation and staff retention.

HISTORICAL / LOCAL CONTEXT

Primary care and maternal and child health take priority over costly prestige procedures.

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NEXT DUE DILIGENCE TASK

Healthcare needs, referral pathways and available staff shape hospital planning. First strengthen core services, diagnostics and secure telecommunications. Robotics is introduced only for defined clinical applications where training, maintenance, consumables and professional responsibility are organised for the long term.

REVENUE & FINANCING

Public funding is likely to cover a substantial share of basic healthcare. Private partnerships can cover construction, equipment, diagnostics or maintenance. Remuneration should support quality and availability; the model must not depend on medically unnecessary increases in activity or unconfirmed international patient demand.

ANNUAL USE OF FUNDS · RELATIVE PROFILE



Sources: [B13] [B14] | Independent proposals are explicitly scenarios.
For all contracts: a fixed expiry date, an orderly handover and a new tender.

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PROJECT 13 / INFRASTRUCTURE PROGRAMME

Community clinics & outreach care

Upgrade about 30 health centres with telemedicine, solar power, water, cold chains and outreach teams.







Three distinct AI visualisations · possible designs, not existing facilities.

PLANNING ALLOWANCE INCL. 30%	RANGE INCL. 30%	TIME WINDOW
65 EUR million	41.6 - 104 EUR million	2027-2036

Confirmed planning allowance; implementation follows technical planning, approvals and financing.

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Concept development · Planning status 05.11.2026

PROJECT 13 / DECISION FRAMEWORK

Community clinics & outreach care

BASE ALLOWANCE	30% ISLAND UPLIFT	PLANNING ALLOWANCE
50 EUR million	+15 EUR million	65 EUR million

SCOPE

30 centres, mobile teams and regional transport/referral chains; a needs assessment determines locations.

COST BASIS

€50 million for refurbishment, equipment, connectivity and initial training; no duplicate funding of backbone networks.

TECHNOLOGY & SIZING

Telemedicine complements local professionals; offline-capable patient records and language support.

OPERATIONS & ONGOING COSTS

Secure long-term staffing and medicine budgets with health authorities and donors.

ROLE OF EXTERNAL INVESTORS

Construction and equipment packages, medical supply chains, telemedicine operation and continuing training.

PREREQUISITES

Existing health network, nursing and midwifery staff, medicine supply and data protection.

MEASURING SUCCESS

Vaccination coverage, referral times, maternal and child outcomes, medicine availability and functioning centres.

HISTORICAL / LOCAL CONTEXT

Distribution follows where people actually live and their needs, rather than cities alone.

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NEXT DUE DILIGENCE TASK

Assess catchment areas and current treatment pathways together with communities and healthcare professionals. The first centres combine maternal and child care, prevention, basic diagnostics and mobile teams. Expansion proceeds only when staff, medicines, cold chains and links to the referral hospital demonstrably work.

REVENUE & FINANCING

Service contracts and public health funding are the natural foundation. External investors can provide equipment, modular buildings, logistics and maintenance. Payments are linked to available services and verified quality. Recurring staffing and medicine needs require a separate annual budget.

ANNUAL USE OF FUNDS · RELATIVE PROFILE



Sources: [B14] [B02] | Independent proposals are explicitly scenarios.
For all contracts: a fixed expiry date, an orderly handover and a new tender.

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PROJECT 14 / INFRASTRUCTURE PROGRAMME

Circular economy & safe waste management

100 percent recycling as a development objective: closed material loops through collection, reuse, repair and innovative recovery.







Three distinct AI visualisations · possible designs, not existing facilities.

PLANNING ALLOWANCE INCL. 30%	RANGE INCL. 30%	TIME WINDOW
58.5 EUR million	39 - 97.5 EUR million	2027-2037

Confirmed planning allowance; implementation follows technical planning, approvals and financing.

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PROJECT 14 / DECISION FRAMEWORK

Circular economy & safe waste management

BASE ALLOWANCE	30% ISLAND UPLIFT	PLANNING ALLOWANCE
45 EUR million	+13.5 EUR million	58.5 EUR million

SCOPE

Three regional hubs and village collection points; modular capacity up to approximately 120 tonnes/day only after waste measurement.

COST BASIS

€45 million for collection, sorting, composting, a safe residual-waste area and hazardous-waste logistics.

TECHNOLOGY & SIZING

Material-flow accounts, segregated collection and qualified recovery; pilot processes close remaining gaps in circularity.

OPERATIONS & ONGOING COSTS

Material sales usually cannot cover disposal alone; fee or producer funding is required.

ROLE OF EXTERNAL INVESTORS

Service contracts, take-back schemes, repair workshops and secured offtake for secondary materials.

PREREQUISITES

Waste characterisation, export permits, material quality, disposal sites and medical waste.

MEASURING SUCCESS

Recorded material flows, reuse and recycling rates; measurable annual progress towards the 100-percent objective.

HISTORICAL / LOCAL CONTEXT

Use organic waste locally; prioritise clean coasts and reliable collection.

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NEXT DUE DILIGENCE TASK

First measure material flows and assign a circular pathway to each material. Pilots combine reuse, sorting and new recovery processes. The development objective is 100 percent recycling; annual interim targets and research assignments close the remaining gaps.

REVENUE & FINANCING

Fixed-term recovery and offtake contracts, producer responsibility and material revenue form the model. Fees fund public services. Revenue follows the quantities actually recovered; further progress towards 100 percent is supported through separate innovation budgets.

ANNUAL USE OF FUNDS · RELATIVE PROFILE



Sources: [B11] | Independent proposals are explicitly scenarios.
For all contracts: a fixed expiry date, an orderly handover and a new tender.

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PROJECT 15 / INFRASTRUCTURE PROGRAMME

Homes rooted in family & tradition

Improve or sensitively add about 5,000 homes: naturally ventilated designs, communal spaces, water, sanitation and storm resilience.







Three distinct AI visualisations · possible designs, not existing facilities.

PLANNING ALLOWANCE INCL. 30%	RANGE INCL. 30%	TIME WINDOW
195 EUR million	130 - 299 EUR million	2028-2040

Confirmed planning allowance; implementation follows technical planning, approvals and financing.

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PROJECT 15 / DECISION FRAMEWORK

Homes rooted in family & tradition

BASE ALLOWANCE	30% ISLAND UPLIFT	PLANNING ALLOWANCE
150 EUR million	+45 EUR million	195 EUR million

SCOPE

5,000 house and family-compound upgrades as the programme scale; no standardised imported urban model.

COST BASIS

€150 million equals an average of €30,000 per unit before the island allowance; disclose the mix of repairs and new construction.

TECHNOLOGY & SIZING

Earthquake/wind detailing and rainwater management modernise safety while preserving cultural identity.

OPERATIONS & ONGOING COSTS

Maintenance training and repair funds; no large-scale relocation without voluntary, lawful procedures.

ROLE OF EXTERNAL INVESTORS

Local building cooperatives, material supply and rental/ownership models on legally secured land.

PREREQUISITES

Design with families and clans; land rights, structural integrity, fire safety, timber origin and affordability.

MEASURING SUCCESS

Safe homes, household costs, thermal comfort, local value creation and resident satisfaction.

HISTORICAL / LOCAL CONTEXT

Traditional building practices and family celebrations remain part of everyday life; women and elders help shape the designs.

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NEXT DUE DILIGENCE TASK

Families and landholding communities determine layout, shared spaces and expandability. Demonstration homes test ventilation, moisture performance, storm and earthquake protection, and local materials. Servicing, land use and affordable repairs are planned together; designs remain adaptable to different local ways of life.

REVENUE & FINANCING

Possible models combine self-help contributions, materials credit, cooperatives and targeted grants. Private suppliers can provide components, site servicing and craft training. Affordability and secure use rights determine expansion; standardised imported settlement types or speculative land proceeds are not assumed.

ANNUAL USE OF FUNDS · RELATIVE PROFILE



Sources: [B21] | Independent proposals are explicitly scenarios.
For all contracts: a fixed expiry date, an orderly handover and a new tender.

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PROJECT 16 / INFRASTRUCTURE PROGRAMME

Education, skills & research

Improve schools and teacher support; establish three regional skills hubs for construction, energy, care, IT, tourism and the environment.







Three distinct AI visualisations · possible designs, not existing facilities.

PLANNING ALLOWANCE INCL. 30%	RANGE INCL. 30%	TIME WINDOW
91 EUR million	58.5 - 143 EUR million	2027-2038

Confirmed planning allowance; implementation follows technical planning, approvals and financing.

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PROJECT 16 / DECISION FRAMEWORK

Education, skills & research

BASE ALLOWANCE	30% ISLAND UPLIFT	PLANNING ALLOWANCE
70 EUR million	+21 EUR million	91 EUR million

SCOPE

Three vocational training centres, priority school refurbishments and apprenticeships in all major projects.

COST BASIS

€70 million for buildings, workshops, learning materials, digital equipment and training start-up.

TECHNOLOGY & SIZING

Skills first: training starts before major construction contracts; evaluate training commitments in procurement.

OPERATIONS & ONGOING COSTS

Teacher salaries and learning materials remain recurring expenses; target scholarships transparently.

ROLE OF EXTERNAL INVESTORS

Education partnerships, training contracts, instructor qualifications and practical apprenticeships.

PREREQUISITES

Educational needs, qualification recognition, teachers, child and youth protection and recurring budgets.

MEASURING SUCCESS

Qualifications completed, employment, women's participation, local skilled workers and workplace apprenticeships.

HISTORICAL / LOCAL CONTEXT

Local languages and knowledge complement technical skills; avoid an entirely imported workforce.

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NEXT DUE DILIGENCE TASK

Businesses and communities prioritise specific skills for construction, energy, water, healthcare and digital services. An initial training programme combines workshop practice, workplace placements and recognised qualifications. Instructors, equipment and sustainably funded teaching time must be secured before facilities expand.

REVENUE & FINANCING

Public education budgets, training contributions and contractual employer partnerships can work together. External partners provide teaching materials, equipment or specialist training. Success is measured by completion, employment and locally available expertise; high fees must not restrict access to a small number of households.

ANNUAL USE OF FUNDS · RELATIVE PROFILE



Sources: [B02] | Independent proposals are explicitly scenarios.
For all contracts: a fixed expiry date, an orderly handover and a new tender.

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PROJECT 17 / INFRASTRUCTURE PROGRAMME

Cocoa, agriculture & sustainable fisheries

Build on existing strengths: cocoa quality and fermentation, storage, local food processing, cold chains and managed fisheries.







Three distinct AI visualisations · possible designs, not existing facilities.

PLANNING ALLOWANCE INCL. 30%	RANGE INCL. 30%	TIME WINDOW
84.5 EUR million	52 - 136.5 EUR million	2027-2038

Confirmed planning allowance; implementation follows technical planning, approvals and financing.

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PROJECT 17 / DECISION FRAMEWORK

Cocoa, agriculture & sustainable fisheries

BASE ALLOWANCE	30% ISLAND UPLIFT	PLANNING ALLOWANCE
65 EUR million	+19.5 EUR million	84.5 EUR million

SCOPE

Regional processing and collection points, cooperatives, quality laboratories and small cold chains.

COST BASIS

€65 million for numerous smaller productive packages, initial working capital and quality infrastructure.

TECHNOLOGY & SIZING

Traceability and renewable process energy; no blanket expansion of plantations.

OPERATIONS & ONGOING COSTS

Climate risks, price cycles and working capital constrain returns; assess offtake and insurance solutions.

ROLE OF EXTERNAL INVESTORS

Offtake agreements, cooperative capital, processing, refrigeration and export logistics.

PREREQUISITES

Soil and marine ecology, food standards, export markets, ownership rights and sustainable catch limits.

MEASURING SUCCESS

Producer earnings, quality, spoilage, local nutrition and stable fish stocks.

HISTORICAL / LOCAL CONTEXT

Widely distributed income outside the mine strengthens peace and food security.

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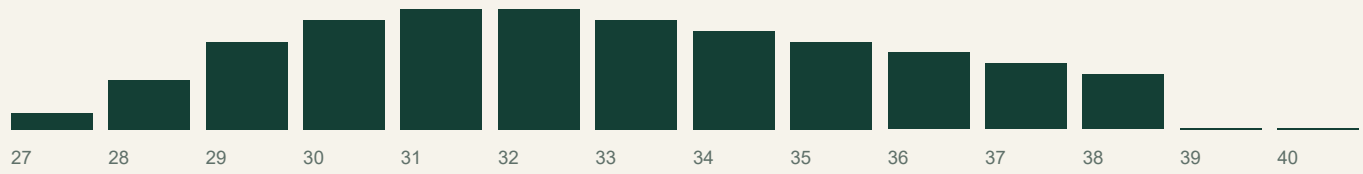
NEXT DUE DILIGENCE TASK

Producers identify bottlenecks in quality, drying, storage, refrigeration and market access. Small processing lines are tested with dependable offtake conditions. Agricultural diversity and fish stocks are considered; greater exports must not undermine food security, soil fertility or use rights.

REVENUE & FINANCING

Cooperative equity participation, offtake agreements and working-capital finance are suitable starting points. Investors need transparent quantities, quality standards and seasonal liquidity. Processing and logistics margins must be agreed transparently; multiple buyers and reserves limit price risks and harvest losses.

ANNUAL USE OF FUNDS · RELATIVE PROFILE



Sources: [B19] | Independent proposals are explicitly scenarios.
For all contracts: a fixed expiry date, an orderly handover and a new tender.

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PROJECT 18 / INFRASTRUCTURE PROGRAMME

Nature, watersheds & coastal resilience

Community-led forest, mangrove and watershed protection, hazard mapping, early warning and nature-based coastal resilience.







Three distinct AI visualisations · possible designs, not existing facilities.

PLANNING ALLOWANCE INCL. 30%	RANGE INCL. 30%	TIME WINDOW
78 EUR million	52 - 130 EUR million	2027-2040

Confirmed planning allowance; implementation follows technical planning, approvals and financing.

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PROJECT 18 / DECISION FRAMEWORK

Nature, watersheds & coastal resilience

BASE ALLOWANCE	30% ISLAND UPLIFT	PLANNING ALLOWANCE
60 EUR million	+18 EUR million	78 EUR million

SCOPE

Define protection and restoration areas only after participatory mapping; three regional environment and hazard nodes.

COST BASIS

€60 million for mapping, restoration, conservation agreements, monitoring and local implementation.

TECHNOLOGY & SIZING

Plant mangroves only at suitable sites; no monocultures as a substitute for natural forests.

OPERATIONS & ONGOING COSTS

Permanent ranger and monitoring budgets; climate credits only with recognised verification and legal review.

ROLE OF EXTERNAL INVESTORS

Conservation funds, scientific services and verified outcome contracts; no assumed future carbon revenues.

PREREQUISITES

Land and use rights, a biodiversity baseline, permanence and additional measurable conservation benefits.

MEASURING SUCCESS

Independently measure water quality, habitat quality, restored areas and avoided damage.

HISTORICAL / LOCAL CONTEXT

Nature sustains livelihoods and culture; benefits must remain in communities.

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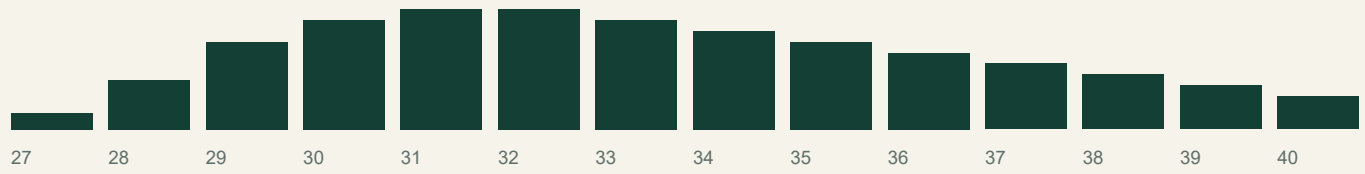
NEXT DUE DILIGENCE TASK

Communities identify areas for protection and existing uses. Ecological surveys and use agreements determine conservation and restoration measures. Visitor numbers, monitoring and local employment develop in stages; sensitive habitats receive clear limits on pressure.

REVENUE & FINANCING

Long-term conservation funding, public resources, research and limited visitor revenue can be combined. Payments for ecosystem services require verifiable rights and outcomes. Carbon or biodiversity credits are assumed neither as secured revenue nor as a replacement for effective local conservation.

ANNUAL USE OF FUNDS · RELATIVE PROFILE



Sources: [B02] [S05] [S06] | Independent proposals are explicitly scenarios.
For all contracts: a fixed expiry date, an orderly handover and a new tender.

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PROJECT 19 / INFRASTRUCTURE PROGRAMME

Nature resort & medical wellness

A small high-quality 80-120-key resort with landscape-sensitive buildings and clearly bounded medical wellness services.







Three distinct AI visualisations · possible designs, not existing facilities.

PLANNING ALLOWANCE INCL. 30%	RANGE INCL. 30%	TIME WINDOW
117 EUR million	71.5 - 195 EUR million	2030-2038

Confirmed planning allowance; implementation follows technical planning, approvals and financing.

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PROJECT 19 / DECISION FRAMEWORK

Nature resort & medical wellness

BASE ALLOWANCE	30% ISLAND UPLIFT	PLANNING ALLOWANCE
90 EUR million	+27 EUR million	117 EUR million

SCOPE

80-120 units in phases; staff accommodation, water and wastewater systems and healthcare cooperation.

COST BASIS

€90 million development allowance for a remote premium location; actual room costs depend on architecture and logistics.

TECHNOLOGY & SIZING

No promises of cures; medical services only with licensed personnel and emergency referral arrangements.

OPERATIONS & ONGOING COSTS

No guaranteed returns; test sensitivity to occupancy, prices, flight costs and storms.

ROLE OF EXTERNAL INVESTORS

Hotel operation, long-term lease/equity models, nature tourism and qualified wellness services.

PREREQUISITES

Air and sea access, demand, a land agreement, ecosystem carrying capacity and health law.

MEASURING SUCCESS

Occupancy, seasonality, local employment, water and energy requirements and community revenue.

HISTORICAL / LOCAL CONTEXT

Communities design cultural experiences themselves and are paid for them.

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NEXT DUE DILIGENCE TASK

Accessibility, water balance, wastewater, coastal protection and local consent determine the site. An independent market study assesses target groups and actual visitor spending. Begin with a small unit that can deliver high-quality operations; medical services require separate professional and legal arrangements.

REVENUE & FINANCING

Room and service revenue must cover seasonality, occupancy and staffing costs. Private investors can undertake development and operations; landholding communities need fair, contractually secured participation. An international hotel operator or medical referral partner is treated as a project partner only after a contract is signed.

ANNUAL USE OF FUNDS · RELATIVE PROFILE



Sources: [B20] [B22] | Independent proposals are explicitly scenarios.
For all contracts: a fixed expiry date, an orderly handover and a new tender.

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PROJECT 20 / INFRASTRUCTURE PROGRAMME

Local materials, workshops & repair

Workshops, quality assurance, small-scale prefabrication and repair networks for vehicles, solar equipment, pumps and construction.







Three distinct AI visualisations · possible designs, not existing facilities.

PLANNING ALLOWANCE INCL. 30%	RANGE INCL. 30%	TIME WINDOW
52 EUR million	32.5 - 84.5 EUR million	2028-2038

Confirmed planning allowance; implementation follows technical planning, approvals and financing.

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PROJECT 20 / DECISION FRAMEWORK

Local materials, workshops & repair

BASE ALLOWANCE	30% ISLAND UPLIFT	PLANNING ALLOWANCE
40 EUR million	+12 EUR million	52 EUR million

SCOPE

Three regional workshop and production sites plus local craft businesses.

COST BASIS

€40 million for facilities, testing equipment, storage, training and small-scale industrial infrastructure.

TECHNOLOGY & SIZING

Circular material use only under testing standards; specify resistance to corrosion and moisture.

OPERATIONS & ONGOING COSTS

An order pipeline and inventory financing are needed; no large heavy industry without sufficient demand.

ROLE OF EXTERNAL INVESTORS

SME equity investments, material-supply contracts, repair services and prefabrication.

PREREQUISITES

Demand from the construction programme, environmental permits, material testing and energy supply.

MEASURING SUCCESS

Local supply share, spare-parts availability, quality, accident rates and skilled jobs.

HISTORICAL / LOCAL CONTEXT

Local value creation and repair capability reduce import dependence.

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NEXT DUE DILIGENCE TASK

Combine material flows and recurring repair needs across the construction, energy and transport programme. An initial workshop tests the quality of local components and offers documented repair services. Machinery and inventories grow with actual orders; training and occupational safety are developed at the same time.

REVENUE & FINANCING

Framework agreements, spare-parts sales and skilled trade services can generate revenue. Small businesses and cooperatives offer natural investment opportunities. Public procurement should provide suitable package sizes and timely payment; a large machinery fleet without secured orders ties up capital unnecessarily.

ANNUAL USE OF FUNDS · RELATIVE PROFILE



Sources: [B01] [B02] | Independent proposals are explicitly scenarios.
For all contracts: a fixed expiry date, an orderly handover and a new tender.

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PROJECT 21 / INFRASTRUCTURE PROGRAMME

Commodity trade, custody & tokenisation

Auditable trading and custody arrangements with optional Swiss, Canadian, Singaporean and New Zealand nodes; tokens require enforceable rights.







Three distinct AI visualisations · possible designs, not existing facilities.

PLANNING ALLOWANCE INCL. 30%	RANGE INCL. 30%	TIME WINDOW
19.5 EUR million	10.4 - 39 EUR million	2029-2036

Confirmed planning allowance; implementation follows technical planning, approvals and financing.

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PROJECT 21 / DECISION FRAMEWORK

Commodity trade, custody & tokenisation

BASE ALLOWANCE	30% ISLAND UPLIFT	PLANNING ALLOWANCE
15 EUR million	+4.5 EUR million	19.5 EUR million

SCOPE

A trading and compliance platform; storage and inspection contracts; a pilot with clearly allocated physical inventory.

COST BASIS

€15 million for legal and control structures, IT, audits and start-up; commodity inventories, margins and trading capital are excluded.

TECHNOLOGY & SIZING

No confirmed partner countries or depots; the locations are options within this concept.

OPERATIONS & ONGOING COSTS

Liquidity, price and currency risks, insurance and storage require additional working capital.

ROLE OF EXTERNAL INVESTORS

Licensed trading, storage, insurance, inspection and technology providers in clearly separated roles.

PREREQUISITES

Legal opinions in each country, export law, AML/sanctions, taxes, securities/derivative classification and insolvency protection.

MEASURING SUCCESS

Independent inventory reconciliation, proof of ownership, redeemability, insurance and published fees.

HISTORICAL / LOCAL CONTEXT

Make export values and ownership rights transparent; do not equate a token with stored physical goods.

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NEXT DUE DILIGENCE TASK

First assess a clearly defined trading and custody use case from legal and technical perspectives. Ownership, origin, quality, insurance and delivery of the physical material must be demonstrable. A digital registry pilot can begin without a public token sale; the cross-border structure follows specialist legal assessments.

REVENUE & FINANCING

Trading, inspection and custody fees can support business models. Tokens are not additional raw materials or an automatic route to finance. Switzerland, Canada, Singapore and New Zealand have separate supervisory requirements; committed partners, bank accounts and any required licences must be established before market launch.

ANNUAL USE OF FUNDS · RELATIVE PROFILE



Sources: [R01] [R05] [R06] [R07] [R08] | Independent proposals are explicitly scenarios.
For all contracts: a fixed expiry date, an orderly handover and a new tender.

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PROJECT 22 / INFRASTRUCTURE PROGRAMME

Panguna: legacy, water & feasibility

Baseline studies, safeguards, water and soil monitoring, and feasibility under Girasol International AG's project leadership, with affected communities.







Three distinct AI visualisations · possible designs, not existing facilities.

PLANNING ALLOWANCE INCL. 30%	RANGE INCL. 30%	TIME WINDOW
130 EUR million	78 - 260 EUR million	2027-2034

Confirmed planning allowance; implementation follows technical planning, approvals and financing.

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PROJECT 22 / DECISION FRAMEWORK

Panguna: legacy, water & feasibility

BASE ALLOWANCE	30% ISLAND UPLIFT	PLANNING ALLOWANCE
100 EUR million	+30 EUR million	130 EUR million

SCOPE

A multiyear investigation and protection programme; the extent of historical remediation can be established only after a damage inventory.

COST BASIS

€100 million provisional allowance, not an estimate of total legacy liability; that liability could be substantially higher.

TECHNOLOGY & SIZING

Updated resource studies and water and soil analyses provide the technical basis for further planning.

OPERATIONS & ONGOING COSTS

Long-term water treatment and liability provisions may remain necessary beyond 2040.

ROLE OF EXTERNAL INVESTORS

Engineering, environmental, laboratory and remediation services; all Panguna contracts exclusively with Girasol International AG.

PREREQUISITES

Specify liability allocation, land agreements, safety, access and safeguards within Girasol International AG's project.

MEASURING SUCCESS

Public water and soil data, agreed protective measures, complaint handling and verified studies.

HISTORICAL / LOCAL CONTEXT

The mine's historical impacts make trust and remedy prerequisites.

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NEXT DUE DILIGENCE TASK

Girasol International AG coordinates the hazard inventory, communities, and water and soil investigations. Safeguards, complaints procedures and progress measurement are organised jointly. Implementation contracts specify the allocation of historical liabilities and new operator obligations.

REVENUE & FINANCING

Investigation, safeguarding and monitoring are commissioned exclusively through contracts with Girasol International AG. Scope, financing, liability, expiry date and handover are defined for each package. Long-term aftercare receives its own organisational and financial provision.

ANNUAL USE OF FUNDS · RELATIVE PROFILE



Sources: [S15] [S19] | Independent proposals are explicitly scenarios.
For all contracts: a fixed expiry date, an orderly handover and a new tender.

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PROJECT 23 / GIRASOL INTERNATIONAL AG

Panguna: development of the copper-gold mine

Girasol International AG develops Panguna as the sole contractual holder of mining rights. All contracts for the mine are concluded exclusively with the company.







Three distinct AI visualisations · possible designs, not existing facilities.

PLANNING ALLOWANCE INCL. 30%	RANGE INCL. 30%	TIME WINDOW
6,500 EUR million	4,550 - 9,750 EUR million	2032-2040

Confirmed planning allowance; implementation follows technical planning, approvals and financing.

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PROJECT 23 / DECISION FRAMEWORK

Panguna: development of the copper-gold mine

BASE ALLOWANCE	30% ISLAND UPLIFT	PLANNING ALLOWANCE
5,000 EUR million	+1,500 EUR million	6,500 EUR million

SCOPE

Processing plant, water and residue management, energy and logistics; production capacity determined by updated technical planning.

COST BASIS

EUR 5.0 billion base plus 30% = EUR 6.5 billion. Confirmed by the client; part of the overall investment plan.

TECHNOLOGY & SIZING

Objective of pollution-free extraction: electrified processes, recirculating water and secure residues with measurable emission minimisation.

OPERATIONS & ONGOING COSTS

A remediation guarantee, aftercare fund, metal-price/FX sensitivity analysis and separate large-scale power supply are essential.

ROLE OF EXTERNAL INVESTORS

Financing, equity, EPC, operations and offtake exclusively through contracts with Girasol International AG.

PREREQUISITES

Technical planning, environmental and construction approvals, local agreements, operating arrangements and financing aligned with project milestones.

MEASURING SUCCESS

Independent resource and reserve verification, funded environmental obligations, safety, water quality and local participation.

HISTORICAL / LOCAL CONTEXT

Girasol International AG leads development; local benefits, nature conservation and long-term aftercare are project objectives.

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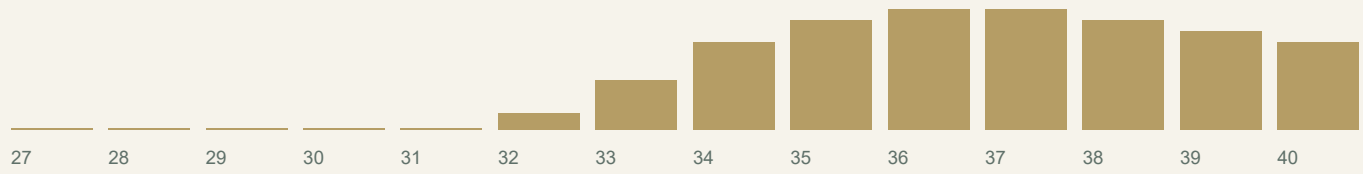
NEXT DUE DILIGENCE TASK

Girasol International AG brings together the resource study, feasibility work, environmental and social planning, and energy, water and residue-management concepts. Technical development implements the existing exclusive mining rights. Construction and commissioning follow agreed milestones.

REVENUE & FINANCING

The confirmed planning value is EUR 6,500 million, including 30 percent. Financing, equity, EPC, operations and offtake are agreed exclusively with Girasol International AG. Every contract receives an expiry date and a defined re-tendering procedure; environmental and aftercare budgets remain separately visible.

ANNUAL USE OF FUNDS · RELATIVE PROFILE



Sources: [S15] [S19] | Independent proposals are explicitly scenarios.
For all contracts: a fixed expiry date, an orderly handover and a new tender.

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PROJECT 24 / INFRASTRUCTURE PROGRAMME

Emergency readiness & safe communities

Three regional emergency and community hubs, early warning, emergency communications, rescue and accessible public services.







Three distinct AI visualisations · possible designs, not existing facilities.

PLANNING ALLOWANCE INCL. 30%	RANGE INCL. 30%	TIME WINDOW
45.5 EUR million	28.6 - 78 EUR million	2027-2038

Confirmed planning allowance; implementation follows technical planning, approvals and financing.

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PROJECT 24 / DECISION FRAMEWORK

Emergency readiness & safe communities

BASE ALLOWANCE	30% ISLAND UPLIFT	PLANNING ALLOWANCE
35 EUR million	+10.5 EUR million	45.5 EUR million

SCOPE

Three regional hubs, local evacuation sites and teams; equipment selected according to hazard maps.

COST BASIS

€35 million for buildings, communications, rescue equipment, exercises and institutional development.

TECHNOLOGY & SIZING

Redundant radio, solar backup power and accessible shelters; protection for particularly vulnerable groups.

OPERATIONS & ONGOING COSTS

Embed regular exercises, staffing and replacement procurement in annual public budgets.

ROLE OF EXTERNAL INVESTORS

Design, technical equipment, training, maintenance and transparent public-service contracts.

PREREQUISITES

Coordinate responsibilities with existing authorities; safeguard rights, complaints procedures and civilian oversight.

MEASURING SUCCESS

Warning coverage, evacuation times, exercise readiness, operational equipment and accessible assistance.

HISTORICAL / LOCAL CONTEXT

Peace and safety depend on trust, mediation and collective preparedness.

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NEXT DUE DILIGENCE TASK

Hazard maps and communication chains are developed with communities, schools and clinics. Early measures combine warnings, evacuation routes, safe assembly areas and essential supplies. Regular exercises test whether people with reduced mobility and remote households are actually reached.

REVENUE & FINANCING

Public budgets and grants fund essential preparedness services. External partners can provide communications, construction, supplies and maintenance. Insurance is assessed as a supplement, not a substitute for preparedness. Availability, exercise findings and renewal cycles determine long-term operating needs.

ANNUAL USE OF FUNDS · RELATIVE PROFILE



Sources: [B02] [S05] [S06] | Independent proposals are explicitly scenarios.
For all contracts: a fixed expiry date, an orderly handover and a new tender.

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PROJECT 25 / INFRASTRUCTURE PROGRAMME

International data & quantum campus

International 10 MW data and quantum campus near Panguna: shared utility corridor, dedicated secure power and two commercially usable quantum systems.







Three distinct AI visualisations · possible designs, not existing facilities.

PLANNING ALLOWANCE INCL. 30%	RANGE INCL. 30%	TIME WINDOW
455 EUR million	325 - 650 EUR million	2027-2038

New concept estimate; delivery follows technical planning, approvals and financing.

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PROJECT 25 / DECISION FRAMEWORK

International data & quantum campus

BASE ALLOWANCE	30% ISLAND UPLIFT	PLANNING ALLOWANCE
350 EUR million	+105 EUR million	455 EUR million

SCOPE

2 MW IT from 2031, 5 MW from 2033 and 10 MW from 2036; the first local quantum systems from 2033 and 2035 are expansion targets.

COST BASIS

EUR 350m base + EUR 105m = EUR 455m. Separate additional project, including EUR 78m quantum package; P11 is retained.

TECHNOLOGY & SIZING

10 MW IT × PUE 1.4 = 14 MW; 122.64 GWh/year at full load. Dedicated energy planning is detailed in the additional pages.

OPERATIONS & ONGOING COSTS

Central model: EUR 36 million revenue and EUR 24.88 million recurring costs per year, before replacement, interest and tax. Independent modelling assumptions.

ROLE OF EXTERNAL INVESTORS

Colocation, cloud, HPC and network services; quantum computing time and research assignments. Operator, capital and technology partnerships.

PREREQUISITES

Anchor customers, dual network routes, secure power and water; geotechnically safe site outside mine hazard zones.

MEASURING SUCCESS

Contracted kW, contribution margin, PUE, network availability, local skilled staff and accepted quantum applications.

HISTORICAL / LOCAL CONTEXT

Proximity to Panguna shares utility corridors; a separate protected site. Germany and other partners are cooperation targets.

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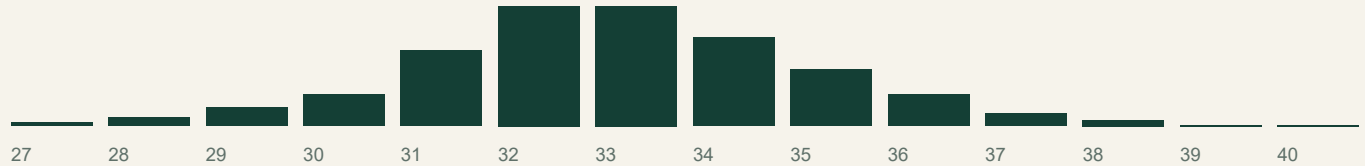
NEXT DUE DILIGENCE TASK

From 2027, prepare the site, networks, energy supply, anchor customers and German-international cooperation. From 2031, develop modules of 2, 5 and 10 MW; local quantum systems from 2033/2035 are expansion targets. Procurement follows performance specifications, service capability and funded customer orders.

REVENUE & FINANCING

The revised planning allowance is EUR 455 million, including 30 percent. Revenue comes from colocation, cloud/HPC, network services and quantum assignments. The central model assumes EUR 36 million annual revenue; the operating margin alone does not yet establish a full investment return. Four detailed pages present costs, energy, revenue and partnership objectives.

ANNUAL USE OF FUNDS · RELATIVE PROFILE



Sources: [D01] [D02] [D03] [D04] [D05] [D06] [D07] [D08] | Independent proposals are explicitly scenarios.
For all contracts: a fixed expiry date, an orderly handover and a new tender.

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PROJECT 26 / INFRASTRUCTURE PROGRAMME

International Building & Supply Hub

Major hardware store, building-materials wholesale and import warehouse for island development. Start with an early depot, then 12,000-20,000 m² of halls, trade services and electric delivery.







Three distinct AI visualisations · possible designs, not existing facilities.

PLANNING ALLOWANCE INCL. 30%	RANGE INCL. 30%	TIME WINDOW
84.5 EUR million	65 - 117 EUR million	2027-2032

New concept estimate; delivery follows technical planning, approvals and financing.

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PROJECT 26 / DECISION FRAMEWORK

International Building & Supply Hub

BASE ALLOWANCE	30% ISLAND UPLIFT	PLANNING ALLOWANCE
65 EUR million	+19.5 EUR million	84.5 EUR million

SCOPE

8-12 ha campus with DIY retail, materials, trade collection, workshops and logistics. Phased halls up to 20,000 m²; expand against committed demand.

COST BASIS

EUR 65m base × 1.30 = EUR 84.5m, including EUR 15.6m opening stock. BWP/Bunnings inform scale; this is an independent concept estimate.

TECHNOLOGY & SIZING

Digital inventory and material lists, electric logistics, rooftop solar/storage, quality checks, rainwater and fire systems, plus repair and training areas.

OPERATIONS & ONGOING COSTS

Operator manages buying, stock, sales and delivery. Replenishment, freight, staff and asset reserves are recurring costs; availability and inventory turns guide operations.

ROLE OF EXTERNAL INVESTORS

Private operating/property companies, with optional local participation. Income from trading margin, project supply, hire, repairs and delivery; public contracts remain competitive.

PREREQUISITES

Confirm land, ground, flood risk and port access. Expand against credible construction orders. Give every supply and operating agreement an express expiry.

MEASURING SUCCESS

Critical-material availability; on-time delivery; inventory turns; low write-offs; local jobs and procurement; transparent prices.

HISTORICAL / LOCAL CONTEXT

Reliable material supply enables development. The hub supports local merchants and trades, supplying modern components for housing and building forms chosen by communities.

NEXT DUE DILIGENCE TASK

2027: Agree the site and land use, establish demand from infrastructure projects and open the initial depot. Select an operator competitively, then finance supply chains, payment terms and opening inventory.

REVENUE & FINANCING

2028-2032: Build the 12,000 m² core and expand to 20,000 m² when utilisation supports it. Give leases, operating and supply contracts expiry dates and retendering rules. Separate inventory finance from property investment.

ANNUAL USE OF FUNDS · RELATIVE PROFILE



Sources: [N01] [N02] | Independent proposals are explicitly scenarios.
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PROJECT 27 / INFRASTRUCTURE PROGRAMME

Bougainville International Fruit Hub

Tropical fruit, cooling and export campus with pineapple landmark, mango grading, vanilla expertise and traceability. Near port and airport, served by electric 7.2-tonne trucks and small vans.







Three distinct AI visualisations · possible designs, not existing facilities.

PLANNING ALLOWANCE INCL. 30%	RANGE INCL. 30%	TIME WINDOW
52 EUR million	39 - 78 EUR million	2027-2034

New concept estimate; delivery follows technical planning, approvals and financing.

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PROJECT 27 / DECISION FRAMEWORK

Bougainville International Fruit Hub

BASE ALLOWANCE	30% ISLAND UPLIFT	PLANNING ALLOWANCE
40 EUR million	+12 EUR million	52 EUR million

SCOPE

8,000-12,000 m² campus for grading, packing, cooling, dispatch and flexible processing. Separate vanilla unit; 5,000 t/year initially, up to 15,000 t only with secured sales.

COST BASIS

EUR 40m base × 1.30 = EUR 52m, including EUR 4.55m start-up working capital. International packing/cooling projects inform scale; independent concept estimate.

TECHNOLOGY & SIZING

Optical mango grading, crop-specific cooling, laboratory and batch records; separate vanilla curing. Electric 7.2-tonne-GVW trucks, vans, solar, storage and charging.

OPERATIONS & ONGOING COSTS

Manage grower buying, quality, cooling and dispatch centrally. Separate service and trading volumes; packaging, freight, power and produce purchases are operating costs.

ROLE OF EXTERNAL INVESTORS

Private company with optional grower participation. Income from packing/cooling, export trading margin, processing and vanilla quality; secure customers before expansion.

PREREQUISITES

Confirm harvest volumes, export clearance and customers before expansion. Validate cooling power, water and EV routes; prepare HACCP/ISO 22000. Set express contract expiries.

MEASURING SUCCESS

Marketable produce; temperature control; reduced losses; prompt grower payment; export quality; energy per tonne; local value retained.

HISTORICAL / LOCAL CONTEXT

Family farms and agroforestry retain more value locally. Establish new vanilla planting early; first flowering generally requires several years.

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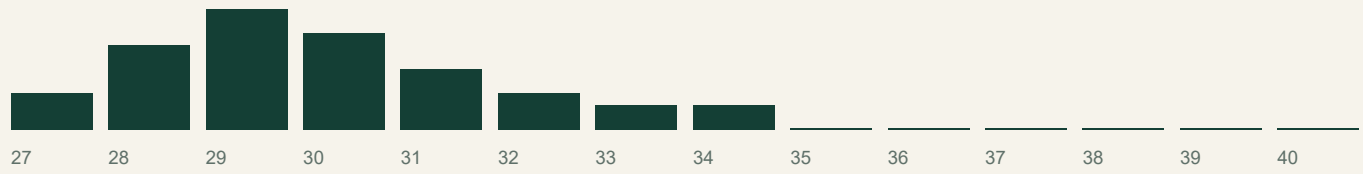
NEXT DUE DILIGENCE TASK

2027-2029: Validate crops and customers, involve grower groups and plant demonstration vanilla. Secure a site with port/airport access, then build and trial the grading, packing and cooling core using domestic deliveries.

REVENUE & FINANCING

2030-2034: Expand exports only after market and phytosanitary clearance. Match fleet and processing to secured volumes. Allow for vanilla maturation and curing. Separate P17 farm investments; give operating and offtake contracts fixed end dates.

ANNUAL USE OF FUNDS · RELATIVE PROFILE



Sources: [N03] [N04] [N05] [N06] [N07] [N08] [N09] [N10] | Independent proposals are explicitly scenarios.
For all contracts: a fixed expiry date, an orderly handover and a new tender.

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P25 / INVESTMENT COST ESTIMATE

An international digital campus.

Target IT capacity of 10 MW, two quantum systems and dedicated utility infrastructure. Amounts in EUR million; updated concept estimate as at 5 November 2026.

Component	Base	With 30%
Data centre: building, cooling, electrical systems	125	162.5
Operator-owned IT / initial HPC equipment	40	52
Dual network connections / carrier equipment	25	32.5
Dedicated energy facilities / grid integration	85	110.5
Two quantum systems / laboratory / integration	60	78
Design, acceptance, training	15	19.5
Total	350	455

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COST BENCHMARK

For 2026-27, Turner & Townsend quotes USD 14-16/W for demanding US AI facilities based on a typical 60 MW reference design. At EUR 1 = USD 1.1267 on 4 November 2026, this is approximately EUR 12.43-14.20/W. P25 assumes EUR 12.50/W for the building and technical systems before the island premium. The smaller site's costs will be refined through detailed design and quotations.

SCOPE AND PORTFOLIO TREATMENT

P25 adds EUR 455m; P11 remains EUR 65m for island services, telephony, central-bank systems and logistics. P10 remains the telecom and P07 the public energy programme. Campus connections and energy are costed separately, without double counting mine or public-network assets. A new international submarine cable is not included.

Sources: [D01] [D07] | Independent proposals are explicitly scenarios.

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P25 / TECHNOLOGY AND UTILITIES

Energy and networks as the foundation.

The site can serve international customers only with demonstrated availability, competitive total costs and secured connectivity.

POWER AND ENERGY

An IT load of 10 MW at a target PUE of 1.4 implies total power demand of 14 MW and a calculated 122.64 GWh at full annual operation. At a uniform 75% IT utilisation, the simplified model yields 91.98 GWh/year. Actual part-load behaviour, climate and ancillary loads will be incorporated into the load model. The quantum laboratories are included within the 10 MW allowance.

DEDICATED ENERGY SUPPLY

One design option is 50 MWp of solar generation and 150 MWh of storage. At an 18% PV capacity factor, this produces approximately 78.84 GWh/year before losses. It covers neither the full energy requirement nor every operating hour. Secured additional generation or power purchase agreements, reserve capacity and grid stability are therefore conditions for site approval. P25 will not draw this capacity from the public P07 programme.

INTERNATIONAL CONNECTIVITY

Two independently routed carrier paths, separate building entry points and robust submarine-cable or transit contracts will be demonstrated before construction is approved. Existing PNG cables inform the assessment of available infrastructure; their capacity does not constitute a customer contract for Bougainville. PNG connections will be agreed only through time-limited transitional arrangements with a migration path. Alternative international routes require their own technical and commercial substantiation.

AVAILABILITY AND ENVIRONMENT

A near-Panguna corridor shares power, water and transport routes. The data centre needs separately assessed ground outside mine residue, dust, landslide and flood hazard zones. Closed cooling loops and separate water quality; proximity does not replace utility contracts. Target Tier-III-like redundancy and measured PUE/water use; certification follows actual assessment.

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Sources: [D08] [D01] | Independent proposals are explicitly scenarios.

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P25 / REVENUE AND ECONOMIC VIABILITY

Revenue from services sold.

Internally modelled annual scenarios for the fully developed 10 MW campus, in EUR million. These are not market quotations, preliminary contracts or guaranteed returns.

Assumption / result	Conservative	Central	High
Utilisation	50%	75%	90%
EUR/kW/month incl. power	220	300	360
Additional revenue	4.00	9.00	15.00
Total revenue	17.20	36.00	53.88
Energy cost / EUR 0.14/kWh	8.58	12.88	15.45
Other operating costs	10.00	12.00	15.00
Operating surplus	-1.38	11.12	23.43

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CALCULATION METHOD

Base revenue = 10,000 kW × utilisation × monthly charge × 12. Charges include facility services and electricity; electricity is not added to revenue a second time. Additional revenue relates to separately sold cloud/HPC services, network services, and quantum-computing and research contracts. At 75% utilisation: 91.98 GWh × EUR 0.14/kWh = EUR 12.88 million in energy costs.

INVESTOR DUE DILIGENCE

The operating surplus is before depreciation, interest, tax, IT and battery replacement, and further capital expenditure. In the central case, it is EUR 11.12 million, or approximately 2.4% of EUR 455 million; this does not yet establish an adequate return on capital. Technology renewal and debt service must also be affordable. Before expansion, customer contracts, energy prices and financing must be improved or substantiated as appropriate.

COMMERCIAL FOCUS

Suitable offerings include secure data storage, recovery services, computing workloads with flexible scheduling and regional platforms. International data traffic passing nearby does not itself generate revenue: billing covers services and capacities actually contracted. Quantum computing is a separate business line requiring its own demand assessment.

Sources: | Independent proposals are explicitly scenarios.

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P25 / QUANTUM COMPUTING AND PARTNERS

German and international cooperation.

The goal is to install Bougainville's first commercially usable quantum computers. The programme combines local systems, hybrid computing methods and knowledge transfer.

Cooperation target	Contribution / reference
Germany: LRZ / research networks	Architecture and HPC integration. Euro-Q-Exa: EUR 25 million for two systems; first commissioning in 2026.
Germany: Fraunhofer / IBM ecosystem	Application testing, training and cloud access. Ehningen and KQCBW are existing reference models.
Finland / Germany: IQM, VTT	Potential hardware and integration partners. VTT is developing 150- and 300-qubit systems within a EUR 70 million funding allocation.
Other countries and local partners	Open selection based on performance, export eligibility, service, training and commercial suitability.

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DEVELOPMENT STAGES

2027-2030: partner discussions, training and qualification, cloud access and applications. 2031-2032: laboratory, safety and security, cryogenic systems and procurement. 2033: target for the first local system; 2035: a second system or next generation, subject to acceptance and demand. Manufacturer and qubit count will be selected at the time of procurement.

BUDGET AND PERFORMANCE

A base allowance of EUR 60 million, or EUR 78 million including the island premium, covers two systems, the laboratory, integration and initial qualification. Procurement will specify measurable performance profiles and available computing time. Commercial usability does not automatically mean fault tolerance or superiority for every task. Maintenance, software and ongoing research will have separate budgets.

COOPERATION STATUS

The institutions named are specific cooperation targets and technical references. No existing Bougainville contracts with them are claimed. Every agreement will specify an end date, scope of services and renewed tendering. The planned portal address is Bougainville.online.

Sources: [D02] [D03] [D04] [D05] [D06] | Independent proposals are explicitly scenarios.

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P26 / COSTS AND OPERATIONS

P26 · Investment structure and revenue model

Planning status 5 November 2026 · EUR million · 2027-2032

Investment component	Base	+30% island
Site, halls, yards and drainage	28	36.4
Warehousing, handling and order systems	6	7.8
Retail, trade, repairs and training fit-out	4	5.2
Electric logistics fleet	4	5.2
On-site power, water and safety systems	6	7.8
Design, mobilisation and quality management	5	6.5
Opening inventory / working capital	12	15.6
Total	65	84.5

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COSTING AND SCOPE BOUNDARY

Concept estimate informed by international scale comparisons: BWP reports A$15-32m large-retail redevelopments; Bunnings Sale exceeds 12,000 m². Conversions are not direct new-build prices. This package comprises EUR 68.9m asset/start-up cost and EUR 15.6m opening inventory. Ports, public roads and manufacturing plants are excluded. Materials supplied to other projects remain within those projects' construction budgets.

REVENUE ILLUSTRATION · ASSUMPTION ONLY

EUR 50m annual sales × 22% merchandise gross margin gives EUR 11m gross profit before staff, logistics, energy, depreciation, interest and tax. This is neither a sales forecast nor a promised return. Hire, repair and delivery may add income; stock finance and replenishment require separate funding. Expansion proceeds only against demonstrated demand.

Sources: [N01] [N02] | Independent proposals are explicitly scenarios.

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P27 / COSTS AND OPERATIONS

P27 · Investment structure and revenue model

Planning status 5 November 2026 · EUR million · 2027-2034

Investment component	Base	+30% island
Site, halls and hygienic rooms	12.5	16.25
Grading, packing and processing	6	7.8
Cooling, ripening and reefer connections	6	7.8
Electric trucks, vans and handling	3	3.9
On-site solar, storage and charging	3.5	4.55
Vanilla demonstration, curing and training	1.5	1.95
Water, laboratory, biosecurity, traceability	2	2.6
Design, quality systems and mobilisation	2	2.6
Opening working capital / grower buying	3.5	4.55
Total	40	52

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COSTING AND SCOPE BOUNDARY

Independent concept estimate for a multi-product campus, not a single grading line. Comparators range from basic mango plants to New Zealand's GEK packing/cooling development; its page does not clearly reconcile the phase and overall budgets. P17 retains broad farm establishment and facilities already budgeted. P27 adds the export campus: EUR 47.45m assets/start-up plus EUR 4.55m working capital.

REVENUE ILLUSTRATION · ASSUMPTION ONLY

10,000 tonnes of third-party produce a year × EUR 200 per tonne for grading/packing/cooling yields EUR 2m service revenue before all operating costs. Volume and tariff are assumptions, not contracts. Own export trading and vanilla may add income; never count the same produce twice. This partial model alone does not establish overall viability, which requires a complete sales and cost plan.

Sources: [N03] [N04] [N05] [N06] [N07] [N08] [N09] [N10] | Independent proposals are explicitly scenarios.

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COST REFERENCES / 1 OF 2

International orders of magnitude.

Original budgets remain in their source currency and source year. No automatic inflation adjustment is applied. Project scopes differ; the euro allowances are independent scenario estimates.

B01 / 2023 **World Bank: Papua New Guinea roads programme**

USD 108 million

Rehabilitate 63 km of Ramu/Hiritano roads and extend maintenance of almost 200 km; institutional capacity is included. This is not a road cost per kilometre.

B02 / 2026 **World Bank: Rural services in PNG, Phase 2**

USD 100 million

More than one million people and at least 800 community investments across twelve provinces. This is a programme value, not a standard village grant.

B03 / 2019 **ADB: Renewable energy in Nauru**

USD 22 million

A programme including a 6 MW solar park on approximately four hectares. This is not a standalone module price; grid and operating scopes differ.

B04 / 2024 **ADB: Renewable energy in the Solomon Islands**

USD 15 million in ADB financing

A USD 10 million loan and USD 5 million grant for solar, storage and reforms. Financing does not necessarily represent the entire project budget.

B05 / 2024 **Solomon Power: 2024 planning**

Technical configuration; not a standalone cost figure

Includes East Honiara: 5 MW / 20 MWh battery storage. Consider power in MW and stored energy in MWh separately.

B07 / 2025 **AIFFP: Ports in Papua New Guinea**

AUD 621.4 million

Four coastal wharves and Lae Tidal Basin; AUD 521.4 million in loans and an AUD 100 million grant. This is a multi-site programme, not a price for a Bougainville port.

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Sources: [B01] [B02] [B03] [B04] [B05] [B07] | Independent proposals are explicitly scenarios.

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COST REFERENCES / 2 OF 2

International orders of magnitude.

Original budgets remain in their source currency and source year. No automatic inflation adjustment is applied. Project scopes differ; the euro allowances are independent scenario estimates.

B08 / 2022 **World Bank: Roads and aviation in the Solomon Islands**

Approximately USD 89 million

A combined programme for airport safety, climate resilience, selected roads and bridges. This is not the standalone price of a runway.

B10 / 2023 **World Bank: Water and sanitation in PNG**

USD 70 million

Improved reliable water supply in six towns, plus institutional support. Local water quality and supply technology must be assessed separately.

B12 / 2019 **Tonga: Digital government**

USD 4.65 million in IDA financing

Legal framework, architecture, civil register, identity, government infrastructure and project management. A comparison for digital government in a small state.

B14 / 2019 **ADB: Healthcare in PNG**

USD 95 million investment programme

Includes eight rural facilities; separate from a USD 100 million policy operation. Do not divide by eight and present the result as the cost of a clinic.

B16 / 2022 **World Bank: Connectivity in Kiribati**

USD 17 million submarine cable component

Connecting Tarawa to a regional system. Before new construction, document Bougainville's existing cables, capacity and redundancy.

B18 / 2025 **ASEAN: Sustainable data centres**

USD 7-10 million per MW of IT load

A regional reference for capital intensity. Before transferring the benchmark, check the scope of land, power, cooling, reserves, servers and networks.

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Sources: [B08] [B10] [B12] [B14] [B16] [B18] | Independent proposals are explicitly scenarios.

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https://www.ippc.int/es/core-activities/standards-setting/ispms/

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RESPONSIBILITY & CONFIDENTIALITY

Concept development with clear accountability.

PUBLISHER

Bougainville International AG
Bottminger Str. 76
4104 Oberwil
Dietmar Lein, Innovation Manager and Project Developer

CONCEPT DEVELOPMENT & PROJECT LEADERSHIP

Innovation Manager Dietmar Lein/Girasol International AG. DACH cooperation region: Germany, Austria and Switzerland. Girasol International AG leads project development and coordination, and the Panguna mining project as the sole contractual holder of mining rights. All mine contracts must be concluded with the company.

CONFIRMED PROJECT BASIS

On 05.11.2026, Dietmar Lein confirms that he holds and has checked the company extracts of Girasol International AG, its exclusive contractual mining rights and the previous investment estimates. Additions: P25 EUR 455m, P26 EUR 84.5m, P27 EUR 52m. P11 remains EUR 65m. Total EUR 9,574.5m, including Panguna EUR 6,500m; all include the 30% island uplift.

IMAGES & FIGURES

All project, nature and cover images are AI-generated visualisations of possible designs. P25-P27 are new concept estimates; previous values are client-confirmed. Technical delivery and financing are organised project by project. International reference budgets retain their source year and currency.

DOCUMENT STATUS & USE

Planned website: Bougainville.online. Strictly secret for internal project use. Not yet approved for publication. Planning status 05.11.2026; start 2027, horizon 2040. Distribution and publication require the rights holder's express approval. All contracts receive fixed end dates and a new tender; PNG institutions receive only short transitional contracts until full autonomy.

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