



TARA

Transition Assistance and Resilience Aid

Guiding student migrants toward belonging, resilience, and academic success

THE GENEVA CHALLENGE 2025 · GRADUATE LEVEL

European Representation — Imperial College London · University College London · University of Hamburg

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An evidence-based strategy and 12-month implementation roadmap for an AI-powered, WhatsApp-native companion for Indonesian student migrants in the UK



Indonesia is investing record sums to send its brightest abroad – but a preventable transition gap is eroding the return

SITUATION

International education is a deliberate human-capital strategy. Over 50,000 Indonesians study abroad and the UK is a top-4 destination; LPDP alone funds ~10,000 scholars a year (~US\$962M), expecting graduates to return ready to lead.

COMPLICATION

Yet the first months in the UK are a high-risk transition. Students hit compounding barriers – everyday English, unfamiliar NHS / housing / visa systems, cultural mismatch and psychosocial strain – that generic, English-only, fragmented support fails to close.

CONSEQUENCE

Unsupported, talent slips into disengagement, dropout risk and “brain waste.” 37% of UK students report moderate-to-severe anxiety or depression, with international postgraduates more exposed – diminishing both wellbeing and national ROI.

WHAT IS AT STAKE

£41.9bn

International education's annual value to the UK economy

~US\$962M

Indonesia's yearly LPDP scholarship outlay (=Rp15 trillion)

37%

of UK students report moderate-to-severe anxiety or depression

Our recommendation: deploy TARA – a WhatsApp-native AI companion that closes the gap for ~£5 per student

THE RECOMMENDATION

Deploy TARA – an AI-powered, bilingual companion that lives inside WhatsApp – delivering step-by-step, culturally-attuned guidance on academics, NHS, housing, visas, food and wellbeing in Bahasa Indonesia and English, 24/7, with no new app to install.

WHY IT WORKS

It meets students where they already are (WhatsApp reaches 90.9% of Indonesians), learns continuously from real, consented conversations, and maps one-to-one to every gap the analysis exposed.

THE VALUE CASE

A £15,000 pilot. Under \$0.50 per interaction vs \$15–25 for human support, and ~£5 per student – to protect a ~US\$96k-per-scholar-year national investment. The model replicates far beyond Indonesia.

SUPPORTING EVIDENCE

<\$0.50

cost per interaction – vs \$15–25 for human support

90.9%

WhatsApp penetration in Indonesia – the platform students live on

4 SDGs

advanced – health (3), education (4), equality (10), partnership (17)

RECOMMENDED PATH: pilot TARA across 2–3 UK campuses over 12 months, then scale UK-wide – delivered with student associations, universities, LPDP and the Embassy.

Our argument, in four moves

1

The strategic prize

Why student migration is a high-value human-capital investment worth protecting

2

The transition gap

Where, why and how that investment leaks in the first months abroad

3

The solution: TARA

A WhatsApp-native AI companion that meets students where they already are

4

From pilot to scale

Economics, delivery, risk and measurable development impact



01

The strategic prize

Why student migration is a human-capital investment worth protecting

International education is migration's highest-value flow – and, for Indonesia, a deliberate development strategy

Voluntary, high-skilled, time-bound

Unlike most migration, student mobility is designed to build human capital and return it home – a state-backed “brain mobility” strategy.

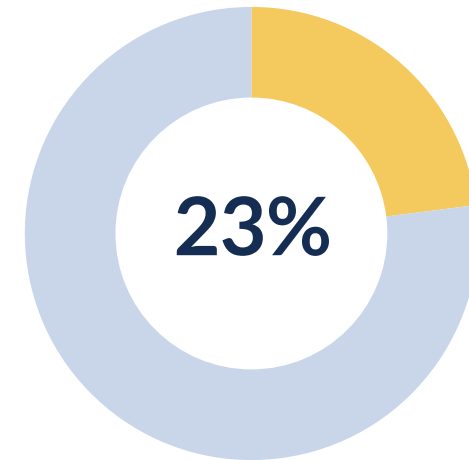
The UK is the magnet

732,285 international students in 2023/24 – 23% of all enrolments – generating ~£41.9bn in economic value and £12.1bn in fee income.

Indonesia is a committed sender

Over 50,000 students study abroad, with the UK a top-4 destination and postgraduate enrolments rising.

International students = 23% of the UK higher-education population



■ International (23%) ■ Domestic & other (77%)

Indonesia is doubling down — and expects these students back, ready to lead

~US\$962M

deployed by LPDP in 2024 (≈Rp15 trillion)

~10,000

scholarships funded in a single year (2024)

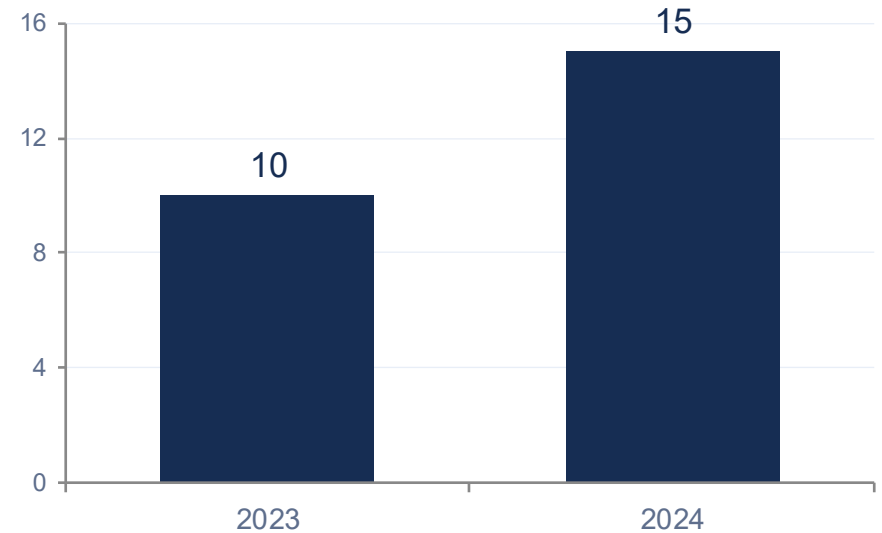
24,000+

LPDP awardees since the fund opened in 2012

~US\$96k

public investment per scholar-year of study

LPDP scholarship budget surged ~50% in a single year



Budget in Rp trillion • Rp10T → Rp15T (+50% YoY)

The implication: LPDP — a sovereign endowment under the Ministry of Finance — funds study abroad as a pillar of national competitiveness, and scholars are contractually expected to return and contribute. Every euro of that bet depends on students actually completing and thriving.



02

The transition gap

Where, why and how the investment leaks in the first months abroad

The first months abroad are the highest-risk phase – where unsupported transition quietly becomes “brain waste”



Academic success & retention

Missed deadlines, unfamiliar academic norms and language barriers erode engagement and raise withdrawal risk.



Social inclusion & belonging

Heavy reliance on informal networks leaves students cut off from formal support and wider campus life.



Mental health & wellbeing

Stress, homesickness and stigma suppress help-seeking; international postgraduates are especially exposed.



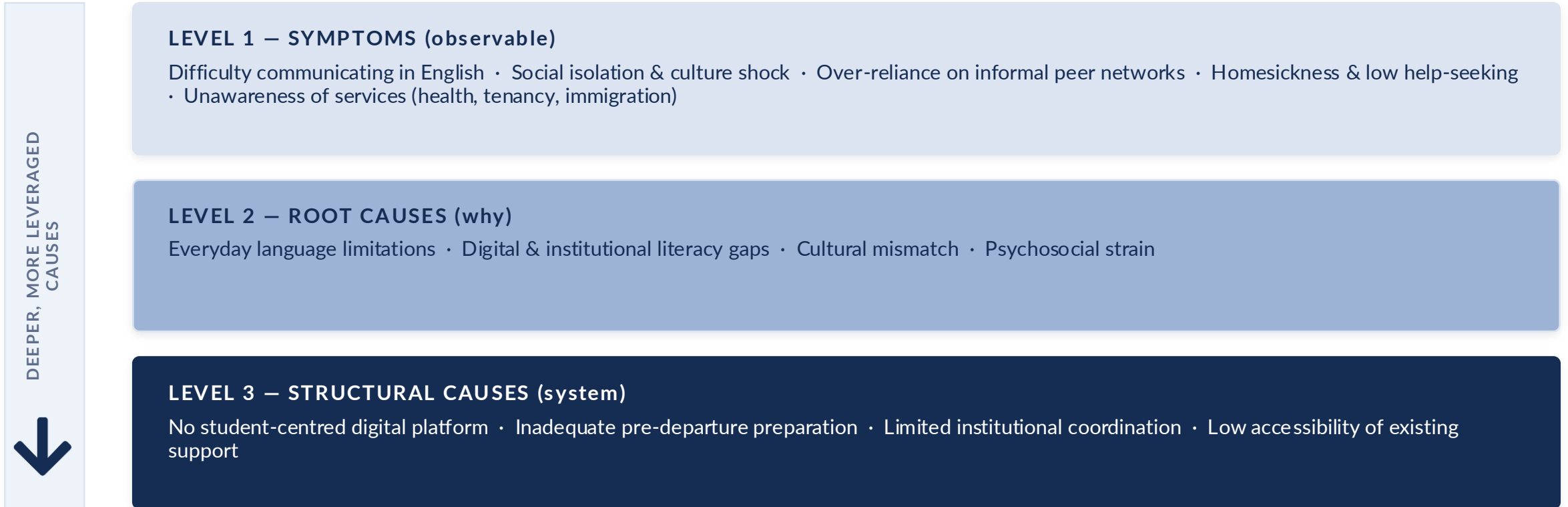
National development ROI

Diminished outcomes shrink the return on scholarships and public investment – the definition of brain waste.

37%

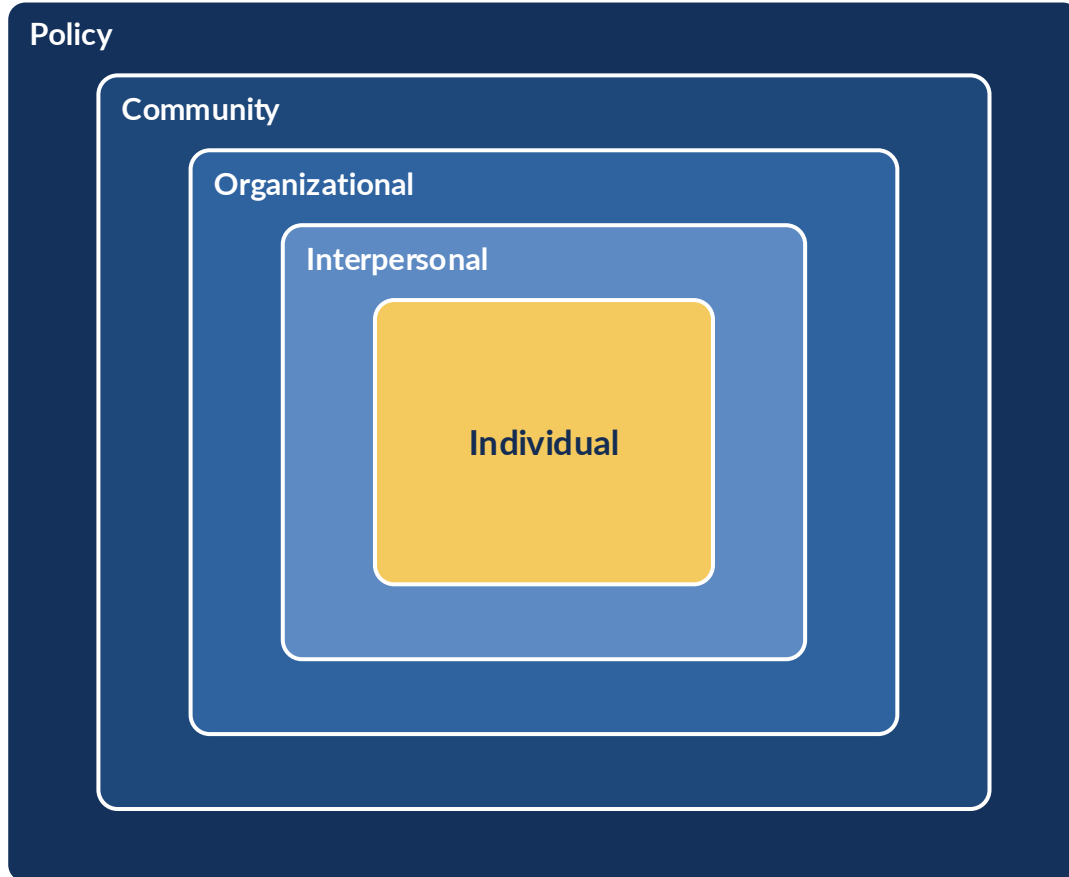
of UK students report moderate-to-severe anxiety or depression – with international master's students more susceptible still (~36% with depressive symptoms in UK health-field programmes).

These struggles are not personal failings but a three-level system failure



Symptom clusters: Communication & literacy · Cultural & emotional adjustment · Support access & institutional

Vulnerability is produced across five nested layers – so the response must be multi-level, not just individual



Individual

Knowledge, language and digital skills – mismatched to UK system complexity.

Interpersonal

Informal WhatsApp / alumni networks – supportive, but unreliable and uneven.

Organizational

University services – broad, not tailored to Indonesian needs; quality varies.

Community

Campus & local norms – limited accommodation of prayer, hijab and halal diet.

Policy

No coherent UK-Indonesia framework for real-time, tailored student support.

Today's support leaves five critical gaps — generic, English-only, fragmented and offline

Dimension	What the evidence shows	The unaddressed gap
Language & navigation	NHS, tenancy and academic forms are presented in formal, bureaucratic English	<i>No bilingual, simplified guidance for daily UK systems during early transition</i>
Information reliability	Students lean on WhatsApp and alumni chats — often outdated or inaccurate	<i>No real-time, verified source to supplement informal networks</i>
Emotional & social adjustment	Stress and homesickness are common; counselling is avoided due to stigma	<i>No culturally-sensitive, low-barrier emotional support tool</i>
Continuity of support	Orientation ends shortly after arrival, with little long-term follow-up	<i>No always-on guidance across the full academic journey</i>
Accessibility & inclusion	Existing tools are web-based, English-only and data-heavy	<i>No mobile-first, low-data, private tool in Bahasa Indonesia</i>


03

The solution: TARA

A WhatsApp-native AI companion that meets students where they already are

TARA meets students where they already are – an AI companion inside WhatsApp, speaking Bahasa Indonesia from day one

TARA is a WhatsApp-integrated, AI-powered chatbot delivering real-time, bilingual, step-by-step guidance across academic, daily-life and wellbeing needs – no new app, no login, and built for low bandwidth.



WHY WHATSAPP WINS

90.9%

of Indonesians use WhatsApp – the country's #1 platform

112M

active users – the 3rd-largest WhatsApp market in the world

~1,348×






opened per user each month – roughly 4× the next-most-used app

Five design principles and five core functions make TARA trusted, accessible and always-on

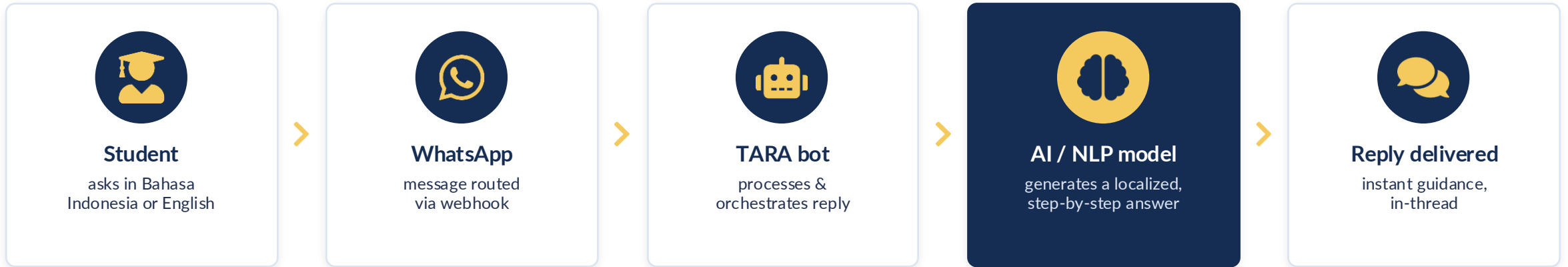
DESIGN PRINCIPLES


 Culturally responsive	 Bilingual & plain-language	 Mobile-first & low-bandwidth	 Privacy-conscious (UK GDPR)	 Continuously learning
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CORE FUNCTIONALITIES

 Academic navigation Step-by-step help with enrolment, assessment timelines and university procedures.	 Daily-living assistance NHS registration, housing, banking, transport and visa processes – with verified links.	 Wellbeing prompts Empathetic check-ins that nudge help-seeking and signpost mental-health support.	 Verified info hub A single, curated source – university portals, PPI UK, embassy and legal/health guidance.	 24/7 bilingual chat Always-on answers in Bahasa Indonesia or English, instantly, with no extra app.
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A continuous-learning loop lets TARA get sharper – and more local – with every conversation



 **Continuous-learning loop:** every consented conversation is anonymized and fed back to improve TARA's knowledge base and responses.

Proven foundations
Built on established NLP (e.g. Rasa / OpenAI) and the WhatsApp Business API.

Ethical by design
Learns only from consented, anonymized data – UK GDPR compliant from day one.

Human-in-the-loop
Moderation links answers to official sources (NHS, PPI UK, university portals).

By design, TARA closes every gap the analysis exposed

The gap	How TARA responds
Bilingual, culturally-contextual navigation	Step-by-step academic and daily-life help in Bahasa Indonesia and English, in plain language.
Verified information vs informal networks	Structured, consistently-updated, source-linked answers — cutting misinformation.
Emotional reassurance	Empathetic check-ins, help-seeking nudges and signposting to mental-health resources.
Continuity of support	Available 24/7 across the whole academic journey — not just orientation week.
Accessibility & digital inclusion	Runs on WhatsApp: mobile-first, low-data and privacy-conscious by default.



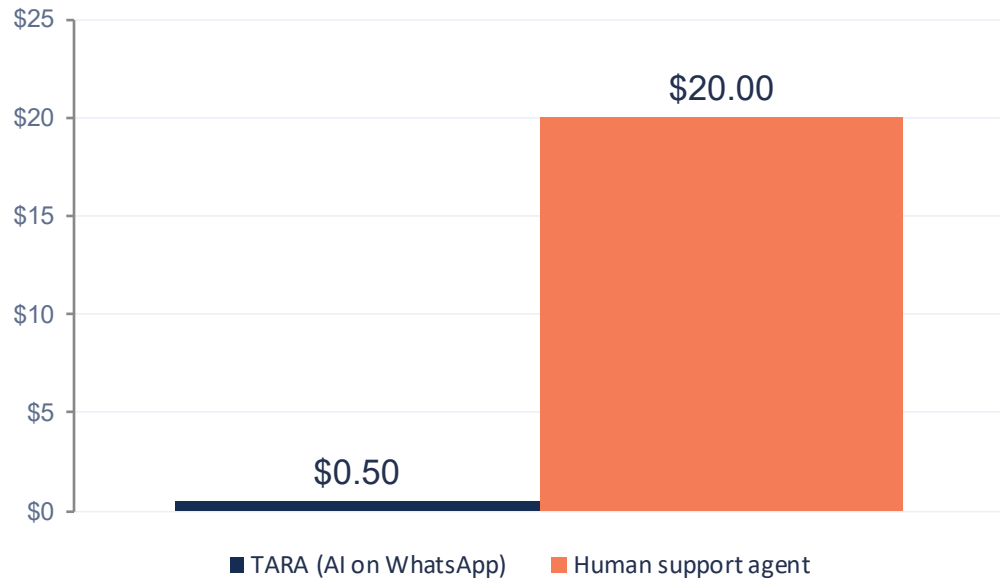
04

From pilot to scale

Economics, delivery, risk and measurable development impact

The economics are asymmetric – ~£5 per student protects a ~US\$96k-per-scholar-year investment

Cost per student interaction (USD)



\$0.50 vs ~\$20 – roughly 30–50× cheaper per query

THE RETURN-ON-INVESTMENT LOGIC

£15,000

total pilot budget – lean by design

~£5

cost per student reached

30–50×

cheaper per query than a human agent

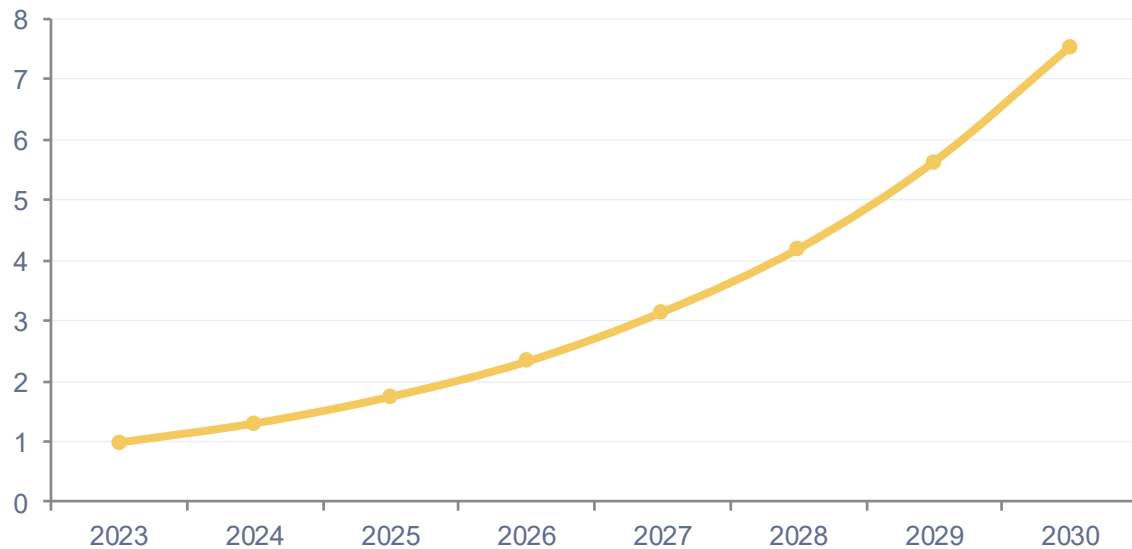
~US\$96k

scholarship value defended per scholar-year

Implication. At a marginal per-student cost, TARA defends scholarships worth tens of thousands of pounds each. Preventing even a handful of dropouts or cases of brain waste repays the entire pilot many times over.

The model is transferable – one architecture extends to many communities, on a proven and fast-maturing technology base

Global educational-chatbot market (US\$ bn)



\$0.97bn (2023) → \$7.52bn (2030) · ~34% CAGR

And demand is already here: 86% of higher-education students now use AI in their studies.

BUILT TO REPLICATE



Other nationalities in the UK

Vietnamese, Nigerian, Bangladeshi and other student communities.



Indonesians in other host countries

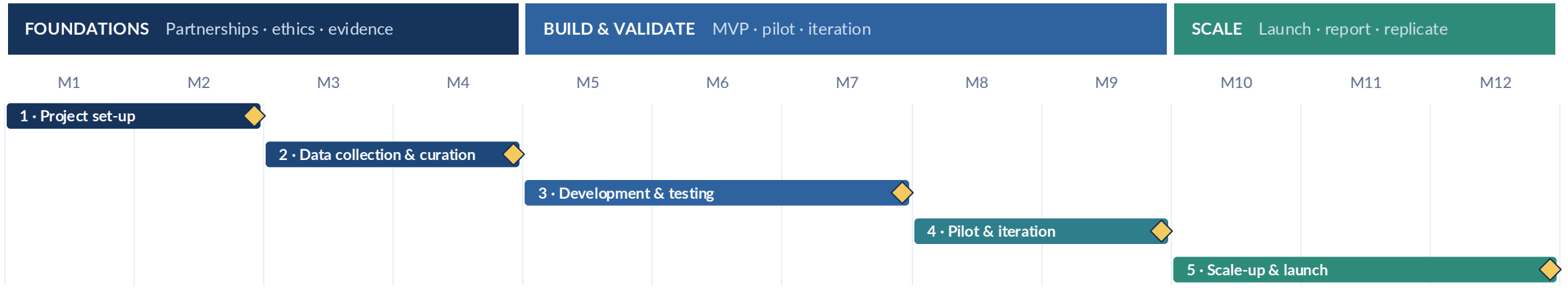
Australia, the Netherlands, Japan – same model, localized content.



Indonesian labour migrants

Malaysia, Saudi Arabia – where reliable, contextual information is scarce.

A stage-gated 12-month roadmap sequences delivery from foundations to UK-wide scale

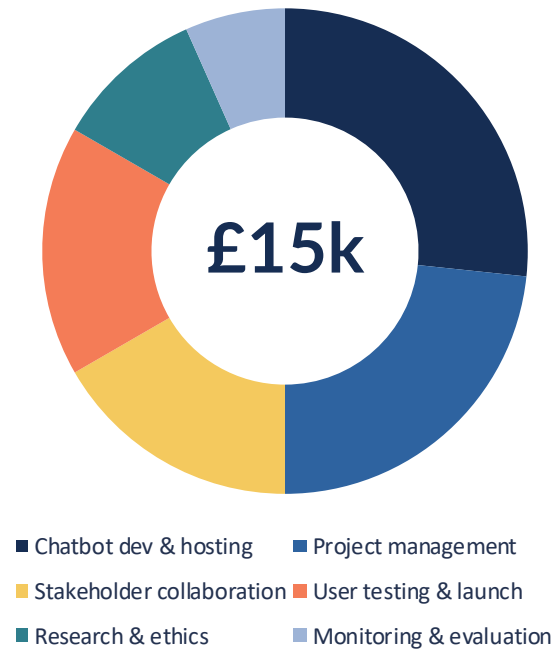


◆ stage gate = deliverable that unlocks the next phase

PHASE 1 Project set-up	PHASE 2 Data collection & curation	PHASE 3 Development & testing	PHASE 4 Pilot & iteration	PHASE 5 Scale-up & launch
Finalise partnerships (PPI UK, universities); recruit the core team; secure ethics & GDPR approval.	Curate consented WhatsApp data; interview alumni & students; build a categorised dataset.	Build the NLP/AI MVP; integrate the WhatsApp API; localise modules; run internal QA.	Deploy across 2-3 universities; track analytics & satisfaction; iterate tone, logic and modules.	UK-wide launch & onboarding; publish the SDG impact report and open replication guide.
STAGE GATE Partnerships signed + ethics / GDPR approval	STAGE GATE Categorised, consent-based training dataset	STAGE GATE Validated MVP – internal QA passed	STAGE GATE Evidence-based, iterated product	STAGE GATE UK-wide launch + replication guide

Stage-gated delivery: each phase is unlocked only when the prior phase's deliverable is met – front-loading ethics and evidence before build, and validation before scale.

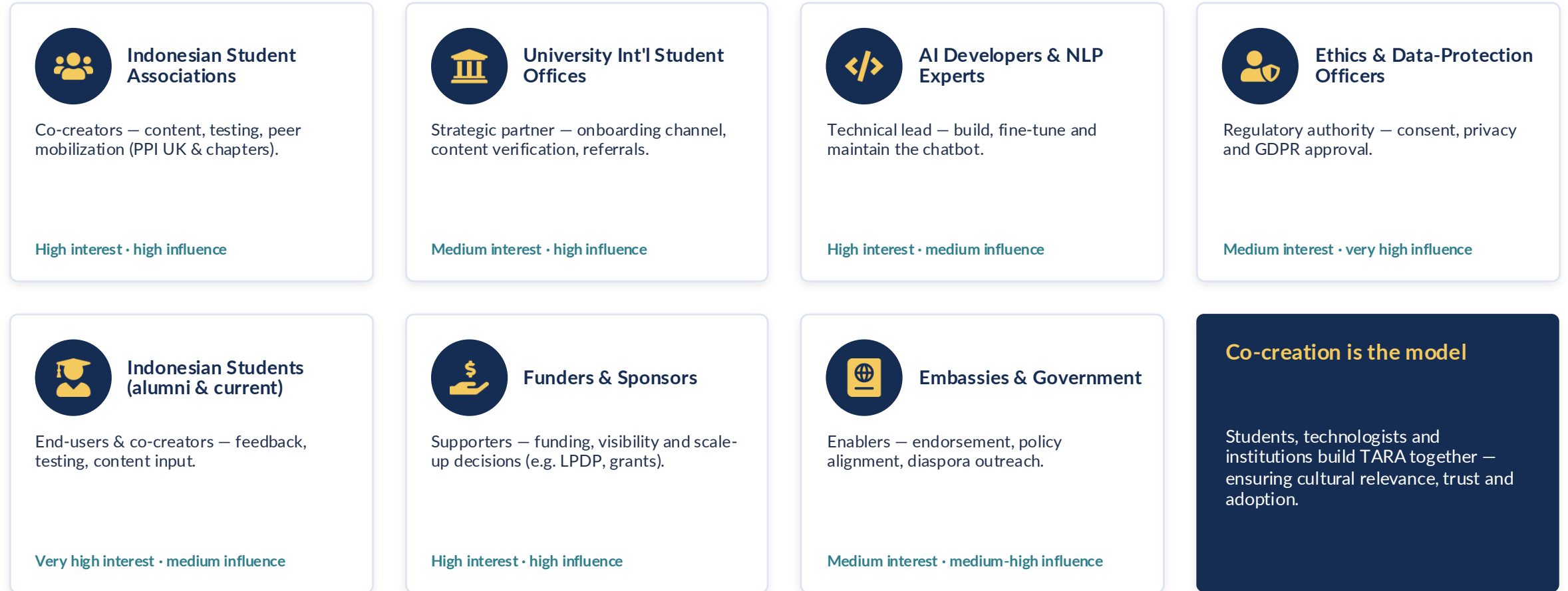
A lean £15,000 budget – stretched by volunteers, open-source tools and in-kind partners



Cost category	GBP
Chatbot development & hosting	£4,000
Project management & oversight	£3,500
Stakeholder collaboration & input	£2,500
User testing & launch activities	£2,500
Research & ethics	£1,500
Monitoring & evaluation	£1,000
TOTAL	£15,000

Stretched further by: freelance AI/ML talent, a data-privacy advisor, PPI UK student volunteers and peer mentors, low-cost cloud + WhatsApp Business API, and open-access dissemination.

A multi-stakeholder coalition gives TARA reach, credibility and staying power



Delivery is de-risked through proactive mitigation and live monitoring

PRIORITY RISKS & MITIGATIONS

High

Outdated or incorrect information

Human-in-the-loop moderation; answers linked to official sources (NHS, PPI UK, portals).

High

Scope creep

Start with core needs – housing, food, healthcare – then expand in phases on demand.

High

Data privacy / unauthorized use

Anonymized, consented data only; GDPR alignment; ethics-committee oversight.

High

Financial sustainability

Pursue education / tech grants and embed in host-university partnerships.

MONITORING & EVALUATION

1

Operational

Interaction volume, query topics, response accuracy & resolution rates.

2

Experiential

User satisfaction, ease of understanding and trust in the guidance.

3

Impact

Student confidence, reduced reliance on informal sources, better outcomes.

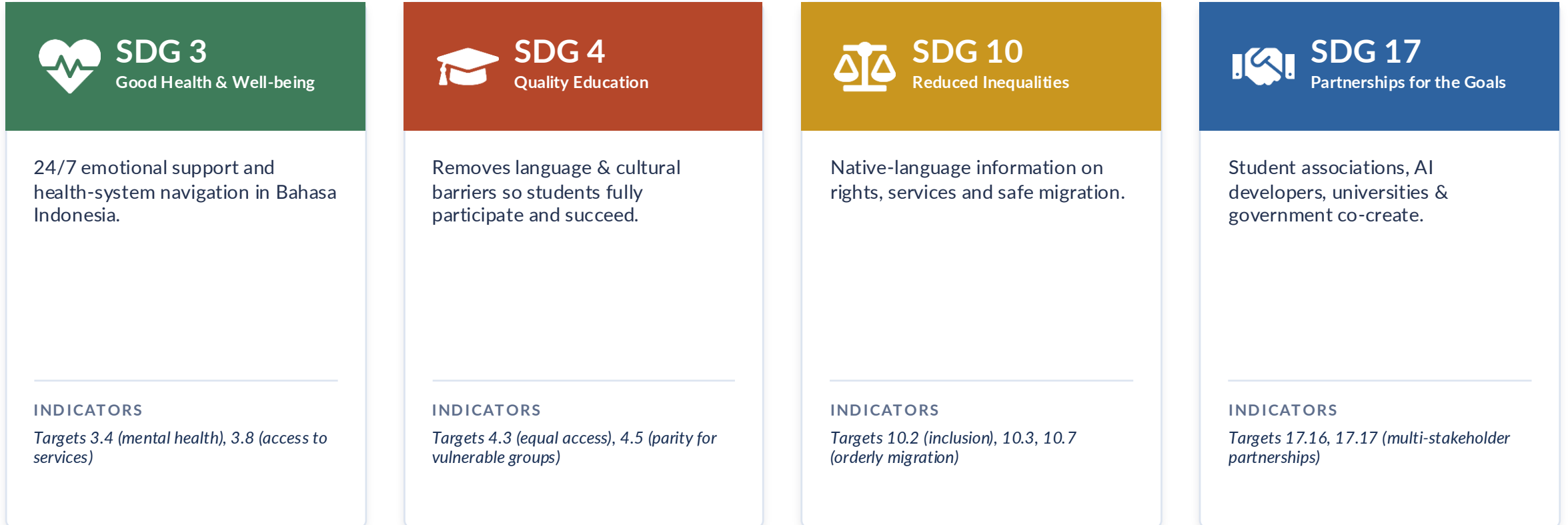
Mixed methods. Usage analytics paired with pulse surveys and focus groups; bi-annual reporting plus a built-in feedback button keep TARA accurate and current.

Theory of change: from a single WhatsApp number to reduced brain waste and stronger returns



Problem addressed: Indonesian students face language, cultural and system-navigation barriers, while existing support is fragmented and inaccessible – driving stress, isolation and poor integration during transition.

TARA advances four Sustainable Development Goals against concrete indicators



Three actions turn this analysis into realised potential



Commission the pilot

Stand up the £15,000, 12-month pilot across 2-3 UK campuses — ethics and evidence built in from day one.



Anchor in trusted channels

Deliver through PPI UK and university international offices to drive adoption and credibility.



Institutionalise & scale

Secure LPDP and Embassy endorsement, then replicate to new cohorts, host countries and migrant groups.

◆ *“TARA — so students don't just survive their international education journey, but thrive.”*

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◆ The Geneva Challenge 2025 · Graduate Level · Advancing Development Goals — The Challenges of Migration ◆