

EQRC is raising £3m to commercialise Stable Match

A live dating MVP based on ordered preferences and stable allocation, developed within EQRC's quantitative research laboratory.

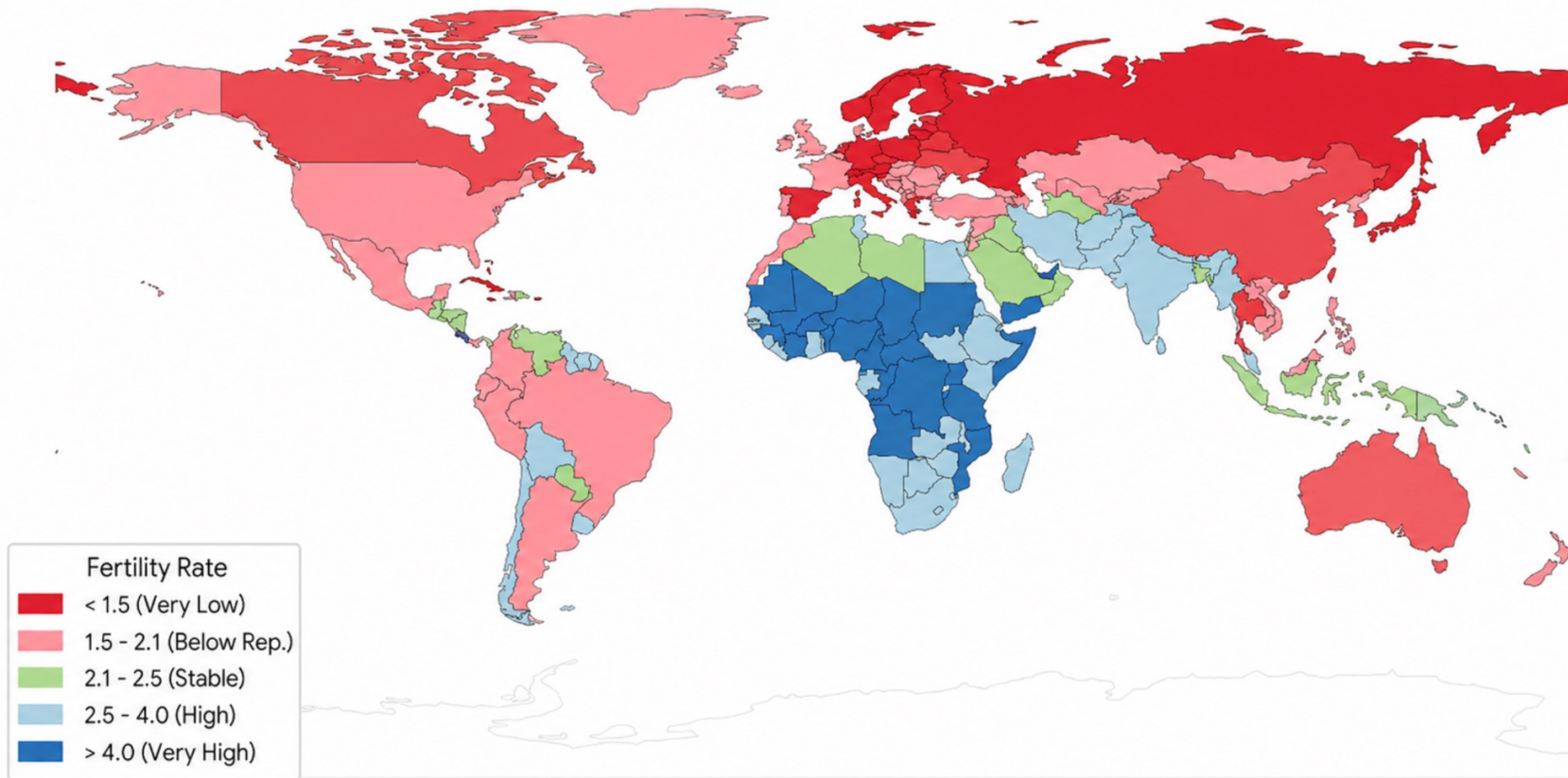
PRIMARY EQUITY IN EQRC

£3m

Stable Match first. The wider research portfolio remains within the investment case.

Below-replacement fertility now spans several world regions

Global Fertility Rates 2025 (UN)



GLOBAL SCALE

More than half

of countries and areas have fertility below the replacement level of about 2.1 births per woman.

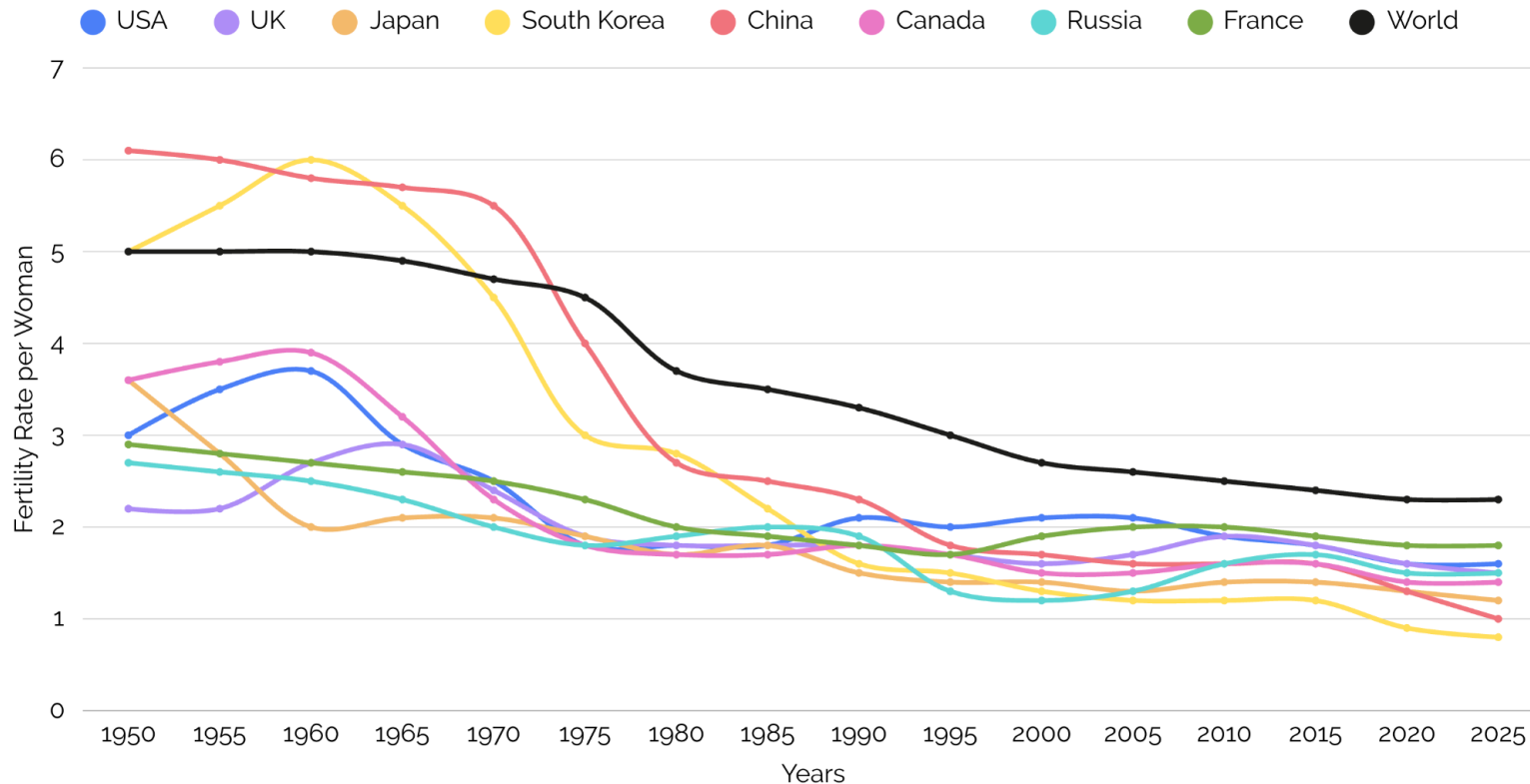
GEOGRAPHIC SPREAD

Very low rates cluster in Europe and East Asia. Below-replacement fertility also reaches North America and Oceania.

Source: UN World Population Prospects 2024. Map shows 2025 estimates.

Several low-fertility markets also have strong purchasing capacity

Fertility Rates 1950 - 2025



2024 MARKET SNAPSHOT

Fertility and GDP per person

MARKET	FERTILITY	GDP / PERSON
USA	1.63	\$86.2k
UK	1.55	\$53.3k
Japan	1.15	\$33.8k
South Korea	0.75	\$36.2k
China	1.01	\$13.3k
Canada	1.25	\$55.0k
Russia	1.42	\$15.0k
France	1.61	\$46.1k
World	2.19	\$13.7k

These countries are potential consumer and public-sector markets. GDP per person indicates capacity to pay, not proven demand or procurement intent.

Sources: fertility trend chart, UN World Population Prospects. 2024 fertility and GDP per person in current US\$, World Bank WDI via FRED.

Governments already treat low fertility as a national policy priority

JAPAN

“

The country now finds itself on the brink of being unable to maintain social functions.

Fumio Kishida, Prime Minister

Policy speech, January 2023

FRANCE

“

France will also be stronger through a revival in its birth rate.

Emmanuel Macron, President

Press conference, January 2024 · translated

CHINA

“

We will establish a policy system to boost birth rates.

Xi Jinping, President

Party Congress, October 2022

COMMERCIAL IMPLICATION

A possible public-sector route alongside the consumer business

Potential counterparties include ministries, cities and public agencies seeking voluntary, measurable relationship-formation pilots.

HOW A GOVERNMENT ROUTE WOULD BE PROVEN

1 Policy priority

Demographic pressure creates a reason to engage.

2 Pilot evidence

A voluntary pilot measures adoption, safety and outcomes.

3 Procurement

A wider contract follows only if evidence and tendering justify it.

Sources: official statements from the governments of Japan, France and China. Full links are in the speaker notes.

Policy urgency widens the potential buyer set. It does not prove demand, a procurement decision or contract value.

The shift from community introductions to digital discovery

Mobility and autonomy widened choice. The networks that once supplied context and repeated contact became less central.



COMMUNITY INTRODUCTIONS
Context and repeated contact

MOBILITY AND AUTONOMY
A wider field of choice

DIGITAL DISCOVERY
Reach without coordination across the pool

Stable Match keeps individual choice and adds a coordination mechanism across mutual preferences.

Evidence: Rosenfeld, Thomas and Hausen, PNAS (2019). Interpretation is EQRC's thesis.

Stable Match compares mutual preferences across the pool



01

Rank

Users order the people they would genuinely consider.

02

Compare

The algorithm evaluates mutual ordered preferences across the pool.

03

Pair

The method produces stable pairings and may leave some users unpaired.

WHAT STABLE MEANS

No unmatched pair would both prefer each other to their assigned partners. It does not guarantee relationship success.

Stable Match has a live web MVP

LIVE PUBLIC MVP

Real Connections, Stable Future

Implemented in the current build

Registration, profiles, interests, preference ranking, matching and messaging.

PUBLIC PRODUCT

The live website allows investors to inspect the existing workflow.

RECORDED DEMO

A 9:51 walkthrough shows ranked preferences, rematching and chat across a sample group.

WORK BEFORE PILOT

Production hardening, analytics, moderation, privacy and support workflows.

stable-match.com/login youtube.com/watch?v=uIANhj3PA90

Observable product differences

TINDER AND BUMBLE

Interaction

Swipe or like one profile at a time.

Match trigger

Mutual interest.

HINGE

Interaction

Likes or comments plus personalised recommendations.

Match trigger

Mutual interest after discovery.

STABLE MATCH

Interaction

Users create ordered lists of acceptable candidates.

Match trigger

Stable pairings across mutual preference lists.

CORE DIFFERENCE

Ordered preferences and pool-wide allocation define the product difference. Stable Match also intends to explore returning part of defined earnings to eligible users. The economic and legal design remains under development.

Defensibility depends on execution, participant pool quality, trust, outcome data and brand.

Why this can be tested now

01

ESTABLISHED METHOD

Stable allocation has a mature theoretical foundation in market design. EQRC applies the mechanism to an explicit dating workflow.

02

LIVE PRODUCT

The existing web MVP supports registration, ranking, matching and messaging. Capital can focus on readiness and measured use.

03

PAID CATEGORY

Public companies show that users pay for dating products. Recent payer declines also show that established scale does not remove the need for product innovation.

The round finances a controlled commercial test of an existing product and a defined matching mechanism.

Category evidence

MATCH GROUP, 2025

\$3.5bn

revenue

14.2m payers

Payers declined 5% year on year

BUMBLE, 2025

\$966m

revenue

3.7m payers

Payers declined 11.5% year on year

SUPPORTED CONCLUSION

Online dating supports large paid businesses.

REMAINING EVIDENCE

Stable Match must establish demand, pricing and retention through its own pilot.

The deck therefore avoids a top-down Stable Match revenue forecast.

Controlled launch design

BEFORE ADMITTING THE COHORT

- Compare identical waitlist tests in London, New York and San Francisco. London remains the base case because the founder can supervise it.
- Complete the UK illegal-content risk assessment and children's access assessment.
- Implement terms, reporting, blocking, moderation and record-keeping.
- Complete privacy, account deletion, support and incident response workflows.

PILOT MEASURES

ACTIVATION

Profiles completed and ranked lists created

MATCH QUALITY

Stable pairings, conversations and first dates

RETENTION

Cohort retention measured at defined intervals

SAFETY

Reports, blocks, response time and substantiated incidents

ECONOMICS

Acquisition cost, paid conversion and churn

The selected city will follow observed waitlist evidence. One local cohort cannot establish national demand.

Revenue hypotheses and evidence

CATEGORY PRECEDENT

Subscriptions and in-app purchases support large dating businesses.

Stable Match will test which product benefits support payment and how conversion changes across offers.

The proposed redistribution of part of earnings to eligible users requires a defined calculation, eligibility rules and legal review.

PILOT EVIDENCE

WILLINGNESS TO PAY

Which product benefits create enough value for payment

PRICE SENSITIVITY

How conversion changes across tested offers

RETENTION

Whether users return after receiving matches

UNIT ECONOMICS

Acquisition cost, paid conversion and churn

Management will present a revenue forecast after the pilot produces conversion and retention data.

Public institutions already support partner discovery in Japan and Singapore

These precedents support a second route to market alongside consumer subscriptions.

TOKYO, JAPAN

Public matching

Tokyo provides an AI matching system for adults seeking marriage.

Applicants provide identity and single status documents. The service demonstrates that a public institution can operate a controlled digital matching platform.

SINGAPORE

Dating support

The Ministry of Social and Family Development supports singles seeking relationships and marriage.

Its Social Development Network works with commercial and community partners to help singles expand their opportunities to meet.

POSSIBLE EQRC PILOT

Voluntary public pilot

A public institution funds access for a defined group of eligible adults. EQRC supplies the matching system, onboarding rules and safety procedures.

Measure participation, completed rankings, accepted matches, conversations and continued use.

CURRENT STATUS

No public contract or letter of intent. This additional customer hypothesis requires local partners, procurement, privacy review and safety review.

Sources: Tokyo Metropolitan Government, Tokyo Futari Story. Singapore Ministry of Social and Family Development.

Founder and identified post-funding hires



Dr Babak Mahdavi-Damghani

Founder and CEO

Oxford doctorate in machine learning for quantitative finance. More than a decade in investment banking and quantitative research. Publications cover forecasting, market microstructure, volatility, crypto sectorisation and market simulation.



Zabil Khasayli

Proposed first engineering hire, Baku

Backend, distributed systems and full-stack engineering. Proposed responsibility: production hardening and core platform delivery.



Dariush Sedigh

Proposed growth and market research hire, USA

Business and information systems background. Proposed responsibility: local research, launch operations and acquisition testing.

Both candidates have expressed verbal interest. Employment terms, availability and start dates remain unconfirmed.

Independent downside, shared upside

$$P(\text{at least one success}) = 1 - \prod_{i=1}^n (1 - p_i)$$

p_i is the standalone probability that project i succeeds.

Plain meaning

If failures are independent and every project has a positive chance, adding another project increases the chance that at least one succeeds.

INDEPENDENT DOWNSIDE

A commercial failure in one project does not reduce another project's base chance. Shared components can remain useful even when nobody sells them separately.

SHARED UPSIDE

A successful product can improve other projects through better components, evidence, data, distribution or reputation. No numerical uplift is assumed here.

Market readiness determines sequencing

EQRC can delay a project such as Model Validation Pal until buyer workflows are ready, while other projects continue independently.

The equation describes portfolio logic only. It carries no calibrated probability or valuation input.

LAB FOUNDATION

RESEARCH → MODULES → MARKETS



Proprietary Models

Unique IP and model development



IVP
Implied vol smile



HFTE
Neural networks



Cointelation
Mean-reverting process



UTOPE
Two smiles



Multi-Target Tracking
Target optimisation



More Models
And beyond



Governed Data

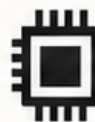
Governed financial data acquisition / client data control



Open-Source Components

Interchangeable and extensible

- Summarization
- Topic Modelling
- Sentiment Analysis
- n-grams
- More components



LLM Sidcars

- OpenAI API
- Anthropic API
- Gemini API
- Mistral API



SHARED
MODULES
& IP

COMMON
TECHNOLOGY
MULTIPLE
APPLICATIONS



SYSTEMATIC INVESTMENT PRODUCTS

SMA SYSTEMATIC TRADING



Crypto L/S
Digital assets



Global Macro
Cross-asset



Equities L/S
Global & regional



Commodities L/S
Energy & materials



SMA Systematic Trading (Others)
Rules-based alpha



Alternative Strategies
Diversified approaches



Multi-Asset
Multi-asset solutions



Custom Mandates
Client-specific products



FINANCIAL ANALYTICS & RISK

DEEPER INSIGHT. BROADER APPLICATIONS.



Volatility Surface Engine
Options & derivatives



Complex Portfolio Risk Management
Multi-asset, multi-risk



Financial Anomaly Detection
Signals & irregularities



P&L in NLP
Unstructured to insight



Market Simulator
Strategy & scenario analysis



Other Projects
Exploratory applications



NEW MARKETS & SPIN-OUTS

SAME TECHNOLOGY. NEW OPPORTUNITIES.



Stable Match
ENTRY POINT
AI for human connection



Model Validation Pal
Independent model review



GeoRisk
Geospatial intelligence



Defence Applications
Dual-use innovation



Future Products
New markets ahead



Modularity



Stand-Alone Monetization



Bundle Monetization



Diversified Portfolio



Compounding Through Reuse

Use of the £3m financing

01

PRODUCT

Harden the live product, improve reliability and instrument the matching journey.

02

PEOPLE

Hire engineering and growth employees after written terms and start dates are agreed.

03

PILOT

Run city waitlist tests, admit a selected cohort and measure commercial outcomes.

04

SAFETY AND OPERATIONS

Build moderation, privacy, legal, support and incident response capability.

MONTHLY MODEL

The accompanying model converts confirmed compensation, employer costs, supplier quotes, hiring dates and contingency into monthly cash flow.

Management will state runway only after every required input has been entered.

What the investor is funding

SECURITY

£3m primary equity in EQRC

The security provides exposure to EQRC as a whole. Stable Match is the first commercial programme and the wider portfolio remains part of the company case.

DOCUMENTS FOR THE LEAD INVESTOR

- Valuation, ownership percentage and any option-pool adjustment
- An IP schedule confirming ownership of code, brands, research and documentation
- Treatment of future licences, subsidiaries and product spin-outs
- Board, information and investor-protection rights

Current position

Valuation and ownership remain subject to lead-investor discussion and legal diligence.

£3m primary equity in EQRC

Stable Match is the first commercial programme

READINESS

Prepare

Agree team terms, harden the product and complete safety and privacy work.

PRODUCT

Pilot

Launch the selected cohort and report activation, match quality, safety and retention.

COMMERCIAL

Test buyer demand

Test consumer pricing and assess sponsor interest. Expand only when acquisition and retention evidence support it.

Current round: £3m primary equity

Valuation and ownership to be agreed with the lead investor

Commercial products and applications

Asset	What it does	Current evidence or status
Stable Match	Dating product using ordered preferences and stable allocation across a cohort.	Live web MVP and recorded demonstration
Model Validation Pal	Assists model reviewers with structured analysis and specialist documentation.	Working specialist MVP
Crypto SMA and QIS	Systematic crypto strategies across long-short, positive-skew and basket sleeves.	Management backtests and reported history. Independent verification required
Market Simulator	Simulates trading behaviour and market impact for research and strategy testing.	Published research and working model
P&L in NLP	Extracts business and financial implications from unstructured documents.	Formalisation document and early build
Volatility Surface Engine	Prices, cleans and interpolates volatility surfaces for derivatives analysis.	Research-backed product concept
Complex Portfolio Risk	Combines several risk measures for complex and multi-asset portfolios.	Formalisation and product concept
GeoRisk	Uses geospatial information to analyse location-dependent financial and operational risk.	Research or prototype stage

Management-reported status. Each asset remains subject to technical, legal and ownership diligence.

Proprietary models and enabling IP

Asset	What it does	Current evidence or role
IVP	Models implied-volatility pricing and smile behaviour.	Research component supporting volatility products
Cointelation	Models mean-reverting relationships and crossing behaviour in stochastic processes.	Research and formalisation
HFTE	Simulates a high-frequency trading ecosystem using machine learning, market microstructure and game theory.	Research and simulation
Multi-target tracking	Tracks and updates several targets under uncertainty.	Research. External partner validation required for defence use
Financial anomaly detection	Detects unusual behaviour in financial time series, regimes and relative-value relationships.	Reusable model
Responsible webscraper	Collects web information with governed acquisition and client-data controls.	Reusable data component
UTOPE	Research concept concerning the costs and errors created by pattern recognition.	Research concept
Open-source components	Summarisation, topic modelling, sentiment analysis and n-grams used inside products.	Enabling infrastructure. No stand-alone valuation in this financing case

Future products remain option value. The financing case does not assign them a numerical premium.