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SUPINDEX / SCIENCE & ASSESSMENT

# Scientific Catalog

Assessment architecture, partner evaluation and Founder  
Discovery

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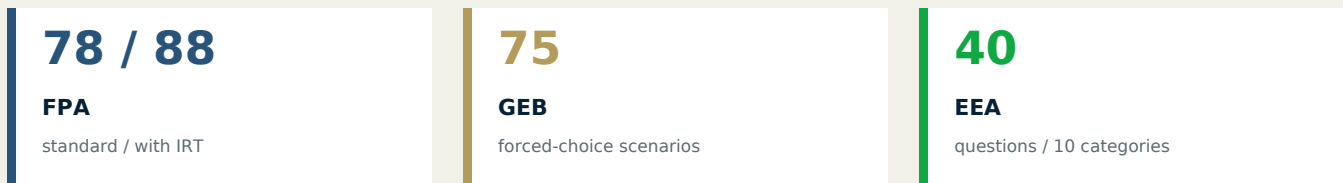
60 domains / 150 parameters

## 01 / SCIENTIFIC STRUCTURES

## ASSESSMENT FRAMEWORK

# Scientific Structures and Assessment Infrastructure

Supsiindex’s tripartite assessment architecture combines entrepreneurial knowledge and cognitive processing (FPA), behavioral judgment (GEB), and ecosystem awareness (EEA). The following describes the scientific framework specified in Main Data; model specification, preliminary operational evaluation and empirical validation are distinct stages.



## FPA | Founder Public Awareness

FPA assesses stage-aware entrepreneurial literacy, applied business logic, cognitive processing and signal detection. Its standard blueprint comprises 78 questions: 50 general questions across 10 core startup competencies, 25 questions tailored to the founder’s industry and venture stage, and 3 deliberately irrelevant questions for signal-to-noise measurement. The assessment contains 88 questions when IRT items are included.

The scoring architecture has four layers. Knowledge weighting evaluates declarative and applied correctness. Behavioral weighting maps response patterns to latent founder traits. Cognitive weighting uses a two-parameter logistic Item Response Theory model (2PL IRT), distinguishing item difficulty from item discrimination:

$$P_i(\theta) = 1 / [1 + \exp(-a_i(\theta - b_i))]$$

Here,  $\theta$  represents latent entrepreneurial ability or knowledge,  $b_i$  represents item difficulty, and  $a_i$  represents item discrimination. Concentration weighting applies Signal Detection Theory to responses involving the three deliberately irrelevant questions, using the sensitivity measure:

$$d' = Z(\text{Hit Rate}) - Z(\text{False Alarm Rate})$$

This component assesses signal-noise discrimination rather than correctness alone;  $Z$  denotes the inverse standard-normal cumulative distribution function.

## GEB | General Entrepreneurial Behavior

GEB examines decision-making under pressure, resilience, ethical judgment and susceptibility to cognitive derailers. It uses 75 forced-choice Situational Judgment Test scenarios, requiring founders to identify both the most effective and least effective actions.

Thurstonian Item Response Theory (T-IRT) models differences between the latent utilities of response options. The design addresses ipsative scoring effects and socially desirable responding, with between-person comparable trait scores specified on a T-scale with a mean of 50 and standard deviation of 10.

A Strength Layer assesses 15–19 positive behavioral constructs; a Risk Engine examines 20 cognitive derailers. Examples include adaptability and ethical integrity on the strength side, and overconfidence, micromanagement and confirmation bias on the risk side. Socially desirable distractors contribute to a Safety Score intended to assess intellectual humility.

Sources: Main Data, pp. 1–3 and 5–7; CPO-supplied FPA question counts and GEB Strength Layer terminology. Engine names follow Main Data; the partner report uses “Founder Proficiency Assessment” for FPA.

ASSESSMENT FRAMEWORK

EEA & Shared Infrastructure

EEA | Ecosystem Environmental Awareness

EEA assesses contextual intelligence, regulatory and institutional literacy, and understanding of the founder’s operating environment. Its blueprint contains 40 questions, divided into 20 general and 20 industry-specific questions across 10 categories.

|                                                                                                                                                                                                                          |                                                                                                                                                                                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>ECOSYSTEM BASED</b><br>01 Funding & Capital Landscape<br>02 Talent & Human Capital<br>03 General Regulatory & Legal Framework<br>04 Market Access & Commercialization Culture<br>05 Infrastructure & Support Networks | <b>INDUSTRY DEPENDENT</b><br>01 Sector Regulations & Compliance<br>02 Value Chain & Supply Chain Dynamics<br>03 Technology Trends<br>04 Competitive Landscape<br>05 Niche Customer Segments |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Anchor item equating is specified to address differences in test difficulty across ecosystems. Universal anchor items constitute at least 20% of each test deck, providing a common reference for comparison across local contexts.

Shared psychometric infrastructure

|                                         |                                                                                                                                                                                                                                   |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Score reporting and benchmarking</b> | A 0–1,000 index scale, with four quartile labels: Q1 Legendary, Q2 Visionary, Q3 Architect and Q4 Aspirant. Comparisons use peers matched by industry, venture stage and ecosystem.                                               |
| <b>Measurement precision</b>            | Item information determines the standard error of measurement: $SEM(\theta) = 1/\sqrt{I(\theta)}$ . Scores are accompanied by confidence intervals, making measurement uncertainty explicit.                                      |
| <b>Composite scoring</b>                | Penalty for Bottleneck (PFB) logic constrains multidimensional scores so that stronger dimensions do not conceal substantial weaknesses elsewhere.                                                                                |
| <b>Score currency</b>                   | Knowledge-related review cycles are specified as two, three or five years for rapid-, normal- or slow-growth contexts; GEB has a five-year validity policy. A separate quarterly decay rule applies to active leaderboard scores. |

Integrity, fairness and item quality

Supsindex uses an internally developed proctoring system. Assessments remain in full-screen mode throughout. Exiting full screen, switching tabs or opening other windows is detected and recorded; repeated warnings lead to attempt termination. At assessment start, other browser tabs and distracting desktop applications are closed automatically. Participants must save or back up work beforehand, as unsaved work in other windows will be lost.

Participants must face an active, unobstructed webcam and keep their microphone active throughout. A plain, flat wall without decoration, shelving or patterned surfaces is required behind the participant. No other person may appear in frame; the system monitors for additional faces, and detected movement may invalidate the test.

Phones, smartwatches, tablets and extra monitors must be kept away; only the assessment device may be used. A stable internet connection is required; disconnections or reconnections may interrupt the test, invalidate results or forfeit the attempt. One five-minute emergency break is permitted. Exceeding this limit triggers automatic submission and score invalidation. Non-compliance may result in immediate termination, invalidation of results or denial of certification.

The governance specification includes Differential Item Functioning (DIF) and adverse-impact analysis, with Mantel-Haenszel statistics specified for fairness review, and a decentralized faculty-and-validator item-review pipeline. These are assessment safeguards, not substitutes for empirical validation.

Downstream analytical methods

Main Data also identifies Cox proportional-hazards survival analysis and panel logistic models for examining venture-level outcomes, including startup shutdown and invested-capital outcomes. The prospective research program described in Section 03 separately specifies founder execution as its primary outcome.

Sources: Main Data, pp. 3–9; Founder Discovery Study — FD-01, §§14–15; CPO-supplied EEA terminology and proctoring rules. The validity periods above are framework policies, not longitudinal findings reported in these materials.

PRELIMINARY EVALUATION

# Partner Panel Feedback

Internal analysis of Supsindex assessment engines

75

FOUNDERS

Three ecosystem partners / preliminary review

## Preliminary deployment and review

Following partnership agreements established in October 2025, the initial version of Supsindex’s tripartite engine was made available for preliminary use in December 2025 to three startup-ecosystem partners: HubSmartUp (United Kingdom), Startup Xpand (Turkey), and 5PM Ventures (United Arab Emirates). Their initial feedback was consolidated in the internal report dated 27 January 2026.

The preliminary review included a total of 75 founders, enabling decision-makers to compare assessment outputs with their prior knowledge of participants. Mentors audited the questions after assessment completion, and the reviewed questions were subsequently removed from the active repository.

The panels examined expectation alignment, problem severity, item methodology, structural and authoring defects, agreement with prior founder evaluations, and potential operational uses. Pairwise and placement agreement were used to compare assessment results with existing partner judgments.

## Reported findings

| ENGINE | PAIRWISE AGREEMENT | PARTNER-STATED APPLICATION                                                    |
|--------|--------------------|-------------------------------------------------------------------------------|
| FPA    | Up to 94.8%        | All three partners expressed interest in application screening and selection. |
| EEA    | 63.0%–88.5%        | A directional signal for research, detection and founder development.         |
| GEB    | 58.7%–70.6%        | Mentor allocation and developmental consulting, rather than screening.        |

Interpretation. The partners reported no critical or fatal defects, while identifying actionable item and taxonomy problems. These agreement figures describe alignment with partner judgments; they are not estimates of predictive accuracy for subsequent founder execution or venture success.

## Refinement and scientific development

The review identified answer-length cues in distractors, overly broad industry categories in EEA, and isolated answer-key inconsistencies. It also called for clearer articulation of GEB’s behavioral methodology and further T-IRT confirmation.

Using the outputs and results gathered over the six months following the preliminary release, Supsindex rectified the identified issues in the engine’s first layer.

The Item Response Theory (IRT) process began in early August, coinciding with Supsindex’s soft launch. Academic results are scheduled for publication in the second quarter of 2027. This work is distinct from the preliminary partner review and the prospective Founder Discovery study.

Source: Final Report — Supsindex, pp. 2–6. The December release, 75-founder cohort total, subsequent six-month rectification, August IRT start and Q2 2027 publication schedule are development updates supplied by Supsindex for this catalog, rather than findings recorded in the January report.

## 03 / FOUNDER DISCOVERY

## RESEARCH PROTOCOL

# Founder Discovery

FD-01 / Prospective multi-site longitudinal cohort study

|                 |             |              |                 |
|-----------------|-------------|--------------|-----------------|
| 300<br>FOUNDERS | 05<br>SITES | 06<br>MONTHS | FEMS<br>OUTCOME |
|-----------------|-------------|--------------|-----------------|

## Program overview

Founder Discovery is a prospective, longitudinal, multi-site observational study designed to investigate whether baseline Supsindex scores are associated with subsequent real-world founder execution. FD-01 specifies a target of 300 founders across five accelerator or incubator programs, approximately 60 founders per site, observed over six months.

Baseline FPA, GEB and EEA scores form the predictor system. Subsequent execution will be measured separately through FEMS — the Founder Execution Measurement System. Venture outcomes, such as product milestones, customer acquisition, revenue development and funding events, form a secondary outcome layer. The protocol does not impose an experimental intervention or randomize treatment.

### CORE RESEARCH QUESTION

**“Can measurable founder-readiness characteristics obtained before or at the beginning of a development period provide useful information about subsequent founder execution?”**

## Research objectives

- Primary association. Estimate the association between baseline Supsindex assessment scores and the subsequent FEMS Founder Execution Score during the six-month observation period.
- Engine-level predictive validity. Evaluate FPA, GEB and EEA individually and determine whether the combined three-engine model performs better than any single engine.
- Domain and parameter analysis. Examine the 60-domain structure as an intermediate analytical layer and explore associations across the 150-parameter architecture specified in FD-01. Parameter-level analyses are exploratory, not 150 independent primary hypotheses.
- Incremental predictive validity. Test whether Supsindex adds predictive information beyond conventional founder and startup variables, including experience, startup stage, industry, team size, funding and revenue.
- Venture outcomes and robustness. Examine selected venture-level outcomes and assess whether relationships remain after adjustment for relevant confounders and differences between participating sites.
- External-validation readiness. Establish a structured dataset suitable for subsequent validation in an independent founder cohort.

## Measurement and interpretation

The entire cohort will undergo monthly execution measurement, supplemented by event-driven milestone recording. FEMS prioritizes objective and documentary evidence over founder self-report. The protocol favors delayed release of detailed assessment reports and blinded outcome assessment where feasible; the complete FEMS instrument remains a separate methodological workstream.

Predictive performance will be assessed on data not used to fit or optimize the model. Findings will distinguish association, out-of-sample prediction and incremental predictive validity; the observational design does not establish causation or guarantee founder success. The protocol requires transparent reporting of supportive and negative findings, with reporting aligned to STROBE.

Source: Founder Discovery Study — FD-01, v1.0, §§1-6, 9-19, 21-22, 26-33 and 43-48. Recruitment numbers are study targets; the protocol is a research plan, not a completed results report.

APPENDIX A / PARAMETER INVENTORY

60 DOMAINS / 150 PARAMETERS

FPA | General Knowledge

Domains 01-10 • Parameters 1-50

DOMAINS 01-05

01 Market Validation & Customer Discovery

- 1 Target Audience Segmentation
- 2 Interview Techniques
- 3 MVP Definition
- 4 Market Sizing
- 5 Directional Shift

02 Business Modeling & Economics

- 6 Unit Economics
- 7 Monetization Channels
- 8 Cost Structure
- 9 Value Proposition
- 10 Lean Canvas

03 Financial Literacy & Fundraising

- 11 Term Sheet Terminology
- 12 Cash Flow Analysis
- 13 Burn Rate Calculation
- 14 Dilution Logic
- 15 Investor Types

04 Legal, IP & Governance

- 16 Co-Founder Disputes
- 17 IP Assignment
- 18 Corporate Structure
- 19 Data Privacy
- 20 Employment Classification

05 Product Management & Development

- 21 Feature Prioritization
- 22 Technical Debt
- 23 UX/UI Design
- 24 Product Metrics
- 25 Iterative Development

DOMAINS 06-10

06 Marketing & Growth Hacking

- 26 SEO Strategy
- 27 Content Marketing
- 28 Funnel Metrics
- 29 Paid Advertising
- 30 Brand Personas

07 Sales & Negotiation

- 31 Lead Qualification
- 32 Deal Finalization
- 33 CRM Hygiene
- 34 Negotiation Strategy
- 35 Sales Compensation

08 Team Building & Culture

- 36 Dispute Mediation
- 37 Cultural Values
- 38 Talent Acquisition
- 39 Remote Management
- 40 Employee Retention

09 Fundraising Strategy & Valuation

- 41 Investor Presentation Flow
- 42 Investor Psychology
- 43 Valuation Methods
- 44 Due Diligence
- 45 Exit Strategy

10 Scaling & Operations

- 46 Organizational Structure
- 47 Operational Bottlenecks
- 48 Goal Setting (OKRs)
- 49 Tech Stack Scaling
- 50 Incident Management

Source: The 60 domains and 150 parameters offered by Supsindex, pp. 4-6 and 13. Page references refer to physical pages in the supplied PDF.

## APPENDIX A / PARAMETER INVENTORY

60 DOMAINS / 150 PARAMETERS

# FPA | Industry Specific Knowledge

Example: SaaS • Domains 11–15 • Parameters 51–75

## 11 Revenue Architecture & Growth Engines

- 51** E-commerce Platform as a Service
- 52** Customer Relationship Management (CRM) SaaS
- 53** Marketing Automation Platforms
- 54** Subscription Management & Revenue Operations
- 55** Sales Enablement & Intelligence

## 12 Operational Backbone & Compliance

- 56** Enterprise Resource Planning (ERP) SaaS
- 57** Financial & Accounting SaaS
- 58** Governance, Risk, and Compliance (GRC)
- 59** HRM & HRIS Platforms
- 60** Supply Chain Management (SCM) SaaS

## 13 Product Strategy & Development Ecosystem

- 61** Design & Prototyping SaaS
- 62** Product Management & Roadmapping Software
- 63** API Management and Gateway Platforms
- 64** API-as-a-Service
- 65** Low-Code/No-Code Application Development Platforms

## 14 Customer Success & Experience Layer

- 66** Community Management Platforms
- 67** Customer Support & Helpdesk SaaS
- 68** Content Management Systems (CMS) & Headless CMS
- 69** Digital Adoption Platforms (DAPs)
- 70** Communication Platform as a Service (CPaaS)

## 15 Data Intelligence & Organizational Efficiency

- 71** Team Collaboration Tools (Async vs Sync)
- 72** Business Intelligence (BI) & Data Visualization SaaS
- 73** Knowledge Management & Internal Wiki Platforms
- 74** Project Management & Team Collaboration Tools
- 75** Vertical SaaS

Source: The 60 domains and 150 parameters offered by Supsiindex, pp. 7 and 13. Page references refer to physical pages in the supplied PDF.

## APPENDIX A / PARAMETER INVENTORY

60 DOMAINS / 150 PARAMETERS

# Behavioral and Cognitive Parameters

FPA: domains 16–30 / parameters 76–90 • GEB: domains 31–50 / parameters 91–110

| FPA / BEHAVIORAL CODE |    |                                                | GEB / BIASES & UNUSEFUL TRAITS |     |                                                       |
|-----------------------|----|------------------------------------------------|--------------------------------|-----|-------------------------------------------------------|
| 16                    | 76 | Comfortable with risk                          | 31                             | 91  | Autocratic Management                                 |
| 17                    | 77 | Comfortable with being the center of attention | 32                             | 92  | Blame-Shifting / Lack of Accountability               |
| 18                    | 78 | Energetic                                      | 33                             | 93  | Burnout / Lack of Self-regulation                     |
| 19                    | 79 | Comfortable with long-term goals               | 34                             | 94  | Conflict Avoidance                                    |
| 20                    | 80 | Curious                                        | 35                             | 95  | Defensive Response                                    |
| 21                    | 81 | Responsible                                    | 36                             | 96  | Ethical Lapses / Compromise of Values                 |
| 22                    | 82 | Successful                                     | 37                             | 97  | Fixed Mindset                                         |
| 23                    | 83 | Organized                                      | 38                             | 98  | Indecisiveness / Over-analysis                        |
| 24                    | 84 | Emotional management                           | 39                             | 99  | Micromanagement                                       |
| 25                    | 85 | Self-efficacy                                  | 40                             | 100 | Neglect of Culture                                    |
| 26                    | 86 | Resilience and perseverance                    | 41                             | 101 | Neglect of Strategy & Governance                      |
| 27                    | 87 | Ability to delegate                            | 42                             | 102 | Nepotistic Hiring / Favoritism                        |
| FPA / COGNITIVE       |    |                                                | 43                             | 103 | Overconfidence                                        |
| 28                    | 88 | Recall                                         | 44                             | 104 | Poor Succession Planning / Belief in Indispensability |
| 29                    | 89 | Relational                                     | 45                             | 105 | Rash Decision-Making                                  |
| 30                    | 90 | Judgment                                       | 46                             | 106 | Resistance to Adaptation                              |
|                       |    |                                                | 47                             | 107 | Subjective Decision-Making / “Gut Feel”               |
|                       |    |                                                | 48                             | 108 | Sub-optimal Risk-Taking                               |
|                       |    |                                                | 49                             | 109 | Unethical Competition                                 |
|                       |    |                                                | 50                             | 110 | Wilful Blindness / Strategic Myopia                   |

Source: The 60 domains and 150 parameters offered by Supindex, pp. 8–9 and 13. Page references refer to physical pages in the supplied PDF.

## APPENDIX A / PARAMETER INVENTORY

60 DOMAINS / 150 PARAMETERS

# EEA | General and Industry Specific

Domains 51–60 • Parameters 111–150

## GENERAL

## 51 Funding & Capital Landscape

- 111 Venture Capital & Angel Investor Networks
- 112 Government Grants & Public Funding Mechanisms
- 113 Early-Stage Investment Climate
- 114 Corporate Venture Capital & Strategic Partnerships

## 52 Talent & Human Capital

- 115 Technical Talent Pool (Engineering, Data, R&D)
- 116 Business & Commercial Talent (Sales, Marketing, Operations)
- 117 University & Research Institution Linkages
- 118 Labor Laws, Compensation Norms & Equity Culture

## 53 General Regulatory & Legal Framework

- 119 Business Incorporation & Corporate Governance
- 120 Taxation & Fiscal Incentives
- 121 Intellectual Property (IP) Law & Protection
- 122 Cross-Border Operations & International Law

## 54 Market Access & Commercialization Culture

- 123 Domestic Market Size & Consumer/Business Dynamics
- 124 Key Distribution Channels & Gatekeepers
- 125 Public Sector & Enterprise Procurement Processes
- 126 Cultural Attitude Towards Innovation & Failure

## 55 Infrastructure & Support Networks

- 127 Accelerators, Incubators & Co-working Spaces
- 128 Mentorship & Advisory Networks
- 129 Industry Associations & Community Events
- 130 Digital & Physical Infrastructure Quality

## INDUSTRY SPECIFIC / BIO TECHNOLOGY

## 56 Sector-Specific Regulations & Compliance

- 131 Key Regulatory Bodies & Approval Processes
- 132 Industry-Specific Data Privacy & Security Standards
- 133 Product Liability & Safety Standards
- 134 Lobbying Landscape & Future Legislative Trends

## 57 Value Chain & Supply Chain Dynamics

- 135 Sourcing of Key Components / Data / Services
- 136 Manufacturing, Production, or Service Delivery Processes
- 137 Industry-Specific Distribution & Logistics
- 138 Key Integration Points & Platform Dependencies

## 58 Industry-Specific Technology & Innovation Trends

- 139 Dominant & Emerging Technology Stacks
- 140 Core Scientific or Technological Breakthroughs
- 141 Pace of Obsolescence & Innovation Cycles
- 142 Data as a Strategic Asset

## 59 Competitive Landscape & Incumbent Dynamics

- 143 Major Incumbents & Their Structural Vulnerabilities
- 144 Key Startup Competitors & Funding / Traction Benchmarks
- 145 Likely Incumbent Response Scenarios
- 146 Barriers to Entry & Defensible Moats

## 60 Niche Customer Segments & Go-to-Market Channels

- 147 Ideal Customer Profile (ICP) & User Context
- 148 Industry-Specific Sales Cycles & Funnels
- 149 Niche Marketing & Communication Channels
- 150 Unit Economics, CAC & LTV Benchmarks

Source: The 60 domains and 150 parameters offered by Supsiindex, pp. 11–13. Page references refer to physical pages in the supplied PDF.