

Scientifically Grounded Investment Suitability Assessment

*From Psychometric Questionnaires to the
FinID v2.0 Game-Based Engine*

Executive Summary

The problem	Current approaches to investment suitability assessment are fragmented, inconsistent, and often misaligned with investor protection objectives. Most questionnaires measure what investors say about themselves, not how they actually behave under pressure. Methodologies differ across providers, profiles are non-transferable, and the process serves compliance more than investor protection.
What FinID is	A scientifically grounded, provider-independent investment suitability platform. We combine psychometric item selection, IRT-calibrated knowledge measurement, and behavioral simulation to produce a portable investor profile that is accurate, auditable, and MiFID II compliant. The result is a portable investor profile that can be used consistently across institutions.
Why CEE	No standardized, portable suitability solution exists for Central and Eastern Europe. FinID is built for this market with systematic mapping of EU regulatory requirements and a team with deep expertise in CEE financial markets.
Where we are	MVP deployed and actively iterated in real-world conditions. FinID v2.0 simulation engine completing April/May 2026. Four years of independent R&D documented in this whitepaper.
What we are looking for	A strategic institutional partner for the CEE region – for a pilot engagement, distribution partnership, or strategic investment. We are open to discussing all forms of collaboration.

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01 Introduction

Suitability testing is a central control mechanism in retail investment advice. Under MiFID II, firms must recommend only products that fit the client's objectives, risk tolerance, ability to bear losses, and relevant knowledge. In practice, this is difficult to achieve consistently across the industry.

Prior research documents substantial heterogeneity and methodological weaknesses in investor risk profiling: overreliance on self-assessment, inconsistent questionnaire design, and structural conflicts of interest embedded in provider-driven methodology. The same client answering the same questions may receive different risk classifications depending on which institution administers the questionnaire – not because their profile differs, but because the methodology does.

Core proposition

Investment suitability assessment can be scientifically structured and behaviorally enriched without compromising regulatory auditability or legal defensibility.

This whitepaper documents three practical contributions:

- FinID operationalizes suitability as a multi-dimensional construct, not a single-score heuristic
- Question architecture informed by factor-analytic and IRT-based item selection
- FinID v2.0 introduces a behavioral module that captures revealed preferences while preserving full scoring compatibility

02 The Problem with Current Suitability Questionnaires

Our team conducted a systematic review of 31 Czech investment suitability questionnaires (655 total questions) currently in use by licensed investment distributors. The analysis revealed five structural weaknesses consistent with findings in international literature.

2.1 Methodological fragmentation

No two providers use the same construct model, item structure, or scoring logic. Risk categories are defined, weighted, and thresholded differently. Profiles are non-transferable and results inconsistent across institutions.

2.2 Self-report bias

Conventional questionnaires rely on declarative responses: what investors say they would do in a hypothetical scenario. Behavioral finance research consistently shows that declarative risk tolerance is a poor predictor of actual behavior under real market stress.

2.3 Structural conflict of interest

In the dominant advisory model, the same individual assesses the client's risk profile and recommends products. Provider-designed questionnaires are not structurally independent. Framing, answer option design, and scoring thresholds can be calibrated to serve distribution goals rather than investor protection.

2.4 Static, non-portable profiles

A suitability profile is typically created once, stored by the provider, and never accessed again by the client. It does not update with life circumstances, cannot be transferred between providers, and offers no feedback loop to the investor.

2.5 Inconsistent knowledge measurement

Financial knowledge is a mandated component of suitability assessment under MiFID II. Yet most questionnaires use unvalidated, unstandardized knowledge items with no item difficulty calibration.

03 FinID Methodology

FinID's methodology is documented across two layers: the sequential development process that produced the instrument, and the resulting assessment architecture.

3.1 Development process

The instrument was built in five sequential stages, each grounded in the previous one.

Stage 1 – Regulatory framework mapping

The development process began with a systematic analysis of MiFID II and ESMA suitability requirements, including Czech ČNB regulatory guidance. This produced a structured mapping of legally required suitability dimensions into questionnaire categories – the regulatory skeleton on which all subsequent item development was built.

Stage 2 – Market audit and item development

We collected and analyzed 31 Czech investment questionnaires currently in use (655 items total). Items were evaluated against our regulatory mapping. Critically, this process was not limited to selecting existing items: we identified systematic flaws in wording, answer option design, and construct coverage, and developed new items from scratch where existing market practice was insufficient.

Stage 3 – Psychometric item screening

The consolidated item pool underwent factor-analytic screening to identify construct validity and inter-item consistency. In the retained factor-analysis table, 43 of 77 candidate rows were selected. Reliability diagnostics revealed stronger consistency for experience subdomains and weaker consistency for risk tolerance items, informing targeted redesign.

Stage 4 – IRT calibration of knowledge module

Consistent with best-practice measurement literature, the knowledge module underwent IRT calibration. Key findings:

- Comparative testing of 1PL, 2PL, and 3PL model families; 2PL preferred for fit-parsimony trade-off
- TG1: 16 items retained from 31 candidates; TG2: 14 items retained from 31 candidates
- Five 10-item knowledge variants prepared with balanced b-parameter spread

Stage 5 – Instrument design and productization

Research outputs were translated into a deployable assessment instrument. Item selection and formulation for the v1 questionnaire were finalized based on the preceding psychometric and regulatory analysis, resulting in a structured instrument with validated scales, response formats, and scoring logic. A results architecture was developed to communicate the multi-dimensional profile in an interpretable format for both investors and advisers. The MVP was deployed iteratively and refined on the basis of real-world completions. Specification work for v2.0 subsequently formalized the transition to the simulation-based architecture described in section 3.2.

3.2 Resulting architecture

3.2.1 Construct model and scoring dimensions

FinID evaluates investor suitability across seven dimensions: investment goals, risk tolerance, financial background, loss-bearing capacity, investment horizon, knowledge, and experience. The output layer supports profile-to-product fit using explicit requirement matching. Each scored key includes provenance metadata: whether the value was derived from a direct question or behaviorally inferred, together with a confidence indicator.

<p>Seven suitability dimensions</p> <p>Investment goals · Risk tolerance · Financial background · Loss-bearing capacity · Investment horizon · Knowledge · Experience</p>	<p>Output architecture</p> <p>Per-key provenance metadata. Direct vs. inferred. Confidence indicator. Full regulatory key mapping.</p>
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3.2.2 FinID v2.0 – Dual modality

FinID v2.0 does not replace the questionnaire format – it offers it as one of two elicitation modalities. Institutions and investors may choose the approach that fits their context.

<p>Questionnaire modality</p> <p>Structured multi-dimensional form. Preferred by conservative compliance environments. Full MiFID coverage, direct question mapping. Suitable for traditional advisory contexts.</p>	<p>Simulation modality (v2.0)</p> <p>Eight-screen game-like flow. Captures revealed behavioral preferences. Reduces friction, improves engagement. Suitable for digital channels and younger investor segments.</p>
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Both modalities produce identical output keys with full regulatory compatibility. The choice of modality is recorded as metadata. Inference rules are deterministic and documented – each inferred value carries a telemetry source tag and confidence metadata.

04 Implementation Evidence

31 questionnaires reviewed <small>655 total items</small>	43/77 items retained <small>factor-analytic screening</small>	2PL IRT model selected <small>fit-parsimony trade-off</small>	5×10 knowledge variants <small>IRT-calibrated</small>
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Area	Observed output
Regulatory mapping	MiFID II / ESMA / ČNB structure mapped to questionnaire categories in Stage 1 – the foundational design constraint for all subsequent development.
Market baseline	31 Czech questionnaires reviewed (655 items). New items developed from scratch where market practice was insufficient.
General module screening	43/77 candidate rows retained. Domain reliability uneven; risk tolerance block redesigned based on factor-analytic diagnostics.
Knowledge module	Five 10-item variants after IRT calibration. 2PL preferred. TG1: 16/31 items retained. TG2: 14/31 items retained.
Scoring model	Seven-dimension output with explicit regulatory key mapping, confidence metadata, and per-key derivation provenance.
FinID v2.0	Dual modality (questionnaire + simulation). Deterministic behavioral inference with full scoring compatibility. Replayable telemetry.
Deployment	MVP live at finid.cz. FinID v2.0 completing April/May 2026.

05 Industry Implications

For distributors, advisers, and compliance functions, FinID's architecture offers an operational middle ground between static compliance forms and opaque AI black boxes.

Auditable evidence trails Per-key derivation provenance. Defensible under supervisory review. No black-box scoring.	Regulatory compatibility Explicit alignment with MiFID/ESMA logic. No workflow disruption for compliance teams.
Portable, provider-agnostic Profile transferable across institutions and jurisdictions. Client owns the data.	Dual modality Questionnaire or simulation depending on context and client preference.
Downstream data value Structured profile enables product matching, personalization, longitudinal tracking, and segmentation based on genuine behavioral characteristics.	CEE positioning No comparable portable standard exists for Central and Eastern Europe. FinID fills this gap.

The core proposition for financial institutions is not 'replace your questionnaire with gamification.' It is 'replace a methodologically weak static form with a scientifically structured, behaviorally informed, and fully auditable assessment that actually measures what it claims to measure.'

A tool that accurately measures investor profile generates better data for everyone in the distribution chain – enabling more accurate product-to-profile matching, meaningful portfolio personalization, longitudinal tracking of profile changes over time, and segmentation based on genuine behavioral and attitudinal characteristics rather than declared preferences.

06 Limitations and Validation Roadmap

6.1 Current limitations

Three areas where further development is explicitly planned:

- Behavioral inference rules are calibrated to cover the principles-based regulatory space defined by MiFID II and ESMA. Ongoing monitoring will track alignment as regulatory guidance evolves.
- High-end loss-tolerance elicitation is a known design challenge across the field. FinID v2.0 addresses this through progressive scenario design; further refinement is part of the v2.x roadmap.
- Calibration evidence is currently documented as internal R&D artifacts. External validation is underway as part of the team's ongoing academic research programme.

6.2 Planned validation stages

Stage 1 – External A/B validation Compare FinID v2.0 profiles against v1 questionnaire results on matched respondent pool. Test behavioral consistency and scoring stability.	Stage 2 – Institutional pilot Deploy in live distribution environment. Collect compliance team feedback, assess integration friction, document suitability evidence quality.
Stage 3 – ESG integration Extend the scoring framework to capture sustainability preferences within the same auditable pipeline.	Stage 4 – Longitudinal profile tracking Verify that profiles evolve meaningfully with changes in investor circumstances. Periodic suitability review with adaptive updates aligned with regulatory requirements.

07 About FinID

FinID was founded in 2022 by a multidisciplinary team with backgrounds in behavioral finance, psychometrics, data science, and financial markets. All team members share academic roots in finance research and bring complementary expertise to the platform.

Martin Stachoň · Methodology

Ph.D. Finance · Behavioral & experimental finance · Mendel University / UJEP · Expert in psychometric method development, factor analysis, IRT

Lucie Staněk Gyönyör · Strategy, operations & product

Ph.D. Finance · Sustainable finance & ESG · former analyst, Ministry of Finance CZ · Expert in ESG data quality, market interconnectedness, risk-return analysis

Daniel Stašek · Technology

Ph.D. Finance · High-frequency data & volatility forecasting · Data Scientist at Enverus · Expert in ensemble methods, liquidity measures, asymmetric loss functions

Lukáš Marek · Business & partnerships

Msc Finance · Finance researcher · Statistics & data visualization · SaaS experience

The CEE Standard for Investment Suitability

FinID is looking for its first institutional partner in the CEE region. We are open to pilot partnerships, research collaboration, and strategic dialogue.

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