THE STARTUP MENTOR™

Basic Assessment — GoldLeaf

We build your forests.

This assessment has been generated using publicly available information only.

About This Assessment

Goal. This assessment evaluates a startup across sixteen startup business value dimensions — from customer definition and pain urgency through monetisation, team, and defensibility — to determine where the startup is today, what is constraining its value, and what would most materially increase it.

Method. Every claim is graded on a five-level evidence scale (E1–E5). E1 = founder assumption, no external validation. E2 = anecdotal supporting data. E3 = independently verified. E4 = observable actions (signed LOIs, pilots). E5 = revenue, binding contracts. The report separates what has been proven from what has been assumed.

Output. The report delivers: (1) deal signal (PASS / WATCH / INTERESTED), (2) a score and status for each dimension, with the evidence behind it, (3) a visual startup health diagnostic (the Value Growth Map), (4) customer and market analysis with market sizing (TAM/SAM/SOM), (5) competitive landscape and moat assessment, (6) business model evaluation with unit economics, (7) founder and team assessment, (8) growth mechanics, (9) valuation range with the specific actions that would move it higher, (10) evidence quality chart showing validation vs assumption per dimension, (11) red and green flags with severity ratings and mitigation paths, (12) investment readiness evaluation against target funding round, (13) tarpit pattern screening against 500+ known failure patterns, (14) prioritised next steps ordered by valuation impact, and (15) sources bibliography which identifies the source for each claim.

GoldLeaf has developed GL-1, a synthetic photocatalytic compound that captures CO2 from ambient air on building surfaces and converts it to soil-enriching organic nitrogen compounds — letting roads, walls, and roofs perform the carbon fixation work of trees. Active users: Zero. Three conditional conversations. Revenue: Zero. Customers: Zero paying. Three conditional..

GoldLeaf has developed GL-1, a synthetic photocatalytic compound that captures CO2 from ambient air on building surfaces and converts it to soil-enriching organic nitrogen compounds — letting roads, walls, and roofs perform the carbon fixation work of trees. Total addressable market: Global building materials additives — estimated €80-120B.. Serviceable market: European climate-active additives — estimated €5-15B by 2030.. Initial target: Dutch/Benelux paint and concrete manufacturers — estimated €200-500M.. Entry wedge: Paint additive for Dutch manufacturers with CSRD obligations.. Expansion: Concrete → asphalt → European expansion → licensing globally → carbon credits..

Dr. Marieke van den Berg (CEO) & Dr. Sander Kuijpers (CTO) University spin-off from Wageningen University & Research (2022). CTO invented GL-1 during PhD in materials chemistry under Prof. de Groot. CEO has 12 years in building materials industry (Akzo Nobel, then Sika AG). €8M Series A (Invest-NL, NOM, EU Green Deal grant). ~20 employees, R&D-heavy.; Lab-proven at gram scale, building prototype manufacturing for kg-scale. Three conditional offtake agreements signed Team: CEO (commercial, ex-Akzo Nobel/Sika), CTO (inventor, Wageningen PhD), VP Operations (ex-BASF process engineering), 12 R&D; staff, 3 business development, 2 admin. Scientific Advisory Board: Prof. de Groot (Wageningen), Prof. Fernández (ETH Zurich), Dr. Hendriks (TNO). Gaps: No CFO — CEO handling finance. No regulatory/compliance specialist. Manufacturing scale-up experience limited to CTO's lab background Founder potential: 72/100 — Strong complementary pair. Behavioural assessment requires live session..

Stage	S-Init
Model	B2B — sell GL-1 additive to paint, concrete, brick, and asphalt manufacturers as a raw material input. Licensing model under evaluation.
Deal Signal	WATCH — HIGH POTENTIAL

WATCH — HIGH POTENTIAL

Overall Assessment

GoldLeaf has the makings of a category-defining climate technology company. The science is real — lab results reviewed show consistent CO2 absorption at stated rates across multiple batches and conditions. The regulatory tailwind is the strongest in our assessment portfolio: CSRD and CBAM create compulsory demand with specific deadlines that are not discretionary. The CEO's industry network has already converted at 60% (three conditional offtakes from five conversations) — an unusually high signal for a product that does not yet exist at commercial scale.

The central problem is not technical and not commercial — it is strategic paralysis. The company is four years old and still running two fundamentally different business models in parallel. Direct supply requires €40-60M and builds a manufacturing company. Licensing requires €15-20M and builds a technology company. These are different businesses with different capital structures, different team requirements, different risk profiles, and different investor profiles. Running both simultaneously doubles the strategic uncertainty and makes the Series B fundraise effectively impossible to structure.

The second critical gap is regulatory. The company has no regulatory specialist, has not started the EIA required for the Emmen facility, and has not begun REACH registration. The 2028 commercial target assumes regulatory clearance in 2027 — with zero work started. In the Dutch context, the nitrogen by-product question adds political sensitivity that the team appears to have not considered.

The third concern is the production carbon footprint. For a company whose entire value proposition is carbon capture, the inability to demonstrate net-positive carbon balance is not just a gap — it is a potential existential risk. If GL-1 production emits more CO2 than GL-1 captures over its lifetime, the product has no viable market regardless of regulatory tailwinds.

Despite these concerns, the underlying opportunity is genuine. Passive surface carbon capture is a category that does not yet exist. The regulatory environment is creating compulsory demand. The team is strong on paper — CEO with relevant industry network, CTO with genuine IP, VP Ops with process engineering credentials. The conditional offtakes demonstrate real customer pull. The Province of Gelderland independently identifying carbon credit monetisation suggests organic market pull beyond the core product proposition.

The path forward is clear and sequential: (1) make the business model decision, (2) close funding, (3) prove kg-scale production, (4) clear regulatory gates, (5) convert conditional offtakes to binding contracts, (6) first revenue. Each step unlocks the next. The company cannot afford to pursue them in parallel — it does not have the cash or the team bandwidth.

POTENTIAL CATEGORY CREATOR

GoldLeaf is creating a category that does not yet exist: passive carbon capture integrated into building materials. Not DAC. Not carbon offset. A third approach — making existing infrastructure perform carbon fixation as a by-product of being built.

Green Flags

- **High** — Customer-originated carbon credit idea
- **High** — Three offtakes from CEO's first five conversations
- **Medium** — Regulatory timing creates natural moat
- **Medium** — Complementary CEO-CTO pairing with relevant domain depth

Red Flags

- **HIGH** — Business model decision paralysis — licensing vs direct supply unresolved after 4 years
- **HIGH** — Cash runway of 10 months with no bridge funding plan
- **HIGH** — Lab-to-production transition is unproven — no kg-scale data exists
- **HIGH** — No regulatory specialist on team — EIA not started, REACH timeline unknown
- **MEDIUM-HIGH** — Nitrogen by-product runoff — potential regulatory barrier in Dutch nitrogen crisis context
- **MEDIUM** — Key person risk — CTO is sole inventor with no documented knowledge transfer
- **MEDIUM** — Production carbon footprint unknown — existential reputational risk for a carbon capture company
- **MEDIUM** — Recoating economics not addressed — GL-1 may be destroyed during routine building maintenance

Assessment Confidence

Assessment	Confidence	Basis
Pain is real	**90%**	Regulatory mandate verifiable.
Solution works	**65%**	Lab-proven. Scale unvalidated.
Team can execute	**60%**	Complementary pair. Manufacturing gap.
Business model viable	**35%**	Two models, neither validated.
Overall	**50%**	Science and timing strong. Commercial execution is the constraint.

1. Value Growth Map

A startup's value grows across 16 dimensions. The Value Growth Map is a startup health diagnostic — it plots two boundaries. The **outer polygon** (the constraint line) shows where value growth constraints have been removed — how far the startup has progressed on each dimension. The **inner polygon** (the validation line) shows how much of that progress has been independently proven. The gap between them is the hidden value — real potential that has not yet been validated by external evidence.

How to Interpret the Map

Shape. The rounder the contour, the healthier the startup. A balanced profile with roughly equal scores across dimensions indicates sustainable value growth. Spikes and dips reveal where the startup is over-invested or under-invested relative to its overall maturity.

Size. A large outer polygon means the startup has made progress across many dimensions. A small one means the startup is early. Size without roundness — a large but spiky shape — suggests uneven execution: strong in some areas, neglected in others.

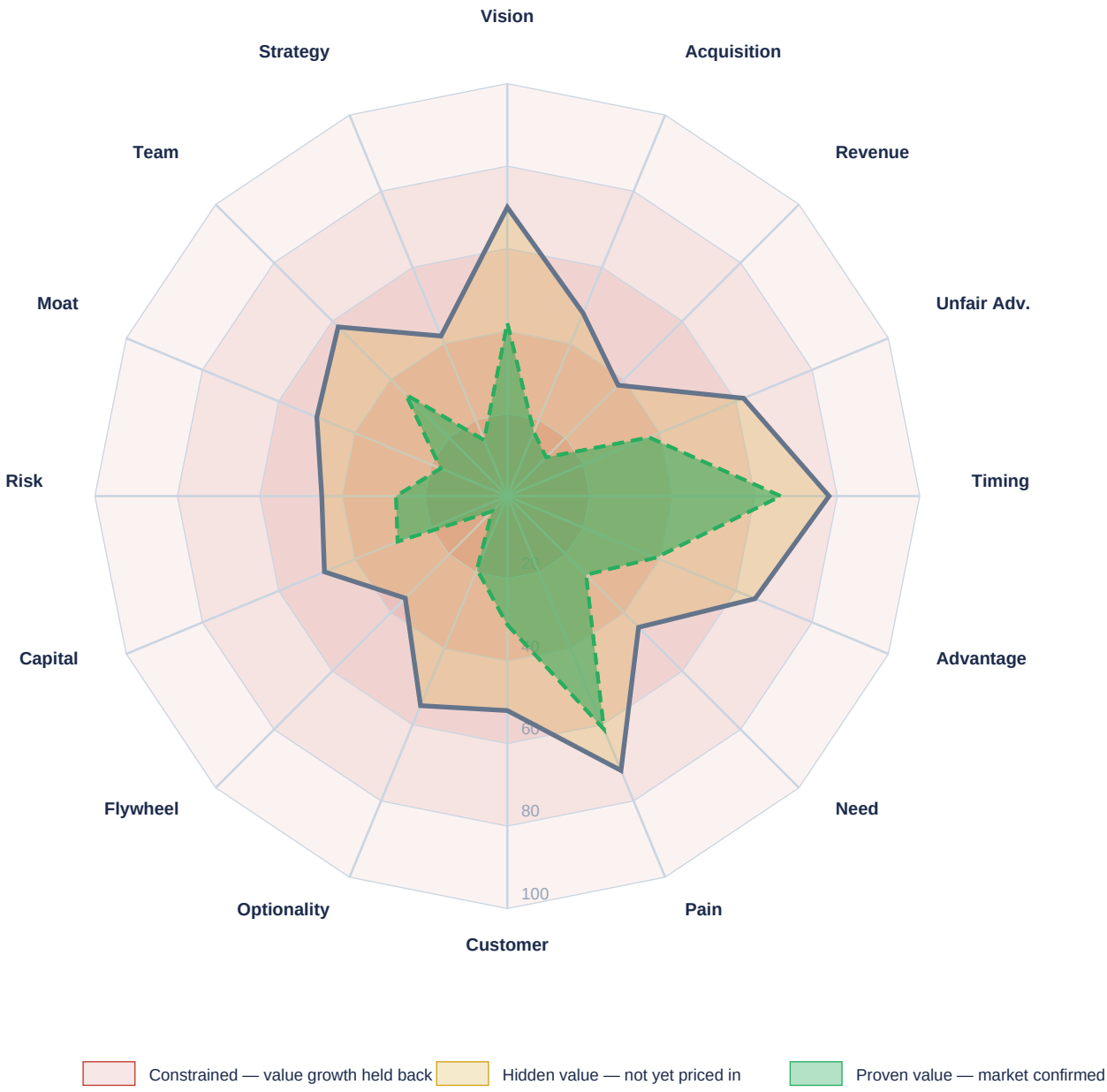
The gap. Where the inner polygon is close to the outer, the startup's progress is well-evidenced — an investor can rely on what they see. Where the gap is wide, the startup may be further along than the evidence proves, or the founder may be overestimating progress. The gap is the due diligence question: is the hidden value real or imagined?

The dips. The lowest-scoring dimensions are the binding constraints — these are what hold back the overall valuation regardless of how strong other dimensions are. A startup with exceptional technology (Advantage at 80) but no paying customers (Need-to-Have at 15) is constrained by Need-to-Have, not enabled by Advantage.

Clusters. Adjacent low scores reveal systemic issues. If customer, pain, and need-to-have are all low, the market thesis is unvalidated. If monetisation, acquisition, and strategy are all low, the business model hasn't been thought through. Isolated dips are easier to fix than clusters.

Three coloured zones tell the story. The **red area** shows how much value growth is being constrained — the more red, the more that dimension is holding back growth. The **green area** (proven value) shows where the market has confirmed the value growth capability — evidence an investor can rely on. The **amber area** (hidden value) between the two polygons is potential the market has not yet priced in.

The goal of the startup is to reduce the red area and expand the green area. As the company matures, the green area expands through customer interaction, revenue, and market signals. The amber area shrinks as hidden value is confirmed. The red area retreats as constraints are removed.



Strongest dimension: Why Now? (78). Weakest: Flywheel (35). 10 of 16 dimensions are independently validated. 6 still rest on assumptions or founder experience alone.

Readiness Gates

Five progression checkpoints assess whether the startup has earned the right to advance. Each gate evaluates a cluster of dimensions against evidence thresholds.

Gate 1: Foundation	MEDIUM	at E4 (regulatory mandate). at E3 (signed term sheets). at E3 but conditional. **Blocker:** conditional commitments but zero transactional evidence.
Gate 2: Positioning	STRONG	(65), (78), (62) all solid. Regulatory timing compelling. Technical differentiation documented.

Gate 3: Business Model	WEAK	(38) structurally unresolved. (48) founder-network-dependent. (42) correct wedge but paralysed. **Blocker:** Business model decision (licensing vs direct supply) unresolved.
Gate 4: Organisation	MEDIUM	(70) clear vision. (58) complementary founders with identified gaps.
Gate 5: Durability	WEAK	(50) patent European only. (45) EIA not started. (48) Series B contingent. (35) not rotating. (55) genuine but distant. **Blocker:** EIA not started. Series B sizing impossible without business model decision.

2. Customer & Market

The foundation. Is the customer defined? Is the pain real? Will someone pay?

How to Read This Assessment

Dimension scores. Each of the 16 dimensions is scored on a 0–100 scale. The score reflects how far along the startup is on that dimension — not how important the dimension is. A score of **60+** means the dimension is not constraining value growth. **35–59** means partial progress with gaps remaining. **Below 35** is a binding constraint that blocks progress. The status describes what the score means in plain language.

Evidence levels. Every claim is graded on a five-level scale: **E1 — Assumption** (founder believes this, no external validation, scores discounted heavily). **E2 — Anecdotal** (some supporting data — informal feedback, early signals, partial credit). **E3 — Validated** (independent third-party evidence confirms the claim). **E4 — Behavioural** (observable actions: signed LOIs, pilot usage, co-investment — someone acted, not just agreed). **E5 — Transactional** (revenue, binding contracts, measurable commercial traction — the market has voted with money).

Customer Definition — 52/100 (E3) — Three buyer segments identified with named contacts — paying customer type unresolved

Three buyer segments defined: (1) paint manufacturers (Akzo Nobel, PPG, Jotun — CEO has relationships from Sika/Akzo), (2) concrete producers (HeidelbergCement, Holcim), (3) municipalities for road surface trials (Province of Gelderland). Three conditional offtake term sheets signed. However: the paying customer type is structurally unresolved. If licensing, the customer is the manufacturer. If direct supply, the customer is the end formulator. [5,6,7]

Pain Point — 72/100 (E4) — Regulatory mandate creates compulsory demand — CSRD, CBAM, EU Green Deal

EU regulatory framework creates structural demand. CSRD requires large companies to report and reduce Scope 3 emissions from 2025. CBAM prices embodied carbon from 2027. Building materials account for ~11% of global CO2 emissions. Manufacturers face regulatory pressure to reduce embedded carbon. Customer feedback in the IM confirms: VerfKracht cited board-level carbon reduction mandate as primary motivation. [1,9]

Need-to-Have — 45/100 (E3) — Conditional commitments documented but zero revenue

Requires proprietary information. Offtake agreement terms, pricing commitments, and conditionality detail require proprietary access. A premium assessment would strengthen the evidence base for this dimension.

Three conditional offtake term sheets: (1) VerfKracht B.V. (500kg GL-1/year, conditional on quality validation), (2) BetonGroen (2,000kg/year, conditional on pilot results), (3) Province of Gelderland (200kg, conditional on EIA). Total conditional volume: 2,700kg/year. Zero revenue. All offtakes conditional on production quality at scale. No binding take-or-pay. IM states first revenue targeted Q2 2028. [5,6,7]

> *"We need to show our board a carbon reduction roadmap — GL-1 could be part of that."*
>
> — Head of Sustainability, VerfKracht B.V. (quoted in Investment Memorandum)

Customer interviews: 5. Five conversations by CEO. Three converted to term sheets.

Market Sizing

TAM	Global building materials additives — estimated €80-120B.
SAM	European climate-active additives — estimated €5-15B by 2030.
SOM	Dutch/Benelux paint and concrete manufacturers — estimated €200-500M.
Entry Wedge	Paint additive for Dutch manufacturers with CSRD obligations.

3. Competitive Landscape

Who else is here, why this startup differentiates, and whether the timing window is open.

5 competitors mapped. 2 at medium threat level. No high-threat competitors identified — the competitive space is open.

Competitor	Serves	Threat	Notes
Climeworks	Industrial DAC	**Low**	Industrial plants. Different approach entirely.
Italcementi (TiO2 concrete)	Infrastructure	**Medium**	TX Active breaks down NOx but does NOT capture CO2. Different chemistry.
Carbon Clean	Industrial emitters	**Low**	Point-source capture. Not distributed surfaces.
University research groups	Academic	**Medium**	Multiple groups on MOF CO2 capture. None have ambient nitrogen fixation.
BASF / Evonik R&D;	Internal	**Medium-High**	Large chemical companies with MOF programmes. 3+ years behind if they pivot.

Advantage — 65/100 (E3) — Genuine technical differentiation — passive carbon capture with soil enrichment is unique

Four differentiation axes from IM and lab report: (1) passive operation — zero energy input. (2) Dual benefit — carbon capture plus soil nitrogen enrichment. (3) Distributed deployment — every surface becomes a carbon sink. (4) Visible light operation — works in northern climates. Lab results show 200g CO2/m²/year at Amsterdam light levels. Patent application covers MOF synthesis and nitrogen fixation. Freedom-to-operate analysis completed. [3,4]

Why Now? — 78/100 (E4) — Regulatory tsunami — CSRD, CBAM, EU Green Deal create compulsory timeline

Convergent regulatory tailwinds: CSRD from 2025. CBAM full pricing from 2027. EU renovation wave targeting 35M buildings by 2030. Netherlands Klimaatakkoord 49% emission reduction by 2030. MOF chemistry matured to scalable synthesis only in last five years. [1,9]

Timing score: STRONG. Regulatory tailwinds with specific deadlines create compulsory demand. Science became possible in 2021. Regulation creates market from 2025-2027.

Category creation signal triggered. GoldLeaf is creating a category that does not yet exist: passive carbon capture integrated into building materials. Not DAC. Not carbon offset. A third approach — making existing infrastructure perform carbon fixation as a by-product of being built.

4. Competitive Moat

What prevents a competitor from replicating this position? The unfair advantage is what you start with. The moat is what it turns into as the business compounds on it.

Unfair Advantage — 62/100 (E3) — CEO industry network + CTO as inventor — complementary pair with genuine unfair advantages

Two unfair advantages from IM: (1) CEO's 12-year building materials network. Three offtakes originated from existing relationships. (2) CTO invented GL-1. Three published papers establish priority. Prof. de Groot on SAB. Gap identified in IM: neither founder has built a chemical manufacturing facility. [1,2,3]

Moat — 50/100 (E2) — Patent + tacit knowledge + academic pipeline — patent European only and untested

Requires proprietary information. Freedom-to-operate analysis, patent prosecution status, and trade secret documentation require proprietary access. A premium assessment would strengthen the evidence base for this dimension.

Three moat layers per IM: (1) Patent application on MOF synthesis (European, filed 2023, not granted). (2) Tacit manufacturing knowledge (synthesis parameters not in patent). (3) Academic pipeline (Wageningen, ETH Zurich). Weaknesses: European only, no US/China filing, not granted. FTO analysis completed. [3]

5. Business Model

Can validated value convert to revenue? The model, the channel, and the strategy to win.

Monetisation — 38/100 (E2) — Two competing models not yet resolved — licensing vs direct supply changes everything

> **Requires proprietary information.** Validated unit economics require access to the financial model and pricing conversations. A premium assessment would strengthen the evidence base for this dimension.

Financial model v2.1 models both scenarios. Direct supply: GL-1 at €120/kg (COGS €35/kg at scale, 71% gross margin). Licensing: €2M per site + 8% royalty. IM presents both without resolving the choice. The company is funding one (direct supply — Emmen facility) while exploring the other (licensing conversations). This tension is the single most important strategic decision. [1,8]

Acquisition — 48/100 (E2) — CEO's industry network is the primary channel — functional but not scalable

> **Requires proprietary information.** Customer acquisition metrics and pipeline data require proprietary access. A premium assessment would strengthen the evidence base for this dimension.

All three offtake conversations originated from CEO's personal network (per IM). No inbound channel described. No content marketing. Business development team (3 people) conducting outreach but no pipeline metrics reported. The IM acknowledges: 'Initial market entry leverages CEO's existing relationships.' [1,2]

Strategy — 42/100 (E2) — Paint-first wedge is correct — but licensing vs direct supply decision paralyses execution

> **Requires proprietary information.** Strategic rationale and go-to-market detail require access to internal planning documents. A premium assessment would strengthen the evidence base for this dimension.

Wedge strategy sound: paint additive requires least reformulation, shortest certification path, CEO has deepest network in coatings. But go-to-market is paralysed by undecided business model. IM shows the company constructing Emmen facility (direct supply) while exploring licensing conversations. This doubles burn rate without resolving the strategic question. [1,8]

Unit Economics

Revenue per unit	€120/kg
Burn rate	€250K/month
Gross margin	71%
LTV	Unknown

Unit economics modelled but not validated.

Go-to-Market Phases

Phase	Action	Goal
Phase 1 (2026-2027)	Pilot manufacturing, quality validation, EIA	Production-ready GL-1
Phase 2 (2028)	First commercial sales — GL-1 Paint Additive	First revenue, 3-5 customers
Phase 3 (2029-2030)	Concrete/asphalt, European expansion	€5M+ revenue
Phase 4 (2030+)	Licensing, GL-2/GL-3 development	Technology licensing revenue

Model Implications

- Licensing vs direct supply determines identity: €50M chemical company or €500M technology licensor
- CEO network gets first 5-10 customers but is not scalable
- Carbon credits could become significant second revenue stream

Key Assumptions

Assumption	Risk	How to Validate
GL-1 performance at kg-scale matches lab (200g CO2/m²/year)	High	Prototype output quality testing.
COGS €35/kg achievable at scale	High	First production batch costing.
Glycine/urea soil accumulation is safe	Medium	EIA.
Manufacturers will reformulate to include GL-1	Medium	First binding agreement.
Patent will be granted	Medium	Examination outcome.

6. Team & Vision

Who's building and where it's going.

Team — 58/100 (E3) — Strong complementary co-founders, CFO gap, manufacturing scale-up experience missing

CEO-CTO pairing is complementary per IM: industry commercial + deep technical. VP Operations (ex-BASF) adds process engineering. SAB (Wageningen, ETH Zurich, TNO) adds credibility. 20 employees, R&D-heavy.; Gaps acknowledged in IM: no CFO, no regulatory specialist, manufacturing scale-up experience limited. [1,2]

Vision — 70/100 (E3) — Every surface becomes a carbon sink — vision is clear, ambitious, and guides decisions

IM vision: make every built surface a net carbon absorber. 'We build your forests.' Phased roadmap: paint additive (lowest barrier) → concrete/asphalt → licensing globally → GL-2/GL-3 next-generation catalysts (methane capture, water purification). The paint-first wedge is vision-driven — lowest reformulation barrier. [1,2]

Founder

Founder potential: 72/100 — Strong complementary pair. Behavioural assessment requires live session.. Strongest factors: Domain expertise, Technical capability, Commercial skills.

Founder Potential Components

Factor	Score	Note
Domain expertise	82	CEO: 12 years building materials. CTO: 6 years photocatalysis.
Technical capability	75	CTO invented core technology. VP Ops adds process engineering.
Commercial skills	72	CEO built €40M product line at Sika.
Team building	55	20 people hired. SAB assembled. CFO gap.
Self-awareness	0	Not assessed — document review only
Coachability	0	Not assessed — document review only

Coachability and self-awareness require live dialogue and are not assessed in document-based reviews.

7. Growth Mechanics

Risk management, capital strategy, flywheel effects, and optionality.

Risk Management — 45/100 (E3) — Key risks identified in IM — EIA not started is the critical gap

Five risks in IM: (1) Scale-up risk — gram to kg may not replicate. Mitigation: staged pilot. (2) Regulatory — EIA required for GL-1 compounds entering soil. No EIA started. IM states 'will commence upon pilot production.' EIAs take 12-18 months. (3) Business model risk. (4) Customer concentration — three offtakes from CEO network. (5) Key-person risk on CTO. [1]

Capital Strategy — 48/100 (E3) — €8M raised, runway to Q1 2027, Series B €40-60M required

€8M Series A closed (Invest-NL €4M, NOM €2M, EU Green Deal €2M). Burn €250K/month. Runway to Q1 2027. Series B target: €40-60M (direct supply) or €15-20M (licensing). Business model indecision makes capital strategy impossible to evaluate fully. IM notes Invest-NL willing to follow on but not lead at €40M. [1,8]

Flywheel — 35/100 (E1) — Flywheel designed but not rotating

> **Requires proprietary information.** This dimension is scored at E1 (assumption) because the evidence needed is not available from public sources. A premium assessment with access to the company's pitch deck, financial model, and customer data would strengthen this score.

Implied flywheel from IM: more surfaces → more absorption data → stronger proof → more surfaces. Regulatory flywheel: CSRD adopters create competitive pressure on peers. Neither is rotating. Zero product in the field. IM describes a monitoring plan (embedded sensors) that would generate flywheel data. [1]

Optionality — 55/100 (E2) — GL-2/GL-3 roadmap is genuine optionality grounded in science

> **Requires proprietary information.** Product pipeline development stage and internal R&D; roadmap require proprietary access. A premium assessment would strengthen the evidence base for this dimension.

Three layers per IM: (1) GL-2 methane capture (preliminary lab results noted). (2) GL-3 water purification (earlier stage). (3) Carbon credit monetisation — Province of Gelderland raised this idea in their EOI document. All extend from GL-1 platform chemistry. [1,7]

8. Valuation

Requires proprietary information. Access to the financial model and comparable transaction data would produce a tighter valuation range with higher confidence.

Floor	Midpoint	Ceiling
€6,000,000	**€12,000,000**	**€22,000,000**

Regulatory tailwind + patent + lab-validated technology + conditional offtakes

Ceiling constraint: Zero revenue. Business model unresolved. Production at scale unvalidated. EIA not started.

Methodology	Berkus-adjusted for deep-tech with regulatory premium.
At Full Validation	€25-40M (direct) or €15-25M (licensing)
Runway	10 months

Valuation Methods

Seven independent methods. Teal bars are included in the trimmed mean. Grey bars are excluded (highest and lowest).

Highest-Impact Moves

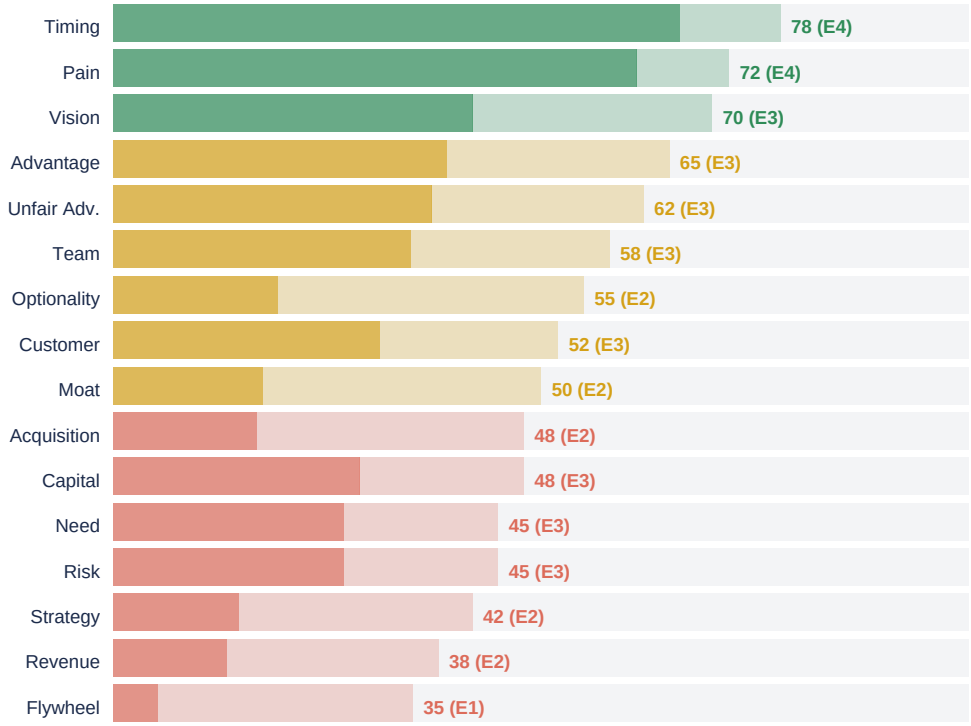
1. Business model decision made — **€2-4M**
2. Kg-scale production matching lab specs — **€3-5M**
3. First binding offtake (take-or-pay) — **€2-4M**
4. EIA preliminary results positive — **€1-3M**
5. PCT patent filing accepted — **€1-2M**

Category Creation Signal

If this market materialises as the founder envisions, the evidence constraints on the commercial dimensions would resolve. The gap between the current valuation and the category-creation scenario is the asymmetric bet.

9. Evidence Quality

How much of this assessment is backed by validated data versus assumption. The solid bar is realised value. The light extension is unrealised potential. Sorted from highest to lowest.



Dimension	Score	Priority	What It Measures	Status
Monetisation	38	FOCUS	Whether the revenue model works and has been tested	Two competing models not yet resolved — licensing vs direct supply changes everything
Strategy	42	FOCUS	Whether the go-to-market strategy is clear and executable	Paint-first wedge is correct — but licensing vs direct supply decision paralyses execution
Need-to-Have	45	FOCUS	Whether customers will pay, not just praise	Conditional commitments documented but zero revenue
Acquisition	48	FOCUS	How customers find and buy the product	CEO's industry network is the primary channel — functional but not scalable
Customer Definition	52	FOCUS	How well the target customer is defined and validated	Three buyer segments identified with named contacts — paying customer type unresolved
Risk Management	45	SECONDARY	Whether key risks are identified and mitigated	Key risks identified in IM — EIA not started is the critical gap
Capital Strategy	48	SECONDARY	Whether the capital strategy matches the milestones	€8M raised, runway to Q1 2027, Series B €40-60M required
Moat	50	SECONDARY	What gets harder to compete with over time	Patent + tacit knowledge + academic pipeline — patent European only and untested

Dimension	Score	Priority	What It Measures	Status
Team	58	SECONDARY	Whether the team can deliver what the business needs	Strong complementary co-founders, CFO gap, manufacturing scale-up experience missing
Unfair Advantage	62	SECONDARY	What the founder has that competitors cannot replicate	CEO industry network + CTO as inventor — complementary pair with genuine unfair advantages
Vision	70	SECONDARY	Whether the long-term vision guides decisions	Every surface becomes a carbon sink — vision is clear, ambitious, and guides decisions
Flywheel	35	DEFER	Whether growth loops are identified and starting to turn	Flywheel designed but not rotating
Optionality	55	DEFER	What adjacent opportunities the architecture enables	GL-2/GL-3 roadmap is genuine optionality grounded in science
Advantage	65	STRENGTH	What makes the product better than alternatives	Genuine technical differentiation — passive carbon capture with soil enrichment is unique
Pain Point	72	STRENGTH	How urgent and costly the problem is for the customer	Regulatory mandate creates compulsory demand — CSRD, CBAM, EU Green Deal
Why Now?	78	STRENGTH	Why this moment creates an opportunity	Regulatory tsunami — CSRD, CBAM, EU Green Deal create compulsory timeline

10. Growth Levers

The three strategic moves that would most increase this startup's value and investment readiness — ranked by compound impact across valuation, round readiness, and hidden value conversion.

Lever 1 Acquisition E2 → E4

Prove at least one acquisition channel with measurable economics.

Why it matters: CRITICAL gap for Series B readiness. high valuation impact (evidence multiplier moves from 20% to 80%). significant hidden value (score 48 constrained by E2 evidence). also strengthens Flywheel, Strategy.

Effort: 6–12 weeks. **First step:** Test one acquisition channel with a measurable conversion funnel.

Lever 2 Team E3 → E5

Fill the most critical team gap or demonstrate the hiring plan.

Why it matters: CRITICAL gap for Series B readiness. high valuation impact (evidence multiplier moves from 55% to 100%). significant hidden value (score 58 constrained by E3 evidence). also strengthens Strategy, Moat.

Effort: 8–16 weeks. **First step:** Identify the single most critical hire and what they unlock.

Lever 3 Moat E2 → E3

Show that the competitive advantage compounds over time.

Why it matters: CRITICAL gap for Series B readiness. high valuation impact (evidence multiplier moves from 20% to 55%). significant hidden value (score 50 constrained by E2 evidence).

Effort: 2–4 weeks. **First step:** Name the switching cost a customer would face if they left.

11. KPI Dashboard

Five metrics to track based on the current evidence profile and target round. These are the signals that tell you whether the growth levers are working.

◆ Cost per acquisition · linked to Growth Lever

Total spend on a channel divided by customers acquired through it.

Target: CAC < 1/3 of first-year customer value

Watch for: If you cannot calculate this number, you do not understand your acquisition economics.

◆ Revenue per employee · linked to Growth Lever

Annual revenue divided by full-time equivalent headcount.

Target: ≥€100K per employee for SaaS at scaling stage

Watch for: Declining revenue per employee while hiring means you are adding cost faster than value.

◆ CAC payback period · linked to Growth Lever

Months of revenue needed to recover the cost of acquiring a customer.

Target: <12 months good, <18 months acceptable

Watch for: If payback extends beyond 18 months, growth consumes cash faster than customers generate it.

◆ Monthly recurring revenue

Revenue from subscriptions or contracts that recurs without new sales effort.

Target: Any amount. The first €1K MRR is harder than the next €10K.

Watch for: One-time revenue and project fees are not MRR. Be honest about what recurs.

◆ Loop identified

Can you describe how one customer's action creates the conditions for the next? Binary.

Target: Yes, with a specific mechanism you can name

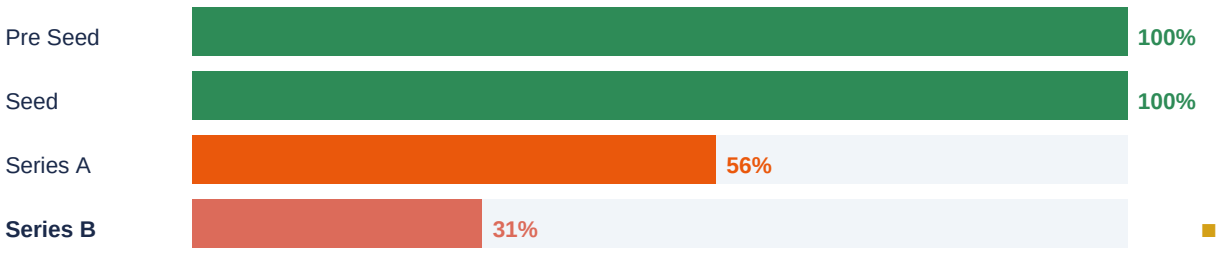
Watch for: Funnels are linear. Loops compound. If every customer requires the same acquisition effort, there is no loop.

12. Investment Readiness

Requires proprietary information. Gate closure timelines and milestone dates require access to the internal roadmap. A premium assessment would include specific deadlines and action plans for each readiness gate.

Investment readiness measures whether the evidence base meets the criteria investors expect at each funding stage. The assessment evaluates critical, important, and contextual criteria across all 16 value growth dimensions. Based on the capital history, valuation range, and investor memorandum, this company is targeting **Series B** funding.

Funding Stage Progression



✓ Satisfies Pre Seed funding criteria — 100% of evidence thresholds met

✓ *Target customer described with specificity beyond demographics (Customer Definition) • Pain validated through customer conversations or independent data (Pain Point) • Early signal of willingness to pay — even verbal (Need-to-Have) • Differentiation articulated, even if not yet proven (Advantage) • Timing thesis with at least one external data point (Why Now?) • Founder-market fit demonstrable — domain experience or deep user insight (Unfair Advantage) • Revenue model hypothesis stated (Monetisation) • Initial distribution hypothesis (Acquisition) • Vision that explains why this could be large (Vision) • Basic strategic direction (Strategy) • Founding team with complementary skills identified (Team) • Key risks acknowledged (Risk Management) • Use of funds plan that maps to evidence gaps (Capital Strategy)*

✓ Satisfies Seed funding criteria — 100% of evidence thresholds met

✓ *ICP defined with evidence from actual customer interactions (Customer Definition) • Pain independently verifiable, not just founder-stated (Pain Point) • Product in use — users or paying customers, even small numbers (Need-to-Have) • Competitive advantage demonstrated, not just claimed (Advantage) • Market timing supported by external trends and data (Why Now?) • Founder-market fit with demonstrated domain insight (Unfair Advantage) • Pricing tested or benchmarked, revenue model defined (Monetisation) • At least one channel tested with data on conversion (Acquisition) • Vision that frames a large market opportunity (Vision) • Wedge market chosen, beachhead strategy articulated (Strategy) • Core team in place, key gaps identified with hiring plan (Team) • Early moat signals — IP, network effects, data advantage (Moat) • Risks identified with mitigation approach for top 3 (Risk Management) • 18-month runway plan, milestone-linked use of funds (Capital Strategy) • Growth loop hypothesis identified (Flywheel)*

✗ Series A — 56% of evidence thresholds met

✓ *Pain validated by paying customer behaviour, not just interviews (Pain Point) • Competitive advantage proven in market, not just on slides (Advantage) • Timing thesis validated by market traction (Why Now?) • Founder credibility established through execution track record (Unfair Advantage) • Vision connects current traction to a large addressable market (Vision) • Defensibility emerging — data moat, switching costs, network effects (Moat) • Risk register with quantified impact and mitigation status (Risk Management) • Clear capital plan — burn multiple <2x, 18-24 month runway to next milestone (Capital Strategy) • Adjacent opportunities identified (Optionality)*

✗ **CRITICAL**: Customer segments validated by retention and expansion data (Customer Definition, E3 → E4)
✗ **CRITICAL**: Repeatable revenue — multiple cohorts, retention data, NRR visible (Need-to-Have, E3 → E4)
✗ **CRITICAL**: Unit economics proven — LTV:CAC >3:1, payback <18 months, gross margin >60% (Monetisation, E2 → E4)
✗ **CRITICAL**: At least two acquisition channels with measurable, repeatable economics (Acquisition, E2 → E3)
✗ **CRITICAL**: Go-to-market strategy proven in beachhead, expansion plan credible (Strategy, E2 → E3)
✗ **CRITICAL**: Leadership team beyond founders — VP-level hires in key functions (Team, E3 → E4)
✗ **IMPORTANT**: Growth loop operational with measurable compounding (Flywheel, E1 → E2)

✗ Series B — 31% of evidence thresholds met ■ TARGET

✓ *Pain validated across segments, not just initial beachhead (Pain Point) • Timing validated by execution, not just thesis (Why Now?) • Founder credibility at scale demonstrated (Unfair Advantage) • Enterprise risk management, scenario planning in place (Risk Management) • Strategic optionality — M&A;, new products, new geographies (Optionality)*

✗ **IMPORTANT**: Multi-segment penetration with segment-level economics (Customer Definition, E3 → E4)
✗ **CRITICAL**: Strong NRR (>110%), proven expansion revenue, multi-year cohort data (Need-to-Have, E3 → E5)
✗ **CRITICAL**: Category leadership or clear path to it — market share data (Advantage, E3 → E4)
✗ **CRITICAL**: Proven unit economics at scale — burn multiple <1.5x, gross margin >65% (Monetisation, E2 → E5)
✗ **CRITICAL**: Multiple channels scaling with predictable economics (Acquisition, E2 → E4)
✗ **IMPORTANT**: Vision for market leadership with credible execution plan (Vision, E3 → E4)
✗ **CRITICAL**: Expansion strategy beyond beachhead with early results (Strategy, E2 → E4)
✗ **CRITICAL**: Full executive team, org scaling, culture documented (Team, E3 → E5)
✗ **CRITICAL**: Defensibility proven — competitors unable to replicate key advantage (Moat, E2 → E3)
✗ **CRITICAL**: Path to profitability visible, capital efficiency demonstrated (Capital Strategy, E3 → E4)
✗ **CRITICAL**: Flywheel compounding measurably — owned growth >50% of total (Flywheel, E1 → E3)

Evidence Gaps for Series B

Dimension	Current	Needed	Gap	Criteria to Achieve
Monetisation	E2	**E5**	CRITICAL	Proven unit economics at scale — burn multiple <1.5x, gross margin >65%
Need-to-Have	E3	**E5**	CRITICAL	Strong NRR (>110%), proven expansion revenue, multi-year cohort data
Acquisition	E2	**E4**	CRITICAL	Multiple channels scaling with predictable economics
Strategy	E2	**E4**	CRITICAL	Expansion strategy beyond beachhead with early results
Team	E3	**E5**	CRITICAL	Full executive team, org scaling, culture documented
Flywheel	E1	**E3**	CRITICAL	Flywheel compounding measurably — owned growth >50% of total
Advantage	E3	**E4**	CRITICAL	Category leadership or clear path to it — market share data
Moat	E2	**E3**	CRITICAL	Defensibility proven — competitors unable to replicate key advantage
Capital Strategy	E3	**E4**	CRITICAL	Path to profitability visible, capital efficiency demonstrated
Customer Definition	E3	**E4**	MODERATE	Multi-segment penetration with segment-level economics
Vision	E3	**E4**	MODERATE	Vision for market leadership with credible execution plan

Estimated 6-12 months to close critical gaps at typical evidence velocity.

Recommendation: The evidence base satisfies Seed criteria but 9 critical gap(s) remain for Series B: Monetisation, Need-to-Have, Acquisition, Strategy, Team, Flywheel, Advantage, Moat, Capital Strategy. Closing these gaps converts the current evidence profile into Series B readiness.

13. What Needs to Happen

Priority 1
Make the business model decision: licensing or direct supply. The financial model already shows both paths. This is a commitment problem, not an analysis problem.

Priority 2
Hire regulatory affairs specialist. Commission EIA for Emmen facility. Begin REACH pre-registration.

Priority 3
Begin Series B fundraise process immediately. Prepare bridge funding request to existing shareholders as contingency.

Priority 4
Commission net carbon lifecycle assessment (LCA) for GL-1 production and deployment.

Priority 5
Document CTO knowledge. Create SOPs for GL-1 synthesis. Train at least two additional team members on full production process.

Priority 6
Assess nitrogen by-product regulatory implications. Consult Rijkswaterstaat and RIVM on glycine/urea runoff.

Priority 7
Test GL-1 survival under standard recoating and resurfacing procedures. Model recoating economics.

What Would Change the Signal

Positive:
↑ Business model decision made

↑ First kg-scale GL-1 production matching lab specs

↑ EIA commissioned and preliminary results positive

↑ First binding offtake

↑ Series B lead investor identified

Negative:
↓ Kg-scale production fails to replicate lab results

↓ EIA identifies environmental concerns

↓ Business model decision delayed beyond 6 months

↓ CTO departure

↓ Key customer withdraws

Watch Items

- Business model decision
- Prototype facility progress
- EIA initiation
- PCT patent deadline
- VerfKracht relationship

Sources

Materials and sources consulted for this assessment. Superscript numbers throughout the document indicate which source informed each claim.

[1] **GoldLeaf Investment Memorandum**

IM v2.0, January 2026. 38 pages.

[2] **GoldLeaf Pitch Deck**

February 2026. 22 slides.

[3] **Patent application EP2023/GL1-MOF**

European patent application. MOF synthesis and nitrogen fixation.

[4] **GL-1 Lab Results Report**

Wageningen University validated. CO2 absorption, nitrogen compounds, catalyst regeneration.

[5] **VerfKracht B.V. term sheet**

Conditional offtake. 500kg/year. Quality validation condition.

[6] **BetonGroen term sheet**

Conditional offtake. 2,000kg/year. Pilot results condition.

[7] **Province of Gelderland expression of interest**

Road surface trial. 200kg. EIA condition.

[8] **Financial model v2.1**

Both scenarios modelled. Direct supply and licensing.

[9] **EU regulatory framework**

CSRD, CBAM, EU Green Deal. Independently verifiable.

Glossary

Value Growth
The increase in a startup's valuation over time. Not what the startup is worth today, but whether that number will go up.

Value Growth Dimensions
Sixteen aspects of a startup that collectively determine its ability to grow in value. Grouped into foundation (customer, pain, need-to-have), positioning (advantage, timing, unfair advantage), business model (monetisation, acquisition, strategy), organisation (vision, team), and durability (moat, risk, capital, flywheel, optionality).

Value Growth Map
The radar chart plotting all 16 dimensions. The outer polygon (constraint line) shows where constraints have been removed. The inner polygon (validation line) shows how much has been independently proven. The gap between them is the hidden value.

Constraint Line
The outer boundary of the Value Growth Map. Shows how far the startup has progressed on each dimension, regardless of whether that progress has been externally validated.

Validation Line
The inner boundary of the Value Growth Map. Shows how much of the startup's progress has been confirmed by independent evidence. The closer the validation line is to the constraint line, the less hidden value remains.

Hidden Value
The gap between what has been built and what has been proven. Without external validation, value stays hidden. The amber area on the Value Growth Map.

Realised Value
The portion of a startup's potential that has been validated by external evidence. Shown as the green area on the Value Growth Map.

Readiness Gate
A progression checkpoint that assesses whether a cluster of dimensions meets evidence thresholds. Five gates cover foundation, positioning, business model, organisation, and durability. Each gate returns STRONG, MEDIUM, or WEAK.

Value Gap
A specific dimension where the current state falls short of investment readiness. Each gap has a closing action and an estimated value impact.

Assessment Signal
The overall investment recommendation. PASS means insufficient evidence to engage. WATCH means interesting but material gaps remain. INTERESTED means the evidence supports further due diligence.

Valuation Range
Floor-to-ceiling estimate derived from multiple valuation methods calibrated to company stage. For early-stage: seven parallel methods with trimmed mean. For later-stage: anchor-and-adjust based on last round and milestone progression.

Anchor-and-Adjust
A valuation method for companies where standard early-stage methods (Berkus, Scorecard) do not apply due to capital structure or stage. Anchors on the most recent round's implied valuation and adjusts for milestone progression, comparable transactions, and scenario analysis.

Uplift Path
A specific action that, if completed, would materially increase the valuation. Each path identifies the trigger, the estimated valuation impact, and which dimensions it affects.

Category Creation
A signal that the startup may be building for a market that does not yet exist. Assessed when vision and unfair advantage scores are high but commercial dimensions are constrained by market maturity rather than execution gaps.

Founder Archetype
One of 22 behavioural profiles identified from patterns across hundreds of founders. Used to anticipate coaching responses, identify blind spots, and calibrate expectations. Not a personality test — a pattern-matching framework.

Green Flag
A positive signal observed during assessment. Graded from Level 1 (noted) through Level 4 (exceptional). Green flags contribute to the overall assessment signal.

Red Flag
A concern identified during assessment. Each has a severity rating (HIGH, MEDIUM, LOW), a trajectory (improving, static, worsening), and a mitigation path.

Investment Readiness
Assessment of whether the startup's evidence base meets the requirements for a specific funding round (bootstrap, pre-seed, seed, Series A, Series B, or grant). Each round has defined evidence thresholds per dimension. The gap between current evidence and required evidence determines readiness.

Growth Lever
A strategic move that simultaneously increases valuation, advances round readiness, and converts hidden value into realised value. Ranked by compound impact across all three. The top three levers are the highest-return actions the startup can take.

KPI Dashboard
Five metrics to track based on the current evidence profile and target round. Selected from a curated library tied to pillar and evidence level. Each KPI includes a stage-appropriate target and a leading indicator of trouble.

Tarpit Pattern
A known structural failure pattern from a library of 500+ documented tarpits. Ideas that look attractive but are structurally difficult to monetise, scale, or defend. When detected, the tarpit is named and the valuation should be read with the pattern in mind. Mitigating factors, if present, are listed.

Evidence Levels

E1 — Assumption
Founder believes this. No external validation. Scores are discounted heavily.

E2 — Anecdotal
Some supporting data exists — informal feedback, early signals, founder experience. Partial credit in valuation.

E3 — Validated
Independent third-party evidence confirms the claim. Target segment, pricing, or advantage verified by someone outside the founding team.

E4 — Behavioural
Observable actions: signed LOIs, pilot usage, partnership agreements, co-investment. Someone acted, not just agreed.

E5 — Transactional
Revenue, binding contracts, measurable commercial traction. The market has voted with money.

The 16 Value Growth Dimensions

#	Dimension	Core Question
1	**Customer Definition**	Who is the customer and how well are they defined?
2	**Pain Point**	Is the problem urgent and costly enough to drive action?
3	**Need-to-Have**	Will someone actually pay — not just praise?
4	**Advantage**	What makes this better than the alternatives?
5	**Why Now?**	What changed that makes this the right moment?
6	**Unfair Advantage**	What does the founder have that competitors cannot replicate?
7	**Monetisation**	Does the revenue model work and has it been tested?
8	**Acquisition**	How do customers find and buy the product?
9	**Vision**	Does the long-term vision guide decisions?
10	**Strategy**	Is the go-to-market strategy clear and executable?
11	**Team**	Can this team deliver what the business needs?
12	**Moat**	What gets harder to compete with over time?
13	**Risk Management**	Are key risks identified and mitigated?
14	**Capital Strategy**	Does the capital strategy match the milestones?
15	**Flywheel**	Are growth loops identified and starting to turn?
16	**Optionality**	What adjacent opportunities does the architecture enable?

About The Startup Mentor™

The Startup Mentor™ is an AI-powered startup assessment and mentoring system developed by Monroe B.V. in the Netherlands. It encodes the tacit expertise of experienced startup mentors into a structured, scalable platform that delivers investment-grade assessment across sixteen startup business value dimensions.

Three levels of engagement:

Basic — Assessment based on publicly available information. Website, press, LinkedIn, company registries. No proprietary materials required. Freely distributable.

Proprietary — Assessment incorporating confidential materials: pitch deck, financial model, customer data, internal metrics. Tighter valuation range, deeper evidence, higher confidence. Your data is never shared, sold, or used to train AI models.

Consultancy — Everything in Proprietary, plus a working engagement scoped to your needs. From a single session to multiple sessions across several weeks.

thestartupmentor.ai · info@thestartupmentor.ai