

First Principles of Scaling

A foundational framework for the School of Founders

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Executive Summary

This paper proposes a new framework for the Foundations of Scaling curriculum: **a set of first principles of scaling**. Most of what gets taught about scaling companies is based on analogy. Here is what Spotify did, here is how HubSpot grew its sales team. That kind of knowledge is useful but fragile; it breaks the moment the market, the stage or the problem changes. First principles thinking asks a different question: what is necessarily true about how companies grow and scale, regardless of industry or business model? If we can identify those truths, founders stop navigating by copying and start navigating by understanding. Within the program, the principles would be introduced at the start of the nine months and referred to throughout, as the conceptual skeleton on which the tools, frameworks and practices hang.

Following Aristotle, we define a first principle as a foundational truth you cannot derive from anything more basic. The bar we set ourselves is causal necessity: if you do A, B will necessarily follow. Most things in management are tendencies; we are looking for the few that are laws. Scaling itself we define as growing a company's impact, revenue and organizational capacity without a corresponding linear increase in resources or effort. Any company can grow by adding inputs proportionally. Scaling means improving the ratio.

The paper distinguishes two families of principles. The **First Principles of Growing** describe the default trajectory: what necessarily happens if you grow headcount and revenue but change nothing about how you work. They are all negative; they describe how entropy pulls a growing company toward chaos and eventual death. Their meta-principle: systems do not behave the same way at different magnitudes.

The **First Principles of Scaling** describe the inevitable consequences of the interventions founders take to fight back against the entropy. Such scaling interventions have positive outcomes, but each carries a built-in trade-off, because the cost and the benefit are the same mechanism seen from two sides. Their meta-principle: there are no solutions in scaling, only trades.

The ten Principles of Growing:

1. Coordination overhead grows super-linearly, because communication channels grow with the square of headcount, so alignment must be engineered once it stops happening by osmosis.
2. The founder becomes the bottleneck, since human cognitive capacity and time do not scale.
3. Context stops traveling: hire #500 will never hold the implicit context of hire #5.
4. Culture dilutes by generation and, without structural guardrails, reverts to the industry mean.
5. Heroes burn out, because individual brilliance cannot scale; only systems can.
6. You run out of misfit geniuses, since you cannot hire 500 of them.
7. Variance becomes unaffordable as the tails of the distribution start to dominate.
8. Generalists reach their level of incompetence as roles specialize.
9. The outside world hardens: more demanding customers, competitors, regulators and press arrive exactly when growth has made the company slower.

10. The company amplifies the founder's inner state, inheriting the founder's strengths and unresolved patterns alike.

The ten Principles of Scaling:

1. Delegation creates information loss, and every management layer widens it; you gain leverage and trade direct knowledge for reported knowledge.
2. Structure creates boundaries, and boundaries create blind spots; you gain focus and accountability and inherit the seams between the boxes.
3. Process and standardization trade judgment for reliability.
4. Measurement shapes behavior in ways you did not intend; every KPI is also an instruction you did not mean to give.
5. Codified culture replaces lived culture and loses nuance in translation, because no document can carry the founder's judgment, and people will decide differently than the founder would have.
6. Senior hires import other companies' first principles, and they do it with authority, because they supervise and multiply their assumptions through entire functions.
7. Bureaucracy is the tax you pay for stability, and the art is dynamic equilibrium between speed and control.
8. Bottlenecks migrate and feedback loops change sign, so diagnosis is never finished.
9. The job of the founder changes every 12 to 18 months, and the change is internal: an identity shift, not a skills upgrade. Value creation must become a process, not an event, which is where scaling properly begins.

A thread runs through both lists: the founder's own development. By default, the company inherits the founder's psychological ceiling. By intervention, every stage transition demands that the founder let go of the work that once made them feel competent. Scaling the company and scaling the self are not two subjects but one. This is the intellectual core of the School of Founders, and the principles give it a place inside the framework rather than next to it.

The paper closes with a reflection on what the first principles mean for the curriculum. Principles cannot be delivered in a single session; they must be introduced as a hypothesis at the start of the program and referred back to as founders begin to recognize them in their own company. This only works if faculty share a common vocabulary and use it deliberately across their sessions. The paper also challenges whether this is practical enough, and argues that principles are most useful in moments of crisis, because they help a founder identify what kind of problem they are actually facing — one that requires structural change, or one that requires accepting a trade-off. Finally, it proposes ways to teach founders to discover the specific first principles of their own business, because the general principles tell founders what to expect, but the specific ones tell them how to win.

1 Objectives

The School of Founders works with founders who are scaling. Our job is to detect patterns that appear again and again in the company-building process, and teach them to founders so they can recognize and anticipate those patterns in their own organizations - and make better decisions as a result.

One way of looking for such patterns is to search for first principles: truths a founder will encounter regardless of industry, business model or stage. Not "what did Spotify do" but "what will necessarily happen as your company grows." The standard we set ourselves is causal necessity. If you do A, B will necessarily follow.

This matters because most of what gets taught about scaling is based on analogy. Here is what Spotify did, here is how HubSpot grew its sales team, here is what worked at Airbnb. That kind of knowledge is useful but fragile. It breaks down the moment your company is in a different market, at a different stage, or facing a problem nobody has solved before. A founder who only knows what others did is permanently dependent on finding a comparable situation. A founder who understands the underlying causal mechanics can reason from the ground up about any situation.

That is what the School of Founders is trying to build: not a library of best practices, but a deeper literacy in how companies actually work - so that each founder can think for themselves.
Within the Foundations of Scaling program, the first principles serve as the conceptual skeleton. We introduce them at the start of the nine months and refer back to them throughout, so that every tool, framework and practice we teach is anchored in something deeper than the experience of one company.

2 Definitions

2.1 First Principle

A first principle is a foundational truth you cannot derive from anything more basic. You arrive at it not through argument but through observation and careful reasoning, until you hit bedrock: something you can no longer explain by something else.

The concept goes back to Aristotle, who introduced it in the Posterior Analytics. His term was arche: a starting point or origin. A first principle, in his account, is true, primary and immediate. It has nothing above it and nothing it can be derived from.

A caveat on the bar we are setting. Taken to the extreme, this is a very high bar. The truly absolute truths would lie in the physical realm and would have to be explained by the laws of physics, and even those are not fully known (quantum mechanics and Newtonian physics remain incompatible). For our purposes, we treat as a first principle of scaling anything that cannot be derived from something more fundamental about how companies work. If a candidate principle can be explained by another, it is a consequence, not a principle.

2.2 Scaling

Scaling is the process of growing a company’s impact, revenue, and organizational capacity without a corresponding linear increase in resources or effort.

2.3 Types of First Principles

We can distinguish a first principle along two dimensions: growing versus scaling, and general versus specific.

2.3.1 First Principles of Growing

These describe the default trajectory: the laws of decay. If you are a startup or small company and grow headcount and revenue but change nothing about how you work, certain things will necessarily happen. Communication breaks down, the founder becomes the bottleneck, informal coordination stops working, the quality of decisions drops because context no longer travels. These outcomes are predictable, almost mechanical. They describe how entropy pulls a growing company into chaos, friction and eventually death. That is why they all describe negative outcomes.

2.3.2 First Principles of Scaling

These are the antidotes. They describe the consequences of the interventions founders take to counter the principles of growing. If you introduce structure A, B necessarily follows. For example, if you introduce middle managers, alignment goes down and more coordination effort is needed to keep people aligned across these layers. Principles of scaling are harder to identify, because few things are the necessary consequence of an intervention.

Principle of scaling don't have all negative outcomes, but they do carry built-in trade-offs. You cannot get the benefit without some cost, because the cost and the benefit are the same mechanism seen from two sides.

2.3.3 General First Principles

Both the principles of growing and the principles of scaling claim to be **general principles**: they apply to all types of companies, whether you are building a SaaS company or a restaurant chain. They are truths about how companies work as human and economic systems, and they are what allows a founder to manage a business bottom-up instead of working by analogy and copying what others have done.

2.3.4 Specific First Principles

In addition, every company has **specific first principles** that constitute its particular business or business model. They describe the fundamental physics of one value creation model. For SpaceX: what does it actually cost to put mass into orbit, and what drives that cost at the most fundamental level? For a marketplace business: liquidity on both sides is the only thing that matters, everything else is secondary. These are the truths that explain why a particular business model works or does not.
The general first principles we can teach. The specific ones we can only help each founder identify for their own company. Teaching founders how to find them may be as valuable as the general principles themselves.

3 First Principles of Growing

If you grow headcount and revenue without changing how you work, certain things will necessarily happen: communication breaks down, the founder becomes the bottleneck, informal coordination stops working, decisions get worse because context no longer travels. These are the First Principles of Growing, not Scaling. These outcomes are predictable and mechanical, and they are all negative. They describe how entropy pulls a growing company toward chaos and eventual death.

Meta-principle: systems do not behave the same way at different magnitudes. Most things scale either sub-linearly or super-linearly; doubling inputs almost never doubles outputs. Infrastructure costs tend to scale sub-linearly (a pipe twice as wide carries four times the fluid), while coordination costs scale super-linearly (communication links grow with the square of headcount). The principles below are all expressions of this non-linearity playing out in a human organization. Knowing which regime you are in is half the battle.

3.1 Coordination overhead grows super-linearly

Communication complexity increases exponentially, not linearly. In a five-person startup there are 10 unique communication channels (N(N–1)/2), and everyone knows what everyone else is doing through sheer osmosis. At 500 employees there are 124,750 unique channels. In the beginning, the hard part is doing the work and it is usually the right work because it is visible for everyone and misalignment becomes evident immediately. At scale, the hard part is getting everyone to do the right work, in the right order, without stepping on each other.

A useful physical analogy is that surface area grows slower than volume. As systems get bigger, their interfaces to the outside are not enough to provide information to all internal elements or units. A cell that doubles in size cannot exchange nutrients fast enough through its membrane. A company that doubles in headcount cannot move information fast enough through its existing channels. This is why large things, whether organisms, cities or companies, must develop internal infrastructure (circulatory systems, highways, middle management) that small things do not need.

What invariably happens: Alignment no longer happens naturally. If nothing changes, total misalignment occurs: information gets distorted like a game of telephone, priorities conflict, departments silo, capital is wasted. Left to itself, the growing organization produces more noise, less clarity and slower decisions. Alignment must now be engineered through systems, explicit norms and cadence-driven communication. The most effective scaling strategies reduce the need for coordination, through modularity, decoupling and clear interfaces, rather than trying to coordinate better.

There is a deeper pattern behind this: every system has a characteristic scale at which its organizing logic fails and must be replaced. A founder making every decision works at 10 people, not at 100. A monolithic codebase works at 100,000 lines, not at 10 million. A human body three times the size would not work; the bones would break. Scaling is therefore a series of phase transitions in which the architecture itself must change. Clinging to what worked before is the most common cause of scaling failure. Scaling requires becoming a different company, not a bigger one.

3.2 The founder becomes the bottleneck

Human cognitive capacity and time do not scale. A founder cannot oversee 200 people or approve 50 decisions a day without creating a massive queue. In the early days the founder is the chief problem solver: diving into every fire, writing copy, closing deals, fixing bugs.

What invariably happens: If the founder keeps working this way, they become the ultimate constraint. Every project grinds to a halt waiting for founder approval, the company loses agility, and talented senior

hires become demoralized and quit, because they were hired for their expertise but are treated as task executors.

3.3 Context stops traveling

In a small team, everyone knows why things are done. As people are added, each new person holds less of the original context, because they learn it second-hand from people who themselves learned it second-hand. Decisions made far from the founder get worse, not because people are worse, but because they know less.

Hire #500 will never care about the company the way Hire #5 did. Early employees are driven by equity, proximity to the vision and entrepreneurial risk tolerance; they possess implicit context. At scale you hire specialists who need explicit clarity and are naturally more risk-averse.

What invariably happens: If you expect new hires to simply figure it out with the same passion and tolerance for ambiguity as the founding team, you will face massive churn and operational paralysis. The founder's job shifts from doing the work to codifying purpose, values and strategy so clearly that decisions can be decentralized without losing the company's soul.

3.4 Culture dilutes by generation

When the company is small, the founder hires every single person, and those early hires absorb the founder's values, work ethic and vision through direct daily contact. At hundreds of employees, the founder no longer hires everyone. Other people hire people, who in turn hire more people.

What invariably happens: Culture degrades by generation. If the founder's alignment is 100 percent, Generation 1 hires may be at 90 percent, Generation 2 at 70 percent, Generation 3 at 50 percent. Without explicit structural guardrails, culture reverts to the industry mean, which is usually mediocre, risk-averse and bureaucratic.

3.5 Heroes burn out: individual brilliance cannot scale

In a small startup, a brilliant engineer or a charismatic founder can carry the company through a crisis on pure adrenaline and 80-hour weeks. This is heroic scale. A process that relies on a specific individual never making a mistake is a broken process.

What invariably happens: If you rely on heroes as you grow, your people burn out and your infrastructure collapses. To survive, the company must transition from a culture of heroes to a culture of systems: a machine in which ordinary people leverage great processes to achieve extraordinary results.

3.6 You run out of misfit geniuses

Early-stage startups are fueled by highly versatile 10x players who thrive in chaos, wear five hats and work long hours out of sheer passion. You cannot hire 500 of them. Scale requires predictability, repeatable processes and specialized roles.

What invariably happens: Without a deliberate architecture to protect and leverage top talent, talent density reverts to a standard distribution. The brilliant generalists who built the company get frustrated by the emerging structure and leave, replaced by specialists who execute well but lack entrepreneurial ownership. You still need the geniuses, but they will not save you; they must be complemented by systems and ordinary people.

3.7 Variance becomes unaffordable: the tails start to dominate

At small scale you can tolerate high variance: a few bad requests, a flaky supplier, an inconsistent process. At large scale the tails of the distribution dominate. If one in a thousand events causes a failure and you process a million events a day, you fail a thousand times daily. The error rate is the same; the absolute number of failures, and their visibility, compounds.

This is why scaled systems look boring and bureaucratic: they optimize for predictability, not peak performance. Scaling demands that you compress variance through standardization, redundancy, error handling and service levels.

3.8 Generalists reach their level of incompetence

The people who could do everything at 15 people cannot do everything at 150. Roles that were three jobs in one must split into specialized functions, and the generalists who held them either grow into a narrower, deeper role or hit a ceiling. This is painful precisely because it affects the most loyal early people.

3.9 The outside world hardens

Growth changes the environment, not just the company. As you scale, you serve bigger customers who expect more: reliability, compliance, references, service levels, accountability. The forgiveness extended to a scrappy startup disappears the moment you present yourself as an established player. Your promises grow, your customers' dependence on you grows, and with it the cost of every failure.

Success also attracts attention. By scaling, you prove that the market is real, which draws in competitors and copycats, bringing margin pressure and a war for talent. Regulators, journalists and litigants begin to notice you as well; visibility cuts both ways. The early advantage of being too small to matter is gone.

What invariably happens: The external game gets harder at exactly the moment the internal game does, and the timing is cruel: the world demands more from the company precisely when growth has made the company slower, noisier and harder to steer. Founders who plan for internal complexity but assume a static environment are solving only half the problem.

3.10 The company amplifies the founder's inner state

An organization is an amplifier of the person at its center. As the company grows, the founder's strengths scale, and so do the founder's unresolved patterns. A need for control becomes a culture of micromanagement three layers deep. Conflict avoidance becomes an organization where nobody names problems. A need to be liked becomes decisions optimized for approval instead of truth. None of this

requires bad intent: people watch the founder far more closely than the founder realizes, and they copy what they see, not what is said.

At the same time, the pressure on the founder grows faster than the founder's capacity to process it. More people depend on them, less honest feedback reaches them, and isolation increases, because there are fewer and fewer people inside the company with whom the founder can be unguarded.

What invariably happens: The company inherits the founder's psychological ceiling. An organization can outgrow its founder's inner development for a while, but not for long: the unexamined patterns surface as culture, as politics, or as the founder's own burnout. This is why scaling the company and scaling the self are not two subjects but one.

4 First Principles of Scaling

Every intervention a founder takes to counter the principles of growing has a necessary consequence - and that consequence is never free. Introduce structure and you gain reliability but lose adaptiveness. Add a management layer and you gain alignment but lose speed. These are the First Principles of Scaling: the built-in trade-offs of every measure you take. Unlike the principles of growing, the outcomes are not all negative - but every one of them carries a cost you cannot avoid, because the cost and the benefit are the same mechanism seen from two sides.

Meta-principle: there are no solutions in scaling, only trades. You cannot remove a tension from an organization; you can only move it. What a scaling measure removes (variance, dependence on individuals, case-by-case judgment) is also where part of the company's original strength lived. The art of scaling is choosing which trades to make and when. The science is knowing what the trades necessarily are. For each principle below, we therefore name both sides: what you gain by the intervention, and the price you pay for it.

4.1 Delegation creates information loss, and every management layer widens it

When you hand over a decision, the person deciding knows less than you about some things (the history, the intent, the full picture) and more than you about others (the ground truth of their own area). The loss is unavoidable; the only choice is which losses you accept. Add management layers and the effect compounds. Each layer filters information in both directions: summarizing upward, translating downward. The filtering is the job, but every filter is also a distortion. The founder's picture of the company becomes a constructed one, assembled from other people's summaries.

You gain: leverage. Decisions get made without you, faster, closer to the customer and the problem, by people who see details you no longer can. This is the only way a company outgrows the capacity of one brain. **The price:** you trade direct knowledge for reported knowledge. Every quarter you will know less about your own company first-hand, and you must build deliberate channels back to reality (skip-level conversations, direct customer contact, time at the front line) to compensate for what the hierarchy necessarily filters out.

4.2 Structure creates boundaries, and boundaries create blind spots

The moment you draw departments, you decide what belongs together and, implicitly, what belongs to nobody. Things that fall between units lose their owner: handoffs, edge cases, problems that cut across functions. Every org design solves the coordination problems you have today and creates the seams where the next ones will appear. Reorganizations do not remove this trade; they relocate it.

You gain: focus, accountability and specialization. People know what their job is, can master it, and can be held responsible for it. Without boundaries, everything belongs to everyone, which at scale means it belongs to no one. **The price:** the seams. The most dangerous problems in a structured company live between the boxes, where no metric, no budget and no manager is watching. No structure eliminates seams; choosing a structure means choosing which seams you can live with.

4.3 Process and standardization trade judgment for reliability

A process is a decision made in advance. It makes outcomes consistent, makes new hires productive faster, and frees attention for whatever is not yet standardized. But by definition it stops people from re-deciding case by case. And judgment is a muscle: muscles you do not use atrophy. Standardize everything and you build an organization that cannot think when the standard does not apply.

You gain: predictability, quality at volume, and transferability. Work no longer depends on who happens to do it, which is the precondition for growing without proportional hiring. **The price:** responsiveness and thinking. Exceptions get handled badly, edge cases get forced into templates, and over time the people closest to the work lose the habit of asking whether the process still makes sense. You always gain reliability and you always lose some capacity to adapt; the only question is where you can afford that loss.

4.4 Measurement shapes behavior, including in ways you did not intend

The moment a metric matters, people optimize for the metric rather than the underlying goal. This is not cynicism; it is how attention works. Goodhart's law captures it: when a measure becomes a target, it ceases to be a good measure. Every KPI is also an instruction you did not mean to give. Measure sales calls and you get many short calls. Measure tickets closed and you get tickets closed prematurely.

You gain: visibility and comparability. Metrics let you manage what you can no longer personally observe, spot problems early, and have factual conversations instead of battles of impressions. **The price:** distortion. People start managing to the number, the number slowly diverges from the reality it was meant to represent, and you must keep auditing whether your metrics still mean what they meant when you introduced them.

4.5 Codified culture replaces lived culture, and loses nuance in translation

When you write values down, the written version becomes the reference, not the founder's behavior. That is the point of codifying: the culture can now travel to people the founder will never meet. But codification can never substitute the founder's nuanced judgment. When a founder weighs a hard decision, they draw on context, history, intuition and taste that no document can carry. Something always gets lost in the translation from judgment to text, and people who read the values will decide differently

than the founder would have decided. Sometimes they will follow the letter of a value straight into a decision the founder would never have made.

You gain: transmission at scale. The culture no longer depends on personal proximity to the founder, which is the only way it survives the dilution described in the principles of growing. **The price:** nuance and control. The written values are an approximation of what you actually believe, interpreted by strangers, and the gap between what you wrote and what you meant will become visible in decisions you would not have taken yourself. Codification is necessary and insufficient at the same time; it must be backed by visible behavior, especially in hard cases.

4.6 Senior hires import other companies' first principles, and they do it with authority

Experienced executives bring the causal models of the companies where they learned. Some of it transfers, some does not, and they cannot always tell the difference. With senior hires this is particularly serious, because they do not just execute: they supervise. A senior leader's imported assumptions are multiplied through every person who reports to them, every process they install and every hire they make. A misfit individual contributor costs you one seat. A misfit executive reshapes an entire function in the image of their last company before anyone notices the rejection.

You gain: experience you do not have to acquire the hard way: pattern recognition from stages you have not yet reached, and credibility with investors, customers and candidates. **The price:** foreign assumptions installed at high leverage. Every senior hire is a transplant with rejection risk, and the integration work, testing which of their models fits your business and which does not, falls on you, not on them.

4.7 Bureaucracy is the tax you pay for stability

With nothing to lose, you can move at breakneck speed. With tens of millions in revenue, thousands of customers and hundreds of employees, you have a massive asset to protect. Maintaining total chaos under the banner of moving fast eventually produces catastrophic regulatory, financial or reputational failure. At the same time, large organizations generate internal gravity: coordination overhead, political alignment, reviews and compliance all consume energy. If systems are not built to minimize this friction, the company spends more time managing itself than serving customers, and incumbents get disrupted while staring at internal dashboards.

You gain: protection. Rules, controls and compliance protect the asset you have built; without them, a single bad incident can destroy years of work. **The price:** internal gravity and speed. The challenge of the scaling leader is not to eliminate rules, but to ensure the rules protect the core asset without suffocating the entrepreneurial spirit that created it. Scaling is the continuous balancing of speed versus control: too much speed produces chaos, too much control produces bureaucracy. The art is dynamic equilibrium.

4.8 Bottlenecks migrate and feedback loops change sign

A scaling company is a system in motion, and two of its dynamics never stop moving. First, bottlenecks migrate. When you solve one constraint, the bottleneck does not disappear, it moves. You speed up the database, and the network becomes the problem. You hire more engineers, and onboarding becomes the problem. You open more factories, and distribution becomes the problem. Scaling is not a single act but a

continuous game of identifying and relieving the current binding constraint (this is essentially Goldratt's Theory of Constraints).

Second, feedback loops change sign. A feedback loop is a circular mechanism in which an outcome feeds back to influence its own cause. Some loops reinforce: more customers create more word of mouth, which creates more customers. Some loops balance: rising workload triggers hiring, which brings workload back down. The principle is that mechanisms which stabilize the company at small scale can destabilize it at large scale, and vice versa. A flat culture creates alignment at 20 people and chaos at 200. Viral growth is wonderful until it overshoots and you cannot serve the demand you created.

You gain: every constraint you relieve buys real capacity, and every well-designed loop compounds in your favor. **The price:** solving a constraint buys time, not peace. Every intervention shifts where the system binds next and changes the behavior of your loops, so diagnosis is never finished. The companies that scale well are not the ones that fix things once, but the ones that keep re-examining where the system now binds and whether yesterday's stabilizers have become today's destabilizers.

4.9 The job of the founder changes every 12 to 18 months, and the change is internal

Companies pass through predictable stages, each ending in a crisis that forces a structural reinvention (Greiner's classic 1972 paper on evolution and revolution in growing organizations; Ben Horowitz makes the same point practically: the job of the CEO changes every 18 months). The behaviors that make a founder successful from 0 to 1 (complete control, heroic effort, intuitive decisions, comfort with chaos) are the exact behaviors that destroy the company from 1 to 100.

The hard part is not learning the new job but letting go of the old one. Each transition asks the founder to give up the very activity that made them feel competent and valuable: the maker must stop making, the closer must stop closing, the problem-solver must let others solve. This is an identity shift, not a skills upgrade, and it usually involves something like grief. Founders who cannot make the internal shift do not simply stagnate; they actively pull the company back to the stage where they last felt competent.

You gain: an organization that can grow beyond your personal capacity, and a version of yourself with more range than the founder who started. **The price:** a piece of identity at every stage. The work that once made you indispensable must be handed away, again and again, and nobody can do the inner work for you. This connects directly to the growing principle that the company amplifies the founder's inner state: the founder's development is not a private matter but an organizational variable.

4.10 Value creation must become a process, not an event

Startups survive on spikes: one big deal, one viral campaign, one great hire. Spikes prove that value can be created; they do not prove it can be repeated. Scale-ups require repeatable acquisition, predictable unit economics and reliable execution, because at scale, investors, employees and customers are all betting on what the company will do next quarter, not on what it did once. Scaling begins when value creation becomes a process, not an event.

You gain: compounding. A repeatable engine can be funded, staffed, improved and forecast, which is what makes growth without proportional input possible at all. **The price:** some of the magic. Processes are built from what worked before, so the company's energy shifts from discovering value to repeating it, and

the entrepreneurial spikes that built the company become harder to produce inside a machine designed to make everything predictable. Protecting space for discovery becomes a deliberate act rather than a default.

5 Reflections on the Teachability and Practicality of First Principles

5.1 Integration of First Principles into the Curriculum

The principles in this paper cannot be taught in a single session the way a framework like the Business Model Canvas can be taught, walked through and applied in an afternoon. They are more like a lens - one that only becomes useful once a founder has enough experience to see what it is pointing at. A founder who has never hit an “alignment wall” at 50 people can read the principle about super-linear overhead and nod. A founder who has just lived through it will read the same sentence and feel it in their chest. The question for the curriculum is how and when to teach these principles.

This suggests a specific pedagogical architecture. The principles are introduced at the start of the program as a hypothesis. We tell founders: these are patterns we believe are true about how companies scale. You already have or will encounter them on your journey. Once you know about them, you can recognize them and consider the causalities in your decision making.

This reframes the founder's experience as a source of learning and evidence of these principles. Every difficult conversation they are avoiding, every decision that keeps coming back to them, every re-org that brings new problems, every hire that is not working out - these are not just problems to solve. They are data points that confirm a principle.

We need the wider SoF faculty to buy into these principles and integrate them into their teachings. The principles cut across the entire curriculum: strategy, people, operations, finance, leadership, culture. Each faculty member teaches their piece, and each piece implicitly rests on some of the principles. Participants should recognize the skeleton of the principles underneath the individual lessons.

This helps our founders experience the program as a coherent argument about how scaling works rather than a collection of frameworks.

Is this practical enough? Is this useful to a founder standing in front of a real problem?

A founder whose head of sales just quit, whose Series B is taking longer than expected and whose team is showing the first signs of cultural drift does not need a theory of non-linear dynamics. They need help with the next three decisions. First principles can feel like the kind of thinking that is interesting in a classroom and irrelevant in a war room.

Some founders might think this way. But the same founder, without a framework for what is happening to them, will treat each crisis as a unique emergency, exhaust themselves solving symptoms, and find that the problems keep coming back in different forms. The “alignment wall” is not a bad quarter. It is a structural condition that no amount of hard work will fix. It needs a structural response.

The principles are most valuable not when things are stable but precisely in the moments of crisis, because they tell the founder what kind of problem they are actually facing. Is this a growing problem - something that will happen to any company at this size unless the architecture changes? Or is this a

scaling problem - an unavoidable trade-off of an intervention they chose? Those are different problems with different responses, and a founder who cannot distinguish them will keep solving the wrong thing.

The limitation is that the principles are general, and every founder's situation is specific. Knowing that context stops traveling does not tell you which decisions to decentralize, in what sequence, with what governance. That gap between principle and practice is real, and the curriculum must bridge it. The principles are the diagnosis; the rest of the program is the treatment. If they are not visibly connected, the principles float free as interesting ideas rather than actionable understanding.

5.2 Teaching Founders to Find Their Own First Principles

The most valuable thing the program could give a founder is not the general principles, but the ability to identify the specific first principles of their own business. The general ones are true for everyone. The specific ones are the irreducible mechanics of their particular value creation model - the things that are simply true about how their business works, whether or not they have named them.

Every successful business rests on specific first principles that its founders have internalized, usually without calling them that. The question is how to make the discovery process explicit and teachable.

One approach is to work backwards from crises. When something goes badly wrong in a company - a customer segment that suddenly churns, a distribution channel that stops working, a pricing model that collapses under competition - there is almost always a first principle that was violated or ignored. Ask the founder: what would you have needed to believe about your business for this outcome to have been predictable? That question, asked carefully, often reveals an assumption so fundamental that the founder had never examined it. The violated assumption is the first principle, stated in negative.

A second approach is the constraint audit. Ask the founder to identify the single thing that, if removed, would allow their business to grow twice as fast. Then ask why that constraint exists. Then ask why that reason exists. Keep going until you hit bedrock - something that cannot be explained by anything more fundamental about the business model. That bedrock is a first principle. Goldratt's Theory of Constraints is a useful structure here: the current binding constraint is rarely the deepest truth, but tracing back to what generates it often is.

A third approach is competitive stress-testing. Ask the founder: if a well-funded competitor copied everything about your business - your product, your pricing, your team quality - what would they be unable to replicate? What is it about your business that is causally connected to your success in a way that cannot be transferred? Answers to that question often reveal the specific first principles of the value creation model: the network effect that only works at density, the trust relationship that only transfers through a specific channel, the unit economics that only work at a particular scale.

None of these approaches produce first principles cleanly or quickly. They require intellectual honesty, a tolerance for uncertainty, and the willingness to sit with a question that does not have an obvious answer. The facilitator's job is to keep pushing past the first plausible explanation until the founder reaches something they cannot explain any further. That is harder to teach than a framework, and it cannot be done in a single session. But if the program can develop this capacity over nine months - the habit of asking "what is necessarily true about how my business works" - it will have given founders something they will use for the rest of their careers.

The general first principles tell founders what to expect. The specific ones tell them how to win. The curriculum needs both.