



Strings Attached

It's one of a start-up's toughest challenges: How do you find the right venture capital match?

The company: Terracycle, a seven-person start-up with an innovative plan to harvest worm castings from large-scale organic worm composters to make fertilizer — liquid plant food, pellet fertilizer, growth media or sprayable liquids. They're at an early stage, with big, industrial-size prototypes, but no significant money behind them.

The situation: Terracycle's founders need money fast. And they think they've found a venture capital firm (VC) that's willing to invest. But it turns out that money's only part of the equation. As they work toward a deal, management realizes the VC's ideas about business strategy and senior staffing are totally at odds with their own vision. Walking away means risking everything. But do they have a choice?

THERE WAS A BRIGHT burst of flashbulbs as Tom Szaky signed the electronic screen and pushed the button to signal the start of the NASDAQ's trading day. With his tousled bedhead, wearing a blazer over a T-shirt, the 21-year-old was visibly different from the CEOs, celebrities and statesmen that usually preside over the market opening.

Szaky was a student on a leave of absence from Princeton University. He had put his studies on hold to found Terracycle, a New Jersey-based start-up that manufactured organic plant fertilizer from worm excrement. A week earlier, he'd pitched the concept to a panel of venture capitalists as part of the Carrot Capital Education Foundation Business Plan Challenge. His top performance in that competition earned him the right to ring the opening bell.

But it didn't stop there. Taking top honours also put Terracycle in line for up to US\$1 million in seed

funding from Carrot Capital, a New York-based venture capital company. Szaky next met with Carrot's managing director, setting up sessions for both companies to start conducting due diligence. While the judges had been enthusiastic about Terracycle's business model, an offer of VC funding was contingent on a closer inspection of the company's plans.

Szaky knew the stakes were high. With just

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\$500 in the bank and \$5,000 coming in from another business-plan competition, Terracycle had barely enough cash to stay alive for another month. With no other venture capital deals on the horizon, Szaky and his six fellow staffers had only a few short weeks to either proceed with financing from Carrot – or find another way ahead with only their scarce bootstrapped cash to rely on.

JUST OVER A WEEK LATER, Szaky found himself in more familiar, but less glamorous, surroundings. His brow glistening with sweat, he grunted with exertion as he shovelled compost from a metal biocomposter into a platfomed worm gin in Princeton, N.J. Beside him was Bill Gillum, a former Bell Labs scientist with a Ph.D. in inorganic chemistry, who alternated between shovelling and adjusting settings on the biocomposter's computer.

The biocomposter and gin were two parts of a prototype system for producing nutrient-rich vermicompost on a large scale. The prototype was the latest step in a grand vision that had begun years earlier when Szaky took a road trip to Montreal. There, he had been impressed by the wriggling fertilizer factory installed under his Montreal friend's kitchen counter – a miniature vermicompost operation, where a bucket of red worms converted the house's kitchen waste into nutrient-rich plant food for the garden.

Now Szaky and Gillum were tinkering with an industrial-scale version of that same concept. A far cry from the kitchen-cupboard bucket, Terracycle's system used tens of thousands of worms, capable of producing thousands of pounds of fertilizer. Raw organic waste – from coffee grounds to paper sludge – was first heated and oxygenated to eliminate any harmful bacteria; then it was fed into a biotransformer, where red worms would

chew through it, excreting nutrient-rich vermicompost castings in the process.

The final step saw these castings – “worm poop,” in the candid language of Terracycle's founders – separated to remove any worms or undigested waste. The product could be bagged directly as a solid, or brewed and packaged as a liquefied plant food. This innovative separation and brewing process allowed the fertilizer to retain its nutrients on the shelf for years – a considerable improvement over the kitchen-cupboard system, whose output would lose its nutrients after only weeks.

Their working prototype could produce and bottle up to 80 half-litre containers per week – if Terracycle's staff chipped in enough manual labour. Often, they would spend their mornings in meetings, and then spend afternoons shovelling organic waste into the gin. The end product was bottled in spartan containers – the company had yet to settle on packaging design or a product name. Based on Bill's own anecdotal experience, the company's plant food was at least as effective as its chemical counterparts, such as Miracle-Gro.

Terracycle badly needed capital to turn the prototype into a working production facility. To convert a warehouse space in Trenton, N.J., into a fully functional production facility capable of producing 100,000 750-millilitre bottles per week would require \$300,000; to scale up to 215,000 bottles per week, they would need \$850,000 in facility upgrades and bottling and brewing equipment. The company also needed to undertake rigorous product testing – a process that, for each product, would take six months and cost \$60,000 at Rutgers, the state university of New Jersey.

Terracycle had been focussed on producing a liquid indoor plant food, but a number of other products were possible. Once the earthworm castings had been produced, they could

be packaged in their solid form to be used as pellet fertilizers or growth media (soil substitute). Alternately, the castings could be brewed in distilled water to produce a sprayable liquid. Products for specialty applications such as rose bushes could be developed with small changes to the composition of the worms' organic-waste diet. And the company had a range of bottling options, from a spray applicator on small bottles for indoor use to a hose applicator affixed to a large jug for lawns and outdoor plants.

RESPONSIBILITY FOR SETTING PRODUCT lines fell to Robin Tator. Tator, the company's vice-president of marketing and sales, had given Szaky one of his very first jobs as a teen. Tator had joined the firm early in its development and had been dividing his time between Ontario and New Jersey ever since, steering sales and distribution efforts on both sides of the border.

Terracycle had already tentatively selected its first product: a sprayable, all-purpose indoor plant food aimed at the consumer market. Pricing was designed to match larger competitors like Miracle-Gro. While Terracycle couldn't match the scale economies of its competitors, the production process for its vermicompost was far less expensive than the energy-intensive production of chemical fertilizer products.

The size of the fertilizer and media market was appealing – in the United States alone, it was a US\$6-billion segment of the US\$37-billion lawn and garden market. But the segment was beset by sluggish growth – no more than 5% annually – and dominated by a handful of industry Goliaths. Scotts' Miracle-Gro controlled at least 35% of the consumer lawn and garden market – and had an even tighter grip on the all-purpose fertilizer market.

Tator considered the organic market a green field of opportunity: The market was small –

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perhaps \$400 million – for “designer” soils and premium plant food, but it was growing at a rate of 16% per year. Sales of organic products, which made up at best 10% of the overall lawn and consumables market, had grown well over 400% between 1997 and 2002. Though one competitor, Schultz, had made tentative steps into the market and Scotts was planning an organic line, the organic market was still dominated by small, regionally focussed competitors.

Tator advocated a consumer focus, even though the agricultural and commercial markets offered higher margins. First, he expected

senior roles at Deutsche Bank, Chase Manhattan and Skandinaviska Enskilda Banken.

Despite their resumé, the financial projections they presented reflected both the company’s embryonic stage of development and the fact that the leadership was balancing dozens of competing priorities. Their submissions included neither detailed cash-flow projections nor a proposed use of proceeds for the financing round.

Carrot wanted more. It needed a clear picture of what stage of development the young company would reach with its round of

investments into professional branding and marketing. They considered the intern program an unacceptable distraction.

The VC also wanted to rethink the management line-up. In a letter, Carrot allowed that the management members were smart and capable, but argued they were the wrong people for the company. Carrot wanted to hire startup veterans with deeper experience in consumer products and retail marketing. Those who were left, Carrot made clear, would be expected to continue working at modest salaries or for equity alone.

The VC wanted to replace management with start-up veterans experienced in consumer products and retail marketing. Founders were expected to keep working at modest salaries or for equity alone

indoor home users to respond positively to the product’s safe, non-chemical formulation. Second, he anticipated that consumers would more readily try out the Terracycle product – while agricultural users, whose livelihood depended on the product’s efficacy, would take longer to experiment with and adopt the product.

WHILE TERRACYCLE refined its production process and planned for its product rollout, however, the relationship with its potential financier began to sour. The discussions were conducted by Szaky, CFO Doug Feltman and interim CEO Thomas Pyle. Feltman had joined the team after serving as CFO of marketing firm Grey Worldwide. Pyle’s career in banking in-

cluded senior roles at Deutsche Bank, Chase Manhattan and Skandinaviska Enskilda Banken. financing. Szaky and partners soon discerned that the financing would be tranch ed – delivered in stages – based on set milestones for sales, development and hiring. Having attributed their survival thus far to their adaptability, the Terracycle team worried that set milestones would limit their flexibility in the face of unpredictable change.

Terracycle and its prospective investors also clashed on spending priorities. The company had budgeted relatively modest amounts for marketing, preferring to build sales through guerrilla marketing and a network of unpaid student interns. They also planned to place the management team – who had been sleeping at the office and drawing meagre, infrequent paycheques – on salary. Carrot expected, by con-

trast, investments into professional branding and marketing. They considered the intern program an unacceptable distraction. Carrot, as an act of good faith, was willing to keep the company afloat with a \$20,000 bridge loan and agreed to give it additional time to work out a deal. But Terracycle’s managers were skeptical, sensing a gulf between their vision and Carrot’s aims. On top of those substantive challenges, Szaky felt uneasy with Carrot on a gut level, as if he was being cloistered from his team during the high-intensity negotiations with the VC.

Butting heads with Carrot over both strategy and spending, Terracycle was in an unenviable position. It would be months before they had a saleable product ready. Their coffers were empty. The company had some embryonic relationships with individual investors – enough, perhaps, to cobble together enough funding to

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survive a few more months – but there was still a very good chance that it would not survive if they rejected the venture capital deal.

The Expert View

By Andrew Waitman

Managing Partner, Celtic House
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The Terracycle story is repeated dozens of times a week in the offices of venture capital companies across the country.

The story repeats itself because entrepreneurs sometimes fail to appreciate the VC business model. And it repeats itself because companies and investors don't work successfully enough to build trust and find philosophical alignment.

VCs raise their money from a group of investors, often including pension plans, and

requires that they have highly profitable business models that demonstrate rapid revenue growth. And while we exercise a degree of control over the companies we invest in, we do not want to run the companies ourselves.

We're in a very competitive business, and entrepreneurs need to demonstrate awareness of the risks and expected returns. They need to show us that they can deliver results, and they need to show that our interests converge.

I have seen companies like Terra cycle before. They have a particular style. They tackle impossible markets in tightly consolidated industries, and by hard work, force of will and pure chutzpah, they manage to succeed. They run on instinct, they foster creativity and experimentation, and in so doing they disrupt conventional business models. Some astonishing companies have been built on this type of vision and creative instinct.

But especially with this kind of company, it becomes absolutely imperative to build a relationship of trust and to find an alignment of interests. When VCs ask for milestones, what we are really asking for is a demonstration that the company can credibly build value quickly and capably. When we react in horror at founders' plans to give themselves generous salaries, it is because it's against our culture for the efficient use of scarce and expensive cash to be directed away from those activities that drive company value. We want the companies we invest in to stay lean, to continue to

When VC deals close without trust and philosophical alignment between the parties, the results are often bleak. Entrepreneurs spend their time battling disapproving boards of directors. They are hemmed in by rigid milestones. They placate their VCs and seethe about it under the surface. Some companies can grow and succeed in spite of these toxic relationships, but in the challenging world of managing a start-up, the last thing an entrepreneur needs is an uneasy working relationship with his or her equity partner.

In the best working relationships, VCs provide money, credibility, networks and advice. They are indispensable and supportive partners, and the entrepreneurs they fund communicate with them openly and candidly. A VC deal should attempt at the outset to be a good marriage. If the fit isn't right, the experience will be painful and unproductive and may end in a messy divorce. In the case of Terracycle and Carrot, it may have been wise to end the relationship after a few short dates.

The Outcome

Terracycle ultimately decided not to pursue venture capital financing. To save costs on battling, the company hit on the idea of using recycled soda bottles for packaging. With the world's first consumer product both made of waste and packaged in waste, Terra cycle found itself in a position to go to market with a unique offering.

With marketing and public relations work from the company's unpaid interns, the team used their story to attract press attention – and to attract investors. Financed by a small group of angel investors, the company finished its product testing. Within two years, the company had its product on the shelves of Home Depot and Wal-Mart stores across Canada, and was approaching \$500,000 in sales revenue. The company continues to seek investment to finance a national product rollout in the United States.

Note: The authors do not intend to illustrate either effective or ineffective handling of a managerial situation. The views represented here are solely those of the case authors and are based on their own professional judgment. Certain names, scenarios or identifying information may have been disguised to protect confidentiality.

We want the companies we invest in to stay lean, to continue to sacrifice comfort for achievement

they're charged with realizing a return on that capital commensurate to the risk in a fixed period of time – usually seven to 10 years. VCs have a very high cost of capital. Our business requires one very challenging thing: We need to get money in and out of a company at a high multiple in a relatively short period of time. What this means for the companies we fund is that we need them to provide a significant rate of return in a reasonable time frame. This

sacrifice comfort for achievement. We want to know that the founders will retain an unshakable focus on building the business. And when we consider replacing management team members, it's because we need to know that the team has a thorough understanding of the market they are entering. Cool technology or an energetic founder is never a substitute for a capable and knowledgeable team that understands its industry inside and out.

