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IGNITE your corporate innovation: insights from setting up an ag-tech start-up accelerator

INDUSTRY SPEAKS

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Abstract

In today's market era of rapid technological innovation even the most established agribusiness players risk being left behind in the wake of disruptive technology. How can large agriculture companies keep up? One emerging possibility for corporate innovation is that of the corporate start-up accelerator. Companies across all sectors, including agricultural and food technology, are increasingly using these programs to tap into early innovation. In 2017, Alltech ran its first program, the Pearse Lyons Accelerator for agri-business and ag-tech start-ups. This article serves to describe and analyze how corporate accelerators have populated start-up ecosystems and how the ag-tech and food sectors are reflecting this trend. Recommendations based on experience and critical feedback are presented to those considering developing their own accelerators and the role it might play in responsible innovation.

Keywords: accelerator, corporate accelerator, start-up, ecosystem, ag-tech

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1. A new model of innovation opportunity

The nature of innovation has changed. For this reason, it seems only natural that the word innovation, which represents change and adaptation, should experience both itself. Strikingly while the purpose of innovation remains the same, the nature of corporate innovation has changed fundamentally, creating new and exciting opportunities.

Previously, companies typically have relied on two methods of innovation. First was internal research which fosters both innovation and development from within a company. Second, many companies attempt to purchase innovation through the acquisition of companies who have conducted the initial development. A new third pathway for innovation has developed, one which represents a new model for corporate innovation. This model is one where corporations become involved in the start-up ecosystem.

Start-up programs invest time and resources in emerging and disruptive new companies to boost them to success. The growing network of programs, companies and investors has been called the start-up ecosystem. Within these ecosystems, there are a variety of resources that start-up founders may use to turn their innovative ideas into successfully marketed products, from idea formation ('ideation'), business definition ('hackathon'), initiation ('incubator') and scale up ('accelerator'). Given the nature of the business accelerator (i.e. near to market) it is not surprising that this is the one which corporations have greeted with enthusiasm (Ortmans, 2016).

Innovation itself can be used for good, not just of a corporation, but of society. These thoughts first illustrated in the development of Corporate Social Responsibility by leaders such as Michael Porter of Harvard Business School went so far as to suggest that doing the right thing could create shared value and become a core competency of the company, and allow it to compete and prosper, while being concerned with the collateral impact their corporate actions could take (Porter and Kramer, 2011). When considering innovative ideas, we find ourselves also faced with the opportunity to evaluate these ideas taking into consideration societal and ethical factors. This concept, incorporating this sense of responsibility, is known as responsible innovation (RI). RI is the consideration of the good of society and public interest when contemplating new ideas. A challenge for business accelerators, but especially those sponsored by corporations, is to incorporate a focus on socio-ethical opportunities that could further benefit not only the corporation and the start-up, but society as a whole.

This paper set out to focus on a particular aspect of the start-up ecosystem, corporate accelerators. While others have documented the arrival of the accelerator model, most are popular press articles reviewing anecdotes from the coalface and don't consider the goals and objectives of all of the stakeholders within the sector. Kohler's article, 'Corporate Accelerators' (2016) addresses how corporations can 'build bridges' with start-ups from a historic perspective, and illustrates the conceptual predecessors to the modern corporate accelerator. He offers readers insights gathered from the study of various corporate accelerators and identifies patterns for a solid framework in which to design a corporate accelerator. Mian *et al.* (2016) focuses on identifying terminology and developing theories, such as or clarifying and defining design parameters. Pauwels *et al.* (2016) define types of accelerators. The literature doesn't give, however, a first-hand example of how to implement and coordinate a corporate accelerator, nor do any of these articles discuss responsible innovation and how it relates to the ag-tech sector.

This paper aims to illustrate the example of a company that has implemented its own accelerator program, including feedback and guidance from both internal members and the outside start-up companies themselves. The conclusions are summarized in the acronym IGNITE, to demonstrate the most pertinent considerations, specifically for agricultural corporations, when considering building and implementing their own accelerators.

2. The start-up ecosystem

All start-ups begin with an idea. The best start-ups begin with founders who have an innovative solution or system improvement to either a business or society challenge. In today’s start-up ecosystem the ‘ideation’ process (Graham and Bachmann, 2004) has been formalized through one of two methods: hackathons and start-up weekends (Figure 1). Hackathons take an outside-in approach to innovation by constructing a problem or challenge issued by a company or organization and recruiting experts to help find a solution. In a hackathon, programmers, product developers, designers, project managers and outside experts collaborate intensively on projects. Occasionally hackathons are intended simply for educational or social purposes but frequently they are formatted as competitive events, typically lasting 24-36 hours, and are intended to address these unsolved challenges. Participants, who can range from computer programmers and web designers to scientists and engineers, work collaboratively or competitively to develop practical software solutions to the specific topic or issue. While hackathons may be small, quick events, they are considered very influential in start-up ecosystems. Not only do fresh, innovative ideas result from these events, but they also act as a networking event, bringing together potential founders, sometimes for ideas or companies not even part of the original event.

An alternative to a hackathon is a start-up weekend. Techstars Startup¹ Weekend, which is partnered with Google for Entrepreneurs, aims to help entrepreneurs with ideas they have had to ‘build a company in 54

¹ The authors have followed Merriam Webster’s spelling of the word ‘start-up’ which includes a hyphen. Techstars does not hyphenate the word start-up in the event name.

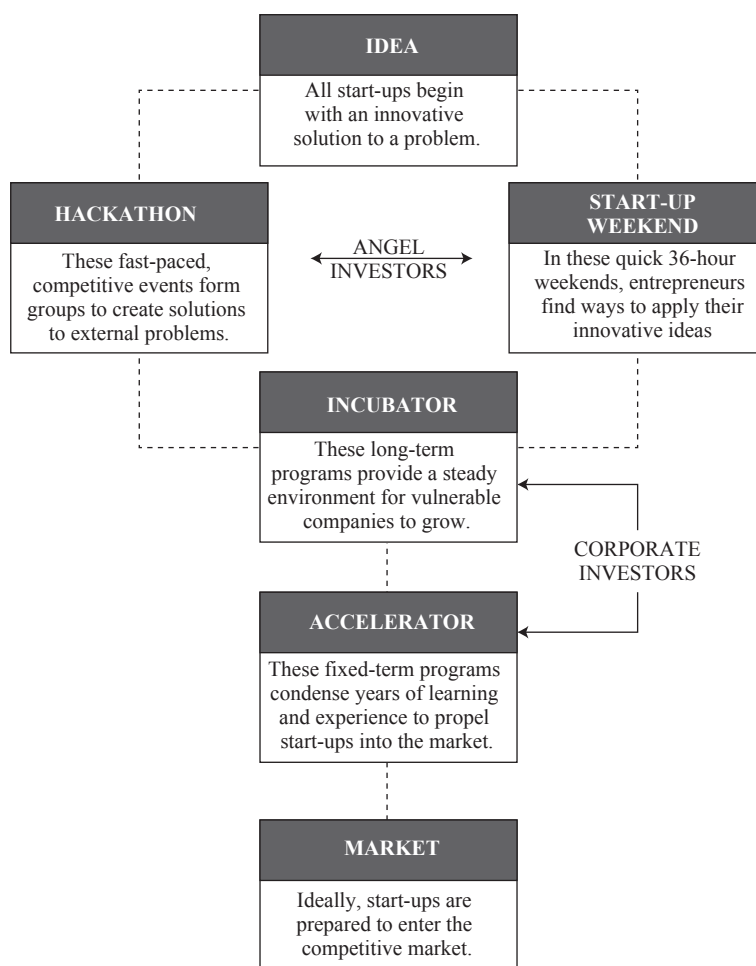


Figure 1. Potential start-up ecosystem path: how start-ups can take an idea to market.

hours' (<http://startupweekend.org>). These intensive weekends bring together like-minded individuals to choose a project, form teams, and begin crafting companies. They do this by taking an inside-out approach. Teams have an innovative idea, and the program helps them to apply the idea as a solution to an external problem. At the end of the weekend, teams pitch their new start-up to the other teams as well as to a panel of judges. Startup Weekends have been widely popular, proliferating across the globe. According to the Techstars Startup Weekend website, more than 23,000 teams have formed across 150 countries (<http://startupweekend.org>). With over \$300 million dollars in capital to manage (Saltzman, 2015), Techstars can have a profound impact on the global start-up ecosystem. Even if many of these teams or projects don't make it, the energy and momentum these weekends pour into entrepreneurs can leave a lasting impression and much can be learned.

As founders grow their companies, the start-up ecosystem offers other services to help them scale and improve their businesses. Programs called incubators place early-stage start-ups with established, successful companies in a co-working space. Incubated start-ups receive the benefits of some tactical mentorship as well as the provision of a functional place of business. Typically lasting between one to five years, incubators provide start-ups a safe, steady environment in which to scale their business and gain their footing.

If hackathons and start-up weekends plant the seeds of a company, and incubators are soil and nutrients to help the company steadily grow, then accelerators are perhaps the rainfall which causes the company to sky-rocket. As one of the newer arrivals in the start-up ecosystem, accelerators condense years of tedious learning and experience into a small, fixed amount of time to propel start-ups into the market successfully. Accelerators, as defined in an article in AgFunder News, are a 'fixed-term program where a cohort of start-ups receive help focused on investment readiness and growth, culminating in a pitch or demo day to help attract capital' (Nolet, 2017). Start-ups participating in accelerators can expect to spend the length of the program working intensively with mentors to clarify their goals, adjust their business strategies, and improve their products.

3. Corporate accelerators

In recent years, some corporations have begun to create and fund their own accelerators to drive innovation and growth in their own company. In fact, by December of 2016, there were more than 70 corporate accelerators across the globe (<https://www.corporate-accelerators.net/database/index.html>). Despite the growing prevalence and increased interest from corporations to support internal accelerators, the concept is still relatively new and there is not much documented information available for companies interested in pursuing this concept.

Why are these corporations turning to methods such as start-up accelerators to drive their own growth and innovation? Put simply, innovation in the era of the start-up ecosystem is barreling forward at a faster pace than bigger, slower corporations can match. Where traditional research and development labs are expensive and slow, entrepreneurial start-ups are fresh and agile, consistently churning out newer, more relevant product lines. There are even organizations such as Epicenter in Stockholm, Sweden that have programs dedicated to teaching corporate innovation to companies. Epicenter's corporate innovation labs aim to provide companies with the right tools to keep innovating. This can range from teaching about start-up ecosystems and opportunities for equity to fostering internal innovation and intrapreneurship (<https://epicenterstockholm.com/innovation-labs>).

Additionally, companies now expect and plan for their technology to be copied quickly, so they aim to conquer as many markets as they can as fast as they can, including international ones. In other words, they strive to be 'born global', which requires much more seed capital. Accelerators usually offer a variety of funding opportunities. Corporate accelerators often provide start-ups an initial investment in return for equity stake in the new business. Research also suggests that graduates from accelerator programs are more likely to secure further investment and financing than start-ups who did not participate in an accelerator (Smith and Hannigan, 2015).

Another asset start-ups gain from accelerators is access to the corporation's network of contacts, customers, and investors. Whether a start-up needs more customer leads or more investment opportunity, the corporation will be able to point the founders to the right people.

Many start-ups that participate in accelerators also use the opportunity to spend weeks clarifying their business goals and ascertaining the best possible strategies to employ. Whether that means improving their product or redirecting strategies, founders can often compress a year's worth of work into the length of the program (Forrest, 2014).

Founders also typically find that working in a collaborative workspace with their fellow founders of the other start-ups can make for an encouraging work environment (Forrest, 2014). Founders may find it encouraging to be working alongside peers who are experiencing the same struggles they are even if their businesses are quite different. According to research published by Susan G. Cohen and Yael V. Hochberg, 'the experience of starting in the program at the same time fosters uncommonly strong bonds and communal identity between founders in the same accelerator cohort' (Cohen and Hochberg, 2014). Peer motivation such as this creates a healthy and productive workspace.

Along with productive work environments, start-ups can expect to receive valuable mentorships throughout the program. The value of an accelerator can even be measured in part by the value of the program's mentors. The Accelerometer, was a study used to evaluate and rank accelerators by surveying founders whose start-ups have graduated from accelerators. In the survey, founders are asked to rate the level of business development support they received (Williams, 2016). In asking this as one of three questions, The Accelerometer places the level of effective mentorship as an essential facet of a successful accelerator.

Having senior mentors with years of experience will allow start-ups to seek and find financial, strategic, as well as tactical advice for their companies. While mentors from within the host company can be very beneficial, bringing in outside mentors with varied expertise is often more valuable to the start-ups.

Those participating as mentors can also expect to learn and benefit from the accelerator experience. Formal mentorship provides the mentor the opportunity to exercise and develop their mentorship and management skills. However, it is also a chance to give back. George Deeb, Founder and CEO of iExplore, wrote in a 2015 Forbes article that he viewed his experience mentoring for the Techstars accelerator as an opportunity to pour back into the entrepreneurial ecosystem that he himself is a part of (Deeb, 2015). Deeb also said the challenge of mentoring can be revitalizing, stating: 'To me, there is nothing more invigorating as being surrounded by a bunch of excited and motivated entrepreneurs, and trying to help them achieve their goals of building successful businesses' (2015).

While participating start-ups and mentors both should receive valuable experiences through a successful accelerator, what is it that motivates a corporation to fund their own accelerator? Perhaps the most obvious answer is the opportunity to claim equity in the start-up businesses. This can be viewed as a positive relationship for both the corporate accelerator as well as for the start-up. For the parent company, it gets equity stake in a growing company it believes will succeed. For the start-up, not only does it receive the initial investment, but it also gains the active support and guidance of the accelerator. Because they have stake in the start-up, the accelerator is incentivized to make sure the start-up is a success (Cohen and Hochberg, 2014).

Accelerators also supply companies with direct access to creative innovation, allowing them to tap into these ideas early on. Not only does this allow the company to see what the future of their industry could look like, but it also allows them to stick their foot in the door of these new markets by way of acquisition. For example, Samsung, in an effort to remain the largest smartphone manufacturer, has begun running their own accelerator program for the purpose of acquiring young, innovative companies (Popper, 2013).

Corporate accelerators can also distinguish a company as a thought-leader. In molding a company's brand, it is important to establish a culture of creativity and innovation. Successful accelerators shape the newest innovative ideas into successful companies with great efficiency. Researchers Daniel C. Fehder and Yael V. Hochberg found that locations where accelerators are founded typically see their entrepreneurial ecosystems flourish as a whole with increased funding and investment opportunities (Fehder and Hochberg, 2014).

4. Innovation in agriculture

More than most other sectors of technology, agribusinesses need innovations. The United Nations Department of Economic and Social Affairs has projected that the world population will reach 9.8 billion by 2050 (United Nations, 2017). The goal of agricultural innovation is not simply to provide convenience or improvement to minute areas of life. It is to feed the world sustainably.

Today only 2% of Americans are employed in farming jobs, a picture that mirrors worldwide trends. For a variety of reasons, agriculture has lacked focus and energy, to innovate at pace with other sectors (Sorvino, 2017) and much of this is credited to the inherent conservative culture which exists in farming. It is now more essential than ever, however, that agriculture innovate and do so responsibly. Social media has allowed consumers to put a sharp focus on agricultural practices. People are interested more than ever about how their food is grown or where it is sourced leading to interest in such topics as animal welfare, environmental impact and fair trade. It is imperative, therefore that agribusinesses look to innovate in a responsible manner to address these consumers concerns, which inevitably will affect all aspects of their business from human capital attraction and retention, legislation and the perception of their brand(s).

Although the world's oldest industry, agriculture has been one of the slowest to experience digitization. The motivated start-up culture, that has shaken up other traditional calcified industries, has finally set its sights on agriculture. Precision technologies such as remote sensing drones and combine-mounted sensors are now provide farmers with more specific data regarding their crops than ever before. The market for agricultural drone technology is set to increase in worth from 2016's \$494 million to an estimated \$3.7 billion by 2022 (WinterGreen Research, 2016). Promising and transformative adaptable technologies such as artificial intelligence and blockchain are also infiltrating the ag-tech space.

The influx of technological innovation has resulted in rapid expansions of ag-tech start-up ecosystems. One of the most promising examples of a growing ecosystem is that of Sacramento, California. Located in one of the most fertile farming regions in the world, Sacramento has many resources at its disposal to support a thriving ag-tech ecosystem, including a leading agricultural university (Easley, 2017). Sacramento is home to a variety of ag-tech and biotech focused incubator programs, and the city recently approved a \$10 million fund for local high-tech start-ups (Chabria, 2016).

Of course, agricultural innovation is not limited to cities like Sacramento. Start-ups with disruptive technologies are appearing all over the world, bringing new products to the table for farmers everywhere. Israel has experienced significant growth in the ag-tech sector. According to Start-Up Nation Central, the small nation now has more than 400 ag-tech start-ups, many of which were founded in recent years (<http://lp.startupnationcentral.org/agri-map>). Accelerators around the world are providing these start-ups with a newer, quicker method of reaching into international markets to globalize their products. Programs such as Village Capital and Yield Lab are part of a growing number of accelerators that are helping start-ups revolutionize farming, and both incorporate the values of responsible innovation within their remit.

Most members of the agriculture industry are beginning to realize the real value of accelerator programs. Figure 2 presents a comparison chart of several of the top ag-tech accelerators. Wells Fargo, the largest commercial lender of agricultural loans in the United States, has recognized this and reported to be helping to support and expand the ag-tech start-up ecosystem (Cosgrove, 2017). The bank sponsored ag-tech accelerator,






					
First Announced	2014	Late 2014	Mid 2014	Mid 2016	End of 2016
Program Period	Mar-May 2017	Dec 2016-Aug 2017	Nov 2016-Mar 2017	Jan-Apr 2017	Feb-May 2016
Non-equity Funding				✓ (Amount not disclosed)	✓ (€15,000)
Access to Markets	USA, ISR, JPN	USA, EUR	USA, Africa	USA, EUR	Global
Funding Access	✓	✓	✓	✓	✓
Space for Startups				✓	✓
Conference Opportunity	✓ (400 Attendees)				✓ (3,500 Attendees)
Founder Level Access					✓
Partner Organizations	✓	✓	✓	✓	Option for Alltech

Figure 2. Ag-tech accelerator comparison chart as compiled via online research.

Thrive, and considering other options (Cosgrove, 2017). Accelerators are helping start-ups overcome one of the most challenging aspects of the agricultural economy, accessing markets. Corporate accelerators will likely prove to be especially effective in this sense. Start-up who participate in corporate accelerators should graduate the program having been propelled into a global market via the company’s network.

5. Risk assessment

Like any business venture, of course, starting an accelerator comes with its own risks, for both the corporation and the start-up companies. It is possible for the corporation and its mentors to have an overbearing influence on their program’s start-ups. This often results in the original creativity and innovation of the start-up being smothered unintentionally. Similarly, start-ups can become infected by the same bureaucracy and office politics that may plague the corporation.

The corporation also runs the risk of minor to serious public relations and marketing issues. The success or failure of a start-up has the potential to affect the corporation’s image and brand perception. If a scandal of any kind arises within a start-up, it may be difficult for the corporation to distance itself from the smaller company and protect its own reputation.

Additionally, minor risks such as start-up company failure may be outweighed by the benefit to the overall ecosystem. Ian Hathaway, a senior fellow at the Brookings Institution, wrote in a 2016 article for the Harvard Business Review that accelerator programs often speed up the process of either success or failure (Hathaway, 2016). However, Hathaway is quick to ensure that either outcome can be considered good for the start-up ecosystem. He states, ‘Metropolitan areas where an accelerator is established subsequently have more seed and early-stage entrepreneurial financing activity, which appears not to be restricted to accelerated start-ups themselves, but spills over to non-accelerated companies as well’ (Hathaway, 2016).

While there are risks to starting an accelerator, companies may also be taking risks by staying away from the start-up ecosystems. Hesitant companies must consider the risk of being left behind. Just as ‘Big Food’ giants are scrambling to compete in quality and convenience with newer, innovative food companies, established agricultural companies must begin considering making investments in ag-tech start-ups and making them fast. AgFunder News reported that ‘the only thing that is certain, is that traditional ways of doing things

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and traditional business models will be overthrown' (Cuatrecasas, 2017). Accelerators and other start-up programs are helping companies keep up by allowing them to tap into innovation quicker. Being slow to innovate may be just as damaging as not innovating at all.

6. The Pearse Lyons accelerator

Since its founding in 1980, Alltech has tried to instill and maintain an entrepreneurial spirit in the company. The personal passion for research of its founder Dr Pearse Lyons has driven much of its innovation, leading Alltech to become a global leader in natural nutritional supplements and agricultural innovation. During much of its existence Alltech's innovation process has used traditional models of innovation. While historically heavily relying on the research performed in its facilities around the globe to respond to industry issues, more recently Alltech has found innovation by way of acquisition. Over the last three years, the company has made over twenty acquisitions. The decision to embrace Start-Ups was in part a recognition at board level that the nature of innovation has changed, and that in particular to address areas where Alltech didn't have expertise, such as digital technologies, having a structured approach to tap into the start-up ecosystem was critical to remain at the forefront of ag-tech innovation.

Alltech ran its first late-stage ag-tech accelerator program in partnership with Dogpatch Labs in February of 2017. Applicants came from a variety of types of corporations, but none from non-incorporated individuals. This probably reflected both the nature of the selection criteria, which was focused on late stage start-ups, and the requirement that applicants have the time and required resources to attend the 12-week program in Ireland. Several smaller companies, for example, balked at the idea of being out of their market for multiple weeks and even the required weekly calls and meetings were seen to impose to big a strain on resources of a one man/woman show.

After reviewing 183 applicants from 38 countries around the world, the Pearse Lyons Accelerator (Figure 3) accepted 10 applicants into its first cohort, which it viewed as disruptive start-ups, but with proven technology and scalable businesses. The Pearse Lyons Accelerator provided a €15,000 stipend to each of the ten start-ups, as well as an estimated €300,000 in perks and resources. Along with this, the cohort was provided workspace in a leading start-up hub in Ireland and world class mentorship. Mentors came from a variety of companies, outside of Alltech, and backgrounds and ranged in positions from strategists to CEOs. The start-ups had access to these leaders from agriculture, technology and business sectors and were able to receive guidance from multiple perspectives. The cohort was provided the opportunity to attend the 2017 Alltech ONE Conference and pitch their companies in front of more than 3,000 leaders in the agricultural industry.

The start-ups selected came from market-based solutions with none from the non-profit sector. Many of the start-ups nonetheless included the concepts of RI within their innovations. By its nature agriculture has an inherent need to increase productivity and profitability sustainably. Concern for the environment is a consequence of increasing limitations on natural resources, the need to adapt to climate changes and the commensurate requirement to produce more with the same or less. From the accelerators cohort were companies whose

Alltech found disruptive **science and agtech startups** with **proven technology** and a **big opportunity**

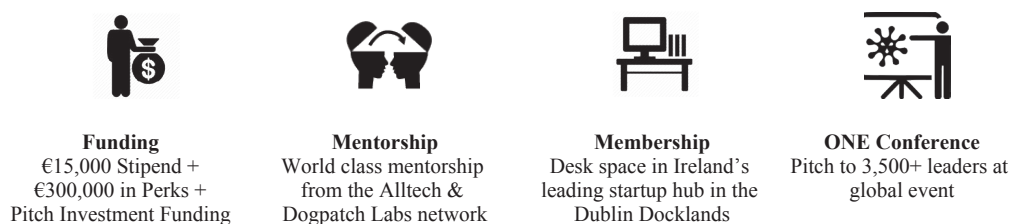


Figure 3. Overview of the Pearse Lyons accelerator.

products included sensors (to reduce water use), drones (early detection of disease resulting in less waste), farm management apps (better resource management), grasshopper farming (sustainable protein production) and the magnetic application of fungal & insect control (up to 70% less waste and environmental impact through drift). These market-based innovative solutions create considerable financial risks for investors but if successful huge potential for the environment, society and longer term sustainable issues for the planet.

The Pearse Lyons Accelerator was successful in solidifying Alltech's place as a global leader of agricultural innovation. This could be measured in improved customer relations, who saw it as an insight into where innovations would take agriculture in the next 20 years. In addition, the program boosted executive level development, specifically for the 10 internal mentors assigned to help the start-ups and learning by bolstering corporate knowledge of ag-tech and the impact of start-ups. The 2017 accelerator received significant news coverage from a variety of news organizations. Sixty-seven major articles were published featuring either Alltech's accelerator or one of the ten participating start-ups, along with other coverage, and internal estimate of this press coverage in advertising equivalence was nearly \$500,000.

Through the accelerator, the ten start-up companies together accessed 28 new markets and gained upwards of \$60 million in new qualified sales leads. Many of the start-ups re-focused their marketing strategies towards international markets. The program also helped shift many of the companies from production-led to sales-led organizations.

Alltech concluded the program with a wealth of new insights regarding corporate accelerators, thanks to the partnership with Dogpatch Labs. Two third-party post-program surveys were conducted to analytically gauge the value of the new accelerator program. Participating mentors and start-up founders were asked to complete a small survey in which they were afforded the opportunity to share both positive and constructive feedback. Founders were also asked how likely they were to recommend the Pearse Lyons Accelerator to another start-up. Similarly, mentors were asked how likely they were to recommend mentoring for the accelerator to another colleague. The survey results were collected and analyzed by Dogpatch Labs, an organization with prior experience implementing start-up accelerators as well as evaluating their future potential. From their responses, Alltech used two different net promoter scores (NPS) by which to measure the value of the accelerator to the founders and mentors. A Net Promoter Score (defined by Medallia) is 'an index ranging from -100 to 100 that measures the willingness of customers to recommend a company's products or services to others' (<http://www.medallia.com/net-promoter-score>). The Pearse Lyons Accelerator founders gave the program a 55.56 NPS, while the mentors ranked it at 70.00 NPS. Consultation with industry insiders confirmed this is an extremely high score for a first-year program (Dogpatch internal communication).

The Pearse Lyons Accelerator founders gave the program a 55.56 NPS. Some founders provided constructive feedback, suggesting the program 'involve the [Alltech] sales distribution network earlier in the process.' The majority of the feedback was highly positive. Gary Wickham, CEO of MagGrow, who had attended and been involved with a number of other agribusiness accelerator programs remarked that the Pearse Lyons Accelerator was 'by far streets ahead of any other ag-tech accelerator out there.' Participants of the 2017 Pearse Lyons Accelerator accessed a total of 28 new markets, gaining a total of \$60 million in new, qualified sales leads.

The Pearse Lyons Accelerator mentors, or champions as Alltech referred to them, rated the program with a 70.00 NPS score. Nearly all participating mentors responded with enthusiasm regarding their mentoring experience. In a survey of the accelerator's mentors after the conclusion of the program, nine out of ten respondents claimed it was a valuable learning experience for them. One mentor called it a 'great opportunity to learn more about how a start-up works, thinks, and views our industry.' Another responded that the experience was 'a chance to sharpen up sales process skills and motivates a developed company to think again like a start-up.'

From Alltech's perspective, the inclusion of these internal champions had multiple ripple effects. For one, it allowed the mentors, which were typically senior management level executives, to work with small teams and to grow their leadership skills and create a new generation of executive management. It allowed these mentors to engage with fresh thinking that was typically outside their boxset of knowledge and to be a part of a creative solutions process for outside issues, which is an enriching activity and provides a new skillset to the employee. To this point, as mentors were a part of such a fun and enlightening activity, their own enjoyment at work was also increased. As the prospect for a similar program is in development and as other employees see the benefits reaped from those that were involved in the program, it is believed that this may have positive effects on employee retention.

7. Learning from the first accelerator

Few inaugural programs don't result in reflections of what worked, and what didn't. Alltech is no different. It had made a decision at the outset not to participate through shares or profit-sharing with the start-ups it mentored. The value created for the start-ups was clearly huge, creating an internal debate in Alltech at director's level about whether capturing this might have been a missed opportunity. A second ancillary question was if the same focus applied to internal projects ('intrapreneurial') might not have generated the same or greater returns. Finally, despite being an international company with a presence in over 128 countries, to apply to the Accelerator required companies to complete documentation created by the Dogpatch group in English, the training process could not accommodate other languages, and so this bias risked failing to a superior idea or technology because its founders weren't fluent in English.

The Pearse Lyons Accelerator, however, did offer Alltech the opportunity to have open discussions about the potential role of technologies to disrupt its business and learn new concepts from up and coming companies. Alltech has prided itself on thought leadership and pushing the agricultural industry to think about new ideas in ways they haven't before. Of course, no company has a monopoly on new ideas but by highlighting its connection with start-ups the accelerator helped to extend Alltech's perception in this space as a thought leader in the sector.

Furthermore, while the technologies chosen for the Accelerator weren't always compatible with Alltech's core business, many of its customers benefited from these ideas and concepts, thereby saw Alltech acting in an altruistic manner as the 'bridge' between them and the start-ups, with potential value for both sides.

8. Looking forward

In view of the positives from the Pearse Lyons Accelerator, Alltech has begun a Year 2 program (Figure 4). The accelerator program will increase its efforts to drive innovation within Alltech with the addition of an internally focused Alltech Incubator. The Alltech Incubator is focused on validating internal ideas with real businesses. The incubator can also be described as a pre-accelerator, because the goal is to have as many as five of the team's progress onto the Pearse Lyons Accelerator, where they can join a group of five externally selected companies for acceleration. The incubator serves in effect as an idea validation platform to foster intrapreneurs by helping to create internal start-ups. This program will not only promote mentorship amongst the managers who have those skills, it will also encourage employee retention by providing incentive and opportunity for entrepreneurially spirited employees.

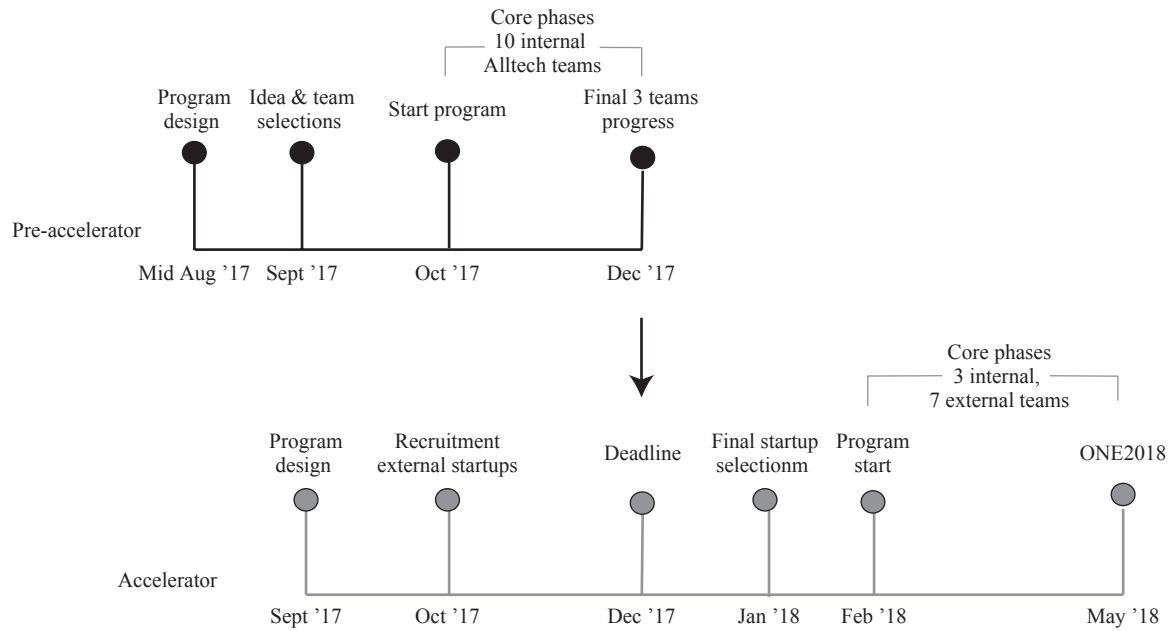


Figure 4. The Pearse Lyons Accelerator Year 2 program overview.

9. IGNITE: recommendations for building an accelerator

As agricultural, food and beverage businesses wrestle with the issue of how to make their innovation pipeline more effective and view engaging with start-ups as critical to this, the question of how to create and implement an effective accelerator is one that is top of mind for many chief innovation officers and the like. Alltech has tried to capture the learnings from its experiences in the form of six headings, both for its own use, as well as for use in both the profit and non-profit agricultural communities or for other stakeholders. The following six are presented in the form of the acronym IGNITE:

Intention	Define your intentions and decide if an accelerator is right for your company.
Group	Create a special group or team to design and oversee the program.
Neighborhood	Provide the cohort with an off-site neighborhood locale for uninhibited focus.
Independence	Ensure the start-up engagement is independent of day to day commercial efforts.
Transparency	Be transparent with the cohort on the goals and opportunities of the program.
Expertise	Recruit the best experts and specialists you can, internally and externally to run the program and mentor start-ups.

9.1 Intention

Define your intentions for the program and what kind of opportunities your company hopes to gain from it. Decide if an accelerator is the right direction. Companies considering starting accelerator programs must be confident that an accelerator will provide what they are looking for. The start-up ecosystem includes a variety of other options that companies can engage with in order to tap into innovation. It has been argued that agriculture has changed little since the invention of the plow. What is beyond dispute it that there is a myriad of companies with truly disruptive technologies offering to improve efficiencies in all areas of farming and food production. For sponsors, clarity of strategic intent is essential prior to determining what agribusiness start-ups to select and supported.

Following these criteria, decisions about equity should be unambiguous. Many start-ups are rightly reluctant to give up equity to a larger company, because this could limit their future fund-raising efforts (Iskold, 2015). Additionally, companies sponsoring an accelerator should be prepared to provide full access to their

agribusiness network as well as a pool of resources for start-ups to use, because this is where real value can be created. Start-ups struggle to make meaningful contact with potential customers at the right level and larger agribusiness organizations can open these doors. Having a lack of quality resources and connections or withholding these things will lead to an unhappy start-up cohort and an unsuccessful program.

9.2 Group

Create a special group or team to design and oversee the program. Bring in an outside partner with more experience to help with this task. Companies often have little to no experience putting together programs such as accelerators. For its first accelerator in 2017, Alltech partnered with Dogpatch Labs, a leading start-up hub in Dublin, Ireland. Dogpatch Labs guided Alltech throughout the entire process, from structuring the program to actively seeking out desirable start-up applicants. Agriculture has very specific culture, language, distribution networks and history so combining the expertise of start-up ecosystem experts with a strong network of members of the agribusiness accelerator community creates a very powerful team.

Even the largest corporations in the world have partnered with experts on the needs of start-ups. The Walt Disney Company partnered with Techstars to help run the new Disney Accelerator in 2014. Techstars, one of the leading accelerator programs in the world, has expanded upon this business model of running accelerators for other companies, which means that more and more accelerator programs and start-up hubs will likely follow suit. By partnering with an outside management team, the accelerator gains the benefit of having a well-rounded, experienced team of professionals at its helm without the need to develop this expertise in-house.

9.3 Neighborhood

Provide the cohort with their own neighborhood location by keeping the program off site. Hosting the accelerator at a site other than the larger company's headquarters is an uncomplicated way to distance the accelerator from the company brand. It communicates to the start-up founders that they are the focal point of the program; keeping the accelerator program separate from the main company, removing them from office politics and other distractions, and allows for a more creative space with less inhibitors to innovation. Without the burden of the larger company's immediate influence, the start-ups can continue in their own creative process with guidance from appropriate mentors. Also considered within the neighborhood is the network of relationships of up and downstream partnerships in the food supply chain. By allowing the cohort access to various members of food chain (production, processing, transportation, etc.) further gives them a leg up on building a successful agribusiness unfettered by the specific expertise of the corporate sponsor of the accelerator.

9.4 Independence

Independence from the corporate mother ship has some advantages. One option is to consider creating an independent start-up foundation. Accelerators come with risks involving brand perception and public relations. It is impossible to predict what the founders might do, including taking risks and business decisions the corporate would never accept. Doing diligence on the existing shareholders could create other challenges. Separating the image of the larger company from the accelerator program with a separate start-up foundation is a simple way to create a buffer by which brand reputation is more protected. In the event of an issue or scandal involving either the accelerator or one of the start-ups, this may help to relieve the company's brand from negative press.

9.5 Transparency

When engaging with start-up companies, make it a priority from the start to be clear and transparent regarding the goals and opportunities of the accelerator. Do not oversell what the program can and will provide during the accelerator. This includes the availability of funding, mentors, investors, network, etc. One graduate of the Pearse Lyons Accelerator shared in the post-program survey that they wished they had a better understanding of Alltech's motivations, so they could have better leveraged its resources. Founders will be appreciative of any help offered to them, but they must have an accurate expectation of what this help may be.

9.6 Expertise

Companies often want to use their own business leaders as mentors and accelerator team members. However, especially in agriculturally based companies, these leaders may not always have the necessary expertise for the job. Start-ups may have specific requirements for funding not usually available to larger organizations, may require specific help to develop their technologies using the external community of other start-ups. The lesson is to search for the best specialists and most appropriate experts and use them act as mentors. Find and recruit team members and mentors who have been through the start-up process and experienced entrepreneurial struggles. Not only will these team members be effective resources for the start-ups, but they also may be a source of new energy from members of the team from the larger company.

9.7 Why ignite

The acronym 'IGNITE' serves well to describe Alltech's initial experience of setting up a start-up accelerator. It represents the insights and implications of growing a corporate agribusiness accelerator. These insights could pave the way for other agribusinesses, food and beverage organizations to have a better understanding of these programs, and how they can benefit them as a new method of agricultural innovation.

From an RI perspective ag-tech start-up's success can lead to more sustainable agricultural practices, producing food more economically but with less resources and a lower carbon footprint. The main risk for responsible innovation is that by the nature and size of ag-tech start-ups, 90% of them fail, and while they tend to be primarily motivated by profit concerns if the innovation never reaches its promise, and the loss is not just that of the investors but more importantly agricultures and the sustainability of food production on the planet. Accelerators can play a valuable role in the successful interaction between the start-ups, corporate sponsors and the deployment of critical innovations.

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