NOVEMBER 2018 RAINFOREST SCORECARD ASSESSMENT RESULTS

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RAINFOREST ALBERTA

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FORWARD

A rainforest is a wild, untamed place where the conditions are conducive to healthy new things emerging, growing, and evolving all on their own.

ABOUT RAINFOREST ALBERTA

Rainforest Alberta is an informal organization of people working together to create a climate of innovation in the province. Rainforest groups in Edmonton and Calgary want Albertans to know that they don't have to move away to invent, prosper, and push their ideas forward. The goal is to create a similar environment to the invisible infrastructure that underlies successful tech communities like Silicon Valley, Denver, or Boston.

Typically, farms or factories are used as metaphors for generating consistent business outcomes. These are two environments where control and proven methods define and perfect expected results. However, to try to control innovation in this way is to stifle it and to restrict its potential. Innovation thrives in an environment more like a rainforest: a wild, untamed place where the conditions are conducive to healthy new things emerging, growing, and evolving all on their own.

And although investment dollars and big acquisitions make for great headlines, Silicon Valley and other dynamic innovate environments have demonstrated that a healthier CULTURE of innovation is more essential to Alberta's innovation ecosystem than an influx of money. Without the right attitude, ideas don't get off the ground. Without trust, team members leave and companies crumble. Money is important, but for innovation to really thrive Alberta needs a cultural reboot. The culture of the Rainforest is expressed in its ***Social Contract*** - a document that defines how the members engage with each other in the Rainforest context.

For further information about the contract and the Rainforest efforts, please visit Rainforest Alberta - yeg or Rainforest Alberta.

ABOUT THIS DOCUMENT

This document summarizes the data collected from an assessment completed by the Edmonton Rainforest members prior to the November 2018 summit. It compares the results to previous summits and offers some insights into the current cultural and innovation climate of in Edmonton.

It will be of particular interest to those who participated in Edmonton's November summit, those who may attend a future summit, those who attended a past summit, leaders who are responsible for investment decisions into Alberta's economy, those who are current or future members of Alberta's business community, or those who want to better understand the culture of innovation in Alberta and their role in creating a new economic future. It may also be of interest to those participating in the Calgary Rainforest community.

Important Definitions

A common language is crucial for meaningful communication. In the spirit of facilitating a meaningful conversation, we offer the following definitions as one approach for understanding the data in this document.

Ecosystem

The innovation ecosystem is the collection of all resources available to entrepreneurs. This includes the entrepreneurs themselves who access the resources (and are themselves resources that other entrepreneurs may tap into), along with both the talent and sources of talent they will hire, consultants and other traditional services that all businesses must access in order to be successful, and the specialized services designed specifically to support entrepreneurs and their ventures.

Within the context of the Rainforest, an individual may take on more than one role, and their role(s) may change over time.

Entrepreneur

"An individual who combines Leadership, Innovation, and Initiative in New Venture design."

All entrepreneurs are business owners (or become business owners should they decide to commit to an idea and take it to market), but not all business owners are entrepreneurs. Understanding the difference between a business owner and an entrepreneur is essential to understanding the innovation ecosystem.

"A person who organizes and operates a business or businesses, taking on greater than normal financial risks in order to do so."

All businesses are risky, but an entrepreneurial venture involves a greater than normal amount of risk. Consultants, franchisees, freelancers, multi-level markers, and traditional businesses operating with well-understood business models or within established industries, while **essential** to a balanced and lively economy, are not typically thought of as entrepreneurial in their nature. They may however benefit greatly from using innovative approach to improving their offering and might therefore like to participate in Rainforest activities.

Innovation

Innovation is most simply described as Invention + Commercialization. That is, innovation is the process taking something new, something that exists, or a combination thereof, to market. Innovation is more than just the creation or application of technology however, and may include social innovation, process innovation, business model innovation, among others. Indeed, the technology is often less vital than the business, process, or societal innovation that underlies it.

Another way to approach innovation is to consider it as the creation of a competitive advantage. This may include new business models, accessing previously untapped markets, meeting a previously unexpressed customer need, creating a new market through technology development, or serving a small/local geographical region better than any competitor could.

Service Providers

These organizations exist specifically to provide specialized support to entrepreneurs. They are often wholly or partially government funded and exist to augment more traditional services that already exist within the ecosystem.

Office Space/Incubators/Accelerators

Whether publicly or privately funded, these individuals provide services to business owners that include some aspects of office space. These may be traditional landlords/property managers/real estate developers, coworking spaces, coffee shops, or business centres/shared spaces. This office space may be augmented by specialized programming, access to experienced mentors, or other services designed to support the accelerated growth of either traditional or entrepreneurial ventures.

Professional Services

Professional services include traditional service providers such as lawyers, accountants, insurance professionals, among many more, and are essential advisors to all business owners, entrepreneurial or otherwise. Service providers typically have subject matter expertise rooted in an extensive educational background.

Consultants

Individuals with specialized skills who typically rely on their firsthand experience within their area of expertise such as marketing experts, market research experts, management consultants or any other experienced individuals who assist entrepreneurial ventures and traditional business owners grow their businesses.

Government Representatives

These individuals work for some level of government (municipal, provincial, or federal) or an arm's length organization. This may include crown corporations, municipal corporations, or agencies that are 100% funded and overseen by a single government agency (such as Edmonton Economic Development Corp., or Alberta Innovates). Some such agencies may also themselves deliver services to entrepreneurs directly, or they may be responsible to fund or oversee such Service Providers.

Academic Institutions

Employees of any type of post-secondary institution, whether researchers, admin staff, senior leadership, or otherwise directly or indirectly employed by a post-secondary institution. Researchers are crucial to the innovation ecosystem as they are frequently the source of many inventions or innovative ideas that need to be commercialized and may seek to commercialize those ideas themselves, through licensing or other agreements, or by partnering with other individual(s) with business, sales, marketing, finance, or operational expertise essential to the success of the venture.

ENTERPRISE
These are employees of any business, whether entrepreneurial or traditional in nature. Whether the company is early-stage, established, these individuals are either non-founders or not majority shareholders within their company. This category includes senior leaders with minority shareholder positions. Involvement of enterprise representatives within the innovation is extremely valuable as they represent potential customers that entrepreneurs may seek to validate or test their ideas with.

STUDENTS
Students refer to individuals currently enrolled in a post-secondary institution.

OTHER
Anyone that does not fit neatly one of the above categories. For example, nonprofits that are interested in the Rainforest in some way, but do not work explicitly as Service Providers for entrepreneurs.

ABOUT THE RAINFOREST SUMMIT
Hosting summits is one way that many organizations bring their members together to collaborate, to learn from each other, and to map strategic paths into the future. The first Rainforest Summit was held in Banff in September 2016 and brought together sixty leaders from across the province. Six months later, Calgary held its second summit, and in September 2017, Edmonton joined the movement. Since that time, summits have been held during the same week in both Calgary and Edmonton twice each year.

Participation in the summits is open to all members of the Alberta business community, including – but not limited to – technology businesses and start-ups, business support agencies, professional service firms, government representatives, and those from academia. Each summit brings together a new configuration of participants, which changes the discussion and the topics for collaboration. The summit represents a microcosm of the Alberta innovation environment and its culture at a point in time.

During each session, members learn about the genesis of the Rainforest analogy, why innovation is so important to modern economies, and dive into a measurement of the current quality of the innovation ecosystem. During each highly immersive working session participants:

- Learn about the Rainforest and why innovation is important for Alberta;
- Report on Rainforest progress since September 2016;
- Examine results from the most recent Rainforest Scorecard Assessment;
- Brainstorm initiatives to improve the state of innovation in Alberta based on strengths and improvement opportunities, patterns in Scorecard data, strategic issues and technological or political trends; and
- Review and discuss the Social Contract and its role in encouraging innovation.

ABOUT THE SCORECARD
The Scorecard is an assessment instrument completed by the summit participants. It provides the context for the discussion at the summits and measures the current perception of the innovation ecosystem. The score is out of a possible 1000 points and is focused around six pillars, as described below.

Leadership (200-Points)

Identifying leaders and champions in the ecosystem an essential first step in assessing innovative potential. Innovative leaders must have a clear understanding of the motivations, experiences, and perspectives of those in the ecosystem in order to better support decision-makers and influencers.

Frameworks, Infrastructure, Policies (150-Points)

Frameworks, Infrastructure, and Policies form the structural landscape for innovation. They include all the organizations, departments, support infrastructure, and policies that have a role in the process of innovation. This section is a process of identifying who these stakeholders are and the policies that determine their action and interaction.

Resources (150-Points)

Resources form the foundation for both the generation and implementation of innovation. Physical resources are an essential element of the implementation of innovation; knowledge resources are essential for the generation of innovative ideas; and human resources span both functions. Understanding the quantity, quality, and origins of the array of resources available to an ecosystem member provides a fundamental understanding of the ecosystem's innovative potential.

Activities & Engagement (100-Points)

Activities and engagement represent a measure of the vibrancy of a regional economy. Activities that are initiated on an ecosystem level (i.e. top down) are an important signal to members about the ambition and commitment to innovation. Activities that promote innovation and actively encourage engagement across a diverse array of participants are an essential part of a thriving innovative ecosystem.

Role Models (100-Points)

Role models come in all shapes and sizes and are those individuals who embody characteristics that others wish to emulate. They are powerful influencers for the accelerated learning of new social behaviors and can transform entire ecosystems through inspiration.

Culture (300-Points)

Culture is the foundation for any innovative ecosystem and while it is a component of all areas being evaluated, it is considered as an independent and isolated factor as well. The principles of shared culture ultimately determine the success of any innovative initiative.

Methodology

Participants were asked to respond to a series of questions meant to gauge the perception towards an aspect of each of the six pillars. Each pillar consists of five questions, except Culture which has six. The questions were scored on a scale of 1-5 (with 1 being Strongly Disagree and 5 being Strongly Agree).

There were improvements made to the scorecard in this iteration. Participants were provided with the definitions of the pillars to assist their interpretation of the questions. The questions were also slightly updated to improve clarity. For comparative purposes, the total score from each participant was adjusted to remain consistent with past scorecard assessments and with the overall point assignment as suggested in The Rainforest book, and respondents were asked for demographic information, including their role within the innovation ecosystem.

Participants had the option of selecting "Unsure" for each question, which was assigned a score of zero. The lowest possible score for any pillar would therefore be 5, as respondents that answered Unsure to every question within a pillar were excluded from the final score and analysis. This decision was made so that new entrants to the ecosystem who were unsure about significant portions of the ecosystem do not impact the score artificially downward or upwards.

THE NOVEMBER 27TH SUMMIT IN EDMONTON

The November 27th Rainforest Summit was Edmonton's third immersive session, and the 8th session offered in Alberta. This summary presents an overview of the data collected from the associated Rainforest Scorecard Assessment.

Unlike previous cohorts, the November 2018 Summit allowed for past attendees to participate in both the full day session and the Rainforest Scorecard Assessment. This will continue going forward as there is value in understanding the changing dynamics of the groups over time and maintaining a pulse check on the perceptions of individuals within the ecosystem. Now with three data points, it is possible to begin examining themes and trends over time, understanding that the methodology prevents a representative dataset. Nonetheless, the data collected suggests a level of meaningfulness that cannot be overlooked and digging into the commentary provides thematic insights into the state of innovation in Edmonton.

THE SCORECARD DATA

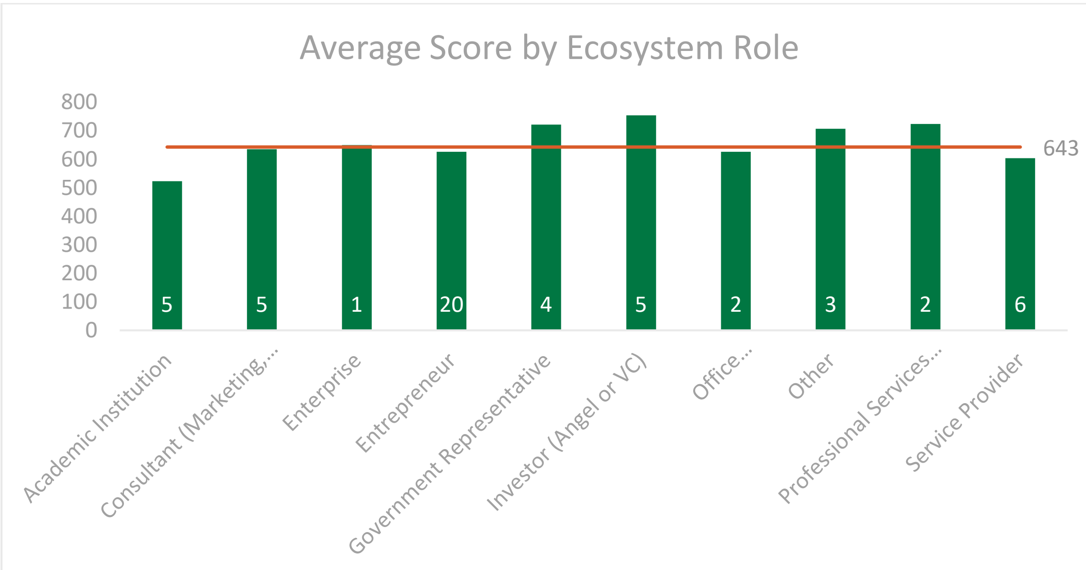
Of the 81 registrants, 33 individuals completed the Scorecard. This sampling was expanded to include past attendees, members of the Rainforest, or any other interested party. In addition to the 33 summit attendees who submitted a Scorecard, the 50 unique responses also included:

	Number of Reponses	% of Total
Attended a Past Summit	15	28%
Attending the Next Summit	33	62%
Have Attended an Event (non-Summit)	37	70%
Were unaware of events	1	2%
Signed the Social Contract	35	66%
Did not sign the contract	11	21%
Unaware of the contract	4	8%

Of the 50 submissions, 4 individuals answered "Unsure" to enough questions that their overall score could not be determined, and these submissions were ignored in creating the overall score. Additionally, several respondents self-identified as having more than one role within the ecosystem, and in these cases, their responses were duplicated and counted once under each role. In total, 53 responses were created through this process of elimination and duplication.

	Number of Reponses	% of Total
Academic Institution	5	9%
Consultant (Marketing, CMC, …)	5	9%
Enterprise	1	2%
Entrepreneur	20	38%
Government Representative	4	8%
Investor (Angel or VC)	5	9%
Office Space/Incubator/Accelerator	2	4%
Other	3	6%
Professional Services (Legal, Accounting, …)	2	4%
Service Provider	6	11%

The single largest respondent group was entrepreneurs, representing 38% of the total responses (including duplications and eliminations). In order to minimize survey fatigue and increase the number of completed surveys, data was not collected on the respondent's stage of the entrepreneur journey, whether an entrepreneur considers themselves to be innovation-based or technology-based, or if the individual was a first-time or serial entrepreneur. Similarly, other roles within the ecosystem were not explored in depth. Additional demographic data was collected however, to potentially help with data analysis. More details are explored in Appendix Three.



Due to low overall response rates, the margin of error is arbitrarily set at 10%. When comparing high or low scores by ecosystem role, those roles with fewer than 5% of the overall respondents are generally ignored due to low overall response rates.

Spread of Data

Generally, the data is extremely spread out, with very high scores and very low scores in nearly every Pillar, and generally across all Ecosystem Role Types. Indeed, looking at the spread of Percentiles shows this pattern:

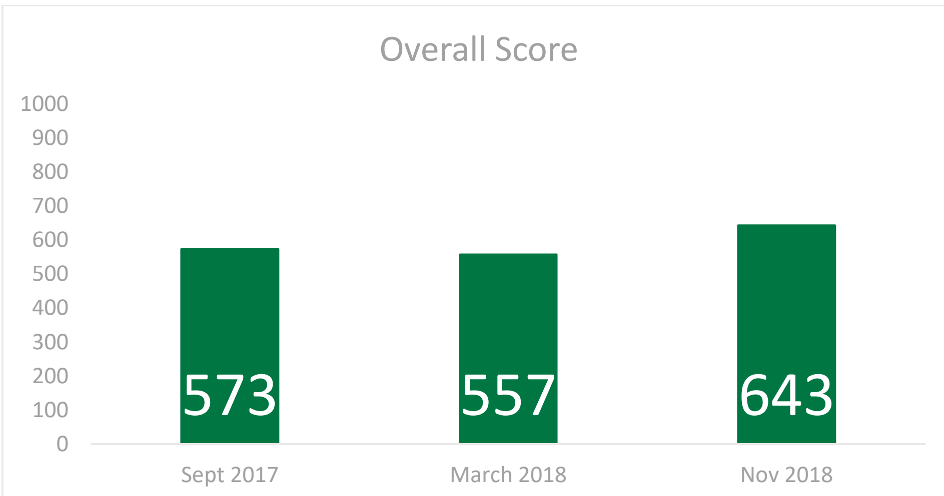
	Score
5th Percentile	429
10th Percentile	474
20th Percentile	521
40th Percentile	612
60th Percentile	686
80th Percentile	752
90th Percentile	821
95th Percentile	857

Percentiles show the score at which a specific percentage of all scores fall below, so for example the 25th percentile score is 554, meaning that 25% of all scores were below 554. Looking at the chart above, 15% of all respondents gave the ecosystem a failing grade (less than 500 out of 1000) and 15% of the respondents gave the ecosystem an honors grade of ~80% or better (789 out of 1000 or more).

Rainforest Scorecard Assessment Results

50 Scorecard Assessments were submitted yielding an overall score of 643 out of a possible 1000 in November 2018. This was the third sample taken to measure the state of innovation in Edmonton, with previous results of 573 in September 2017 and 557 in March 2018. The overall score is the average of all valid submitted entries as shown below.

The overall score comprised of the sum of the average response in the 6 Rainforest Pillars across the three summits is seen above. With the initial two summits barely passing a failing grade in Edmonton, the third summit show modest improvement to a grade of C.



Additionally, demographic data was collected on each scorecard respondent to help slice the data. Information such as role within the ecosystem, age, education, race, place of birth, and gender was requested from each respondent, and the differences between these groups will be explored in more detail below.

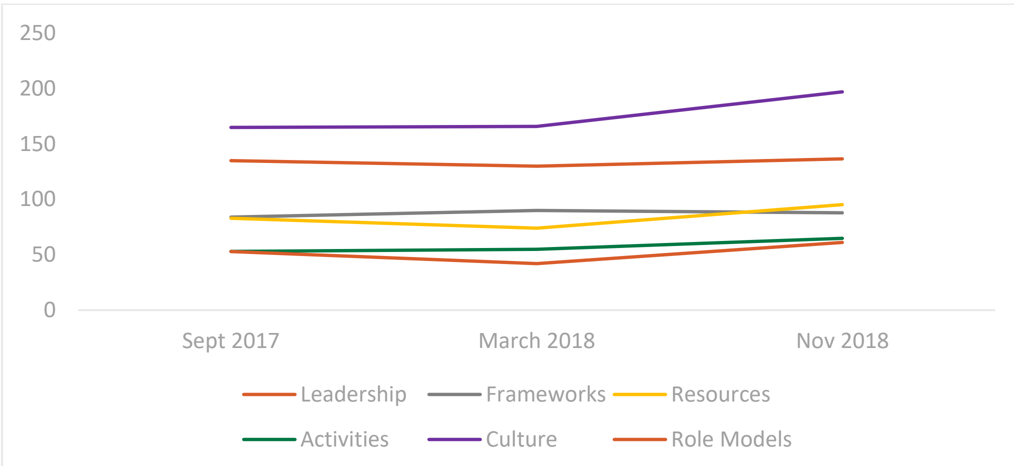
The final score of 643 represents a 12% increase compared to the initial Scorecard Assessment result collected in September 2017 of 572, and an improvement of 15% over the previous result collected in March 2018.

	vs. Sept 2017	vs. March 2018
Overall Score	12%	15%
Leadership	1%	5%
Frameworks	5%	-2%
Resources	15%	29%
Role Models	15%	46%
Activities	22%	18%
Culture	19%	19%

Pillar Analysis

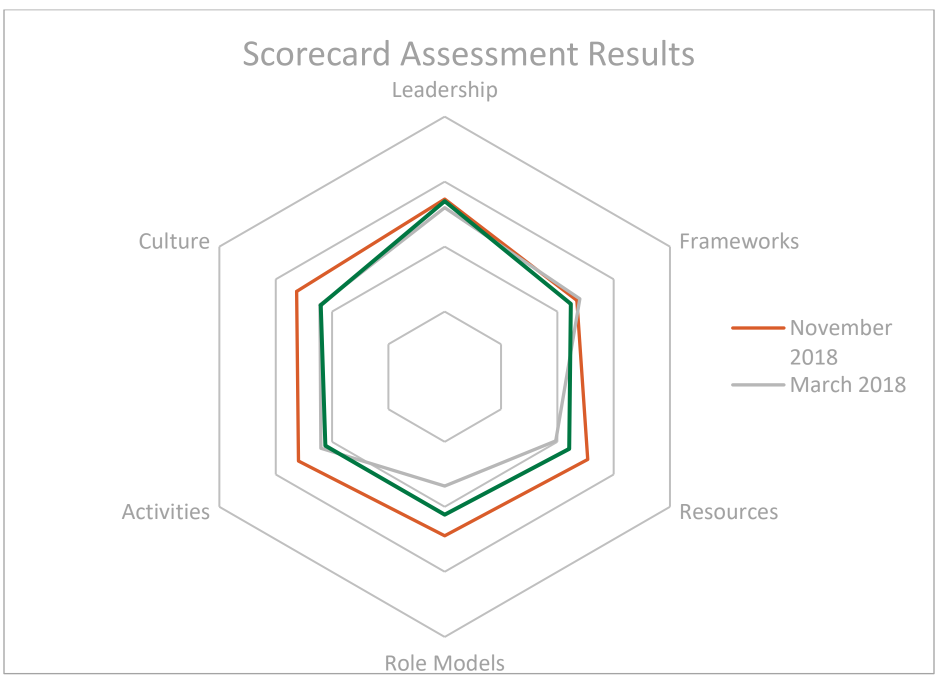
Although the overall score improved drastically for the most recent sample, it is quite important to look at the changes in score by each of the 6 Rainforest Pillars. The graph below shows how the scores for each of the pillars have changed over the three summits.

For brevity and simplicity, Frameworks, Infrastructure, and Policies has been shorted to Frameworks. Activities and Engagements has been shorted to simply Activities.



Rainforest Radar

The Rainforest Radar provides a different lens to inspect the Scorecard Assessment by breaking the overall score down into the 6 Rainforest Pillars and examining the average score for each pillar.



Although the overall score is an important indicator, so too is the shape of the graph, as shown above. Innovative ecosystems are in balance, with the scores in each pillar roughly equivalent to those in others on an adjusted percentile basis (as they are displayed above). Non-innovative, more traditional ecosystems tend to skew heavily towards both the pillars of Leadership and Role Models, while suppressing the other 4 Pillars.

The Rainforest Radar suggests that recent events in Edmonton have catalyzed many ecosystem members leading to a rapid increase in engagement. Participation ultimately drives Culture, and the Activities & Engagement Pillar reflects how actively individuals interact with the ecosystem.

Although the overall score improved drastically for the most recent sample, the scores in the categories of Leadership and Frameworks have remained roughly the same over all three samples:

	November 2018	March 2018	September 2017
Leadership (200-Points)	137	130	135
Frameworks, Infrastructure, Policy (150-Points)	88	90	84

With no major changes in leadership, legislation, or ecosystem resources over the last couple of years, it is not surprising that these scores remain unchanged. The consistency of these results lends some degree of credibility to the Scorecard Assessment. If these results showed a high degree of variability or changes over time (while subjectively no meaningful changes had happened) this would result in reasonable questions about the validity of the Assessment Tool.

The category scores of Culture and Activities remained roughly the same for the first two samples and have made modest improvement in the most recent sample:

	November 2018	March 2018	September 2017
Culture (300-Points)	197	166	165
Activities & Engagements (100-Points)	65	55	53

This may be attributed to the growth in entrepreneur participation across the ecosystem, most notably at City Council in the last few weeks, and through the emerging EACOS initiative (Entrepreneur Advisor Council on Startups), as catalyzed by the now defunct Innovation Hub initiative put forward by EEDC. The growing prevalence of innovative, especially early stage, entrepreneurs among not only the innovation ecosystem itself but also the general public likely ties to this slight increase.

Finally, the scores Resources and Role Models regressed slightly in March 2018 compared to the initial sample in September 2017, however both have improved noticeably in this sampling:

	November 2018	March 2018	September 2017
Resources (150-Points)	95	74	83
Role Models (100-Points)	61	42	53

In both cases, the variability falls within the margin of error compared to the initial Assessment in September. For example, Resources dropped by 9/150 points between September and March (6%) and grew by 21/150 points from March to November (14%) but has changed only 12/150 points from September to November (8%). Similarly, Role Models decreased by 11%, grew by 19% but only changes by 8% over the past year. This is likely due to variability form low sample sizes.

TRENDS

Through analysis of both the scores received along with the commentary submitted, several clear trends emerged. The data is interesting, but as much as it shows improvements in nearly every category, it also shows a significant amount of variability. In each category, the lowest scores reported are between 20-35%, whereas the highest scores reported approach 100% of the highest possible score for that category.

Even breaking down the data to look at different roles within the ecosystem, such as entrepreneurs, investors, service providers, government, and academia shows similar variability. It seems no matter what role you look at, people feel very negatively or very positively overall. No matter how the data gets sliced, the scores remain like this. Average scores are about the same, with equal variability and extremely high and low responses.

Overall, we frequently see that Government Representatives and Investors are the most optimistic by ecosystem role, coming in with the highest scores in most pillars on average. Conversely, Academia are the most pessimistic, with typically the lowest average score by role in most pillars.

Not surprisingly, as the single largest category surveyed, entrepreneurs come in close to the overall average in each pillar. Unlike other roles within the ecosystem however, entrepreneurs are the least consistent by individual scores. Typically, the range of scores provided by entrepreneurs is by far the greatest of any category, often more than 25% away from the average score among entrepreneurs. As the most vital component of the innovation ecosystem, this is highly concerning.

For the interested reader, the responses to the specific questions are explored in more detail in Appendix Two and the Commentary submitted can be found in Appendix One. Below are trends that appear in the data and commentary submitted.

TREND #1 – LACK OF TRUST

The commentary suggests that too many bureaucrats and not enough entrepreneurs are involved in decision-making, feedback mechanisms, and ultimately, government-funded program delivery. Although this sounds like a leadership issue, and a similar pattern emerges within leadership, the lack of trust in this case comes from the perception that non-entrepreneurs are deciding what is best for entrepreneurs, what they need, and whom should have access to which resources. Officials within government, from government-funded service providers, and from other support services are not seen to include current or former entrepreneurs. This is perceived to be the case in from the perspective of allocating fund, planning programs, and executing on the delivery of these supports.

TREND #2 – LACK OF LEADERSHIP

Leaders are not seen as leading. There was a strong theme of contrasting Leadership as a title vs leadership as an action. Many “leaders” are not seen to be leading for the best interests of entrepreneurs or the ecosystem, and those who are taking steps to act as leaders are not decision-makers or leaders by title.

TREND #3 – LACK OF DIVERSITY

Diversity was identified within both the commentary, and the list of identified leaders, as a key issue. In the case of the Rainforest, which places diversity is such high esteem that it is a core value expressed within the Social Contract, lack of Diversity is highly problematic.

In this context, Diversity means not only apparent differences such as variety of gender, skin color, ethnic or cultural background, or age, but also non-visible diversity such as diversity of role within the ecosystem (entrepreneurs vs. others), diversity of thought patterns, and diversity of needs or priorities.

Most concerning, especially considering that the largest respondent group was entrepreneurs, very few leaders identified were entrepreneurs. Indeed, there was a clear majority of white, male, non-entrepreneurs identified as leaders and very few female leaders, people of visible minority backgrounds, or younger individuals identified, let alone leaders who may be diverse in less obvious ways.

Takeaways

Future success for the innovation ecosystem will require stronger engagement with entrepreneurs. Although many initiatives are just getting underway, it is vital that these projects become long term, recurring, and meaningful engagements with entrepreneurs to ensure that the needs of our innovators are understood and addressed. These platforms cannot become lip service to entrepreneurial engagement, and the feedback collected must capture accurately all voices and opinions and be shared in a reasonably open and transparent way so that the community has some level of oversight.

Entrepreneurs will also need to intentionally take an active role. The recent letter from the tenants at Startup Edmonton was very encouraging in this regard, and the steps taken to create a formal advisory council by the EACOS group will potentially be a major avenue for entrepreneurs to get involved, but more will no doubt be required form entrepreneurs. Entrepreneurs will be required to put their hands up, roll up their sleeves, and get involved in an operational way with initiatives that are ultimately intended to benefit themselves and other entrepreneurs. Of course, the greater the number of individuals who step forward, the less work everyone will need to do – and the priority of each entrepreneur must be the thoughtful growth of their venture. All the support organizations and helpers within the ecosystem need to provide support where reasonable to ensure that entrepreneurs have the tools and resources, they need to both grow their companies, while also building the community.

FINAL REMARKS

Overall, the ecosystem seems to be moving towards better supporting innovation. With recent events in Edmonton, the level of engagement from entrepreneurs has increased dramatically in a very short period, and this seems to be leading to a better overall attitude towards support for entrepreneurs and their innovative ideas.

The work is not done, however. Rainforest Alberta has a goal to increase the Rainforest Scorecard Assessment score to 800 by 2020. With just over a year to achieve this, it is more vital than ever that all members of the innovation ecosystem come together to support each other. service providers like Startup Edmonton need to know about the needs and experiences of entrepreneurs, and entrepreneurs must become aware of the services provided by all the various support organizations across the city.

As we wrap up 2018 and look ahead to 2019, Rainforest Alberta – yeg will be looking to accelerate the momentum that has already begun by moving our Lunch without Lunch (LWOL) events to Wednesdays on a weekly basis starting on January 16, 2019. These new weekly sessions will be hosted by our friends Work Nicer at their new Beaver House location, opening in January. LWOL will continue to bring together innovators of all types from academia with great new ideas, to experienced entrepreneurs, investors, and those who help innovators grow their businesses with their great experience such as consultants, accountants, and lawyers.

Now is the time to get involved. Step up to help us out by volunteering at an event, or on the steering committee. Attend an event and help the community by giving emerging entrepreneurs the advantage of your experience. Take someone for coffee and pay it forward. Think win-win, build your own community, and most importantly, never stop innovating.

For more information, please visit www.rainforestyeg.ca. Do you have comments/questions, see something different in the data, or want to help make the next assessment more scientific/representative? Contact rainforestyeg@zoho.com.

APPENDICES

APPENDIX ONE - COMMENTS RECEIVED

To get a better sense of what is happening, we evaluated the comments submitted by the hyper-responsive individuals.

In each section below, the comments received from that section are included except for those comments that clarified the respondent's answers to the questions or provided feedback to the scorecard itself. Such responses will be reviewed, and the Scorecard will be improved for future Assessments as is reasonable.

It is surprising that with the variety among the submitted scores that there is so little variability among the comments. Generally, the comments are negative and direct. The hyper-responsive individuals who took the time to add commentary represent the strongest opinions and it is the belief of the author that we learn more from negative feedback than we do from the positive. It is surprising how consistent the comments are in their messaging.

It is also worth noting that the solution to each issue identified can be closely tied back to the values espoused in the Social Contract – Trust, Diversity, Honesty, Team Sport, …

LEADERSHIP

A total of 15 respondents made comments relating to Leadership. Some examples of these comments include:

> *"We need more experienced entrepreneurs to join the movement."*
>
> *"There are a lot of competing voices instead of collaborative voices. Also, a lack of diversity, at least in terms of the voices that are amplified."*
>
> *"There are some strong voices in the community who with government funding profess to be leading the ecosystem. Then there are those who are actual innovators, as well as the selfless promoters of innovators, who take every opportunity to promote innovators even when there are no attached KPI's they stand to benefit from."*
>
> *"I think it's one thing to identify leaders, and another to identify individuals who have leadership *roles* in the system. Do their agendas extend beyond ensuring the survival of their organization? Can they offer unbiased recommendations for change? Can they point someone at a competing resource knowing that the resource is better equipped to support an individual?"*
>
> *"I am a little concerned that some of the "leaders" have a very narrow focus and are not being inclusive of who wants to be in the ecosystem, whether it be information sharing or providing opportunities. It seems to me that many are picking the easiest thing that helps them reach their internal goals, and aren't focusing on building the ecosystem efficiently, but only competing for money and talent. As a piece of advice, don't pretend to be inclusive and as if you'd like to build the ecosystem to get the information or resources you want and then retract to your own internal goals. Very self-serving."*
>
> *"We need fresh, energetic leaders with diverse backgrounds. More women, more diversity."*
>
> *"I feel that the communication would be stronger if the ecosystem spoke to those who are not directly tied to the ecosystem itself. It seems right now the conversation is within the ecosystem which means it is more likely to support status quo and well-known partnerships."*

"I find it hard to identify many people who're actually leaders in the space."

"Leadership is about forming an inclusive diverse community to encourage more collaboration to elevate it."

"They call themselves the leaders: TEC Edmonton, NABI, Startup Edmonton, EEDC, AMII, Alberta Innovates."

Common themes within the leadership pillar include leaders not being perceived as leading (leadership by title not action), lack of diversity among leaders, and for leaders to take a collaboration-first approach.

LEADERS IDENTIFIED

For the Leadership Pillar section, respondents were asked to name individuals they perceived as leaders. In all, 115 names were put forward, representing 52 unique names. 31 of those unique names were put forward once, and the other 21 individuals were identified as leaders more than once.

Of the 115 instances of a leader being named, 81 of those were males and 32 female, or 70% male. Looking at the unique names put forward, 71% were male. Additionally, of the unique names, 67% of those put forward were of Caucasian descent. These numbers would back up the commentary that leadership is not diverse. Additionally, only 21% of the unique leaders identified were entrepreneurs! This is especially alarming as entrepreneurs were the majority ecosystem role out of the respondent group. 27% of the leaders identified were from Service Providers, and 19% were from Government.

To increase the score in the Pillar of Leadership, many things need to happen:

- Diversity in gender, age, role, and ethnic background among the leaders
- Engagement of entrepreneurs to leadership roles – both formal and through activity
- Leaders acting like leaders, not be assigned leadership only because of their titles, roles, or seniority
- The interests of leaders must align with the ecosystem both on paper and through action

FRAMEWORKS

Sixteen respondents made comments relating to Frameworks including the following quotes. Common themes include problems navigating resources due to perceived complexity, lack of communication, and disconnected resources.

Despite a significant group of service providers and government working together to make things better for entrepreneurs in the ecosystem, in fighting and communication to the entrepreneurs remains an issue.

"Communication and collaboration are improving but It is still challenging for entrepreneurs to get plugged into the ecosystem and learn how to navigate support programs. It is overwhelming for many."

"The current innovation ecosystem seems to be disconnected and disparate. Competitive and confusing. Overly political (not in Government involvement but in relationships and voices)."

"Always provide clarity to all involved for optimum communication."

"Government should have a limited role to play in the innovation ecosystem since government reps and employees are not experienced in the business world, do not understand the needs or motivations of entrepreneurs and cannot synthesize feedback provided due to political interference."

"We need better channels to access entrepreneurs, people need access to one another, collaborations should be taken as a win, no more personal wins."

"There is no particular unity or strong communication channels between disparate stakeholders. As far as I am aware, understanding of the actual network structure of Edmonton's "innovation" individuals is poor to non-existent. Creating maps of this structure needs to be a goal that gets acted on soon."

"Communication processes and systems are available but used unevenly by stakeholders."

"There are silos which weakens current attempts to bring groups and individuals together. Tech innovation seems to have its own network versus the general ecosystem at large - this presents a new kind of silo."

"The Edmonton ecosystem is mostly siloed and dispersed into camps / TEC, Startup, EDE, the varied supports systems."

"We are moving towards an open communication channel, but more work needs to be done for an honest open communication."

RESOURCES

A total of 15 respondents made comments relating to Resources pillar. Some examples of these comments include:

"There are plenty of resources to help businesses that have clarity about their customer, market and a solid plan on how they will execute scale. Ones that struggle to get funding and support need to consider their business model."

"While there actually is quite a bit of funding available, my experience tells me that many entrepreneurs who do not have business founders do not understand funding and growth strategy"

"I still wonder how many members of the ecosystem actually have hands on entrepreneurial experience"

"there needs to be more programs around business excellence such as accounting 101, operations, financing"

"Besides the free U of A VMS program which involves an interview and a pitch, access to mentorship and networks are [gatekept] by government funded programs - you have to qualify for each specific one that has doors they will open only when you do. Further to this, the application process requires specific business models and all the "behind closed doors" assumptions, assessments, judgements - each with a different flavor and each requiring extensive time/expense spent by the entrepreneur to draft applications."

*"What funding are we talking about here? And should it be easy to access? I'd argue easy to *apply* is important. Actually, acquiring funds requires a level of difficulty depending on the scale/risk."*

"I find that most of the resources are targeted at tech organizations and it is lonely as a non-tech entrepreneur"

"There are clearly not enough resources and they are accessed to create more service industries, not more entrepreneurs"

"Most of Edmonton's economy focuses on oil and gas. Others traveling a different path will quite possibly have trouble recruiting HQP. We need to become known for other areas, areas that rise up organically, and are not top down generated as in the current government "cluster" mandates/initiatives."

"It is not clear to me that the answer to Edmonton ecosystem capital needs is to cultivate local investors. In our experience, investors who think they are the only game in town can be dangerously irresponsible. It's an interest discussion worth exploring, but our sense is that we will be better served by focusing first on building pipelines for capital from areas where there are actual capital markets."

"Many supports exist but silos prevent them from being as accessible as they might be. Individual websites have information about programs, but the starting place isn't always that obvious."

"I've only heard of a couple training programs."

"Edmonton's 'Tech' Innovation ecosystem has been predominantly post-secondary oriented and risk capital has been largely un-interested in non-traditional markets creating a generally less developed and experienced capability than I think we would expect for a city the size of Edmonton's / at least in the North America context. All things considered, unless we get serious about the challenge coming, we will become generally irrelevant in the world context outside of the classical O&G markets / most of the talent we create from our post-secondaries will exit, out of necessity, again in non-traditional knowledge base."

"The issues are not resources but more so having a mindset to scale, hustle and be less reliant on grants. The hustle culture is foreign to us in Edmonton."

"There are a lot of support organizations and resources to mentor. Whether they're effective or not is perhaps debatable, as many of them feel like they compete with each other for relevance and government funding."

The resources pillar is somewhat less aligned in commentary than other pillars, and the themes identified elsewhere continue to be expressed. The concept of gatekeepers, artificial barriers, and unknown requirements are also present.

Activities

A total of 9 respondents made comments relating to Activities & Engagement. Some examples of these comments include:

"The structure and support from the service providers, and the government is there. More investment could be made in supporting businesses that are moving beyond startup to scaling. These will become our success stories in the ecosystem and are imperative for the ecosystem to grow."

"VC, VC, Pitch, Pitch, all male panels, Unicorn dreams, Web SaaS, more VC, Government Funded Service Providers= Innovation Theatre that doesn't move the dial."

"Without a doubt the dominant population in any innovation focused activity in Edmonton is from service providers."

"I am impressed with Startup Edmonton and their ability to be inclusive and share information freely."

"Service providers create inaccessible events for entrepreneurs or community members. Same 10 people, same cocktail parties."

"I've not seen any events that actually bring together people in the ecosystem with people outside of it."

"While there are lots activities, the planners need to align and not duplicate."

Like resources, no new themes are identified in these comments except perhaps that entrepreneurs perceive service providers as dominating all events.

ROLE MODELS

A total of 11 respondents made comments relating to Role Models. Some examples of these comments include:

> *"Our celebration and communication of role models and successful entrepreneurs is weak. Most people in the community have no idea who they are or why they are cool."*

> *"It is great to see entrepreneurs on panels, etc. but I'm not sure how many of them are known outside of the ecosystem and their own industry. More could be done to profile AB companies"*

> *"There is a lack of diversity in the publicly visible role models."*

> *"There is a particular type of success that is celebrated by the community that does not include diversity - All male founders, all promoted as clients of specific government programs, all repeatedly promoted as THE examples to follow. If you can't see her, you can't be her. And if there is no room for diversity, you aren't likely to see it."*

> *"More attention needs to be given to identifying, promoting, and learning from successful innovators"*

> *"The idea that we all aspire to be role models and leaders is being addressed since we all can't be leaders and some of this information regarding how systems aspire to engage could be discussed."*

> *"Systems are created to support service providers and not innovators --> more needs to be done for direct support of innovators --> need less of the academic culture more of the entrepreneurial culture --> NEED BETTER LEADERSHIP"*

> *"Playing hockey well is rewarded and celebrated. Innovation, not so much."*

> *"I believe individual organizations do their best to support role models and promote them but the impact on the general landscape is lessened by the silo-nature of these organizations. I suspect the general public is very uneducated about Alberta's strength when it comes to innovation."*

> *"Successful innovators need to raise their hands to be role models. It's both something to ask to be one but also to be proactive in owning the role of being one."*

Themes emerging from the role models pillar include most notably the need for role models to be both diverse and celebrated outside of the silos (government, service providers, and the ecosystem itself), along with a note that innovators must be willing to be profiled. It is true that Canadians are often humble and tend to shy slightly away from the spotlight.

CULTURE

A total of 13 respondents made comments relating to culture. Some examples of these comments include:

> *"Once again there is building trust in parts of the ecosystem. However, there are still silos among the service provider community and infighting for funding. This does not build a culture of trust and what's worse some service providers and politician are feeding entrepreneurs misinformation in an attempt to use them to disrupt the culture which is trying to be built."*

> *"It would be great if learnings from failures were more available for public consumption."*

> *"There does still seem to be a power struggle between organizations in the eco-system. Most organizations have many stakeholders to please."*

“Every step taken towards positive or negative gains is a great reflective learning tool. Always grow no matter the direction you go.”

“"What are the strings attached" is always on mind for the population I work with.”

“Trust is important but is drastically and crucially lacking.”

“Edmonton has a particularly bad way of not nurturing entrepreneurs and not having a supportive culture. Nasty chat, incorrect information being widely disseminated, BLAME (esp. UofA IP Policy--please read this before you start talking about it) and NO culture of accountability”

“People are "encouraged" to dream and think big, but not enabled to do so by our culture in any meaningful way...the encouragement is lip service; platitudes without enablement. Most participants in the innovation space do not really understand the idea of calculated risk, those outside it really deeply don't understand it.”

“I think some of the funders are not encouraged to think big and they are encouraged to mitigate risk and place it safer in an economic climate that's dominated by the price of gas and the blue barrel.”

“Trust is key, and it is not widely spread in Edmonton. People are not comfortable with the word failure yet.”

Culture, like leadership, is a pillar that generated some strongly worded comments. The new theme emerging within this pillar is the need to embrace failure and view it as a learning opportunity rather than negatively.

GENERAL COMMENTS

Respondents were asked an additional two questions with the preamble:

We sincerely appreciate you taking the time to answer the Scorecard Assessment. If you have any questions or comments, please let us know! Rainforest Alberta is committed to supporting the growth of Alberta's Innovation Economy, and feedback by engaged individuals such as yourself are a vital aspect of achieving this goal.

A total of 10 respondents made general comments. Some examples of these comments include:

“The ecosystem still needs more diversity.”

“It is encouraging to see some individuals and organizations rise above the territorial nature of the ecosystem, but there is lots of room for on-going improvements as I guess there always should be.”

“I find the Rainforest idea to be inspirational and have been spending the time I can to participating in the community. It is a worthwhile effort - to have a place to continue to invest trust, listen/voice, and give. My commitment to it continues!”

“It feels like our system is desperately chasing the unicorn which downplays the real purpose of diversification: Edmonton is going into decline unless the system gets its shit together. Paraphrased words from the mouth of our Mayor. One unicorn is not going to save this city. We need risky bets and string-cutting. We need less focus on services and more on capital and culture.”

*“I'm not sure what the *purpose* of the rainforest group is.”*

“Edmonton is taking positive steps forward and we see some good leadership. All that said, there is a tremendous lack of depth in understanding of the challenge’s tech innovators face, and we are neither

bold enough (in general) or able enough to really deal with the actual challenges we are currently facing. We celebrate the good wins, positive for sure - but we are under-performing as a community in capital attraction which will impact on our ability to maintain any great capacity for retaining high-quality professionals. There are no news items here, it's been known for quite a while now and without a broader understanding of these challenges and taking bolder steps to increase capacity build and capitalization - it is not going to be a pretty picture for next generation in Edmonton."

A total of 13 respondents provided an answer to the one thing they would like to see in the innovation ecosystem:

"I would like to see EEDC and the province properly invest in an innovation hub and programming to support the entrepreneurs. I would like to see funding to service providers which requires them to work together to the benefit of the community instead of competing."

"An actual incubator on University of Alberta campus, to encourage high-tech startups that aren't purely software."

"It would be great to see a strong focus on building great, sustainable businesses that are positioned for growth rather than immediate focus on raising private funding. While funding is necessary, it is more important to focus on building a solid business. There could be a "building a great business" course offered. I feel that good businesses will find funding."

"Also, I believe that there are many opportunities for tech companies to form strategic partnerships with each other, with large customers, etc. I observe that many companies are too internally focused and miss opportunities to tap into larger opportunities that will accelerate growth by partnering with others."

"More capital available to invest in startup companies."

"A chance for everyone to be heard and respected for there contribution."

"More entrepreneurs of all kinds working together. Less levels and organizations of government deciding what innovation is, how it is supposed to work, and who qualifies for access to diversification dollars."

"More non-dillutive programs like GreenSTEM which extend beyond cleantech and reach down to the undergraduate and diploma level. More recognition for salt of the earth small businesses who are vital for diversification and maintaining our economy and culture. More integration with our vibrant arts culture who actually make Edmonton an interesting place to live and build a company."

"Stronger (and true) collaboration with government fully at arms length and separated 100% from the innovation process. No level of government is competent or capable of innovation or promoting innovation in a meaningful way."

"A mission statement."

"Risk Capital capacity, that is not simply about O&G futures."

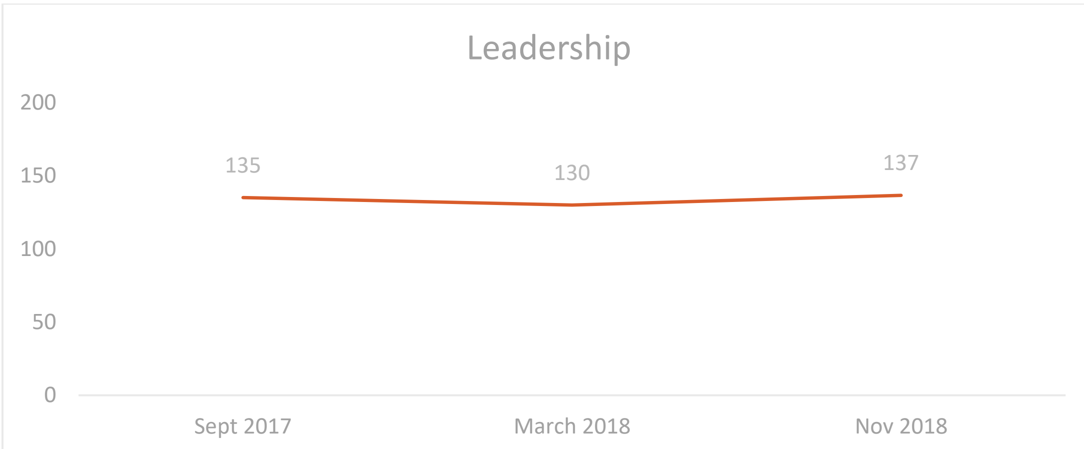
"Lots more engagement from each individual. Each and everyone need to come out and raise their hands to help elevate our community."

Once the comments are reviewed, a series of clear patterns appear: Lack of Trust, Leadership, and Diversity. Common to all these trends is a lack of entrepreneur involvement, whether by exclusion or disinterest.

Appendix Two - Data by Pillar

Leadership

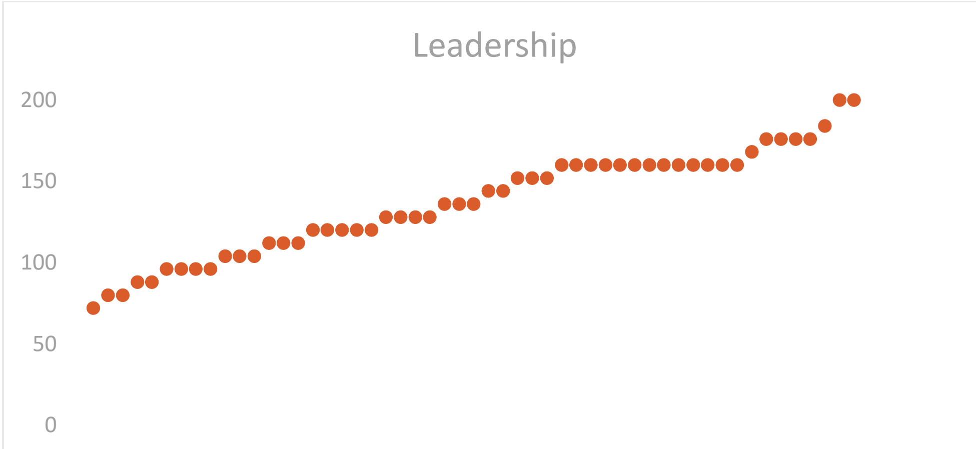
The Pillar of Leadership contributes to 20% of the overall score, or a category maximum of 200 points out of the overall 1000-point scale. The scores for Leadership have changed very slightly over the three samples taken to date and are within margin of error for a sampling of this size.



The category average score of 137 falls within 15% of the highest score by role (government and Investors at 162 points each, as well as Professional Services at 160 points) and within 11% of the lowest score by role (Academia at 115 points). Entrepreneurs on average were very close to the overall score of 137 points, however the min and max scores collected were up to 25% off the average:

Ecosystem Role	Average	Min	Max
Academic Institution	109	72	160
Consultant (Marketing, CMC, …)	136	104	176
Enterprise	136	136	136
Entrepreneur	134	80	184
Government Representative	162	128	200
Investor (Angel or VC)	162	128	200
Office Space/Incubator/Accelerator	128	96	160
Other	155	144	160
Professional Services (Legal, Accounting, …)	160	160	160
Service Provider	117	80	160

In fact, in each category of ecosystem role captured, the level of variability from highest to lowest score, was very high (except for role categories with very few respondents). The distribution of all responses received shows that the spread of data is very high, with some extremely low scores, and quite a large number clustered slightly above the average score for Leadership. This will be a common theme across all pillars. This suggests that the perception of the quality of leaders within the innovation ecosystem is highly subjective. Most likely, the score varies depending on how groups and individuals perceive how well the priorities of leaders align with their own. We will see that leadership is perceived well by males, mid-career individuals, and those whom drive the priorities of current leadership, and significantly less well by those early or late in their careers.



Max Score: 200 Min Score: 72 Average: 137 Standard Deviation: 29

The final score for Leadership was the combination of the average score to each of 5 questions:

- Overall, leaders in the Ecosystem promote Innovation
- The perspective of the Ecosystem leaders aligns with the perspective of others in the ecosystem
- The leaders within the Ecosystem come from diverse backgrounds and has diverse social, professional and cultural networks
- Leaders are effective at communicating their visions and agendas
- I understand the motivations of the ecosystem's leadership

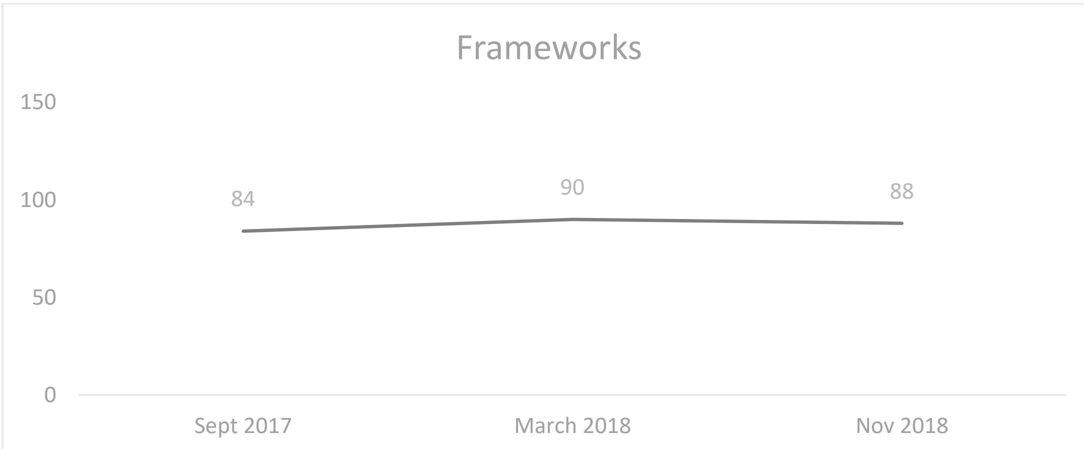
Q1 Average	Q2 Average	Q3 Average	Q4 Average	Q5 Average	Overall Score	Overall Average
3.85	3.45	3.17	3.23	3.40	137	3.42

Participants perceived that leaders promote innovation, and that although their interests somewhat align with the ecosystem, the leaders themselves are not diverse and are not effective at communicating their vision/agenda. Surprisingly, the motivations of the ecosystem leaders are understood. There is a high level of variability from high to low scores.

	Q1	Q2	Q3	Q4	Q5	Total
Academic Institution	3.40	2.80	2.80	2.40	2.20	109
Consultant	4.00	3.40	3.20	3.20	3.20	136
Enterprise	4.00	4.00	3.00	3.00	3.00	136
Entrepreneur	3.90	3.35	2.95	3.15	3.47	134
Government Representative	4.25	4.25	3.75	3.75	4.25	162
Investor	4.20	4.40	3.40	4.00	4.20	162
Office Space	3.00	3.00	4.00	3.00	3.00	128
Other	4.00	4.00	3.33	4.00	4.00	155
Professional Services	4.50	3.50	4.50	4.00	3.50	160
Service Provider	3.33	2.83	2.83	2.67	3.00	117
Maximum Score	5.00	5.00	5.00	5.00	5.00	200
Minimum Score	2.00	1.00	1.00	1.00	1.00	72
Standard Deviation	0.65	0.88	1.12	1.10	1.07	29

FRAMEWORKS, INFRASTRUCTURE, POLICIES

The Pillar of Frameworks, Infrastructure, and Policies (Frameworks) contributes to 15% of the overall score, or a category maximum of 150 points out of the overall 1000-point scale. Like Leadership, the scores for Frameworks have changed very slightly over the three samples taken to date and are within margin of error for a sampling of this size.

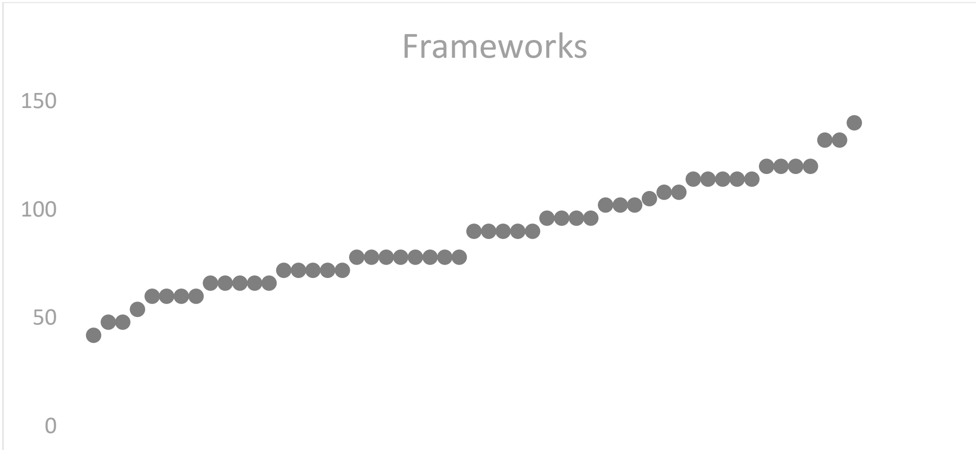


The category average score of 88 falls within 8% of the highest score by role (Investors at 110 and Enterprise employees at 114) and within 7% of the lowest score by role (Academia at 67 points). Entrepreneurs on average were very close to the overall score of 88 points however again had the highest level of variability with the highest score being ~17% above the average and the lowest score being ~10% of their category average.

The least cohesive aspect of Frameworks was communication channels. Much work needs to be done to ensure that organizations are communicating their value to their customers, and perhaps internally to their staff, to ensure that consistent, accurate, and reliable messaging is provided. This will allow the end-users of the ecosystem to make informed decisions about what services are available and suitable for them.

Ecosystem Role	Average	Min	Max
Academic Institution	67	42	90
Consultant (Marketing, CMC, …)	89	60	120
Enterprise	114	114	114
Entrepreneur	80	48	132
Government Representative	102	66	120
Investor (Angel or VC)	110	66	140
Office Space/Incubator/Accelerator	87	72	102
Other	108	90	120
Professional Services (Legal, Accounting, …)	105	96	114
Service Provider	83	72	102

The amount of variability for Frameworks is generally low and within margin of error. Only entrepreneurs had a higher than 10% variability. Unlike Leadership, the distribution of scores from highest to lowest is less clustered and closer to linear.



Max Score: 140 Min Score: 42 Average: 88 Standard Deviation: 24

The final score for Frameworks was the combination of the average score to each of 5 questions:

- Stakeholders involved in innovation have strong communication channels and collaborate with each other
- I can identify and describe all the steps of the innovation process and the key players
- Government and organizational policies in general help support potential innovators
- There are effective mechanisms of feedback where different stakeholders can learn from each other
- Communication infrastructure is robust

Q1 Average	Q2 Average	Q3 Average	Q4 Average	Q5 Average	Overall Score	Overall Average
2.73	3.19	3.30	2.81	2.54	88	2.93

Participants were generally of the perception that the innovation process is somewhat understood, key players can be identified, and that government and policies support innovation (all around a 65% overall score or a C grade), however the respondents are of the perception that stakeholders generally do not have competent communications channels and are not adequately cooperative/collaborative (around a 55% score or D grade) and that there are insufficient processes in place for stakeholders (entrepreneurs, service providers, government, consultants, etc are all stakeholders) to learn from each other.

Clearly, stakeholders must to a better job communicating their needs, services provided, and feedback to each other in a collaborative, full-cycle manner. The individuals and organizations which provide some form of service to entrepreneurs are perceived as not gather adequate feedback from entrepreneurs and/or not communicating their service offerings/value propositions clearly or widely enough.

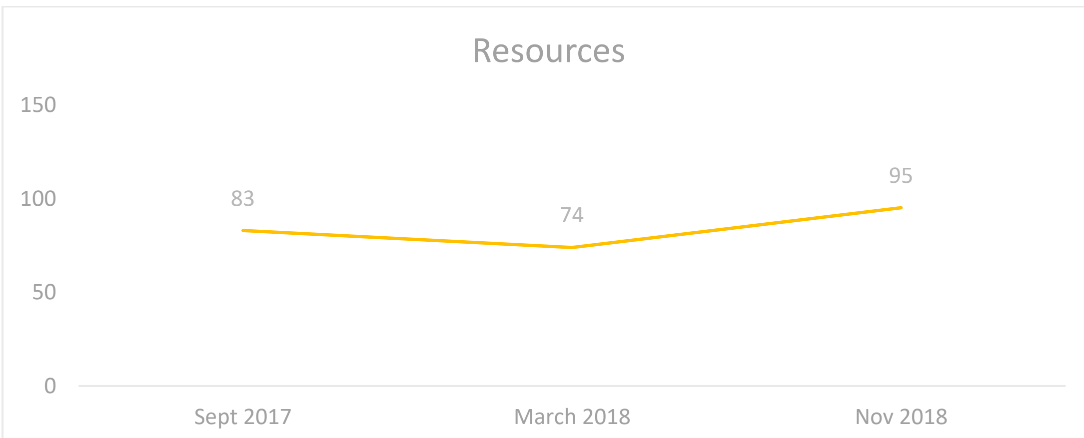
Looking at the data sliced by ecosystem role, we see continued variability with extreme highs and lows and similar variability patterns for each individual question as for the overall pillar.

	Q1	Q2	Q3	Q4	Q5	Total
Academic Institution	2.50	2.00	2.80	1.50	2.00	67
Consultant	3.00	2.80	3.00	3.20	2.80	89
Enterprise	4.00	3.00	4.00	4.00	4.00	114
Entrepreneur	2.40	2.95	3.10	2.60	2.26	80
Government Representative	3.25	3.75	4.00	3.50	2.50	102

Investor	3.00	4.25	4.20	3.20	3.20	110
Office Space	2.50	4.00	3.00	2.50	2.50	87
Other	4.00	3.67	4.00	3.67	2.67	108
Professional Services	3.50	3.00	3.50	3.50	4.00	105
Service Provider	2.17	3.83	3.00	2.50	2.33	83
Maximum Score	**5.00**	**5.00**	**5.00**	**5.00**	**5.00**	**140**
Minimum Score	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**42**
Standard Deviation	**1.15**	**1.07**	**0.94**	**1.06**	**0.93**	**24**

RESOURCES

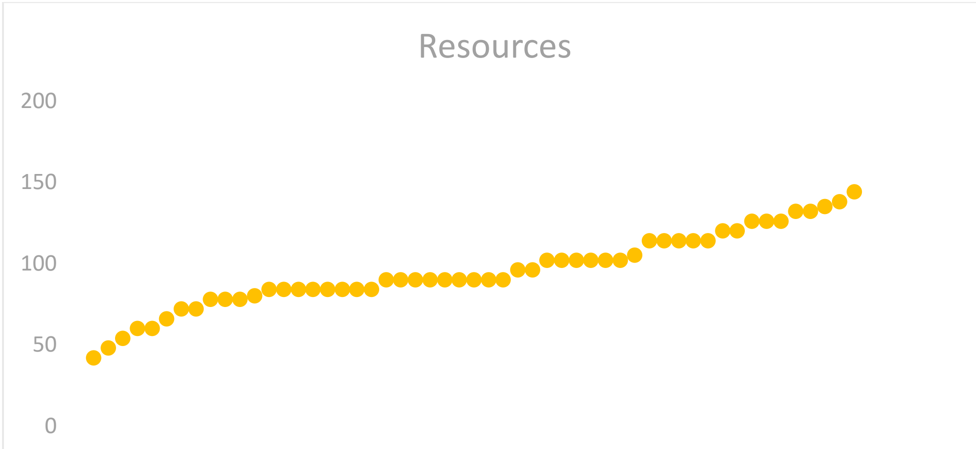
The Pillar of Resources contributes to 15% of the overall score, or a category maximum of 150 points out of the overall 1000-point scale. Unlike Leadership and Frameworks, the scores for Resources have seen more variability over the three samples. An initial score of 83 out of 150 points represents a C- grade. This fell to 1-point below 50% in the second sampling, however, has grown noticeably to a C+.



The category average score of 95 falls within 7% of the highest score by role (Government and Investors at 115 points and 111 points respectively) and within 8% of the lowest score by role (Academia at 71 points). Entrepreneurs on average were very close to the overall score of 137 points, however the min and max scores collected were up to 25% off the average:

Ecosystem Role	Average	Min	Max
Academic Institution	71	42	96
Consultant (Marketing, CMC, …)	89	54	126
Enterprise	90	90	90
Entrepreneur	95	48	144
Government Representative	115	84	135
Investor (Angel or VC)	111	84	132
Office Space/Incubator/Accelerator	93	72	114
Other	98	90	114
Professional Services (Legal, Accounting, …)	102	102	102
Service Provider	93	72	114

Again, except for entrepreneurs, the highest and lowest score by ecosystem role is within 10% of that role's average. Similarly, the distribution of all responses received shows that the spread of data is once again very high, with some extremely low scores, and quite a large number clustered slightly above the average score.



Max Score: 144 Min Score: 42 Average: 95 Standard Deviation: 23

The final score for Resources was the combination of the average score to each of 5 questions:

- It is easy for innovators to access funding for their ventures
- Up to date, relevant, and current information across a broad spectrum of disciplines is accessible by the majority of ecosystem members
- The members of the ecosystem are highly diverse and talented across a broad range of relevant skill sets that align with market demands
- There are effective entrepreneurial support organizations and individuals with experience that are available to mentor and support innovation
- There are programs that specifically train workers to be current in their field and these programs are widely accessible

Q1 Average	Q2 Average	Q3 Average	Q4 Average	Q5 Average	Overall Score	Overall Average
2.62	3.04	3.53	3.58	3.06	95	3.17

Participants were generally of the belief that it is difficult to access funding and that the ecosystem lacks adequate programs to train workers to be current in their field (around 55% overall or D grades) but that there is adequate diversity of, and effective entrepreneurial support organizations available (around 70% overall or a B grade). Also lacking was high availability of relevant and current information across a broad range of disciplines, suggesting that although the Service Providers are somewhat diverse in their programming and value propositions, there are areas of desired programming that are lacking.

Most interesting perhaps was the availability of funding question. Many entrepreneurs answered with extremely low scores, while others offered high scores. The comments provided suggested some reasons for this, including the perceived readiness of the entrepreneurs seeking funding. Interestingly, Investors ranked the availability of funding lower than entrepreneurs suggesting that more research needs to be done on this topic.

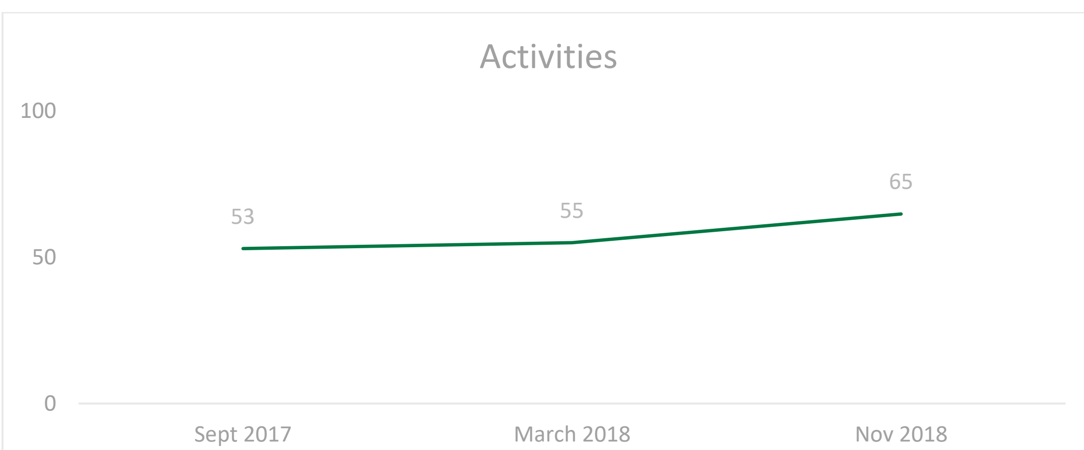
Also providing extremely low scores regarding the availability of funding were consultants and academia. Consultants, being traditional businesses may have difficulty finding funding due to the perceived lack of scalability or expected reliance on the founder in the business. For example, a consulting group with a couple of founders and a few employees would be looked upon as a particularly risky investment for a bank because an illness or injury to one founder may be enough to make the business insolvent, and such a company would simply be out of scope of either Angel or VC funding. Academics on the other hand, unless they have already launched and found product-market fit (in which case they would categorize as entrepreneurs) would not be supported by a bank due to lack of market traction and may be too early for Angel funding (definitely so for VC funding).

Looking at the data sliced by ecosystem role, we see continued variability with extreme highs and lows and similar variability patterns for each individual question as for the overall pillar.

	Q1	Q2	Q3	Q4	Q5	Total
Academic Institution	2.00	2.20	2.80	2.40	2.40	71
Consultant	2.20	2.80	3.40	3.40	3.00	89
Enterprise	3.00	3.00	3.00	3.00	3.00	90
Entrepreneur	2.47	3.15	3.70	3.35	3.17	95
Government Representative	3.25	3.25	4.50	4.50	3.33	115
Investor	2.80	3.60	4.20	4.60	3.25	111
Office Space	2.50	3.00	3.00	4.50	2.50	93
Other	3.33	3.33	2.67	3.67	3.33	98
Professional Services	3.50	3.00	3.50	3.50	3.50	102
Service Provider	2.67	2.83	3.17	3.83	3.00	93
Maximum Score	4.00	5.00	5.00	5.00	5.00	144
Minimum Score	1.00	1.00	1.00	1.00	1.00	42
Standard Deviation	0.97	0.97	1.09	1.10	1.00	23

ACTIVITIES & ENGAGEMENT

The Pillar of Activates and Engagement contributes to 10% of the overall score, or a category maximum of 100 points out of the overall 1000-point scale. Activities & Engagement is one of only two pillars to show consistent growth over time, although the scores of the initial two samples re well within margin of error.



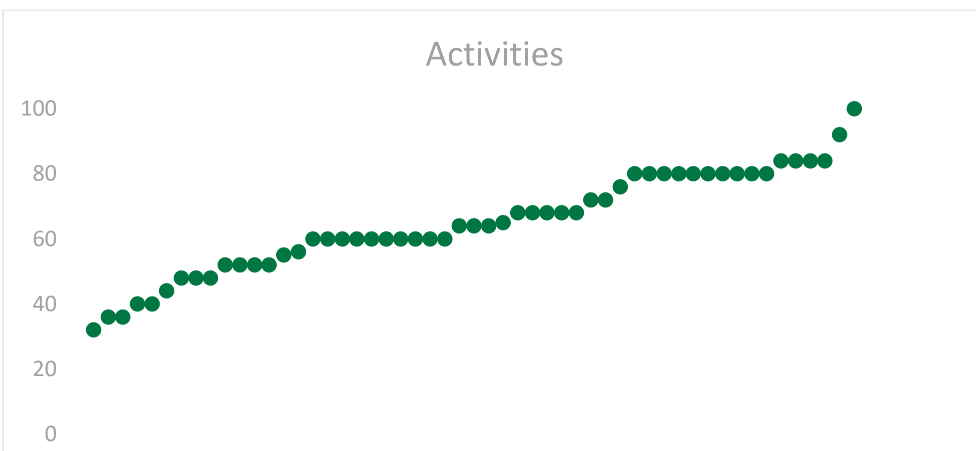
The category average score of 65 falls within 12% of the highest score by role (government and Investors at 77 and 73 points respectively) and within 6% of the lowest score by role (Academia at 59 points).

Entrepreneurs on average were very close to the overall score of 65 points, however the min and max scores collected were up to 33% off the average:

Ecosystem Role	Average	Min	Max
Academic Institution	59	36	80
Consultant (Marketing, CMC, ...)	70	55	84
Enterprise	64	64	64
Entrepreneur	61	32	84
Government Representative	77	48	100
Investor (Angel or VC)	73	48	92
Office Space/Incubator/Accelerator	60	52	68
Other	68	60	84
Professional Services (Legal, Accounting, ...)	70	60	80
Service Provider	60	40	80

Again, in each category of ecosystem role captured, the level of variability from highest to lowest score, was very high (except for role categories with very few respondents). The distribution of all responses received shows that the spread of data is very high, with some extremely low scores, and quite a large number clustered slightly above the average score.

Overall, this pillar measures how engaged individual groups are within the ecosystem. We see a high level of overall engagement from government, professional services, and consultants (all in excess of 70% on average), which certainly matches the expressed narrative that ecosystem events are full of service providers and lacking in entrepreneurial engagement.



Max Score: 100 Min Score: 32 Average: 65 Standard Deviation: 15

The final score for Activities was the combination of the average score to each of 5 questions:

- There are numerous ecosystem activities that actively promote innovation
- These activities are effective in promoting innovation
- These activities span a large spectrum of technical domains and promote collaboration across diverse audiences
- These programs have a high degree of engagement among diverse groups of participants

- There are effective means of developing new high engagement activities in the organization to promote innovation

Q1 Average	Q2 Average	Q3 Average	Q4 Average	Q5 Average	Overall Score	Overall Average
3.94	3.17	3.17	2.87	2.98	65	3.24

Participants were generally of the perception that there is no shortage of innovation promoting activities (80% overall or an A- grade), however the activities were perceived to be ineffective (and that the activities do not provide adequate diversity of technical domains less than 65% or a C- grade). This aligns well with feedback form the Resources Pillar. More importantly, the high volume of activities is not perceived as having a high degree of engagement among diverse participants and that these activities are not effective in developing new engagement (less than 60% or D+ grade).

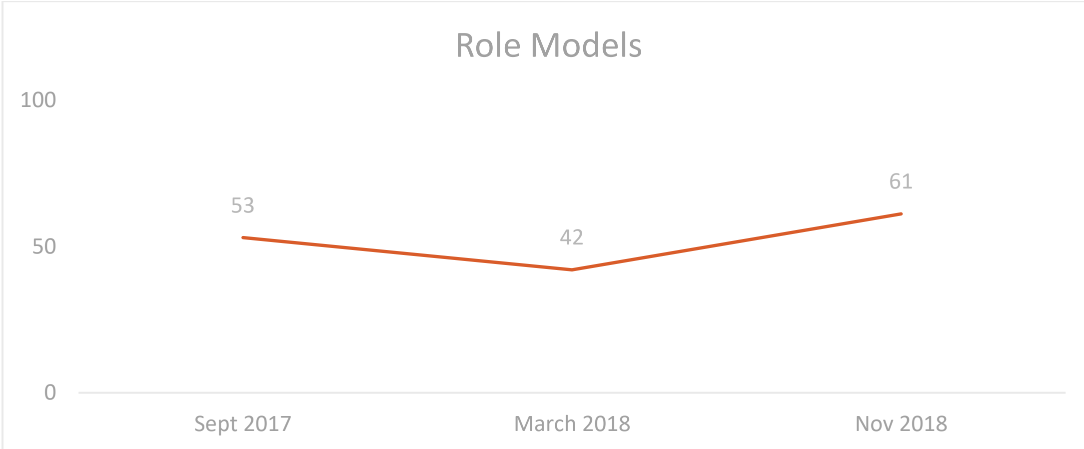
Perhaps the theme of cooperation and collaboration is applicable here as the high volume of events may provide an easy win for the service providers to collaborate. By reducing the volume of disparate events and increasing the level of collaboration in event planning and execution, it is possible that the quality of events will increase, while also massively increasing the accessibility of events. Currently, many events run at overlapping times, or similarly themed events run within a short time frame of each other, decreasing accessibility for entrepreneurs by forcing them to pick and choose more often than they may prefer.

Looking at the data sliced by ecosystem role, we see continued variability with extreme highs and lows and similar variability patterns for each individual question as for the overall pillar.

	Q1	Q2	Q3	Q4	Q5	Total
Academic Institution	3.80	3.60	2.60	2.20	2.60	59
Consultant	4.00	3.40	3.60	3.20	3.50	70
Enterprise	4.00	3.00	3.00	3.00	3.00	64
Entrepreneur	3.75	2.95	3.05	2.70	2.89	61
Government Representative	4.25	3.75	3.75	3.75	3.67	77
Investor	4.40	3.25	3.60	3.25	3.25	73
Office Space	4.50	3.00	3.00	2.50	2.00	60
Other	3.67	3.33	3.33	3.33	3.33	68
Professional Services	3.50	3.50	3.50	3.50	3.50	70
Service Provider	4.17	2.83	2.83	2.50	2.67	60
Maximum Score	**5.00**	**5.00**	**5.00**	**5.00**	**5.00**	**100**
Minimum Score	**2.00**	**1.00**	**1.00**	**1.00**	**1.00**	**32**
Standard Deviation	**0.68**	**0.87**	**1.00**	**1.00**	**0.93**	**15**

ROLE MODELS

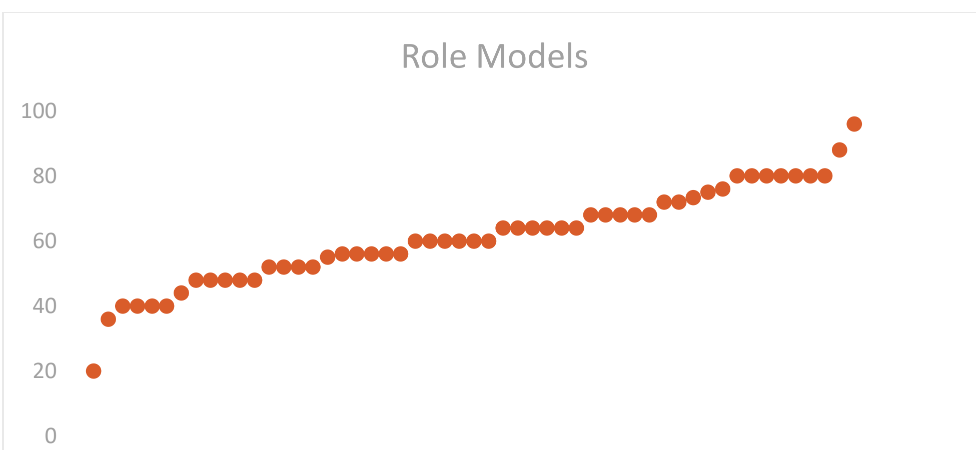
The Pillar of Role Models contributes to 10% of the overall score, or a category maximum of 100 points out of the overall 1000-point scale. Like Resources, the scores for Role Models regressed slightly in the second sampling compared to the first but rebounded nicely in the most recent sample.



The average score of 61 falls within 11% of the highest score by role (Investors, Others, and Professional Services are all tied at 72 points) and within 9% of the lowest score by role (Office Space Providers at 52 points). Entrepreneurs on average were very close to the overall score of 61 points, however the min score was 40% lower and max score collected 22% off the average:

Ecosystem Role	Average	Min	Max
Academic Institution	59	40	80
Consultant (Marketing, CMC, …)	63	56	68
Enterprise	56	56	56
Entrepreneur	58	20	80
Government Representative	61	44	80
Investor (Angel or VC)	72	48	96
Office Space/Incubator/Accelerator	52	40	64
Other	72	60	80
Professional Services (Legal, Accounting, …)	72	64	80
Service Provider	59	40	88

Once again, the highest and lowest scores in each role category vary meaningfully from the average and the distribution of all responses features extremely low scores and extremely high scores.



Max Score: 96 Min Score: 20 Average: 61 Standard Deviation: 15

The final score for Role Models was the combination of the average score to each of 5 questions:

- Successful innovators are celebrated as role models
- These role models are actively engaged in supporting innovation through a variety of means
- These role models are widely known by the general public
- Formal recognition is given for innovative contributions
- There are systems to recognize and support high-potential future role models

Q1 Average	Q2 Average	Q3 Average	Q4 Average	Q5 Average	Overall Score	Overall Average
3.64	3.35	2.54	3.04	2.65	61	3.06

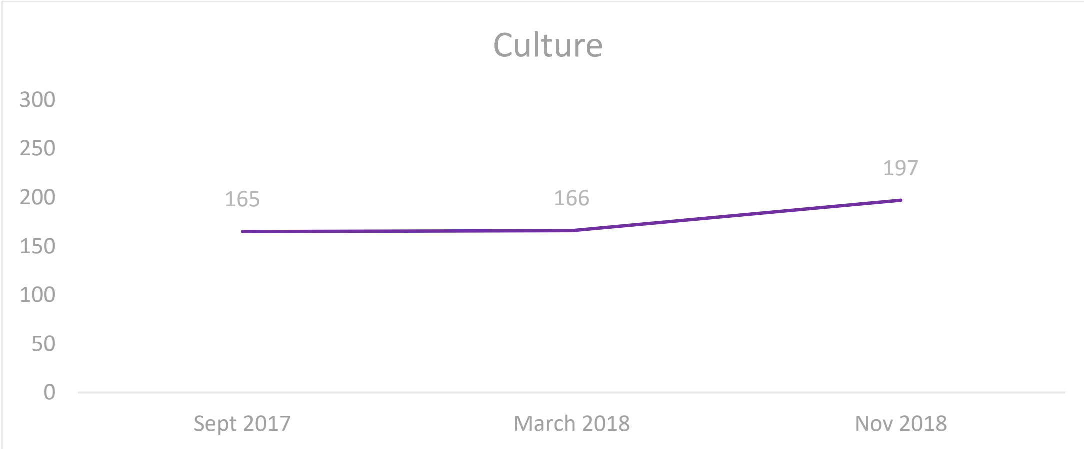
The celebration of Role Models was well regarded (nearly 80% overall or a B+ grade) however it is perceived that these role models are not well-known outside the innovation ecosystem/within the general public and that there are not systems in place to recognize and support up-and-coming entrepreneurs who may become role models in the future (less than 60% or a C- grade). On a slightly positive note, the recognized role models are perceived to be active and engaged in supporting innovation (about 65% or a C+ grade). As an essential part of both increasing awareness of innovation and innovators, as well as a crucial tool to inspire future innovators to both dream big and act, increasing the score in the role models pillar with be vital for the future growth and success of the ecosystem. This may provide another easy win for service providers – namely, communicate success stories to a wider audience, especially to the general public.

Looking at the data sliced by ecosystem role, we see continued variability with extreme highs and lows and similar variability patterns for each individual question as for the overall pillar.

	Q1	Q2	Q3	Q4	Q5	Total
Academic Institution	3.00	3.50	2.40	3.00	2.80	59
Consultant (Marketing, CMC, …)	3.80	3.75	2.40	3.20	2.80	63
Enterprise	4.00	3.00	2.00	3.00	2.00	56
Entrepreneur	3.60	3.25	2.50	2.67	2.40	58
Government Representative	3.75	3.00	2.33	3.00	2.75	61
Investor	4.20	3.75	3.40	3.50	2.75	72
Office Space	3.00	3.00	2.00	3.00	2.00	52
Other	4.00	3.67	3.00	3.67	3.67	72
Professional Services	4.00	3.50	3.50	3.50	3.50	72
Service Provider	3.50	3.17	2.00	3.33	2.67	59
Maximum Score	**5.00**	**5.00**	**5.00**	**5.00**	**5.00**	**96**
Minimum Score	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**20**
Standard Deviation	**0.89**	**1.02**	**0.89**	**0.83**	**0.75**	**15**

CULTURE

The Pillar of Culture, the most important Pillar in the Rainforest schema, contributes to 30% of the overall score, or a category maximum of 300 points out of the overall 1000-point scale. Culture, like Activities & Engagements, has seen growth across all three samplings, although the scores from Sept 2017 and March 2018 are essentially the same.



The category average score of 197 falls within 10% of the highest score by role (Investors at 227 points each) and within 14% of the lowest score by role (Academia at 158 points). The high and low scores for Entrepreneurs were again ~30% varied from their category average:

Ecosystem Role	Average	Min	Max
Academic Institution	158	90	200
Consultant (Marketing, CMC, ...)	188	110	240
Enterprise	190	190	190
Entrepreneur	198	110	280
Government Representative	205	170	240
Investor (Angel or VC)	227	180	260
Office Space/Incubator/Accelerator	206	192	220
Other	207	180	230
Professional Services (Legal, Accounting, ...)	215	190	240
Service Provider	192	150	220

Of all pillar's measures, Culture more than any other saw extreme low scores, although there was also significantly more clustering around the overall average.

Max Score: 280 Min Score: 90 Average: 197 Standard Deviation: 42

The final score for Culture was the combination of the average score to each of 6 questions:

- Trust is an important cultural element and is widespread and easily created in the ecosystem
- People think in terms of "positive-sum" or "win-win" situations and not "zero-sum" or "I win only if you lose"
- Failure is not viewed in a negative light
- Calculated risk taking is viewed positively
- People are often willing to help without expectation of immediate return
- People are encouraged to dream and "think big"

Q1 Average	Q2 Average	Q3 Average	Q4 Average	Q5 Average	Q6 Average	Overall Score	Overall Average
3.00	2.98	3.30	3.55	3.56	3.25	197	3.29

This pillar was the most consistent by average score across the questions (but still had a lot of variability within the responses for each question). The lowest average score for a question was about 60% and the highest was about 70% overall. Participants believed trust is important but clarified in their comments that it is not common/widespread enough for innovation to flourish in Edmonton.

This may be a result of some of the aspects from the other cultural questions. For example, if people do not think win-win, then trust may not spread quickly enough, similarly, if failure is generally regarded negatively, then the willingness of risk-takers to demonstrate trust by speaking openly and honestly about the risks they take and the success or failure they achieve will be limited. Similarly, when a Pay It Forward mentality is not present within the ecosystem, trust may be slow to grow.

Culture is the single biggest pillar and most influential aspect of the Rainforest Scorecard and building an ecosystem of trust will be key to empowering innovators in Edmonton. This may require many things, including taking the risk of trusting others without a logical reason to do so, promoting trust by acknowledging individuals who have demonstrated that they can be trusted as well as calling out individuals who act in ways that discourage trust. Individuals may act in a manner that does not induce trust in others, while being worthy of trust or not having unknown motives. Such individuals simply need to know that their actions are being perceived in a particular manner and adjust to better demonstrate their suitability to be trusted. Some individuals may have ulterior motives or be interested in achieving personal success at the expense of others within the ecosystem, in which case they may need to be called out and held accountable for doing so. While difficult, and outside the scope of the Rainforest initiative, these actions will be necessary to establish that trust exists and is valuable. If people show up to be seen, rather than showing up to be heard, trust will be elusive.

Looking at the data sliced by ecosystem role, we see continued variability with extreme highs and lows and similar variability patterns for each individual question as for the overall pillar.

	Q1	Q2	Q3	Q4	Q5	Q6	Total
Academic Institution	2.20	3.00	3.20	2.80	2.60	2.00	158
Consultant	3.00	3.20	2.80	3.20	3.40	3.20	188
Enterprise	3.00	3.00	3.00	3.00	3.00	4.00	190
Entrepreneur	3.00	2.95	3.16	3.55	3.70	3.40	198
Government Representative	3.00	2.33	4.25	3.50	4.00	3.00	205
Investor	3.60	3.40	3.75	4.25	4.20	3.40	227
Office Space	3.00	3.00	3.00	3.50	4.00	4.00	206

Other	3.00	3.67	3.67	4.00	2.67	3.67	207
Professional Services	3.50	3.50	3.50	4.00	3.50	3.50	215
Service Provider	3.00	2.33	3.20	3.80	3.60	3.17	192
Maximum Score	5.00	5.00	5.00	5.00	5.00	5.00	280
Minimum Score	1.00	1.00	1.00	1.00	1.00	1.00	90
Standard Deviation	0.98	1.00	0.97	0.92	0.96	0.97	42

Appendix Three - Demographics

Demographic Composition

The City of Edmonton was founded in 1795 and as of the 2016 census had a Population of 932,546. The greater Edmonton area encompasses as population of 1,062,643 individuals. All demographic information has been pulled from that census as it is the most up-to-date complete dataset available.

	% of Edmonton by Population	% of Scorecard Submissions	Score
Male	49.97	58	646
Female	50.03	36	631
Born in Edmonton	22.36	32	650
Born Elsewhere in Alberta	54.93	2	443
Born Elsewhere in Canada	22.71	35	654
Born Outside of Canada	20.38	21	665
25-29	9.5	11	583
30-39	18.7	28	617
40-49	15.4	21	619
50-59	15.6	26	697
Over 60	20.6	4	631
High School or equivalent	26.0	2	854
Certificate or Associate Degree	26.9	9	720
Bachelor Degree	22.4	40	649
Master's Degree	4.0	43	619
PhD	0.9	6	582
Caucasian	77.6	72	652
Middle Eastern	2.7	2	776
South Asian	7.2	4	531
East Asian	12.7	6	546

Breakdown of Results by Demograophic Profile

ECOSYSTEM ROLE

A total of 46 submission were made to the Rainforest Scorecard Assessment tool. The breakdown by role in the ecosystem is:

Ecosystem Role	Submissions	Submissions (%)	Score
Service Provider	6	13%	593
Investor (Angel or VC)	6	13%	829
Banking and Finance	0	0%	N/A
Government Representative	5	11%	778

Academic Institution	4	9%	468
Entrepreneur	20	43%	616
Professional Services (Legal, Accounting, …)	2	4%	672
Student	0	0%	N/A
Consultant (Marketing, CMC, …)	3	7%	620
Office Space/Incubator/Accelerator	1	2%	728

* N/A indicates that no responses were received from that Ecosystem Role.

Although there is significant variance between roles within the ecosystem, many categories had low number of respondents making the variations difficult to analyze. Notably, Service Providers and Academia were most harsh in their perceptions, while Entrepreneurs were coming in 3.4% lower than the overall average. Government and Investors seem to have the most positive impressions overall, but again these are very low sample sizes.

Of the 46, some respondents self-identified as more than one role, and their score was broken down and included in each group that they identified as. 14 respondents had attended a past Summit, and 30 attended Summit #3. 36 respondents have attended a LWOL (Lunch without Lunch) or Connector event, and 33 had previously signed the Social Contract.

GENDER

	Average Score	Number of Reponses	% of Total Responses Received
Female	631	19	36%
Male	646	31	58%

Although females perceived the ecosystem slightly less positively than makes, the difference is less than 2% and is not considered statistically significant. In fact, female entrepreneurs gave a better overall score than did male entrepreneurs at 651 to 610, respectively (but still only a 4% variance). Looking at the male/female score breakdown by ecosystem role yields:

Ecosystem Role	Female	Male
Academic Institution	506	550
Consultant (Marketing, CMC, …)	675	608
Enterprise	650	N/A
Entrepreneur	651	610
Government Representative	854	677
Investor (Angel or VC)	N/A	754
Office Space/Incubator/Accelerator	524	728
Other	690	742
Professional Services	N/A	724
Service Provider	563	625

Except for government representatives and office space providers, the responses are not outside of margin of error between male and female within a role. In the case of government, there is a drastic difference in the perceptions of the ecosystem by men compared to women of about 20% of overall score (854 to 677).

Once again, it is explicitly acknowledged that these datasets are very small, and the results/findings are only a sampling of the perceptions based on the data provided. These results are not taken to be representative of the ecosystem but are used to look for potential insights which may help Rainforest Alberta – yeg and others seek future opportunities to make improvements.

AGE GROUPING

Age Grouping	Average Score	Number of Reponses	% of Total Responses Received
Under 18	N/A	0	0%
18-24	N/A	0	0%
25-29	583	6	11%
30-39	617	15	28%
40-49	619	11	21%
50-59	697	19	36%
Over 60	631	2	4%

No responses were received from individuals under the age of 25. As can be seen from the score above, the level of optimism towards the ecosystem generally is highest among individuals in their mid career (30-50) and lower among individuals late or early in their career. Looking at the breakdown by role in the ecosystem we see:

Ecosystem Role	25-29	30-39	40-49	50-59	Over 60
Academic Institution	N/A	474	N/A	598	N/A
Consultant (Marketing, CMC, …)	587	N/A	572	715	N/A
Enterprise	N/A	650	N/A	N/A	N/A
Entrepreneur	534	626	610	686	574
Government Representative	N/A	N/A	704	790	688
Investor (Angel or VC)	N/A	N/A	554	804	N/A
Office Space/Incubator/Accelerator	N/A	N/A	N/A	626	N/A
Other	N/A	707	N/A	N/A	N/A
Professional Services	672	776	N/A	N/A	N/A
Service Provider	602	579	612	626	N/A

Young entrepreneurs, as well as mid-career service providers and late stage entrepreneurs, showed the most pessimism towards the ecosystem. Later career government representatives and investors show the most optimism towards the ecosystem. This would support a narrative that the system is perceived to not support the needs of emerging entrepreneurs and younger service providers, nor is the system supporting those near the end of their careers. Those with the ability to enact change on the system are seen to be very supportive of the status quo which is typical for complex organized systems in general, however this setup is not supportive of innovation and is a hallmark of the traditionalist nature of the Edmonton economy. Yet again, we see that there is a need for more diverse, inclusive, forward-thinking leadership to help build the ecosystem we need and that can support future innovation.

PLACE OF BIRTH

	Average Score	Number of Reponses	% of Total Responses Received
Born in Edmonton	650	17	32%
Born Elsewhere in Alberta	443	1	2%
Born Elsewhere in Canada	654	19	36%
Born Outside of Canada	665	11	21%

We see a good distribution of individuals from Edmonton, non-Albertan Canadians, and Immigrants with scores each near the overall score of 643. Breaking this down to ecosystem role shows:

Ecosystem Role	Born in Edmonton	Born Elsewhere in Alberta	Born Elsewhere in Canada	Both Abroad
Academic Institution	N/A	N/A	527	508
Consultant (Marketing, CMC, …)	N/A	443	683	N/A
Enterprise	650	N/A	N/A	N/A
Entrepreneur	574	N/A	672	690
Government Representative	854	N/A	688	790
Investor (Angel or VC)	829	N/A	728	N/A
Office Space/Incubator/Accelerator	N/A	N/A	728	524
Other	N/A	N/A	N/A	707
Professional Services	672	N/A	N/A	776
Service Provider	593	N/A	728	524

Those born in Edmonton appear to be optimistic towards the ecosystem, unless they are entrepreneurs or service providers, while those born anywhere else in Canada skew slightly above the overall average, especially if they are investing or providing services to entrepreneurs in some way. The further an entrepreneur was born from Edmonton, the more favorably they appear to look upon the ecosystem. This may be due to their newness or lack of familiarity with the ecosystem, or conversely, that Edmonton is providing better supports than other municipalities. More research should be done to investigate this issue.

EDUCATION

	Average Score	Number of Reponses	% of Total Responses Received
High School or GED	854	1	2%
Certificate or Associate Degree	720	5	9%
Bachelor's Degree	649	21	40%
Master's Degree	619	23	43%
PhD	582	3	6%

The higher an individual’s level of education, the less favorably they perceive the ecosystem. This is highly disconcerting, we are not Donald Trump. Looking at the breakdown by role:

Ecosystem Role	High School	Certificate	Bachelor’s	Master’s	PhD

Academic Institution	N/A	N/A	N/A	554	478
Consultant (Marketing, CMC, …)	N/A	573	N/A	651	N/A
Enterprise	N/A	N/A	650	N/A	N/A
Entrepreneur	N/A	734	597	617	N/A
Government Representative	854	N/A	688	554	790
Investor (Angel or VC)	N/A	828	728	738	N/A
Office Space/Incubator/Accelerator	N/A	N/A	728	524	N/A
Other	N/A	N/A	707	N/A	N/A
Professional Services	N/A	N/A	724	N/A	N/A
Service Provider	N/A	N/A	622	568	N/A

This pattern continues (except for government representatives). Higher education generally means a less positive view of the ecosystem. Clearly, something must be done to increase engagement and support of those with the brilliant ideas and excellent inventions as they are a crucial role within the ecosystem.

ETHNICITY

	Average Score	Number of Reponses	% of Total Responses Received
South Asian or Indian American	2	4%	531
Prefer not to answer	5	9%	674
East Asian or Asian American	3	6%	546
Non-Hispanic White or Euro-American	38	72%	652
Other	4	8%	617
Middle Eastern or Arab American	1	2%	776

There is nowhere near enough diversity in the respondents to draw any conclusions from the data above, or when broken out by ecosystem role:

Ecosystem Role	South Asian/Indian American	Prefer Not to Answer	East Asian/Asian American	Caucasian	Other	Middle Eastern
Academic Institution	322	N/A	N/A	574	N/A	N/A
Consultant (Marketing, CMC, …)	N/A	N/A	443	667	730	N/A
Enterprise	N/A	N/A	N/A	650	N/A	N/A
Entrepreneur	N/A	617	554	633	N/A	N/A
Government Representative	N/A	854	N/A	672	688	N/A
Investor (Angel or VC)	N/A	N/A	N/A	754	N/A	N/A
Office Space/Incubator/Accelerator	N/A	N/A	N/A	728	524	N/A
Other	740	N/A	640	742	N/A	N/A
Professional Services	N/A	N/A	N/A	672	N/A	776
Service Provider	N/A	668	N/A	608	524	N/A

VARIABILITY

	Points	Average Score	Average %	ST.DEV	ST.DEV %	Min Score	MIN %	Max Score	MAX %
Overall Score	1000	647	65%	136	14%	302	30%	912	91%
Leadership	200	135	68%	33	17%	72	36%	200	100%

Frameworks	150	88	59%	24	16%	42	28%	140	93%
Resources	150	96	64%	23	16%	42	28%	144	96%
Role Models	100	65	65%	21	21%	20	20%	100	100%
Activities	100	66	66%	16	16%	32	32%	100	100%
Culture	300	198	66%	45	15%	90	30%	280	93%

Statistically, the standard deviation is very high, with a wide range of scores. In each category, the minimum respondent score is around 30%, and the maximum respondent score in each category was very close to 100%. This can be attributed to a combination of low response rates, subjectivity in answering the questions, and the effects of the three key themes expressed herein: Lack of Trust, Lack of Diversity, and Lack of Leadership.