City of Saskatoon

SmartCitiesChallenge

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Q1 Community information

Name of community: **Saskatoon**
Province/Territory: **Saskatchewan**
Population: **271,000**
Indigenous community: **No**

Q2 Prize category

$10 million (population under 500,000 residents)

Q3 Define your Challenge Statement

To be the city that breaks the cycle of Indigenous youth incarceration by creating a new cycle focused on building purpose, belonging, security and identity.

Q4 Describe the outcome you seek to achieve

Saskatoon has a bold vision to be a city that supports the efforts of all individuals to feel a sense of purpose, belonging, security and identity. People are being left behind, many of them are youth, and many of them are urban Indigenous youth. Urban Indigenous youth face multiple challenges that are rooted in intergenerational trauma, racism, and a disrupted relationship with cultural and spiritual traditions, all of which have a deep impact on their sense of identity, purpose, belonging and security. This is manifesting itself in an escalating cycle of crime that results in Saskatoon having a youth incarceration rate that is double the national average.

Every city must figure out how to build societies where people come together instead of being torn apart - as we become more diverse and as we grapple with what reconciliation means in concrete terms. Saskatoon is no different. The cycle of crime and social exclusion is resulting in millions of dollars being spent to warehouse people in facilities where instead of rehabilitating they become hardened, and in many cases involved in increasingly serious crime. This cycle continues through generations. The current system is failing all of us.

The City of Saskatoon has initiated a partnership with key institutions who are all committed to working together to find proactive, preventative solutions to youth incarceration. Our Smart Cities Challenge will build on this collaborative work and will use innovative technology to strengthen and connect supports necessary for youth to grow in a positive learning cycle, rather than find themselves pulled into a cycle of crime.

The descriptions of our four pillars were developed by youth, who also contributed the quotes below each pillar. Our goals were developed out of City of Saskatoon and institutional partners' strategies:
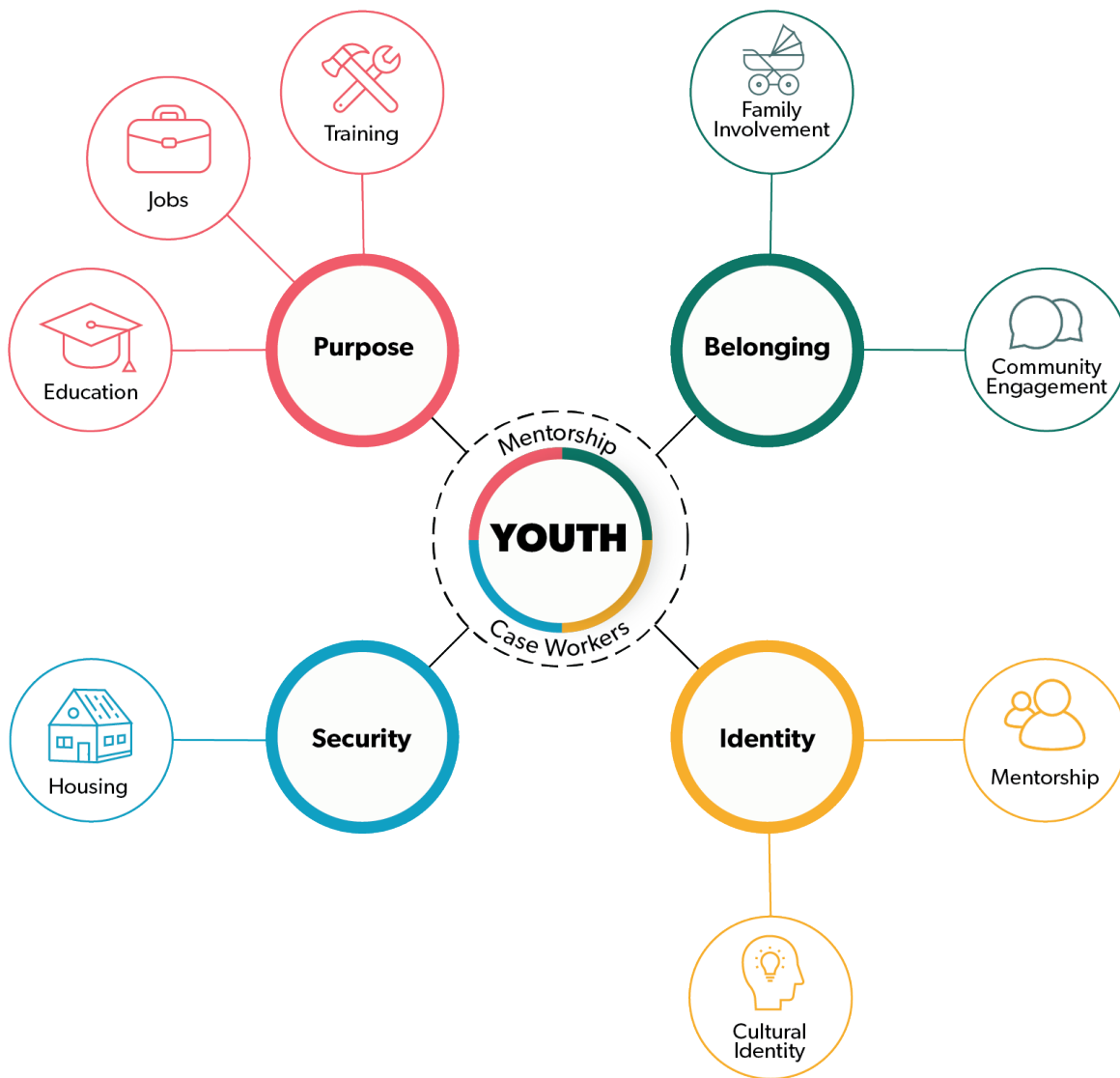
Purpose

Purpose is seen as a way to help individuals feel comfortable, to empower those to help others and make life better.

"I feel a little bit more positive each time I walk through the front doors. I especially feel good when I accomplish a project in the carpentry shop whether it be for my own benefit or the benefit of Core Neighbourhood Youth Co-Operative."

Our goals in this area include:
- Increasing job training and access to educational activities
  - Increase the percentage of youth engaging in pre-employment training opportunities year over year, through a mobile-enabled digital platform;
  - Grow the number of businesses open to providing mentorships and job training opportunities increases through an online match-making service.

Belonging

Belonging is defined as having a sense of attachment and connectedness and understanding where you are in society. This can occur in a number of areas including in the home, with family, community, workplace, and other locations.

The goals to help achieve a sense of belonging are:
- To enhance family involvement and input;
  - To convert existing educational modules focused on parenting, mental health and healthy relationships, digitally so that they can be accessed online in support centres or via mobile devices.
- To encourage community engagement and connect youth to accessible, engaging recreational programs:
  - Develop and enable tracking technology to gather data to define better micro-routes for transportation to increase access to specific recreational programs.

Security

Security encompasses a number of areas but prioritizes housing security and general public safety. Financial security, family security, and accessibility to service were also identified.

The goals in this area are:
- To provide better supportive housing options:
  - Build on a pre-existing, mobile-enabled digital platform that connects community not-for-profits, first responders, and municipal service providers with real-time information on shelters and other supportive living options that have space.
  - Utilize surveillance monitors in high crime areas to be able to identify and categorize risk enablers, using facial recognition software.

Identity

Defined as a way of knowing yourself and of having a sense of mastery and pride, identity is rooted in knowing where you come from. Identity gives individuals a chance to develop their personality and achieve a sense of autonomy.

The goals in this area are:
- To identify and connect strong mentors to individuals:
  - To create a better data system that coordinates case workers, youth and mentors more succinctly to ensure

" I think when they hold events with other kids it helps out. Getting to know someone with the same problems makes me feel like I'm not alone. "

" I think we need more safe places like Egadz. A lot of us don't feel safe at home and we need a place to escape and feel welcome. "

" I want to be involved in what's happening to me but I don't know how. I want to help make things better but I need the opportunity."

that the right skill sets and interests are identified and matched.
- To empower youth to connect with their cultural identity:
  - Explore online and offline opportunities for First Nations and Metis youth to engage with spiritual and cultural activities.

Youth Crime in Saskatoon:

Research, community surveys and polls over the past eight years indicate that addressing crime in Saskatoon has been an ongoing top priority for residents. Saskatoon City Council responded by identifying Community Safety and Well-being as a strategic area of focus. It is for these two reasons that the Smart City Challenge is focused on the area that will not only have a significant impact on crime but will also contribute to the well-being of both the Indigenous and larger community of Saskatoon as a whole.

Based on provincial definitions, youth are between the ages of 12 to 17. According to Statistics Canada, Saskatoon leads the country in:
- Youth breaks and enters (1,286 per 100,000, which is more than four times the national rate).
- Youth mischief (2,292 per 100,000, which is about four times the national rate).
- Youth assault (1,697 per 100,000, which is more than twice the national rate).
- Youth administration of justice offences (3,292 per 100,000, which is about six times the national rate). This includes failure to comply with an order, failure to appear in court, breach of probation and related violations.

Additional related statistics:
- The peak age at which individuals were accused of a crime is 17 years (2014 police-reported data)
- Over the past decade the proportion of gang-related homicides was consistently greater for youth than for adults.
- Over the ten-year period from 2005 to 2014, 60% of youth accused in homicides were co-offenders compared to 35% of adults.
- Saskatchewan's youth incarceration rate is 141 per 10,000, meaning that over 1.4% of kids in Saskatchewan between 12 and 17 are incarcerated.

The Youth Criminal Justice Act (Saskatchewan) acknowledges that extrajudicial measures which do

not involve the formal court system "are often the most appropriate and effective way to address youth crime [and] allow for effective and timely interventions focused on correcting offending behaviour" (YCJA, s.4(b)). Despite this, only 6% of youth accused in criminal incidents were referred by police to community programs (such as substance abuse programs), or to a formal YCJA extrajudicial sanctions program.

Indigenous overrepresentation in the justice system: The decision to focus specifically on decreasing the Indigenous youth incarceration rate was undertaken in order to be able to produce the greatest impact possible, with the greatest likelihood of spillover benefits to other areas. The goal is also to ensure that the Challenge chosen was ambitious, attainable, and scaleable.

It is recognized that the Indigenous population is overrepresented in Canadian federal penitentiaries. The Canadian Indigenous population is 5 percent, yet Indigenous men represent 25.2 per cent of all in-custody males, while Indigenous women represent 36.1 percent of all females behind bars.

In Saskatchewan, Indigenous people comprise 15 to 17 percent of the population, yet are 80 to 90 per cent of the men in the province's jails and 90 to 95 per cent of the women. This tragic situation exponentially impacts immediate and extended families for multiple generations.

This level of incarceration is not only costing resources, more importantly it is costing opportunity and potential. University of Saskatchewan economist Eric Howe has stated that a more educated and skilled Indigenous population would mean billions saved by the provincial justice, health and social services ministries. Improving the levels of education and employment for Saskatchewan Indigenous people would boost the provincial economy by up to $90 billion dollars.

Saskatoon needs to move from high Indigenous youth incarceration rates to high Indigenous graduation rates. Currently, Indigenous youth high school graduation rates are half of those of non-Indigenous students. For Saskatoon to thrive, we need to benefit from all that these youth have to offer.

"In Saskatchewan, Indigenous people comprise 15 to 17 percent of the population, yet are 80 to 90 per cent of the men in the province's jails and 90 to 95 per cent of the women. This tragic situation exponentially impacts immediate and extended families for multiple generations."

Using technology

The City of Saskatoon and its partners will create a collaborative technology hub comprised of multiple software platforms that children, family members, service providers, and institutions will be able to use in a real-time, case-specific manner.

Addressing the root causes of youth crime, plus recognizing signs and patterns that lead up to such crime is critical. While youth are defined as 12-17, early interventions are important and would be available for children younger than 12. The City of Saskatoon has been in ongoing discussions with 'lived experience' youth as well as community safety and well-being service providers. Many current programs and supports are already in place, but there is a lack of coordination, case management, shared data, and integrated processes that are necessary to ensure youth actually receive the supports they need, while also enabling them to be empowered in the decisions that affect their lives.

By using smart methods, such as creating better systems to aggregate data and utilize predictive analysis and by building better algorithms to ensure we are looking for the right information, small changes in current systems could have a large effect on how services are connected and applied to deal with sensitive issues and situations.
The City of Saskatoon is currently partnering with a number of organizations to determine if other technology, such as asset monitoring and management and the Internet of Things, would help with real-time monitoring and predictive maintenance to allow us to make better decisions and properly architect, secure, integrate, test and capitalize on data being collected.

Achieving a decrease in the percentage of incarcerated Indigenous youth requires a multi-layer, multiple partner holistic approach. Our Challenge is designed to embody the processes that youth experience. It begins with more in-depth user-experience research, in order for us to truly understand what problem exists and how to apply valuable and relevant solutions. We will also be utilizing a variety of innovative technology in a coordinated multi-step project and collaborating with our institutional partners to help build an open, shared platform focused on connectivity and streamlining processes. This platform is meant to be two-way in experience, input and information, and meant to represent real-time information.

" Our desire is to create a hub that organizations and decision makers can plug into which will provide a city–wide view of what's happening in specific relation to youth activity. "

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Our desire is to create a hub that organizations and decision makers can plug into which will provide a city-wide view of what's happening in specific relation to youth activity. Working as an open data platform that provides real-time, updated information, this hub and related software platforms will be used to:

- Track where youth criminal activity is taking place;
- Aggregate data inputted by organizations to understand and recognize signs and patterns that can better identify detrimental activities and unmet needs of sensitive individuals;
- Implement necessary services quicker;
- Identify and ensure that the basic needs of individuals are being met such as healthy, proper housing and drinking water, education and employment;

The hub will include better tracking methods to ensure the right data is being collected and analyzed to allow proper programming to be implemented. The hub could also use location services and sensors to ensure supportive housing options are being created in ideal locations that give the youth easier access to transit, food, schools, and cultural and recreational programming. It also will include information about where and when programming and services are available for youth, and will be easily available for youth and families to access in real time.

The best way to prevent Indigenous youth incarceration is to increase supports in other areas of the youth's lives.

Our strategy to measure progress and achievement:
- Reduction in the Indigenous Youth Incarceration rate;
- Contribution of data and feedback to a technology hub by service providers;
- Increase in adoption and usage rates of the online platform by Indigenous youth and families;
- Improved usability and accessibility of real-time data through better integration and coordination;
- Increase in life skills and pre-employment training programs/resources;
- Improved transportation options and usage, improving youth and families' accessibility to programs and services;
- Improved high school graduation rates for Indigenous youth, year over year.

Community shaped challenge statement

Conversations about community safety and well-being have been persistent in Saskatoon. The City started with the results of polls and studies and added a wide variety of workshops with different community groups about how they think the City of Saskatoon could improve Community Safety and Well-being. There was significant consistency, with the majority of responses identifying the importance of taking a proactive, coordinated inter-agency approach to prevent the causes of crime and how to support those most at risk to stay out of the justice system.

City of Saskatoon Community Engagement Initiative:
In 2011, the City of Saskatoon initiated a public engagement process called Saskatoon Speaks, which concluded that "at the heart of building a sustainable city is ensuring the social well-being of the people who live there." A community should provide opportunities for everyone to share in its prosperity and enjoy a high quality of life. It should offer access to affordable housing, healthy and nutritious food, community facilities and educational opportunities. Integrating these elements into all communities is critical to sustaining the health of the larger city. In planning and designing safe and inclusive communities, we need to address the current and future needs of existing residents but also anticipate the needs and desires of future citizens. Although the quality of life in Saskatoon is considered high by many, not everyone is sharing in the opportunities the city has to offer. Rising housing costs and neighborhoods with concentrated poverty are contributing to a city where the income and geography between rich and poor is increasing.

Studies, polls, doorstep interviews:
In the 2015 Street Activity Baseline Study most residents felt safe, however the feeling of safety was starting to soften.

During the 2016 municipal election, candidates consistently heard about the importance of crime and community safety on the doorstep, in debates, and in conversations with voters. According to a Mainstreet Research poll done during the election, crime was ranked as the second most important issue with 16% of residents ranking it as the most important issue (that percentage becomes 17.5% of residents of those who were decided on the issue). Among female respondents,

"According to a Mainstreet Research poll done during the election, crime was ranked as the second most important issue with 16% of residents ranking it as the most important issue."

crime was tied with roads as the most important issue facing Saskatoon. Because of the public concern raised about community safety, City Council determined to make it a strategic priority area and identified a City councilor who is working with the Mayor and administration to make progress.

Co-design workshop:
In October 2017, the Mayor's Office initiated a series of public stakeholder, human-centred, co-design workshops to explore what Saskatoon residents identify as key issues for the downtown and core neighborhoods. Human-centred design thinking requires individuals to observe and research human behavior patterns, prioritize issues, and develop solutions for these problems. An initial two-day design thinking workshop resulted in a prioritized list of issues. The issue of safety created the largest amount of insights and emerged from the user-focused research with sub-categories that included homelessness, racism, panhandling and guilt. A total of 87 residents from a variety of industries and organizations participated in this co-design work session.

Public Stakeholder workshops:
Stakeholder engagement workshops were held to shape the Challenge Statement. Using a Challenge Framework, five questions were provided at each workshop:

1. What problem are you trying to solve?
2. Frame it as a "How Might We" Questions
3. What impact are you trying to have?
4. What contexts and constraints are you working in?
5. Do you need to reframe your How Might We Question?

Included in these sessions were individuals who had previously participated in the Co-Design workshops, City Councilors, service providers, not-for-profit organizations, students, youth groups, young people, and Safe Community Action Alliance members. That Alliance is a new initiative developed out of the Mayor's office in partnership with the Board of Police Commissioners and includes 24 front-line service providers related to safety, health, poverty, and First Nations and Metis programs. The following businesses and organizations were included in the stakeholder engagement workshop as well as interested individuals:

- Saskatoon Police Services
- Saskatoon Health Authority

- City Council
- City of Saskatoon
- Central Urban Metis Federation
- Friendship Inn
- Quint Development
- Safe Community Action Alliance
- University of Saskatchewan
- Kindrachuk Agrey Architecture
- Broadway Business Improvement District
- Saskatoon Housing Initiatives Partnership
- The Students Commission
- Big Brothers Big Sisters Club

Online and in-person surveys:
To build upon the past research and engagement that had identified community safety and well-being as a priority topic, a survey was created in March 2018. It was posted on the City of Saskatoon website and moved out through social media by the City, the Mayor, and institutional partners. Residents were able to provide feedback and suggestions on shaping the Smart Cities Challenge Statement. The questions asked in this survey were open-ended. The questions were:

1. What are the greatest challenges Saskatoon faces related to community safety and well-being?
2. What are the factors that help contribute to a feeling of safety and well-being in Saskatoon?
3. In order to have an impact on the overall quality of life for residents, what can Saskatoon do to become a safe and supportive city?
4. What programs, strategies, services are needed to help support individuals and families, who are facing challenging circumstances, to enable them to fully participate in all aspects of civic life and feel a sense of belonging and purpose?

In addition to being provided on-line, staff went out to key community spaces to reach out to residents who would not necessarily have access to an online survey, yet whose input was critical to the topic of community safety. Hard copies of the survey were distributed at the Friendship Inn, White Buffalo Youth Lodge, Saskatoon Downtown Public Library, City Leisure Centres, the Youth Leadership Forum and the Saskatoon Police Diversity Breakfast Meeting. A four percent response rate was achieved by this two week survey that helped to validate a number of areas already previously

identified. Themes that emerged from the survey include:

- Additional recreation programs
- Accessible education
- Youth programming
- Community engagement
- Affordable and supportive housing
- Racism
- Treatment for mental health and addictions
- Drug Activity
- Gangs and gang activity

IT engagement workshops: Two IT engagement sessions were held with members of the Saskatoon tech community to discuss current IT initiatives that would be relevant to the Challenge Statement, as well as brainstorm potential new projects and activities that could support the proposal. Organizations included in these sessions included:

- Co.Labs Tech Incubator
- Zu Digital Strategy
- Vendasta
- Solido Design
- International Road Dynamics
- Noodlecake Studios Inc.
- Coconut Calendar
- Innovation Saskatchewan
- Tiny Eye Speech Pathology
- Luxonic
- NC Smart Call
- Saskatchewan Polytechnic
- Innovation Place
- Territorial
- EngComp
- Deltapoint Wireless
- Industrial Research Assistance Program
- Brand X Technology

Youth consultation:
A final consultation was held with representatives from youth organizations, including 'lived experience' youth, to discuss from their perspectives what key outcomes would be, how they would describe those outcomes, and what interventions they thought would impact the outcomes.

Continuing with the engagement:
The engagement process in this challenge has been strong and integrative. Discussions were useful and many

organizations committed to continuing to work together. It is clear that our initial engagement workshops, surveys and other means of communication were helpful to set the stage for the Challenge Statement. More integrative, in-depth, user-focused research is needed to refine the process for working together and to both further develop and implement the Smart Cities project. Stakeholders involved in the initial engagement process have indicated their willingness to continue to participate and provide valuable feedback, input and recommendations.

Q6 Preliminary proposal and activities

Further development of our proposal will include two phases: 1) more in-depth experience research plus collaboration with the institutional partners and related service providers around the four pillars; 2) the solutions and strategies that emerge from the user experience research and partner input will feed into a demonstration project to build an open and collaborative technology platform and hub.

Phase 1: Design Thinking, Data Gathering and Stakeholder Engagement

Design Thinking is the study of human behavior in order to pinpoint where real life problems exist and determine how to come up with solutions. Co-Design workshops have previously been engaged in other City projects, utilizing residents as the 'researchers' to observe, engage and interact with other residents around the topic of how we can intercept the cycle of child to criminal.

We will be utilizing an in-depth approach that will involve observation, engagement and interaction methods to ensure those who will be using our future platform will be an integral part of helping to build the solution. The focus will be on the end users – integrating user-centric design principles into existing service delivery and technology platforms. We will be targeting specific groups – youth, non-governmental organizations and other social services - in this phase to ensure the problems identified are focused and relevant and solutions created will be relevant and impactful. The collection of data and implementation of what is learned from its analysis in this phase is crucial to developing

a solution that is both user friendly, collaborative, interoperable and transferable. The use of traditional methods of data gathering, such as online surveys to help algorithmically process data, will also be taken on in parallel with the design thinking efforts. The reasoning behind this approach is that analysis of quantitative data, or Big Data, can provide us with a large scale that involves new technologies around capturing, storing and analyzing. Big Data analysis will be used to normalize, standardize, define, cluster all processes that strips the data set of context, meaning and stories. The Design Thinking data will be able to aid Big Data analysis from context-loss as each dataset produces different types of insights at varying scales and depths.

Utilizing these two different methods to gather and stage data, we will be able to analyze and create a model to demonstrate preliminary results and feedback. This will be further aided by broadening the use of data analytics to understand better interception points to implement services and support being provided at an earlier age to prevent the youth from following a path that will lead to criminal activity. We will also be defining what areas needs to be addressed in order for the platform to be collaborative and user friendly to make it easy and accessible for all individuals.

Integrating and coordinating existing programs
Included in Phase 1, we will also be focusing and identifying current projects of our institutional partners that can be connected and leveraged with this project.

Institutional partners have identified programs they feel are most relevant to our outcomes and have the greatest potential to be successfully coordinated in partnership with other programs and included in our technological hub. There are a number of similar and related programs run by different organizations and coordinating them will give us significant potential to create an impact. These include:

Central Urban Métis Federation Inc. (CUMFI):
- Development and coordination of affordable housing and shelters;
- Youth healing facility;
- Programs for residents with addictions and mental health challenges.

Greater Saskatoon Catholic Schools:
- Pre-K – Grade 8 Cree Bilingual Program;
- Indigenous Language and Fitness Program;
- White Buffalo Youth Lodge programs;
- Pre-employment transition and career education programs.

Saskatchewan Health Authority:
- Public Health works with Fire, Police and Social Services through our Public Health Inspectors on joint housing inspection to develop a shared housing database of housing in need of repair, and housing options for those precariously housed;
- Our work with the early years coalition, and existing services to enhance childhood development;
- "We Ask Because We Care" as a program to have indigenous youth and families self-identify at St Paul's hospital (and potentially then get enhanced services well before age 12 from our First Nations and Metis Health Service);
- Trauma informed care initiatives;
- Our work at exposing youth to the possibility of careers in healthcare so they see that we as employers want them in our workforce;
- Kids First as a program to help vulnerable infants/ young children in the context of their families (between Health and Education).

Saskatchewan Indian Institute of Technology:
- Integrated learning connections for students participating in Mental Health and Wellness and Educational Assistant programs, to provide mentorship to Indigenous youth participating in school and recreational programming in and surrounding the city;
- Integrated adult learner programs with essential skills programs in inner city and community schools;
- Programming at the White Buffalo Youth Lodge.

Saskatchewan Polytechnic:
- Development of programming in cooperation with groups like the Saskatoon Tribal Council to attract Indigenous youth by providing programming that is oriented toward them, and that supports their heritage while enabling them to improve their economic circumstances.
- Involvement of the Indigenous Strategy group, which is closely connected with Indigenous groups across Saskatchewan, working to ensure that Indigenous

students are supported in their efforts to advance their education.
- Involvement of the Digital Integration Centre of Excellence (DICE). Researchers within DICE have a strong background in big data, the Internet of Things and machine learning.
- DICE will be working on research projects which focus on transportation tracking technology, data analysis, mobile app development and refinement and wellness software.
- Saskatchewan Polytechnic students work on capstone research projects with local not-for-profit groups. They address local issues ranging from app development to solving engineering problems, and it is anticipated that many of them will be able to contribute to the programs being proposed in this proposal.

Saskatoon Police Service (SPS):
- Partner in the Strengthening Families Saskatoon Program, an inter-agency collaborative effort working with the family unit toward the reduction of risk factors for problem behaviours in high-risk children;
- Partner in the HUB program working with agencies to better coordinate the services they provide to result in better health, safety and welfare of high risk individuals and families;
- Administer the Crime Free Multi-Housing program which introduces crime prevention techniques to multi-housing properties and is designed to reduce crime in rental properties;
- SPS Police and Student sports program;
- SPS Youth Advisory Committee;
- Partner in Restorative Action program;
- Support for programs aimed at developing a sense of cultural identity, due to organization's focus on inclusion and reconciliation.

Saskatoon Public Schools:
- Existing cultural programs at primary and secondary levels;
- After school programs;
- Advocate and mentorship programs;
- Current educational partnerships with Whitecap Dakota First Nation, Saskatoon Tribal Council, Central Urban Métis Federation Inc.
- Pre-employment partnerships with:
  - Saskatoon Trades and Skills Centre, which works to engage vulnerable youth and adults in entry-

level training and transition learners to meaningful employment;

- Saskatoon Police Service partnership has led to leadership opportunities for students including the cadet programs at Westmount and Princess Alexandra schools and the Cadet Orientation Police Studies (COPS) program for high school students.
- Saskatoon Fire Department partnership has provided career education students from Bedford Road, Mount Royal and Tommy Douglas collegiates with hands-on training and experience in fire halls.

Saskatoon Tribal Council:
- Community programs to advance First Nations education;
- Engage families to participate in skills development to improve their own quality of life and increase their ability to contribute to their community
- Programs to enhance the essential skills for life and the workplace, which includes the tools required to live independently and the basic skills necessary for the workplace;
- Supports to encourage participation of First Nations people in the workplace through training programs, mentorship opportunities and industry partnerships.

United Way of Saskatoon and area:
- Partnerships that support strong communities, built on mental, physical and spiritual well-being.

University of Saskatchewan:
- Support research and development as related to project activities;
- Access to data and technology resources used at the University.

Phase 2: Demonstration Project

The City of Saskatoon will create an interactive software platform which will be available from anywhere, including First Nations and Métis communities throughout the Saskatoon area. The items below will be completed concurrently and will not be required to run in series.

1. Understand and organize data gathered and required. This step of the process will take approximately 8 months. This will require a collaborative effort from all required members of the community.

- Open Data Governance will be created and a strategic plan implemented to gather data from non-profit and government agencies to ensure all information that is required is available. This data must be received in an automated fashion. Part of the open data governance is to classify data based on several characteristics. One of those is the security of youth data. All privacy regulations must be adhered too. Another important classification item is identifying open data. Most non-profit organizations do not have IT Data Managers and this important step will help get data available to all parties involved. This type of collaboration will lead to trends which will be shared with any communities wishing to engage in a similar fashion. This step will allow the City to share the correct data as clients (families or youth) interactive the platform.
- Other key data entry points such as IoT (internet of things) will also need to be classified. Each classification of data will need a Governance strategy to ensure the data is being consumed correctly.
- Not all data will be publicly available. Trends and non-identifiable data will be available. All other data will remain for registered members of the platform as required.
- This step can be easily repeated by any city in Canada.

Outcomes:
- Data Governance plan with a strategy to implement Open Data practices for all nonprofit and government members.
- Building of the Open Data Database and making it readily available as required

2. Create a connectivity friendly environment for all Indigenous youth and their families. This step will take approximately one year to complete. The City of Saskatoon has already started this process and it will be accelerated within one year to complete this step.

- During the demonstration period, the City will take one Indigenous community and deliver high-speed internet to every home within it, including the School and Healthy buildings. This will ensure families and youth have this platform and all other information required available to them at all times.
- In key areas of the City, a Wi-Fi network will be built and made available for the public. The platform will be available via mobile devices, interactive kiosks in City-owned buildings and through the non-profit communities.

Having free internet available to youth will be required for the platform to be beneficial.
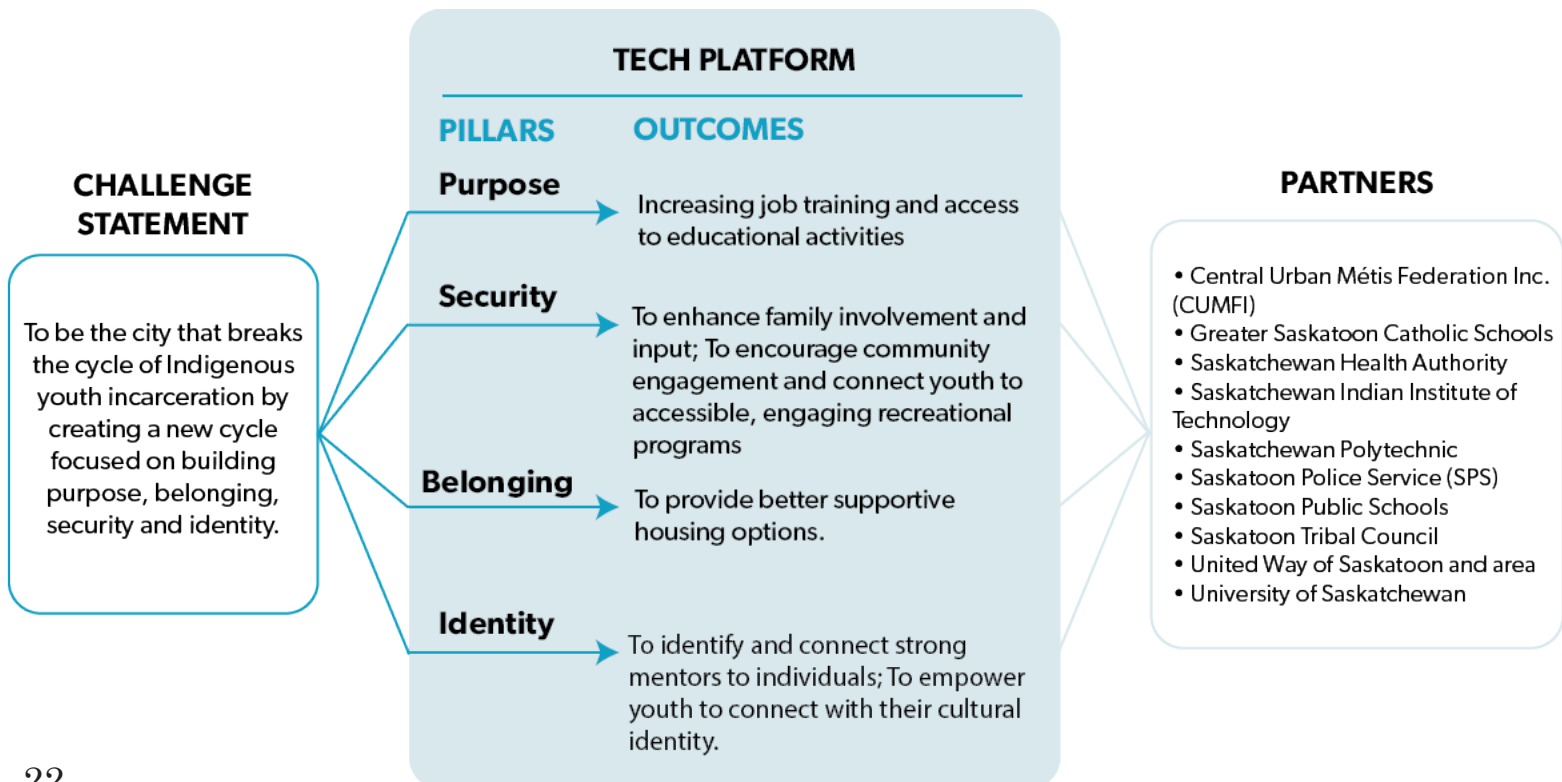
Outcomes:
- Indigenous community with highspeed internet for all homes and required facilities.
- Free WIFI in key areas throughout the City.
- Kiosks for internet use to access the platform

3. Platform will be available anytime and from anywhere, scalable to eventually include all Indigenous Communities in a user friendly fashion. This process will take approximately 11 to 12 months to complete.

- The platform will be built on a web application and mobility applications will be made for all smart devices. This will require UX and design session information in order to correctly meet the needs of the youth and families.
- For the demonstration period, an interactive environment for youth and families with a few key nonprofit agencies will be built.
- Information on programs throughout the City for youth and their families to get involved in will be delivered through this application. Youth programs will be the focus during the demonstration period.

Outcomes:
- Web application and mobile application built for families, youth and key nonprofits.
- This version will be easily scalable to have additional agencies and families join.
- The application will directly feed the Open Data Strategy as well. Data with youth and family information will follow all data privacy policies.
- Data owned by the City, such as recreational information will be made available for youth.

TECH PLATFORM

CHALLENGE STATEMENT

To be the city that breaks the cycle of Indigenous youth incarceration by creating a new cycle focused on building purpose, belonging, security and identity.

PILLARS — **OUTCOMES**

Purpose → Increasing job training and access to educational activities

Security → To enhance family involvement and input; To encourage community engagement and connect youth to accessible, engaging recreational programs

Belonging → To provide better supportive housing options.

Identity → To identify and connect strong mentors to individuals; To empower youth to connect with their cultural identity.

PARTNERS

- Central Urban Métis Federation Inc. (CUMFI)
- Greater Saskatoon Catholic Schools
- Saskatchewan Health Authority
- Saskatchewan Indian Institute of Technology
- Saskatchewan Polytechnic
- Saskatoon Police Service (SPS)
- Saskatoon Public Schools
- Saskatoon Tribal Council
- United Way of Saskatoon and area
- University of Saskatchewan

Support for goals, strategies & plans

In the City of Saskatoon's 2013 to 2024 Strategic Plan, which was last updated in 2013, the strategies for the long term (10 years) talked about Life Strategic goals, which highlighted a number of long-term strategies and four year priorities that are directly related to the Challenge Statement we have created. These include:

- Reducing Crime;
- Increasing Affordable Housing;
- Strengthening relations with Aboriginal Organizations;
- Building capacity within the community to address issues such as public perception of quality of life and cultural plan indicators;
- Developing partnerships and programs with Aboriginal organizations that will assist in enhancing economic, employment and training opportunities.

In 2017, with the new City Council, ten top priority areas were identified by Council to make Saskatoon the best run city in Canada. These priorities areas included: Crime and Community Safety (which was later renamed to Community Safety and Well-Being), Downtown Development, Information Technology, and Reconciliation, Inclusion and Diversity.

In the 2018 update to the 2013-2024 Strategic Plan, the commitment to community safety and well-being remains strong and focused. The focus is continuing with a multi-prong approach in order to achieve a holistic community engagement. It also highlights the need to be more intentional, coordinated and comprehensive. What is important to note is the revamping of the Safe Streets program – a program which produced previous findings that aided in the development of the Challenge Statement – to include engaging municipal leaders to explore joint opportunities to support evidence-based priority settings and to look at future options regarding safety in Saskatoon, preliminary development of a community-wide data collection and reporting process designed to reflect progress and gaps toward achieving a safer community and the creation of a proposed structure for a new, integrated Saskatoon Safe Streets collaboration, now called the Safe Community Action Alliance.

The City, its service providers and its residents are committed to making Community Safety and Well-being a priority. By focusing the Challenge Statement on that area, the intention is to ensure that the result of what is built will be a scalable and transferable model to fit into any issue within this category, to help continue on the path of becoming the best run city in Canada.

Community readiness to implement

Over the past number of years, various community partners including the City of Saskatoon, have been working to promote improved service delivery systems by addressing not only the quality of direct services being provided, but also by looking to improve accessibility, accountability and coordination among key sectors and agencies in service delivery.

Given the complexities of the social agenda in the community, and to clearly articulate roles within the social environment, there has been an acknowledgement across sectors, of the need to establish a mechanism to provide fact based information that can be effectively used to help set priorities within the social/human services environment. Some of the examples of experience Saskatoon has had with implementing complex projects involving multi-stakeholders in the human services environment have included a variety of initiatives over the years.

One of the most significant examples was the Saskatoon Regional Intersectoral Committee (RIC) which while it was operational, played a pivotal role in advancing an integrated human services agenda by building partnerships among government, non-government organizations, local interagency committees and community groups. The RIC had a membership of senior decision-makers from human service agencies and government ministries in the region. The RIC was designed to impact government, community organizations, and individuals in the manner that intersectoral initiatives were promoted, supported and facilitated in a number of key human services/quality of life areas (e.g. early childhood, youth justice, data sharing, etc.).

Some specific examples of multi-sectoral initiatives are as follows:

- Saskatoon Poverty Reduction Partnership
- Saskatoon Aboriginal Employment Partnership
- Saskatoon Early Years Partnership (Early Childhood Development)
- Housing First Initiative
- Saskatoon HUB and COR
- Saskatoon Collaborative Funders Table.
- Safe Streets Commission – housing the most challenging residents on the streets.
- Action Accord – activities designed to increase the inventory of stabilization facilities and services for people intoxicated in public.
- Street Activity Steering Committee – collects relevant data on calls for service from the Community Support Officers' interaction with people on the streets.
- City Centre Street Issues Group – facilitated a focused and integrated approach by the groups dealing with street activity in the city centre area.

And just as recent as summer 2017, the community has come together again to launch an initiative addressing community safety and well-being under the name of Safe Community Action Alliance. (SCAA)

The SCAA is made up of 24 groups across various sectors, all working to address the challenges associated with developing an integrated and cohesive approach in addressing vital community safety issues. The participants are also highly aware of the fact that the Safe Community Action Alliance is likely the broadest, most comprehensive and most integrated approach to community safety that has ever been attempted in the history of Saskatoon.

Another important multi-sectoral initiative is Reconciliation Saskatoon, a growing community of 60 organizations representing non-profits, businesses, faith, health, service groups, and municipal and Indigenous governments, who meet monthly to discuss concrete ways to accomplish reconciliation and engage in Truth and Reconciliation Commission's Calls to Action. With staff support from the City of Saskatoon and the Office of the Treaty Commissioner, the group also organizes the annual National Aboriginal Day activities which spread out over a period of a month.

Throughout the development of the Smart Cities Challenge

process, the community of Saskatoon has been fully engaged and supportive. These partners are committed to move forward together on this project, including key partners who were involved in the multi-sectoral initiatives listed above. These multi-sectoral initiatives have been successful, although on a smaller scale and often not based on shared data nor the ability to connect using real time data. Using a Smart Cities model will provide the platform to integrate data across sectors and to better analyze data to predict patterns and opportunities for the greatest impact and outcomes in the community.

Governance:

A formal governance structure or model for managing and implementing the Smart Cities Proposal is in the early stages of development. Initial discussions with these key community groups and institutional partners has resulted in formal letters of commitment to the implementation of the Smart Cities Challenge. There is a strong community Intersectoral commitment to doing things differently going forward.

Any planned initiatives require a commitment to putting clients at the centre of planning, to encouraging their full participation in decisions making and to facilitating their ability to make choices regarding their own lives. Any governance structure will require community groups and individuals most closely connected to the indigenous youth. The structure for governing the implementation of the proposal, while not yet formalized, is anticipated to include the following components:

Institutional Partnership Group

Representatives from all institutional partners. Members should be decision makers for the organization they represent. This group would be responsible for overall decision-making and direction setting based on input from the UX groups, and have overall responsibility for sustainability planning after the formal implementation of the Smart Cities Challenge.

Implementation Team

3 or 4 members focused on leading the implementation of the Smart Cities Proposal, overseeing contracts required in the implementation, and managing the finances and contribution agreement with Infrastructure Canada. Will also provide guidance and support to UX groups – and provide regular updates to the Partnership group.

Community-based Round Tables

Will include representation from a wide variety of community partners and organizations with a focus on working to improve the conditions for youth and their families so they can participate in developing skill in areas that will enhance their capacity to improve their own quality of life, live independently and increase their ability to contribute to the community.

UX Groups – lived experience

Will be established with endorsement of the Partnership Group in key areas of activities supporting the outcomes of the Smart Cities proposal. The UX groups can be based on formal projects within the proposal or connected to initiatives that arise in the process of implementing the proposal. The groups can be short term or long term depending on the connection to achieving outcomes. The various UX groups will work closely with the Implementation team to maximize efficiencies and avoid duplication.

Plan for using $250,000 grant

- $95,000 - Resources to formulate the final Proposal. This component of the budget is the key to success of the development of the final proposal. Ensuring there are dedicated people focused on continuing to gather the data, engage community, develop prototypes, test pilot some projects or initiatives. This would include a fee for service dedicated external consultant for 6 months -- plus an internal staff seconded with their position backfilled for 6 months to be staff lead on the project, plus administrative support for logistics and meetings for the project, and accounting support.

- $30,000 - Additional research and connection to infrastructure Canada's Community Benefits Reporting Framework, formalize community profile reflecting economic realities, growth patterns, incarceration patterns, graduation rates, homeless stats, programs and services gap analysis, etc.

- $50,000 - Technology, data collection, integration, formulation of the technology platform

- $25,000 – Prototype/pilot testing, equipment, training

- $25,000 -- Community engagement related expenses for meetings, workshops, focus group discussions, community forums, intercept survey, youth forums

- $7,500 - Communications, social media feeds, community feedback loop

- $7,500 - Professional services from legal counsel to formalize applicable agreements and/or partnership governance or charter commitments

- $10,000 - Professional services for Writing and Design work for the final proposal

Partners involved in proposal

The following are a list of current partners that have committed to collaborating on the Smart Cities project:

Phase 1: Design Thinking, Data Gathering and Stakeholder Engagement

- **Central Urban Metis Federation**
  - Commitment to collaboration on research and engagement related to outcomes.
- **Greater Saskatoon Catholic Schools**
  - Commitment to sharing data and collaborate on current existing programs for youth.
- **Saskatchewan Health Authority**
  - Committed to collaborating on pre-existing programs that are utilizing technology in its process.
- **Saskatchewan Indian Institute of Technologies**
  - Committed to providing networking for youth, integrated learning connections in mental health, wellness & educational assistant programs
- **Saskatchewan Polytechnic**
  - Committed to partnering in research and activities related to education and employment strategies.
- **Saskatoon Police Service**
  - Committed to partnering in activities related to youth cultural, recreational, justice, housing, and social support programs.
- **Saskatoon Public School Division**
  - Committed to sharing the cultural, educational, after school, and pre-employment programs, as well as explore other options for collaboration.
- **Saskatoon Tribal Council**
  - Committed to partnering on activities related to increasing education levels and learning life, work place and essential skills.
- **United Way of Saskatoon and area**
  - Committed to partnering on activities related to reconciliation and housing
- **University of Saskatchewan**
  - Committed to partnering on research and development as well as offering access to data and technology resources used at the University.

We have had discussions with a range of youth and youth-

related organizations who are interested in becoming partners in the proposal. They will be key stakeholders to include in Phase One and each youth organization that is interested in participating will be able to do so. There are not so many in Saskatoon that this will make the process unmanageable.

Many of these partner organizations are also members of Reconciliation Saskatoon and will be ensuring this important network is involved throughout the project.

Phase 2: Smart City Saskatoon Demonstration Project
– this group of partners includes those specialized in data and technology tools:

- **Saskatoon Police Services**
  - Support and participation on existing programs as well as sharing and collaborating on new technologies such a predictive analytics, building algorithms and sharing data and information.
- **Saskatchewan Polytechnic**
  - Collaborations on Indigenous Learning and Supports and usage of any technology resources, research, software and hardware that can be appropriately used in the demonstration project.
- **Co.Labs Tech Incubator**
  - Open to sharing insights and research on new technology being developed with a focus on a connectivity and the Internet of Things (IoT).

In addition to these current partners, we have also been in discussion with organizations such as with ISM and IBM on utilizing their resources to aid in whatever part is deemed necessary in the Smart Cities Challenge and International Road Dynamics (IRD), who have the technical expertise to help with this challenge as well as past experience in building smart cities. We have also been in discussion with a number of startup companies willing to share their technology to help in developing our solution. The City of Saskatoon's IT Department will also play a big role in implementing the demonstration project.

In areas where partners are not yet determined, the selection process will be created by analyzing if the organization's services are relevant, valuable and connected to the outcomes of the project.

Q11
Confidential annex

There is no confidential third party information associated with this application.

Q12
Summary of preliminary proposal

Saskatoon has a bold vision to be a city that supports all individuals to feel a sense of purpose, belonging, security and identity. People are being left behind, many of them are youth, and many of them are urban Indigenous youth. Urban Indigenous youth face multiple challenges that are rooted in intergenerational trauma, racism, and a disrupted relationship with cultural and spiritual traditions. This is manifesting itself in an escalating cycle of crime that results in Saskatoon having a youth incarceration rate that is double the national average.

This cycle of crime and social exclusion is resulting in millions of dollars being spent to warehouse people in facilities where instead of rehabilitating they become hardened and in many cases involved in increasingly serious crime. This cycle continues through generations. The existing system is failing all of us.

The City of Saskatoon has initiated a partnership with key institutions all committed to working together in finding proactive, preventative solutions to youth incarceration. Our Smart Cities Challenge will build on this collaborative work and use innovative technology to strengthen and connect the supports for youth to grow in a positive learning cycle rather than find themselves pulled into a cycle of crime.

Q13 Link to online proposal location

The final proposal will be posted on line in the same location as the Smart Cities online survey. The City of Saskatoon's webpage on the Engage Page.

The link is as follows: https://www.saskatoon.ca/engage

Q14 Letters of support

Attached in appendices.

Q15 Point of contact

- Name: Michelle Beveridge
- Title and affiliation: Chief of Staff, Office of the Mayor, City of Saskatoon
- Phone number: 306-975-3500
- Email address: michelle.beveridge@saskatoon.ca

Q16 Privacy notification

We agree with the privacy notification, consent and release form and communications protocol.

Organization information

- Number of total FTEs – overall for 2017 had a total of 3,658.9 FTEs.
    - 2,880.1 FTEs that are tax supported for Civic Operations, Police and Controlled corporations,
    - 116.2 FTEs for non-tax supported services where the cost of delivering the service is fully recovered through the fees to deliver the service.
    - 357.8 FTEs for the City owned utilities
    - 304.8 FTEs tied to the approved capital projects for 2017.
- Percentage of total FTEs devoted to innovation. 5.32%
    - It is difficult to definitively estimate the percent of staff devoted to innovation. What we can say is that within the corporation we have 6 FTE dedicated 100% of their time as process improvement coordinators. Using innovation and creativity in achieving our goal of continuous improvement.
    - Indirectly we also have full Divisions who primary mandate is about innovation, communication and connectivity. Further to this, the City since 2009 has committed to a Corporate Strategic Goal of Continuous Improvement. Within this, our vision is to be the best managed city in Canada, focused on continuous improvement, innovation, and attracting talented people committed to building a better city.
- 2017 operating and capital budgets:
    - Total operating budget – $812.0 Million
    - $482.0 Million plus $330.0 Million for the Utility operating
    - Percentage of total operating budget devoted to innovation – 1.72%
    - Total capital budget – $261.9 Million
    - Percentage of total capital budget devoted to innovation – 0.28%
- For 2017, Budget:
    - Total Operating Expenditures of $482.0 million (including $464.0 million in Tax-Supported Expenditures)
    - Utility Operating Budget of $330.0 million
    - A Capital Budget of $261.9 million (including Land Development)
    - A Combined Operating and Capital investment of $1.1 billion

Q18

Focus of preliminary proposal

- Empowerment and inclusion
- Safety and security

Q19

Community systems implicated

- Arts and culture
- Education and training
- Emergency services and enforcement
- Public health
- Recreation and parks
- Social services

Q20

Technologies implicated

- Artificial intelligence (AI)
- Big data analytics
- Blockchain technology
- Cloud computing
- Internet of Things (IoT)
- Mobile applications
- Open data platforms
- Web Applications
- Fiber Optics and other Network Engineering
- Wireless Technology
- Social Media